

# Child Status Index (CSI) Mobile App

## Brief Overview

High child mortality rates in Malawi remain a challenge despite progress in recent years. D-tree International is a technical assistance partner in the USAID-funded “Integrated (HIV Effect) Mitigation and Positive Action for Community Transformation” (IMPACT) project, which is designed to improve the quality of life of orphans and vulnerable children (OVC) in targeted districts of Malawi. One of the two mobile applications that D-tree designed in order to support IMPACT is based on the Child Status Index (CSI), an international paper-based case management tool for assessing the well being of children developed by MEASURE Evaluation. D-tree developed the CSI mobile application to digitally collect information from CSI assessments, prompt for referral, and track follow up care within the community. The CSI mobile application was designed for use by the secretaries of community-based OVC committees to enter data from the paper CSI forms into the digital platform on their mobile phone.



The IMPACT project is being implemented from June 2010 to June 2014, and the last CSI mobile application training was completed in July 2012. A total of 104 OVC committee secretaries were trained on the use of the application, and it has been implemented in three districts in Malawi.

### ■ Geographic Coverage:

3 districts in Malawi

### ■ Implementation Partners:

D-tree International

### ■ Funder:

USAID/Malawi

### ■ For More Information Contact:

#### USAID

- **Ms. Kate Vorley, Community Care and OVC Advisor;**  
USAID Malawi P.O. Box 30455, Lilongwe, Malawi;  
Tel +265-1-772-455; email: kvorley@usaid.gov

#### D-tree

- **Dr. Marc Mitchell, President;**  
52 Whitney Tavern Road, Weston, MA 02493;  
Tel: +1-617-432-6322; email: mmitchel@hsph.harvard.edu

# Child Status Index (CSI) Mobile App

## About CSI Mobile App

The stand-alone application was developed on the CommCare platform and runs on a java-enabled phone that OVC committee secretaries use offline. OVC committee secretaries enter information collected by family care volunteers using the paper-based CSI tool, which was developed to assess the wellbeing of vulnerable children. It is based on six domains, such as wellness and education, with 12 measurable goals on which a child is scored in a range of four (good) to one (very poor). If a child scores very low on a certain goal (score = one), immediate referral is made to assist the child. The mobile application implements the Child Status Index tool, (both in English and the local language Chichewa), and especially supports users in making decisions about appropriate actions for children scoring low on a particular domain, as well as on following up.

On a daily or weekly basis, OVC committee secretaries send their completed data to a server using general packet radio service (GPRS), a packet oriented mobile data service which is many times less costly than SMS, for storage, backup, and reporting. CSI data is then available for IMPACT project staff to import into the project's Management Information System (MIS), rather than having to wait for the paper forms to come from the field and to be entered into the MIS manually.

## Evaluation and Results

During an early analysis of CSI data, a random sample of 204 paper-based forms and mobile application data was analyzed and compared in detail. The data analysis showed that phone users made data entry mistakes on just over five percent of the forms, but this figure is expected to decrease once users become more proficient with the application over time. It furthermore revealed inconsistencies and missing information on nearly seven percent of paper forms, while the mobile application did not permit users to omit scores or referral information, and therefore collected more complete data. The use of the application also resulted in reduced loss-to-follow-up (LTFU) of children with active referrals as the phone reminds users on outstanding cases whereas paper-based forms are often filed.

Through the use of the application, data from villages is now being received in a much timelier manner as the wait for paper forms to arrive and to be tabulated has

been eliminated. Additionally, manual data entry is no longer required since the reports are all available from the server, saving considerable time and money.

However, analysis also revealed that with the expansion of users, the implementation of the CSI application posed several challenges. It became evident that the technological competence and formal education level of CSI users influenced their performance with the phone, and as a result, the data that was being collected with the mobile application was of poor quality and therefore of limited use. Data error entries have consequences for program quality, and resolving them requires comparing data from the phone with the paper forms, which is a labor-intensive activity. Because of these challenges, it was decided during the IMPACT annual reflection meeting to not continue with the implementation of the CSI application with the existing user group. Instead, the IMPACT program is currently considering other user groups and methodologies (e.g., point of care vs. data collection).

## Lessons Learned

- The current cadre of users (OVC committee secretaries) is not working as well as cadre of users that work on the frontline delivering care.
- The application seems more appropriate for point of care use (use by social workers during the visit with the child), as opposed to data collection.
- If the phone is directly associated with service provision, such as in a village clinic, the intervention is better received.
- Particularly in peri-urban areas, the security of phones can be a challenge.
- Older users can face vision challenges that may prevent them from using the phone effectively. Eyesight testing/corrective lenses should be included in the recruitment of users.

## Conclusions

The CSI application has the potential to improve support to vulnerable children and reduce loss to follow up. However, its success is dependent on careful consideration of the user group and methodology. It is critical for programs to objectively assess whether applications provide intended benefit as effectively as envisioned and make corrections/changes where needed.