
World Vision
ICT4Children

mHealth for Acute Malnutrition

Presentation outline

- The problem and context
- Key features of CMAM mHealth application
- Lessons learned from 5 country experiences
- Future priorities

Background

- 50 million children suffer from wasting
- Severe wasting causes up to 2 million preventable deaths/year
- Community-based management of acute malnutrition (CMAM) is the global approach used to treat wasting
- CMAM treatment uses ready-to-use foods, provided at home, with weekly visits to the health centre

CMAM mHealth application features

Challenge in CMAM programming	Application feature
Complex treatment protocol and low protocol adherence	Response-triggered decision tree algorithms
Low literacy, numeracy of health workers and language barrier with local population	Text, voice, and pictures prompt HWs along the treatment protocol
Difficulties in tracking an individual during treatment and between different treatment programmes	Automated referral initiation and tracking • Automatic reminders for follow-up • Referral notifications

CMAM mHealth application features

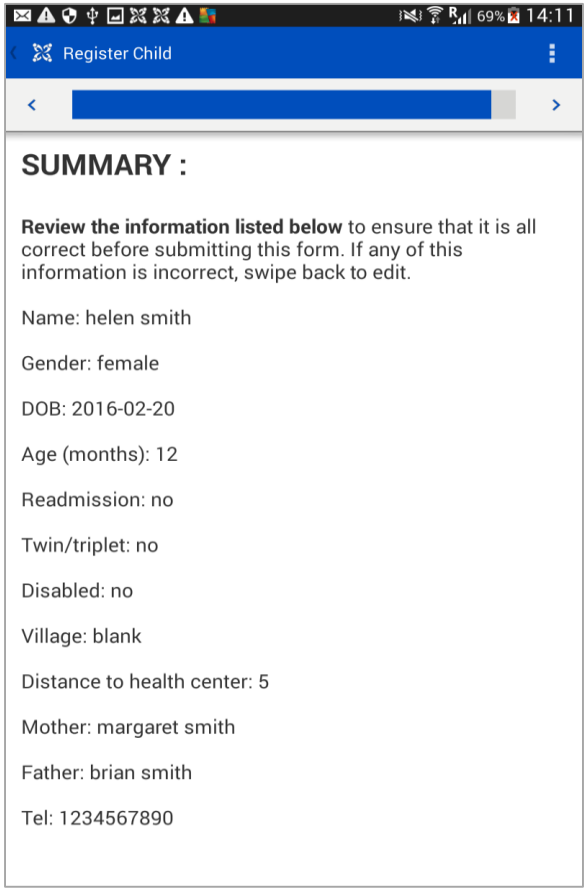
Challenge in CMAM programming	Application feature
Infrequent, inconsistent counselling on improved nutrition, health and hygiene practices	Integrated multimedia for targeted counselling
Paper-based system slow, unresponsive and poor quality—not available for decision makers	Real-time monitoring through automatic generation of reports
Unresponsive stock management system: Frequent stock outs of therapeutic and / or supplementary food at health facilities	Reminders and alerts to supervisors and supply chain

Paper Registers

Let's have a look

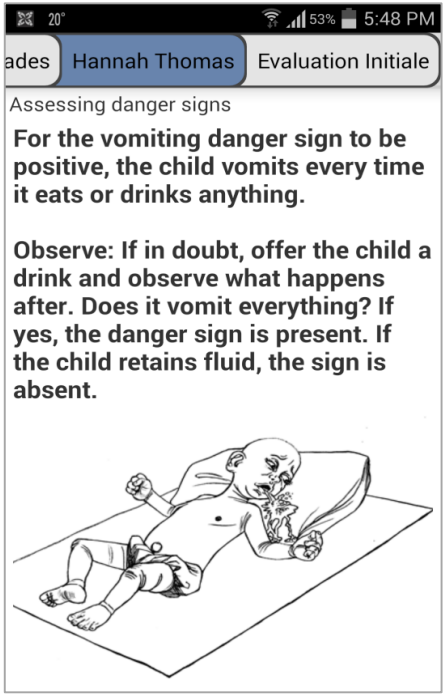
Managing patient data

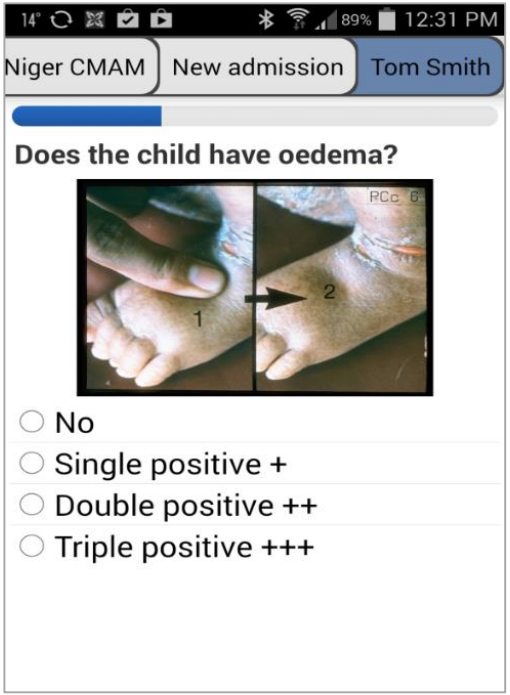
- Registration
- Individual child record

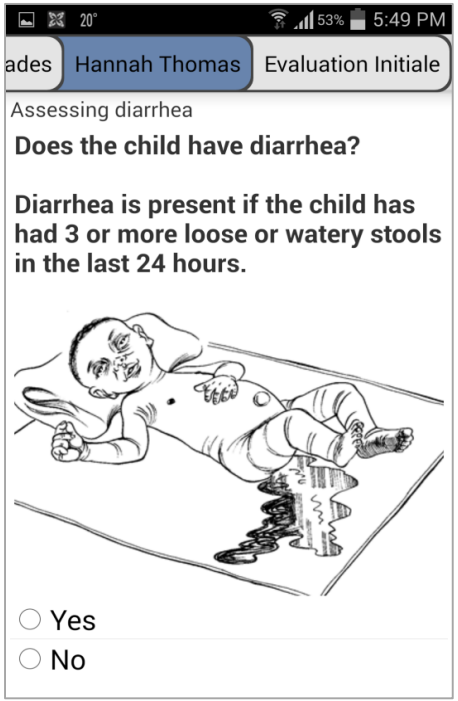


Improving worker performance

Prompts and decision support

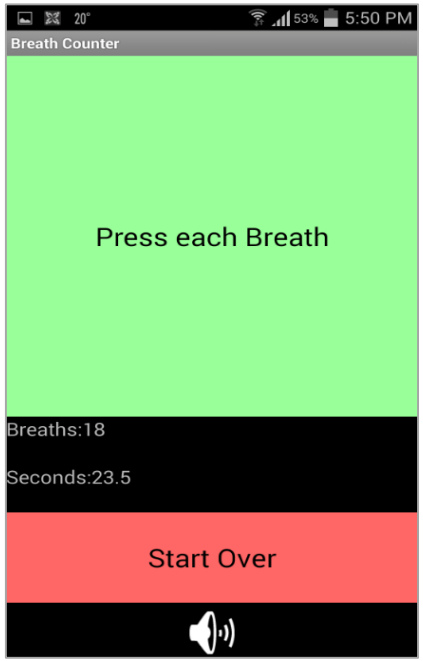


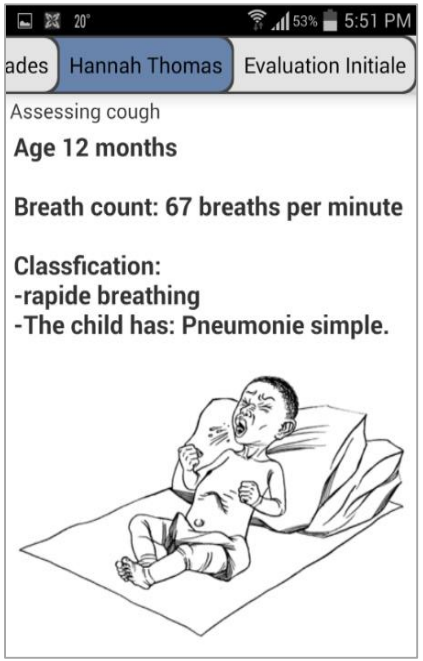




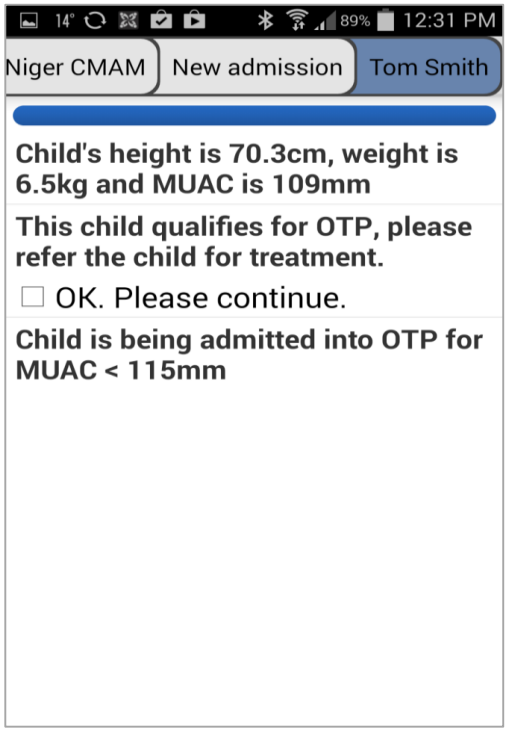
Respiratory Rate Counter

Automatic Calculation of fast breathing according to standards for child's age

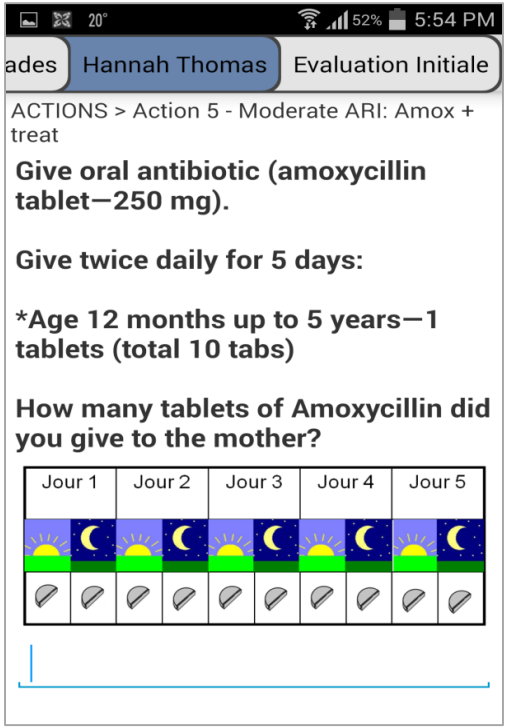




Diagnosis and action



Treatment calculation and stock monitoring



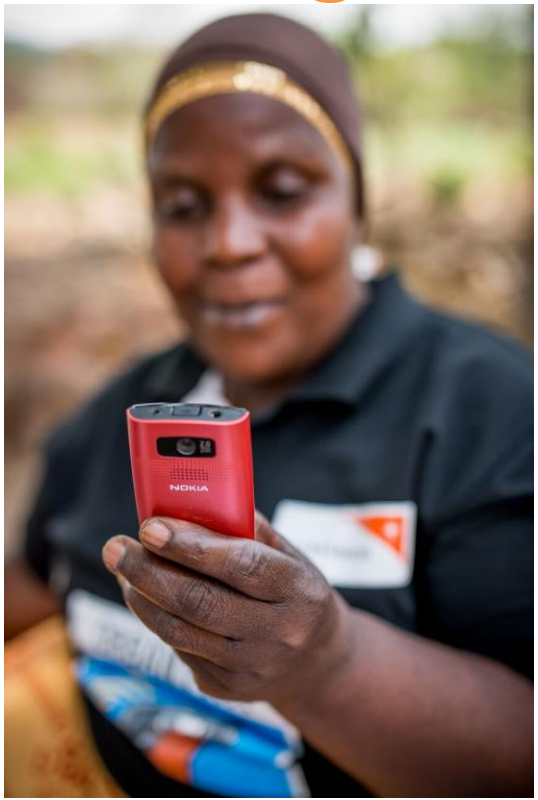
5 country experience

- Contextualized and piloted the app in Chad, Niger, Mali, Kenya and Afghanistan
- Partners: MoH, Dimagi, International Medical Corps in Chad, Save the Children in Kenya, Mobile Network Operators, Ministries of Health
- Reached 104 health facilities, 191 health workers
- Implementation (2014–2015), final evaluations 2016

Key Learning

- With training and support, good health worker acceptability
- High level of beneficiary acceptance
- Data completeness, protocol adherence and beneficiary tracing were improved across the 5 countries
- Technology barriers: battery life, screen size, network coverage
- Country contextualization and testing was much more complex and time consuming than anticipated

Key Learning



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Future Priorities

- Review and understand what is feasible for health workers in low resource settings with high patient caseloads. Simplify protocols?
- Building and field testing integrated app: iCCM + acute malnutrition
- Linking application to national HMIS systems
- Capacity building to support app uptake and use of application (performance reports, supervision functions)

Acknowledgements

- Implementing Partners: Save the Children, International Medical Corps
- Funders: USAID/OFDA, Government of Canada

Field Exchange Publication:
http://www.ennonline.net/fex/54/mobilehealthapp

http://www.wvi.org/mHealth and http://wvi.org/nutrition/cmam

"This project had probably the highest impact potential of any project I have worked on. If you go to these project sites, you immediately see why the intervention is needed… When you observe the nurses, you see the mistakes they make using paper forms, and the off-the-fly decisions they make that have serious impact on the child's health. So you could see, from the beginning, how the app would really add structure and eliminate a lot of mistakes. And we have been able to see real value on the ground, real value added to such an important programme."

CARLA LEGROS, PROJECT MANAGER, DIMAGI WEST AFRICA

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