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Consultant Neonatologist





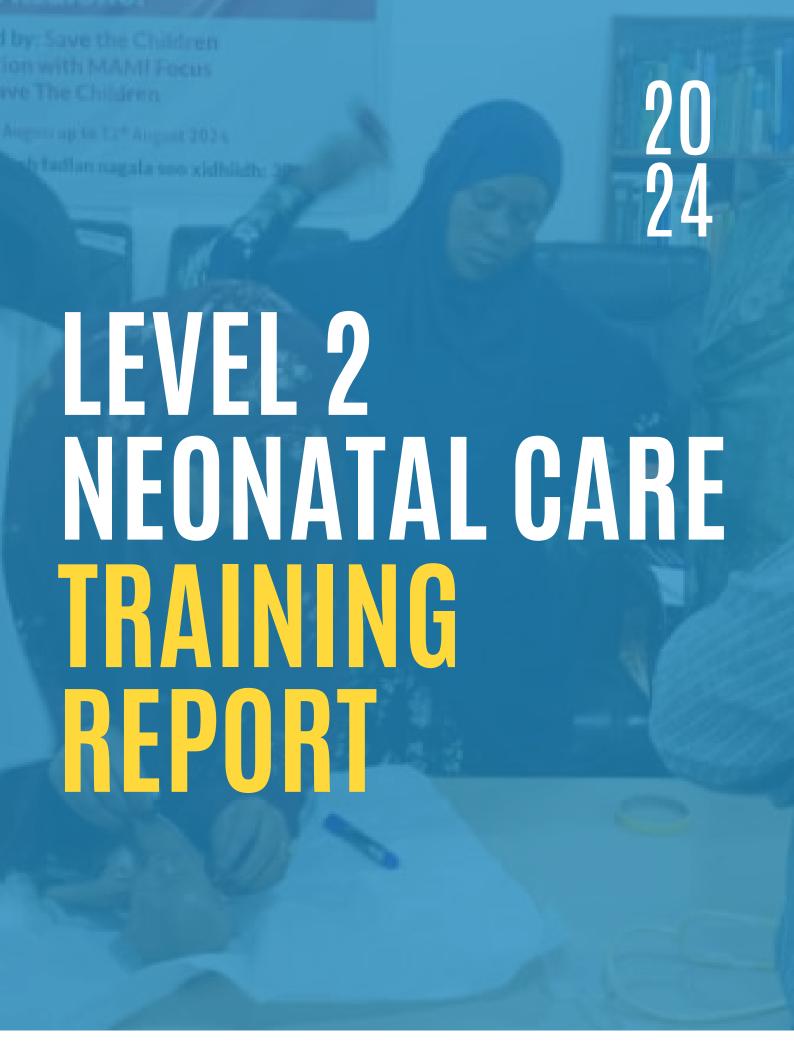




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Introduction



Somaliland has one of the highest maternal and perinatal mortality rates. (Observational hospital-based study data over a period of 10 years). Prematurity and low birth weight were important risk factors for neonatal death in this cohort. The high morbidity and mortality were attributed to several factors, among which is late referrals from peripheral health facilities, limited knowledge, skills and competences in management of maternal and newborn health (MNH) complications. The latter curtails healthcare providers' ability to anticipate, recognize, manage or prevent complications that are associated with high morbidity and mortality. The health providers' competences could be improved through inservice training.





EXECUTIVE SUMMARY

This report provides an overview of a comprehensive training program conducted in Somaliland, focusing on improving neonatal care through Level 2 Neonatal Care training. The training involved multiple days of classroom sessions, practical demonstrations, and a field visit to the New Gabiley Health Centre. The program aimed to equip health workers with essential skills and knowledge to enhance the quality of care for small and sick newborns.

Training Overview

The training was structured over several days, with each day covering critical topics related to neonatal care, such as Kangaroo Mother Care (KMC), infection prevention, and the establishment of resuscitation and KMC corners. Participants included a diverse group of health professionals, who were not only trained in the latest techniques but were also mentored on how to become effective supervisors and leaders in their respective facilities.

Key Highlights

1 Knowledge Improvement:

 The training was effective in significantly improving the participants' knowledge and skills. This was evidenced by the marked increase in post-test scores compared to pre-test scores. The lowest pre-test score recorded was 20%, while the lowest post-test score improved to 64%. The average scores increased from 69% in the pre-test to 78% in the post-test. Additionally, the highest scores also saw improvement, with the highest pre-test score at 90% and the highest post-test score reaching 100%.

2. Field Visit to New Gabiley Health Centre:

The field visit to New Gabiley
Health Centre was a pivotal
component of the training. It
allowed the participants to apply
their newly acquired skills in a
real-world setting, under the
mentorship of experienced
supervisors. The visit highlighted
the successful implementation of
the Level 2 care training, with
visible improvements in infection
control, the establishment of KMC
and resuscitation corners, and
overall teamwork at the facility.





3. Supervision and Mentorship:

 A significant part of the training was dedicated to developing the participants' supervisory skills. The program emphasized the importance of using all five senses in supervision, fostering a positive and supportive environment, and encouraging innovation and flexibility. The field visit further reinforced these principles, as participants were guided on how to conduct effective supervisory visits and provide constructive feedback.

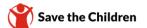
4. Recommendations:

 The report outlines several recommendations to sustain and further improve neonatal care in Somaliland. These include providing additional equipment, such as a second warmer in the postnatal ward and the VAYU CPAP device; enhancing infection prevention and control (IPC) measures; establishing an IPC committee; promoting research and quality improvement projects; and developing strategies to actively involve men in neonatal care and support initiatives.



Conclusion

The training program was successful in achieving its objectives, as evidenced by the significant improvement in participants' knowledge and the positive feedback from the field visit. The recommendations provided in this report are intended to ensure the sustainability and continuous improvement of neonatal care in Somaliland. The commitment from participants, facilitators, and supporting organizations like Save the Children has been instrumental in the success of this training, and it is expected that the skills and knowledge gained will contribute to reducing neonatal mortality and improving health outcomes for newborns in the region.





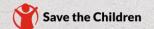
Background:

In an effort to enhance neonatal care in Somaliland, Save the Children (SC) has initiated a training program aimed at equipping healthcare workers with the essential skills to provide Level 2 Neonatal Care for small and sick newborns. This initiative is a response to the critical need for improved neonatal care in the region, where many healthcare providers lack the training and resources necessary to manage complex neonatal conditions effectively.

The urgency of this initiative became apparent following the ongoing training of healthcare workers in the Helping Babies Survive (HBS) package. While the HBS training has empowered many frontline health workers, it revealed a significant gap in their ability to provide advanced care for small and sick newborns. This gap is particularly concerning given that many mid-level providers, especially those in primary health centers, are not adequately trained to identify and manage critical neonatal emergencies, such as sepsis, respiratory distress, apnea, neonatal encephalopathy, necrotizing enterocolitis, and jaundice.

Recognizing this gap, SC Somaliland sought the expertise of a clinical trainer to finalize and synthesize training materials and conduct comprehensive training sessions for health workers and supervisors. The goal is to empower these professionals with the knowledge and confidence needed to deliver expert care to mothers and newborns, ultimately building the capacity of healthcare providers across the region.

SC's commitment to improving neonatal care in Somaliland extends beyond training; it involves a concerted effort to ensure that healthcare providers have the necessary resources to offer the highest standard of care. Through this initiative, SC aims to save lives and nurture the well-being of the newest generation in Somaliland, underscoring the belief that strategic partnerships and dedicated efforts can make a significant difference in the lives of mothers and their newborns.





Goal

To increase knowledge and skills of health care providers through competency-based training on level 2 care for small and sick babies.

Objectives

01

To provide participants with an understanding of level 2 care for small and sick newborns.

02

To build a team of competent frontline health care providers and supervisors in the care of small and sick babies.

03

To equip participants with the ability to manage small and sick newborns in a holistic approach.

04

To build confidence and provide tools to facilitate capacity building activities to mid-level providers and program supervisors.





The consultant

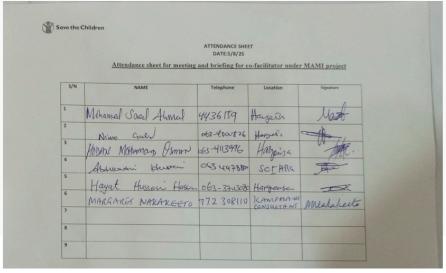
DR. MARGARET NAKAKEETO KIJJAMBU

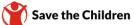
Dr. Margaret is a highly accomplished consultant neonatologist and pediatrician with extensive experience in a wide range of healthcare settings.



Co- Facilitators

- Dr. Hayat Hussein Hassan
- Dr. AbdiKarim Awale Divie
- Hodan Mohamed Osman







Leadership

TEAM LEADER:

TIME KEEPER:

WELFARE:

SPIRITUAL LEADER:

• ENERGIZER:

Muna Omer

Nasra Nasir

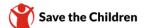
Hodan Mohamuo

A/Padir Hussein

Nimo Mahad

Group Rules & Norms

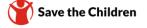
- 1. Punctuality: Arrive and Start on Time
- 2. Mobile Phones in silent or turn it off during sessions.
- 3. Active Participation: Engage fully in discussions and activities.
- 4. Treat each other with respect at all times.
- 5. Raise your hand before speaking.
- 6. Avoid side conversations during sessions.
- 7. Speak clearly and at an appropriate volume when addressing the group.





Expectations:

- 1. Calculate blood transfusion & fluids
- 2. Follow-up baby & give care
- 3.Learn about extra care of baby
- 4.Learn new courses with practicals
- 5. Know more about how to care for newborn
- 6.No wasting time
- 7. Hope for good training & successful
- 8.Improve health care
- 9. Increase the quality of care
- 10.Gain new knowledge & skill to develop my work
- 11.Revising nursing techniques of helping hypothermic babies & premature babies
- 12.Discuss importance of infection prevention & control in the neonatal ward
- 13.Exploring ways to control or reduce family members in the neonatal units who increase or worsen infection cycle
- 14.Get more experience from neonatologists
- 15. Care for and treatment of preterm
- 16.Get updated neonatal guidelines
- 17.To get a good system/approach for reducing morbidity/ mortality in my facility





Methodology

A diverse set of adult teaching methodologies was utilized, all aimed at facilitating the transfer of skills and knowledge. These methods included:

Workshops and Hands-On Training:

Practical sessions are provided for healthcare professionals to develop and enhance their skills through direct practice. This includes newborn resuscitation and physical assessment of newborns.



Simulation-Based Training:

Scenarios and simulations are used, especially in resuscitation training, to mimic real-life situations that healthcare workers might encounter. This allows participants to practice in a controlled environment.



Lectures and Presentations:

Structured presentations are used to deliver theoretical knowledge on various aspects of neonatal care, such as the management of hypoxic-ischemic encephalopathy and oxygen therapy.





Case Studies and Discussions:

Case studies are presented to facilitate discussion and deepen understanding of complex scenarios, enabling participants to learn from real-life examples.



Interactive Sessions and Group Work:

Participants engage in group discussions and collaborative activities, encouraging peer-to-peer learning and exchange of ideas.



Supervisory Skill Development:

Training sessions focus on developing supervisory and leadership skills to improve the quality of neonatal care in healthcare settings.



Kangaroo Mother Care (KMC) Implementation:

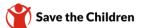
Practical guidance and support for implementing KMC, including the development of protocols and practices to encourage its use in facilities.



Follow-Up and Continuous Support:

Ongoing mentorship and support are provided to ensure that the skills and knowledge gained are implemented effectively in the workplace.







Course content:



01 DAY 1: 07/Aug/2024

Method: Lecture and Demonstrations

Topics:

- 1. Newborn Transition to Extrauterine Life and Persistent Pulmonary Hypertension of the Newborn (PPHN)
- 2. Physical Assessment of the Newborn

Method: Lecture and Demonstrations

Topic 1: Newborn Transition to Extrauterine Life and PPHN

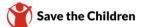
Objective:

To enhance participants' understanding of the critical events that occur during a newborn's transition from fetal to neonatal circulation, with a focus on the importance of timely intervention.

Content Overview:

The session began with an in-depth discussion on the physiological changes that occur when a baby transitions from fetal to neonatal circulation. Key points included:

- Fetal Shunts Closure: The temporary and eventual permanent closure of fetal shunts (Foramen Ovale, Ductus Arteriosus, and Ductus Venosus) were explained, highlighting the timeline and physiological triggers for these closures.
- Importance of Early Breathing: Participants were made aware that if a
 newborn fails to breathe within the first 5 minutes, the fetal shunts may
 reopen, leading to a dangerous return to fetal circulation. This causes
 increased pulmonary pressures, reduced blood flow to the lungs, and
 decreased oxygen supply to vital organs.





- Golden Minute: The concept of the "Golden Minute" was emphasized, stressing that prompt intervention within the first minute of life is critical to prevent Hypoxic-Ischemic Encephalopathy (HIE). Delayed cord clamping was also discussed, with participants gaining clarity on its role in ensuring optimal neonatal outcomes.
- Real-Time Response: Understanding the pathophysiology of this transition underscored the critical importance of helping the newborn breathe immediately, ensuring survival and favorable long-term outcomes.

Topic 2: Physical Assessment of the Newborn

Objective:

To equip participants with the skills necessary to perform a comprehensive physical assessment of the newborn, enabling early detection of abnormalities and timely clinical intervention.

Content Overview:

This session provided a detailed guide on conducting a thorough physical examination of the newborn, from head to toe. Key areas covered included:

- Timing of Examination: The importance of conducting the examination at the right time to ensure accuracy and effectiveness.
- Assessment Techniques:
 - General Appearance: Assessing color, neurological status, muscle tone, activity, and the quality of the baby's cry.
 - Reflexes: Checking for normal reflex responses.
 - Head & Face: Examination for any abnormalities or birth injuries.
 - Chest and Lungs: Observing respiratory patterns and lung sounds.
 - Heart & Cardiovascular System (CVS): Assessing heart rate, rhythm, and murmurs.
 - Abdomen: Checking for organ placement and signs of distress.
 - Genitalia & Anus: Ensuring normal development and patency.
 - Back, Spine & Extremities: Looking for spinal defects or limb abnormalities.
 - Hips: Screening for hip dysplasia.
 - Skin: Evaluating for color, rashes, or other skin conditions.

Practical Application:

Participants observed a live demonstration using a real newborn brought from the ward. This hands-on experience was designed to reinforce the theoretical knowledge and build confidence in clinical decision-making.

Resources Provided:

Participants received a detailed handout for future reference and to support ongoing learning.





02 Day 2: 08/Aug/2024

Method of Delivery:

Lecture, Demonstrations, Group Practice, and Video Presentations

Topics:

- 1. Advanced Care Post-HBB+ and Oxygen Therapy
- 2. Birth Asphyxia and Hypoxic Ischemic Encephalopathy (HIE)

Topic 1: Advanced Care Post-HBB+ and Oxygen Therapy Objective:

To equip participants with the knowledge and skills necessary to provide advanced neonatal care, particularly after initial Helping Babies Breathe Plus (HBB+) interventions have failed, focusing on chest compressions, intubation, and oxygen therapy.

Content Overview:

The session began with a review of the HBB+ Action Plan, emphasizing the critical steps required when a newborn fails to breathe despite Positive Pressure Ventilation (PPV) and experiences a declining heart rate. Participants were introduced to the importance of transitioning to advanced care, which begins with chest compressions.

- Chest Compressions:
 - Introduction: Participants learned the importance of chest compressions in stimulating the heart and ensuring oxygen delivery to vital organs such as the heart and brain.
 - Demonstration: Using the Neonatalie simulator, the facilitator demonstrated the correct technique for performing chest compressions. Participants then practiced the technique in groups, ensuring that each person had the opportunity to refine their skills. A video from the Neonatal Resuscitation Program (NRP) was also shown to reinforce the learning.

Intubation:

Despite the unavailability of the dummy intubation head, the session covered the
essential equipment required for intubation, including laryngoscopes, different sizes of
endotracheal (ET) tubes, and stylets. A video from the NRP demonstrated the
intubation process to the participants, ensuring they understood the procedure even
without hands-on practice.





Oxygen Therapy:

- Participants were reminded that oxygen is a medication, necessitating careful regulation to prevent adverse effects such as Retinopathy of Prematurity (ROP).
- Nasal Cannula: The facilitator introduced the use of nasal cannulas for delivering free-flow oxygen and highlighted the VAYU oxygen blender, designed to ensure the safe administration of oxygen.
- Local Improvised CPAP: The session introduced the concept of using locally available materials to create Continuous Positive Airway Pressure (CPAP) systems in lower-level healthcare facilities. Participants were enthusiastic about learning how to create and use these improvised CPAP devices, as noted in their daily evaluations.
- VAYU CPAP: This low-cost CPAP device, equipped with an oxygen blender, was demonstrated. Facilitators explained its advantages, including its basis on Bubble Pressure technology, and how it contributes to safer oxygen delivery.



Trainer guiding trainees through the setup process of the VAYU CPAP, ensuring hands-on learning for optimal patient care.

Topic 2: Birth Asphyxia and Hypoxic Ischemic Encephalopathy (HIE)

Objective:

To deepen participants' understanding of the impact of hypoxia on newborns and to discuss strategies for minimizing the occurrence of hypoxia-related complications.

Content Overview:

This comprehensive lecture focused on the devastating effects of hypoxia (lack of oxygen) on the body tissues, particularly in newborns. Key points included:

- Understanding Hypoxia: Participants explored the various scenarios that can lead to hypoxia before, during, and after birth. The lecture highlighted how oxygen deprivation can result in significant damage to vital organs.
- Impact on Newborns: Detailed discussions were held on how hypoxia affects newborns at different stages, leading to conditions such as Birth Asphyxia and Hypoxic Ischemic Encephalopathy (HIE). The consequences of hypoxia on the brain and other organs were thoroughly examined.
- Preventive Strategies: The session concluded with a discussion on the importance of preventing hypoxia from the antenatal period onwards. Participants recognized the need for proactive measures to reduce the incidence of hypoxia and improve neonatal outcomes.

This session was highly engaging and prompted participants to commit to implementing strategies that minimize hypoxia in their respective healthcare settings.







03 Day 3: 09/Aug/2024

Method of Delivery: Lecture, Demonstrations, Group Practice, Role Play, and Video Presentations

Topics:

- 1. Recap and Evaluation of Day 2
- 2. Introduction to Kangaroo Mother Care (KMC) Components and Benefits
- 3. Practical Skills in KMC and Neonatal Care

The day began with a recap of Day 2's key lessons, followed by a discussion of the evaluations submitted by participants. A primary concern raised was the absence of a structured course outline for the training. The consultant clarified that there is no WHO-designed course specifically for Level 2 neonatal training. Instead, the training is customized based on the Terms of Reference (TOR) and daily evaluations to ensure that learning objectives are met effectively.

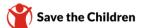


Modified OSCE Pre-Test: KMC Package for Comprehensive Level 2 Newborn Care Training

Given the language barriers and the diverse healthcare backgrounds of the participants, a modified Objective Structured Clinical Examination (OSCE) pre-test was conducted as a group activity. This approach was chosen to minimize frustration and enhance understanding.

Pre-Test Observations:

- Hand Hygiene: None of the participants properly washed their hands according to WHO standards, highlighting a critical gap in infection prevention practices.
- Preparation for Birth: Only 1 out of 3 participants adequately prepared for birth, indicating
 a lack of connection between the HBS training from the previous year and current
 practices.
- Nasogastric Tube (NGT) Insertion: 2 out of 3 participants failed to identify the proper landmarks for NGT insertion, demonstrating a need for further training.
- Feeding with Expressed Breast Milk (EBM): None of the participants could accurately demonstrate the process or calculate the correct amount of milk for the baby.
- Counseling for Discharge: There was a significant gap in skills related to counseling mothers in preparation for discharge, particularly regarding Kangaroo Mother Care (KMC).





Intervention:

To address these gaps, the day's training included a review of the HBB training on preparation for birth. Hand hygiene was emphasized, with one participant leading a demonstration on proper hand washing techniques, which was repeated multiple times to ensure understanding.



Section 1: Introduction to Kangaroo Mother Care (KMC) Components and Benefits

Objective:

To familiarize participants with the comprehensive components of Kangaroo Mother Care (KMC) and its benefits, ensuring they understand its holistic approach to caring for small and sick newborns.



Trainees practicing Kangaroo Mother Care (KMC), ensuring close skin-to-skin contact for newborns to promote bonding and stabilize vital signs in a simulated training session.

Content Overview:

Positioning: Participants were introduced to the proper positioning of the baby on the
mother's chest between the breasts for skin-to-skin (STS) contact. The discussion
emphasized the benefits of this positioning for both the mother and the baby, supported
by scientific evidence and real-life experiences. Facilitators demonstrated the STS
technique, followed by group practice sessions to reinforce the skill.



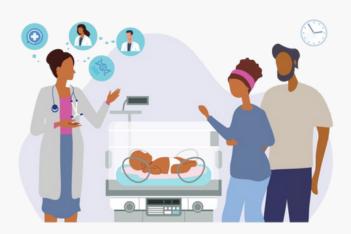
- Nutrition: This component was highlighted as essential for the survival of small and sick newborns. The discussion included the importance of proper feeding techniques and the risks associated with inadequate nutrition. A participant shared their experience with managing a 1.2 kg baby, which sparked a practical discussion on the use of intravenous (IV) fluids and expressed breast milk (EBM). A role play was conducted to demonstrate effective communication between healthcare providers and mothers, emphasizing the importance of explaining procedures and addressing concerns. The session concluded with demonstrations of breast milk expression using the Mama Breast model, followed by group practice.
- Demonstration and Practice: After the role play, participants were shown how to feed a baby using a nasogastric tube (NGT). A PowerPoint presentation and a video reinforced the learning, and participants practiced inserting NGTs in groups. The session emphasized the ongoing need for infection prevention measures, particularly when caring for small and sick babies.

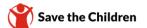
Conclusion:

The day's training concluded with participants providing feedback on the day's activities. This feedback will guide the planning of subsequent training sessions to ensure that all learning needs are effectively addressed.



Trainer demonstrates Kangaroo Mother Care (KMC) while multitasking, showcasing how to provide essential care for the baby while managing other tasks effectively.







04 Day 4: 10/Aug/2024

Method of Delivery: Lecture, Demonstrations, Group Practice, and Hands-On Training

Topics Covered: Nasogastric Tube Feeding, Feeding a Premature Baby, Thermal Care, Safe Administration of Oxygen

The day commenced with a recap of Day 3's lessons and a summary of the participant evaluations. The evaluations reflected a high level of satisfaction with the teaching methods and the thorough explanations provided during the sessions. Participants expressed that the training had opened their minds to the possibilities of improving neonatal care in their respective facilities. They expressed a strong desire to apply the knowledge and skills acquired to enhance the quality of care provided to newborns.

Topic 1: Nasogastric Tube Feeding

The session continued from where Day 3 had left off, with a focus on nasogastric tube (NGT) feeding. Participants reviewed the insertion of the NGT, which they had practiced the previous day. The focus then shifted to the proper technique of NGT feeding by gravity, ensuring that participants were comfortable and confident in this essential skill.



Trainee carefully inserts an NG tube in a newborn, applying learned techniques to ensure safe and effective feeding support.

Topic 2: Feeding a Premature Baby

Following the NGT feeding session, the training moved on to the topic of feeding premature babies. The discussion began with an overview of the oral reflexes that develop at different gestational ages, such as rooting, gag, sucking, and swallowing. These reflexes are crucial for determining the appropriate feeding method for premature babies.

Key discussion points included:

- Challenges of Feeding Premature Babies: Participants explored the physical characteristics of preterm infants that can complicate feeding, such as a long neck, weak muscle tone, and poor coordination of swallowing and breathing.
- Common Feeding Issues: The group discussed strategies for managing common problems like feed intolerance, delayed gastric emptying, and weak sphincters.
- Counseling Mothers: The session emphasized the importance of providing mothers with the knowledge and confidence to make informed decisions about feeding their babies.





Topic 3: Thermal Care

This session focused on the critical topic of thermal care, starting with an explanation of how babies lose heat. The discussions highlighted common practices among mothers, caregivers, and health workers that can lead to abnormal body temperatures in newborns.

Key points covered:

- Preventing Hypothermia: Participants learned that inadequate drying of the baby after birth, leaving the baby in wet clothes, and not practicing skin-toskin contact can lead to hypothermia.
- Preventing Hyperthermia: The dangers of over-dressing or over-wrapping the baby were also discussed, with an emphasis on how these practices can lead to hyperthermia.
- Practical Solutions: The session provided practical tips on how to avoid these issues through simple, resource-effective interventions.
- Alternative Warming Methods: The group explored alternative methods for providing warmth, such as using hot water bottles, radiant warmers, and incubators. Participants then visited the neonatal unit at Hargeisa Group Hospital (HGH) to observe how to set up and maintain incubators and warmers, including cleaning and regulating them.

Topic 4: Safe Administration of Oxygen

Building on the knowledge gained on Day 1 regarding the setup of local CPAP and VAYU CPAP systems, this session focused on the safe administration of oxygen.

Key takeaways included:

- Oxygen as a Medicine: Participants were reminded that oxygen should be treated as a medicine, with strict adherence to the rules governing drug administration.
- Criteria for Oxygen Administration: The session emphasized the importance of knowing when and to whom oxygen should be administered, and the potential risks associated with improper use.

Conclusion:

The day ended with participants expressing a deeper understanding of the day's topics and a commitment to applying this knowledge in their clinical practice. The hands-on training and practical demonstrations were particularly well-received, providing participants with valuable experience in critical neonatal care techniques.





05 Day 5: 11/Aug/2024

Method of Delivery:

Recap, Videos, Demonstrations, Group Practice, and Hands-On Training

Topics Covered:

Breastfeeding and Cup Feeding, Infection Prevention, Safe Referral of Newborns, Medication Safety, Neonatal Jaundice, Post-Test and Evaluations

The day commenced with a recap of Day 4, delivered in Somali to ensure clear understanding among all participants. The feedback from the Day 4 evaluations was also shared, with participants expressing appreciation for the comprehensive explanations and practical relevance of the topics. A notable observation was the strong desire among participants to apply the knowledge and skills gained to improve their respective workplaces. One participant, Nusra, highlighted how the training inspired her to initiate training in her own facility, illustrating the motivating impact of the program on individual attendees.

Videos: Reinforcing Key Topics

The day began with a series of instructional videos to reinforce critical concepts from the training:

- Breastfeeding Newborns, Especially Small Babies: The video covered different breastfeeding positions and the importance of proper attachment. Participants discussed the challenges that can arise from improper techniques and the essential role of health workers in supporting mothers to breastfeed effectively and comfortably. The importance of health workers being present and assisting mothers during breastfeeding was emphasized.
- Cup Feeding: Participants observed the complexities involved in cup feeding a newborn, particularly for small babies who may have difficulty swallowing. The video highlighted the need for health workers to master this technique to adequately support mothers.
- Protecting Small Babies from Infection: Although infection prevention and control had been emphasized throughout the training, this video focused on often-overlooked practices that can lead to infection. Examples included the obsessive washing of hands, thorough cleaning of all equipment used on babies (thermometers, scales, stethoscopes), and the role of breastfeeding in providing natural antibiotics. Participants were urged to establish systems that ensure newborns are protected from infection and to avoid unnecessary examinations by health workers.
- Referring a Small Baby: The video on safe referral practices highlighted the
 importance of proper documentation and clear communication when
 referring newborns. A real-world example from the neonatal care unit at
 Hargeisa Group Hospital (HGH) was discussed, where a baby was referred
 with scanty and unclear information, leading to misdiagnosis. The lack of a
 standardized referral form in Somaliland was identified as a critical gap that
 needs addressing.
- Kangaroo Mother Care (KMC) Discharge: The final video focused on the discharge process for babies receiving KMC. It emphasized the importance of counseling and educating the family on post-discharge care at home and when to return for follow-up. This topic will be further explored on Day 6.





Medication Safety

The session on medication safety highlighted the potential errors that can make medicine administration unsafe for babies. Participants were reminded of the importance of concentration, focus, and dedication when administering medications. Real-life testimonies from participants underscored the risks of medication errors and reinforced the need for meticulous care in this area. Medication Calculation and Preparation

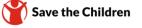
This session focused on the practical aspects of medication calculation and preparation, including dilutions and dose calculations. Participants engaged in hands-on practice, mixing and diluting medications, and determining the correct volumes for administration. The session also involved reviewing a patient file from the ward, which revealed several inadequacies in prescriptions, including the inappropriate use of oral phenobarbitone in a neonatal period, which should be avoided.

Neonatal Jaundice

A comprehensive presentation on neonatal jaundice was delivered, covering the causes, presentation, diagnosis, and classification of jaundice in newborns. The management of jaundice, particularly through phototherapy, was discussed in detail, including the preparation of the baby for phototherapy and the potential complications of treatment.

Post-Test and Daily Evaluations

The day concluded with a post-test to assess the participants' understanding of the topics covered, followed by the daily evaluations. The group was then divided into two: one group participated in a study tour of the neonatal unit for benchmarking purposes, while the other group remained for experience sharing.





06 Day 6: 12/Aug/2024

Method of Delivery: Recap, Group Discussions, Policy Development, and Closing Ceremony

Topics Covered: Kangaroo Mother Care (KMC) Discharge and Follow-Up, Program Development, Work Plans, and the Closing Ceremony

The day began with a recap of Day 5, delivered in Somali, followed by a summary of the evaluations. Participants expressed deep gratitude for the training, highlighting the value of the practical examples and visual aids provided. One participant, in particular, noted how the photos shared during the sessions broadened her understanding of neonatal abnormalities, a topic she had not encountered before. The detailed explanations throughout the training continued to resonate, preparing participants to implement the knowledge and skills acquired in their workplaces. Day 6 was marked by reflection, as participants expressed readiness to apply what they had learned as soon as they returned to their facilities.

Kangaroo Mother Care (KMC) Discharge and Follow-Up

The primary focus of the day was on developing effective policies for KMC discharge and follow-up. Participants engaged in in-depth discussions on the objectives of KMC within their facilities and the importance of transitioning care responsibilities from health workers to families. Communication and training of families were emphasized as crucial components of the KMC program.

Sub-Topics Discussed:

- Components of KMC Follow-Up: The holistic approach to KMC follow-up was emphasized, including training families in KMC positioning, nutrition, growth monitoring, and ongoing support.
- Early Discharge from the Neonatal Unit: Participants discussed the criteria for discharging a child and family from the neonatal unit, ensuring both are ready for the transition.
- Physical Structure of KMC Follow-Up Program: The importance of having a welldefined physical structure to support KMC follow-up was highlighted.
- Newborn Assessment for KMC Follow-Up: Participants discussed the critical factors to consider when admitting a newborn into the KMC follow-up program, such as gestational age at birth and anthropometric parameters.
- KMC Training: The training should begin with the first contact in the follow-up or KMC ward, with the aim of boosting the confidence of mothers and families to provide KMC effectively.
- Key Actions During KMC Follow-Up: Forming management teams for the program
 and ensuring that both the baby and family meet eligibility criteria for KMC followup.
- Evaluating Family Support Needs: A multidisciplinary approach was recommended, involving pediatricians, nurses, psychologists, physiotherapists, social workers, orthopedists, ophthalmologists, and other relevant professionals.
- Setting Up a Follow-Up Clinic: Participants brainstormed on designing a follow-up program tailored to their communities, leveraging the knowledge and skills acquired during the training. They discussed mobilizing resources from the government and partners to support these initiatives.





Closing Ceremony

The training was officially closed by Dr. Abdi Rahman, the Director of Hargeisa General Hospital (HGH), during a ceremony that featured several speeches.

- Co-Facilitator Hodan's Remarks: Speaking on behalf of the co-facilitators, Hodan
 expressed her gratitude for the learning experience over the past six days. She also
 thanked the consultant, Dr. Margaret, for her dedication and the continuous
 updates provided to the group.
- Dr. Margaret Nakakeeto's Address: Dr. Margaret extended her thanks to the Director of HGH for hosting the training and allowing access to the wards and patients. She also expressed special appreciation to Ms. Abdikadir for organizing the training and facilitating its success. Dr. Margaret emphasized the importance of developing systems for better implementation of the training outcomes, appealed for increased supplies and medicines for the neonatal department, and highlighted the need for a bigger space for the neonatal unit, including proper facilities like handwashing stations and a dedicated KMC ward. She also stressed the need for a follow-up clinic space and a sustainability plan. Finally, she thanked Save the Children for their support and funding.
- Dr. Saed Ibrahim (Save the Children Representative): Dr. Saed underscored the significance of the Level 2 training for health professionals and affirmed Save the Children's commitment to supporting the improvement of newborn care. He urged participants to apply the knowledge and skills they had gained to reduce newborn mortality in their settings. He also thanked the participants for their dedication and the consultant and co-facilitators for their efforts in making the training a success.
- Dr. Hodan Jama Abdi (Participant Representative): Dr. Hodan expressed her gratitude on behalf of the participants, highlighting the benefits of the training and pledging their commitment to applying what they had learned to enhance newborn care in their facilities.
- Dr. Abdi Rahman (Director of HGH): Dr. Abdi Rahman thanked Save the Children for organizing and funding the training and acknowledged the excellent work done by the consultant and co-facilitators. He congratulated the participants on completing the training and challenged them to become agents of change in their facilities. He expressed optimism that the trained health workers would improve the quality of newborn care and develop sustainable systems for its delivery. Dr. Abdi Rahman also pledged his support for the program, including increasing the budget for newborn care at HGH. He then officially closed the training and handed out certificates of attendance to the participants.







07 Day 7: 13/Aug/2024

Activity: Field Visit and Supervision at New Gabiley Health Centre.

Focus: Mentorship of Supervisors, Facility Tour, and Feedback Session

The seventh day of the training program was dedicated to a field visit to the New Gabiley Health Centre, aimed at mentoring supervisors and evaluating the implementation of neonatal care practices. The Terms of Reference (TOR) for the visit specified that the consultant would mentor the supervisors by visiting a facility where health workers had previously received training in the Helping Babies Survive (HBS) package in November 2023.

Morning Session: Meeting at Save the Children Office

The day began with a preparatory meeting at the Save the Children (SC) office, involving the supervisors' team and one of the co-facilitators. All trainers in the program were designated as supervisors and mentors. The purpose of the meeting was to provide guidance on the roles and responsibilities of a supervisor.

Qualities of a Supervisor:

The consultant outlined several key qualities essential for effective supervision:

- Use of All Senses: A good supervisor should utilize all five human senses (sight, smell, hearing, taste, and touch) and complement them with intuition and discernment.
- Supervision with Empathy: Supervision should be an enjoyable process, fostering participation and healthy discussion among staff rather than a punitive exercise.
- Building Confidence: Supervisors should help staff gain confidence by improving their knowledge and skills, which requires the supervisor to be well-versed in their field.
- Flexibility and Innovation: Supervisors should be open to change and innovative in their approach to problem-solving.
- Emotional Balance: Maintaining objectivity and emotional balance is crucial for fair and effective supervision.

Preparation for a Support Supervisory Trip:

- Planning Meeting: Held at least three days before the visit, this meeting should outline the objectives, required resources, and logistics.
- Communication: The facility in-charge should be informed ahead of time to ensure readiness.
- Task Assignment: Clearly define the tasks for each supervisor, appoint a team leader, and provide thorough instructions.





Visit to New Gabiley Health Centre

Upon arrival at New Gabiley Health Centre, the team was welcomed by the facility incharge, Sr. Farah Mohamed Farah. The visit began with introductions led by Dr. Saed Ibrahim of SC, who stated the purpose and objectives of the visit. Sr. Farah provided a brief history of the facility, which was established in 2017 with only seven staff members. With support from SC, the facility has since expanded its infrastructure and now has a team of 50 staff members.



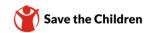
Implementation of HBS Training:

In 2023, five midwives from New Gabiley attended the Helping Babies Survive (HBS) training organized by SC in Hargeisa. Following the training, they developed a work plan that included:

- Implementing the 5S Program: Focused primarily on infection prevention and control.
- Establishing and Functionalizing KMC Corners: Dedicated spaces for Kangaroo Mother Care.
- Setting Up Resuscitation Corners: Located in the delivery room.
- Developing a Comprehensive Care System: Ensuring all departments are involved in the care of small and sick newborns, including pharmacy, laboratory, nutrition, and more.
- Resource Mobilization: Efforts to support the maternal and child health (MCH) component, especially newborn service delivery.

Sr. Hibo Mohamed was identified as the lead person for implementing the program. She demonstrated leadership qualities during the HBS training and has been recognized as a potential future trainer and mentor for health professionals in Somaliland. She, along with Sr. Nasra Ahmed Yuusuf, led the implementation efforts, supported by the facility in-charge and SC. The entire facility staff participated, reflecting strong teamwork and effective governance.







Facility Tour and Supervision

The supervising team, led by the facility staff, toured various departments, ensuring each was actively involved in the care of small and sick newborns. The consultant engaged with individual department heads, sharing insights and addressing challenges encountered in their roles. The tour included discussions on best practices and suggestions for improvement, such as the idea to create a dedicated shelf for neonatal commodities in the pharmacy to minimize stockouts.

Throughout the visit, the lead supervisor used a checklist to make observations and identify areas for improvement. The team also gathered information on the facility's resource sources to avoid duplication of efforts.

Findings:

The facility was well-organized and maintained a high standard of cleanliness. All staff members were present and knowledgeable about their roles, indicating strong teamwork and a clear system layout. The site was impressive in its organization and operations.

Major Observation:

The consultant noted a significant gap in male involvement in the MCH program. Fathers, who are often the heads of families and key decision-makers, were notably absent. The consultant raised critical questions about engaging men in newborn care, emphasizing that male involvement is crucial for the survival and well-being of newborns. This issue was highlighted as a priority for stakeholders to address, balancing cultural and religious considerations with the need for active male participation.

Recommendations:

- 1. Second Warmer: A second warmer should be provided in the postnatal ward near the KMC corner to stabilize sick babies before referral.
- 2. VAYU CPAP Provision: Providing the VAYU CPAP device, which features oxygen blending, could reduce unnecessary referrals and is important for transportation.
- 3. Affirmative Action for Newborns: Ensure that every department and program prioritizes newborn care.
- 4.Infection Prevention and Control (IPC): Maintain high standards across all departments, including washrooms, and provide training for the cleaning staff in IPC.
- 5.IPC Committee: Establish an IPC committee to oversee quality control activities within the facility.
- 6.Quality Improvement (QI) Projects: Initiate QI projects to enhance service delivery.
- 7. Benchmarking Visits: Encourage staff to visit other facilities to learn from and share experiences.
- 8. Research: Promote and support research initiatives to improve neonatal care practices.

Conclusion:

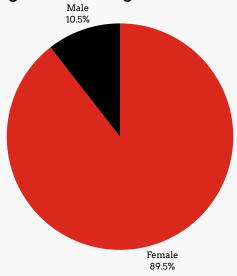
The visit concluded with a feedback meeting involving the entire facility staff. The consultant praised the team for their dedication and discussed a few challenges. Despite these, it was acknowledged that the facility has made significant progress and continues to expand.





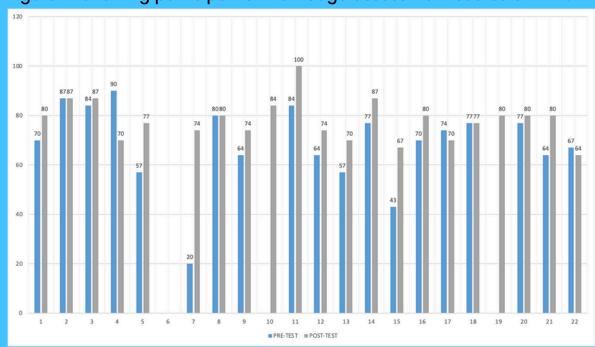
Participants

Figure 1. Showing distribution of participants by gender.



A total of 19 frontline health workers underwent training, with the majority being females, constituting 89% (17), while males accounted for only 11% (2).

Figure 2: Showing participants Knowledge assessment scores on KMC



The lowest pre-test score recorded was 20%, while the lowest post-test score was 64%. The average scores for the pre-test and post-test were 69% and 78%, respectively. The highest pre-test score was 87%, and the highest post-test score was 100%.





Challenges

Overall, there were no major challenges that could not be overcome. However, some issues arose during the training sessions:

FREQUENT INTERRUPTIONS:

The officers working at HGT were frequently interrupted to attend to patients. While we were patient and ensured they caught up with the rest of the class, this caused some disruptions. Additionally, SC staff had to juggle between the training and their office work.

DISTANCE TO THE NEONATAL UNIT:

The neonatal unit was located far from the training venue. This made visiting the ward challenging. Although we didn't visit as often as hoped, we utilized available moments to do so.

LACK OF EQUIPMENT:

We were unable to secure an intubation dummy for practicing intubation techniques. Instead, we used a video demonstration and managed to show the trainees the Endotracheal Tube (ETT), stylet, and laryngoscope.

VENUE CONSTRAINTS:

The training venue lacked adequate space and cleanliness. The area designated for serving food was particularly small and lacked proper hygiene standards.







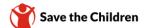


Conclusion:



Nineteen health workers from eight facilities in Somaliland, along with two supervisors from SC, successfully completed Level 2 newborn care training focused on small and sick babies. By the end of the training, participants demonstrated significant learning and gained confidence, with improved knowledge and skills. Their enthusiasm to implement changes in health service delivery for small and sick newborns in their facilities was evident, indicating a positive impact of the training program.

SOMALILAND





Recommendations

- 1. Adhere to WHO Guidelines: Health workers in Somaliland should strictly follow WHO guidelines for newborn care and avoid creating alternative practices.
- 2. Ongoing Training: Implement continued training programs to build on the skills and knowledge previously acquired.
- 6. Establish Sustainable Systems: Use QI projects to create responsive and sustainable systems that enhance newborn care.
- 3. Strengthen Health Systems: Develop and enhance health systems to support the delivery of high-quality newborn health care.
- 7. Develop Research Questions: Formulate research questions to provide evidence-based interventions for newborn care in Somaliland.
- 4. Implement Review and Audit Systems: Establish a review and audit system for newborn deaths and morbidities to improve the quality of care.
- 8. Engage Male Involvement: Develop strategies to involve men in maternal and newborn health care service delivery.
- 5. Design Quality Improvement (QI) Projects: Utilize collected data and audit reports to design and implement QI projects.
- 9. Develop National Guidelines: Create and implement national guidelines and protocols for newborn care.
- 10. Benchmarking Opportunity: Sponsor key individuals to visit Uganda for benchmarking and further exposure, preparing them to become national trainers, mentors and supervisors.

 Suggested candidates include Dr. Hayat Hussein Hassan, Sr. Hibo Mohamed Yusuf, Sr. Nasra Nasir Osman, and Ms. Abdikadri Hussein Mohamed.









Annex I: Attendance List

COMPREHENSI	COMPREMENSIVE NEWBORN HEALTH TRAINING FOR LEVEL2, CARE OF SMALL AND SICK BABIES FOR NURSES, MIDWIFES AND DOCTORS IN NEONATAL DEPARTMENTS. IN AWDAL, GABILEY AND MARODIJEH REGIONS.	L2, CARE OF SMALL AND SICK BABIES	FOR NURSES, MIDWIFE	S AND DOCTORS IN NEC	NATAL DEPARTMENTS. IN	AWDAL, GABILEY AND I	ARODIJE
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ANNEX | WORK PLANS

WORK PLAN FOR HARGEISA GENERAL HOSPITAL

GAP	ACTIVTIES	INPUTS	RESPONSIBLE PERSON	MEANS OF VERIFICATION
No follow-up clinic for premature and small babies	Set up a follow up clinic in the hospital Train staff to run the clinic	Room Furniture Follow up charts/ books, stationery Scale, tape measure thermometer, etc	Dr. Akahiim Sr. Nasra	Established follow-up clinic for discharged small and sick babies from the NICU
Gap administration of medication	Teach staff drugadministrati on safety Mixing medication	Stationery, projector medicine for demonstration	Sr. Kadha Sr. Sam Sam	Training report Change of practice by staff
Staff lack the knowledge and skills in KMC	Train staff working with small & premature babies Pre/Post Knowledge and Skills tests.	Stationery, Preemie Natalie, wraps, cups Mama Breast, Video projector, weighing scale, tape measure etc	Sr. Nasra S,	Training report Improved knowledge & skills of staff (Observation) Pre- test & Post-test results

WORK PLAN FOR THE MCH FACILITES (NEW GABILEY HC, CARO MADOW HC, DIGAALE HC. XADI MCH AND CEEL BAXAY HC)

GAP	ACTIVTIES	INPUTS	RESPONSIBLE PERSON	MEANS OF VERIFICATION
No follow-up program for premature and small babies	Set up a follow up program Train staff including cleaners	Furniture Follow up charts Scale, tape measure thermometer, etc	Facility staff lead by the midwife who attended the training	Established program and follow-up clinic
Lack of space for counseling & trainingmothers	Identify the space for counseling and provide health education	Furniture Markers, flip charts, training materials	In-charge maternity and facility Leader trained MW	Training reports
No KMC program	Set up a KMC ward Train staff in KMC knowledge & skills	KMC corner with a b KMC wraps, feeding tubes, cups, scale, thermometers, screens, sanitizer, hand washing facilit Vayu CPAP, etc	trained in the level 2	Established KMC program Training report





WORK PLAN FOR BOROMA REGIONAL HOSPITAL

GAP	ACTIVTIES	INPUTS	RESPONSIBLE PERSON	MEANS OF VERIFICATION
No follow-up clinic for premature and small babies	Set up a follow up clinic in the hospital Train staff to run the clinic	Room or space Furniture Follow up charts & stationery Scale, tape measur staff telephone, sanitizer, register, staff, thermometer, etc		Established follow up clinic Training report Documentation in register & forms
No KMC ward	Set up a KMC ward Train staff in KMC knowledge & skills	Training materials (Stationery, Preemi Natalie, wraps, cup Mama Breast, Video projector, weighing scale, tape measure etc) KMC room & beds, hand washing facili sanitizer, Vayu CPA	were in the training s, os, e, ty,	Established KMC ward Training reports
Lack of phototherapy	Procure 2 phototherapy machines by writing a proposal to the donors (SC), Ministry of Health Department & hospital administration Train staff on how to use a phototherapy machine	Funds for phototherapy machine Training materials (stationery, projectorideos,	Dr. Hodan Jama	Phototherapy machines in the NICU Training report





WORK PLAN FOR GABILEY GENERAL HOSPITAL

GAP	ACTIVTIES	INPUTS I	RESPONSIBLE PERSON	MEANS OF VERIFICATION
No Follow-up Clinic for dischargedpre mature babies	Set up a follow-up clinic in the hospital Training staff on KMC package/ components Establish community follow-up system (tracking mothers) Training staff to run the clinic	Room or space Furniture Follow up charts & stationery, telephone Scale, tape measure, staff telephone, sanitizer, register, staff, thermometer, etc		Established follow-up clinic Training report
Infection Prevention and Control (IPC)	Develop an program for IPC Set up an IPC committee Train staff on infection prevention and control	Hand wash basin/ sink Hand sanitizer Four buckets Waste bins, sharps' containers, shoes fo NICU, protocols, PPE materials, etc Training materials with videos, projecto		Committee in place Training reports Waste bins, hand washing facility, PPE materials available



REPUBLIC OF SOMALILAND MINISTRY OF HEALTH DEVELOPMENT

ANNEX III PHOTO GALLERY



Modified lectures



Trainer Engages in Kangaroo Mother Care (KMC) While Simultaneously Teaching, Providing a Live Demonstration and In-Depth Instruction to Enhance Participant Learning.

Participants Perform Return Demonstrations on Kangaroo Mother Care (KMC), Reinforcing Their Skills Through Hands-On Practice





On the left: Participants closely observe the KMC wraps presented by Dr. Margaret during training. On the right: Participants proudly display the KMC wraps they crafted after the training session.





Trainees engage in small group discussions while conducting return demonstrations, reinforcing their skills through hands-on practice.



Celebrating the successful completion of training, Participants and facilitators at the closing ceremony



Proud moments as participants receive their certificates, all participants received a certificate



Dr. Margaret proudly donates equipment from her American friends to enhance care and make a difference.



site visit and supervision session at NEW Gabiley HC

35



ANNEX II TABLE OF PARTICIPANTS

NUMBER	NAME
1	Abdikadir Hussein Mohamed
2	Nasra Nasir Osman
3	Hibo Muhamed Yusuf
4	Hodo Mohamoud Omer
5	Sam Sam Ahmed Omer
6	Ahmed Ibrahim Mohamed
7	Ayaan Omer Abdi
8	Gudon Mahamed Mohamoud
9	Mona Omer Macalin
10	Nimo Osman M
11	Abdulaahi Omer Hassan
12	Faiza Jama Awalleh
13	Sucaad Ahmed Furre
14	Kafiya Jama Ismail
15	Hamda Yasin Jama
16	Ahmed Ibrahim Mohamed
17	Zam Zam Khadar Muse
18	Siman Muhumed Roble
19	Khadra Salah Osma
20	Fardusa Mahamed Diria
21	Hodan Jama Abdi
22	Wiilo Muumin Rooble



