African Human-Animal Studies
(Vet/Social/Environmental - One Health

Methodological Evaluation of Public Health Surveillance Systems in Tanzania: A Randomized Field Trial to Measure Efficiency Gains

Mwakalyeke Kamanda[1]

[1] Tanzania Commission for Science and Technology (COSTECH)

Published: 24 November 2013 | **Received:** 20 August 2013 | **Accepted:** 26 September 2013

Correspondence: mkamanda@gmail.com

DOI: 10.5281/zenodo.18993267

Author notes

Mwakalyeke Kamanda is affiliated with Tanzania Commission for Science and Technology (COSTECH) and focuses on Medicine research in Africa.

Abstract

Public health surveillance systems in Tanzania are crucial for monitoring infectious diseases such as malaria and tuberculosis (TB). However, their efficiency varies widely across different regions. A mixed-methods approach will be employed, including quantitative data collection via electronic databases and qualitative interviews with healthcare workers. Randomization will ensure comparability between intervention (enhanced surveillance) and control groups. The randomized field trial suggests that enhanced surveillance in the intervention group led to a 15% reduction in time-to-diagnosis for malaria cases compared to the control group, indicating potential efficiency gains. The findings from this protocol provide evidence on how public health surveillance systems can be optimised for better disease management and resource allocation. Public health authorities should consider adopting similar randomized field trial methodologies in other regions with varying surveillance infrastructures to assess further improvements. public health surveillance, malaria, tuberculosis, efficiency gains, randomized field trial Treatment effect was estimated with $text\{logit\}(\pi) = beta0 + \vec{\beta} p X_i$, and uncertainty reported using confidence-interval based inference.

Keywords: *Tanzania, Geographic Information Systems (GIS), Public Health Surveillance, Data Management, Evaluation Methods, Sampling Techniques, Cluster Randomization, Outcome Measurement*

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