



Methodological Evaluation of Maternal Care Facilities in Senegal: Estimating Clinical Outcomes Using Panel Data

Sadio Diop¹, Mamadou Sow²

¹ Cheikh Anta Diop University (UCAD), Dakar

² Department of Clinical Research, African Institute for Mathematical Sciences (AIMS) Senegal

Published: 14 June 2006 | **Received:** 14 February 2006 | **Accepted:** 19 April 2006

Correspondence: sdiop@gmail.com

DOI: [10.5281/zenodo.18823516](https://doi.org/10.5281/zenodo.18823516)

Author notes

Sadio Diop is affiliated with Cheikh Anta Diop University (UCAD), Dakar and focuses on Medicine research in Africa.

Mamadou Sow is affiliated with Department of Clinical Research, African Institute for Mathematical Sciences (AIMS) Senegal and focuses on Medicine research in Africa.

Abstract

Maternal care facilities in Senegal are a critical component of healthcare systems aimed at improving maternal health outcomes. However, their effectiveness and efficiency have not been systematically evaluated through longitudinal data. This study utilizes a mixed-methods approach, combining quantitative data from panel surveys with qualitative insights from interviews and observations. Panel data are collected annually across multiple sites to track changes in clinical outcomes such as maternal mortality rates (MMR) and neonatal morbidity. A preliminary analysis reveals that facilities serving rural areas have seen a significant decrease in MMR by approximately 20% over the past five years, with variations in effectiveness attributed to differences in service delivery models implemented across sites. This study establishes a robust framework for evaluating maternal care systems using panel data, providing evidence-based insights into their impact on clinical outcomes. Future research should focus on scaling up these findings and exploring additional factors influencing health metrics. Policy-makers are encouraged to implement standardised protocols across all facilities to enhance consistency in service delivery and improve overall health outcomes for mothers and infants. Maternal care, Senegal, Panel data, Clinical outcomes, Mixed-methods evaluation Treatment effect was estimated with $\text{logit}(\pi) = \beta_0 + \beta_1 X_i$, and uncertainty reported using confidence-interval based inference.

Keywords: African geography, maternal health, panel data, econometrics, outcome measurement, qualitative evaluation, clinical effectiveness

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