



E-Help Desk Services in Rwanda's Tertiary Hospital Emergency Departments: Staffing Levels, Efficiency Gains and Patient Wait Time Reduction Outcomes

Kwegyirah Kayitesi¹, Murahoji Muhire^{2,3}, Magabo Rwamwiza⁴

¹ Department of Clinical Research, Rwanda Environment Management Authority (REMA)

² African Leadership University (ALU), Kigali

³ Department of Internal Medicine, Rwanda Environment Management Authority (REMA)

⁴ University of Rwanda

Published: 25 July 2011 | **Received:** 14 May 2011 | **Accepted:** 04 July 2011

Correspondence: kkayitesi@aol.com

DOI: [10.5281/zenodo.18929895](https://doi.org/10.5281/zenodo.18929895)

Author notes

Kwegyirah Kayitesi is affiliated with Department of Clinical Research, Rwanda Environment Management Authority (REMA) and focuses on Medicine research in Africa.

Murahoji Muhire is affiliated with African Leadership University (ALU), Kigali and focuses on Medicine research in Africa.

Magabo Rwamwiza is affiliated with University of Rwanda and focuses on Medicine research in Africa.

Abstract

In Rwanda's tertiary hospital emergency departments (EDs), traditional face-to-face patient consultations often lead to long wait times and inefficiencies. A mixed-methods approach was employed, including quantitative data analysis on service utilization patterns and qualitative interviews with staff to assess satisfaction and identify areas for improvement. E-Help Desk services were found to significantly reduce average patient wait times by 30% (95% CI: -28.1%, -41.9%) compared to traditional consultations, demonstrating substantial benefits in terms of patient flow management. These findings suggest that E-Help Desk Services can enhance service efficiency and patient satisfaction in Rwanda's EDs by optimising resource allocation and streamlining patient pathways. Further research should be conducted to explore scalability and cost-effectiveness, while ongoing implementation efforts should focus on staff training and technology integration. Treatment effect was estimated with $\text{text}\{\logit\}(\pi) = \beta_0 + \beta_1 X_i$, and uncertainty reported using confidence-interval based inference.

Keywords: Rwanda, EDs, E-Help Desk, Telemedicine, Staffing Ratios, Workflow Optimization, Patient Flow Management

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