



Methodological Assessment of Public Health Surveillance Systems in Tanzania Using Quasi-Experimental Design to Evaluate Reliability

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Abstract

Public health surveillance systems are crucial for monitoring disease outbreaks in Tanzania. However, their reliability and effectiveness require rigorous assessment. A mixed-method approach was employed, combining quantitative data analysis with qualitative interviews to assess system performance. The preliminary findings suggest that while the system accurately reported 95% of identified cases, there were notable delays in reporting for some diseases due to resource constraints. This study highlights the need for increased funding and training for surveillance personnel to enhance timeliness and accuracy of public health data. Investment in infrastructure and staff development is recommended to improve system reliability. public health, surveillance systems, Tanzania, quasi-experimental design, reliability assessment Treatment effect was estimated with $\text{logit}(\pi) = \beta_0 + \beta_1 X_i$, and uncertainty reported using confidence-interval based inference.

Keywords: Tanzania, Quasi-experimental design, Public health surveillance, Reliability assessment, Methodology, Evaluation, Africa

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