# SIMULATION BASED LEARNING AND PEER-PEER MENOTOSHIP

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The Mama na Mtoto Experience

# Simulation-Based Training & Peer-to-Peer Learning



# **Background**

The Mama na Mtoto initiative aims to improve maternal, newborn, and child health (MNCH) in Misungwi and Kwimba Districts through a variety of activities, including development of clinical capacity at health facilities. In Lake Zone, Tanzania, maternal deaths often occur due to complications from high blood pressure and bleeding. Common causes of newborn death include lack of spontaneous breathing at birth, prematurity, and infection. Health workers must work in teams and have the confidence and skills to manage these critical newborn emergencies, in spite of difficult conditions and isolation. Learning and maintaining such skills in rural and remote facilities can be challenging if health workers lack training, have minimal mentorship support, or lack exposure to emergency cases.

## What is Simulation?

Simulation replicates real clinical encounters using mock scenarios and lifelike mannequins to provide hands-on clinical practice for health workers. Using simulation, teams can practice managing emergency cases in a safe and controlled environment with supportive coaching.

In Mama na Mtoto, simulation was used to refresh MNCH clinical care skills through 5-day workshops for 200 health workers in Misungwi and Kwimba Districts. Simulation practice stations were established at 12 health facility sites.

#### PEER-TO-PEER LEARNING

Peer-to-peer practice case cards were designed and distributed. Simulation workshop participants learned to guide ongoing practice sessions to colleagues, facilitating an environment of shared peer-to-peer learning. Guidelines and schedules for peer-to-peer learning were developed and endorsed by Misungwi and Kwimba Districts, encouraging regular practice amongst health facility staff. Respectful Care · Peer-to-Peer Learning



#### **MNCH Simulation Workshop Modules:**

- Helping Babies Breathe
- Essential Care for Every Baby
- Pre-Eclampsia and Eclampsia
- Antenatal Care
- Normal Labour and Delivery
- Bleeding After Birth
- Kangaroo Mother Care

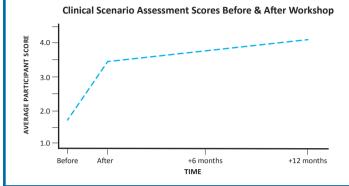
**Mini Modules:** Simulation Methods  $\cdot$  Infection Prevention and Control  $\cdot$  Implementing Change  $\cdot$  Respectful Care  $\cdot$  Peer-to-Peer Learning

# **Evaluation**

We studied 16 health workers who attended the five day MNCH clinical simulation workshop and were from health facilities with established simulation practice stations. Standard clinical scenario assessments at intervals (before and after the workshop, then 6 and 12 months after) and focus groups were conducted to assess their skills and experiences.

# **Key Results**

#### SUPPORTS UPTAKE & RETENTION OF CLINICAL SKILLS



"These trainings helped us because practice makes perfect ... You might be taught, but without practice you reach a point where that knowledge disappears."

"We were using old-fashioned methods to help babies breathe. We used to slap and turn them upside down until they cried, and if not, we considered them dead. But after this training we have learned new skills ... using resuscitation and rubbing the back to help babies breathe."

#### **IMPROVES CONFIDENCE**

"Peer learning cards makes a person confident because he/she can be a teacher to other learners ... making you feel equal with each other. Even a person who had not participated in the initial training can gain confidence through this."

#### **IMPROVES FACILITY CULTURE**



Dignified & Respectful Care

"You try to probe the patient but she is very shy. We now have skills to deal with that situation. She needs assurance of her pregnancy secrets. She needs courage and privacy. She needs polite and friendly counselling. The technique is to make her feel you are with her and to welcome her."



Teamwork & Communication

"After this training, everyone has confidence ... If you have a case and you call for help, it is not like before when my fellow providers were reluctant to support. Now when I call for help ... everyone will run coming for support. My teammates and I are working close to each other."



**Hierarchy** 

"We now have a weekly class every Wednesday ... We appoint a person who got training and all health practitioners will come that day ... The doctor is there, all people, all nurses attend, so we all teach one another regardless of age and positions."

## SAVES LIVES OF MOTHERS & BABIES

"This training program has been very helpful especially with helping mothers with pre-eclampsia and eclampsia ... At the beginning I did not know what to do, but now I have the ability to manage eclampsia and have saved mothers and children's lives." "I, together with my fellow health providers, have saved the life of newborns to a huge extent ... We have helped 15 babies to breathe in the last month... Without the skills we got from Mama na Mtoto, we might have lost some of them. But all 15 ... they survived."

# Summary & Recommendations

Simulation-based clinical training and peer-to-peer learning:



- Include simulation training for every health worker who conducts deliveries
- Increase the number of simulation practice sites, especially in rural and primary care settings
- Develop national guidelines and professional accreditation programs for simulation practice and peer-to-peer learning
- Combine simulation training with mentorship to improve routine and emergency MNCH quality care

















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