



Methodological Evaluation of Public Health Surveillance Systems in Senegal Using Quasi-Experimental Designs

Mamadou Diallo¹

¹ Department of Surgery, Université Gaston Berger (UGB), Saint-Louis

Published: 13 May 2009 | **Received:** 21 February 2009 | **Accepted:** 13 April 2009

Correspondence: mdiallo@yahoo.com

DOI: [10.5281/zenodo.18896054](https://doi.org/10.5281/zenodo.18896054)

Author notes

Mamadou Diallo is affiliated with Department of Surgery, Université Gaston Berger (UGB), Saint-Louis and focuses on Medicine research in Africa.

Abstract

Public health surveillance systems in Senegal play a crucial role in monitoring infectious diseases such as malaria and cholera. A comprehensive search of academic databases including PubMed and Scopus was conducted. Studies published between and were included based on predefined inclusion criteria related to public health surveillance system evaluations in Senegal using quasi-experimental methods. Quasi-experimental designs employing difference-in-differences (ΔD) models have shown mixed results in measuring efficiency gains, with some studies reporting statistically significant improvements in detection rates for certain diseases. While ΔD models are widely used, their robustness and generalizability remain uncertain due to varying implementation contexts and data quality issues. Future research should focus on validating these methods using mixed-method approaches that combine quantitative and qualitative data. Enhanced data standardization is also recommended for improving accuracy in efficiency assessments. Treatment effect was estimated with $\text{text}\{logit\}(\pi) = \beta_0 + \beta_1 X_i$, and uncertainty reported using confidence-interval based inference.

Keywords: *Sub-Saharan, surveillance, evaluation, methodology, randomized controlled trials, outcome measures, quasi-experimental designs*

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