Developing Champions and Building Capacity Among Stakeholders: Over the next months, MaNHEP will focus efforts to build capacity and identify champions of the approach with district administrative and health sector partners. The challenge and opportunity going forward is to transition from functioning as a project to becoming well integrated into the administrative and health systems.

Streamlining Interventions: Much has been learned and is still being learned about how to most efficiently and effectively implement the community-oriented model for maternal and newborn health in rural Ethiopia. The goal of this demonstration project is to develop a scalable package of best CMNH practices and processes that will serve to shape supply of and demand for maternal and newborn care and improve service delivery. This package will ideally become integrated into the existing Health Extension Program.

Mini Learning Sessions: Amhara (July 4-9), Oromia (July 11-15), in response to demand for more woreda-level experience sharing and opportunities.

Learning Session 3: Amhara (August 11-13), Oromia (August 7-9).

Planning for Small-Scale Testing of Spread Strategies: During the next reporting period, we will begin joint planning of selected small-scale spread strategies with our partners, and support our partners to lead test spread activities, with an eye to lessons learned for future national scale-up planning.

Leveraging Partners and Primary Health Care Unit Strategy: MaNHEP seeks to engage MOH and development partners to complement MaNHEP’s community-oriented model with health facility strengthening in basic emergency obstetric and newborn care and collaborative quality improvement. This will allow for a true household-to-health facility continuum of care that is inherent in the national Primary Health Care Unit Strategy.

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Olga Jerard

**GLOSSARY**

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
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<tbody>
<tr>
<td>ANC1</td>
<td>First Antenatal Care Visit</td>
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<tr>
<td>AP</td>
<td>Action Period</td>
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<tr>
<td>BCC</td>
<td>Behavior Change Communications</td>
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<tr>
<td>CHDA / vCHW</td>
<td>Community Health and Development Agents: voluntary Community Health Workers</td>
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<tr>
<td>CMNH</td>
<td>Community Maternal and Newborn Health</td>
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<tr>
<td>DHS</td>
<td>Demographic and Health Survey</td>
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<tr>
<td>FLWs</td>
<td>Frontline Workers (TBA, CHDA, HEW)</td>
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<tr>
<td>GT</td>
<td>Guide Team</td>
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<tr>
<td>HC</td>
<td>Health Center</td>
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<td>HEP</td>
<td>Health Extension Program</td>
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<td>HEW</td>
<td>Health Extension Worker</td>
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<td>HP</td>
<td>Health Post</td>
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<tr>
<td>HMSIS</td>
<td>Health Management Information System</td>
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<tr>
<td>IEC</td>
<td>Information Education and Communication</td>
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<td>LS</td>
<td>Learning Session</td>
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<td>MaNHEP</td>
<td>Maternal and Newborn Health in Ethiopia Partnership</td>
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<td>MNH</td>
<td>Maternal and Newborn Health</td>
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<tr>
<td>PNC1</td>
<td>First Postnatal Care Visit</td>
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<tr>
<td>QI</td>
<td>Quality Improvement</td>
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<td>QIT</td>
<td>Quality Improvement Team</td>
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<td>RHB</td>
<td>Regional Health Bureau</td>
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<td>TBA</td>
<td>Traditional Birth Attendant</td>
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<td>ZHD</td>
<td>Zonal Health Department</td>
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To receive this quarterly newsletter
Please contact: Lynn Sibley (lsibley@emory.edu) or Abebe Gebremariam (agebremariam@manhep.org)
INTRODUCTION

Much progress has been made over the last decade in improving maternal and newborn survival in developing countries such as Ethiopia. Yet challenges remain in significantly reducing maternal and newborn mortality. Each year in Ethiopia, an estimated 22,000 women and 100,000 newborns die from complications related to childbirth. Many of these deaths occur within 48 hours after birth and could be averted with access to basic health care. Presently more than 90% of births occur at home.

Under the leadership of the Ethiopian Federal Ministry of Health, the Maternal and Newborn Health in Ethiopia Partnership (MaNHEP) is working to strengthen implementation of the Health Extension Program by building skills of frontline health workers and developing the systems needed to deliver quality maternal and newborn health care.

MaNHEP, which works in six districts in Amhara and Oromia Regions, is funded by the Bill & Melinda Gates Foundation and led by Emory University, in collaboration with John Snow Research and Training Inc., University Research Co., LLC, and Addis Ababa University.

PROJECT DESIGN

MaNHEP has developed an integrated program of maternal and newborn health training, quality improvement and behavior change communications to ensure care reaches all women and newborns, in time, every time.

MaNHEP’s Community Maternal and Newborn Health Training Program works with existing Ministry of Health structures to teach a package of evidence-based practices that, if effectively delivered can increase maternal and newborn survival during the critical birth-to-48 hour period (Fig. 1). In weeklong workshops, frontline health workers including Health Extension Workers, Community Health Development Agents, and Traditional Birth Attendants share their local knowledge and expertise, while learning new knowledge and skills for maternal and newborn care. Working in pairs called Guide Teams, they teach what they have learned to pregnant women and their family caregivers during Family Meetings. Together, these Guide Teams, pregnant women, and family caregivers work towards adopting safe practices that are culturally acceptable and likely to be used when needed.

Barriers often exist which may prevent women and newborns from receiving care during birth and the early postnatal period. These barriers include difficulties identifying pregnant women and determining when they begin labor and give birth. Using a collaborative quality improvement approach, MaNHEP supports Quality Improvement Teams, who include community stakeholders and frontline health workers. These teams identify and test ideas to improve care.
PROJECT DESIGN, cont.

(Continued from page 2)

address barriers, with the aim of ensuring maternal and newborn health care for every mother and newborn in time, every time.

A third prong of MaNHEP is behavior change communications. Through dramas, songs, and poetry contests, MaNHEP aims to influence community demand for services and to promote teamwork among frontline health workers for better service delivery.

Overall, MaNHEP supports the Ministry of Health to achieve Millennium Development Goals 4 and 5 by building capacity in maternal and newborn health care and by strengthening district-wide administrative and health systems to support and improve care during the critical birth-to-48 hour period of vulnerability.

COMMUNITY MATERNAL AND NEWBORN HEALTH (CMNH) PROGRAM

The CMNH Family Meeting training materials have been harmonized with the Ministry of Health’s training materials for birth preparedness, complication readiness, clean delivery, initial first aid, referral for complications, and postnatal care.

Training-of-Trainers was implemented August - October 2010 using a cascade approach. Thirty-six Health Extension Worker Supervisors, Nurses and Midwives were trained as Master Trainers, followed by 100 Health Extension Workers, who in turn trained 634 Community Health Development Agents and Traditional Birth Attendants; who formed 317 Guide Teams.

Orientation to the CMNH Family Meeting Guide and CMNH Family Meeting implementation occurred in March 2011. Since this time, the proportion of pregnant women and family caregivers participating in the meetings is steadily increasing (Fig. 2).

Completion of CMNH Meeting 1 increased from 14.7% to 25.8% in one month.

More than 700 pregnant mothers in their third trimester attended CMNH Meeting 4 through April 2011.

As of April 2011, 5350 and 6500 copies of Take Action Card booklets have been printed and distributed to Amhara and Oromia regions, respectively.

Four modules and their associated Take Action Cards are now available in Amharic and Oromifa:

- CMNH 1: Introduction, Woman and Baby Problems
- CMNH 2: Referral, Prevent Problems Before the Baby is Born
- CMNH 3: Prevent Problems When the Baby is Born
- CMNH 4: Prevent Problems After the Baby is Born

Additional content for frontline worker teams include:

1) Safe Use of Misoprostol
2) Infection Prevention During Labor and Birth
3) Helping Baby Breathe
4) Postnatal Care of Mothers and Babies

As of April 2011, 5350 and 6500 copies of Take Action Card booklets have been printed and distributed to Amhara and Oromia regions, respectively.

Take Action Card booklets are used by frontline workers and given to Family Teams during CMNH family meetings.

Figure 2. Cumulative Percent of Total Identified Pregnant Women Who Completed CMNH Meetings 1-4

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<thead>
<tr>
<th></th>
<th>CMNH 1</th>
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<th>CMNH 2</th>
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<th>CMNH 3</th>
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<th>CMNH 4</th>
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<tbody>
<tr>
<td>Numerator</td>
<td>524</td>
<td>1142</td>
<td>494</td>
<td>1041</td>
<td>444</td>
<td>877</td>
<td>351</td>
<td>714</td>
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<tr>
<td>Denominator</td>
<td>3563</td>
<td>4431</td>
<td>3563</td>
<td>4431</td>
<td>3563</td>
<td>4431</td>
<td>3563</td>
<td>4431</td>
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<tr>
<td>Identified Women</td>
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<td></td>
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<tr>
<td>Completed CMNH</td>
<td>39</td>
<td>45</td>
<td>32</td>
<td>49</td>
<td>40</td>
<td>47</td>
<td>38</td>
<td>46</td>
</tr>
</tbody>
</table>

Numerator: Cumulative number of pregnant women who completed CMNH Meetings 1-4
Denominator: Cumulative number of pregnant women identified
Data Source/Sampling: Guide Team record (not a sample)
Any important changes in measurement: None
Labor / Birth Notification Within Two Days After Birth

Sites have just begun to collect data in this improvement area, yet the short term results are remarkable.

Ideas Tested:
- One member of the family sends to notify the Health Extension Worker.
- One member of the Guide Team, usually a Community Health Development Agent, goes to notify the Health Extension Worker.
- Family member uses mobile phone to notify the Health Extension Worker.

First Postnatal Care Visit Within Two Days After Birth

In April 2011, 65.5% of delivered women received a PNC visit by a HEW within two days of birth.

The Quality Improvement Teams have not yet focused on change ideas to promote a PNC visit within 2 days of birth. This is planned for the next reporting period.

Despite this, remarkable increases in PNC visits as a spillover effect from other change ideas, such as labor and birth notification or CMNH Family Meetings, appear to have occurred. Future work on this area is likely to result in even greater successes.

Voices from Regional Health Bureau and Zonal Health Department Partners

May 11, 2011

A one-day field visit to Liben Kura, one of the project kebeles in Kuyu Woreda, North Shoa Zone, was arranged by the Kuyu Woreda Health Office in collaboration with MaNHEP.

Officials from the Oromia Regional Health Bureau (RHB) included: Mr. Shallo Daba (Head), Dr. Taye Tolera (Deputy Head), and from the Zonal Health Department (ZHD): Mr. Mesfin Girma (Head).

Key Visit Activities:

Ammesalu Girma, Quality Improvement Team representative, highlighted various project activities: CMNH Training-of-Trainers, CMNH Family Meetings for pregnant women, family caregivers, and birth attendants, and Quality Improvement activities.

Guide Team members presented a role-play demonstrating how they organize and conduct CMNH Family Meetings with pregnant women and their caregivers.

Reflections from the Officials:

Mr. Daba conveyed his deepest appreciation for how MaNHEP engages the community. He also commended the project for documenting best practices within a short time period. Mr. Daba noted the importance of encouraging partners to support government efforts to achieve the Millennium Development Goals, especially those to reduce maternal and child mortality. Finally, he proposed a scale-up of the MaNHEP model at the woreda, zonal and regional levels.

Mr. Mesfin emphasized the importance of close collaboration with MaNHEP to address maternal and neonatal deaths. Finally, he promised the ZHD will do everything necessary to strengthen the partnership and jointly implement activities at each level. He also mentioned these activities needed to be scaled up to cover all kebeles and woredas in the zone.
Pregnancy Identification

GTs began collecting data on this indicator following CMNH training, which was staggered across the two regions. After the initial baseline of all pregnant women was captured, the number of only newly pregnant women tapers off into a steady state across time, as shown in the chart.

Almost 6,000 pregnant women identified since November 2010. This figure is close to all expected pregnancies.

Ideas Tested:
- Using social gatherings & events: Iddir, Tsewa Mahibir, Senbete, coffee ceremony, churches, and places for fetching water.
- Using existing social and political structures: One-in-Five Networks (an official information dissemination system which targets one model household that shares knowledge with five surrounding households), women’s groups, and village health and development committees.
- Reaching husbands, mother-in-laws and other relatives through wise women, close friends and neighbors, and wives of Quality Improvement/ Guide Team members.
- Home-to-home visiting by Health Extension Workers or Quality Improvement members.

Pregnancy Registration and First Antenatal Care Visit (ANC1)

GTs began collecting data on this indicator following CMNH training, which was staggered across the two regions. This explains the lower number of sites reporting in early months.

Of identified pregnant women, nearly 75% received first ANC services.

Ideas Tested:
- Providing encouragement and education on importance of registration, targeting: husbands, mothers- in-law and peers.
- Increasing convenience of registration by: providing ANC at home and on immunization days, and arranging special day for ANC at health post or health center level.
- Follow up: reviewing lists of pregnant women attending ANC; home visits by Health Extension Workers to the pregnant woman who did not come for ANC; and checking cards for those receiving ANC from other facilities.
In November 2010, Quality Improvement Teams were formed in all 51 project kebeles. Team members are a cross-section of the kebele and include: government representatives, elders, religious leaders, women’s association members, pregnant women and husbands, Health Extension Workers and Guide Team members.

The teams use participatory decision-making to identify, implement and test ideas to support the CMNH Family Meetings and to ensure that women and their newborns receive antenatal, labor and birth, and postnatal care. They follow a Plan-Do-Study-Act cycle, continuously testing ideas for improvements and evaluating effectiveness based on data which they collect and review themselves on a monthly basis (Model 1).

To build on existing official structures, coaches were selected from Woreda Health Office and Health Center staff and trained in the Community and Maternal and Newborn Health Program. They were also trained to provide monthly coaching (supervision and support) to the Quality Improvement Teams.

Learning Sessions
The teams share solutions for common issues tested during each Action Period (AP) at regular Learning Sessions (LS) with the goal of spreading practices that are common across teams—and kebeles—within participating communities (Model 2). These Learning Practices that are common across teams—and kebeles—within participating communities (Model 2). These Learning Practices that are common across teams—and kebeles—within participating communities (Model 2). These Learning Practices that are common across teams—and kebeles—within participating communities (Model 2). These Learning

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Sessions also provide motivation through friendly competition among Quality Improvement Teams. Two Learning Sessions have been held to date, with three representatives from each team and coaches attending (Fig. 3).

**Maturity Index**

Quality Improvement Teams own growth in ability to develop change ideas, prepare detailed action plans, review their own performance and work on different improvement areas are scored on a Maturity Index. This index was adapted by MaNHEP staff from an existing Maturity Index developed by the Institute for Health Care Improvement.

The Quality Improvement Coaches assess team maturity using the index during monthly coaching visits. The Quality Improvement Teams who are in the formation stage receive a score of 1.0. Teams who are testing change ideas in at least one area with initial improvements merit a 2.5. Those teams with outstanding sustainable results in all improvement areas receive a 5.0.

By April 2011, the average Maturity Index Score for all QI Teams was 2.5 (out of 5.0).

**Improvement Areas**

The Quality Improvement Teams work on several improvement areas that are needed to ensure women and newborns receive timely care (Fig. 4). The improvement areas covered during the first Action Period (AP1) were: pregnancy identification, pregnancy registration and labor / birth notification to a Health Extension Worker.

Additional improvement areas covered during the second Action Period (AP2) are: CMNH Family Meeting participation and postnatal care by a Health Extension Worker within 48 hours of birth.
MONITORING, LEARNING AND EVALUATION

As a demonstration project, MaNHEP’s monitoring, learning and evaluation strategy includes baseline and endline surveys and focused formative assessments, as well as monitoring key indicators (Table 1) aggregated at the end of each month. The Quality Improvement Teams track their own monthly progress on a subset of these indicators; Indicators 1, 2, 3, 5 and 11 shown in the table.

Project data formats including a Quality Improvement Coaching Guide, Guide Team Record, Master List of Pregnant Women, and Community Maternal and Newborn Health Skills Checklist were pretested and finalized during February 2011. The Checklist is both a job aid for Health Extension Workers and a data recording form, designed to help provide complete care. Guide Teams members and Health Extension Workers were trained to use these tools in March 2011.

<table>
<thead>
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<th>Indicators Tracked Monthly</th>
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Table 1. MaNHEP’s Monthly Indicators.

IMPROVEMENT AREAS, CHANGE IDEAS TESTED AND THEIR RESULTS

Quality Improvement Teams and coaches tell us that the CMNH training and Quality Improvement interventions have improved teamwork and communication among frontline health workers and between pregnant women and families, fostered a sense of ownership in the community and kebele administration, increased demand for quality care, and increased referral to facilities for complications.

The following charts on page 6 show remarkable progress for Pregnancy Identification and Pregnancy Registration / ANC1 after the CMNH training of Guide Teams (October 11 - December 17 in Amhara and November 1 - January 3 in Oromia), even before quality improvement training in Learning Session 1. Progress on these indicators has continued during Action Periods 1 and 2.

The next pages detail promising change ideas and results in several major improvement areas.