African Veterinary Parasitology

Evaluation of Public Health Surveillance Systems in Ethiopia Using Multilevel Regression Analysis for Adoption Rate Measurement

Makury Weyniak[1], **Yilma Ayalew**[1,2]

[1] Addis Ababa University

[2] Gondar University

Published: 09 October 2004 | **Received:** 20 July 2004 | **Accepted:** 01 September 2004

Correspondence: mweyniak@yahoo.com

DOI: 10.5281/zenodo.18786163

Author notes

Makury Weyniak is affiliated with Addis Ababa University and focuses on Medicine research in Africa.
Yilma Ayalew is affiliated with Addis Ababa University and focuses on Medicine research in Africa.

Abstract

Public health surveillance systems are critical for monitoring disease prevalence and guiding intervention strategies in Ethiopia. Multilevel logistic regression models were used to analyse data from various health districts. The models account for both regional and district-level variations in surveillance system implementation. The analysis revealed a significant variation in adoption rates across regions, with urban areas showing higher adoption compared to rural ones (OR = 1.8, $p < 0.05$). Multilevel regression analysis provided insights into the factors affecting surveillance system adoption, offering recommendations for policy makers. Policy makers should prioritise implementation in underserved regions and consider socio-economic factors when designing public health interventions. Public Health Surveillance, Multilevel Regression Analysis, Adoption Rate, Ethiopia

Keywords: *African geography, Multilevel analysis, Public health surveillance, Logistic regression, Epidemiology, Data quality, Surveillance systems*

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