



Clinical Mentoring of Health Care
Providers on Reproductive, Maternal,
Newborn, and Child Health in
Amhara region, Ethiopia



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INTRODUCTION

PRETERM BIRTH IS THE LEADING CAUSE OF DEATH AMONG CHILDREN UNDER FIVE AROUND THE WORLD, AND A LEADING CAUSE OF DISABILITY AND ILL HEALTH LATER IN LIFE.

In Ethiopia, 377,000 babies are born too soon each year and the preterm birth rate is estimated to be 12%¹. Preterm birth complications accounted for 26% of all neonatal deaths in Ethiopia in 2017². Adolescent pregnancies (80 per 1,000 girls), short birth intervals (5% of mothers give birth within 24 months of previous delivery), anemia among women of childbearing age (17%), hypertension in women (32%), and exposure to solid fuel for indoor cooking during pregnancy (93%) all pose a threat to healthy pregnancy and delivery in Ethiopia³.

nutrition, and limited access to contraception that can lead to babies being born too soon, while also improving care for premature babies.

BOT is the first public-private partnership dedicated to preventing preterm birth in targeted communities

In Ethiopia, 377,000 babies are born too soon each year and the preterm birth rate is estimated to be 12%.

— *Every Premie Scale, July 2019*

of Bangladesh, Ethiopia, and Mali, bringing together the collective expertise of World Vision, Plan International, Save the Children, the Government of Canada, and Johnson & Johnson. World Vision is

implementing Born on Time in Ethiopia in four zones within the Amhara Region: South Gondar, North Gondar, Central Gondar, and West Gojam.

The Born on Time (BOT) project aims to prevent preterm births by targeting risk factors related to unhealthy lifestyles, maternal infections, inadequate

To achieve its objectives, BOT uses a combination of approaches that include health system



¹ Every Premie Scale Ethiopia Profile of Preterm and Low Birth Weight and Care https://www.everypreemie.org/wp-content/uploads/2019/07/Ethiopia_7.5.19.pdf

² <https://www.healthynewbornnetwork.org/country/ethiopia/>

³ Ibid

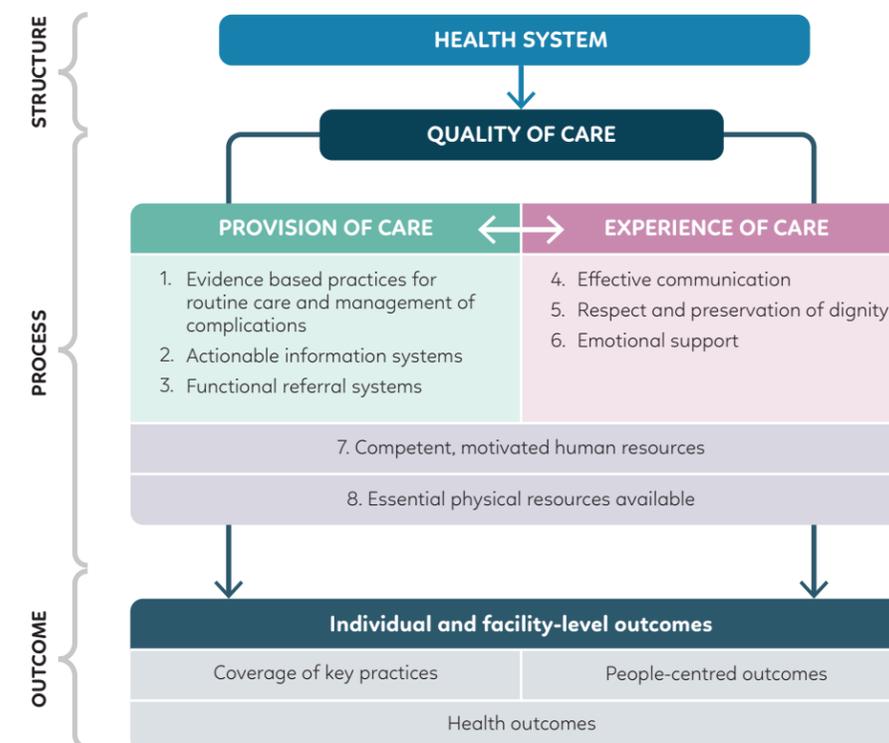


Figure 1: WHO framework for the quality of maternal and newborn health care

strengthening, demand generation via Social and Behavior Change Communication (SBCC) and strengthening data collection and utilization. The health system strengthening interventions are aimed to improve Sexual and Reproductive Health (SRH)/ Maternal and Newborn Health (MNH) outcomes for women and adolescent girls before, during, and after pregnancies. These interventions include the prevention of preterm birth and improving care for premature babies by providing quality, gender-responsive and adolescent-friendly, maternal, newborn, and reproductive healthcare.

Evidence has shown that quality Reproductive, Maternal, Newborn, and Child Health (RMNCH) care services save lives. Studies have demonstrated that with the full package of midwifery care, including

family planning, 83% of all maternal deaths, stillbirths and newborn deaths can be averted⁴. However, implementation of the key RMNCH packages such as ANC is facing significant quality issues despite high coverages being reported by countries⁵. One way of improving the quality of midwifery care is through a clinical mentoring program to build the knowledge and skills of the health staff involved in RMNCH services. In Nepal, onsite clinical mentoring of nurses, coupled with health facility management mentoring, improved nurses' clinical competencies in maternity and newborn care⁶. The World Health Organization (WHO) recommends eight standards that should be met in health facilities to ensure mothers' and newborns' quality of care (Figure 1)⁷.

Traditional assessments of quality of care also factor in physical infrastructure and human resources, including knowledge, skills, capacity of health care professionals (HCPs), and adequate number of health workers to deal with normal pregnancies and complications requiring prompt, life-saving interventions. **A 2016 national Emergency Obstetric and Newborn Care (EmONC) assessment in Ethiopia showed low knowledge levels in critical maternal and newborn care areas among midwives and nurses. On average, midwives scored 60 out of 100 on the primary aspects of focused antenatal care and elements of a birth plan.**

The study also found that only half of the midwives and health officers and one-third of nurses knew to provide a magnesium sulfate loading dose for management of eclampsia. Another study on the quality of RMNCH Care in Ethiopia, covering a total

Quality of care is “the extent to which health care services provided to individuals and patient populations improve desired health outcomes. In order to achieve this, health care must be safe, effective, timely, efficient, equitable and people-centered”

— World Health Organization (WHO)

of 32 health facilities (5 hospitals and 27 health centers) in four regions, showed that most health facilities did not meet the national RMNCH quality of care standards⁸.

⁴ [https://www.thelancet.com/journals/lancet/article/PIIS0140-6736\(14\)60790-X/fulltext](https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(14)60790-X/fulltext)

⁵ <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4168625/>

⁶ BMC Nurs. 2020 Jan 8; 19:3. doi: 10.1186/s12912-019-0396-https://pubmed.ncbi.nlm.nih.gov/31920460/

⁷ While BOT's health system strengthening interventions were comprehensive and covered all of the eight standards, this best practice documentation details efforts made specifically within two of the standards: "Standard 5: Women and newborns receive care with respect and preservation of their Dignity" and "Standard 7: For every woman and newborn, competent, motivated staff are consistently available to provide routine care and manage complications."

⁸ https://www.researchgate.net/publication/348665643_Quality_of_Maternal_and_Newborn_Health_Care_in_Ethiopia_A_Cross-Sectional_Study

According to the Ethiopian DHS 2019 survey, in the Amhara region, 82.6% of pregnant women received antenatal care from a skilled provider, 55.7% delivered assisted by a skilled provider, and only 39.8% of women had a postnatal check during the first two days after birth. The low rate of births assisted by a skilled provider and the large percentage (two-third) of mothers who did not get any postnatal check two days after birth calls for measures that increase access to quality RMNCH services in the region.

Another assessment in the Amhara region, looking at the quality of midwifery care during labor, delivery, and the immediate postpartum period showed that 16.5% of midwives were incompetent in intrapartum care and 9% of midwives observed while



managing obstetric and newborn complications were incompetent. The assessment also found that performance improvement opportunities for midwives were inadequate with only 31.3% reporting emergency obstetric and newborn care training and only 44.7% quarterly or more frequent supportive supervision⁹.

In 2014, the Ministry of Health (MoH) Ethiopia, in collaboration with the Children's Investment Fund Foundation (CIFF), introduced a pilot midwife mentoring program to support 100 Woredas in Amhara, Tigray, Southern Nations Nationalities and People, and Oromia regions. A year later, an assessment of the mentoring program indicated that a lack of standardized guidance was the primary challenge to the program's effectiveness. In response, the MOH introduced a comprehensive mentoring manual for RMNCH services to ensure a standardized approach to midwife mentoring and supportive supervision¹⁰.

The CHAI (Clinton Health Access Initiative) evaluation of the pilot midwife mentoring program in 10 health centers showed an increase in the mentees' knowledge level from 67.6% to 86.3% and improved skill level from a baseline of 53.5% to 84.4% in managing major causes of maternal mortality and in reducing unnecessary referrals to hospitals¹¹. A comparative study between eight implementation Woredas (out of 25) and four non-implementation Woredas, a year after the start of the pilot program showed that the Senior Midwives Mentorship (SMM) model appears to have been effective in building the capacity of HCPS to provide RMNCH services, improving the quality of service provision, and the continuum of care¹².

⁹ <https://bmcpregnancychildbirth.biomedcentral.com/articles/10.1186/s12884-017-1441-2>

¹⁰ Manual for Comprehensive Mentoring in Maternal and Newborn Health Services, FDRE, MOH, 2016

¹¹ A pilot implementation report from CHAI

¹² https://ciff.org/wp-content/uploads/2019/09/EthiopiaMidwifeMentoring_TwoPager.pdf

A 2016 national Emergency Obstetric and Newborn Care (EmONC) assessment in Ethiopia showed low knowledge levels in critical maternal and newborn care areas among midwives and nurses. On average, midwives scored 60 out of 100 on the primary aspects of focused antenatal care and elements of a birth plan.

Alongside the MOH's success, World Vision Ethiopia has had over seven years of experience implementing senior midwife clinical mentorship programs to improve midwives' skills working in remote health centers. Recognizing the success of the approach, BOT identified clinical mentorship as one of the key approaches for improving RMNCH care of quality, specifically to support health facilities in meeting standards five and seven of the WHO quality of care standards. The clinical mentorship program aims to equip HCPS with the knowledge and skills to provide quality care to pregnant women, newborns, and children.



IMPLEMENTATION



THE MAIN OBJECTIVE OF BOT'S CLINICAL MENTORSHIP APPROACH WAS TO IMPROVE THE HCP'S CAPACITY TO DELIVER QUALITY MATERNAL AND NEWBORN CARE, INCLUDING PRENATAL, DELIVERY AND POSTNATAL CARE, FAMILY PLANNING, CHILD HEALTH, AND PREVENTION OF MOTHER-TO-CHILD TRANSMISSION (PMTCT) OF HIV, IN A COMPASSIONATE AND RESPECTFUL WAY.

The project used the MOH guideline and Standard Operating Procedures (SOP) in its implementation of clinical mentoring. The clinical mentorship program includes in-service training and clinical mentoring on a range of thematic areas such as BEmONC, Emergency Newborn Care (ENC), and management of Neonatal Intensive Care Units (NICU). BOT implemented the clinical mentorship approach by targeting health facilities that were identified by the District Health Office for improvement. District Health Offices were also responsible for recruiting clinical mentors from among health staff in the district who had high performance and experience to serve as mentors.

BOT conducted the clinical mentors training in collaboration with the Amhara Regional Health Bureau (RHB), Gondar University, and the Amhara Midwifery Association. Prospective clinical mentors were recruited based on the following minimum criteria:

1. Minimum of Bsc in Midwifery and clinical nursing or Health Officer training or nursing and adequate years of clinical experience in RMNCH services;
2. Training and experience in the technical areas of RMNCH particularly on Basic Emergency Obstetric and Neonatal Care (BEmONC) and Post-Partum Family planning (PPFP);
3. Strong oral and written communication and interpersonal skills;
4. Willing to routinely participate in clinical updates and other continuing professional development activities; and
5. Personal characteristics conducive to clinical mentoring, including leadership and the desire to help others.

BOT conducted the clinical mentors training in collaboration with the Amhara Regional Health Bureau (RHB), Gondar University, and the Amhara Midwife Association.

In total, 173 HCP were trained in clinical mentoring skills in two rounds, first batch in year 2 and second batch in year 4. The training was comprised of a four-day theoretical session, followed by a one-day practical session. A section of the training sessions was focused on the skills and competencies



“After assessing eight health centers in the Woreda, we decided to focus on two health centers that needed most a mentoring program due to the large number of clients they serve in the health facility and the skills gap we have observed among the HCPs. The Woreda health office’s role was to monitor the mentoring program’s progress and support mentors and the health centers in logistics.”

— Genetu Degu, Wegera Woreda Health Officer

necessary for mentoring and coaching, including orientation on the coaching and mentoring process and the principles of mentoring. The sessions also provided refresher training on the seven signal functions of BEmONC¹³, PMTCT, syndromic management of Sexually Transmitted Infection, and infection prevention. Only trainees who scored 80% and above were recruited to become clinical mentors for the BOT project.

Following the training, the District Health Office assigned the clinical mentors to the health facilities identified as needing improvement. All health centers within the BOT project districts were evaluated against the developed facility grading criteria. As a result, 12 HCs were categorized under the excellent category, 17 HCs were categorized under very good, 62 HCs were categorized under good, and 25 HCs were categorized under the weak category. Based on the findings from the exercise, the BOT team agreed to conduct the supportive

supervision and clinical mentoring visits at the health facilities that are categorized under weak and good every quarter and the health facilities categorized under very good and excellent to visit them once in a year.

The selection of weak health facilities included remote health facilities, those with staff recruited recently, communities with a high burden of

maternal and child health issues, and facilities that had not received similar training in the past. BOT was responsible for covering the clinical mentor’s expenses during the implementation period, while the District Health Office and the health facility provided transportation when available.

In each health facility, three to four HCPs whose role was directly related to RMNCH care were identified as mentees. The majority of mentees identified were nurses serving in the delivery room and neonatal care units.

Based on the MOH SOP for clinical mentoring, mentors conducted baseline assessments using standard clinical mentoring checklists to identify capacity gaps among HCPs in the domains of knowledge, skills and attitudes in the selected HFs. Using the clinical mentoring approach, clinical mentors encouraged mentees to maintain skills where they demonstrated strengths, while supporting them to improve the gaps in skills observed during the assessment.

Based on the results of the assessment, clinical mentors developed a training plan with mentees that included practical sessions during service delivery to patients visiting the health facility. The training package covered similar content to the courses that HCPs received in nursing school and builds upon their skills through practical demonstration and real-life scenarios. Mentors were provided with a range of tools including baseline facility assessment template, mentoring logbook, mentoring checklist, counselling tools, weekly reporting template, etc.



¹³ Signal functions for BEmONC consist of life-saving treatments and procedures including administration of parenteral antibiotics, anticonvulsants and uterotronics, manual removal of placenta, removal of retained products, essential newborn care (basic neonatal resuscitation) and assisted vaginal delivery. Monitoring emergency obstetric care handbook, WHO 2009



Clinical mentors traveled to the health facilities to provide onsite hands-on training and mentoring to the mentee every month for three to five days, for six months, depending on the schedule agreed upon between the health facility, the clinical mentor, and BOT project facilitators. As a result of the joint implementation of clinical mentoring and supportive supervision, in addition to mentoring the HCPs on their knowledge, skills and attitudes, the clinical mentors also contributed to the identification and addressing of key operational gaps and lack of supplies that were undermining RMNCH service quality at the health facilities.

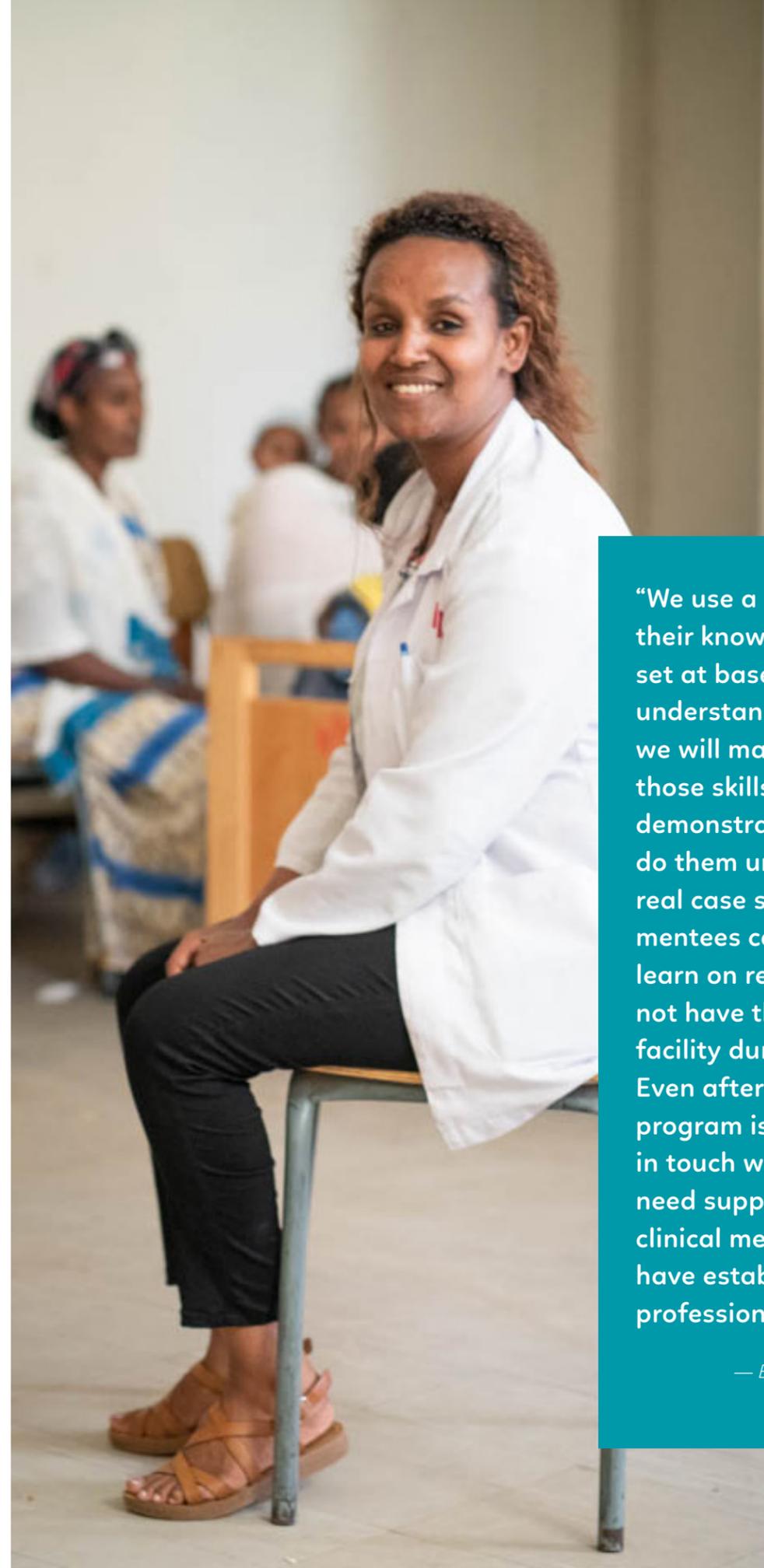
To date, more than 100 health facilities have received clinical mentoring support, with many of them receiving multiple visits each year as they were identified as weak health facilities. All clinical mentoring visits were complimented with supportive supervision visits by district and zonal health officers to ensure operational and logistic challenges were addressed in a timely manner to ensure maximum impact of the clinical mentoring support. Supportive supervision visits included

officers from the Woreda health offices and HCPs trained by BOT as clinical mentors. Supportive supervision and clinical mentoring visits allowed supervisors and clinical mentors to work with service providers within their health facilities to address any programmatic or technical gaps that might exist and to provide appropriate solutions for any emerging operational issues.

After the first mentoring visit, clinical mentors followed-up with the mentees in person and over the phone to ensure that they were putting into practice the lessons learned. Among the objectives of the follow up visits are: to evaluate the overall performance of the health center against the developed action plans; to evaluate mentees performance against targets and action plan; and to identify challenges and proposed possible solutions and prepare/ update the action plan.

During the follow-up visits, mentors check on referral cases sent to the referral hospital to learn the reasons for the referral and the care provided in the health facility before referring the patient in order to create a learning opportunity. Mentors also used evaluation tools to determine if the objectives of the mentorship engagement have been met at individual and facility level including minimum scores for mentees to graduate and be considered as potential mentors.

To assess the impact of the approach in improving quality of care in the targeted health facilities, three Focus Group Discussions (FGDs) with 15 mentees and three Key Informant Interviews (KIIs) with five clinical mentors were conducted. Six District Women, Youth and Child Affairs (WYCA) officers and health managers from health facilities with a mentoring program provided additional information on the clinical mentoring program and its outcome.



“We use a checklist to assess their knowledge level and skills set at baseline. This helps us to understand their skills gap. Then, we will make sure that they learn those skills practically through demonstrations. We help them to do them under observation on a real case scenario. Sometimes, mentees come to the hospital to learn on real cases when they do not have those cases in their health facility during the time of our visit. Even after the clinical mentorship program is over, mentees keep in touch with us whenever they need support. Through the clinical mentorship program, we have established a long-term professional support system.”

— Bisrat Wolde, a mentor from W Gojam, Mecha Woreda, Mari Hospital



RESULTS

THE RESULTS OF THE FOCUS GROUP DISCUSSIONS (FGD) INDICATED THAT THE CLINICAL MENTORING PROGRAM HELPED TO IDENTIFY KNOWLEDGE AND SKILL GAPS AMONG HEALTH FACILITY STAFF IN PROVIDING RMNCH CARE SERVICES.

At the same time, the approach was successful in responding to those gaps by building HCP capacity to improve the quality of service they provide in their health facilities. Both mentees and clinical mentors indicated that they felt that the health facilities provided **a better**

quality of care following the clinical mentorship program.

The clinical mentors also indicated that the program indirectly helped them to keep up-to-date with the current practices and management protocols.

Among the specific areas of impact, the clinical mentoring program also improved referral practices. Before the introduction of the clinical mentoring program, cases that should have been manageable at the health center were being referred to the district hospital, resulting in an overburden of district hospitals and subjecting patients to unnecessary travel expenses and time burden.

Due to improvements in HCPs case management skills, health facilities with a clinical mentoring program only referred selected cases that needed further investigation and care to the next higher-level health institution. **Following the clinical mentorship program, the number of unnecessary**

referral cases to the district hospital has markedly reduced.

In comparison to health facilities without a clinical mentorship program, mentors said that facilities with a clinical mentorship program provided better service as demonstrated by their regular monthly report and reduction in maternal and newborn deaths while in treatment.

“Mentoring has helped develop the desire, confidence and skills to do things that mentees were unable to do in the past. Mentoring helped to expand some services e.g. Family planning from pills and progesterone injection to include contraceptive implants (increased to 80%)”

— *Alebachew Bere,*
a mentor from Addis Zemen Hospital

Other specific achievements observed included **improved obstetric care** with mentees starting to use appropriate protocols in managing preeclampsia and eclampsia (use of magnesium sulfate), monitoring progress during labor using a partograph, providing

“The clinical mentoring program in our health center started last year, to address capacity gaps we have following an assessment introduced by the mentor. The health center has 46 staff and eight of us working in the maternal and child health department have gone through the mentorship program. The mentoring program is interesting. It is better than a classroom training because we learned new practical skills from the mentor who had previous experience. For example, we had a gap in using the register and completing the gestational period on the mothers’ card. The training also helped us to distinguish between cases that we should refer and those we can provide support at the health center. E.g., induced abortion cases. During our weekly meeting with health extension agents, we discuss about cases referred to the health center and those whom we have referred to the extension agents for follow-up after receiving support at the health center.”

— Zemenay Ayalew, a nurse from Tikel Dengaye Health Center, Armacheho Woreda.

assisted delivery using vacuum extraction, and a perceived reduction in maternal deaths as observed by the mentors and mentees.

Mentees also testified that **clinical mentoring increased their confidence and empowered them** with skills critical to saving preterm babies and their mothers. **Over 90% of the mentees who participate in the FGD rated the clinical mentorship program four out of five (one being not beneficial and five being very beneficial) for helping them learn new skills that enabled provision of quality RMNCH care.**

The District health managers further acknowledged the benefits of the clinical mentoring program in strengthening health facilities’ capacity through staff training and its contribution to addressing operational including availability of medical supplies. Because of the clinical mentorship program, health

supervisors and clinical mentors visiting health facilities have observed firsthand, the challenges that HCPs in rural health centers encounter on daily basis. As a result, they state that they have now become advocates for improved support for RMNCH services in rural health facilities.

Despite the success, clinical mentors reported a few challenges. For example, in some instances, clinical mentors had to travel on foot or the back of animals for long hours to get to the health facilities inaccessible by car. In addition to the transportation challenges, clinical mentors reported a wide range of structural and systemic problems ranging from the poor infrastructure of the health facilities, to shortage of medical supplies and drugs in most health facilities.



“Following the mentoring program, we have observed a difference in the quality of service HCPs provided. They perform much better than the other health centers that didn’t go through a mentoring program.”

— Genetu Degu, Wegera Woreda Health Office

Genetu Degu, Wegera Woreda Health Officer, believes that the mentoring program has improved the quality of service provided in the health facilities by building the capacity of the HCPs: “Following the mentoring program, we have observed a difference in the quality of service HCPs provided. They perform much better than the other health centers that didn’t go through a mentoring program.” Mr Degu said, His office would love to continue the mentoring program after BOT phases out, although they may not have all the resources to provide the kind of support that BOT did.

LESSONS LEARNED



Mentees, clinical mentors, and district health managers acknowledged that the clinical mentoring program boosted health workers' confidence and enhanced skills needed to provide quality care to the rural communities. Its peer-based approach helped establish a long-term professional support system between the mentees and clinical mentors beyond the project timeframe. Although clinical mentors mentioned several challenges, the program helped them to advocate for rural health facilities to relocate resources to areas where medical supplies are needed most.

Unlike residential training, the clinical mentoring program provides the opportunity to explore each mentee's strengths and limitations and offers training based on observed capacity gaps. The clinical mentoring program's practical nature created a learning platform for mentees to gain practical knowledge, practice patient care and demonstrate skills in the clinical mentors' presence and receive tailored training and coaching from seasoned practitioners. In some cases, it was challenging to get enough cases for practical demonstration at the time of the mentoring visits. As a result, mentees were required to visit the referral hospital for practical demonstration sessions after the clinical mentoring visits were completed.

The clinical mentoring program has brought together key RMNCH stakeholders, including the District Health Office, referral hospitals, health facilities in remote areas, and the BOT facilitators, to improve service quality. Active involvement of the district health managers in selecting health facilities for the clinical mentorship program, following up the implementation of the clinical mentoring program, and providing logistic and administrative support to the mentors resulted in maximum local ownership of the program and will ensure continuity beyond BOT's project life.

Although the clinical mentoring program has made a significant contribution to improving RMNCH service quality, experience showed that clinical mentoring should go hand in hand with supportive supervision to address operational issues and other interventions such as ensuring availability of key supplies and improving health infrastructure in order to be successful. In addition to the HCP capacity gaps, poor infrastructure in rural health facilities including Water, Sanitation and Hygiene facilities and power supply systems are major challenges for quality RMNCH services.

CONCLUSION

In conclusion, BOT's clinical mentorship program has significantly contributed towards improvement of quality of RMNCH care. In addition, the clinical mentoring approach improved mechanisms for identifying and addressing structural and operational issues, including supply chain, referral and infrastructure problems. The approach also fostered opportunities for stakeholder collaboration where health managers (District and Zonal), RMNCH service providers (health facilities and HCPs) and NGO programs like BOT could come together and address some of the root causes of poor maternal and newborn health outcomes including preterm birth.

Clinical mentorship programs are an important approach for in-service capacity building for HCPs in targeted areas and should be considered by RMNCH policy makers and program managers in LMICs.

Program managers should also address structural and operational bottlenecks to ensure that capacity building of HCPs translates in to improved quality of service for women and children.

Finally, health facilities in remote communities that are typically staffed by junior HCPs and face other structural and operational challenges should be prioritized for capacity building for maximum impact on maternal and newborn morbidity and mortality.





Born on Time is **the first public-private partnership dedicated to the prevention of preterm birth**, bringing together the collective expertise of World Vision Canada, Plan International Canada, Save the Children Canada, the Government of Canada and Johnson & Johnson.



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