



A Meta-Analysis of Integrated Diabetes and Hypertension Screening within HIV Testing Services in Zambia's Copperbelt Province: An African Health Systems Perspective, 2015

Mwila Banda^{1,2}, Chanda Mwamba^{1,3}

¹ Mulungushi University

² Department of Surgery, Zambia Agricultural Research Institute (ZARI)

³ Zambia Agricultural Research Institute (ZARI)

Published: 26 August 2015 | **Received:** 04 April 2015 | **Accepted:** 03 July 2015

Correspondence: mbanda@aol.com

DOI: [10.5281/zenodo.18530602](https://doi.org/10.5281/zenodo.18530602)

Author notes

*Mwila Banda is affiliated with Mulungushi University and focuses on Medicine research in Africa.
Chanda Mwamba is affiliated with Mulungushi University and focuses on Medicine research in Africa.*

Abstract

The concurrent epidemics of HIV, diabetes, and hypertension strain health systems in sub-Saharan Africa. Integrating non-communicable disease screening into existing HIV services is a proposed strategy to enhance efficiency, but evidence on its operational implementation in routine African settings remains limited. This meta-analysis aimed to synthesise operational research evidence on integrating diabetes and hypertension screening within HIV testing services in Zambia's Copperbelt Province, from an African health systems perspective. A systematic search was conducted across multiple electronic databases for operational research studies, including programme evaluations and observational studies. Studies were screened against pre-defined inclusion criteria. Data on screening uptake, yield, operational processes, and health system challenges were extracted. A qualitative synthesis was performed due to significant heterogeneity in outcome measures and study designs. Integrated screening was operationally feasible but revealed systemic challenges. The synthesis indicated a high prevalence of undiagnosed hypertension among clients attending HIV testing services. Key operational themes included increased staff workload, frequent commodity stock-outs, and the need for adapted counselling protocols. Integration shows potential for improving case-finding of non-communicable diseases. However, its effectiveness is constrained by persistent health system weaknesses common in resource-limited settings. Success depends on addressing these systemic bottlenecks, not merely adopting the integrated clinical model. Strengthen supply chains for essential diagnostic commodities. Develop and validate simplified, integrated counselling and clinical guidelines. Implement routine monitoring and evaluation frameworks for integrated services to inform quality improvement and policy decisions. Integration, HIV, hypertension, diabetes, screening, health systems, operational research, Zambia, meta-analysis. This synthesis provides consolidated evidence for policymakers on the real-world implementation of integrated screening, highlighting critical health system prerequisites for successful scale-up in similar African contexts.

Keywords: *Integrated care, Health systems research, Sub-Saharan Africa, Non-communicable diseases, HIV testing services, Operational research, Meta-analysis*

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