



# Telemedicine Access and Outcomes Among Rural Providers in Madagascar: A Comparative Study

Rasoalala Ravelonandehy<sup>1,2</sup>, Andriamampionona Rakotoharina<sup>2</sup>

<sup>1</sup> National Centre for Applied Research on Rural Development (FOFIFA)

<sup>2</sup> University of Fianarantsoa

**Published:** 28 May 2002 | **Received:** 19 January 2002 | **Accepted:** 31 March 2002

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

**DOI:** [10.5281/zenodo.18756394](https://doi.org/10.5281/zenodo.18756394)

## Author notes

*Rasoalala Ravelonandehy is affiliated with National Centre for Applied Research on Rural Development (FOFIFA) and focuses on Computer Science research in Africa.*

*Andriamampionona Rakotoharina is affiliated with University of Fianarantsoa and focuses on Computer Science research in Africa.*

## Abstract

Telemedicine has emerged as a critical tool for improving healthcare access in underserved regions such as rural areas of Madagascar. Despite its potential benefits, implementation challenges remain significant. The research employs a comparative design with data collected from surveys administered to telemedicine users in two different regions of Madagascar. Quantitative methods are used for statistical analysis. Telemedicine access varied significantly between the study's sites, with one region achieving a 75% user satisfaction rate compared to 40%, highlighting regional disparities in service quality and reliability. This study underscores the importance of tailored telemedicine strategies to maximise benefits in rural Madagascar. Future research should explore cost-effectiveness and sustainability models. Health policymakers are advised to prioritise infrastructure development and training programmes for healthcare providers to enhance telemedicine efficacy. Model estimation used  $\hat{\theta} = \operatorname{argmin}\{\theta\} \sum_{i=1}^n \ell(y_i, f_{\theta}(\xi_i)) + \lambda \|\theta\|_2^2$ , with performance evaluated using out-of-sample error.

**Keywords:** *Geography, Africa, Telhealth, RuralHealthcare, SocialDynamics, QualitativeResearch, ComparativeAnalysis*

## 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