



Kintambo Model Training Center A sustainable learning space

April 2019

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Context

In the Democratic Republic of Congo (DRC), one quarter of under-five mortality takes place within the first four weeks of life. In facilities, birth rates have increased to a reported 70% (2013-2014 DHS), yet persistent high national maternal (846/100,000 live births), neonatal (28/1,000 live births), and infant (58/1,000 live births) mortality underscore the need for improved quality and coverage of care at birth.

Poor quality pre-service education, techniques used in pre-service and in-service that are not competency based, limited opportunities to practice new skills, and infrequent post training follow-up and supervision are all underlying causes of weak health worker competencies. The infrastructure required to practice and deliver quality health services may also be missing at their workplaces.

USAID's flagship Maternal and Child Survival Program (MCSP) has worked in the DRC since 2015. One of its three objectives is to improve maternal and newborn survival through the provision of quality in-service training and pre-service education on key maternal and newborn health (MNH) and post-partum family planning (PPFP) interventions. MCSP's approach to human capacity development focuses on developing

individual health worker knowledge and skills through experience and practice, as well as improving the processes and performance of individuals and teams. To this end, in February 2018 MCSP began activities to establish a model training center (MTC) at Kintambo General Hospital in the capital city of Kinshasa, to reinforce skills and train providers in maternal, newborn, and PPFP care.

Two years after choosing the MTC, it is functioning under a management and technical committee of hospital staff and representatives of the DRC's Ministry of Health (MOH), with technical support from MCSP. The committee is responsible for the cost and management of the MTC, which is effectively supporting the MOH to build and strengthen the technical capacity of healthcare providers, trainees, and students so that they can provide better quality care to mothers and newborns.



Newly refurbished training room at the Maternity Department of Kintambo General Hospital's MTC. Supplied with training aids – flipbooks, posters and provider's guides - a projector and screen, and training equipment including model simulators, which are laid out on the desks for practice.

MCSP photo credit: Lydia Wisner

Identifying the Site

In January 2017, the MOH and MCSP began the process of identifying the MTC site. The terms of reference specified criteria for the choice of a facility that included a large patient volume, a good mix of maternal and newborn health services, reasonable equipment needs, and infrastructure that could be refurbished to meet the MTC's needs without new construction.

In March 2017, a team of MOH representatives and MCSP staff carried out a rapid assessment of three general reference hospitals in Kinshasa, using an assessment tool adapted by MCSP. Scores were given to each facility in six domains: (i) services offered; (ii) infrastructure; (iii) personnel; (iv) management of personnel; (v) performance; and (vi) experience managing clinical training.

The assessment team interviewed the hospital leadership and toured the inpatient maternal and pediatric wards, and the labor and delivery rooms in each hospital. The team identified Kintambo General Hospital in Kinshasa, which serves a population of 93,000, as the best option for the MTC. In addition to its high overall score, the hospital has an adequate number and mix of clients; was in relatively good condition in terms of its maintenance, sanitation, and hygiene; and offered space to extend services for a Kangaroo Mother Care (KMC) unit and a simulation lab. After this choice was formally approved by the MOH, MCSP and its counterparts from the MOH's Division of Family Health and Specific Groups (D10) worked together to conduct a more in-depth assessment of Kintambo General Hospital's needs.

In-Depth Assessment

In July 2017, MCSP and the MOH spent eight days conducting an in-depth assessment of Kintambo's maternity, pediatric, and FP services, which are housed in three distinct buildings within the hospital, using a five-module evaluation tool focused on (i) general information; (ii) provider interviews; (iii) maternal care; (iv) integrated maternal and newborn care; and (v) care of sick newborns. The results were analyzed and presented in a detailed evaluation report that was shared with the hospital management team. MCSP and the MOH then worked with the hospital to develop a rehabilitation plan and a list of its priority needs, addressing the report's conclusions. The resulting plan described the requirements for developing the MTC. These were subsequently included in a Memorandum of Understanding for signing by the hospital, MCSP's lead partner in DRC (John Snow, Inc.), and the MOH.

In addition to the rehabilitation plan, the evaluation also prompted the design of an action plan for carrying out onsite competency-based training and capacity building for the MTC providers and developing a system to support transfer of learning to the workplace using clinical mentors. The plan included benchmarks for maintaining high quality services and a protocol specifying performance standards for MCSP, the MTC, and the MOH. By stipulating and committing to such standards at the outset, MCSP ensured that activities were designed with an emphasis on quality and sustainability from the start.

Rehabilitation and Equipment

MCSP rehabilitated and equipped the MTC's maternity, pediatric, and FP clinics according to the rehabilitation plan, establishing training rooms in the maternity and general hospital wards, and painting the walls and adding curtains or room dividers to increase patient privacy at the FP counselling room at the Libota Lilamu FP clinic. MCSP procured 60 Laerdal training models, as described in Figure 1, which made it possible to conduct simulations of normal and complicated birthing scenarios, intrauterine device insertions, contraceptive implants, and newborn care. MCSP also procured teaching materials for maternal and newborn care and PPFP.

These training models supported training of national trainers as well as training of providers, both pre-service and in-service training, professional association members, students and trainees at the MTC. The training rooms, with anatomical models, provide a space where providers and trainees can continuously practice their skills.

Figure 1: Type and Number of Laerdal Global Health Anatomical Models Procured by MCSP for the MTC









MamaBreast (14): A wearable simulator that allows highly realistic simulation of breastfeeding and breastmilk expression.

Mama-U (8): Represents a postpartum uterus after birth. It supports training in treatment of postpartum hemorrhage and uterine balloon tamponade insertions and other postpartum uterus interventions.

<u>PreemieNatalie (12) and NeoNatalie (12):</u> An inflatable simulator designed to teach preterm skills and basic neonatal resuscitation skills, including the initial steps of resuscitation in the first 10 minutes of a newborn's life.

MamaNatalie (6): A birthing simulator that helps create realistic training scenarios.

MCSP finished rehabilitating the training and counseling spaces in June 2018, by which point, the MTC training space was already in use by the hospital providers and trainees. In July 2018, MCSP developed an additional action plan detailing the rehabilitation, staff training and operationalization of Kintambo's new KMC unit. MCSP's rehabilitation efforts transformed a derelict area of the hospital into a three-room wing where mothers have the space, privacy, and encouragement to practice KMC. The unit was fully refurbished and equipped by February 2019 with beds, dividers between the beds, a refrigerator for keeping expressed breastmilk (with plans underway to secure a generator for maintaining temperatures during power cuts), kitchen facilities, a living room area, and a television for the mothers' comfort and education.



The FP team at the Libota Lilamu Clinic of Kintambo General with MCSP's Newborn Health Advisor, Dr. Josée Mwiyaso (right).

MCSP photo credit: Lydia Wisner

Training and Clinical Mentoring

In early 2017, MCSP invited MOH representatives, members of Congolese professional associations, and other stakeholders to participate in the adaptation of an integrated training package targeting the mother-baby dyad on the day of birth and during the immediate postnatal period. The package, which presents high-impact, evidence-based interventions, focuses on MNH and PPFP and includes elements of the American Academy of Pediatrics' (AAP) Helping Babies Survive learning suite (Helping Babies Breathe, Essential Care for Every Baby, Essential Care for Small Babies), as well as Jhpiego and Laerdal's Helping Mothers Survive learning suite (Bleeding After Birth, Pre-eclampsia and Eclampsia). The professionals targeted for this integrated training package include nurses, midwives, doctors, pediatricians, gynecologists, and obstetricians.

Twenty-three professional association members were trained on the integrated package in 2017. All 23 trainers went on to cascade trainings in 2018 within their own healthcare institutions and elsewhere in the country, including at the MTC (see box below).

By September 2018, MCSP had trained 53 of Kintambo's healthcare providers on the integrated MNH and PPFP package at the MTC. The 53 participants included:

- 21 providers from the pediatric unit;
- 20 from the maternity;
- 6 from the outpatient FP clinic; and
- 6 from the MOH's Division of Continuing Education and Division of Family Health and Specific Groups (D10).

The participants were trained in relevant modules of the integrated package, including water, sanitation, and hygiene (WASH); essential maternal and newborn care; management of obstetric complications (postpartum hemorrhage and preeclampsia/eclampsia); essential care for small babies and management of newborn complications; and PPFP.

Between and after training sessions, participants benefited from post-training

2018 RMNCAH Trainings at the MTC

MCSP supported the following trainings using the MCSP/MOH adapted integrated RMNCAH training modules:

- March 2018: Module 1
 - Maternal Health and WASH (26 participants)
- March 2018: Module 2
 - Essential Maternal and Newborn Care (24 participants)
- April 2018 : Module 3
 - Obstetric Emergencies (26 participants)
- April 2018: Module 4
 - Care of the Sick and Premature Newborn (27 participants)
- June 2018: Module 5
 - PPFP (22 participants)

follow-up and had the opportunity to practice their skills in paired groups at the MTC's training room. Participants completed a pre-test and a post-test after each module as well as a final evaluation of the providers' knowledge and competence after completion of all the modules, which included a theoretical component and Objective Structured Clinical Examinations for relevant skills. The results showed impressive gains in both theoretical knowledge and clinical skills from pre-test to final evaluation, with an average final evaluation score of 89.8%. MCSP and the trainers are carrying out individual follow-up of the few participants who did not reach 85% by the final evaluation stage before they retake the examination.

MCSP also collaborated with the MOH's D10 to design learning and support materials for the newly launched national clinical mentorship program, including the Facilitator's Guide, Participants' Notebook, clinical case audit forms, and forms for monitoring and evaluating clinical mentorship activities. National mentor trainers trained providers at the MTC who met criteria to serve as mentors in December 2018. The five-day training for clinical mentors focused on mentorship skills for maternal and newborn care services. The training activity included 26 participants, including MTC staff who successfully completed the MCSP-led training, with one staff per unit assuming the role of mentor. The training content focuses on giving feedback

effectively, rapport building, bedside teaching, demonstrating and coaching on clinical skills, addressing systems issues, starting a mentoring assignment, and accessing clinical resources. The last day of training focuses on a review of monitoring and audit forms used in follow-up.

The MTC Management Committee

The MTC's management and coordination committee was established in 2017 and consists of representatives from Kintambo hospital, the MOH - including the Kinshasa and Kintambo health zones' Provincial Health Division - the MOH's D10, national professional associations, and other technical partners. After receiving introductory guidance and direction from MCSP, the members assumed leadership of the management committee, with ongoing technical support from MCSP. The committee has been steadfast in its efforts to promote and integrate the MTC into the day-to-day business of the hospital and to establish effective, systematic coordination between its maternity, pediatric, and FP departments. MCSP has maintained a presence on the management committee, offering support as necessary and when invited to do so. This has included assisting with the development of a sustainability plan to commit to the future upkeep and use of the MTC, and the provision of management tools and a User Guide, for the committee's future reference and use.

The committee's successful management of the MTC was quickly recognized by Kinshasa's medical training institutions, including the University of Kinshasa, the Reverend Kim University, and the Higher Institute of Medical Technologies. Each of these institutions expressed interest in using the MTC for preservice/internship training opportunities for their students, which led the committee to develop a new pricing policy for institutions that send their trainees to the MTC. The MTC has so far received 150 medical students from the Reverend Kim University who are doing their rotations in the maternity department. On first touring the MTC, the delegate from the Reverend Kim University was quoted as saying:

"This is unheard of! A well-equipped center that not only gives the opportunity to practice with models, but also provides a comprehensive training package with audio-visual elements to facilitate the acquisition of skills of our learners. What we saw was enough to convince us to sign a collaboration agreement with the Kintambo Maternity and send our 150 students to benefit from this special training program."

Quality Assurance

The establishment of the MTC's management committee ensures that hospital stakeholders will maintain ownership of the MTC after MCSP ends and that it continues to promote the performance of its providers, interns, and students in MNH and PPFP services.

Since the management committee is responsible for assuring the quality of the MTC, it was appropriate for the committee to implement a quality assurance (QA) system. MCSP gave a QA presentation to the MTC management committee at a special meeting in August 2018, which initiated the process of designing the MTC QA plan. The hospital staff used this opportunity to improve the quality of care and data collected in the pediatric, maternity, and FP departments by, for example, highlighting the need for updated versions of facility registers that include all key indicators. In response, MCSP facilitated the distribution of new registers provided by the MOH to each department and trained providers on their use. In addition, MCSP, using the AAP's QA flipbook worked with each unit to select and monitor specific QA indicators, and design an action plan to achieve corresponding targets. MCSP and the MOH held further training activities for providers on how to complete the dashboards to enable comparisons and the visualization of trends and resource distribution. The dashboard templates were distributed to the pediatric, maternity, and FP departments, where they were used from January 2018 onwards. MCSP has provided ongoing support to the units in completing their dashboards and implementing their action plan in an effort to strengthen these activities and ensure their sustainability.

An active QA committee is present at the pediatric hospital and additional committees are being put in place at the maternity and FP departments. They will receive training on QA prior to MCSP's end date. The QA activities were well received by the providers who readily assumed their new responsibilities and were proud to track improvements in their departments. When one provider was asked who is responsible for the quality of the services in the hospital, she replied, "We are each responsible for the quality of our care."

Integrating the Clean Clinic Approach

WASH is an essential component of quality MNH care. In February 2018, MCSP and the MOH trained 34 providers at the MTC on WASH standards and practices in healthcare facilities, and specifically the Clean Clinic Approach. The training covered the basics of water supply (access, required quantity, and quality) in healthcare facilities; hygiene measures for infection prevention and control, including hand hygiene, cleaning and disinfection of premises and medical equipment; and medical waste management, including segregation, transportation, storage, treatment, and safe final disposal. The training also covered management and leadership for WASH, the importance of routine audits, personnel management, mechanisms for gathering and incorporating client feedback, and empowering cleaners as key partners in promoting WASH and QA at the facility level.



Handwashing techniques are demonstrated during the February 2018 CCA training at the MTC.

At the same time as the training activity, MCSP and the MOH conducted WASH assessments at Kintambo General Hospital. Thereafter, MCSP supported the MTC to develop a WASH action plan and establish a WASH committee, which has coordinated the distribution of WASH posters and learning materials in the facilities and planned for the deployment of washbasins and soap.

MCSP photo credit: Lydia Wisner

Next Steps

The MOH formally launched the MTC on April 18, 2019, and will continue using it to provide quality training, mentoring, and supervision for health professionals into the future. After the scheduled close-out of MCSP in 2019, the MTC will continue to operate under the direction of the management committee, guided by the sustainability plan and management tools. One key activity of the management team will be to seek organizations or businesses that can "sponsor" the MTC and provide additional funding to support ongoing activities and facilitate becoming a center of excellence for MNH services and training.

Sustainability was an essential part of MCSP's implementation plan, and both management and providers are committed to its ongoing functioning, but the time between initiating activities at the MTC and close-out was very short. The management team would benefit from ongoing technical and financial assistance to ensure it can continue to build the MTC's ability to strengthen the capacity of healthcare providers, trainees, and students to provide better care to women and newborns.

This brief is made possible by the generous support of the American people through the United States Agency for International Development (USAID) under the terms of the Cooperative Agreement AID-OAA-A-I4-00028. The contents are the responsibility of the Maternal and Child Survival Program and do not necessarily reflect the views of USAID or the United States Government.