

# Assessing Knowledge, Practice, and Coverage of Newborn Care Services in Ethiopia

Baseline household survey informs programming for community-based care



Two-month-old Semredin was treated soon after birth for a bacterial infection by a health extension worker who received CBNC training from the NEGA Project.

Photo credit: Martha Fikre/MCSP

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The Maternal and Child Survival Program (MCSP) is a global, USAID Cooperative Agreement to introduce and support high-impact health interventions. MCSP focuses on 25 high-priority countries with the ultimate goal of ending preventable child and maternal deaths within a generation.

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In October 2014, the Maternal and Child Survival Program (MCSP) launched the Newborns in Ethiopia Gaining Attention (NEGA) Project to support the Ministry of Health's scale-up of community-based newborn care (CBNC). NEGA focuses on CBNC rollout in 135 *woredas* (districts) in four regions of Ethiopia—Amhara, Oromia, SNNPR, and Tigray—by strengthening primary health care units to deliver high-quality services to mothers and newborns.

At the start of the project, NEGA conducted a baseline household survey of recently delivered women in the four regions to provide baseline measures for key maternal and newborn health indicators of knowledge, practice, and service coverage. Results of the survey provided valuable information to design project activities to meet the health needs of women and newborns within their communities (MCSP 2016). This brief presents findings from the baseline survey. An endline survey is planned for June and July 2017.

## Background

In Ethiopia, newborn deaths account for 47% of under-5 mortality, an alarming statistic that has not improved in more than a decade (Countdown to 2030 Secretariat 2015). High rates of home-based births and low levels of care-seeking for newborns likely account for many of these deaths.

To address this, CBNC projects such as NEGA focus on the critical role that community and family support play in decision-making for newborn care. A key strategy for NEGA is to create demand for these services by building strong community-based networks and messaging to encourage mothers and other caretakers to seek neonatal care during and immediately after birth. To design interventions appropriate for this context, it was essential to understand levels of knowledge among women and other caretakers about the health needs of their newborns and what they do—or don't do—to meet those needs. Service coverage was also key to



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understanding whether and how neonatal health services were sought.

## Methodology

This cross-sectional household survey examined key maternal and newborn indicators in 13 project target zones and two special *woredas* within the four regions.<sup>1</sup> The study team used MCSP's quantitative Knowledge, Practice, and Coverage (KPC) survey [tool](#)<sup>2</sup> with structured individual one-on-one interviews. The survey collected standardized information on KPC and sociodemographic characteristics of the respondents, so its findings are comparable to those of similar household surveys, such as the Demographic and Health Survey.

### Study Questions

The baseline survey sought to measure the following:

- Knowledge of recent mothers about maternal and newborn health.
- Maternal and newborn health care-seeking behaviors and practices among recent mothers.
- Coverage of key maternal and newborn health services and interventions, including antenatal care (ANC), essential newborn care, delivery by skilled attendant, postnatal care, and more.
- Community capacity for collective action to support maternal, newborn, and child health (MNCH) as a function of perceived social cohesion, collective action, self and collective efficacy, participation, and leadership.

The study was designed to estimate coverage levels at the beginning of the project and, after 36 months of implementation, to assess the effects of the project intervention in the four regions. A stratified random sample of *kebeles* was used, with sample size estimated

<sup>1</sup> North Wollo, Wag Himra, South Gondar, North Gondar, Arsi, Bale, Kembata, Gamo, Gofa, Dawro, Hadiya, Central Zone of Tigray, Southern Zone of Tigray, Halaba Special *Woreda*, and Basketo Special *Woreda*

for each region due to substantial indicator differences between regions, with a confidence level of 95%, a power of 80%, and a design effect of 1.5 (see Table 1). Early postnatal care (PNC) within 48 hours of giving birth—the most important indicator for the project—was used to determine the study's sample size.

**Table 1. Number of sampled *kebeles* and sample size, by region**

	Regions				Total
	Tigray	Amhara	Oromia	SNNPR	
Number of <i>kebeles</i>	7	30	16	17	70
Sample size	181	810	420	495	1,906

The number of monthly expected deliveries in the *kebeles*, which varied from 5 to 10, was also a factor in determining the total number of *kebeles* to be assessed. The team used the lowest value to ensure that smaller *kebeles* were included in the study. A total of 63 *kebeles* were thus targeted to provide the estimated respondent sample size (N = 1,906), with random sampling proportional to size used to determine sampled *kebeles*.

Between the baseline and endline surveys, it was assumed that, within two days of delivery, postnatal care would show a minimum 30 percentage point increase from baseline value. Therefore, the study population included 1,906 women between 15 and 49 years of age who had delivered in the six months before the survey.

## Key Findings

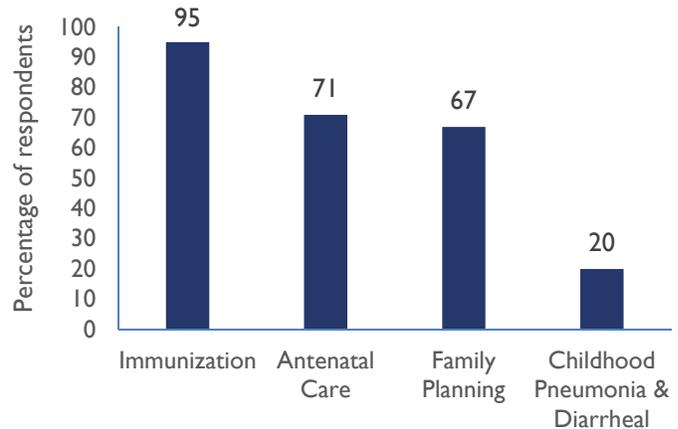
Percentages reflect aggregated results across the four regions in the study.

<sup>2</sup> <http://www.mcsprogram.org/resources/knowledge-practice-coverage-tool/>

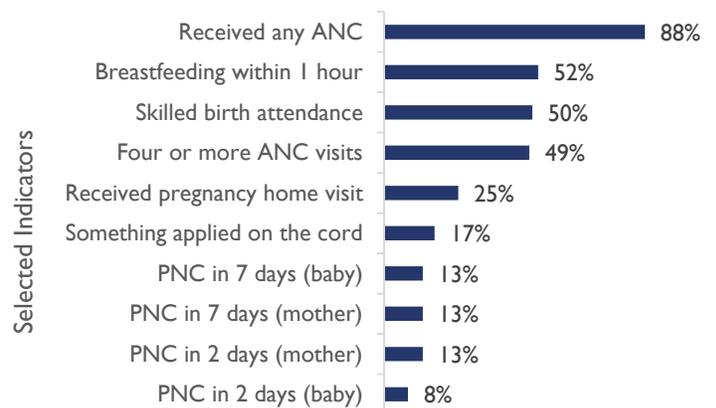
- **Respondent and household characteristics:** Of the women surveyed, 96% were married; the average age was 27 years. About half (52%) had had no education, while 12% had reached secondary school or higher. Respondent households were located in overwhelmingly rural areas. No information about children per household was gathered.
- **Awareness of health services:** Women's awareness of the availability of different health services varied widely (see Figure 1).
- **Pregnancy and antenatal care and counseling:** About half of respondents had their first ANC at a health post (51%) or health center (46%), and 50% of all women reported four or more ANC visits during their last pregnancy (see Figure 2). The median gestational age at first ANC was 16 weeks. Counseling on care for low-birthweight babies was the least reported service across all regions. Three-quarters of women reported having received or bought iron tablets.
- **Delivery and postnatal care:** Half of respondents reported delivering their last baby at a health facility, while 46% delivered at home. Of all the newborns who had received any PNC (n=280), only 34% received a home visit from a community health worker in the first 48 hours.
- **Knowledge of obstetric and newborn danger signs:** Less than 30% of respondents mentioned being informed about newborn danger signs during their pregnancy. Fever, poor sucking or feeding, and fast breathing were the most commonly mentioned danger signs in newborns (see Figure 3).
- **Care-seeking:** Most respondents (62%) reported keeping their babies inside the home without taking them outside for an average 30 days, mainly for cultural reasons. Of the 8% of women who reported neonatal illness within 28 days of birth, only a third had sought care outside of the home within 24 hours of the onset of symptoms. Health centers were the first point of care sought (65%), and fever was the most common symptom (79%) mentioned by

**Figure 1: Women's awareness of the availability of health services varies widely**

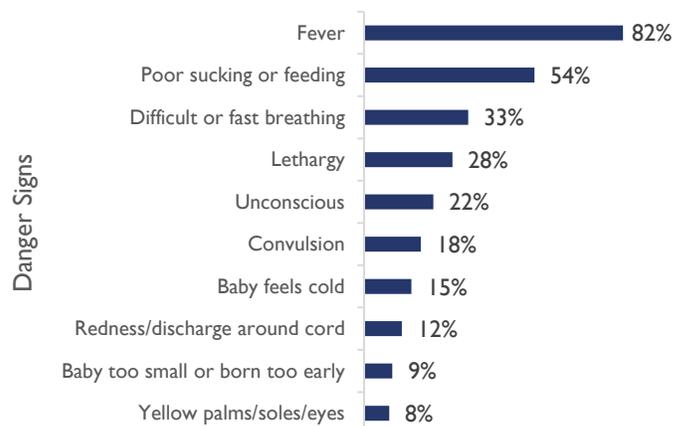
Respondents were significantly less aware of the availability of services for such childhood diseases as pneumonia and diarrheal disease.



**Figure 2: NEGA baseline household survey findings (N=1,906)**



**Figure 3: Women's knowledge of newborn danger signs**





respondents for seeking care outside the home. Nearly half of the women whose babies were sick during the neonatal period had either lower or the usual levels of breastfeeding during the illness period.

- **Building community capacity and demand creation:** Regions vary in their perception of community capacity to address MNCH, as well as in community capacity domain components (see Figure 4). However, for all regions, respondents reported low male participation in MNCH. Women's participation in groups that addressed MNCH issues was also low in all regions, correlating with data demonstrating low involvement (23%) in pregnancy support groups.

## Program/Policy Implications

### Creating Demand for Newborn Care

*Demand creation* is a marketing term that means educating consumers about why they need a new product or service. For public health, the term refers to approaches that prompt people to seek health care services for themselves or their families.

NEGA recognizes that demand creation for better newborn health must engage communities and families to create a supportive environment for parents to take advantage of health services. Another key goal for NEGA is improving quality, availability, and accessibility so newborn health care services are more desirable and acceptable.

NEGA's strategies for creating demand for newborn health services include:

- Building and linking community social networks.
- Engaging family decision-makers.
- Promoting active male involvement in health care decisions and actions within the family.
- Strengthening the non-delivery role of traditional birth attendants.
- Improving quality.
- Generating community-based data for decision-makers.
- Using multiple channels to reinforce community efforts.

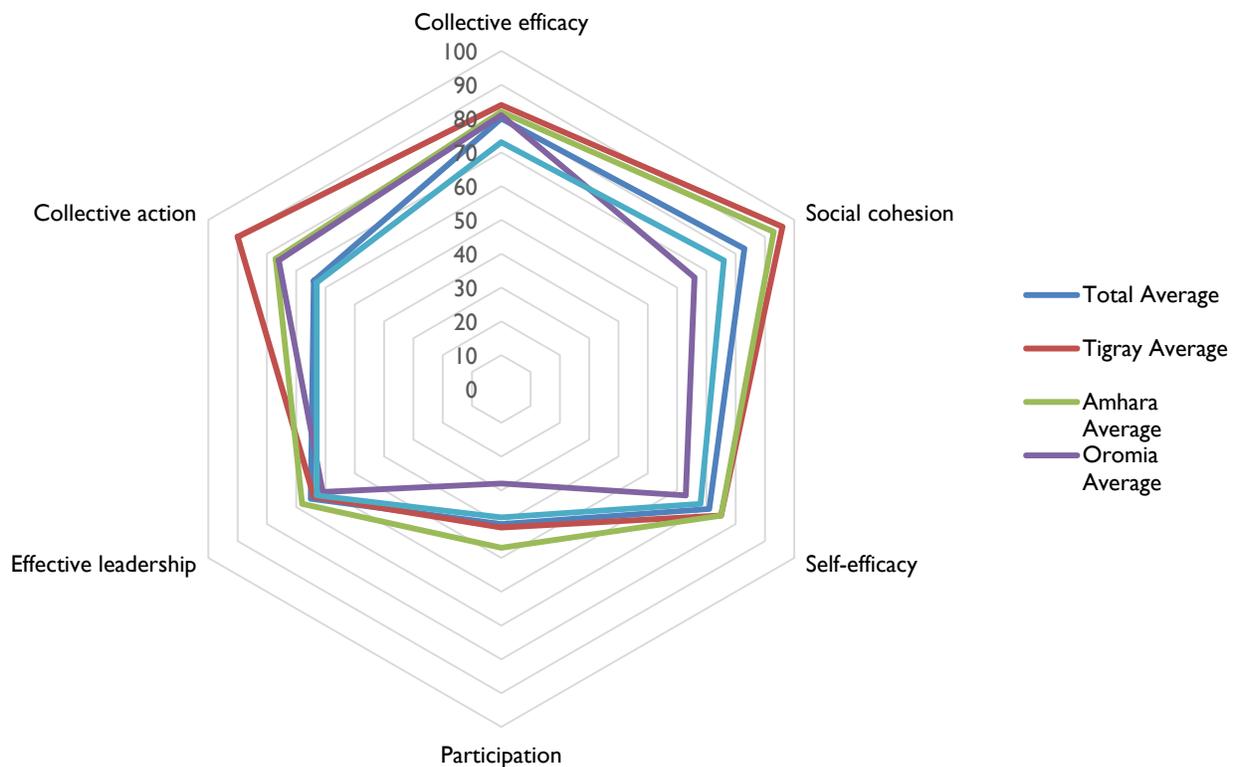
Informed by the baseline survey results, activities to be carried out by the NEGA Project include:

- Rolling out the demand creation strategy, based on the community action cycle model of community empowerment, including messages geared toward gaps in care-seeking identified in the household survey. The model helps communities identify barriers to solving maternal and newborn health problems, strategize to address the issues, and act together. This aligns with Ethiopia's National Newborn and Child Survival Strategy, which calls for communities to be responsible for their own health, and with the community empowerment approach.
- Facilitating monthly pregnant women forums to provide a safe, comfortable environment where women can discuss birth planning and consider their options. Topics include choice of location for skilled delivery, emergency transport, maternity waiting areas, early and appropriate ANC care-seeking, early postnatal care, immediate and exclusive breastfeeding, family planning, recognition of pregnancy and newborn danger signs, and men's involvement.
- Training of service providers at the primary health care unit (PHCU) level, including health center-based health workers, community health workers such as health extension workers (HEWs), and the volunteer community Health Development Army (HDA). This creates a large pool of community-based cadres who can manage newborn health issues. The training is based on survey findings that showed lower levels of home-based postnatal care.
- Strengthening the capacity of PHCUs to supervise and support HEWs across the MNCH continuum of care, including implementation of demand creation strategies to encourage women to seek care. As a result, NEGA regularly supports routine supportive supervision and facilitates performance review meetings.
- Supporting HEWs and HDAs to maintain a simple pregnancy and birth surveillance registration tool to capture information consistently across the board.

While this tool helps HEWs and HDAs track a woman and her newborn through the early postnatal period, it also gives HEWs reminders about which women should receive which services and when,

helps them identify defaulters, and prompts them to schedule follow-up visits. It also provides up-to-date information on expected delivery dates of pregnant women in the catchment area for close follow-up.

**Figure 4: Community capacity measures organized under six capacity domains, by region and total**



## Community Capacity Domains

**Collective efficacy:** Respondents' belief that their community can solve MNCH problems working together, even if the problems are serious, as well as their confidence that everyone is committed to the same collective goal.

**Social cohesion:** Respondents' belief and experiences that people in their communities help their neighbors/each other in times of need.

**Self-efficacy:** Respondents' belief that they can participate in any MNCH actions of the community, have the skills and knowledge to solve MNCH problems, can solve MNCH problems working with other community members, and can help their community achieve its collective goals through their contributions.

**Participation:** Participation of respondents in any MNCH groups, such as HDA networks and pregnant women conferences (which are national-level strategies expected to reach/involve all women), as well as their perception of the involvement of men in MNCH issues.

**Effective leadership:** The presence of discussions between men and men's groups for MNCH in their community and that their community/kebele has an action plan to solve MNCH problems.

**Collective action:** The presence of emergency transport systems and pregnant women conferences in their community, and whether they as community encourage women to disclose pregnancy early and seek care from health facilities.



## Conclusions

Coverage of different MNCH services has improved, particularly in the facility delivery rate, compared with previous data from other sources, such as the 2016 Ethiopian Demographic and Health Survey (EDHS 2016). However, over the four regions there are disproportionately significant knowledge, access, and utilization gaps in post-delivery services, particularly for newborn health services. Therefore, awareness and demand creation activities should focus on developing SBCC strategies to cover these gaps along the continuum of care.

Given the low maternal knowledge and care-seeking practices seen in this survey, strategies should support community health workers to provide timely pregnancy identification and postnatal home visits. Moreover, regional discrepancies that were seen in this survey across different indicators need to be systematically explored. Compared with other regions in Ethiopia, reports from the Tigray region consistently show better knowledge, practices, service access, and coverage, as well as stronger community capacity. These results are worth assessing further to see if Tigray's successes can be adapted for other regions.

## Acknowledgments

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Finally, we are grateful to the women who graciously provided detailed information about their babies' health and their own.

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