INTRODUCTION

Much progress has been made over the last decade in improving child survival in Ethiopia. According to the preliminary report of the 2011 Ethiopian Demographic and Health Survey, under-five mortality was reduced 28% from the 2005 DHS figures, from 123 to 88 deaths per 1,000 live births. Infant mortality was reduced 23%, from 77 to 68 deaths per 1,000 live births. Yet neonatal mortality rates showed a modest 5% reduction, from 39 to 37 deaths per 1,000 live births. Furthermore, only 44% of women received antenatal care from a skilled provider or Health Extension Worker, and 10% had a skilled provider at delivery; in part because more than 90% of women give birth at home. As a result, an estimated 22,000 women and 100,000 newborns die from complications related to childbirth each year. Many of these deaths occur within 48 hours after birth and could be averted with access to basic health care.

In response, the Government of Ethiopia has recently developed the Road Map for Accelerating the Reduction of Maternal and Newborn Morbidity and Mortality in Ethiopia and updated the National Reproductive Health Strategy. Yet at the current rate of progress, it will not meet its target of reducing the neonatal mortality rate to 18 per 1,000 births by 2015. To contribute to this effort, under the leadership of the Ethiopian Federal Ministry of Health, the Maternal and Newborn Health in Ethiopia Partnership (MaNHEP) has continued 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.

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This newsletter reports on activities that occurred September – November 2011.

COMMUNITY MEMBERS SAVE A YOUNG MOTHER’S LIFE

A Health Extension Worker in Liben Kura Kebele, Kuyu Woreda, Oromia Region, recently shared the story of how a community member, Mr. Assefa Tolla, acted to save the life of a pregnant woman, Mesqelu Amentie. Mr. Assefa serves on his kebele’s Guide Team and Quality Improvement (QI) Team. Guide Teams are trained in MaNHEP’s Community Maternal and Newborn Health care package and comprised of Community Health Development Agents and traditional birth attendants. Guide Teams teach pregnant women and their family caregivers about birth preparedness, complication readiness and clean delivery. QI Teams are comprised of kebele-level volunteers, including kebele administrators, women’s association members, elders and religious leaders. QI Teams identify and test ideas that can help ensure that mothers and newborns receive quality care in and around the time of birth. They are supported by monthly coaching visits from MaNHEP and woreda, zonal and regional health sector staff.

Mesqelu Amentie and her newborn with Mr. Assefa Tolla in Kuyu Woreda, Oromia Region

discussion with neighbors, Mesqelu’s brother was sent to find Mr. Assefa. He immediately recognized the danger of the situation. He urged Mesqelu’s family to move her to the local health facility for immediate medical attention. However, the family refused since they believed Mesqelu had disgraced her family name by having the child out of wedlock. Finally, however, Mesqelu’s brother provided Mr. Assefa with money as well as assistance from neighbors to take her to the hospital in Kuyu Woreda.

Upon arrival at Kuyu Hospital, Mr. Assefa used his own funds to help pay for medicines and services. As a result, Mesqelu was able to deliver the placenta and the bleeding was stopped. Thus, her life was saved.

Later Mr. Assefa shared Mesqelu’s story with the QI Team during their monthly meeting. The QI Team had been collecting monthly contributions in a fund for poor women’s referrals. After hearing the story, they were able to compensate Mr. Assefa’s expenses from the fund.
CMNH AND QUALITY IMPROVEMENT (QI) ACTIVITIES

Spread Workshop

Successes at the community level have created interest and requests from woreda, zonal and regional health administrations to spread improvements to new areas. On November 4, 2011, MaNHEP held a workshop in Adama, Ethiopia, to begin discussions of spread with key stakeholders from the Federal Ministry of Health (FMoH), regional health bureaus (RHB), zonal health departments (ZHD), woreda administration and woredas health offices (WorHO), WorHO and health center coaches, and HEWs from project sites.

The meeting began with background presentations on the FMoH Primary Health Care Unit and Health Development Army strategies, MaNHEP progress to date, woreda administration reflections on the project and a short background on spread. In addition, HEWs brought poster presentations and were given an opportunity to share community-level activities. The afternoon sessions were focused on group discussions of what should be spread, to where, and how.

All participants felt strongly that the Community Maternal and Newborn Health (CMNH) care package should be integrated within the Health Development Army structure, which is comprised of a network of one model household for every five households. Priority content from the CMNH care package identified for initial spread were: birth preparedness, preventing postpartum hemorrhage (using misoprostol and uterine massage after birth of the placenta) and helping babies breathe. Woredas proposed first spreading best processes for pregnancy identification and registration in ANC, based on data showing that changes made in these areas resulted in sustained improvements. Woredas are planning to spread to 52 new kebeles within the existing project areas.

During the next quarter, MaNHEP will work closely with the FMoH, RHB, ZHD, and WorHO to develop a specific implementation plan for spread. A Harvest Meeting in March will identify practices and processes with the strongest evidence for spread. Together with the WorHO, we will discuss creative strategies for addressing constraints to spread, and opportunities for collaboration with other sectors, such as women's affairs and education. The continued enthusiasm of the WorHO and woreda administrators will be a key factor for success.

“This workshop indicates that we all stand for one common goal, reducing maternal and newborn deaths...We, at all levels, should focus on the government priorities, and MNH activities have to be sustainable.”

– Mrs. Mihret Hiluf, Director, Agrarian Health Promotion and Disease Prevention Directorate, FMoH

HEALTH EXTENSION WORKER CLINICAL UPDATE

Overall, HEWs’ ability to correctly perform key CMNH actions increased by around 50% following the clinical update.

Strengthening frontline health workers’ capacity to provide MNH services around the time of birth is a key MaNHEP objective. While the majority of Health Extension Workers (HEWs) in project sites were trained in the FMoH’s one-month Safe and Clean Birth and Newborn Care curriculum, many did not feel confident to attend deliveries in their kebeles due to a lack of hands-on training with laboring mothers. Thus, a tailored gap-filling clinical update on safe and clean birth and newborn care was provided for the HEWs from the project kebeles.

Adama Referral Hospital and Debre Markos Referral Hospital in Oromia and Amhara Regions, respectively, were selected as training sites. A total of 18 trainers attended a Training of Trainers at Adama Hospital from October 10-14, 2011.
After preparation of training sites in both hospitals from October 17-21, 2011, the 6-day clinical update for HEWs in both regions began on October 24, 2011. The first training round was facilitated by international consultants in collaboration with local trainers. Subsequent training rounds were led by local trainers. A total of 42 HEWs and 48 HEWs participated in the clinical update in Amhara and in Oromia Regions, respectively. All but two HEWs in Oromia Region and 29 in Amhara Region had been trained in CMNH the previous year.

All trainees were given pre- and post-training skills tests. These tests were conducted via observation of the HEWs performing CMNH skills. Two content areas provided the bulk of pre- and post-test evaluations: “Prevent Problems After Baby is Born: First and Other Actions” and “Helping Babies Breathe.” Oromia HEW scores increased from 53% of care steps correctly performed during the pre-test, to 85% correct after the training. Similarly, Amhara HEW scores increased from 55% to 93% in the pre- and post-tests, respectively. Improvements were even more dramatic for “Helping Babies Breathe.” Oromia HEW scores increased from 28% to 85% in the pre- and post-tests, respectively, while Amhara HEW scores increased from 41% to 88% in the pre- and post-tests, respectively.

Mobile video shows focusing on care during pregnancy and childbirth were staged from December 16-24, 2011 in eight kebeles of Warajarso Woreda, Oromia Region, for a total of 3,514 people. These video shows emphasize positive care-seeking behaviors and community and home-based support systems for pregnant mothers.

Kebele administrators, Guide Team and Quality Improvement Team members mobilized the community at venues which could accommodate large audiences, such as: schools, market places, and Farmers’ Training Centers. A team member led the audience through four stages: Observation, Reflection, Interpretation, and Decision. The community watches the video during the Observation stage, in which a maternal or newborn health issue is depicted. During Reflection and Interpretation, the facilitator elicits participant comments and interpretations of key scenes. The community members are then prompted to decide how to address the issue presented for themselves and others.

“When my wife was pregnant, I didn’t save money – as other community members do. The character has clearly played my experience. It was really touching. I promised to myself that from now onwards, I’ll stop drinking alcohol and spending money unnecessarily. I’ll use the money to support my wife and family. I’ll also teach the same to others.”

– Participant in Abu Keku Kebele

Participants’ comments are documented for subsequent use by HEW, Guide Team, and Quality Improvement Team activities. This information on community attitudes and problem-solving will guide project activities to increase linkage with CMNH Family Meetings and other elements of the MNH care package.
**PROGRESS ON SELECTED INDICATORS**

**Pregnancy Identification and ANC Registration**

Teams have reached a high and sustained level of performance for pregnancy identification and antenatal care visit (ANC) registration. Most of the teams have identified over 80% of expected pregnancies, have ensured registration of ANC, and have been able to sustain results for several months within a normal variation. Local ideas that have led to these results have been outlined in past newsletters. The teams are now exploring how to integrate these efforts into all routine activities of the kebeles, including the HDA, for greater efficiency and sustainability.

Over 13 months, 12,366 pregnant women were identified. This figure is 84% of the expected pregnancies. The average number of pregnant women identified per month was 961 (Figure 1).

The percentage of identified pregnant women who were registered/received a first ANC visit increased from 38% in November 2010 to 82% in November 2011 (Figure 2).

Established conventions for interpreting run charts show that sites have made statistically significant improvements in registration/receipt of first ANC visit. This demonstrates that a fundamental shift in the performance of the process used to identify and register pregnant women for ANC has occurred. The chart shows a trend for continued improvement.

**CMNH Family Meeting Attendance and Care Delivery**

About 40% of identified pregnant women had attended CMNH family meetings by the end of November 2011 (Figure 3).

As with registration/receipt of ANC, CMNH Family Meeting exposure shows a trend towards increasing
coverage. While tracking coverage of CMNH Family Meetings is important, equally important is understanding the extent to which CMNH Family Meetings have led to improved care in and around the time of birth. To this end, MaNHEP has recently instituted Birth Audits to capture the completeness of care provided during labor, birth and the early postnatal period. Every three months, 10% of delivered women will be randomly selected from each kebele Health Post Master List. MaNHEP MNH Specialists will conduct the Birth Audits.

**Labor/Birth Notification**

By the end of November 2011, 46% of expected births were reported. Of reported births, 86% were notified to HEWs within 2 days of labor/birth and 77% were visited by HEWs within two days after delivery (Figure 4).

Local ideas that have led to these results have been outlined in past newsletters, such as assigning an individual to find and inform the HEW when labor begins, by walking, riding, and/or cell phone communication with the HEW. In addition, HEWs have been informing communities of their location through notifications on Health Post doors. Because labor/birth notification to a HEW is closely linked with a postnatal care (PNC) visit by a HEW within two days of delivery, the challenges and potential solutions for both improvement areas are similar. These are discussed further in the following section on PNC.

**Postnatal Care (PNC) Visit by HEW Within Two Days**

Of expected births, the percentage which received a PNC visit by a HEW within two days of delivery increased from 1% in November 2010 to 35% in November 2011 (Figure 5).

The graph reflects a statistically significant improvement in the process of providing PNC.
informed. Using cell phones appear to be a viable strategy for notification as most Guide Team members possess cell phones with the HEWs’ phone numbers, and most community members know a neighbor with a cell phone. Harnessing the Health Development Army’s one-to-five network is another strategy for improving notification.

**Maturity Index**

Of the average QI team maturity index for the month of November 2011 was 2.75 out of 5 (Figure 6).

As the QI Teams’ performance plateaus, so does their maturity. As the team finds new ways of looking at their problems and improving care further, their maturity and ability to problem solve and improve also will continue to improve.

**Misoprostol to Prevent Postpartum Hemorrhage**

Of all deliveries reported by November 2011, 67% of women received misoprostol immediately after birth of the placenta. This figure varied considerably by region: Amhara (33%), Oromia (97%).

When estimated births are used as the denominator, the percentages reduce to: Overall (31%), Amhara (13%), Oromia (51%) (Figure 7).

In June 2010, the Food, Medicine and Health Care Administration Authority of Ethiopia approved registration of misoprostol tablets for use in preventing and managing postpartum hemorrhage (PPH), which contributes to about 7% of maternal deaths. Due to the large difference in misoprostol use in the project areas, we will undertake a study to better understand what is currently happening with regards to the policy, administration, operations, and outcomes of the national misoprostol program in Amhara and Oromia.

Regions (and possibly other regions of the country). Pending FMoH approval, the supplemental study will begin in March 2012. Findings will be shared with all stakeholders and will hopefully contribute to improved policy and programming to advance misoprostol to prevent PPH.
OTHER SUCCESSES AND LESSONS

A number of other improvements have been identified in the implementation of project interventions, including:

- Community volunteers have gained skills in leveraging kebele opportunities to maximize mothers’ enrollment into MNH care.
- A good working relationship with other community volunteers, such as Community Based Nutrition Volunteers in Kuyu (Oromia Region) and Kebele Surveillance Officers in Mecha Woreda (Amhara Region) has been established to help increase coverage of care for mothers and children.
- Guide Team and Quality Improvement Team members can be an asset to the Health Development Army strategy implementation due to their close relationships with HEWs, and their MNH knowledge and skills. Learning from MaNHEP on proven support processes at the community level can easily be integrated into the HDA activities.

CHALLENGES

- Highly-performing HEWs and QI Coaches are transferred to non-project sites.
- Frequent meetings at community level for various activities limit availability of HEWs.
- Data quality and completeness, especially underreporting of births and deaths, are challenging and data quality improvement will be a focus of QI activities going forward.

LOOKING AHEAD TO THE NEXT PERIOD

Mini Learning Sessions
Amhara (January 10 – 15, 2012), Oromia (February 6 – 8, 2012). These provide an opportunity for woreda-level experience sharing.

Learning Session 4
February 15 – 17, 2012. Participants from both regions will be invited to share key policy and implementation successes, as well as gaps. Challenges and lessons learned will be documented and shared with decision makers.

Follow-up of HEW Clinical Update
March 12 – 14 and 17 – 20, 2012. This activity is an extension of the HEW clinical update held at Debre Markos and Adama Hospitals in October 2011.

Annual Review Meeting

Advisory Committee Meeting

Harvest Meeting
March 21 – 22, 2012. Woreda and zonal team members will meet to identify key change ideas and CMNH intervention components which have demonstrated the greatest success to date. These core components and processes of care will be tailored into a change package which can be used in test spread sites and beyond.
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GLOSSARY

ANC Antenatal Care
BCC Behavior Change Communications
CHDA/vCHW Community Health and Development Agents/Voluntary Community Health Workers
CMNH Community Maternal and Newborn Health
DHS Demographic and Health Survey
FLWs Frontline Workers (TBAs, CHDAs, HEWs)
FMoH Federal Ministry of Health
HDA Health Development Army
HEW Health Extension Worker
LS Learning Session
MaNHEP Maternal and Newborn Health in Ethiopia Partnership
MNH Maternal and Newborn Health
PNC First Postnatal Care Visit
PPH Postpartum Hemorrhage
QI Quality Improvement
RHB Regional Health Bureau
TBA Traditional Birth Attendant
WorHO Woreda Health Office
ZHD Zonal Health Department

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