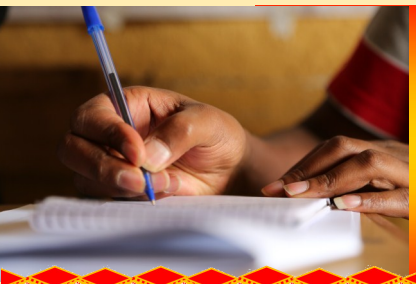

News from the LAST TEN KILOMETERS

An L10K publication

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The Last Ten Kilometers (L10K)
What it takes to improve health outcomes in rural Ethiopia

L10K aims to strengthen the bridge between households, communities, and the Health Extension Program of the Ethiopian Government. It works to improve quality and increase demand, access and utilization of high impact reproductive, maternal, newborn and child health interventions.

L10K is funded by the Bill & Melinda Gates Foundation, UNICEF, and USAID, and implemented by JSI Research &Training Institute Inc.

L10K works with 12 local partners, in the four most populated regions of Ethiopia: Amhara, Tigray, Oromia, and Southern Nations, Nationalities and Peoples' (SNNP) regions.

JSI Research & Training Institute, Inc.

M-HEALTH BASED MANAGEMENT INFORMATION SYSTEM

Worldwide there are more than one billion mobile phone subscribers and the number continues to rise. Health programs are taking advantage of the opportunity of the mobile communication revolution to strengthen health systems to maximize program outcomes. Use of m-Health (i.e., mobile communication for health) can improve the efficiency of a program's Management Information System (MIS), among others. Efficiency of the MIS is gained by minimizing the time required to collect data from remote program areas, converting data into information, and making it available to program managers for actions. Use of m-Health based MIS by health programs is rare mainly because of the notion that the development and maintenance of a system using m-Health is dependent on IT specialists which is very costly, and as such, competes with scarce resources that most health programs face.

In Ethiopia the use of m-Health for strengthening its health systems is promising because the country has an extensive mobile network that reaches 85% of its population and provides web access—allowing very efficient transmission of data. Accordingly, the L10K Project explored the potential of using m-Health and found that it was feasible to enhance its MIS by adapting EpiSurveyor, a web-based m-Health platform developed by DataDyne (http://www.episurveyor.org), without incurring expense for technical support. The adaptation of the EpiSurveyor required a very good understanding of survey database designs—a skill that the Project's Monitoring and Evaluation team have.

The EpiSurveyor allows users to develop questionnaires on its web-site which are then installed to a cell phone that can access the internet. The cell phone is used to collect data, offline, using the installed questionnaire; capturing information from remote areas where there is no mobile network. Whenever a mobile network is detected, the data collector is able to transmit the data from the phone to a remote EpiSurveyor server. The EpiSurveyor platform includes a data analysis tool that allows end users to analyze the data uploaded on the server. Thus, the time between data collection from remote areas and the time taken for programmatic action, is drastically reduced. Moreover, data quality is improved by reducing errors associated with manually aggregating data at the different management levels before it is computerized. The EpiSurveyor platform is free to use if the number of questions in a questionnaire is limited to 100 and if the number of records transmitted to the server do not exceed six thousand in a year.

The diagram on the next page describes the L10K MIS initiatives on maternal and newborn health improvement in 115 woredas (i.e., districts, each with an estimated population of 100 thousand people). The initiative is mainly implemented by 12 grantees (i.e., civil society organizations), with financial and technical support from L10K. The four L10K regional offices located in Amhara, Oromia, Tigray, and Southern Nations, Nationalities and People's regions coordinate support to the grantees. The grantees continuously follow-up support provided to the Health Extension Program through supportive supervisory visits to Health Extension Workers (HEWs) and Health Development Army members (HDAs). Seventy two Field Coordinators (FCs) who are the grantee staff, are responsible to provide support to 1 to 3 woredas with about 40 to 60 Health Posts (HPs). Each FC conducts about 10 to 12 supportive supervisory visits each month—ensuring that all the 3,058 HPs in the 115 L10K woredas are visited at least once every four months.

Accompanied by the HEW supervisor the FC conducts supportive supervision using a structured checklist. During supportive supervision, performance of the HEWs and the HDAs is reviewed, adequacy of essential supplies is assessed, barriers to providing services are

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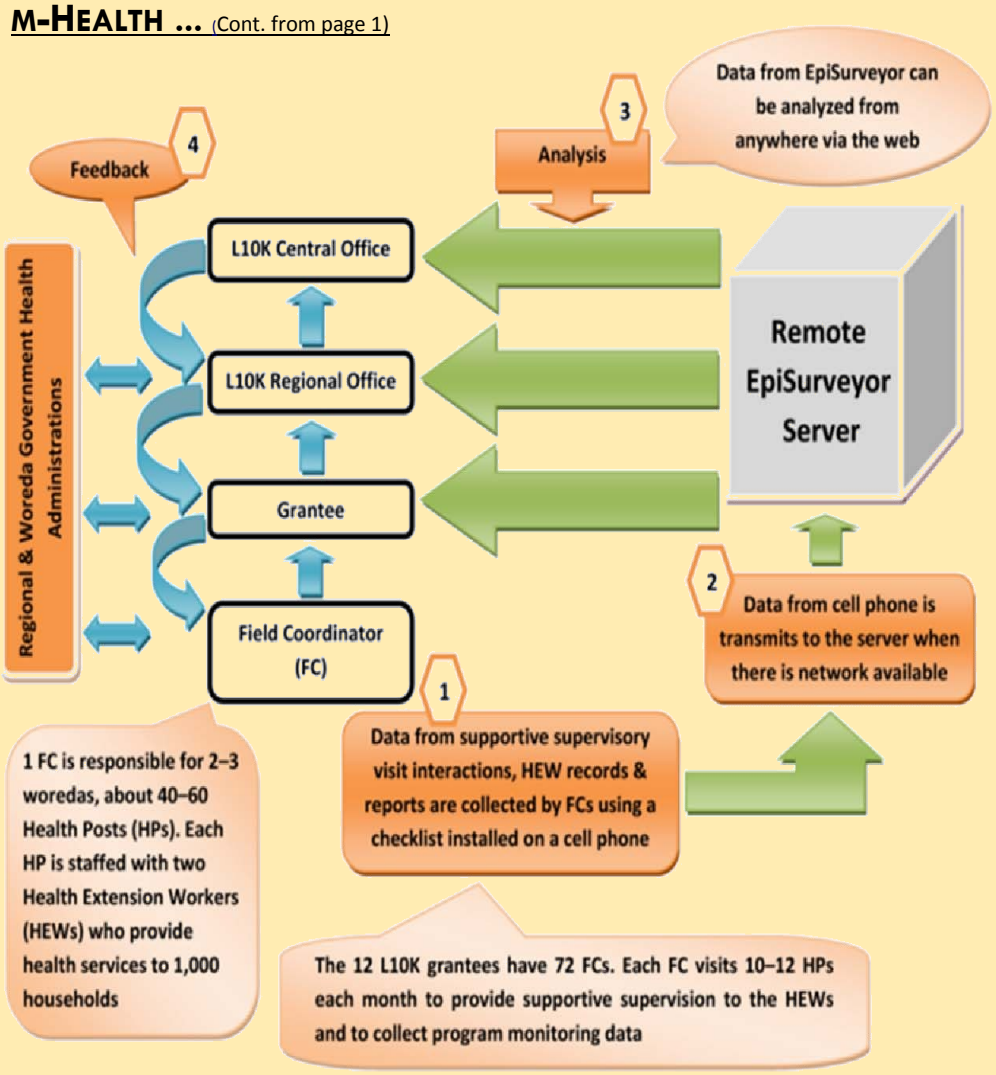
M-HEALTH ... (Cont. from page 1)



identified, and possible solutions discussed. The supportive supervision checklist is designed as a questionnaire in the EpiSurveyor and installed on cell phones that are given to FCs. The checklist on the cell phone is used by FCs to record findings and observations and monitor maternal, newborn, and child health status at the grassroots. The data from the phone is later uploaded to the EpiSurveyor server when mobile network is available and this is then made accessible to the grantee managers and L10K regional and central office for analysis, feedback and programmatic actions. The green arrows in the diagram show the direction of data flow from supportive supervision visits to the end users. The blue arrows show the data based feedback.

To ensure the quality of the m-Health based supportive supervision MIS data, the L10K regional office randomly visit at least three health posts to validate data obtained and transmitted by the FCs.

Since June of 2012 L10K's m-Health based supportive supervision MIS has processed data from more than 700 supportive supervisory visits each month and provided program status information to L10K and its grantees' program managers.

EDITORIAL

The Last Ten Kilometers project was initiated in 2008 in 115 woredas (districts) of Ethiopia as a learning project for community solutions to improve maternal, newborn, and child health. With the support of UNICEF and USAID, the Project has expanded to a program that implements maternal, newborn, and child survival improvement initiatives in 215 woredas covering a population of about 25 million people. The Bill & Melinda Gates Foundation supported community solutions activities, also referred to as the L10K platform, have now expanded its focus in the 115 woredas from the frontline workers i.e., the Health Extension Workers and the Health Development Army members —to include the Primary Health Care Unit (PHCU). The PHCU comprises five health posts and one health center. Each health post, staffed by two HEWs, provides basic health services to a kebele (community) of about 5,000 people. The health center is staffed with higher level health workers who provide administrative, logistics and technical support to the HEWs. The PHCU has referral linkage with a primary hospital for critical conditions the PHCU cannot manage. To monitor the L10K platform and document learning from its community solutions the Project has a comprehensive M&E framework.

The m-Health based supportive supervision MIS initiative, described in this newsletter, is one of the major components of L10K's M&E framework. The m-Health MIS complements and supplements L10K's M&E framework to measure the contribution of community-based strategies (e.g., participatory community quality improvement, and referral solution to maternal and newborn critical conditions, among others).

The L10K platform with its m-Health based MIS has now the potential of monitoring the program activities funded by the other donors (i.e., UNICEF and USAID). The m-Health experience of L10K is well recognized by the Federal Ministry of Health and its development partners and L10K is one of the members of the National m-Health Steering Committee.

UPDATES

L10K participates at the National Symposium on Family Planning

A national symposium on Family Planning was held in Bahir Dar, Amhara Region, from November 26 – 29, 2012. The symposium was an opportune 'platform to share knowledge and document best practices in family planning and facilitate translating evidence to action'.

L10K Project participated on the symposium and its Amhara Regional Program Manager and the Project's Senior M&E Research Technical Advisor presented a research poster on **Health extension program supply side systems' response to community-based strategies for improving reproductive, maternal, newborn, ad child health in rural Ethiopia** (*http://l10k.jsi.com*). The research looked into the question of whether increased demand creation for RMNCH services improve the supply side factors or the Health Extension Program supply side adequately respond to such increased demand. In addition, another paper was presented by the M&E team on **Changes in Family Planning Equity in Ethiopia from 2005-2011** (*http://l10k.jsi.com*) an analysis of changes in the equity contraceptive prevalence rate using the 2005 and 2011 Ethiopian Demographic and Health Surveys.

In addition, L10K shared several of its published materials on an exhibition where it shared a booth with other JSI projects ■

L10K expands ICCM in Oromia Region

L10K Integrated Community-Case Management (ICCM) of Common Childhood Illnesses project was launched in Shambu, Horoguduru Wollega zone; Dembidollo, Kellam Wollega zone; and Gimbi, West Wollega zone of Oromia region on December 24,27, and 29, 2012 respectively as part of ICCM Oromia expansion. At the launching meeting the Oromia Regional Health Bureau representative and zonal administrative council heads welcomed the initiative and stated how ICCM will help bridge current gaps in reducing child mortality. Accordingly, activities to be accomplished in the coming three months were identified and joint tentative plans developed. JSI/L10Ks role and its donor's support - USAID - in the implementation of ICCM in the region was recognized and appreciated by the government from woreda to regional levels ■

L10K initiates Early Care Seeking and Referral Solutions to MNCH

Focused group discussion with pregnant women and mothers with recent delivery

In order to improve maternal and newborn health outcomes, early care-seeking and effective referral are critical. Accordingly, L10K is strengthening its support to improve early care seeking through identification of pregnant women and ensure that pregnant women receive all the necessary care during pregnancy through post-partum period. A new initiative has also been started to demonstrate innovative and effective referral solutions for improved maternal and newborn health outcomes. The initiative that links early care seeking and referral solutions was started first in Dalocha PHCU in Dalocha Woreda situated in Silte Zone of the SNNP Region. This initiative will be spread to 15 other PHCUs in in the Amhara, Oromia, Tigray and SNNP Regions.

As the first step to identify referral solutions, a Woreda mapping exercise using structured tool was conducted in Dalocha Woreda. The Woreda Health Office, the PHCU staff, L10K MNH staff and L10K grantee staff visited a series of health facilities (from health post to health center to hospital) and held discussions with health staff, HEWs, HDAs, pregnant women and mothers that gave birth in the last 12 months to map available referral resources and identify bottlenecks.

The details of the woreda mapping was shared at a consultative meeting held at Silte Zone to enable key stakeholders grasp a broad understanding of how communities and the health system currently manage emergency referral for pregnant women and newborns. Existing bottlenecks and available resources were identified at this consultative meeting and action plan was developed in the presence of the Woreda Administrator to address bottlenecks with local solutions. Being the first mapping exercise, the process was documented electronically by L10K where the material will serve not only for process documentation but also for sharing learning. The Dalocha woreda mapping has been followed by woreda mappings in Taitayi Machiew, Central Zone of Tigray region and Shabe woreda, Jimma Zone and Limmu woreda, East Wollega Zone both of Oromia region ■

JSI Research & Training Institute, Inc.

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The Last Ten Kilometers Project
P.O.Box 13898
Addis Ababa, Ethiopia

http://l10k.jsi.com

Tel +251 11 662 0066
Fax +251 11 663 0919

SUCCESS STORY

Improving decision making through timely information generation

How do you get up-to-date information from remote health posts? And how do you improve the performance of a health system if you don't have that up-to-date information? Addressing these questions introduced L10K and its grantees to m-Health: mobile health.

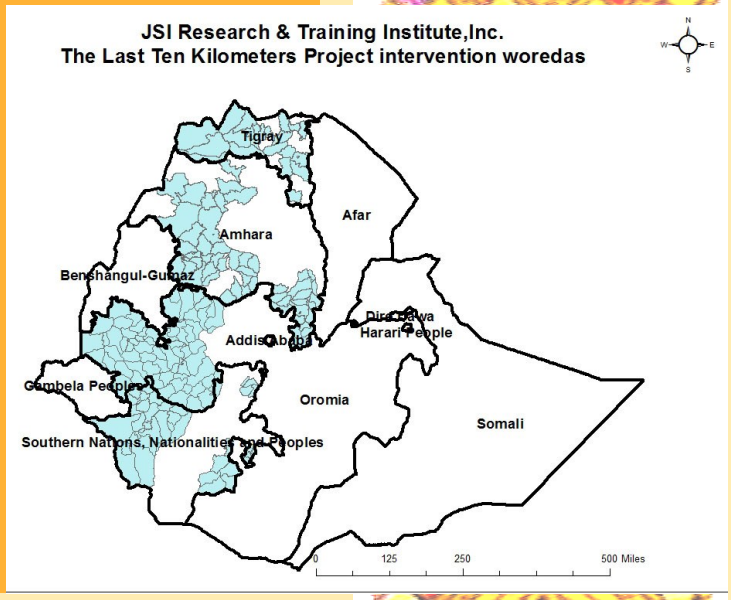
The L10K grantee staff regularly carry out supportive supervision to more than 6,000 Health Extension Workers (HEWs) and their 3,058 Health Posts (HPs) in the 115 L10K operational woredas to improve maternal, newborn, and child health services. While many health posts are hard to reach, the grantees visit at least three-fourths of the health posts in their areas every three months. But before the introduction of m-Health (mobile data collection) it could take more than a month for paper reports of those visits to make it from the community to the zonal, regional, and national levels.

Gizachew Tadele is the L10K monitoring and evaluation officer for Amhara region. Gizachew routinely analyzes the data from supportive supervision visits every month. As a result, he's a big fan of mobile data collection: "We health workers are not historians. We're decision-makers. Outdated data is not helpful for monitoring health interventions, and mobile-assisted data collection significantly improves the timeliness of our reports and feedback to grantees."

After visiting a community, grantee staff members fill out a supportive supervision checklist using EpiSurveyor, a free program for m-Health applications, on a mobile phone. The checklist was designed by L10K and has questions for the HEWs, for pregnant women and recent mothers in the community, and questions on whether the health post has adequate supplies or not. The results of the survey are sent immediately through the phone to EpiSurveyor's servers, where Gizachew can access and analyze the data.

Before the m-Health program began, L10K and grantee staff members could never be sure whether the health posts being visited were the ones that had gone the longest without a visit. The names of health posts were written down on paper forms during supportive supervision visits, but that was one piece of information amongst many written on paper forms that were difficult to enter into the monitoring system quickly. Today, with the m-Health program in place, the L10K regional and national offices see the data instantaneously, which helps them ensure that all health posts receive timely supportive supervision.

"Mobile-assisted data collection using EpiSurveyor generates quality data – it's complete, consistent, and timely," Gizachew said. "Ultimately, quality data is the basis for generating accurate information, which is essential for correct decision making."■



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