African Biomedical Research Journal

Integration and Evaluation of Antimicrobial Resistance Surveillance at Kenyan Primary Healthcare Facilities Over Time

Oluoch Mwangi Kinyanjui[1,2], **Muthaura Mutua Ngugi**[3,4], **Wambugu Wa Ngai**[5]

[1] Department of Internal Medicine, Kenyatta University

[2] Kenya Agricultural and Livestock Research Organization (KALRO)

[3] Kenyatta University

[4] International Centre of Insect Physiology and Ecology (ICIPE), Nairobi

[5] Department of Epidemiology, Kenyatta University

Published: 03 September 2012 | **Received:** 10 July 2012 | **Accepted:** 09 August 2012

Correspondence: okinyanjui@yahoo.com

DOI: 10.5281/zenodo.18943474

Author notes

Oluoch Mwangi Kinyanjui is affiliated with Department of Internal Medicine, Kenyatta University and focuses on Medicine research in Africa.

Muthaura Mutua Ngugi is affiliated with Kenyatta University and focuses on Medicine research in Africa.

Wambugu Wa Ngai is affiliated with Department of Epidemiology, Kenyatta University and focuses on Medicine research in Africa.

Abstract

Antimicrobial resistance (AMR) is a growing public health concern in Kenya, particularly at primary healthcare facilities where patients often present with infections requiring antibiotic treatment. A mixed-methods approach was employed, including quantitative data collection through standardised AMR testing protocols and qualitative interviews with facility staff to assess system implementation and impact. During the study period, there was an observed increase in resistance rates from 25% to 35%, particularly among Escherichia coli strains. Staff reported challenges related to resource availability and training gaps. The surveillance system showed mixed effectiveness; while it improved data collection, staff perceptions indicated areas for improvement regarding resource allocation and professional development. Investment in resources such as laboratory facilities and strengthening training programmes are recommended to enhance the surveillance system's efficacy and sustainability. Treatment effect was estimated with $text\{logit\}(\pi) = beta 0 + \vec{\beta} p X_i$, and uncertainty reported using confidence-interval based inference.

Keywords: *African Geography, Antimicrobial Resistance, Epidemiology, Longitudinal Study, Public Health, Surveillance Systems, Vector-Borne Diseases*

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