

**United Republic of Tanzania**



**Ministry Of Health And Social Welfare**

**KANGAROO MOTHER CARE**

**FACILITATORS MANUAL**



**REPRODUCTIVE & CHILD HEALTH SECTION  
SEPTEMBER, 2008**

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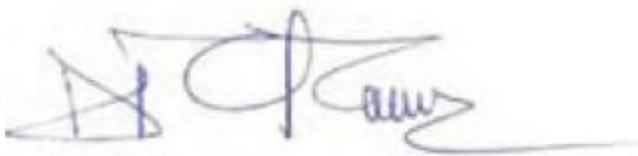
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## FOREWORD

Tanzania is one of the ten countries contributing to 66% of the global total of newborn deaths. Reduction of neonatal deaths is a major public-health priority as 29% of child deaths are among newborns. Improving neonatal survival is essential in attaining the Millennium Development Goal 4 on child mortality to reduce the rate of mortality of children under five by two thirds between 1990 and 2015. Tanzania has shown improvement in child survival but no significant gain in newborn survival over the past decade which calls for innovative solutions and commitment to this problem.

In Tanzania, it is estimated that around 13% of babies are born with low birth weight. Low birth weight contributes to 86% of neonatal deaths. Low birth weight has detrimental effects on the survival, growth and development of newborns. Additionally, preterm birth is a significant killer of newborns; an estimated 27% of newborns deaths are directly due to complications of preterm birth. Kangaroo Mother Care for preterm and low birth weight babies is one of the evidence-based and cost-effective child health interventions when implemented at high coverage. It is less labour intensive than conventional care and requires few or limited resources, hence financially and economically feasible.

It is the expectation of the Ministry, that partners will use this manual to train the health workers on this proven low cost effective intervention for the survival of low birth weight babies in the effort of lowering the neonatal deaths.



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**Chief Medical Officer,**  
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## ACKNOWLEDGEMENTS

The Ministry of Health and Social Welfare would like to acknowledge the authors and contributors of the following, whose original manuscripts and efforts informed the development of this manual:

- *Kangaroo Mother Care Training Manual* (Save the Children/US—Saving Newborn Lives Initiative), Saving Newborn Lives/Malawi (2005)
- *Kangaroo Mother Care Training Manual* (ACCESS, Save the Children, USAID) (2006)
- *Kangaroo Mother Care: A Practical Guide* (WHO, 2003)
- *Implementation Workbook for Kangaroo Mother Care* (MRC Unit for Maternal and Infant Health Care Strategies, 2002)
- *Mother and Baby Friendly Care* (Units on KMC) (Perinatal Education Programme, 2002)
- *WHO Essential Newborn care Course: Training Manual* (2007)

Ministry extend a special thanks to individuals and organizations that contributed considerable time and effort to the adaptation of this KMC Training Manual. The process of writing, reviewing and revising the materials several times required dedication and patience.

The Ministry particularly wishes to acknowledge the invaluable contribution of the technical group members:

Dr. Catherine Sanga, AD RCH, Dr. Neema Rusibamayila, IMCI Coordinator; Dr. Georgina Msemo, Newborn Health Program Officer; Dr. Erica T. Mwakigonja, Paediatrician (MoHSW); Dr. Mariam Ongara, District Medical Officer (Kibaha DC); Zubeda Dihenga, Nursing Officer; Dr. Hores I. Msaky, Nutritionist/Paediatrician (Morogoro Regional Hospital); Dr. Andrew Isaack Lwali, Paediatrician (Tumbi Special Hospital); Mrs. Heroscline Magesa, Nurse Tutor; Dr. Rodrick Kisenge, Paediatrician (MUHAS); Dr. Theopista John, NPO-MPS (WHO); Dr. Anne Marie Bergh, Researcher (MRC Unit); Kate Kerber, (Saving Newborn Lives) and Hasara Maulidi for her secretarial support.

Lastly, the Ministry would like to thank Saving Newborn Lives/Save the Children-US for the financial support provided for the adaptation and printing of the Kangaroo Mother Care in Tanzania training manuals.



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## I. THE TRAINING PROGRAMME AND MANUALS

Kangaroo mother care (KMC) is an integral part of caring for low birth weight (LBW) babies. Ideally it should be part of all training in newborn care, as well as part of the pre-service training programs of all health workers. As KMC is not practiced widely in Tanzania yet, it is necessary to highlight KMC and to acquaint health workers with the principles and practice of KMC in a more detailed manner.

### Outline of training program

The training program is divided into **three modules**. Each module consists of a number of units, as is reflected in the table of content. These three modules can be used together in a four- or five-day training program for master trainers. Each module can also be used on its own.

- The **first module** deals with newborn care, especially those aspects pertaining to LBW babies. This module is useful for all health workers who need more knowledge and skills about the management of low birth weight (LBW) babies or who have not been trained in other basic newborn care programs such as Essential Newborn Care (ENC) or Life Saving Skills (LSS).
- The **second module** provides detailed training on the principles and practice of KMC. It can be used on its own to train all health workers in a health care facility that intends to introduce a KMC program or to train health workers who have already been trained in other basic newborn care programs (e.g. ENC or LSS). The practical parts can also be used to train health cadres who do not need knowledge and skills in all aspects of KMC and newborn care, for example ambulance nurses and drivers, or community-owned resource persons (CORPs).
- The **third module** comprises two specialized modules for participants needing guidance in establishing KMC services and a KMC unit and in setting up and managing supervisory and monitoring and evaluation (M&E) programs.

The training program is supported by **two manuals**:

- a manual for trainees, and
- a manual for facilitators.

This manual, the facilitator's manual, gives guidelines to trainers on how to conduct the various sessions. The manual for trainees contains all the information that participants are supposed to receive in the form of handouts and the activities that they should participate in. **If you are training Master Trainers, the trainees receive BOTH manuals, as they will become facilitators.** If you are doing selective training on only some aspects of KMC you can make copies of the relevant pages in the manual for trainees as handouts for the participants and ignore the rest.

The training for KMC is competency-based and the information and skills may be used to teach health workers how to care for LBW babies. Although the manuals have been developed for in-service training of health workers who already have basic skills in maternal and newborn care, it could also be adapted for pre-service training.



## Structure of the training manuals

Both manuals have the same structure. The modules are numbered Module 1, Module 2 and Module 3. Each module consists of two to five units that comprise the core curriculum. All the units in Module 1 start with 1, for example the first unit in Module 1 is Unit 1.1, the second unit is Unit 1.2 and the third Unit 1.3. The first unit in Module 2 is Unit 2.1, the second is Unit 2.2, and so forth. The same goes for Module 3, with Unit 3.1 and Unit 3.2. At the beginning of each unit a general and specific objectives are stated and there is an overview of the content of the unit. Each unit is again divided into a number of sessions to achieve the specific objectives. Each session consists of a variety of activities. The sessions are also numbered in accordance with the module and unit numbers. For example, Session 1.1.1 is the first session in Module 1, Unit 1.1 and Session 2.3.5 is the fifth session in Module 2, Unit 2.3. In some sessions the headings are also numbered to make it easy for participants to find specific content.

The last session of each unit is entitled, “Summary of Unit sessions”. This is the point where you will assess how well participants have understood the Unit as a whole and what the issues are that are still unclear. Case studies in this session also provide the opportunity for evaluation and could also be used to assess the progress of individual participants or groups.

A planning guide appears at the beginning of each unit in the facilitator’s manual. It is in the format of a table in which you will add detail to personalise your planning for each session. In the manual for trainees the sessions are listed with a space for participants to add in time slots and write other remarks. This manual also includes a template for planning the agenda or program of the workshop.

## II. PREPARING FOR TRAINING

### Materials needed

Use the following checklist to ascertain which of the following equipment will be available and plan the materials that you will take along accordingly.

Equipment	Y	Materials / Consumables	Y
Computer		Slides and presentations (use existing ones or prepare own)	
Printer		Paper, toner	
Data projector			
Sound system to link to computer for playing DVD from computer			
Video player and TV screen		Video(s): List the videos/DVD that will be available and used	
DVD player and TV screen (if the video is available on DVD)		DVD(s)	
Overhead projector		Transparencies, pens	
Flipchart board*		Flipchart paper, markers	
Chalk board		Chalk, eraser	
White board		White board marker, eraser	
“Not to forget”		Blank writing paper, pens	

\*If there is no flipchart board the paper could be attached to the walls with masking tape, if the facility would allow it.



For some sessions specific teaching materials are indicated. They will be listed at each of the sessions in this manual, but the following list can be used as a checklist. Also think creatively how you will manage if some of the items will not be available:

Item	Y	Item	Y
Baby doll/model (newborn)		Low reading thermometer*	
Baby cap		Weighing scales*	
Socks		Stethoscope*	
Nappy		Watch with second hand	
Baby shawl/blanket		Referral forms	
		Resuscitation kit	
Breast and breastfeeding models			
Cups		Low birth weight registers	
Nasogastric tubes		Vital signs chart	

\* Organise with the institutions where training will take place for these items

## Planning for training

A little bit of planning will go a long way to ensuring everything runs smoothly during the training workshop. The template on the following page can be adapted for your purposes.

**TEMPLATE FOR WORKSHOP PREPARATION**

	<b>Action</b>	<b>Responsible person(s)</b>	<b>Deadline(s)</b>	<b>Remarks</b>
1	Venue			
2	Inviting participants			
3	Speakers/facilitators invited			
4	Accommodation			
5	Transport			
6	Catering			
7	Audiovisual equipment			
8	Printing (manuals, handouts etc)			
9	Stationery			
10	Photocopying/printing facilities available at the venue?			

## Teaching Preparation

### Teaching methods

A few general teaching methods such as brainstorming, discussion, role-plays and demonstrations will be used throughout the training. The suggestions given in the Unit outlines are guidelines. Use the following list of teaching methods when you complete the planning guide for each individual session.

- Brainstorm
- General discussion
  - Discussion followed by a correct answer or definition
  - Discussion followed by a summary of the most important points
- Questions and answers
- Demonstration by facilitator (classroom or clinical)
- Return demonstration by participants (classroom or clinical)
- Practical work
- Clinical drill
- Case study
- Role-play
- Video/DVD
  - Identification of Low Birth Weight Babies (Unit 1) – Not yet available but forthcoming
  - IMCI video (MODULE 1)
  - Nils Bergman: Restoring the Original Paradigm (Theory for Doctors and nurses) and Rediscovering the Natural Way to care for your newborn baby (Practical support for parents and nurses) (MODULE 2)
  - Zimbabwe video – more background, not training (MODULE 2)
- PowerPoint presentations (See KMC Toolkit CD for options – Folder A: Visual materials)
- Posters and Counselling cards (See KMC Toolkit CD for options – Folder A: Visual materials)
  - Danger Signs, Newborn Care, Malawi Counselling Cards
  - KMC photos, KMC Made Easy Wall Poster

Use a method that suits your style, but it is very important to maintain interaction with the participants. See yourself not as a teacher or a trainer, but as a facilitator – you make it easier for participants to grasp the basics and to practise their skills. The participants all come with experience that is useful to share with the others. While preparing your sessions, ask yourself:

*How can I actively engage the participants?*

If you don't know how to introduce a topic apart from giving a lecture, first ask the participants what they know about the topic, brainstorm with them on a flip chart for example, and then you summarise the main points at the end of the discussion. The most important content is in any case contained in the manual for trainees, so you can always refer back to a particular page or section number, and participants can always look up specific sections afterwards if they are uncertain. Prepare the most

important points on flipcharts or as slides and use them at appropriate points during the activities.

Other hints:

- Provide a verbal outline at the beginning of each session – in other words, tell participants the most important things that you are going to discuss.
- Ask one of the participants to recap the most important messages of the previous day at the beginning of the next day (about 10 minutes).

### **Practical sessions**

Where you will fit in your practical sessions will depend on your training venue. If you can only get to a neonatal unit once, you may need to group together some of the practical sessions in Modules 1 and 2. If it will be difficult to get to a hospital that cares for low birth weight babies, you may have to make do with having practicals at the workshop venue. It may be useful to have one or more mothers (with full term babies) there for some of the breastfeeding practicals. Newborn dolls could be used for practising physical examinations and participants could play the role of mothers if necessary. Slides or videos/DVDs could be used to demonstrate, for example, the differences on characteristics and classification between preterm, small-for-gestational-age and term babies. The same goes for breastfeeding technique and cup feeding.

### **Handouts**

Identify for which of the handouts or checklists you would like to copy and make sure they will be available in time.

### **Checklists**

Both the manual for the trainees and this manual contain a number of the same performance checklists. These checklists break each skill down into a sequence of discrete, small, clearly observable steps. In this manual for facilitators the checklists have additional columns to the right that the facilitator can use to rate the performance of participants in various skills. Make sufficient copies on which you can score each participant separately. A facilitator can use the checklists in several ways:

- To assess competency on key skills before training
- To monitor trainees' progress during training
- To assess skills at the end of training
- To assess retention and skill retention later (at some time after the completion of training, such as during supervision)

### **Evaluation**

At the end of Module 3, participants will be requested to complete the same knowledge questionnaire as at the beginning of the training. Also administer a short questionnaire asking participants how confident they feel about their knowledge and skills with regards to issues addressed in the various modules and units.

The training and facilitation will be evaluated with a standard form to help improve future training.

**Additional resources on the KMC toolkit CD**

The KMC Toolkit CD contains a variety of very useful materials. Browse through the files and decide what may help you in your preparation. The following may be useful for particular modules:

**Module 2**

- Kangaroo Mother Care Introduction and Components (CD, Section C, PowerPoint presentations)
- Nils Bergman's "Introducing kangaroo mother care" (CD, Section C, Articles)
- PEP Units (CD, Section C, Training Manuals)
- Kangaroo Mother Care Made Easy (CD, Section A, Posters)
- H Blencoe & H Molyneux "Setting up Kangaroo Mother Care at Queen Elizabeth Central Hospital, Blantyre – A practical approach (CD, Section C, Articles)

**Module 3**

- KMC workbook (CD, Section B, Workbook)

### III. PLANNING GUIDES FOR WORKSHOP UNITS

Each of the three Modules is comprised of Units which are comprised of Sessions. Each Unit follows the same pattern: Introduction and Objectives; Unit Sessions; Case Study and Summary.

#### **Module 1: Low Birth Weight Babies (*suggested time: 1 day*)**

**Unit 1.1:** Introduction to Preterm/Low Birth Weight Babies

**Unit 2.1:** Danger Signs and Common Problems in Low Birth Weight Babies

**Unit 3.1:** Hypothermia in the Newborn

#### **Module 2: Kangaroo Mother Care (*suggested time: 2 days*)**

**Unit 2.1:** Introduction to Kangaroo Mother Care for Low Birth Weight Babies

**Unit 2.2:** The Practice of Kangaroo Mother Care and Skin-to-Skin Care

**Unit 2.3:** Feeding, Nutrition and Growth Monitoring in Kangaroo Mother Care

**Unit 2.4:** Kangaroo Mother Care Discharge

**Unit 2.5:** Counselling on Kangaroo Mother Care

#### **Module 3: Management of a Kangaroo Mother Care Program (*suggested time: 1 day*)**

**Unit 3.1:** Establishment of Kangaroo Mother Care Services

**Unit 3.2:** Kangaroo Mother Care Supervision, Monitoring and Evaluation

**PLANNING GUIDE****Module 1 Unit 1.1 – Introduction to Preterm/Low Birth Weight (LBW) Babies**

#	SESSION TOPIC	SUGGESTED LENGTH	CONTENT	TEACHING METHODS & EVALUATION (complete)	MATERIALS & OTHER REMARKS (complete)
1.1.1	Definition and categories of low birth weight (LBW)	15 minutes	Descriptions of preterm and SGA baby		
1.1.2	Contribution of LBW to poor neonatal outcome	5 minutes.	Global / national statistics		
1.1.3	Causes of LBW	20 minutes	Maternal conditions Fetal problems		
1.1.4	Characteristics and classification of low birth weight babies	20 minutes overview / 30 minutes role play	Physical features of a preterm and SGA baby Assessing maturity Physical examination		
1.1.5	Needs and problems of LBW babies	15 minutes	Needs, problems and actions for health, feeding and support		
1.1.6	Current care of low birth weight babies in Tanzania	10 minutes	Conventional care Baby cots Home care Need for KMC / skin-to-skin contact		
1.1.7	Case Study and Summary of Unit	20 min			

**PLANNING GUIDE****Module 1 Unit 1.2 – Danger Signs and Common Problems for Low Birth Weight Babies**

#	SESSION TOPIC	SUGGESTED LENGTH	CONTENT	TEACHING METHODS & EVALUATION (complete)	MATERIALS & OTHER REMARKS (complete)
1.2.1	Common problems in the low birth weight babies	10 ,minutes	Oral thrush Skin pustules Eye discharge Redness of cord		
1.2.2	Management of common problems in LBW babies	20 minutes	Management for oral thrush, skin pustules, eye discharge, mild cord infection		
1.2.3	Identifying Newborn Danger Signs	15 minutes introduction / 15 minutes video	Poor feeding or not sucking Fever Hypothermia in spite of efforts to re-warm Convulsions Breathing problems Lethargy Jaundice Redness, swelling		
1.2.4	Referral of babies with danger signs	15 minutes	Criteria and levels of referral		
1.2.5	Case Study and Summary of Unit	30 min			



PLANNING GUIDE					
Module 1 Unit 1.3 – Hypothermia in the Newborn					
#	SESSION TOPIC	SUGGESTED LENGTH	CONTENT	TEACHING METHODS & EVALUATION (complete)	MATERIALS & OTHER REMARKS (complete)
1.3.1	Description of hypothermia	30 minutes	What is hypothermia? Signs of hypothermia Ways through which babies loose heat		
1.3.2	Prevention of hypothermia	20 minutes	Delivery Immediate drying and skin-to-skin contact Feeding Delay bathing Transportation Procedures Actions to prevent or stop heat loss		
1.3.3	Management of hypothermia	10 minutes	Steps in gradual re-warming Severe hypothermia – skin-to-skin		
1.3.4	Case Study and Summary of Unit	25 minutes			

**PLANNING GUIDE****Module 2 Unit 2.1 – Introduction to Kangaroo Mother Care for Low Birth Weight Babies**

#	SESSION TOPIC	SUGGESTED LENGTH	CONTENT	TEACHING METHODS & EVALUATION (complete)	MATERIALS & OTHER REMARKS (complete)
2.1.1	Background	20 minutes	Introduction Definition of KMC Who can provide KMC? Types of KMC		
2.1.2	Comparing KMC and conventional care	30 minutes	Requirements Advantages and Challenges of KMC and conventional care		
2.1.3	Elements of KMC	20 minutes	KMC position, nutrition, discharge Kangaroo mother care support		
2.1.4	Case Study and Summary of Unit	20 minutes			

**PLANNING GUIDE****Module 2 Unit 2.2 – The practice of KMC and skin-to-skin care**

#	SESSION TOPIC	SUGGESTED LENGTH	CONTENT	TEACHING METHODS & EVALUATION (complete)	MATERIALS & OTHER REMARKS (complete)
2.2.1	Starting with KMC	15 minutes	Admission to KMC		
2.2.2	Positioning the baby in KMC	60 minutes	Proper positioning of the baby in KMC		
2.2.3	Clinical care during KMC	15 minutes	Caring for babies in KMC safely Documenting clinical care in KMC Handling the premature baby Basic infant care		
2.2.4	Case Study and Summary of Unit	10 minutes			

**PLANNING GUIDE**
**Module 2 Unit 2.3 – Feeding, nutrition and growth monitoring in KMC**

#	SESSION TOPIC	SUGGESTED LENGTH	CONTENT	TEACHING METHODS & EVALUATION (complete)	MATERIALS & OTHER REMARKS (complete)
2.3.1	Nutrition and growth monitoring during KMC	45 minutes	Feeding techniques during KMC Feeding when mother is HIV-positive Monitoring growth in a LBW baby		
2.3.2	Breastfeeding	30 minutes	Benefits of breast milk feeding for LBW babies Tips to help a mother breastfeed her preterm baby Counselling and helping the mother with breastfeeding Observation of breastfeeding		
2.3.3	Expressing breast milk	30 minutes	How to express breast milk Steps for expressing and observing expression of breast milk		
2.3.4	Cup feeding	15 minutes	Benefits of cup feeding How to cup feed		
2.3.5	Tube feeding	15 minutes	Criteria for NG tube feeding Method Feeding schedule		
2.3.6	Case Study and Summary of Unit	45 minutes			

**PLANNING GUIDE****Module 2 Unit 2.4 – Kangaroo Mother Care Discharge**

#	SESSION TOPIC	SUGGESTED LENGTH	CONTENT	TEACHING METHODS & EVALUATION (complete)	MATERIALS & OTHER REMARKS (complete)
2.4.1	Criteria for discharge from the KMC Unit	30 minutes	Discharge criteria Pre-discharge readiness score sheet		
2.4.2	Guidelines for follow-up after discharge from the KMC Unit and discontinuation of KMC	20 minutes	Timing, procedure and content of follow-up visits Discontinuation of KMC Recording discharge and follow-up visits		
2.4.3	Guidelines for readmission to the KMC Unit	10 minutes			
2.4.4	Case Study and Summary of Unit	10 minutes			

**PLANNING GUIDE****Module 2 Unit 2.5 – Counselling on Kangaroo Mother Care**

#	SESSION TOPIC	SUGGESTED LENGTH	CONTENT	TEACHING METHODS & EVALUATION (complete)	MATERIALS & OTHER REMARKS (complete)
2.5.1	Definition and principles of counselling and communication	30 minutes	Description of counselling Who should provide KMC counselling? Principles of counselling and interpersonal communication		
2.5.2	KMC Counselling	25 minutes	How to provide information to mothers/ caregivers on how to care for LBW babies		
2.5.3	KMC Counselling Practice	60 minutes			
2.5.4	Case Study and Summary of Unit	30 minutes			

**PLANNING GUIDE****Module 3 Unit 3.1 – Establishment of Kangaroo Mother Care Services**

#	SESSION TOPIC	SUGGESTED LENGTH	CONTENT	TEACHING METHODS & EVALUATION (complete)	MATERIALS & OTHER REMARKS (complete)
3.1.1	Seeking institutional support for establishing KMC services	50 minutes	Rationale for establishing KMC services Steps in seeking support from institutional administration SWOT analysis		
3.1.2	Preparation and requirements for KMC services	15 minutes	Statistics Human resources Physical resources Education and recreation		
3.1.3	Action plan to establish KMC services	45 minutes discussion / 30 minutes role play	Examples of plans of action Role play		
2.1.4	KMC advocacy, awareness, orientation and education	30 minutes	Development of a mind map		
3.1.5	Case Study and Summary of Unit	15 minutes			

**PLANNING GUIDE****Module 3 Unit 3.2 – KMC Supervision, Monitoring and Evaluation**

#	SESSION TOPIC	SUGGESTED LENGTH	CONTENT	TEACHING METHODS & EVALUATION (complete)	MATERIALS & OTHER REMARKS (complete)
3.2.1	Principles of supervision	30 minutes	Elements of supervision Supervision is a continuing process		
3.2.2	The KMC supervision process	20 minutes	Preparation for supervision Supervision protocols Contents of supervisory checklist District level supervision		
3.2.3	Monitoring and evaluation	20 minutes	Data collection Use of data Data flow		
3.2.4	Case Study and Summary of Unit	15 minutes			



**Pre-Test: Training knowledge assessment**

Make a copy of the questionnaire on the pages that follow for each of the trainees. Encourage trainees to use a code instead of their name, and to remember the code so that they can use the same one in the post-test. Trainers should score and analyse the results of the pre-test questionnaire as soon as possible, so that content or teaching methods of a course or unit module can be adapted, if needed, to meet the learning needs of a particular group of trainees. Any questions that are found to be too difficult or invalid should be deleted before the post-test is administered.

Suggested time: 20 minutes

**ANSWER KEY FOR KNOWLEDGE ASSESSMENT**

1. b.	6. a	11.b	16.c
2. c	7. d	12.d	17.d
3. d	8. c	13.d	18.a
4. b	9. c	14.a	19.a
5. c	10.d	15.d	20.b

## KNOWLEDGE ASSESSMENT

Name/Code: \_\_\_\_\_

Date: \_\_\_\_\_

### Instructions:

- Fill in a code that you will remember and the date.
- Circle the letter of the single **BEST** answer to each question.

1. Baby Musa is born and weighs 2000 grams. Baby Musa is:
  - a) Normal weight for a term newborn
  - b) LBW
  - c) Very LBW
  - d) Above normal weight for male infants
2. What is baby Musa's chance of survival?
  - a) About the same for other newborns in his community
  - b) Better than the average male newborn
  - c) Lower than babies with a birth weight of 2500 grams
  - d) A little lower than those babies who are very LBW
3. LBW babies are more likely to have a problem with:
  - a) Low blood sugar
  - b) Warmth
  - c) Infections
  - d) All of the above
4. A typical LBW baby will benefit most from:
  - a) A bath soon after birth to prevent infection
  - b) Skin-to-skin contact with the mother
  - c) Antibiotics by injection
  - d) A small amount of sugar water in the first day of life
5. Danger signs in LBW babies are:
  - a) Different than for normal weight babies
  - b) Not as common as they are in normal weight babies
  - c) Serious and include feeding and breathing problems
  - d) Not very serious since the infant is small
6. Essential newborn care for ALL babies, regardless of weight, should include which of the following?
  - a) Cord care
  - b) Intermittent KMC
  - c) Preventive drugs for malaria
  - d) None of the above

7. Kangaroo mother care (KMC) is a method that:
  - a) Should only take place in hospitals
  - b) Should only be practiced by the birth mother
  - c) Both a and b
  - d) Is a natural method for caring for LBW infants
  
8. One advantage of KMC compared to conventional care is:
  - a) Can be done by providers if mothers are busy
  - b) Similar cost to the client
  - c) Improved breastfeeding
  - d) Access to skilled care due to longer hospital stay
  
9. The duration of KMC depends on all of the following except:
  - a) The condition of the baby
  - b) The baby's weight
  - c) The method of family planning the mother decides to use
  - d) How the baby tolerates KMC
  
10. Baby Sarah was born at 34 weeks gestation and is being prepared for KMC. The midwife should dress Baby Sarah in the following clothing to ensure that she stays warm
  - a) Socks
  - b) A long sleeved shirt
  - c) A hat
  - d) Both a and c
  
11. Babies can lose heat when:
  - a) The baby remains in KMC for too many hours.
  - b) The baby is placed in a cot.
  - c) The bath is delayed for more than 24 hours.
  - d) Antiseptics are applied to the cord.
  
12. Baby Sarah's father wants to help care for his daughter. He can safely do which of the following while practicing KMC?
  - a) Take a shower
  - b) Go swimming in shallow water
  - c) Play a short game of football if he is gentle
  - d) Take a long nap
  
13. Baby Lillian was born at home and is now being cared for with the KMC method. Her suck reflex is present but not very strong. In order to ensure that Baby Lillian gets enough nourishment, the midwife teaches the mother to:
  - a) Give infant formula by cup
  - b) Bottle-feed expressed breast milk
  - c) Give sugar water between feeds if hungry
  - d) Give expressed breast milk by cup

14. All of the following are true about cup feeding except:
- a) The baby cannot control the amount of milk taken in.
  - b) Breathing is easier than in bottle-feeding.
  - c) The jaw action prepares a baby to breastfeed later.
  - d) It takes less energy than bottle-feeding.
15. The quantity and frequency of baby Lillian's feeds during the first two weeks will depend on:
- a) Her birth weight
  - b) Her age
  - c) How much she sleeps
  - d) Both her birth weight and age
16. While observing a mother expressing breast milk, the doctor notices that she massages the breast from the outside toward the nipple. The doctor encourages the mother to:
- a) Massage the breast in the opposite direction
  - b) Massage both breasts at the same time
  - c) Continue correct technique
  - d) Both a and b
17. Tube feeding is advised for all LBW infants who:
- a) Weigh less than 1000 grams
  - b) Cannot cup feed
  - c) Cannot breastfeed
  - d) Both a and b
18. Feeding of LBW babies with breast milk can result in:
- a) Better weight gain
  - b) More dehydration and eventual hypoglycemia
  - c) Higher incidence of vomiting and diarrhoea in preterm babies
  - d) Slower gastric emptying
19. A baby in the KMC unit becomes sick and needs to be referred. Which of the following should be practiced during referral:
- a) The mother keeps the baby in skin-to-skin contact during transport.
  - b) The mother refrains from feeding the sick infant to avoid breathing problems.
  - c) The mother keeps the baby in a cot to avoid cross-infection.
  - d) The baby is periodically given oxygen.
20. A mother has been practicing KMC at home for four weeks. Her baby now weighs 2500 grams and no longer tolerates the KMC position. When she returns for a follow-up visit, the doctor advises her that she can:
- a) Continue KMC until the baby gains more weight
  - b) Discontinue KMC if the baby is otherwise well
  - c) Return in two weeks for a follow-up visit
  - d) None of the above

## MODULE 1: LOW BIRTH WEIGHT BABIES

### Module 1 Unit 1.1: Introduction to Preterm/Low Birth Weight Babies

**Objectives:** Ask the trainees to go through the objectives in their manual.

**Additional teaching materials:**

- Video: Identification of low birth weight babies (if available)

**Sessions in the Unit:**

- 1.1.1 Definition and categories of low birth weight (LBW)
- 1.1.2 Contribution of LBW to poor neonatal outcome
- 1.1.3 Causes of LBW
- 1.1.4 Characteristics and classification of low birth weight babies (identification and physical examination)
- 1.1.5 Needs and problems of LBW babies
- 1.1.6 Current care of LBW babies in Tanzania
- 1.1.7 Case Study and Summary of the Unit sessions

**Ensure participants have completed the pre-test before starting Module 1.**

Review and complete the Unit 1.1 planning guide at the start of the manual. Refer to notes below on Sessions in Unit 1.1 and the Answer Key for the case studies.

### Session 1.1.1 Definition and categories of LBW

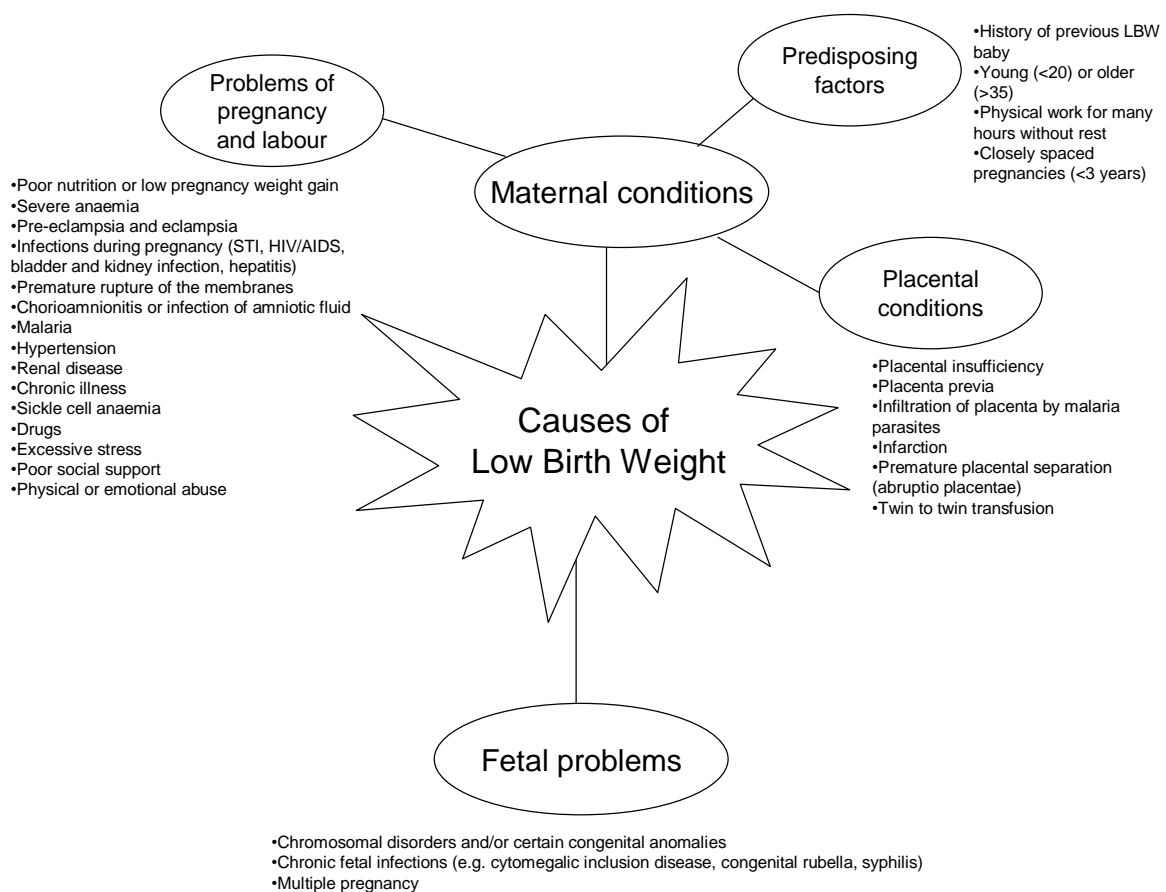
Suggest asking participants to brainstorm on what they know about the LBW categories and then have the participants read the applicable manual pages.

### Session 1.1.2 Contribution of LBW to poor neonatal outcome

There are some PowerPoint slides available on the KMC Toolkit CD that graphically display the contribution of LBW to neonatal mortality and morbidity, both globally and in Tanzania.

### Session 1.1.3 Causes of LBW

It is difficult to remember long lists of causes. Powerpoint slides are available on the KMC Toolkit CD to assist with this session. Another option is to divide participants into small groups and ask each group to be very creative and draw a mind map of the causes of LBW. The following is an example of what such a mind map could look like, but there are countless variations:



### Session 1.1.4 Characteristics and classification of the LBW baby

If available, watch the video, “Identification of low birth weight babies” as part of your preparation. Think how you will use it and if additional explanations may be necessary.

Demonstrate the features of how to assess the maturity of the low birth weight baby. If a practical session is not possible at this time, have participants role-play and have facilitators observe and score participants using the checklist below.

<b>PHYSICAL EXAMINATION OF LBW BABIES</b>					
<b>Tick all the steps done correctly</b>	<b>Part. 1</b>	<b>Part. 2</b>	<b>Part. 3</b>	<b>Part. 4</b>	<b>Part. 5</b>
<b>GETTING READY</b>					
1) Prepare equipment: Clean surface, low reading thermometer, watch, timer or clock with second hand, scale for weighing, clean clothes					
2) Explain to the mother and family what you are going to do and encourage them to ask questions					
3) Wash your hands thoroughly with soap and water					
4) Dry with a clean dry cloth or air-dry					
5) Put on gloves					
<b>HISTORY</b>					
6) Ask the mother or look at her ANC record to find out: (a) Her expected date of delivery (b) If she had any health problems that may affect the baby, e.g.: i) Syphilis ii) Tuberculosis iii) HIV/AIDS iv) Bag of water broken before labour or more than 18 hours v) Fever during labour					
7) Ask the mother what she has observed about the baby					
8) Ask if the baby has passed meconium stool or urine					
9) If the mother or family is worried about anything, listen to their concerns					

<b>PHYSICAL EXAMINATION OF LBW BABIES</b>					
<b>Tick all the steps done correctly</b>	<b>Part. 1</b>	<b>Part. 2</b>	<b>Part. 3</b>	<b>Part. 4</b>	<b>Part. 5</b>
<b>EXAMINATION</b>					
10) Throughout the exam: a) The baby should be kept warm – therefore uncover only parts that are being examined while keeping the head covered b) Explain to the mother and family what you are doing and answer any questions they ask c) Handle the baby gently					
11) Weigh the baby (if weight not recorded)					
12) Look at the baby's activity and movement					
13) Look at the colour and condition of the skin (rashes, other abnormalities pink, blue, grey or pale, jaundiced) shiny or peeling, thick or thin					
14) Checks baby's temperature (using a low reading thermometer)					
15) Examine the head, face, neck and mouth: · Check the skull contours and feel for the normal sutures, fontanel, caput and bruises. · Check for any abnormalities of the face, especially for asymmetrical movement. · Open the eyelids and check if eyes have abnormal appearance (no opacity) · Feel in the mouth with index finger to check if the palate is intact. · Check the neck for webbing and the clavicles for abnormalities					
16) Examine the chest: · Check for symmetrical movement · Check breathing rate (count breaths in one minute) · Check heart rate (check pulse as well) · Check respirations – chest in-drawing, grunting, retractions, flaring, signs of respiratory distress · Cyanosis					
17) Examines the umbilicus for bleeding: · Check that the cord tie is tightly applied					
18) Examines the genitalia for abnormalities: · In boys check position of urethral opening/anus and scrotum (feel the scrotum for testes) · In girls check presence of urethral and vaginal openings/anus and labia					
19) Examines spine for abnormalities: · Check full length of spine for unevenness · Check posture – limbs straight, frog position, full flexion					
20) Examines the limbs: · Check soft tissues and bones for abnormalities · Check abduction of hips · Check toes and fingers for webbing · Check creases on soles (none, few, all over)					

**Use the following scoring, or adapt for your own purposes: 3=omitted; 2=out of sequence or incorrect; 1=correct**



**Session 1.1.5 Needs and problems of LBW babies**

Lead brainstorm with participants and read the applicable pages in the manual.

**Session 1.1.6 Current care of LBW babies in Tanzania**

Discuss with participants about the current state of care for LBW babies. If participants are from different facilities, ask participants what is available at the different levels of care and the differences between regions.

**Session 1.1.7 Case Study and Summary of the Unit sessions****Case study****ANSWER KEY**

A 3 day-old baby boy, weighing 1500g needs to maintain regular breathing. What will be your preventive actions?

- Stimulation/resuscitation
- Monitor for breathing difficulties
- Oxygen as needed

**Summary:** Review the Unit objectives with participants and ensure they are covered and if there are any outstanding questions.

## **Module 1 Unit 1.2: Danger Signs and Common Problems for Low Birth Weight Babies**

**Objectives:** Ask the trainees to go through objectives in their manual.

**Additional teaching materials:**

- Newborn model
- Low reading thermometer
- Resuscitation kit
- Video: IMCI
- Job aid cards for danger signs

**Sessions in the Unit:**

- 1.2.1 Common problems in the low birth weight babies
- 1.2.2 Management of common problems in LBW babies
- 1.2.3 Neonatal resuscitation
- 1.2.4 Identifying danger signs in LBW babies
- 1.2.5 Referral of babies with danger signs
- 1.2.6 Case Study and Summary of the Unit sessions

Review and complete the Unit 1.2 planning guide at the start of the manual. See below for notes on Sessions in Unit 1.2 and an answer key to the case studies in the summary session.

### **Session 1.2.1 Common problems in low birth weight babies**

Brainstorm and have participants read the relevant pages in the manual.

### **Session 1.2.2 Management of common problems in LBW babies**

Brainstorm and have participants read the relevant pages in the manual. Consider asking participants how management of these common problems differs between the facilities where they work.

### **Session 1.2.3 Neonatal resuscitation**

Use the PowerPoint presentation entitled Newborn Resuscitation Tz KMC on the KMC Toolkit CD as a teaching tool for this session.

If teaching dolls and equipment are available, demonstrate newborn resuscitation and care after resuscitation to participants and have them practice.

### **Session 1.2.4 Identifying danger signs in LBW babies**

Pre-screen the IMCI video to see if there are parts that you would like to show. The activities should be skipped. Photographs with newborn dangers signs can also be used.

### **Session 1.2.5 Referral of babies with danger signs**

Discuss the different reasons and levels of referral. Review the KMC referral letter and discuss the procedure for documenting referrals.

### **Session 1.2.6 Case Study and Summary of Unit Sessions**

#### **ANSWER KEY**

##### **Case 1**

A mother in the KMC unit notices that her one-week old baby girl is having twitches. She had a birth weight of 1500g and now weighs 1450g. The mother is crying as she reports this to the KMC nurse. She asks if her baby is dying.

A. How will you handle this situation?

1. First provide privacy where you can examine the baby and talk with the mother.
2. Reassure her that you will do everything you can and that there are a few possible causes of the twitches, but that you will need to first gather some more information from her and then examine the baby.

B. What are the possible causes of “twitches”?

Infection, sepsis, hypoglycaemia, tetanus, birth injury, normal random muscle twitches as baby sleeps or rests

C. What is your management?

1. Ask about and observe for any danger signs needing immediate attention; also see if you observe the twitches in the baby.
2. Then obtain a brief history of the problem to include:
  - a. History of the “twitches”—when she first noticed it, how long it lasted, what part(s) of the body was twitching and when (what time, while sleeping? after feeding, etc).

- b. Find out about current status of the baby (e.g. if stable, feeding well, history of lethargy or irritability) and if there have been any problems since birth. Is the baby in continuous or intermittent KMC care?
  - c. Date, place and mode of delivery (Were there any birth injuries? History of difficult delivery?)
  - d. Check mother's antenatal clinic record and ask her about any problems during labour or delivery (especially infection). Also ask about Tetanus Toxoid.
3. Take the baby's vital signs and do full physical exam. If physical exam is normal, the baby is feeding well, is warm and there are no signs of problems: reassure the mother and closely monitor the baby for any signs of problems. Explain that occasional muscle twitches in a newborn (especially preterm) in the absence of any other problems is normal. Review danger signs with the mother and continue previous care of the baby.
  4. If there are any abnormal findings consult a higher level of care for this infant or prepare for referral following local referral guidelines.

## Case 2

While doing evening rounds, the KMC unit nurse finds a mother sleeping with her baby in KMC, but the baby's face jaundiced. She notes that the baby was born 5 days ago with a birth weight of 1400g. She awakens the mother to inform her that she needs to examine the infant. Initial assessment reveals that the baby's face and chest are slightly jaundiced.

A. What are the possible causes of jaundice in an infant of this age?

1. Prematurity
2. Physiologic jaundice
3. Infection or other illness

B. What is your management?

1. Review the baby's records and ask the mother about:
  - a. The baby's feeding and activity—the baby should be feeding at least 8 times in 24 hours.
  - b. How often the baby is passing urine and stool. The baby should urinate about 6 times per day.
2. Examine the baby in good daylight—jaundice is hard to see in artificial light.
3. Look for signs of serious jaundice:
  - a. Jaundice of the hands or feet
  - b. Jaundice with any other danger sign
4. Ensure that there are no danger signs.
5. Check the baby's axillary temperature.
6. Check the baby for signs of dehydration (dry mouth, sunken fontanel, persistent skin fold). A baby who is dehydrated may not be getting enough milk and therefore unable to get rid of the bilirubin.
7. Observe the mother breastfeeding to ensure adequate positioning, attachment and suck.
8. Continue to observe the baby for increasing jaundice that spreads down the body and to the hands and feet.

C. How will you counsel the mother?

1. For the baby that is otherwise well and has no signs of infection or other danger signs:
  - a. Explain to the mother what jaundice is, why it occurs and that physiologic jaundice can be normal—especially in preterm babies. Reassure her that the yellow colour will eventually go away (by about 2 weeks).
  - b. Reassure the mother that she did not do anything to cause the jaundice.
  - c. Review with the mother how to keep the baby warm.
  - d. Keep breastfeeding often and exclusively. Frequent feeds will help the baby get rid of the bilirubin through the stool.
  - e. Review newborn danger signs and the appropriate response with the mother.

**Summary:** have participants review the Unit objectives and ensure all are covered and address questions, if any.

## Module 1 Unit 1.3: Hypothermia in the Newborn

**Objectives:** Ask the trainees to go through the objectives in their manual.

**Additional teaching materials:**

- Newborn doll model

**Sessions in the Unit:**

- 1.3.1 Description of hypothermia
- 1.3.2 Prevention of hypothermia
- 1.3.3 Management of hypothermia
- 1.3.4 Case Study and Summary of Unit sessions

Review and complete the Unit 1.3 planning guide at the start of the manual. See notes below on Sessions in Unit 1.3 and an answer key to the case studies in the summary session.

**Session 1.3.1 Description of hypothermia**

This session describes the causes of hypothermia. The WHO Thermal Protection of the Newborn manual is a helpful resource for this session. The photos in the manual are from this guide.

**Session 1.3.2 Prevention of hypothermia**

Have participants brainstorm on methods of preventing hypothermia and have them read the relevant pages in their training manual.

**Session 1.3.3 Management of hypothermia**

PowerPoint slides are available on the KMC Toolkit CD with some of the diagrams from the The WHO Thermal Protection of the Newborn manual.

**Session 1.3.4 Case study and Summary of Unit****ANSWER KEY**

Baby Neema was born one week ago with birth weight 1750g. Her mother brought her because she doesn't seem well and feels cold. On examination, you find the baby has no socks or cap and a wet nappy. The kanga wrapped around the baby is also wet.

**1) What are the ways in which this baby lost heat?**

Conduction due to the wet nappy and wet kanga Convection due to the head and feet not being covered and exposed to air Radiation if the baby was near cool objects Evaporation if water evaporated from the baby's skin after bathing
--

**2) How can Hypothermia be prevented?**

- |  |
|--|
| <ul style="list-style-type: none"><li>○ Dry the baby as soon as it is born or bathed</li><li>○ Be sure to dry the head well</li><li>○ Remove the wet cloth used for drying</li><li>○ Make sure a warm blanket covers a scale, table or bed</li><li>○ Put baby skin-to-skin with the mother</li><li>○ Cover the baby's head with a cap</li><li>○ Cover the feet with socks</li><li>○ Keep the baby covered</li><li>○ Put hat on baby so the head will not be in the cool air</li><li>○ Prevent drafts</li><li>○ Make sure the room is warm</li><li>○ Keep baby in contact with the mother or another person</li></ul> |
|--|

## 3) What action would you take to manage hypothermia?

For severe hypothermia (temperature below 32°C) put the baby in skin-to-skin with the mother and refer immediately for further management. Otherwise, use gradual re-warming:

- Ensure that the room is warm and free from drafts
- Remove cold/wet clothing and dress the baby in a hat, nappy and socks
- Place the baby skin-to-skin with the mother. Cover both mother and baby with mother's clothes and light warm blankets
- Use an incubator or radiant heat source in circumstances where KMC is not possible
- Encourage breastfeeding or cup feeding with expressed breast milk if the baby is too weak to suck
- Monitor the axillary temperature hourly for three hours.
- If the baby's temperature is increasing at least 0.5 °C per hour over 3 hours or has returned to normal, re-warming is successful. Continue to monitor the temperature and check it again in two hours.
- If the temperature remains normal, monitor every 3 hours for the next 12 hours.
- If the temperature remains within normal range for 12 hours, discontinue measuring the temperature and review the danger signs with the mother and review how to keep the baby warm.
- If the temperature does not return to normal or is rising slowly, look for other danger signs and refer in KMC position to a higher-level health facility if needed.

## 4) How would you know your management is successful?

- Temperature increases at least 0.5 °C per hour over 3 hours or has returned to normal

**Summary:** have participants review the Unit objectives and ensure all are covered and address questions, if any.



## MODULE 2: KANGAROO MOTHER CARE

### Module 2 Unit 2.1 : Introduction to Kangaroo Mother Care

**Objectives:** Ask the trainees to go through the objectives in their manual.

**Additional teaching materials:**

- Newborn model
- Wraps and/or kitenges
- Video: Kangaroo Mother Care - *Rediscover the natural way to care for your newborn baby* (Nils Bergman)
- Poster: Kangaroo Mother Care Made Easy

**Sessions in the Unit:**

- 2.1.1 Background
- 2.1.2 Comparing Kangaroo Mother Care and Conventional Care
- 2.1.3 Elements of Kangaroo Mother Care
- 2.1.4 Case Study and Summary of Unit sessions

Review and complete the Unit 2.1 planning guide at the start of the manual. Review notes below on Sessions in Unit 2.1 and an answer key to the case studies in the summary session.

### **Session 2.1.1 Background to KMC**

Brainstorm with participants to see what they already know about KMC. Powerpoint slides are available on the KMC Toolkit CD. Discuss the meaning of KMC and discuss a Swahili description of KMC e.g. “Kumkumbatia mtoto kifuani”

### **Session 2.1.2 Comparing KMC and Conventional Care**

Brainstorm with participants and have them read the relevant manual pages.

### **Session 2.1.3 Elements of Kangaroo Mother Care**

Powerpoint slides are available on the KMC Toolkit CD for this session.

### **Session 2.1.4 Case study and Summary of Unit Sessions**

#### **ANSWER KEY**

At a staff meeting, the meeting chair mentions that he has heard about KMC at a recent international meeting. Knowing that you have been for training, he asks you to brief the team about the method.

A. You are asked to list the benefits of KMC compared to conventional (incubator) care. How would you respond?

- Promotes breastfeeding; babies gain weight faster and grow faster
- Serious infection is less common
- Increased mother's confidence
- Earlier discharge
- Lower cost
- Potentially lower burden on nursing staff

B. What are some of the problems associated with KMC?

- Kangaroo Mother Care can be tiring for the mothers
- KMC may seem too simple compared to high technology
- Cultural barriers – e.g. babies are usually carried on the back rather than in front
- Non-compliance of mothers and health staff

C. How can those problems be overcome?

- Encourage family members to assist by putting the baby in kangaroo position
- Provide correct information about KMC to the mothers and family members
- Obtain institutional support for KMC and make KMC unit attractive and desirable
- Educate mothers, grandmothers and others in the community regarding KMC
- Have providers from local facilities give community education talks about KMC.
- Conduct awareness campaigns and model KMC within the community
- Educate the family on KMC
- Obtain support for KMC practice from leaders and have them promote KMC
- Convince mothers and staff about the benefits of KMC method through continuous information, education and support
- Share successful KMC experiences

**Summary:** have participants review the Unit objectives and ensure all are covered and address questions, if any.

## **Module 2 Unit 2.2: The practice of KMC and skin-to-skin care**

**Objectives:** Ask the trainees to go through the objectives in their manual.

**Additional teaching materials:**

- Video: Kangaroo Mother Care - Rediscover the natural way to care for your newborn baby (Nils Bergman)
- Poster: Kangaroo Mother Care Made Easy
- For demonstration of KMC positioning
  - Chair for mother to sit on
  - Newborn model
  - Wraps and/or kitenges
  - Cap, socks, nappy
  - Baby shawl/blanket
  - Loose front open top for mother

**Sessions in the Unit:**

- 2.2.1 Starting Kangaroo Mother Care
- 2.2.2 Positioning the baby in Kangaroo Mother Care
- 2.2.3 Clinical care during KMC
- 2.2.4 Case Study and Summary of Unit sessions

Review and complete the Unit 2.2 planning guide at the start of the manual. Review notes below on Sessions in Unit 2.2 and an answer key to the case studies in the summary session.

## Session 2.2.1 Starting Kangaroo Mother Care

Use the checklist below to observe participants role-playing how to admit a LBW baby to the KMC Unit. Also refer back to Module 1, Unit 1.1.

ADMISSION OF LBW BABY TO KMC UNIT					
Tick all the steps done correctly	Part 1	Part 2	Part 3	Part 4	Part 5
1. Explain what you are going to do and encourage mother to ask questions					
2. Dress the baby in nappy, hat and socks					
3. Review records (From labour ward or Referral notes)					
4. Perform the quick assessment of the baby's condition including colour and vital signs <ul style="list-style-type: none"> <li>• Temperature</li> <li>• Respiratory rate</li> <li>• Heart rate</li> </ul>					
5. Weigh the baby					
6. Perform physical examination of the baby					
7. Communicate findings to the mother regarding the physical examination					
8. Counsel the mother about KMC: <ul style="list-style-type: none"> <li>• KMC initiation</li> <li>• Maintenance of KMC</li> <li>• Feeding</li> <li>• KMC positioning</li> <li>• Advantages of KMC</li> <li>• Danger signs</li> <li>• Family support</li> </ul>					
9. Document the following: <ul style="list-style-type: none"> <li>• Enter baby's information in the LBW register and baby's file</li> <li>• Chart vital signs</li> </ul>					

### Session 2.2.2 Positioning the baby in Kangaroo Mother Care

In this session you will guide participants on the procedure for KMC positioning. Review the steps below with participants, and then conduct a demonstration role-play with fellow facilitator. At the end of the demonstration conduct a group discussion and answer any questions participants may have.

#### Role-Play

Conduct a role-play with a fellow facilitator or participant counseling a mother on admission to the KMC unit: You are a doctor on call today and are admitting baby Lucy. She was delivered 1 hour ago in the labour ward of your health facility. She weighs 1300g and is breathing normally. Requirements for the role-play:

- Baby model
- Cap, socks, khang/kitenge
- Thermometer, weighing scale, stethoscope, watch with second hand
- LBW register
- Vital signs chart
- Counselling jobs aids

At the end of the role-play conduct a group discussion and ask if participants have any questions. Explain that the steps on counseling will be covered in Unit 2.5. Ask participants to divide into groups of two and conduct return demonstrations. Use the checklist below to rate the participants' performance.

Tick all the steps done correctly	Part. 1	Part. 2	Part. 3	Part. 4	Part. 5
1. Greet the mother and make her comfortable.					
2. Explain what you are going to do and encourage mother to ask questions					
3. Dress the baby in nappy, hat and socks					
4. Instruct mother to put on a front opened top					
5. Place the baby upright on skin to skin between the mothers breast in a frog like position					
6. Secure the baby to the mother's chest: <ul style="list-style-type: none"> <li>• Maintain support of the baby with the mothers hand</li> <li>• Cover the baby with a cloth</li> <li>• The top of the cloth is under the baby's ear</li> <li>• The bottom of the cloth is tucked under baby's buttocks</li> <li>• Make sure the tight part of the cloth is over the baby's back (chest)</li> <li>• Baby's abdomen should not be constricted</li> <li>• Baby should be able to breathe</li> <li>• Tie the cloth securely at the mothers back</li> </ul>					
7. Cover the baby with a blanket or shawl and let the mother tuck in at the front or side (under the arms)					
8. Ensure the mother is able to perform the same process to position the baby					

**Session 2.2.3 Clinical Care during KMC**

Brainstorm with participants about current care and documentation provided for LBW babies and how that could be improved in KMC units. Have participants review appropriate pages in the manual.

**Session 2.2.4 Case Study and Unit Summary****ANSWER KEY**

Miriam has just given birth to Baby Juma, who weighs 1600g. What are the steps you would take before admitting Miriam and Juma to the KMC unit?

Assess if Miriam is willing to do KMC and if she had adequate family support.

- If Juma is in stable condition: If no major illness present such as septicaemia, pneumonia, meningitis, respiratory distress and convulsions, KMC can begin
- If Juma is not in stable condition: Practice intermittent KMC until fully stable

**Unit Summary:** have participants review Unit objectives to ensure all were covered and understood and answer questions from participants.

## Module 2 Unit 2.3: Feeding, Nutrition and Growth Monitoring in KMC

**Objectives:** Ask the trainees to go through the objectives in their manual.

**Additional teaching materials:**

- Video: Kangaroo Mother Care - Rediscover the natural way to care for your newborn baby (Nils Bergman)
- Poster: Kangaroo Mother Care Made Easy
- Mother with a term baby (if there are no mothers feeding preterm babies)
- LBW register
- Breast models or socks
- Plastic cup for cup-feeding

**Sessions in the Unit:**

- 2.3.1: Nutrition and Growth Monitoring during KMC
- 2.3.2: Breastfeeding
- 2.3.3: Expressing breast milk
- 2.3.4: Cup feeding
- 2.3.5: Feeding through a nasogastric tube
- 2.3.6: Case Study and Summary of Unit sessions

Review and complete the Unit 2.3 planning guide on the following page, followed by the pre-test evaluation and notes on select Sessions in Unit 2.3 and an answer key to the case studies in the summary session.

This unit should be linked as much as possible to a practical session in a KMC unit.



### Session 2.3.1: Nutrition and Growth Monitoring during KMC

Review the relevant pages in the manual and discuss.

### Session 2.3.2: Breastfeeding

In the classroom, review the relevant pages in the manual and watch a video on breastfeeding, if available. If possible, this session should be linked to a practical session to observe breastfeeding and held at a KMC unit in a health facility. For this clinical practice distribute the breastfeed observation form on the next page to participants. Conduct a demonstration then lead a short discussion to emphasize points for correct positioning and attachment. Assign mothers to participants and observe participants as they practice and give feedback. If more babies and mothers are available, participants may observe more than one mother breastfeeding.

Use the table below to assess participants' breastfeeding observation in the clinical practice. Copy the table on the following page and distribute to the participants.

OBSERVE BREASTFEEDING					
Tick all the steps done correctly	Part. 1	Part. 2	Part. 3	Part. 4	Part. 5
Greet the mother and make her comfortable					
Explain what you are going to do and encourage mother to ask questions					
Ask the mother to put the baby to breast and observe the baby feeding	1.	2.	3.	4.	5.
Check for good positioning at breast: <ul style="list-style-type: none"> <li>○ Baby's head and neck should be straight</li> <li>○ Baby's face should be facing the breast with nose opposite nipple</li> <li>○ Baby's body should be held close to mother</li> <li>○ Baby's whole body should be supported</li> </ul>					
Check for good attachment at breast: <ul style="list-style-type: none"> <li>○ Chin touching breast</li> <li>○ Mouth wide open.</li> <li>○ Lower lip turned outward</li> <li>○ More areola visible above than below the mouth</li> </ul>					
Check for effective suckling: <ul style="list-style-type: none"> <li>○ Slow, deep sucks</li> <li>○ <b>Occasional short pauses</b></li> <li>○ Mother reports that breast feels softer after the feed</li> </ul>					
Document findings					
If the baby is not well positioned and attached show the mother how to help her baby to attach: <ul style="list-style-type: none"> <li>○ touch her baby's lips with her nipple</li> <li>○ wait until her baby's mouth is wide open</li> <li>○ move her baby quickly onto her breast, aiming the infant's lower lip well below the nipple</li> </ul>					

**CLINICAL PRACTICE  
BREASTFEEDING OBSERVATION FORM**

Participant's name: \_\_\_\_\_

Mother's name: \_\_\_\_\_ Date: \_\_\_\_\_

Baby's name: \_\_\_\_\_ Age of baby: \_\_\_\_\_

Signs that breastfeeding is going well	Signs of possible difficulty
<p><b>General observation</b></p> <p><b>Mother:</b></p> <p><input type="checkbox"/> Mother looks healthy</p> <p><input type="checkbox"/> Mother relaxed and comfortable</p> <p><input type="checkbox"/> Breasts look healthy</p> <p><input type="checkbox"/> Breast well supported, with fingers away from nipple</p> <p><b>Baby:</b></p> <p><input type="checkbox"/> Baby looks healthy</p> <p><input type="checkbox"/> Baby calm and relaxed</p> <p><input type="checkbox"/> signs of bonding between mother and baby</p> <p><input type="checkbox"/> Baby reaches or roots for breast if hungry</p>	<p><input type="checkbox"/> Mother looks ill or depressed</p> <p><input type="checkbox"/> Mother looks tense and uncomfortable</p> <p><input type="checkbox"/> Breasts look red, swollen or sore</p> <p><input type="checkbox"/> Breast held with fingers on areola</p> <p><input type="checkbox"/> Baby looks sleepy or ill</p> <p><input type="checkbox"/> Baby is restless or crying</p> <p><input type="checkbox"/> No mother/baby eye contact, limp hold</p> <p><input type="checkbox"/> Baby does not reach or root for the breast</p>
<p><b>Baby's position:</b></p> <p><input type="checkbox"/> Baby's head and body in line</p> <p><input type="checkbox"/> Baby held close to mother's body</p> <p><input type="checkbox"/> Baby facing breast, nose to nipple</p> <p><input type="checkbox"/> Baby supported</p>	<p><input type="checkbox"/> Baby's neck and head twisted to feed</p> <p><input type="checkbox"/> Baby not held close</p> <p><input type="checkbox"/> Baby's chin/ lower lip opposite nipple</p> <p><input type="checkbox"/> Baby not supported</p>
<p><b>Attachment:</b></p> <p><input type="checkbox"/> More areola seen above baby's top lip</p> <p><input type="checkbox"/> Baby's mouth open wide</p> <p><input type="checkbox"/> Lower lip turned outwards</p> <p><input type="checkbox"/> Baby's chin touches breast</p>	<p><input type="checkbox"/> More areola seen below bottom lip</p> <p><input type="checkbox"/> Baby's mouth not open wide</p> <p><input type="checkbox"/> Lips pointing forward or turned in</p> <p><input type="checkbox"/> Baby's chin not touching breast</p>
<p><b>Suckling</b></p> <p><input type="checkbox"/> Slow, deep sucks with pauses</p> <p><input type="checkbox"/> Baby releases breast when finished</p> <p><input type="checkbox"/> Mother notices signs of oxytocin reflex (milk dripping from nipples)</p> <p><input type="checkbox"/> Breasts appear softer after feed</p>	<p><input type="checkbox"/> Rapid shallow sucks</p> <p><input type="checkbox"/> Mother takes baby off the breast</p> <p><input type="checkbox"/> No signs of oxytocin reflex noticed</p> <p><input type="checkbox"/> Breasts appear hard and shiny</p>

**Notes:**

### Session 2.3.3 Expressing breast milk

In the classroom, review the relevant pages in the manual. If possible, link this to clinical practice and use the table below to assess participants' breastfeeding observation in the clinical practice. Copy the table on the following page and distribute to the participants.

STEPS FOR OBSERVATION OF EXPRESSING BREAST MILK					
Tick all the steps done correctly	Part. 1	Part. 2	Part. 3	Part. 4	Part. 5
1. Greet the mother and make her comfortable					
2. Explain what you are going to do and encourage mother to ask questions					
3. Listen to what the mother has to say					
4. Wash hands – also let the mother wash hands					
5. Obtain a clean cup or bowl					
6. Demonstrate and then ask mother to re-demonstrate the following:					
a) Put clean warm wet cloths on breasts for 5 minutes if engorged					
b) Massage the breast from the outside towards the nipple to help the milk come down					
c) Hold the breast with thumb on top and other fingers below pointing away from the areola					
d) Have mother lean slightly forward so the milk will go into the container					
e) Squeeze thumb and other fingers together, move them towards the areola so the milk comes out					
f) Press and release and try using the same rhythm as the baby sucking					
g) Move hands around the breast so milk is expressed from all areas of the breast					
h) Express one breast until breast softens (usually at least 3 – 5 minutes)					
i) Express the other side and then repeat both sides					
7. Document findings					

**Session 2.3.4: Cup feeding**

Review the relevant pages in the manual and discuss. If a practical session is not possible, use a cup and breast model for demonstration.

**Session 2.3.5: Feeding through a nasogastric tube**

Review the relevant pages in the manual and discuss.

**Session 2.3.6: Case Study and Summary of Unit sessions****ANSWER KEY****Case 1**

Catherine delivered a baby boy one week ago with a birth weight of 1800 grams. The baby has lost 150 grams and is breastfeeding about 6 times/day. He is not on any supplemental feeds.

A. What are the possible problems?

1. Baby is not getting enough breast milk. Should be at least 10 times/day (every 2-3 hours)
2. Baby is not attaching to the breast properly.
3. The duration of feeding is too short.
4. The baby is sick (infection) resulting in poor feeding.
5. Weight loss could be normal (may lose up to 10% in the first week of life) if the baby is otherwise well and exam reveals normal findings.

B. How would you proceed?

1. Question the mother about any danger signs, including feeding problems.
2. Perform a physical exam to ensure that baby is stable and does not have any signs of problems.
3. Observe the baby breastfeeding to ensure proper positioning and attachment.
4. Review with Catherine the importance of adequate feeds:
  - o The baby should feed at least 10 times in a 24-hour period, including during the night.
  - o Do not limit the length of feeds.
  - o The baby should feed on a specific schedule
  - o If the baby is not getting at least 8 feeds at the breast, the mother may need to express milk and feed her baby with a cup in between breast feeds.
  - o Advise Catherine to drink enough fluids and to eat at least one extra serving of staple food per day while lactating.
5. Once the baby is feeding adequately, continue to monitor weight.
  - o Weigh the baby daily until he starts to gain weight.
  - o Weight gain should be approximately 25 grams per day for a baby of 33-36 weeks gestational age.
  - o If the baby fails to gain weight and feeding is normal, consider other problems such as oral thrush in the baby, breast problems in the mother, or infection in the baby. Treat these problems or refer to a higher level of care.

**Case 2**

Anna is a young mother of one preterm baby named Sara. Sara was admitted and managed at the Kangaroo Mother Care Unit for 10 days because she was a very tiny baby weighing 1200 grams. Anna did not have any assistance from family during her stay at the KMC unit.

At the time of discharge, Anna was told to continue with KMC at home and that she should come for KMC follow-up at the unit. She lives with her 30-year-old sister-in-law and her grandmother who is elderly and unable to assist her. Her husband is supportive of KMC, but works out of town and only comes home on weekends. When Anna came for her first KMC follow-up, she looked tired and baby Sara appeared to have lost weight. During history taking, Anna revealed that she was tired of KMC and did not want to continue doing it at home. She mentions that her grandmother and neighbour suggest she carry the baby on her back as is the tradition.

A. Based on the information provided, what could be the problems affecting Anna and Sara and why?

1. Anna is tired as she may not be getting help with KMC at home:
  - Grandmother is elderly and not supportive.
  - Husband is away at work so cannot assist with KMC.
  - Breastfeeding may not have been established, so Anna may still be feeding Sara EBM by tube or cup which can be tiring.
2. Cultural barriers may discourage Anna from providing continuous or adequate KMC:
  - Neighbours and relatives may ridicule the KMC method.
  - Community may not be sensitized to KMC and its benefits.
3. Baby Sara may not be getting adequate feeding or warmth and is therefore prone to infection and other problems.

B. Based on the identified problems, what will be your plan of care (action) for Sara and why?

1. Examine baby Sara, ensure that there are no danger signs, and address any problems.
  - Weigh baby Sara and compare with birth weight.
  - Rewarm baby Sara if needed.
2. Review feeding schedule and appropriate amount of feeds (per weight) if breastfeeding is not established.
3. If breastfeeding is established:
  - Observe Anna breastfeeding to ensure adequate positioning and attachment.
  - Discuss importance of adequate and exclusive breastfeeds (at least 10 times/day and feeds on demand).
4. If baby Sara is healthy, stable and there are no additional problems:
  - Talk with Anna about the possibility of her sister-in-law or another relative assisting with KMC. Offer KMC instruction and assistance as needed.
  - Review KMC positioning with the mother and importance of warmth and adequate feeds.
  - Discuss ways mother can get enough rest at home, for example, to sleep while the baby sleeps, and comfortable positions to rest while the baby is in KMC position.
  - Review danger signs and appropriate response.
5. Link Anna with other mothers who are providing or who have successfully provided KMC at home for support.
6. Have the mother spend a part of the day at the KMC unit to participate in group discussions for support and encouragement.
7. Arrange a follow-up visit.

C. If KMC is not accepted by the community in the area where Anna comes from, what intervention measures would you institute to solve the problem?

1. If possible, facilitate promotion of KMC in the community and obtain support from community leaders.
2. Have providers from the facility help create awareness about KMC through giving health education talks and share successful KMC experiences.
3. Facilitate and participate in continuing information, education and support of the KMC method and its benefits.
4. Create awareness about LBW and KMC in the community, starting with education of all mothers during the antenatal visit.

**Unit Summary:** have participants review Unit objectives to ensure all were covered and understood and answer questions from participants.

## Module 2 Unit 2.4: Kangaroo Mother Care Discharge

**Objectives:** Ask the trainees to go through the objectives in their manual.

**Additional teaching materials:**

None required

**Sessions in this Unit:**

Session 2.4.1: Criteria for discharge from the KMC Unit

Session 2.4.2: Guidelines for follow-up after discharge from the KMC Unit and discontinuation of KMC

Session 2.4.3: Guidelines for readmission to the KMC Unit

Session 2.4.4: Case Study and Summary of Unit sessions

Review and complete the Unit 2.4 planning guide at the start of the manual. Refer to the notes below on Unit 2.4 sessions and the answer key to the case studies in the summary session.

**Session 2.4.1 Criteria for discharge from the KMC Unit**

Review relevant pages in the manual and discuss. Review the daily score sheet and determine if participants find this a useful resource, or if it would need to be adapted to suit their purposes.

If participants are from more than one site, have the various sites compare how criteria is differs. If all from one site, have them think of how their criteria might differ from a referral site (either above or below).

**Session 2.4.2 Guidelines for follow-up after discharge from the KMC Unit and discontinuation of KMC**

Review relevant pages in the manual and discuss. Follow-up after discharge is a crucial part of care, but many women do not bring their newborns back. Have participants brainstorm

**Session 2.4.3 Guidelines for readmission to the KMC Unit**

Review relevant pages in the manual and discuss.

**Session 2.4.4 Case study and Summary of Unit Sessions****Case Study ANSWER KEY**

A mother presents at the KMC unit from which she was discharged 3 days earlier. She complains that her 3 week-old infant “sleeps too much”. The mother says that she has continued KMC at home and is exclusively breastfeeding, though sometimes she uses a cup with EBM. However, she reports that the baby refused to feed all morning and vomited on the way to the hospital.

A. What is the likely diagnosis for this infant?

1. Sepsis

B. How will you proceed?

Obtain a history from the mother:

- Duration of lethargy
- History of convulsions or fits
- History of any problems or danger signs such as jaundice or eye, skin or cord infection
- History of feeding:
  - frequency, duration
  - duration of poor feeds or refusal to feed
  - history of vomiting

Examine the baby completely. Look for:

- Difficulty in waking the baby
- Poor or difficulty in sucking (while observing feeds)
- Hypothermia or fever
- Limp or rigid limbs
- Distended abdomen

- Ensure that the baby is warm
- Attempt to feed the baby by cup or tube with EBM.
- Follow protocols for treatment or prepare the baby to be referred to a higher level of care. If being referred, give starting dose of antibiotics according to protocol.
- Explain the baby's condition to the mother and answer any questions or address any concerns she may have.

**Unit Summary:** have participants review Unit objectives to ensure all were covered and understood and answer questions from participants.



## Module 2 Unit 2.5: Counselling on Kangaroo Mother Care

**Objectives:** Ask the trainees to go through the objectives in their manual.

**Additional teaching materials:**

None required

Sessions in this Unit

Session 2.5.1:	Definition and principles of counselling and communication
Session 2.5.2:	KMC Counselling
Session 2.5.3:	KMC Counselling Practice
Session 2.5.4:	Summary of Unit sessions

Review and complete the Unit 2.5 planning guide at the start of this manual. See notes below on Sessions in Unit 2.5 and an answer key to the case studies in the summary session.

### Session 2.5.1 Definition and principles of counselling and communication

Review relevant pages in the manual and discuss.

### Session 2.5.2 KMC counselling

Review relevant pages in the manual and discuss.

### Session 2.5.3 KMC counselling practice

Have participants split into groups and Role Play the various scenarios found in the Trainees Manual.

### Session 2.5.4 Case Study and Summary of Unit sessions

#### ANSWER KEY

##### Case 1

A 2-week-old baby boy now weighs 1550 grams, a weight gain of 100 g since birth. The mother is anxious to go home and wants to know when they can be discharged. She is doing well with feeding EBM to the baby, alternating with breastfeeds.

A. What additional information do you need before you can make a decision?

- Ensure that the following conditions are met:
  - Kangaroo position is well tolerated by baby and mother.
  - The condition of the baby is stable:
    - Vital signs are normal.
    - There are no signs of infection, illness, or other danger signs.
- There has been a minimal weight gain (15g per day or more) for three consecutive days.
- The baby feeds well and is exclusively or nearly exclusively breastfeeding.
- Mother is willing to continue with KMC at home and has support from family, and is able and willing to come for follow-up visits.
- The mother/baby meet any other criteria according to local or facility protocols.

B. How will you respond to this mother?

1. Advise the mother on the baby's progress.
2. Explain the criteria for discharge.
3. Ensure the mother that she and the baby can be discharged when it is safe to do so for the baby.
4. Facilitate discharge as soon as it is safe and appropriate to do so with the counselling on follow-up visits, care at home and danger signs.

##### Case 2

Amina, a three-week-old low birth weight (1500g) baby born was admitted to the KMC unit for 7 days and was discharged from the KMC unit together with her mother.

A. What pertinent information should have been given to Amina's mother at time of discharge?

1. Breastfeeding: it is critical that the baby receives adequate feeds and that she breastfeeds exclusively and on demand. Poor sucking/poor feeding can indicate infection or illness.
2. Danger signs: review with the mother newborn danger signs and ensure that she understands how to respond.
3. Warmth: it is critical that the baby keeps warm. Review ways to prevent heat loss and ways to keep the baby warm with the mother. In order to ensure continuous KMC, encourage Amina's mother to have family members help her with providing KMC from time to time so she can rest and have time for personal care.

4. Follow-up visits: The smaller the baby is at discharge, the earlier and more frequent follow-up visits he will need. Advise the mother of the importance of keeping follow-up appointments so that the baby's progress can be monitored and that any problems can be addressed.

Amina's mother was told to have her first KMC follow-up visit at your health facility because the distance from her village to the KMC unit is very far.

B. What will you do when Amina is brought to you for her first KMC follow-up visit?

1. Weigh the baby.
2. Obtain history from the mother:
  - Whether or not she is doing continuous KMC at home
  - KMC positioning
  - Duration of skin-to-skin contact
  - Breastfeeding and other feeding options as appropriate
  - Whether there are any danger signs
  - Whether the baby is showing signs of intolerance
  - Ask the mother if there are any other related concerns
3. Perform a physical assessment of the baby.
4. Encourage the mother and family to continue KMC and advise them to seek immediate care when there are any danger signs.
5. Praise the mother for coming and schedule the next visit.

Two weeks later Amina is brought to the KMC unit for KMC follow-up visit. The health worker discovered that Amina did not gain weight. One week earlier, at your health centre, Amina did not gain weight either.

C. Based on these findings, what must the health worker at the KMC unit do and why?

- Question the mother about any danger signs, including feeding problems.
- Perform a physical exam to ensure that baby is stable and does not have any signs of problems.
- Perform minimum investigations like full blood picture, blood culture to exclude infections
- Review with Amina's mother the importance of adequate feeds:
- Feed the baby adequately
- Treat the baby according to guideline if suspect sepsis
- Continue to monitor weight daily until she starts to gain weight.

**Unit Summary:** have participants review Unit objectives to ensure all were covered and understood and answer questions from participants.

## MODULE 3: MANAGEMENT OF A KANGAROO MOTHER CARE PROGRAMME

### Module 3 Unit 3.1: Establishment of Kangaroo Mother Care Services

**Objectives:** Ask the trainees to go through the objectives in their manual.

**Additional teaching materials:**

- Handout for a Strengths-Weaknesses-Opportunities-Threats (SWOT) analysis
- Handout for working on own action plan

**Sessions in the Unit:**

Session 3.1.1:	Seeking institutional support for establishing KMC services
Session 3.1.2:	Preparation and requirements for KMC services
Session 3.1.3:	Action plan to establish KMC services
Session 3.1.4:	KMC advocacy, awareness, orientation and education
Session 3.1.5:	Case Study and Summary of the Unit sessions

Review and complete the Unit 3.1 planning guide at the start of the manual. See notes below on Sessions in Unit 3.1 and an answer key to the case studies in the summary session.

### Session 3.1.1 Seeking Institutional Support for Establishing KMC Services

This session is very important for the planning of the implementation of KMC. Sometimes participants do not understand their institution very well. There are a number of ways to help them with that and also to enable them to “talk to the right people” and to acknowledge where they may have problems.

A useful icebreaker is to let participants do a Strengths-Weaknesses-Opportunities-Threats (SWOT) analysis of their institutions. The manual for trainees has a blank template that could be used for photocopying. The example below is a demonstration of the type of points that people may mention. Participants should also be urged to go back and do a similar analysis with the staff of their institution.

Parts 1 and 3 of the “Implementation Workbook for Mother Care” also contains useful hints (See *KMC Toolkit CD-ROM, Section B, KMC Workbook*)

<p><b>S</b> TRENGTHS</p> <ul style="list-style-type: none"> <li>○ Have worked as a team for quite a while</li> <li>○ Well trained staff component</li> </ul> <p><i>How are we going to use these strengths in the implementation of KMC?</i></p>	<p><b>W</b> EAKNESSES</p> <ul style="list-style-type: none"> <li>○ Ineffective communication with mothers</li> <li>○ All staff not convinced about the benefits of KMC</li> <li>○ Caring ethos sometimes lacking</li> </ul> <p><i>How are we going to try to improve on or avoid these weaknesses in the implementation of KMC?</i></p>
<p><b>O</b> PPORTUNITIES</p> <ul style="list-style-type: none"> <li>● Planning projects and implementing new ideas</li> <li>● Study opportunities</li> </ul> <p><i>How can we use these opportunities to provide quality KMC?</i></p>	<p><b>T</b> HREATS</p> <ul style="list-style-type: none"> <li>● Staff reductions</li> <li>● Funding for some basic expenditures not approved</li> </ul> <p><i>What can we do to minimise these threats in the unit or ward where KMC is practised?</i></p>

### Session 3.1.2 Preparation and requirements for KMC services

Part 4 of the “Implementation Workbook for Mother Care” also contains useful hints (See KMC ToolKit CD, Section B, KMC Workbook)

### Session 3.1.3 Action plan to establish KMC services

The manual for trainees contains a blank plan of action template that you can photocopy and ask participants to complete for themselves to prepare what steps they will take when they return to their health facility?

The example below is a demonstration of the start of a plan of action. It can be copied on to PowerPoint and briefly discussed with participants. Alternatively, offer participants the opportunity to share their own Plan.

**Example of Plan of Action**

<b>Action (key word)</b>	<b>What needs to be done?</b>	<b>Responsible person(s)</b>	<b>Date for action / report back</b>	<b>Remarks</b>
Meeting with architects from the planning department	<ul style="list-style-type: none"> <li>- Inspection of facilities</li> <li>- Discuss essential structural changes needed</li> <li>- Discuss cost estimates</li> </ul>	Mr Mnema (hospital secretary)	20 June 2008	Remember to invite the superintendent, the head matron, the sister in charge of the neonatal ward and Dr Mwalimu (paediatrician)
Budget	<ul style="list-style-type: none"> <li>- Drafting of budget for additional funds</li> </ul>	Mr Mnema and Mrs Cheyo (accountant)	25 July 2008	Consult with superintendent
Special needs for KMC ward	<ul style="list-style-type: none"> <li>- Draft a list of special needs for KMC ward</li> <li>- Prioritise items</li> <li>- Get an indication of additional costs</li> </ul>	Sister Mariam (with Sister Salome and other nursing staff allocated for KMC)	30 May 2008	Remember to invite Matron Rose Consult with Dr Mwalimu
Mortality statistics	<ul style="list-style-type: none"> <li>- Audit for past year</li> </ul>	Mr Mnema and Sister Mariam	24 August 2008	Dr Hamisi will assist
Filing system and forms	<ul style="list-style-type: none"> <li>- Report on the integration of the existing filing system with new requirements and forms for KMC patients</li> </ul>	Mr Mnema and Drs Mwalimu and Hamisi	31 August 2008	<ul style="list-style-type: none"> <li>- Consult with Mrs Bonde (chief administrative officer)</li> <li>- Get more information from Mlandizi HC and Tumbi Hospital</li> </ul>

Adapted from the MRC Unit's “Implementation Workbook for Kangaroo Mother Care

Part 1 of the “Implementation Workbook for Mother Care” also contains useful hints (See KMC Tool Kit CD, Section B, KMC Workbook)

**Role-play**

Explain to participants that they are required to observe and comment after the role-play. Make sure that each participant understands well what is required of him/her.

Assign someone (preferably the KMC focal person) to take minutes. Below are scripts for some of the roles.

**Script 1** (Script for the medical officer in charge)

You are the medical officer in-charge of the hospital. Recently you and the hospital superintendent heard about Kangaroo Mother Care (KMC) at a recent workshop which featured a KMC expert as guest speaker. Apart from the knowledge you and your colleague gained from the workshop, the hospital has little knowledge of KMC services or programmes. The hospital superintendent requests you to convene a hospital management team (HMT) meeting as a call for institutional support. Among other things to be discussed, the crucial part is the steps to gain support from institutional administration.

The medical officer in-charge should explain the rationale of establishing KMC in the hospital

- a. Under five mortality
- b. Infant mortality rate
- c. Neonatal mortality including low birth weight
- d. Cost-effectiveness and life saving effect of the intervention

**Script 2** (Script for the neonatal ward in-charge)

You are given the opportunity to explain to the hospital administration, facility preparation and requirements for KMC establishment.

- Explain in few words the feasibility and cost effectiveness of KMC, highlighting sustainability issues
- Demonstrate that you have explored these issues and discussed part with the matron and supplies officer

*Follow-up Questions:*

- Was the idea of establishing KMC supported by the institution administration? (Was the “What” and “Why” of KMC clearly understood?)
- Did the audience respond positively and buy into the KMC concept?
- Was the seeking of institutional support for establishment of KMC services backed up by evidence? (For example, was relevant baseline data provided, cost effectiveness, feasibility, and sustainability issues clearly addressed?)

**Script 3** (Script for clinician providing care of newborns)

You express your appreciation for having been invited to the meeting. You have a general knowledge of KMC and welcome the idea of introducing the KMC unit at your health facility. However, you are concerned about another addition to the workload. Explain that you already leave the ward late in the evening, while all of the other people present at this meeting leave at 3.30 pm. You are therefore reluctant to take on this extra responsibility. You must create a case for the administration to provide adequate support for the existing workload in addition to the new KMC unit.

### Session 3.1.4 KMC advocacy, awareness, orientation and education

Let the participants divide themselves into groups of 3-4. Members of a group should preferably be from the same institution or the same district. Use a question like the following:

Which groups of people should be aware of KMC and how should they be informed?

Give each group a flip chart paper to draw a mind map of the people involved. They should create their own structure and identify their own groups. Do not give any pointers or hints beforehand. Afterwards each group will share with the whole group and will add as others highlight new groups to the fore.

Participants have to think of ALL people who need to be aware of KMC and need to identify the relevant groups in their area:

- Those who will need advocacy (e.g. policy makers, community leaders, managers)
- Those will need training (e.g. students in the different professions, novices and new staff, other health workers not directly involved in KMC such as. community health workers, ambulance nurses and drivers)
- Those who need preparation for KMC (e.g. all mothers in the antenatal period and guardians and members of the community)

The facilitator should draw all the threads together and make a final summary.

### Session 3.1.5 Case Study and Summary of Unit Sessions

#### ANSWER KEY

The matron of a maternity hospital calls a meeting of her staff. She is keen to start a KMC ward, as the well-baby nursery is grossly overcrowded. She asks how KMC can be given by mothers already living at the hospital to be near their infants. She also needs to know what equipment will be required and whether this will be very expensive.

A. Will a KMC ward help to solve the problem in this nursery?

Overcrowding is a very common problem in hospital nurseries. The overcrowding, with the resultant stress on the staff and high rate of infection, will be greatly improved if a KMC ward is started.

B. What space will be needed for a KMC ward?

A space for the mothers to sleep, a living area where they can eat and relax, and toilets and showers.

C. Will a special area have to be built for a KMC ward?

A room will be needed where mothers and their infants can stay together. One of the rooms/space previously used for mothers of infants in the nursery could probably be converted into a KMC ward.

D. What furniture is required?



Simple beds, comfortable chairs, lockers for clothes, and tables and chair for meals.

E. What nurses will be needed for the KMC ward?

An experienced and enthusiastic nurse will be needed to supervise the mothers. Staffing is far less than that required in a well baby nursery.

F. Will establishing a KMC ward be very expensive?

Some funding will be required to start the KMC ward. Thereafter, the savings to the hospital will be greater than the running costs.

## Module 3 Unit 3.2: KMC Supervision, Monitoring and Evaluation

**Objectives:** Ask the trainees to go through the objectives in their manual.

**Additional teaching materials:**

None required

**Sessions in the Unit:**

Session 3.2.1:	Principles of Supervision
Session 3.2.2:	The KMC Supervision Process
Session 3.2.3:	Monitoring and Evaluation
Session 3.2.4:	Case Study and Summary of the Unit sessions

Review and complete the Unit 3.2 planning guide at the start of the manual. See notes below on Sessions in Unit 3.2 and an answer key to the case studies in the summary session.

**Session 3.2.1 Principles of Supervision**

Brainstorm and discuss what makes a good supervisor.

**Session 3.2.2 The KMC Supervision Process**

Review the relevant pages in the manual and discuss.

**Session 3.2.3: Monitoring and Evaluation**

Review the relevant pages in the manual and discuss.

**Session 3.2.4: Case Study and Summary of the Unit sessions****Case Study**

QUESTIONS	ANSWERS
What equipment is mandatory to be functional and available in the KMC unit?	<ul style="list-style-type: none"> <li>• Baby weighing scales</li> <li>• Clinical thermometers preferably low reading</li> <li>• Heaters (if the heaters re not working the mothers body temperature will keep the baby warm, provided she is also warmly dressed and the baby covered well)</li> <li>• Low birth weight register</li> <li>• Feeding tubes</li> <li>• Graduated feeding cups</li> </ul>
What are the important records to be properly kept, and checked in the KMC unit?	<ul style="list-style-type: none"> <li>• LBW record or KMC register</li> <li>• Weights records</li> <li>• Temperature records</li> <li>• Feeds records</li> <li>• Record of the findings of the physical examination</li> <li>• Treatments/medications record</li> </ul>
What are important procedures to be performed in the KMC Unit?	<ul style="list-style-type: none"> <li>• Infection prevention practices: Washing hands with soap and water before and after handling each baby and after changing nappies, disinfect feeding cups before expressed breast milk and after cup feeding, mop floor with disinfectant (chlorine) when appropriate, all soiled linen should be disinfected before sending for laundry</li> <li>• Maintenance of continuous skin-to-skin contact</li> <li>• Counselling of mothers: On admission or upon initiation of KMC, maintenance of KMC, discharge`</li> </ul>

**Unit Summary:** have participants review Unit objectives to ensure all were covered and understood and answer questions from participants.

**Post-Test: Training knowledge assessment**

At the end of the training participants should be requested to complete the same knowledge assessment as in the beginning.

**Evaluation of Training**

Give participants short questionnaire about the quality of facilitation as well as how confident they feel about their knowledge and skills with regards to a number of issues addressed in the various modules and units. This will help with improving the quality of future training. An example is on the next page to photocopy or adapt.

## EVALUATION FORM KANGAROO MOTHER CARE TRAINING

**Scoring Key**

- 1 Unsatisfactory
- 2. Satisfactory
- 3. Good
- 4. Very Good
- 5. Excellent

**Please circle the correct response for the questions below**

- 1. Did you find the training helpful?                      1   2   3   4   5
- 2. How was the venue?    1   2   3   4   5
- 3. Food and refreshments?                                        1   2   3   4   5
- 4. Facilitation    1   2   3   4   5

5. Training content - Tick the appropriate response

	Very helpful	Helpful	Not Helpful	Remarks
<b>Module 1: Low Birth Weight (LBW) Babies</b>				
Unit 1.1: Introduction to Preterm/Low Birth Weight Babies				
Unit 2.1: Danger Signs and Common Problems in Low Birth Weight Babies				
Unit 3.1: Hypothermia in the Newborn				

	Very helpful	Helpful	Not helpful	Remarks
<b>Module 2: Kangaroo Mother Care (KMC)</b>				
Unit 2.1: Introduction to Kangaroo Mother Care for Low Birth Weight Babies				
Unit 2.2: The Practice of Kangaroo Mother Care and Skin-to-Skin Care				
Unit 2.3: Feeding, Nutrition and Growth Monitoring in Kangaroo Mother Care				
Unit 2.4: Kangaroo Mother Care Discharge				
Unit 2.5: Counselling on Kangaroo Mother Care				
<b>Module 3: Management of a Kangaroo Mother Care Program</b>				
Unit 3.1: Establishment of Kangaroo Mother Care Services				
Unit 3.2: Kangaroo Mother Care Supervision, Monitoring and Evaluation				
Practical Session				
Video				
Role plays				

1. Please give any other comments for improving future KMC training:

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## REFERENCES

[More to add]

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**Ministry of Health & Social Welfare  
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