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Maternal and Child Survival Program

MCSP Madagascar Technical Brief
Human Capacity Development Approach

February 2019

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Background

A 2014 study conducted by the United States Agency for International Development's Maternal and Child Survival Program (MCSP) in 56 sample facilities in 15 regions of Madagascar to assess the status of maternal and newborn health (MNH) and family planning (FP) service delivery found low levels of training among clinical providers to deliver these services. Only 50% of ob-gyns had been trained in antenatal care (ANC), respectful maternity care, emergency obstetric and newborn care (EmONC), and postpartum care. The numbers for midwives at primary health facilities were even lower: Only 19% were trained on EmONC and on postpartum care, and only 6% were trained on ANC and MNH. Reasons for the training gap included MNH and FP skills and competencies not being taught through pre-service education (PSE) and a lack of in-service training opportunities.

Midwifery interns receive MCSP-supported training on newborn resuscitation. Photo by Karen Kasmauski, MCSP.

Implementation Approach

As part of its support to the Madagascar Ministry of Public Health (MOH) to implement the national Roadmap to Accelerate the Reduction of Maternal and Neonatal Mortality for 2015–2019, MCSP strengthened the capacity of clinical providers at the every level of the health system to deliver quality MNH services. MCSP worked toward this goal by supporting the development of a national MNH curriculum, providing in-service capacity-building, supporting improvements to the PSE learning environment, and building in-country capacity to sustain interventions.

1. Developed a National MNH Curriculum

When MCSP began its work in 2014, Madagascar did not have an approved, standard MNH curriculum for use in in-service trainings. With the MOH's approval, MCSP developed a day-of-birth MNH curriculum for use in training while the national MNH curriculum was under development. Starting in 2017, a technical working group, on which MCSP served, supported the MOH in finalizing the national MNH curriculum, using materials including those from MCSP's day-of-birth curriculum. The national MNH curriculum, which includes FP, was approved and technically validated in April 2018 for use by all cadres of clinical providers in health facilities at all levels.

MCSP is currently supporting its revision to include content on treatment of possible serious bacterial infections in newborns. The technical working group also developed national supportive supervision tools aligned with the curriculum to ensure standardized and systematic evaluation and continuous improvement of quality of care.

Topics Covered in the National MNH Curriculum

- Focused ANC
- Normal birth, including active management of the third stage of labor
- Newborn resuscitation
- Management of postpartum hemorrhage, including use of uterine balloon tamponade
- Management of maternal and newborn infection
- Management of severe pre-eclampsia/eclampsia
- Infection prevention and control
- Respectful maternity care
- Postnatal consultation
- Vacuum-assisted delivery
- Management of preterm labor
- Management of low-birthweight babies
- Postpartum FP with counseling on intrauterine devices and hormonal implants
- Prevention and management of uncomplicated and severe malaria

2. Provided In-Service Capacity-Building

Cascaded Training

MCSP worked with the MOH Family Health Directorate to identify national trainers and trained them in MNH best practices, first using the day-of-birth curriculum and later using the national MNH curriculum. The training included regular skills practicum components. MCSP also conducted a workshop to build training skills among the participants. The national trainers and MCSP staff then provided the same trainings to 250 regional trainers.

The regional trainers worked with MCSP regional staff to provide in-service training to all cadres of clinical providers involved in MNH care in more than 815 facilities in 16 of the country's 22 regions, covering 73% of all districts. After 3 years of implementing trainings, MCSP reached 751 providers with the classic, workshop-based training approach and 703 providers with the low-dose, high-frequency (LDHF) approach (described below) for a total of 1,454 providers. In all, 41% of Madagascar's estimated 3,546 providers in the 16 implementation regions received training.

LDHF Capacity-Building Plan with Mentorship and Supportive Supervision for Accessible Sites

MCSP's original training model organized trainings at the regional level, allowing participants to practice skills in regional hospitals, which have a higher volume of deliveries. Five weeks of trainings (4 weeks on MNH and 1 week on FP) were spread over 6 months to avoid long absences of providers from their facilities. The 6-month cycle also allowed for dedicated post-training follow-up and practice sessions to reinforce skills acquired in training.

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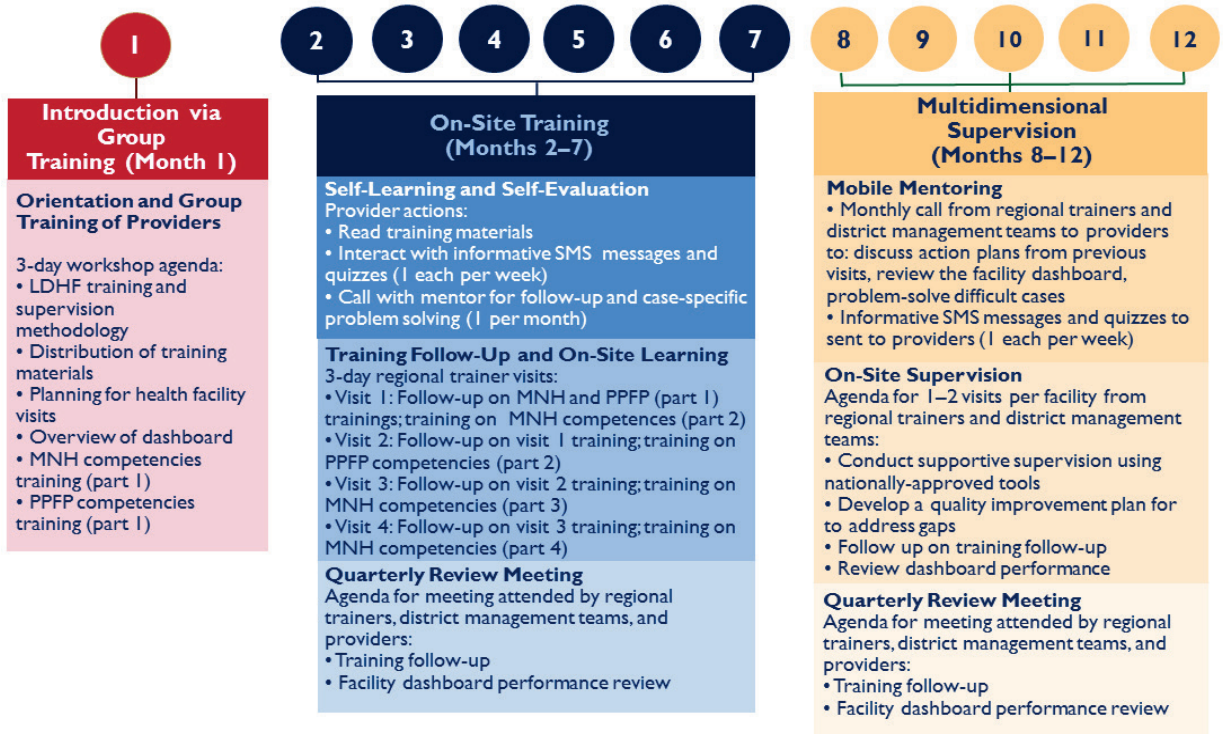
At the end of 2016, the MOH issued a new directive that providers were not permitted to leave their health facilities for more than 1 week per quarter, meaning that MCSP's original training model was no longer implementable. Thus, MCSP developed the LDHF capacity-building plan (used through the end of MCSP's activity period) shown in Figure 1. The approach used short, targeted, simulation-based learning activities, which were spaced over time and reinforced with structured, ongoing mentoring and practice sessions at the job site.

To complement onsite learning and provide opportunities for future practice, MCSP provided models and equipment to create skills labs in each district for use by trainers and individual providers. In addition, MCSP built the capacity of districts to continue onsite supervision and quarterly review meetings after the 12-month LDHF training period.

Figure 1. Timeline for Capacity Strengthening of Providers in Accessible Health Facilities



Modified LDHF Capacity-Building for Inaccessible Sites

Some sites were not accessible to trainers because they were in areas that were difficult to reach or posed security risks. MCSP supported these trainers in coordinating the calendars for these facilities and arranging for quarterly two-to-three-day trainings for providers in the district skills laboratories when they traveled to the district health office to receive their paychecks. Trainers conducted supportive supervision and mentoring through skills laboratory practice sessions using checklists and remotely via phone.

3. Improving the PSE Learning Environment for Midwives

According to MCSP's 2014 study, public midwifery PSE training institutions did not conform to International Confederation of Midwives (ICM) standards on curriculum, preparation of tutors and clinical preceptors, and training materials and equipment. To address these issues, in coordination with the MOH's Pre-Service Institution Division and partners, MCSP provided the support described below to the country's six faculties of medicine, under which sit the six public midwifery PSE institutions (*l'Institut de Formation Inter Régional des Paramédicaux*, or IFIRPs). MCSP also supported 27 private midwifery PSE institutions.

Midwifery Curriculum Revision for PSE

At MCSP's start, all PSE institutions had been using the same curriculum for more than 5 years, and half had not revised their curriculums since they opened. In 2015, MCSP and key partners supported revision of the midwifery curriculum to reflect ICM and World Health Organization standards.

Capacity-Building for Instructors

To aid PSE institutions in implementing the updated midwifery curriculum, MCSP, in collaboration with the faculties of medicine and the National Order of Midwives of Madagascar, provided standardization sessions on the most recent MNH global recommendations and standards. Sessions, which included practicum components, were provided to all instructors from IFIRPs and selected instructors from private institutions. MCSP also provided trainings on effective teaching to PSE teachers, monitors, and preceptors to improve

their teaching skills and ability to assess student skills. To reinforce learning from the trainings and increase the quality of teaching, staff from MCSP, the faculties of medicine, and the Pre-Service Institution Division conducted supportive supervision visits for PSE instructors at the IFIRPs and private institutions. They evaluated teaching competencies using a checklist, conducted spot checks with students to determine whether they were retaining the content, provided feedback to instructors on areas of weakness, and helped instructors and management staff develop action plans for continuous improvement.

Skills Laboratory Setup

In 2015–2017, MCSP supported the setup of skills laboratories in each IFIRP and at the National Order of Midwives of Madagascar office. MCSP supported the IFIRPs to identify and prepare a room for the lab, and provided equipment and materials needed. MCSP also trained staff from each IFIRP in the management of the skills labs, including on how to set up schedules for students to use the labs, how to set up stations, how to ensure that students use the equipment correctly, and how to maintain the equipment.

4. Building In-Country Capacity to Sustain Interventions

MCSP worked directly with the regional and district management teams to build their capacity so they can support continued capacity development for health providers after MCSP's close. More than half of the regional trainers came from the regional and district management teams, and all of MCSP's activities starting in 2016 were done in close collaboration with representatives from these teams. In addition, MCSP's training and supportive supervision interventions in PSE institutions included staff from the faculties of medicine. Thus, in-country stakeholders now have the information and tools they need to manage supportive supervision and mentoring interventions, and to continue in-service training and PSE; MCSP will continue to follow up on and support these efforts through its close.

MCSP also provided financial backing and technical support to set up regional training offices. These offices are responsible for managing, coordinating, and monitoring regional human resource development interventions, including training and development of health personnel. In December 2017, MCSP supported the MOH to operationalize the regional training office in the Alaotra-Mangoro region by conducting an 8-day workshop with regional training office staff to refresh their skills in training, needs assessment, and organizational and institutional capacity-building. MCSP also supported the regional training office to develop a 6-month action plan and conducted two follow-up/supervision visits each quarter. MCSP will support the operationalization of an additional four regional training offices before the close of the program.

> *"Reminders of the theories and practice done during the supervision visits help refresh our memories until [these skills] become habits in daily practice."*
> – MCSP-trained provider

Results

Effective In-Service Capacity-Building Resulting in Sustained Knowledge Retention

An endline MNH provider knowledge test found that 86% of providers (55/64) scored above the benchmark of 85% required for participants to graduate from training, while the endline PPFP provider knowledge test showed that 89% of providers (57/64) scored above the 85% benchmark. This endline assessment measured provider knowledge retention months after they received training (number of months varies according to training date).

When asked about their capacity building experience, providers noted that the LDHF approach made them feel more confident in their abilities and helped them to retain their competencies because it allowed for frequent practicing of skills under the observation of a supervisor who provided immediate feedback. Supervisors agreed that continued skills practice enabled by the LDHF approach gave providers the practical experience to translate skills learned in training into applied competencies with clients. They noted that over the course of implementation, they saw many of their supervisees improve and maintain skills that they had previously struggled with under a classroom training approach.

Improved Student Outcomes in PSE Education

An MCSP assessment of students' skills in two IFIRPs showed an improvement in student competencies. During the first evaluation, most students scored less than 90% on skills assessments in various areas, while the second evaluation showed significant improvements, as shown in Figure 2.

Increased Service Coverage

The catchment areas of the facilities at which providers received capacity development under MCSP includes an estimated 17,756,353 beneficiaries in the 16 regions, who now have access to improved health care services (see Figure 3 and 4).

Figure 2. Improved Skills Demonstrated by Students in Two Training Institutions who Have Access to Updated Skills Labs through MCSP Support (N=31 Students)

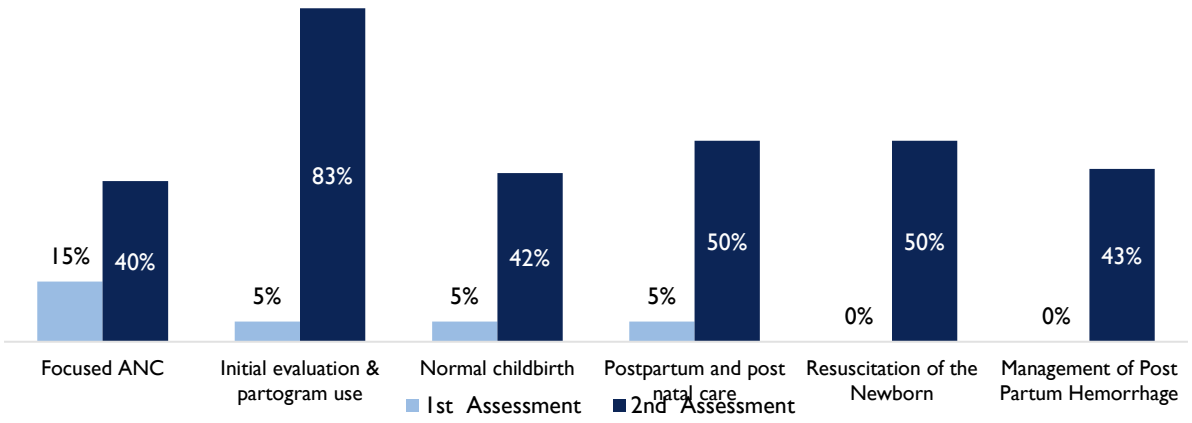
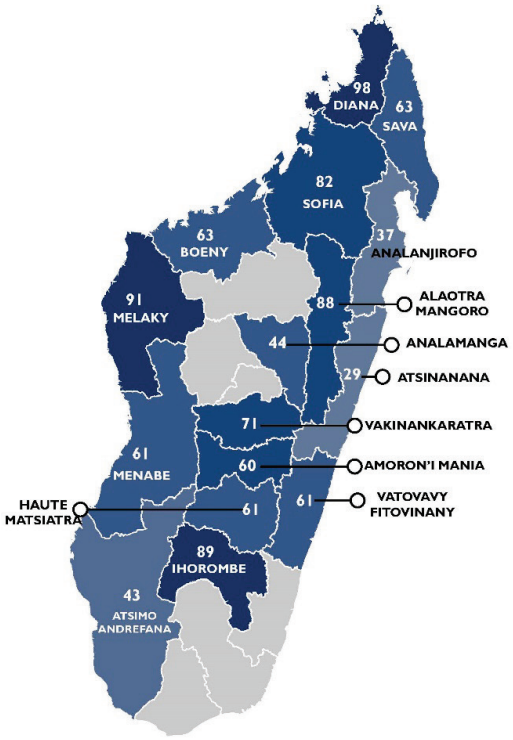


Figure 3. Significant Regional Coverage of Lower-Level Health Centers (CSBs) that Received Equipment and Training for Providers from MCSP (December 2017)



Improved Outcomes for MNH and FP

Clinical outcomes during LDHF implementation showed improvements. The proportion of women screened for pre-eclampsia and eclampsia through a blood pressure check during ANC rose from 41% in August 2015 to 92% in March 2017 and continued to increase to 96% in June 2018 in CSBs (see Figure 5). The proportion of women discharged with contraception method of their choice increased from 8% in March 2016 to 20% in March 2017, continuing to increase to 21% in June 2018 (see Figure 6). In addition, the maternal mortality ratio decreased during the same period from 242 deaths per 100,000 live births in August 2015 to 20 deaths per 100,000 live births in August 2018 (see Figure 7). These data show that CSB-level care continued to improve after the initial trainings through LDHF implementation.

Figure 4. Increasing Percent of Women Screened for Pre-Eclampsia and Eclampsia with a Blood Pressure Check During ANC Visits in CSBS, August 2015–June 2018 (N=1,002,989 Total ANC Visits in Which Women's Blood Pressure was Checked in 513 CSBS)

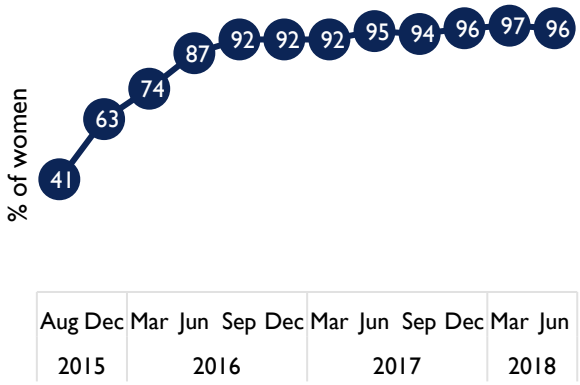


Figure 5. Increasing Percent of Postpartum Women Discharged with an FP Method Of Choice In CSBS, March 2016–June 2018 (N= 28,204 total postpartum women discharged with a FP method of choice in 513 CSBS; does not include lactation amenorrhea method)

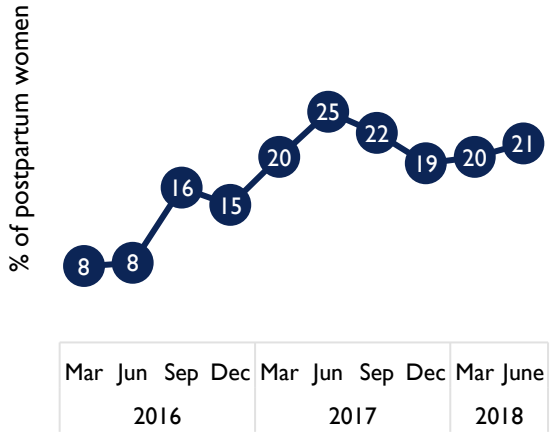
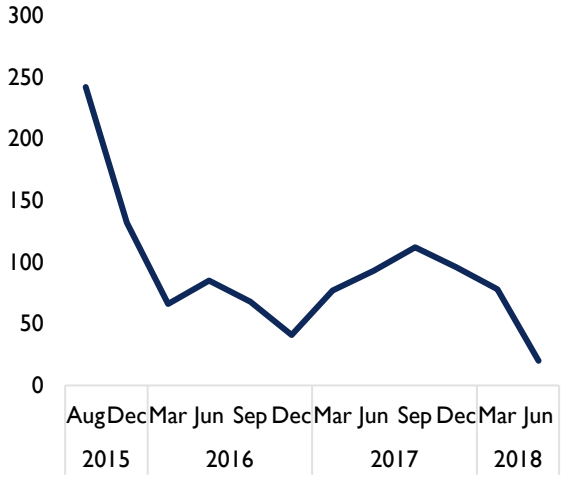


Figure 6. Decreasing Maternal Mortality Ratio in CSBS, August 2015–June 2018 (N=191,437 total women delivered and 151 total maternal deaths in 513 CSBs)



Lessons Learned and Recommendations

- **The LDHF model enables clinical providers to be trained without compromising care for patients.** The model allowed MCSP to ensure high-quality training of clinical providers across the 16 regions while enabling clinical providers to remain at their posts. In addition, mobile mentoring enabled consistent capacity-building with health providers working in inaccessible areas.

- **The LDHF approach may be more effective than traditional workshop-based training approaches.** During qualitative data collection, many providers noted that the hands-on, frequent practice enabled them to improve and maintain multiple, complex skills, such as care around the time of birth, in ways that were not possible in traditional classroom trainings. They noted that having a trainer work with them and observe them practicing skills led them to improve and feel more competent. The trainings appeared to be more effective than traditional trainings, which provide all information through a single, extended workshop.
- **Onsite trainings reach more clinical providers and combat challenges with clinical provider departure.** Providing onsite training and supportive supervision enabled training and support for all providers in a health facility. This method of training helped to combat any loss of capacity resulting from the retirement or reassignment of trained providers, since capacity was built for all facility providers.
- **A training strategy is essential to ensuring effective capacity-building.** A training strategy that includes curriculum development, training, and follow-up through supportive supervision and mentoring, rather than multiple ad hoc trainings, is essential to ensuring comprehensive, sustainable capacity-building for clinical providers.
- **Capacity-building must be accompanied by improvements to health facility processes, management, and supply chains.** Human capacity development efforts must be combined with efforts to improve the overall quality of service provision in health centers (e.g., by improving patient confidentiality and patient management) and ensuring the availability of necessary medical equipment and supplies. Otherwise, clinical providers will not be able to achieve the expected level of performance. MCSP provided this support through other program interventions.
- **The MOH should continue to support the operationalization and continued work of the regional training offices.** MCSP's endline report found that due to provider rotations, 40% of providers in MCSP-supported facilities joined the staff after trainings had been conducted. Thus, a system for sustaining in-service trainings is essential. Regional training offices are well placed to ensure effective continuation of capacity-building for clinical providers. They should continue to be supported to use more innovative, engaging training approaches and continuously develop action plans that support human capacity development in the health sector.
- **The MOH should continue in its efforts to update the national training policy.** The policy should incorporate some of the human capacity-building approaches described here that have proven effective in Madagascar. These approaches include LDHF trainings, supportive supervision, and in-person and mobile mentoring.

Training in Action

When midwife Marielle Bezafy (Rasazy) began her job as the provider in charge of a CSB delivery ward, she was provided with newborn resuscitation equipment but was unsure how to use it. In July 2015, Rasazy participated in an MCSP-organized training, where she received hands-on training in MNH topics, including newborn resuscitation. One month later, when Felicie Raharinirina came to the CSB to deliver her baby, Albert, he was born in fetal distress and needed to be resuscitated. Rasazy used the new skills she had gained during training, along with the resuscitation equipment with which she had been provided. After suctioning, stimulation and ventilation, Albert began to breathe.

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