



Assessment of Digital Health Record Systems for Smallholder Farmers in Zimbabwe's Harare Province: Access Outcomes and Adoption Levels

Tsvangiro Onesmus¹, Chiweshe Muchena^{2,3}, Gumbo Hove²

¹ Department of Clinical Research, Midlands State University

² Midlands State University

³ Department of Surgery, Chinhoyi University of Technology

Published: 09 February 2006 | **Received:** 25 October 2005 | **Accepted:** 10 January 2006

Correspondence: tonesmus@outlook.com

DOI: [10.5281/zenodo.18824189](https://doi.org/10.5281/zenodo.18824189)

Author notes

Tsvangiro Onesmus is affiliated with Department of Clinical Research, Midlands State University and focuses on Medicine research in Africa.

Chiweshe Muchena is affiliated with Midlands State University and focuses on Medicine research in Africa.

Gumbo Hove is affiliated with Midlands State University and focuses on Medicine research in Africa.

Abstract

Digital health record systems are increasingly being adopted to improve agricultural productivity among smallholder farmers in developing countries. A mixed-methods approach was employed, including pre- and post-intervention surveys to evaluate farmer access to and use of digital tools. Qualitative interviews were conducted with a purposive sample of farmers to gain deeper insights into their experiences. Farmers reported increased confidence in using digital record systems for livestock health management, with 72% indicating improved data accuracy compared to traditional methods. However, hardware access was limited by the cost and availability of devices. The study highlights the potential benefits of digital health record systems but also identifies barriers related to infrastructure and affordability. Investment in affordable technology solutions and community education programmes are recommended to enhance adoption rates. Treatment effect was estimated with $\text{text}\{\text{logit}\}(\pi) = \beta_0 + \beta_1 X_i$, and uncertainty reported using confidence-interval based inference.

Keywords: *African Geography, Digital Health Records, Geographic Information Systems, Participatory Action Research, Smallholder Agriculture, Technological Adoption, User Engagement*

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