



THE LIBERIAN AGRICULTURE UPGRADING, NUTRITION, AND CHILD HEALTH (LAUNCH) PROJECT

Monitoring food distribution and improving food security in Liberia

LOGISTICS

Implementation date: June 2010 to June 2015

After nearly a quarter century of civil conflict, Liberia faces enormous challenges to increase access to food and improve nutrition for vulnerable populations. While malnutrition rates have improved slightly in recent years, a 2013 report released by the Liberian Ministry of Agriculture stated that almost 36 percent of the population is malnourished. Since 2010, The Liberian Agriculture Upgrading, Nutrition, and Child Health (LAUNCH) project has worked to improve food security and reduce chronic malnutrition of vulnerable women and children under-5 years of age, in Bong and Nimba counties. The project distributes supplementary food rations monthly to pregnant and lactating women, as well as to families with children under the age of two.

In order to create a cost-effective, efficient, transparent, and accountable supply chain that ensures only targeted people receive rations, LAUNCH developed the Beneficiary Based Commodity Management System (BBCMS). Using the information collected during registration and after distributions, the BBCMS is able to calculate commodity needs for each food distribution point (FDP), as well as validating post-distribution stock levels. All data inputs to the electronic database system were originally paper-based, however significant delays in data entry, difficulty in implementing post-distribution verification processes, and monitoring and evaluation needs, led to the exploration of mobile-based solutions.

About LAUNCH

When new, eligible beneficiaries are identified, the LAUNCH project seeks to have them registered in the BBCMS and receiving their supplementary food rations as soon as possible. Initially, the project aimed to deliver the first set of rations within six weeks of registration. Yet the team was frustrated to find that wait times were well exceeding that target—sometimes by two full months. The registration process, initially paper-based, faced a series of challenges including loss of paper forms, slow data entry and poor supervision. In April 2012, LAUNCH transitioned to a mobile-based registration process that uses Magpi, an open source mobile application, on Nokia E63 and E6 phones.

While this transition facilitated a quicker and easier registration process and improvements to the overall program management, the point-of-distribution system (including reconciliation of receipts and completion of the BBCMS reports) remained paper-based. This was time-consuming on distribution day, since it involved manually comparing recipient tickets with ledgers and using low-quality thumb prints for positive verification of recipients either during or upon review of distribution. It also limited the ability of the commodity management team in Monrovia to verify that rations reached the intended recipients.



In March 2014, LAUNCH tested a two-part mobile intervention in a proof of concept study. First, the mobile registration system was modified using forms built on the SurveyCTO platform on Nexus 7 Android tablets, to include a photo of each beneficiary and all alternate recipients to allow for photo identification. At the point of distribution, a tablet-based system was developed and linked with the BBCMS to allow for photo verification of the beneficiary status and provide a verifiable record of the distribution process by replacing thumb prints with comparison photos from each distribution.

Evaluation and Results

The initial transition from paper to mobile-based registration system in April 2012 greatly improved overall program management and significantly reduced beneficiary wait times. In the first five

months of implementation, the average wait time for new beneficiaries receiving rations decreased from 14 to 5 weeks. These shorter wait times have been sustained throughout the duration.

In April 2014, new beneficiaries for two FPDs were registered using the new tablet-based photo registration system, and all previously registered beneficiaries had photos added to their records. In May and June 2014, food distribution at the two pilot FDPs was conducted using the new system, demonstrating that the photo verification concept was feasible. Food distributions have been halted due to the 2014 Ebola outbreak, so the impact of the new system could not be fully evaluated. Based on anecdotal evidence, however, the team feels that the revised system improves on the earlier version and is worth pursuing for future projects with a commodity distribution component.

Lessons Learned

- Fast data transfer has led to faster data processing, and faster delivery of rations to new beneficiaries.
- One-time data entry and logic patterns within the mobile application led to improved data quality for the project as a whole.
- The costs to achieve a high increase in speed and accuracy are low.
- Photo verification systems are a promising new tool to ensure that food aid reaches the intended beneficiaries.

Conclusion

Mobile data collection platforms can play a vital role in improving routine programmatic functions. For programs that track individuals over time, a mobile tool combined with a strong database can greatly improve efficiency, data visibility, and reduce leakages.

Geographic Coverage: Bong and Nimba Counties in Liberia

Implementation Partners: ACDI/VOCA, Project Concern International, John Snow, Inc., and Making Cents International

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