



Methodological Evaluation of Maternal Care Facilities Systems in Uganda: A Meta-Analysis Measuring Clinical Outcomes in Randomized Field Trials,Context

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Abstract

Maternal care facilities in Uganda have undergone significant reforms aimed at improving clinical outcomes for women during childbirth. However, the effectiveness of these systems remains poorly understood due to a lack of comprehensive meta-analytical studies. The analysis will employ random-effects meta-regression models to aggregate data from multiple studies. Data sources include peer-reviewed articles and grey literature published between and the present, focusing specifically on interventions implemented in Uganda’s public health sector. A thematic review of 35 randomized field trials identified a significant reduction in neonatal mortality rates by 40% (95% confidence interval: -46.8% to -32.7%) with the implementation of improved maternal care protocols, though variability across studies suggests room for further improvement. While preliminary findings suggest substantial improvements in maternal and neonatal health outcomes following the introduction of enhanced maternal care systems, heterogeneity among study populations limits generalizability. Further longitudinal studies are recommended to validate these initial results. Future research should also explore the long-term impacts of such interventions on community-level healthcare delivery. Treatment effect was estimated with $\text{logit}(\pi) = \beta_0 + \beta_1 X_i$, and uncertainty reported using confidence-interval based inference.

Keywords: *African, randomized, trials, meta-analysis, interventions, quality, outcomes*

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