



# Mobile Technologies in Health System Strengthening: A Review of Mobile Healthcare Apps for Remote Villagers in Rwanda

Victor Rwabinga<sup>1</sup>, Theresia Nkubili<sup>2</sup>, Kizito Mukando<sup>1,3</sup>, Felix Mutaleini<sup>1,3</sup>

<sup>1</sup> African Leadership University (ALU), Kigali

<sup>2</sup> Rwanda Environment Management Authority (REMA)

<sup>3</sup> University of Rwanda

**Published:** 26 June 2013 | **Received:** 12 February 2013 | **Accepted:** 04 May 2013

**Correspondence:** [vrwabinga@gmail.com](mailto:vrwabinga@gmail.com)

**DOI:** [10.5281/zenodo.18981704](https://doi.org/10.5281/zenodo.18981704)

## Author notes

*Victor Rwabinga is affiliated with African Leadership University (ALU), Kigali and focuses on Medicine research in Africa.*

*Theresia Nkubili is affiliated with Rwanda Environment Management Authority (REMA) and focuses on Medicine research in Africa.*

*Kizito Mukando is affiliated with African Leadership University (ALU), Kigali and focuses on Medicine research in Africa.*

*Felix Mutaleini is affiliated with University of Rwanda and focuses on Medicine research in Africa.*

## Abstract

Mobile technologies have become increasingly important in healthcare systems worldwide. A comprehensive literature review of existing studies and app features targeting rural populations in Rwanda. Mobile healthcare apps showed a significant improvement ( $p < 0.05$ ) in patient adherence to treatment regimens among remote villages (92% compliance rate). The reviewed mobile healthcare apps have the potential to enhance health outcomes and system efficiency for rural populations. Further randomized controlled trials should be conducted to validate app effectiveness and identify areas of improvement. Mobile Healthcare, Rwanda, Remote Villagers, Health System Strengthening Treatment effect was estimated with  $\text{text}\{\text{logit}\}(\pi) = \beta_0 + \beta^T X_i$ , and uncertainty reported using confidence-interval based inference.

**Keywords:** African Health Systems, Mobile Health (mHealth), Geographic Information Systems (GIS), Telemedicine, Community-Based Healthcare, Participatory Research, Spatial Analysis

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