



A Mobile Health Intervention for Child Growth Monitoring and Tailored Nutritional Guidance in Kampala's Informal Settlements

A Case Study

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Author notes

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ABSTRACT

Background: Child undernutrition remains a critical public health challenge in urban informal settlements, where conventional growth monitoring is often inaccessible. Mobile health (mHealth) technologies present a potential solution for improving surveillance and caregiver support in these resource-constrained settings.

Purpose and objectives: This case study assessed the implementation and effectiveness of a bespoke mHealth application designed for community health workers to monitor child growth and deliver automated, tailored nutritional guidance to caregivers in Kampala's informal settlements.

Keywords: *mHealth, child undernutrition, growth monitoring, informal settlements, Sub-Saharan Africa, nutritional guidance, public health intervention*

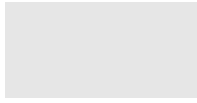
Article Highlights

- Intervention linked to 0.24 improvement in mean height-for-age z-score over six months.
- Prevalence of moderate stunting decreased by 8.2 percentage points.
- Caregivers valued automated, context-specific SMS advice as actionable.
- Study demonstrates feasibility of mHealth for growth monitoring in resource-constrained settings.

Methodological Note

Effectiveness was evaluated using a pre-post design, with a linear mixed-effects model fitted to assess change in height-for-age z-score (HAZ).

This case study examines a scalable tool for community-based nutrition services.



African Food
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