

Methodological Evaluation of Public Health Surveillance Systems in Uganda

A Difference-in-Differences Analysis of Efficiency Gains

Nakato Nalwadda¹

National Agricultural Research Organisation (NARO)

Correspondence: nnalwadda@gmail.com

Received: 10 February 2003 | Accepted: 07 May 2003 | Published: 21 June 2003 | DOI:

[10.5281/zenodo.18949145](https://doi.org/10.5281/zenodo.18949145)

ABSTRACT

Background: Public health surveillance systems are critical for disease control, yet their methodological evaluation, particularly regarding efficiency, remains underdeveloped in many low-resource settings. There is a recognised need for robust quantitative frameworks to assess the impact of system enhancements.

Purpose and objectives: This study aimed to develop and apply a novel quasi-experimental framework to quantify efficiency gains from a nationwide digital integration intervention within Uganda's public health surveillance architecture.

Keywords: *Public health surveillance, Uganda, Efficiency, Difference-in-differences, Sub-Saharan Africa, Health systems evaluation, Methodology*

Article Highlights

- Applies a novel quasi-experimental framework to evaluate surveillance system efficiency.
- Quantifies a 38% improvement in reporting speed from digital integration.
- Provides a methodological proof-of-concept for causal inference in health systems.
- Offers evidence for prioritising digital infrastructure in low-resource settings.

Core Methodological Contribution

First application of a difference-in-differences design to quantify the causal impact of a digital intervention on public health surveillance efficiency in Sub-Saharan Africa.

This study presents a robust quantitative framework for evaluating health system enhancements.

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