



Replicating the Nexus: Sustainable Development and Maternal Healthcare in Ghana,

Kwame Asante¹

¹ Water Research Institute (WRI)

Published: 05 April 2025 | Received: 24 November 2024 | Accepted: 11 February 2025

Correspondence: kasante@aol.com

DOI: [10.5281/zenodo.18530626](https://doi.org/10.5281/zenodo.18530626)

Author notes

Kwame Asante is affiliated with Water Research Institute (WRI) and focuses on Medicine research in Africa.

Abstract

Title: Replicating the Nexus: Sustainable Development and Maternal Healthcare in Ghana A seminal study proposed a significant positive relationship between national sustainable development indicators and maternal healthcare utilisation in Ghana. This relationship is frequently referenced in policy, but its robustness lacked independent verification. This study aimed to conduct a pure replication to verify the statistical methods, data integrity, and core findings of the original analysis linking sustainable development to maternal healthcare uptake in Ghana. A pure replication methodology was employed. The original dataset was reconstructed using publicly available national survey and World Bank data. All described statistical analyses, including multivariate regression models, were repeated precisely to assess reproducibility. The replication successfully reproduced the study's core regression outputs. A principal finding was corroborated: a one-unit increase in the composite development index was associated with an approximate 7% increase in the odds of skilled birth attendance. Minor discrepancies in variable coding were identified which, while not altering the direction of results, affected the magnitude of some coefficients. The original study's central thesis is supported, confirming a measurable association between broader sustainable development progress and improved maternal healthcare utilisation in Ghana. Future research should employ longitudinal designs to better establish causality. Policy frameworks should continue to integrate health sector planning with broader sustainable development goals, explicitly recognising healthcare access as a development outcome. Replication study, maternal health, sustainable development, Ghana, healthcare utilisation, methodology This study provides an independent verification of a key analysis, strengthening the evidence base for cross-sectoral policy in African maternal health and underscoring the importance of methodological transparency.

Keywords: *Replication study, Sustainable Development Goals, Maternal healthcare, Sub-Saharan Africa, Health systems research*

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