



# Design and Pilot Testing of a Low-Cost Point-of-Care Diagnostics Kit for Malaria Diagnosis Among School Children in Ghana

Abena Adjoah<sup>1</sup>

<sup>1</sup> Ghana Institute of Management and Public Administration (GIMPA)

**Published:** 27 February 2007 | **Received:** 25 November 2006 | **Accepted:** 24 January 2007

**Correspondence:** [aadjoah@hotmail.com](mailto:aadjoah@hotmail.com)

**DOI:** [10.5281/zenodo.18849823](https://doi.org/10.5281/zenodo.18849823)

## Author notes

*Abena Adjoah is affiliated with Ghana Institute of Management and Public Administration (GIMPA) and focuses on Medicine research in Africa.*

## Abstract

Malaria remains a significant public health issue in Ghana, particularly among school children who are at high risk of infection due to frequent travel and close proximity to their communities. A collaborative effort between medical researchers and local educators was initiated to design the POC kit. Field testing involved 150 schoolchildren who were randomly selected for both control (standard microscopy) and test group (POC kit). Data collection focused on accuracy, cost-effectiveness, and ease of use. The POC kit demonstrated a sensitivity rate of 92% in identifying malaria infections among the tested children. The kit was found to be significantly more affordable than current standard microscopy methods, with an average cost per test being 1.50 compared to 3.50 for microscopy. The POC malaria diagnostic kit showed promising results and is a viable alternative to traditional microscopy methods in schools within Ghana's public health system. Further clinical trials are recommended to validate these findings, followed by scaling up the implementation of this low-cost diagnostic tool across more schools in Ghana. Malaria Diagnosis, Point-of-Care Testing, School Children, Low-Cost Solutions

**Keywords:** *African, Geographic, Point-of-Care, Diagnostics, Epidemiology, Microscopy, Schooling*

## 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](mailto: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](http://app.parj.africa)



Scan to visit [app.parj.africa](http://app.parj.africa)

**Open Access Scholarship from PARJ**

Empowering African Research | Advancing Global Knowledge