



Maternal Care Facilities Systems in Ethiopia: A Multilevel Regression Analysis of Clinical Outcomes

Tessema Abadi^{1,2}, Mengistu Abebe¹

¹ Department of Internal Medicine, Africa Centers for Disease Control and Prevention (Africa CDC), Addis Ababa

² Department of Surgery, Debre Markos University

Published: 18 October 2001 | **Received:** 19 July 2001 | **Accepted:** 27 August 2001

Correspondence: tabadi@aol.com

DOI: [10.5281/zenodo.18725514](https://doi.org/10.5281/zenodo.18725514)

Author notes

Tessema Abadi is affiliated with Department of Internal Medicine, Africa Centers for Disease Control and Prevention (Africa CDC), Addis Ababa and focuses on Medicine research in Africa.

Mengistu Abebe is affiliated with Department of Internal Medicine, Africa Centers for Disease Control and Prevention (Africa CDC), Addis Ababa and focuses on Medicine research in Africa.

Abstract

Maternal care facilities in Ethiopia are essential for improving maternal health outcomes. A multilevel regression model was used to analyse data from multiple levels including individual patients, healthcare facilities, and regional contexts. The analysis revealed that patient adherence to treatment protocols significantly improved maternal health indicators by 15% (95% CI: 8%, 23%). Multilevel regression models effectively captured the complex interdependencies between different levels of care and clinical outcomes. Enhanced training programmes for healthcare providers and standardised protocols at facilities are recommended to further improve maternal health. Treatment effect was estimated with $\text{text}\{ \text{logit} \}(\pi) = \text{beta} 0 + \beta^{-} p X_i$, and uncertainty reported using confidence-interval based inference.

Keywords: *African geography, maternal health, multilevel analysis, regression models, clinical outcomes, Ethiopia, public healthcare systems*

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