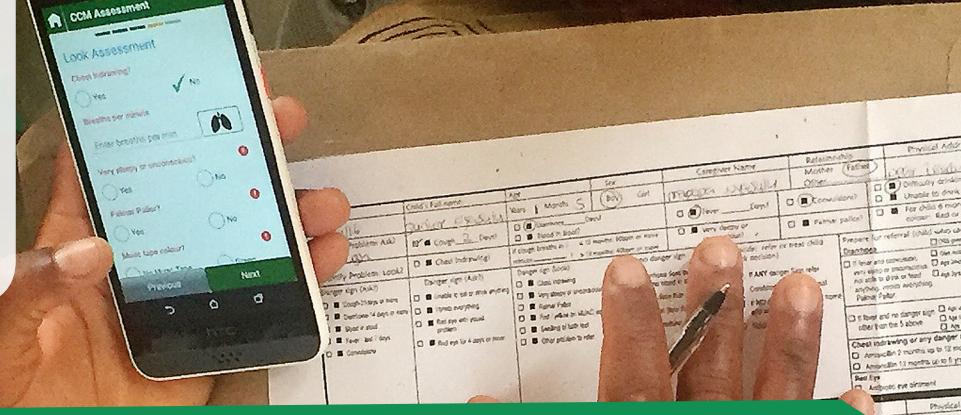




Supporting LIFE

Clinical Trial Preliminary Findings



Supporting LIFE

Assessing the added value of eCCM in Malawi: Preliminary trial results

Trial Overview

From October 2016 to February 2017, the Supporting LIFE consortium ran a clinical trial in Rumphi and Nkhata Bay districts to assess the added value of a purpose-developed electronic Community Case Management (eCCM) Application on under-5 referral, re-consultation and hospitalization rates. This was the first large-scale trial evaluating the value of an electronic mobile application version of CCM.



Study sites in Rumphi (48) and Nkhata Bay districts (54)

The focus of the clinical trial was to investigate the impact of the eCCM Application with paper-based CCM, compared to using paper CCM alone. More specifically, the trial investigated (in the 7-days following trial enrollment):

- Referral rates at the index visit
- Re-consultations to village clinics
- Hospital admissions
- Barriers & facilitators to parents/caregivers of sick children accessing healthcare services
- Financial and time-related costs to parents/caregivers associated with presenting to health care services.

Data Collection

When treating children aged between 2 months and 5 years, 102 HSAs first used only paper-based CCM (control phase) and then the Supporting LIFE eCCM Application in addition to the paper-based CCM (intervention phase).

Over the four months that the trial ran, around 7,000 children under-5 visited were enrolled into the study by HSAs. 33 data collectors followed-up patients to ascertain re-consultations at village clinics and attendances at higher facilities within 7-days of study enrollment. Qualitative interviews were conducted to explore barriers and facilitators of accessing healthcare services, from the perspective of participating HSAs and caregivers. Additionally, 276 caregivers answered a survey to investigate household-level costs associated with presenting for healthcare.

This quantitative data was complemented by qualitative interviews (28 with caregivers, 17 with HSAs) to assess barriers and facilitators of accessing healthcare services.

Why eCCM?



«The App has the potential to increase the accuracy of treatment decisions, and it supports HSAs in providing one of the many services that we ask of them.»

Humphreys Nsona, IMCI Program Manager, Ministry of Health, Malawi

The trial in numbers



102

HSA demo-graphic surveys



~ 7000

Enrolled participants

17

HSA qualitative interviews

276

Patient cost questionnaires

33

Recruited data collectors

28

Caregiver qualitative interviews

Mobile phone sponsors



Pingtung Christian Hospital,
Pingtung, Taiwan

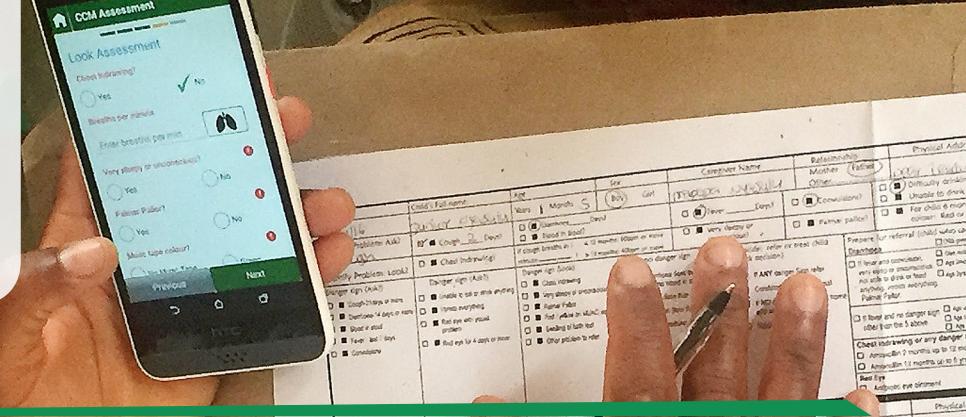


Chi Mei Hospital,
Tainan, Taiwan



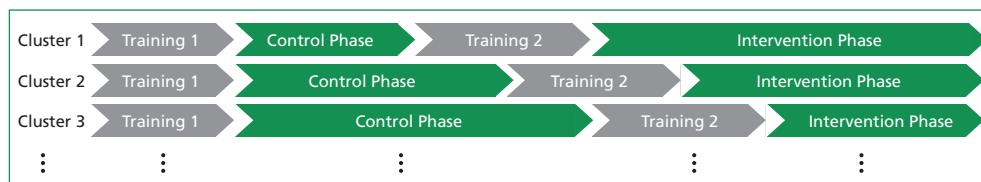
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Trial Design

The trial was a pragmatic stepped-wedge cluster randomized trial. 102 HSAs were stratified into six clusters based on geographical location and allocated to crossover to the intervention using computer-generated randomization methods. All HSAs attended a training session prior to the control phase, and then again before the intervention phase.



Stepped-wedge design: 6 geographical clusters of ~15 HSAs with different control/intervention phase lengths

Preliminary Qualitative Results

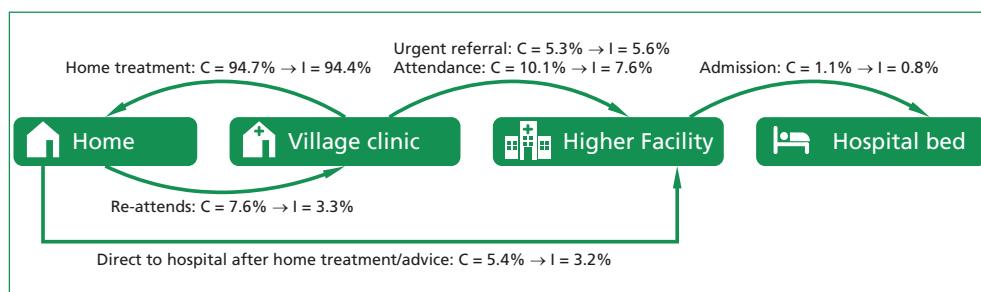
Caregivers accept eCCM: Caregivers found eCCM acceptable tool. Nearly all said that such an App/phone should continue to be used. Many, though not all, also said that HSAs were able to work faster thanks to the phone and the eCCM App.

High support by HSAs: HSAs appreciate that eCCM does not allow them to skip any vital step when assessing a child, and it assists them in providing accurate diagnosis and treatment recommendations. Using eCCM has increased their confidence and brought them higher respect in their communities. Additionally, eCCM allows them to reach more children as they can carry the phone easily with them wherever they go.

Preliminary Quantitative Results

Reduced re-attendance rate: In the control phase, 7.6% of patients re-attended at village clinics within 7-days of enrollment. In the intervention phase, this proportion was reduced to 3.3%. Whether this is statistically significant has yet to be confirmed.

Less presentations to higher-level health facilities / hospitals: In the control phase, 5.3% of patients presented to a higher-level health facility and 1.1% were admitted to a hospital within 7-days of enrollment. In the intervention phase, these number decreased to 7.6% and 0.8% respectively. As with re-attendance rates, statistical significance and possible explanations have to be ascertained in the coming weeks.



What users and caregivers say



«In some cases, according to my own opinion, the child would not have been referred to a health center, but then I found that the phone decided the child should be referred.»

One of 102 HSAs



«The phone helps to give HSAs the right answers they need and makes their work faster.»

Caregiver of one of 7000 treated patients

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