

# RESULTS OF COMMUNICATION ENHANCEMENT USED IN eIMCI DECISION SUPPORT FOR THE TREATMENT OF CHILDREN UNDER FIVE IN TANZANIA

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## ABSTRACT

The use of standardized decision support protocols have been shown to improve the quality of health service delivery in pediatric patients of low-resource populations if appropriately followed. However, even when clinical services are good, low levels of health literacy levels among caretakers of children may compromise the fulfillment of treatment plans. This study examines whether the use of mobile technology can improve the impact of counseling of children's caretakers and result in better understanding of what needs to be done at home after the clinical visit and whether this results in better care of the child.

Utilizing mobile technology, we attempted to address the gap in communication during pediatric health care visits by incorporating specific, customized communication prompts into an eIMCI mobile decision support protocol. We utilized a randomized cluster design to include 310 participants from six municipal clinics in Dar es Salaam, Tanzania. The test arm of the study (electronic arm) included a 25-second video formatted for the mobile phone aimed at educating caretakers on relevant health information, embedded prompts within the protocol containing important messages for caretakers, and a customized summary screen compiling the results of the clinical encounter. The control arm (paper arm) provided equivalent information to the electronic counseling messages in written text as part of the protocol. The counseling delivered by health workers and resulting caretaker knowledge were evaluated by an observer and a short questionnaire of the caretakers after the clinic visit. Our research demonstrated that clinicians provided significantly more counseling to caretakers when using the electronic mobile protocol and caretakers were overall better able to recall what they were supposed to do when they returned home. We believe these results are highly valuable to the greater mHealth community seeking to improve the chain of health service delivery for low-resource populations.