

Using on-the-job training to improve skills of health care providers to deliver emergency obstetric and newborn care services in Manicaland Province, Zimbabwe

Project Overview

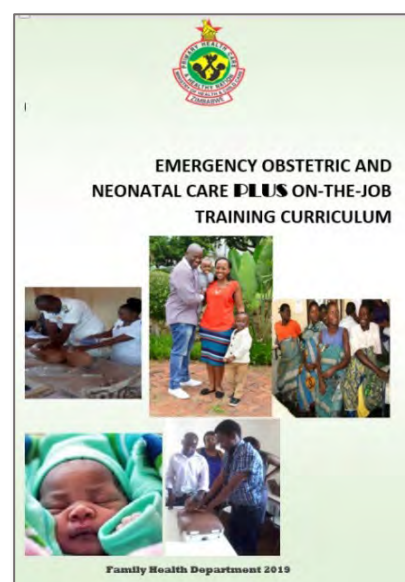
Mhuri/Imuli is a USAID-funded project led by FHI 360 with partner Family AIDS Caring Trust (FACT). The five-year project (2018–2023) seeks to improve maternal, newborn and child health (MNCH) and family planning (FP) services in Zimbabwe. In Manicaland Province, Mhuri/Imuli improves demand for, and availability of quality MNCH-FP services and strengthens community systems for integrated MNCH-FP services. A range of community interventions address gender norms and improve linkages to and promote usage of MNCH-FP services, including for members of the Apostolic faith. Mhuri/Imuli also expands access to a full range of FP services in eight provinces in Zimbabwe through mobile FP outreach teams. The mobile FP services provide a platform for health care providers to be certified in long-acting reversible contraception (LARC) method provision by the Zimbabwe National Family Planning Council (ZNFPC). At the national level, Mhuri/Imuli provides technical support to the Ministry of Health and Child Care (MOHCC) and Zimbabwe National Family Planning Council (ZNFPC) to improve the institutions' capacity for MNCH-FP policy implementation.

Problem Overview

Maternal mortality in Zimbabwe is unacceptably high at 363 deaths per 100,000 live births (ZIMSTAT 2022). High quality intrapartum care and emergency obstetric and newborn care (EmONC), in case of complications, are critical to reduce preventable maternal and newborn deaths (Kruk et al. 2018).

Zimbabwe as a whole — Manicaland Province included — faces a severe staff shortage due to health care providers leaving for employment outside the country and joining the private or not-for-profit sectors, and this accelerated during the COVID-19 pandemic. In Zimbabwe, there are only 1.9 medical doctors and 21.4 nurses and midwives per 10,000 people (WHO 2020), far below the estimated 41.1 health workers per 10,000 people recommended to provide basic services (ILO 2014/2015). This extremely low health care provider-to-client ratio contributes to significant gaps in quality of intrapartum care, which can be directly linked to maternal and perinatal death.

Select health care provider skills, such as prevention and management of postpartum hemorrhage and pre-eclampsia/eclampsia, can be improved to raise quality of care standards and practice. Yet, high venue and travel costs for training conducted outside of health facilities may prevent trainings from taking place. This results in continuing poor quality of care due to lack of updated knowledge of best practices for EmONC. Additionally, drawing overstretched providers away from their posts for centralized trainings may have an immediate negative effect on health care services.



The national EmONC curriculum in Zimbabwe typically required 10 days of off-site training. Building on existing work by the MOHCC in conjunction with United States Agency for International Development (USAID) funding, the Mhuri/Imuli project worked with Manicaland provincial authorities to adapt and scale up an on-the-job training (OJT) curriculum for site-level EmONC training. This curriculum had been designed to be flexible to needs and responsive to the health care provider shortage by delivering training without removing health care providers from their facilities.

OJT is the preferred training model for low- and middle-income countries because it is cost-effective and sustainable. Compared to traditional didactic in-service training approaches, competency-based OJT focuses on skills mastery through hands-on, repetitive, and learner-paced tasks.

Program/Activity Description

The Mhuri/Imuli project led the rollout and refinement of the OJT curriculum in Manicaland Province in conjunction with provincial health authorities, including adding and testing a module on how nonclinical staff can contribute to quality of care in emergency situations. The curriculum is adapted from the national Basic Emergency Obstetric and Newborn Care (BEmONC) curriculum. The 16 OJT EmONC modules were refined over a five-day period, including pretesting with 62 trainers across the 15 facilities in Manicaland that offer comprehensive emergency obstetric and newborn care (CEmONC). Contributors to OJT module content included Mhuri/Imuli technical staff, MOHCC leadership, and Manicaland Province health authorities.

The OJT curriculum centers on reducing leading causes of maternal and newborn death and offering family planning services and includes a combination of videos, interactive case scenarios, practical skills labs, and discussions. The full training with all modules takes five days, but individual modules take from one to 2.5 hours to complete. The curriculum provides a “whole site” approach to include health facility staff who are nonclinical but important to EmONC care processes, such as drivers. A total of 15 skills labs equipped with mannequins, job aids, and training logs were set up in CEmONC sites in Manicaland Provincial Hospital and district hospitals to support OJT in the workplace. An additional 15 lower-level health facilities that have a high volume of deliveries were provided mannequins for training.



FHI 360 District Team Lead Israel Chowa demonstrating manual removal of the placenta to staff at Nyanyadzi Rural Hospital in Chimanimani District during OJT

Photo credit: Simon Marare, FHI 360 M&E Officer

Activity Outcomes

In January 2019, the Mhuri/Imuli project conducted the first training of 30 trainers, mainly district hospital managers, in Mutare District. Given the busy schedules of district hospital managers, the project trained an additional 30 trainers, mainly non-managerial health care providers, in January 2020. These trainers went on to provide OJT in 71 public sector facilities (hospitals and health centers) in all seven districts of Manicaland Province, reaching more than 1,000 health facility staff. Since OJT implementation began, at least one health worker per facility has been trained using the modules (some or all of the modules).

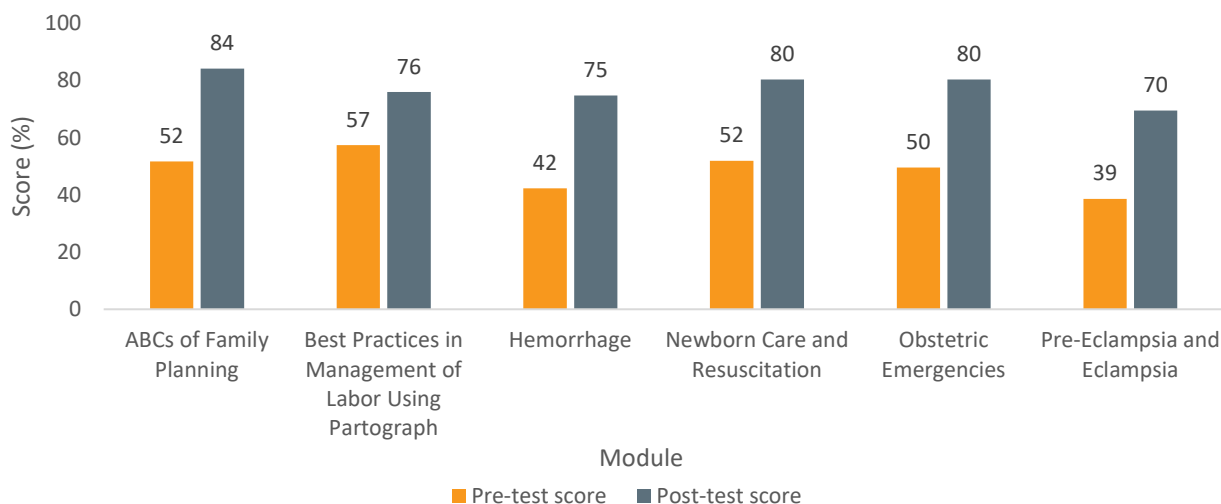
The most highly utilized modules were hemorrhage, partograph use, newborn resuscitation, and pre-eclampsia/eclampsia (Table 1).

Table 1. OJT modules and health facility staff trained, Jan 2019–Jun 2022

Module	Health Facility Staff Trained	Health Facilities Reached
Module 1: Improving Maternal and Newborn Care in Zimbabwe	386	35
Module 2: Ethics in Emergency Obstetric Care/Respectful Maternity Care	144	22
Module 3: ABCs of Maternal Resuscitation	174	22
Module 4: Newborn Care and Resuscitation	479	53
Module 5: Hemorrhage	638	60
Module 6: Early Pregnancy Bleeding	100	15
Module 7: Pre-Eclampsia and Eclampsia	477	54
Module 8: Best Practices in Management of Labor Using the Partograph	539	56
Module 9: Obstetric Emergencies	142	22
Module 10: Assisted Vaginal Delivery and Repair of Perineal Tears	33	12
Module 11: Sepsis	58	14
Module 12: Cesarean Section	17	8
Module 13: Blood Transfusion	58	12
Module 14: ABCs of Family Planning	237	22
Module 15: Data Emergency	6	3
Module 16: Emergency Obstetrics and Neonatal Care for Nonclinical Staff	256	11

Providers using OJT modules have demonstrated substantial increases in knowledge scores. Figure 1 shows pre- and post-test scores from selected modules.

Figure 1. Health care providers' mean knowledge scores on select OJT modules, Jan 2019–Jun 2022



Implementation experiences and adaptations

Figure 2 illustrates unique challenges and benefits related to the use of OJT for EmONC.

Some challenges facing OJT affect all in-service training, for example, staff attrition and shortages, and reduced scheduling of health care providers and absenteeism for illness and quarantining during the COVID-19 pandemic. These factors led to trainers and health care providers alike facing increased workloads and reduced time for training.

Figure 2. Challenges and benefits with OJT

Challenges with OJT	Benefits of OJT
<ul style="list-style-type: none"> • Reluctance of health care providers to adopt new training model • Lack of compensation, such as travel allowances, associated with OJT unpopular with some health workers • Proximity to work (e.g., seeing clients waiting in line for services while training is taking place) can make it difficult for health care provider to focus on training 	<ul style="list-style-type: none"> • More tailored to health facility needs as health care providers select modules based on own assessment of needs • Lower costs of training with lack of venue, per diem, and transport payments • Resources from OJT curriculum can be used without a trainer present/are immediately available at facility (e.g., for skills practice) • Whole team approach builds teamwork at health facilities (including nonclinical staff)

To reflect the evolving environment, the Mhuri/Imuli project made several adaptations to the OJT curriculum over the period of implementation. For example, when it was noted that it was difficult for health care providers at lower-level sites to focus on training while there were clients waiting to be served, the Mhuri/Imuli project brought a nurse to cover duties while the health care provider participated in training. This was well received by health facilities.

Figure 3. Implementation strategies with OJT

Implementation strategies
<ul style="list-style-type: none">• Good selection of trainers is very important. Good trainers should have strong technical capacity and should work in a position that will allow them to create time for training.• Trainers are subject to the same attrition as other health care providers. Repeated training of trainers should be built into program design.• The program must set expectations around training, such as how frequently training should be conducted at sites and how much time should be allocated for training needs of staff.• Regular check-in meetings with trainers can promote sharing of experiences and facilitate camaraderie.

Health facilities also tailored training to their specific needs. For example, at the beginning of the program, all providers were encouraged to participate in all 16 modules. However, it was soon noted that some of the modules, such as Blood Transfusion and Cesarean Section, were not as relevant for lower-level health facilities. In addition, certain facilities face time and staffing constraints; therefore, facilities select priority modules to boost skills identified as particularly challenging in their context. Thus, the approach has become more customized to fit needs over time. Currently, the training operates with an “on-demand” model where health facilities determine their own training needs and request training on selected modules. These are prioritized based on supervision notes, maternal and perinatal death audits, observations made during the doctors’ rounds, as well as health facilities’

own assessments of what is needed. Once priority modules have been identified, trainers organize to conduct the training.

Other facilities realized that tools offered through the OJT curriculum could be used independently, even in the absence of a trainer. For example, at Nyanyadzi Hospital, a resident trainer moved away, and the providers started using the skills checklist to conduct peer assessments.

Competency assessments have been integrated into integrated site support (ISS). Project technical assistance staff conduct drills and skills or task assessments during ISS using a skills checklist. Health facility staff that have undergone OJT receive follow-up support and assessment on competency, and the visiting team provides demonstrations and mentorship on gaps as needed. The assessor documents performance on the skills checklist, which has multiple columns that allow assessment on the same skill or task on different dates to facilitate performance documentation over time as assessor feedback is incorporated.

Additionally, in the 2020 training, the Mhuri/Imuli project trained non-managerial health care providers who have more flexibility to leave their place of work.

The project had initially planned to develop electronic modules, but due to internet connectivity challenges, the project now plans to produce pre-recorded lectures that will be available on storage discs that staff can access and that will not require internet connectivity.

Conclusion

Systems challenges have made the need for OJT, especially the resources within the OJT curriculum, even more pronounced. To date, Manicaland Province has used OJT modules the most of any province in Zimbabwe. After a year of use, the training modules were adapted and refined by technical experts from the MOHCC, Mhuri/Imuli, the Clinton Health Access Initiative (CHAI), SolidarMed, the United Nations Children’s Fund (UNICEF), the World Health Organization (WHO), and the United Nations Population Fund (UNFPA) for scale up across Zimbabwe. Additionally, the OJT approach is described in the MOHCC’s 2020 best practices document, “Implementation Experiences & Best Practices for Reproductive, Maternal, Newborn, Child and Adolescent Health” (Zimbabwe MOHCC 2020).



Photo credit: Simon Marare, FHI 360 M&E Officer

OJT participants at Nyanyadzi Rural Hospital taking the Hemorrhage module pre-test before undergoing training on the module

OJT training improves the quality of services related to the management of obstetric complications and coordination between clinical and nonclinical staff.

Please contact the Mhuri/Imuli project for more information.

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