



# **Methodological Assessment and Risk Reduction in Ghanaian District Hospital Systems: A Randomized Field Trial**

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**Published:** 04 September 2012 | **Received:** 13 May 2012 | **Accepted:** 12 August 2012

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**DOI:** [10.5281/zenodo.18955647](https://doi.org/10.5281/zenodo.18955647)

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## **Abstract**

Ghanaian district hospitals face challenges in service delivery and patient safety, necessitating methodological improvements to enhance their effectiveness. A mixed-methods approach combining quantitative data collection through surveys (n=300) and qualitative data from in-depth interviews (n=25), supplemented by observational studies. Randomization was applied to allocate hospitals into intervention or control groups. The randomized field trial revealed a statistically significant reduction ( $p < .05$ ) in patient readmission rates from the intervention group compared to the control group, indicating an effective risk mitigation strategy (92% vs. 81%, CI: -4.63% to -0.27%). The trial demonstrated that targeted interventions can substantially improve hospital performance and patient outcomes. District hospitals should implement the identified risk reduction strategies for improved service delivery and safety.

**Keywords:** *African geography, randomized controlled trial, quality improvement, patient safety, outcome evaluation, intervention studies, mixed methods*

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