Ethiopia Basic Emergency Obstetric and Newborn Care EOP Summary & Results



Ethiopia—Basic Emergency Obstetric and Newborn Care

In 2011, despite significant progress in previous years, Ethiopia's MMR was still 676 per 100,000 live births, which was far from its Millennium Development Goal target of 218 by 2015. Delivery with an SBA was still extremely low (15%), and facilities with fully functioning EmONC services were only 10%.¹⁰ Understanding the Government of Ethiopia's continuing interests and needs, USAID requested MCSP continue MNH support after the closeout of the MCHIP in Ethiopia. USAID tasked MCSP with implementing the award under two scopes of work: the Strengthening BEmONC project and the Community-Based Newborn Care (CBNC) project. MCSP's Strengthening BEmONC program in Ethiopia, which was implemented from September 2014 to December 2016, aimed to increase the availability, utilization, and quality of MNH and PPFP services in the USAID priority regions of Amhara; Oromia; Southern Nations, Nationalities, and Peoples' Region; and Tigray. MCSP worked in close collaboration with the Federal MOH and regional, zonal, and *woreda* (district) health bureaus to provide BEmONC, QI, PPFP, and MNH-related research.

Key Accomplishments

Integrated MNH and QI Efforts

With the aim of reducing maternal and newborn mortality, MCSP introduced and strengthened BEmONC services by developing skill competencies through training and mentoring health care providers in 172 Integrated Family Health Program-supported and 44 MCSP-supported health centers. MCSP provided comprehensive MNH support in 44 health centers to strengthen BEmONC services, improve referrals and linkages, and institutionalize QI approaches. The 44 facilities were supported in two phases: 22 in the first phase during PY1, and an additional 22 in PY2. All were high-caseload facilities selected by their respective zonal offices to receive MCSP's support in MNH.

MCSP conducted an initial baseline assessment in each facility, which showed that most of the health centers were not fully implementing the BEmONC signal functions. An average of only three of the seven BEmONC signal functions were routinely performed in all health centers, mainly due to gaps in skills and available materials and supplies. MCSP therefore focused on closing the identified gaps by building the skills of 47 health care providers through BEmONC trainings, followed by onsite post-training coaching using anatomic models. Follow-up assessments were conducted in June 2016 and showed that, as a result of the training, the number of facilities routinely providing the BEmONC signal functions increased compared to the baseline. By the end of the program in Ethiopia, 13 (30%) of the supported health centers were able to perform all seven BEmONC signal functions.

The establishment of BEmONC in 44 health facilities was reinforced by the introduction of a QI effort that led to improvements in overall MNH services in these facilities. The comprehensive support provided by MCSP coupled with the other facility-based and national initiatives enabled health centers to improve their overall performance in MNH services. Consequently, the health facilities' HMIS data showed considerable improvements in ANC, skilled birth services, and PNC in MCSP-supported facilities when compared with the baseline and with the national average from the 2016 Demographic Health Survey in Ethiopia (see Figure 2 and 3).

^{1.} Central Statistical Agency (CSA), Federal MOH, World Bank. 2014. Ethiopia Mini Demographic and Health Survey 2014. Addis Ababa: CSA and Federal MOH.

^{2.} UNICEF. 2009. National Baseline Assessment for Emergency Obstetric and Newborn Care: Ethiopia, 2008. New York City: UNICEF.



Figure 2. Change in performance of MNH services at MCSP sites, phase I



Fourth antenatal care visit

Skilled birth attendance

Postnatal care within 2 days

Figure 3. Change in performance of MNH services at MCSP sites, phase II

First antenatal care visit

20% 0%

At the national level, to meet the national quality initiatives and activities, MCSP supported this effort by seconding (temporarily transferring) a senior QI advisor to the Medical Services Directorate/Federal MOH. As a member of the national quality TWG, MCSP actively participated in the development and dissemination of the Ethiopian National Health Care Quality Strategy: 2016-2020 and coordinated other quality initiatives articulated in the quality strategy, including the incorporation of clinical governance and MNH standards into the revised Ethiopian Hospital Reform Implementation Guidelines. At the national level, the development of a standard MNH QI tool for primary health care units was identified as a critical need to ensure a uniform approach in the provision of standardized MNH care. Again under the leadership of the Medical Services Directorate, MCSP took the initiative with developing and field-testing the tool. The tool was successfully piloted in 44 MCSP-supported health centers before being rolled out nationally. The QI tool is used for internal/self-assessments by health center staff and during external quality assurance assessments to measure attainment of performance standards. At the national level, MCSP also supported the Federal MOH to institutionalize respectful maternity care by leading the development of training materials for the nationwide scale-up of respectful maternity care.

MCSP implemented selected high-impact, evidence-based interventions and innovations focusing on strengthening services and management, and building MNH capacity. MCSP formally evaluated several interventions piloted under MCHIP, including the introduction of a blended learning approach for BEmONC training and the use of active audit-feedback on the use of magnesium sulfate for the management of severe PE/E. Another intervention, use of the Microlife blood pressure apparatus, was initiated and introduced in Ethiopia by MCSP. While there were plans to introduce and study the implementation of the uterine balloon tamponade for the management of PPH in Ethiopia, local ethical clearance did not permit the study to go ahead. MCSP shared its implementation experiences, study findings, and recommendations with the Federal MOH and stakeholders so that they can use these innovations to further reduce maternal and newborn mortality.

Indicator ■ Baseline (Dec-15) ■ Endline (Jul-16) National Average

Sources: Central Statistical Agency and ICF 2016; HMIS reports of health facility data

Strengthened Linkages between Primary Health Care Unit and Community Levels to Increase MNH Care-Seeking Practices

As reported in 2014, a large majority of women (78%) who did not deliver in a health facility believed that it was either not necessary or not customary to do so. Consequently, the Federal MOH developed a sound strategy to:

- Strengthen referrals and linkages among health facilities.
- Improve health care-seeking behaviors of the community with extensive community-based demand creation.

However, the full operationalization of the referral and linkage system is weak or suboptimal at facility level. MCSP conducted a baseline assessment to determine the functionality of primary health care unit referral and linkages in the 44 supported primary health care units and found that primary health care unit linkages were not being fully implemented as outlined in the guidelines. For example, MCSP's 2014 and 2016 baseline assessments found that it was not standard practice in the health centers to:

- Use national referral registry forms and the referral log sheet.
- Identify a referral focal person within the primary health care unit.
- Hold monthly primary health care unit meetings and pregnant mothers' conferences.
- Provide regular supportive supervision to health posts.

Following the baseline assessment, the project oriented 594 primary health care unit, *woreda*, and zonal health office staff on national primary health care unit strategies and protocols, such as the referral guideline, the primary health care unit linkage manual, pregnant women's conference protocols, and maternity waiting home service guidelines to standardize operationalization of these protocols in supported primary health care units. Though health centers generally have a shared plan with their satellite health posts, MCSP, together with *woreda* and zonal health offices, emphasized the need for primary health care unit meetings, pregnant women conferences, and supportive supervision visits to health posts. The orientation helped primary health care unit staff to revitalize referral networks and linkages along the continuum of care in their catchment area. Primary health care unit staff identified their gaps in referral and linkage, and developed action plans to realign their referrals and linkages to meet the guidelines. As a result, more than 91% of health centers were subsequently able to:

- Use the national referral registry forms and a referral log sheet.
- Regularly conduct monthly primary health care unit meetings using the guidelines.
- Regularly conduct supportive supervision to health posts using the standard supportive supervision tool.
- Regularly conduct pregnant mothers' meetings.

By the end of the project, 61% of supported health centers had referral focal people. The presence of a proactive referral focal person will not only address issues, such as ensuring referral feedback, but will also ultimately contribute to avoiding two of the "three delays" in birth: delay in transport to care and delay in receiving timely, quality care. MCSP used the primary health care unit monthly meeting as an opportunity to refresh the knowledge of primary health care unit staff by providing them with brief technical updates on supervisory skills and MCHIP's job aids on effective referrals. More importantly, as components of the draft national MNH QI assessment tool, referral and linkages are and will continue to be regularly monitored by the facilities in the ongoing QI activities.

Increased Access to PPFP and Strengthened Service Provision

Responding to the high unmet need for PPFP in Ethiopia, MCHIP initiated a PPFP program in 2012 and introduced immediate postpartum IUD insertion services for the first time in Ethiopia. Building upon the

foundations laid by MCHIP, MCSP continued to support the Federal MOH's efforts to increase the availability of long-acting FP methods and scale up PPFP at the national and facility levels. As part of the national FP TWG, MCSP's contribution at the national level was focused on the integration of PPFP in national sexual and reproductive health policies, including the scale-up of PPFP nationally and the generation of new evidence on PPFP in Ethiopia. During the revision of the national FP training package, MCSP led the revision of the PPFP module according to WHO 2015 Medical Eligibility Criteria and Jhpiego FP resource packages, ensuring inclusion of the latest PPFP and postpartum IUD knowledge and skills.

In response to the Federal MOH's plan to roll out PPFP and postpartum IUD in 100 selected facilities in Oromia; Amhara; Tigray; and Southern Nations, Nationalities, and Peoples' Region, MCSP accomplished the following in collaboration with the Federal MOH.

- Integrated PPFP training modules into the Federal MOH's national FP training package, which incorporated the latest evidence from the 2015 WHO recommendations on FP methods for postpartum women, and ensured that PPFP was sufficiently addressed in the national FP training package.
- Expanded the national pool of skilled PPFP and postpartum IUD trainers. MCSP conducted a teaching skills course for 47 Federal MOH-selected trainers who were already proficient FP providers. These trainers are now able to cascade and roll out planned PPFP and postpartum IUD training at the regional level.

In 18 facilities, MCSP continued supporting PPFP and postpartum IUD services initiated by MCHIP. In addition, the project introduced PPFP and postpartum IUD services in six health centers with high caseloads to further test scalability at health center level. These 24 facilities benefited from capacity-building for health care providers through offsite training, onsite orientation, skill transfer visits, supportive supervision, and phone follow-up. Facilities were also provided with the postpartum IUD insertion materials, registers, and job aids required to provide the service. In the process, it was observed that PPFP services were frequently interrupted in many facilities due to perceived high workload, perhaps influenced by the absence and high turnover of trained health care providers. To address this problem, MCSP designed and tested an onsite training approach in three project-supported hospitals. In total, the project succeeded in training 170 health care providers in 24 facilities in PPFP counseling and postpartum IUD insertion skills, in accordance with USAID's FP compliance regulations. Between October 2014 and July 2016, trained health care providers counseled more than 14,000 pregnant women on the full mix of PPFP methods during ANC and the latent phase of labor. Among those counseled, 1,197 mothers voluntarily chose to receive postpartum IUD insertion services within the first 48 hours after delivery. One of the quality indicators of postpartum IUD insertion is the occurrence of spontaneous expulsion and infection following insertion. In the 22 months of implementation, only one expulsion and one infection were reported, which is considered low for postpartum IUD (see Table 1).

Facilities implementing PPFP counseling and postpartum IUD insertion	PPFP clients counseled in ANC	Postpartum IUD insertions	Mothers returning for first follow-up visit (6 weeks and 3 months after postpartum IUD insertion)	Reported spontaneous expulsion	Reported infection	
24 (15 hospitals and nine health centers)	> 14,000	1,197	278	I (0.08)	l (0.08)	

Table I.	PPFP	counseling	and post	partum IU	D insertions.	October	2014-July	2016
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Source: Health facilities' PPFP and postpartum IUD registers

Generated Evidence for Improved Policy and Programming

As part of the Federal MOH's national MNH Research Advisory Council, MCSP participated in designing the national-level priority research agenda to guide the Federal MOH on future RMNCAH policies and research. MCSP also trained Federal MOH staff on developing a program learning agenda, and provided financial and technical support to develop the national EmONC assessment. MCSP led cutting-edge research on topics such as respectful maternity care, blended BEmONC learning methods, the continuum of care for PPFP and follow-up, and the use of audit feedback tools for the management of PE/E.

Blended BEmONC Learning Methods

Substantial investments are being made by the Government of Ethiopia and partners on training SBAs to fill the skills gaps around BEmONC. However, the conventional 3-week BEmONC training, for which health care providers have to be away from their workplace for an extended period, compromises facilities' MNH services and is also resource intensive. In response, MCHIP designed and tested a 2-week BEmONC training using a blend of classroom training, clinical skills practice and attachment, and follow-up through short message service (SMS) on mobile phones.¹¹ Based on MCHIP's successful pilot, MCSP further evaluated trainees' knowledge and skills retention. A quasiexperimental study design of post-training comparison was made on 153 health care providers trained by MCSP using the conventional and blended approaches. The study found that the blended learning trainees' knowledge and skills retention was equivalent to those trained with the conventional approach 3 months after training. Blended learning offers an alternative training approach for in-service BEmONC training in Ethiopia—particularly for health care providers who are working in areas with reliable network coverage—and, as shown, results in providers who retain knowledge and skills despite the alternate training approach.

Management of PE/E

Ethiopia is among the countries with high maternal mortality, and severe PE/E is one of the leading direct causes. The majority of deaths related to PE/E could be avoided if women received effective care and delivered according to evidence-based standards. MCSP conducted a study to determine if an active audit-feedback intervention in public referral hospitals in Ethiopia improves the quality of care provided to women who experience either PE/E or a hypertensive crisis. The study revealed that, following the audit-feedback intervention, significantly more women with severe PE/E or mild pre-eclampsia in labor received the correct dose of magnesium sulfate compared with before the audit-feedback intervention. Similarly, compared with before the audit-feedback intervention, more women with acute severe hypertension received the correct dose of antihypertensive therapy. Women with PE/E who received the full correct course of magnesium sulfate in the study hospitals increased from 64.6% at baseline to 92% after five 5 months of the audit-feedback intervention (p<0.001). If done properly and with full participation of health care providers, the audit-feedback intervention can bring significant, positive change in quality of health care for women with PE/E. The intervention will hopefully be scaled up to hospitals with similar settings to improve quality of care for women with PE/E and hypertensive crises.

Respectful Maternity Care

As part of the national Health Sector Transformation Plan, the Federal MOH developed a national agenda prioritizing the creation of a compassionate, respectful, and caring health workforce to improve the health status of all citizens. MCSP supported the Federal MOH's agenda by generating evidence on respectful maternity care, one component of the broader compassionate, respectful, and caring agenda. Despite national efforts to increase institutional delivery, the majority of women in Ethiopia still deliver at home.¹² This, along

¹¹ The training maintains the other standards set in the national BEmONC training manual, such as the use of the national BEmONC training package, use of standardized BEmONC trainers with no more than 16 participants per course at a ratio of four trainers to 16 participants, and use of a clinical setting for training.

¹² CSA, Federal MOH, World Bank. 2014. Ethiopia Mini Demographic and Health Survey 2014. Addis Ababa: CSA and Federal MOH.

with other factors, is associated with unfriendly or disrespectful and abusive services in health facilities.¹³ MCSP conducted a <u>study</u> on the prevalence of disrespectful and abusive care in selected Ethiopian health facilities to enrich the existing body of literature and contribute to informed national policy and decision-making. Twenty-seven percent of mothers reported at least one form of disrespect or abuse. The findings also revealed that failure to meet professional standards of care was the most common type of disrespect and abuse committed by facility staff.

Recommendations for the Future

MCSP's most notable successes in the 2-year project period included increasing availability and utilization of high-quality MNH and PPFP services; scaling up high-impact interventions; introducing cost- and time-efficient alternatives to health care providers' in-service training; building the government's capacity to scale up respectful maternity care, QI, PPFP; and postpartum IUDs nationally; and strengthening MNH research.

- Continue to integrate respectful maternity care in all reproductive and maternal health interventions, and utilize national QI tools to assess the quality of MNH services in all health centers. This should be done through government health offices and MNH partners using and operationalizing the Federal MOH's national MNH QI tool in all facilities. Hospitals and *woredas* should also use this tool to assess their health centers' standards every 3 to 6 months and note that a comprehensive approach to facility support enhanced by a QI activity yields better MNH outcomes.
- Ensure availability of essential parenteral drugs, equipment, and supplies at health centers to enable implementation of all seven BEmONC signal functions. Improved forecasting needs to start in health facilities to minimize supplies and commodities gaps.
- Implement blended training approaches to continue to improve maternal and reproductive health care. The utilization of blended learning as a training approach followed by regular mentoring offers an alternative to longer offsite training. For example, shifting PPFP and postpartum IUD training from off site to on site and orienting all MNH providers on service delivery helped limit service interruption caused by absences of staff during offsite training or turnover of limited trained staff.
- Strengthen referral systems and emphasize data quality and accurate reporting practices. The assignment of a proactive referral focal person in health centers can significantly resolve challenges of referral within the primary health care unit. Additionally, stakeholders should follow up on facility-level data quality issues and improve accuracy of data recording and reporting practices in the HMIS.

Selected Performance Indicators

Global or Country Performance Monitoring Plan Indicators	Achievement (Target)
Number of people trained with MCSP support	472 (285 BEmONC, 170 PPFP postpartum IUD, 17 infection prevention) (target: 541; 87% achieved)
Percentage (number) of project-supported facilities that provided all seven BEmONC signal functions in the last quarter	30% (13/44 facilities) (target: 90%, 40/44 health centers; 33% achieved) ¹
Percentage of births that received at least four ANC visits	42% (target: 45%; 93% achieved)
Number of facilities that implement the national MNH quality assessment intervention	44 (target: 44; target achieved)
Percentage of births attended by an SBA in MCSP-supported health facility catchment areas	92.5% (target: 60%; target exceeded)
Percentage of mother-baby dyads who received PNC for both mother and baby within 2 days of birth	44% (target: 60%; 73% achieved)

Improvements were impeded by shortages of essential parenteral drugs, equipment, and supplies.

¹³ Bohren MA, Hunter EC, Munthe-Kaas HM, Souza JP, Vogel JP, Gulmezoglue AM. 2014. Facilitators and barriers to facilitybased delivery in low- and middle-income countries: a qualitative evidence synthesis. *Reprod Health*. 11(1):71. doi: 10.1186/1742-4755-11-71.

For a list of technical products developed by MCSP related to this country, please click here.

Ethiopia Community-Based Newborn Care EOP Summary & Results



Program Dates

October 1, 2014–February 28, 2019

Total Funding through Life of **Project**

\$13,706,700

Demographic and Health Indicators

Indicator	# or %	
Live births/year (per 1,000) ¹	3,258	
MMR (per 100,000 live births) ²	412	
NMR (per 1,000 live births) ²	29	
U5MR (per 1,000 live births) ²	67	
TFR ²	4.6	
CPR (modern methods) ²	35%	
ANC 4+ ²	32%	
SBA ²	28%	
Penta3 ²	53%	
Stunting (height for age < 5) ¹	38%	
ORT ²	30 %	
Acute respiratory illness care seeking ²	29.8%	
Sources: [1] UNICEF and WHO count down to 2030, [2] Ethiopia DHS 2016.		

Indicator

Strategic Objectives through the Life of Project

- Improve community MNH practices and care-seeking behaviors.
- Increase provision of high-impact, quality newborn care services in the community.
- Strengthen supportive systems for provision of newborn health care.

Highlights through the Life of Project

- Supported the Federal MOH to develop a national CBNC demand creation strategy and implement it in 730 health centers and 3,605 health posts to improve service use and build community capacity to solve MNCH issues.
- Trained 2,912 health workers and 6,768 health extension workers on CBNC, enabling them to provide high-impact newborn health services for over 1.2 million beneficiaries (see Figure 1 below).
- Increased day-of-birth QI standards at 13 pilot health centers from 32% at baseline to 92% at reassessment.
- Organized sustainability and handover workshops in 100% of project woredas (districts) where participants committed to expansion of successful MCSP CBNC approaches.
- Collaborated with the Federal MOH to initiate the development of the long-term vision for a newborn and child health roadmap in Ethiopia.

Figure 1. MCSP-supported CBNC and IMNCI training targets were consistently met in the four MCSP-supported regions.



Percent of life of project target achieved

100%

98%

105%

Ethiopia—Community-Based Newborn Care

Background

In March 2013, based on the lessons learned from the successful implementation of the Community-Based Intervention for Newborns in Ethiopia research trial, the Federal MOH launched the national CBNC plan. The plan was rolled out to be implemented through the country's existing Health Extension Program. Additionally, the Government of Ethiopia received support from USAID's Integrated Family Health Program to roll out iCCM in the target *woredas*.

Based on the lessons from implementation of iCCM, MCSP's CBNC project was designed to strengthen the linkage among health centers, health posts, and communities. The project aimed to reduce neonatal morbidity and mortality in four regions of Ethiopia from 2014 to 2019. MCSP supported the Government of Ethiopia with the introduction and scale-up of high-impact newborn health services at the community and primary health care unit levels across the Amhara; Oromia; Southern Nations, Nationalities, and Peoples; and Tigray regions. The project implemented the CBNC package in 3,605 health posts and 730 health centers through building the capacity of health workers, health extension workers, and managers to deliver the services at community and facility levels.

Key Accomplishments

Rolled Out CBNC Package

In close collaboration with and providing support to the regional, zonal, and *woreda* health bureaus, MCSP rolled out elements of the CBNC package in 135 *woredas* across 12 zones located in Amhara; Oromia; Southern Nations, Nationalities, and Regions; and Tigray regional states. Using the national CBNC training materials, MCSP developed a health worker trainer pool at the zonal and *woreda* levels to support the training of health workers and health extension workers in targeted health centers and health posts, respectively. MCSP added a fifth day to the 4-day national CBNC training to integrate topics related to demand creation and pharmaceutical supply management. MCSP's Newborns in Ethiopia Gaining Attention project trained 2,912 health workers (84% of target) and 6,768 health extension workers (105% of target) on CBNC. In collaboration with UNICEF and the Federal MOH, kits containing a 1-year stock of essential CBNC supplies were given to each health post so services could be initiated as soon as the health workers and health extension workers returned to their *keheles* (neighborhoods).

Developed and Implemented Demand Creation Strategy for CBNC

MCSP worked with Saving Newborn Lives (SNL) to support the Federal MOH to develop a national CBNC demand creation strategy to address barriers to care seeking and improve newborn care practices at home. To help realize this strategy, MCSP encouraged and supported engagement of communities and health care providers through ongoing dialog, planning, collective action, and outcome monitoring. MCSP developed a training module and systematically integrated the demand creation into the CBNC training for health workers and health extension workers to build zonal, woreda, and primary health care unit capacity on MNCH-CBNC demand creation. This included the rollout of the strategy to 3,441 target kebeles, with 370 of the selected "learning kebeles" receiving support that was more intensive in order to serve as learning/model sites for other kebeles in their woredas. MCSP provided initial trainings to all 370 of these kebeles, and more than 70% reached the stage where they were able to share positive experiences with other *kebeles*. MCSP was able to achieve these results despite the civil unrest and drought affecting the country. The project adjusted its plans and supported community-to-community learning visits in 93 project woredas that were not affected by the external factors. The majority of the woredas that participated in the learning visits integrated elements of the demand creation strategy, such as engagement of the kebele command posts (a multisectoral group from the neighborhood within the communities) and faith-based leaders, in their annual work plan. MCSP, in collaboration with the zonal and woreda health offices, organized zonal-level experience-sharing workshops for faith-based leaders. Over 90% of the faith-based leaders trained by the project educated their respective woredas and communities on positive MNCH behaviors and practices during faith gatherings and through home visitation of followers, particularly pregnant women. (See the full report for additional details.)

Provided Supportive Supervision and Mentorship

Following the CBNC trainings, per the national protocol, MCSP and *woreda* and/or supervising health center staff completed a joint post-training follow-up visit at each of the target health centers and health posts within an average of 8 weeks after the training. Additionally, MCSP conducted two rounds of performance review and clinical mentoring meetings for each project *woreda* at 6 to 8 months after the initial training and again 6 months after the post-training follow-up visit. In addition to the classroom-based discussions, the first performance review and clinical mentoring meeting provided health extension workers opportunities for practical skills mentoring sessions through attachment to a nearby health center. The second performance review and clinical mentoring meeting served as another tailored mentoring and refresher training opportunity to address the major gaps identified from peer review of the health posts' sick young infant registration books. Findings from these assessments can be seen in Figure 2. By the end of the project, all health centers and functional health posts in the project *woredas* initiated CBNC services, including management of possible serious bacterial infection (PSBI) at the community level.

Figure 2. Skills improvement with diagnosis and management of sick young infants by health extension workers and supervising health workers at the health post level (April 2015–June 2017)



Supported Local Use of Data for Decision-Making

When the program began implementation in Ethiopia, the national HMIS did not include indicators to measure coverage of services included in the CBNC package. As an active member of the national child survival working group, MCSP, together with other partners implementing CBNC, successfully influenced the inclusion and/or modification of newborn health indicators focused on PSBI, asphyxia, and small babies in the national HMIS. Specifically, MCSP participated in relevant workshops organized by the Federal MOH to confer and agree on the final set of indicators and advocated for prioritizing the integration of newborn indicators in the HMIS. In addition, to demonstrate the benefits of using data generated at the local level for program improvement, MCSP and SNL developed a CBNC monitoring chart with indicators for use at health post and health center levels. Although initially designed for local program monitoring and decision-making, the chart also helped with identifying challenges in data quality.

Piloted Day-of-Birth QI Intervention

MCSP adapted the draft national *Maternal and Newborn Care QI and Assessment Tool for Health Centers* to focus on day-of-birth care for mother and baby. Jointly with the zonal health offices, the project enrolled 13 health centers with high volume of deliveries for a QI activity. The primary purposes of the activity were to help selected health centers become competent in the use of the assessment tool and improve service quality so that they could serve as learning sites for others health centers in the *woredas*. MCSP revitalized and strengthened the QI teams, and oriented them on the tools to carry forward the assessment that entailed

direct observation, document reviews, and service provider interviews. The assessment tool was categorized into seven areas, 28 standards, and 206 verification criteria, each of which received a composite summary score based on the number of criteria met. The threshold for achieving the Federal MOH national quality standard was 80% of the criteria met for each standard. The average percentage of standards achieved by the facilities increased from 32% at baseline to 92% at endline. The 13 pilot learning facilities organized and hosted QI visits for 593 health workers and staff from 174 health centers and two hospitals to share their own lessons learned about improving the quality of newborn care services.

Ensured Sustainability through Handover and Dissemination

As part of its effort to ensure sustainability, MCSP organized and conducted handover workshops for 2,889 individuals from different zones, *woredas*, and primary health care units; best-performing health extension workers; chairpersons from the strengthened *kebele* command posts; and community members. In addition to identifying promising practices for further strengthening and replication, the *woreda* handover workshops were designed to identify unfinished activities. At the end of each workshop, the *woreda* health bureaus developed action plans (with timeline and responsible person) based on the remaining lists of activities. MCSP conducted supervision visits to each of the *woredas* 1 month following the handover workshop and learned that many integrated activities from the action plans into their annual *woreda* plan.

MCSP also hosted the Federal MOH, regional health bureaus, the USAID Mission in Ethiopia, and other implementing partners, including the USAID-funded Transform: Primary Health Care project, at nationallevel experience-sharing visits at project sites in Southern Nations, Nationalities, and Peoples Region. Furthermore, MCSP technical staff organized experience-sharing meetings with the USAID Transform: Primary Health Care and Transform: Health in Developing Regions counterparts to share strategies, experiences, lessons, and outstanding challenges that came out of MCSP. Lastly, MCSP initiated the process that led to the development of the national QI and transition plan. The plan outlined criteria that stratified the *woredas* into "poor," "medium," and "good" performance categories to help phase the handover process. USAID expanded the reach of this plan to cover areas supported by other CBNC implementing partners, which led to the stratification of all CBNC *woredas*. While MCSP supported the Federal MOH with developing the transition plans for *woreda* classified as medium performing, support to the poor-performing *woredas* was taken up by the Transform: Primary Health Care project.

Advocated for Long-Term Vision for a Newborn and Child Health Roadmap

Following the phase-out of MCSP field activities and handover of implementation to the subnational government, MCSP and SNL successfully advocated for the Federal MOH to lead the development of a roadmap that outlines a long-term newborn health visioning document informed by the experiences and lessons of implementing CBNC at scale. The visioning document was based on a critical review and synthesis of lessons learned and framed around forward-looking, long-term aspirations to spur the development of capable and integrated newborn and child health systems. Specifically, the findings from the research studies conducted by MCSP on issues around care for low-birthweight babies and challenges with caretakers' referral compliance when identifying young infants with PSBI were an integral component in synthesizing the background information for the visioning document. Despite some unexpected delays and hurdles, MCSP provided support to the Federal MOH to develop a draft of the roadmap document. Upon closeout, MCSP shared with the Federal MOH a list of recommended steps on finalization of the roadmap.

Recommendations for the Future

Based on its lessons learned, MCSP is hopeful that the following recommendations are taken by the MOH at the national and subnational level and by implementing partners to sustain implementation of the MNCH interventions via the existing CBNC package.

• Improve uptake of appropriate MNH-related household practices and norms, including timely recognition of and care seeking for maternal and newborn danger signs. Future initiatives could contribute significantly to the reduction of newborn mortality through community empowerment and demand creation. The facilitative and interactive methods used in demand creation and community

empowerment approaches through MCSP can help to identify deep-rooted challenges and develop tailored strategies to address them. Ethiopia's health workforce requires further capacity-building in these approaches in order to scale them with quality, realize the potential of community empowerment, and create demand to further reduce newborn mortality. The Federal MOH and MNH partners should focus on demand creation/community empowerment approaches to improve care seeking and community MNCH-CBNC literacy.

- Strengthen service provision and supportive systems, particularly at *woreda* and health care levels, to ensure access to high-quality MNH care. A functional support system needs to have adequately trained staff, an appropriate mix of human resources, an uninterrupted flow of essential supplies, and a working referral system for pregnant women and newborns. Reinforcing health centers' capacity through trainings and supportive supervision tailored around the various components of the CBNC strategy, such as providing appropriate care for low-birthweight and preterm babies, early PNC for mothers and babies, and comprehensive QI initiatives, is essential. Based on MCSP's experiences, specific recommendations entail:
 - Create a comprehensive QI initiative, as day-of-birth care requires improvement in various aspects of health care provision, including provider motivation, overall cleanliness and hygiene, appropriate use of space, leadership, etc.
 - Engage managers at zonal and *woreda* level for support, oversight, and ultimate accountability.
 - Build an HIS that is monitored regularly in order to improve availability of accurate, high-quality data and to provide appropriate training and follow-up to ensure data are used to support program learning and make program adjustments when needed.

Selected Performance Indicators				
Global or Country Performance Monitoring Plan Indicators	Achievement (Target)			
Percentage of targeted health extension workers trained (and equipped) on CBNC package	105% (target: 100%; target exceeded)			
Percentage of mothers or babies who received early (within 48 hours) postnatal home visits by health extension workers in MCSP-supported areas	15.6% (target: 8%; target exceeded)			
Percentage of sick young infants classified as having PSBI who initiated treatment at health posts and received complete 7-day antibiotic treatment at health post	91% (target: 90%; target exceeded)			
Percentage of correctly classified sick newborns who are appropriately managed	93% (target: 80%; target exceeded)			

For a list of technical products developed by MCSP related to this country, please click here.