

MODULE 15

Priority health interventions that impact nutrition in emergencies

PART 3: TRAINER'S GUIDE

The trainer's guide is the third of four parts contained in this module. It is NOT a training course. This guide provides guidance on how to design a training course by giving tips and examples of tools that the trainer can use and adapt to meet training needs. The trainer's guide should only be used by experienced trainers to help develop a training course that meets the needs of a specific audience. The trainer's guide is linked to the technical information found in Part 2 of the module.

Module 15 outlines the relationship between undernutrition and disease and the major causes of morbidity and mortality in emergencies, with particular focus on those diseases which have an impact on nutritional status. The module then outlines key priority health interventions that will have a positive impact on the nutritional status of an emergency affected population and describes how health and nutrition programming should be linked.

This module has been developed for health and nutrition programme managers to facilitate better understanding of the links between health and nutrition status and health and nutrition programming and to encourage integration of planning, implementation, monitoring and evaluation of health and nutrition interventions in emergencies.

Navigating your way around the guide

The trainer's guide is divided into six sections.

1. **Tips for trainers** provide pointers on how to prepare for and organize a training course.
2. **Learning objectives** set out examples of learning objectives for this module that can be adapted for a particular participant group.
3. **Testing knowledge** contains an example of a questionnaire that can be used to test participants' knowledge either at the start or at the end of a training course.
4. **Classroom exercises** provide examples of practical exercises that can be done in a classroom context by participants individually or in groups.
5. **Case studies** three case studies have been provided, two from Africa and one from another Asia; and accompanying exercises have been set to get participants to think by using real-life scenarios.
6. **A Field-based exercise** is provided which may be conducted as part of a longer training course.

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1. Tips for trainers

Step 1: Do the reading!

- Read Part 2 of this module.
- Familiarize yourself with the technical terms from the glossary.
- Read through the following key documents
 - ✓ The Sphere Project. (2011). *Humanitarian Charter and Minimum Standards in Humanitarian Response*, Chapters 1,2 and 5, (The Core Standards; Minimum Standards in Water Supply, Sanitation and Hygiene Promotion; and Minimum Standards in Health Action)
 - ✓ United Nations Inter-agency Standing Committee (UN-IASC), Health, Nutrition and WASH Clusters. (2009). *Initial Rapid Assessment (IRA) Tool*. IASC.
 - ✓ Connolly, M. A. (ed) (2005). *Communicable disease control in emergencies A field manual*. Geneva: WHO.
 - ✓ The Johns Hopkins University & International Federation of Red Cross and Red Crescent Societies. (2008). *Public Health Guide for Emergencies*, 2nd edition. Baltimore: The Johns Hopkins University and IFRC.
 - ✓ Health Cluster Guide (2009) *IASC Global Health Cluster*
- See part 4 for full list of reference materials for this module

Step 2: Know your audience!

- Find out about your participants in advance of the training:
 - ✓ How many participants will there be?
 - ✓ Do any of the participants already have experience of implementing health and nutrition programmes in emergencies or chronic crises?
 - ✓ Could participants with health and nutrition field experience be involved in the sessions by preparing a case study or contribute through describing their practical experience?

Step 3: Design the training!

- Decide how long the training will be and what activities can be covered within the available time. In general, the following can be guide can be used:
 - ✓ A **90-minute** classroom-based training can provide a basic overview of health interventions with a high impact on nutritional status.
 - ✓ A **half-day** classroom-based training can provide an overview of health interventions with a high impact on nutritional status and include some practical exercises.
 - ✓ A **one-day** classroom-based training can provide a more in-depth understanding of health interventions with a high impact on nutritional status and will include a number of practical exercises and/or one case study.
 - ✓ A **three- to eight-day** classroom plus field-based training can provide a full training in on health interventions with high impact on nutritional status and would include a number of case studies and field practical exercises.

- Identify appropriate learning objectives. This will depend on your participants, their level of understanding and experience, and the aim and length of the training.
- Decide exactly which technical points to cover based on the learning objectives that you have identified.
- Divide the training into manageable sections. One session should generally not last longer than an hour.
- Ensure the training is a good combination of activities; mix PowerPoint presentations in plenary sessions with more active participation through classroom-based exercises, mix individual exercises with group work.

Step 4: Get prepared!

- Prepare PowerPoint presentations with notes (if they are going to be used) in advance and do a trial run. Time yourself! Slides can be prepared from the technical notes found in Part 2.
- Prepare exercises and case studies. These can be based on the examples given in this trainer's guide but should be adapted to be suitable for the particular training context and participant mix.
- Prepare a 'kit' of materials for each participant. These should be given out at the start of the training and should include:
 - ✓ Timetable showing break times (coffee and lunch) and individual sessions
 - ✓ Parts 1 and 2 of this module
 - ✓ Pens and paper

REMEMBER

People remember 20 per cent of what they are told, 40 per cent of what they are told and read, and 80 per cent of what they find out for themselves.

People learn differently. They learn from what they read, what they hear, what they see, what they discuss with others and what they explain to others. A good training is therefore one that offers a variety of learning methods which suit the variety of individuals in any group. Such variety will also help reinforce messages and ideas so that they are more likely to be learned.

2. Learning objectives

Below are examples of learning objectives for a session on nutrition IEC. Trainers may wish to develop alternative learning objectives that are appropriate to their particular participant group. The number of learning objectives should be limited; up to five per day of training is appropriate. Each exercise should be related to at least one of the learning objectives.

Examples of learning objectives

At the end of the training participants will:

- Understand the links between health and nutrition status
- Understand how nutrition and health status is related to extreme poverty and vulnerability, how these are exacerbated by natural hazards.
- Be aware of the major causes of excess morbidity and mortality in emergencies and the links with under nutrition
- Beware of the key health interventions that can impact nutritional status in emergencies
- Be familiar with the Sphere health actions and standards that are related to nutrition
- Be aware of the interventions required from other sectors to ensure optimal health and nutritional status in an emergency
- Understand the importance of planning for host populations as well as emergency affected populations
- Understand the importance of coordination between health and nutrition programme staff and how to better coordinate and/or integrate health and nutrition interventions.
- Understand how to plan for high impact nutrition and health interventions.

3. Testing knowledge

This section contains one exercise which is an **example** of a questionnaire that can be used to test participants' knowledge of health interventions that have a high impact on nutritional status either at the start or at the end of a training session. The questionnaire should be adapted by the trainer to ensure the questions are relevant to the specific participant group.

Exercise 1: What do you know about health interventions that impact on nutritional status?

What is the learning objective?

- To test participants' knowledge about health interventions that effect nutritional status

When should this exercise be done?

- *Either* at the start of a training session to establish knowledge level
- *Or* at the end of a training session to check how much participants have learned

How long should the exercise take?

- 10 minutes for each participant to complete the questionnaire. Alternatively this exercise is more fun and interactive if done in the form of a quiz, with participants divided up into groups of 3 or 4, and each group then discussing the answers and completing the questionnaire. More time will be required if conducted as a group exercise
- Allow 10 minutes for self-marking and clarification of answers – again allow more time if carried out in groups.

What materials are needed?

- **Handout 1a:** What do you know about key health interventions that impact nutritional status?: questionnaire
- **Handout 1b:** What do you know about key health interventions that impact nutritional status?: answers

What does the trainer need to prepare?

- Familiarize yourself with the questions and answers.
- Adapt the questions based on your understanding of the participant's knowledge base.

Instructions

Step 1: Give each participant a copy of Handout 1a.

Step 2: Give participants 10 minutes to complete the questionnaire working alone or 15 minute if working in groups.

Step 3: Give each participant a copy of Handout 1b.

Step 4: Give participants 5 minutes to mark their own questionnaires and clarify the

answers where necessary, or 10 minutes if the exercise was carried out in groups.

Handout 1a: What do you know about key health interventions that impact on nutritional status? Questionnaire

Time for completion: 10-15 minutes

Answer all the questions.

1. Read the following statements about health action in emergencies and indicate if they are True or False
 - a) The aim of emergency response in humanitarian crises is to decrease the crude mortality and under-five mortality rates to less than twice the baseline documented for the population prior to the emergency
 - b) An emergency affected populations should have access to free primary health care services for the duration of an emergency
 - c) A measles mass vaccination campaign may be required at the outset of an emergency - where this is required the target age group for a mass measles vaccination campaign is 9 months to 15 years
 - d) The acceptable case fatality rates for cholera, shigella dysentery and typhoid are less than 5 per cent
 - e) TB is a serious communicable disease and a TB control programme should be established in the early stages of an emergency

2. What are the five most common causes of mortality in emergencies

3. Read the following statements and indicate if they are True or False?
 - a) In an emergency the highest proportion of child deaths occur between six and seven months, when a child is weaned
 - b) The neonatal period is the first 48 hour of life
 - c) Undernutrition is an underlying factor in 10 per cent of under-five death

4. List a number of underlying causes/factors (in addition to under nutrition) which contribute to excess maternal and child mortality and morbidity in emergencies - (alternatively ask question 5)

5. What are the specific underlying causes/factors which contribute to
 - ARI
 - Diarrhoeal diseases
 - Malaria
 - Measles

6. Read the following statements and indicate if they are True or False?
 - a) Babies with a low birth weight weigh less than 4 kg
 - b) Kangaroo care means that the premature baby is held by the mother in a small pouch made of soft leather.
 - c) It is best for HIV-positive mothers to artificially feed their new born babies
 - d) Health facilities carrying out deliveries should be equipped with supplies and materials and have trained staff to carry out emergency obstetric and neonatal care.
 - e) Maternal deaths are primarily caused by haemorrhage and dehydration
 - f) Neonatal deaths are primarily caused by the baby being born with a low birth weight
 - g) Increased use of family planning by mothers has a high impact in reducing mortality, sickness and acute malnutrition in children
7. What is the purpose of an Early Warning and Response System in emergencies?
8. Maternal health and nutritional status of a mother will impact on the health and nutritional status of the child - list ten key reproductive health interventions which will positively impact the health and nutrition status of an infant.
9. At the outset of an emergency an active programme of health promotion should be initiated. What information should the health promotion programme provide at this stage and who should be consulted and involved in this process?
10. The Integrated Management of Childhood Illness aims to reduce death; illness and disability of children through ***tick the correct answers.***
 - a) Improving case management skills of health staff at first level health care facilities
 - b) Improving family and community health care practices
 - c) Improving behaviour of children under five years of age
 - d) Improving case management skills of health staff at specialised referral hospitals.

Handout 1b: What do you know about key health interventions that impact on nutritional status? Answers

1. Read the following statements about health action in emergencies and indicate if they are True or False
 - a) The aim of emergency response in humanitarian crises is to decrease the crude mortality and under-five mortality rates to less than twice the baseline documented for the population prior to the emergency **TRUE**
 - b) An emergency affected populations should have access to free primary health care services for the duration of an emergency **TRUE**
 - c) A measles mass vaccination campaign may be required at the outset of an emergency - where this is required the target age group for a mass measles vaccination campaign is 9 months to 15 years **FALSE** - when a mass measles vaccination campaign is carried out - all children between 6 months and 15 years should be vaccinated - then important to ensure that those infants vaccinated between 6-9 months should received another dose on reaching 9 months
 - d) The acceptable case fatality rates for cholera, shigella dysentery and typhoid are less than 5 per cent **FALSE** - The acceptable case fatality rate for those disease should be less than 1 per cent ;
 - e) A TB control programme should be established in the early stages of an emergency **FALSE** - TB control is not a priority in the acute stages of an emergency, when mortality rates are high owing to ARI, diarrhoeal diseases measles, malaria and under nutrition. A TB control programme should not be implemented until CMR are below 1 per 10,000 pop per day and there is some stability in the population so that patients commencing the treatment complete the full 6-8 month treatment however - TB control is a particularly important disease in long term emergencies where refugees or IDPS are in camps or overcrowded living conditions for long periods and TB risk factors are prevalent, hence when there is some stability with the population so that they can complete the treatment and resources, organisational commitment and capacity is available then a TB programme should be established.

2. What are the five most common causes of mortality in emergencies -?
ARI, diarrhoeal diseases, measles, malaria and undernutrition.

3. Read the following statements and indicate if they are True or False?
 - a) In an emergency the highest proportion of child deaths occur between six and seven months, when a child is weaned **FALSE** - the highest proportion of child death occur in the neonatal period (first 28 days) and particularly in the first 2 days. Several studies indicate however that the relative increase in mortality (due to the emergency) is likely to be in children older than one year.
 - b) The neonatal period is the first 48 hour of life **FALSE** - the neonatal period is the first 28 days of life

- c) Undernutrition is an underlying factor in 10 per cent of under-five death **FALSE**- Undernutrition is a contributory factor in over one third of deaths of children under 5 years.
4. List a number of underlying causes/factors (in addition to under nutrition) which contribute to excess maternal and child mortality and morbidity in emergencies - (alternatively ask question 5)
Underlying causes of excess maternal and child mortality include
- Low birth weight baby
 - Mother not exclusively breastfeeding infant for first six months of life
 - Lack of clean water at household level
 - Lack of adequate sanitation facilities in community
 - Inadequate shelter and poorly planned sites for displaced population
 - Poor ventilation at household level
 - Inadequate quality and quantity of food
 - Inadequate vector control measures
 - Lack of accessibility to quality basic reproductive health care services
 - Lack of accessibility to quality reproductive health care services
5. Specific underlying causes/factors which contribute to following diseases are -
ARI - Inadequate shelter - crowded with poor ventilation - lack of blankets and clothing -indoor cooking in living area - undernutrition
Diarrhoeal diseases - Overcrowding -contaminated water and food -poor personal hygiene -poor washing facilities -poor sanitation facilities -lack of soap - undernutrition
Malaria - New environment to area with higher endemic levels /strain to which the refugees are not immune -interruption of vector control measures - increased population density -stagnant water -flooding -inadequate health care services undernutrition
Measles -Overcrowding - vaccination coverage below 90% -undernutrition
6. Read the following statements and indicate if they are True or False?
- Babies with a low birth weight weigh less than 4 kg. **FALSE** a low birth weight is below 2.5kg
 - Kangaroo care means that the premature baby is held by the mother in a small pouch made of soft leather. **FALSE** A blanket is used to wrap the baby next to the skin of the mother by
 - It is best for HIV-positive mothers to artificially feed their new born babies. **FALSE** The most appropriate infant feeding option for an infant of an HIV-positive mother depends on the individual circumstances- Exclusive breastfeeding is recommended for HIV-infected women for the first six months of life unless replacement feeding is acceptable, feasible, affordable, sustainable and safe (AFASS) for them and their infants before that time.
 - Health facilities carrying out deliveries should be equipped with supplies and materials and have trained staff to carry out emergency obstetric and neonatal care. **TRUE**

- e) Maternal deaths are primarily caused by haemorrhage and dehydration
FALSE Maternal deaths are primarily caused by haemorrhage and infection
- f) Neonatal deaths are primarily caused by the baby being born with a low birth weight. **FALSE** Neonatal deaths are primarily caused by pre- term birth, birth asphyxia (lack of breathing) and infections
- g) Increased use of family planning by mothers has a high impact in reducing mortality, sickness and acute malnutrition in children **TRUE**

7. What is the purpose of an Early Warning and Response System in emergencies?

The purpose of EWARS is to detect and respond to communicable diseases with outbreak potential.

8. Maternal health and nutritional status of a mother will impact on the health and nutritional status of the child - list ten key reproductive health interventions which will positively impact the health and nutrition status of an infant.

Key effective interventions at various stages of care include the following

Care pre pregnancy -

- Nutrition promotion, especially in girls and adolescents
- Prevention and management of HIV and sexually transmitted infections (STI)
- Family planning

Care during pregnancy

- Intermittent preventive treatment for malaria in pregnancy and insecticide-treated mosquito nets (ITN)
- Maternal nutrition during pregnancy, including iron and folate
- Treatment of disease, and mebendazole for worms
- Tetanus toxoid vaccination (at least 2 doses) for pregnant women
- Identification of high risk pregnancies and referral
- Prevention of mother-to-child transmission of HIV
- Preparation of a birth plan

Care during child birth

- Skilled attendance at birth and clean delivery
- Emergency obstetric care
- Essential newborn care – delayed chord clamping, resuscitation, drying the baby, warmth, cleanliness
- Improved linking of home and health facility
- Companion of the woman’s choice at birth
- Preventing mother-to-child transmission (PMTCT) through antiretroviral therapy and safer infant feeding practices active management of the third stage of labour

Care after birth

- Routine postnatal care (PNC) for early identification and referral for illness as well as preventive care:
 - for the mother: promotion of healthy behaviours, danger sign recognition and family planning
 - for the baby: promotion of healthy behaviours by mothers – hygiene, warmth, early and exclusive breastfeeding, clean cord care and immunization
- Extra care for babies with other problems (e.g., mothers with HIV/AIDS)
- Management and care of low birth weight (LBW) babies including Kangaroo Mother Care (KMC)
- Case management of neonatal illness especially sepsis
- Early and exclusive breastfeeding for babies
- Vitamin A supplementation for the mother

9. At the onset of an emergency an active programme of health promotion should be initiated. Who should be consulted and involved in this process and what information should the health promotion programme provide at this stage?

A health promotion initiative should be established in consultation with local health authorities and community representatives, ensuring a balanced representation of women and men and providing information on:

- Major health problems,
- Health risks,
- Availability and location of health services
- Behaviours that protect and promote good health
- Addressing and discouraging harmful practices

10. The Integrated Management of Childhood Illness aims to reduce death, illness and disability of children through *tick the correct answers*.
- a) improving case management skills of health staff at first level health care facilities **Correct**
 - b) improving family and community health care practices **Correct**
 - c) improving behaviour of children under five years of age **Incorrect**
IMCI does not focus on improving behaviour of children
 - d) improving case management skills of health staff at specialised referral hospitals **Incorrect** - the focus of IMCI is at first level health facilities

4. Classroom exercises

This section provides examples of practical exercises that can be carried out in a classroom context by participants individually or in groups. Practical exercises are useful between plenary sessions, where the trainer has done most of the talking, as they provide an opportunity for participants to engage actively in the session. The choice of classroom exercises will depend upon the learning objectives and the time available. Trainers should adapt the exercises presented in this section to make them appropriate to the particular participant group. Ideally, trainers should use case examples with which they are familiar.

Exercise 2: Identifying underlying causes and contributory factor of diseases with high impact on nutritional status

<p>What is the aim?</p> <ul style="list-style-type: none">• To ensure participants have understanding of underlying causes and contributory factors of diseases with high impact on nutritional status <p>When should this exercise be done?</p> <ul style="list-style-type: none">• In the early stages of the training - after an introduction to health in emergencies and links with nutrition <p>How long should the exercise take?</p> <ul style="list-style-type: none">• 15 minutes to discuss possible underlying causes and contributory factors in groups• 25 minutes for feedback and discussion in plenary <p>What materials are needed</p> <ul style="list-style-type: none">• Handout 2a: Identifying health interventions with the highest impact on nutritional status• Handout 2b: Identifying health interventions with the highest impact on nutritional status: answers and trainer guidance <p>What does the trainer need to prepare?</p> <ul style="list-style-type: none">• Prepare a PowerPoint presentation based on the technical notes in part 2 - referring to the section on major causes of excess morbidity and mortality in emergencies and links with under nutrition <p>Instructions</p> <p>Step 1: Give each participant a copy of Handout 2a and divide participants into group of maximum five people.</p> <p>Step 2: Allow participants 15 minutes to work in groups to discuss the underlying causes and record answers for reporting back.</p> <p>Step 3: Allow up 15 minutes for reporting from all groups</p> <p>Step 4: Use remaining time to facilitate discussion on feedback - ensuring that the key points have been raised / discussed.</p>
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Hand out 2a: Identifying underlying causes and contributory factors of diseases with high impact on nutritional status - Question

Exercise - Discuss the underlying causes and contributory factors of diseases with high impact on nutritional status and record answers

Causes of morbidity and mortality in emergencies	Underlying causes and contributory factors
ARI	
Diarrhoeal diseases	
Malaria	
Measles	
Tuberculosis	
Teenage pregnancy	
Multiple pregnancies and in close succession	
Maternal haemorrhage or infection	
Neonatal asphyxiation	
Neonatal infection	
Low birth weight baby	
HIV infected baby	
SAM	

Hand out 2b: Identifying underlying causes and contributory factors of diseases with high impact on nutritional status - Answers

Exercise - Discuss the underlying causes and contributory factors of diseases with high impact on nutritional status and record answers - Answers

Causes of morbidity and mortality in emergencies	Underlying causes and contributory factors
ARI	Inadequate shelter - crowded with poor ventilation - lack of blankets and clothing -indoor cooking in living area - undernutrition
Diarrhoeal diseases	Overcrowding -contaminated water and food - poor personal hygiene -poor washing facilities -poor sanitation facilities -lack of soap - undernutrition
Malaria	New environment to area with higher endemic levels /strain to which the emergency affected population is not immune -interruption of vector control measures - increased population density -stagnant water -flooding -inadequate health care services undernutrition
Measles	Overcrowding - vaccination coverage below 90% -undernutrition
Tuberculosis	Overcrowding - undernutrition - HIV
Teenage pregnancy	Lack of availability / utilisation of Family Planning services
Multiple pregnancies and in close succession	Lack of availability / utilisation of Family Planning services
Maternal haemorrhage or infection	Lack of availability / utilisation of safe delivery services
Neonatal asphyxiation	Lack of availability /utilisation of safe delivery services
Neonatal infection	Lack of availability /utilisation of safe delivery services and neonatal services
Low birth weight baby	Poor maternal health and nutrition status before and during pregnancy
HIV infected baby	MTCT of HIV during pregnancy, delivery and breastfeeding Lack of availability/utilisation of ART for prevention of MTCT
SAM	Maternal undernutrition Inadequate IYCF and caring practices Food insecurity Inadequate household food distribution

Exercise 3: Identifying priority interventions to address the diseases which have high impact on nutritional status**What is the aim?**

- To ensure participants have understanding of the priority interventions to address the diseases which have a high impact on nutritional status

When should this exercise be done?

- In the early stages of the training - and after discussion on underlying causes of diseases which impact nutritional status and after exercise 2 if (exercise 2 is) conducted

How long should the exercise take?

- 20 minutes to discuss priority interventions which will have high impact on diseases which impact nutritional status
- 30 minutes for feedback and discussion in plenary

What materials are needed

- **Handout 3a:** Identifying priority interventions with the highest impact on health and nutritional status - Questions
- **Handout 3b:** Identifying priority interventions with the highest impact on health and nutritional status - Answers

What does the trainer need to prepare?

- Prepare a PowerPoint presentation based on the technical notes - referring to section on major causes of excess morbidity and mortality in emergencies and links with under nutrition (as per exercise 2)

Instructions

Step 1: Give each participant a copy of Handout 3a and divide participants into group of maximum five people.

Step 2: Allow participants 20 minutes to work in groups to discuss the priority interventions and package of care which should be established to address these diseases and to record answers for reporting back.

Step 3: Allow up 15 minutes for reporting back from all groups

Step 4: Use remaining time to facilitate discussion on feedback - ensuring that the key points have been raised / discussed.

Hand out 3a: Identify priority interventions which will impact each of these diseases.
Question

Exercise - Discuss the priority interventions which will have high impact on each of the diseases in terms of prevention and treatment and including health sector interventions and also intervention from other sectors

- ARI
- Diarrhoeal diseases
- Malaria
- Measles
- TB
- Multiple pregnancies in close succession
- Maternal haemorrhage and maternal infection
- Neonatal asphyxiation
- Neonatal infection
- Low birth weight baby
- HIV infected baby
- SAM

Outline the various packages of care and the key health interventions in each pack of care which would tackle these problems - specifically focussing on the interventions which will have the highest impact on health and nutrition status.

Handout 3b: Identifying health interventions with the highest impact on nutritional status: Answers

Model answer: (There is plenty of flexibility in how this information may be presented by groups and the model answer may be augmented by the trainer)

Communicable diseases

(Will address ARI, Diarrhoeal diseases, Malaria, Measles, TB and other communicable diseases)

Shelter Sector - Adequate numbers of climate appropriate shelters, well planned sites - sufficient space between shelters & well ventilated.

Water and Sanitation Sector - Adequate quantity and quality water supply, adequate sanitation facilities, appropriate vector control interventions and hygiene promotion/education activity.

Food and Nutrition Sector - Appropriate food basket ration (quality and quantity), general nutrition support of population; and management of acute malnutrition and micronutrient deficiencies.

Health Sector - Prevention (vaccination and hygiene promotion), diagnosis and case management; and outbreak detection, investigation and response.

Reproductive health care key interventions by phase of care

Health programme	Problems addressed	Key interventions
Care for girls and women before pregnancy	Under nutrition, diseases, teen pregnancy, multiple pregnancies,	<ul style="list-style-type: none"> - Education - Family planning - Nutrition
Care during pregnancy	Maternal death and malnutrition, anaemia Low birth weight, Maternal-to-child transmission or HIV	<ul style="list-style-type: none"> - Focused antenatal care - Nutrition promotion and support including supplementation - Malaria prevention -Treatment of illnesses - Detection and transfer of high risk pregnancies - Prevention of mother to child HIV transmission
Care during childbirth	Maternal death, haemorrhage and infection Newborn asphyxia and infection	<ul style="list-style-type: none"> - Skilled attendance at birth -Emergency obstetric care -Skilled care of newborn
Care after birth	Maternal deaths High rates of newborn deaths in first few days.	<ul style="list-style-type: none"> - Postnatal care for mother - Newborn care - body temp, umbilical cord - treatment of infections, identification and management of illness and referral of severe illness for treatment - care of pre-term and low birth weight babies with breathing problems - Promotion of exclusive breastfeeding

Child Health Care - Key interventions

Care for children under age five	Illness and undernutrition including SAM	<ul style="list-style-type: none">-Immunisation and vitamin A supplementation-Health promotion on optimal IYCF and care practices -Promote early care seeking when child ill -Provision of basic health care services for children at front line health facilities - using IMCI guidelines/international best practice -Use of Long Lasting Insecticide Nets -Screening for acute malnutrition and referral for treatment as required -Additional micronutrient supplementation (as required)
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Exercise 4: To understand the links between reproductive health and child health - and the linkages and relationships between common illnesses.

What is the aim?

- To understand the links between reproductive health and maternal and child health status and the linkages and relationships between common illnesses.

When should this exercise be done?

- As part of a short training course - after an introduction to causes of undernutrition

How long should the exercise take?

- 30 - 45 minutes

What materials are needed?

- **Handout 4a:** linkages between reproductive health and maternal and child health status and the linkages and relationships between common illnesses. **-Questions**
- **Hand out 4b:** linkages between reproductive health and maternal and child health status and the linkages and relationships between common illnesses **-Answers**

What does the trainer need to prepare?

Read through the relevant sections in part 2 of this module

Instructions

Step 1: Give each participant a copy of Handout 4a and divide participants into group of maximum five people.

Step 2: Allow participants 20 minutes to work in groups to discuss the underlying causes and record answers for reporting back.

Step 3: Allow up 15 minutes for reporting from all groups

Step 4: Use remaining time to facilitate discussion on feedback - ensuring that the key points have been raised / discussed

Hand out 4a: Exercise to illustrate the links between reproductive health and child health - and the linkages and relationships between common illnesses.

There are clear links between reproductive health and maternal and child health status. The health and nutritional status of pregnant women will significantly impact the health well being and nutritional status of the infants and the health and well being of the women. Furthermore there are linkages and relationships between common illnesses.

Read the following summary of a young girl and her baby and then discuss and answer the questions below.

A young girl aged 15 is anaemic because of heavy periods and malaria before getting pregnant. During pregnancy she only has enough food to eat a proper meal once a day and does not put on weight as would be expected during pregnancy, although she takes folate supplements and expensive Perfect Baby high energy supplements. The girl had two episodes of malaria during the pregnancy, which further weakens her condition.

The girl delivers a premature baby (36 weeks) at home with the assistance of her relatives. Although the baby was not weighed it was very small and clearly a low weight birth. Because the baby was small and weak the girl gives the baby some sugar-water; and then expresses some breastmilk, which she dilutes with water from the local stream before giving it to the baby.

After a few weeks the girl starts breastfeeding the baby - although she continues to give the baby thin porridge and weak tea. Although the baby starts to gain some weight, its weight and length remain very low for its age. The baby has frequent bouts of diarrhoea which the girl treats with local / traditional medicine and the baby was not taken to the health facility for vaccination. At eight months old the baby dies from an episode of malaria.

Questions

- 1) Identify any positive actions that the girl took to benefit her own and her child health
- 2) Discuss the various factors which contributed to the poor health and subsequent death of this infant and how they are interlinked
- 3) List the key interventions which would have had a positive impact on the health and nutritional status of the girl and her baby from before pregnancy through to when the baby died at eight months of age.

Handout 4b: Exercise to illustrate the links between reproductive health and child health - and the linkages and relationships between common illnesses. Trainer guidance

- 1) Identify any positive actions that the girl took to benefit her own and her child health - The mother does do a couple of positive things that will benefit her own health and that of the babies – taking folate during pregnancy and breast feeding the child once it is stronger.
- 2) Discuss the various factors which contributed to the poor health and subsequent death of this infant and how they are interlinked - All the other actions which the mother took are likely to have contributed to the child's poor health and nutritional status and subsequent death.
- 3) Refer to list of key interventions from pre - pregnancy through to after birth and the child health carer section for key interventions that would have had a positive impact on the infant's health -

Additionally - it is likely that if the mother had brought the infant to the health facility for treatment for diarrhoea and/or for vaccination the infant's condition and failure to thrive would have been identified and appropriate support provided to enable the mother to improve key infant feeding and care practices.

Exercise 5: To understand the links between malnutrition, chronic disease, poverty and vulnerability

What is the aim?

- To understand the links between malnutrition, chronic disease, poverty and vulnerability

When should this exercise be done?

- After the multiple causes of under nutrition have been presented

How long should the exercise take?

- 35 to 45 minutes

What materials are needed?

- [Handout 5a: Photo from Kenya 2005](#)
- [Handout 5b: Photo from Kenya 2005: model answers](#)

What does the trainer need to prepare?

- Read part 2 of this module and the answers on handout 5b and prepare to facilitate the discussion.

Instructions

Step 1: The photo is shown to the participants (either in PowerPoint, or a large photo is printed off).

Step 2: In a plenary session the trainer asks questions and facilitates discussion on each of the questions

Discussion points for feedback in plenary

- ⇒ Links between extreme poverty, malnutrition, adult sickness and loss of parents and child illness (in this case HIV, TB, infections and malnutrition)
- ⇒ Need for multidisciplinary planning between nutritionists, health workers, and social workers
- ⇒ Injustices that cause extreme poverty, HIV, malnutrition
- ⇒ Importance of economic support/income generation/micro credit to turn around the fortunes of marginalize impoverished families

Handout 4a: Photo from Kenya 2005



This photo was taken in Kenya in 2005. The boy has a cough.

Answer the questions.

- 1. What kind of environment do these two people live in?*
- 2. Who do you think they are, and who is missing?*
- 3. What do you think about the boy's health and nutrition (he is 12)?*
- 4. What kind of emergencies do these people face on a daily basis?*
- 5. What health and nutrition interventions are needed?*
- 6. What long-term help does this family need?*

Handout 5b: Photo from Kenya 2005: model answers

1. What kind of environment do these two people live in?

Urban slum

2. Who do you think they are, and who is missing?

A boy and his grandmother who looks after him. The parents are missing, perhaps they died from HIV. The grandfather has died.

3. What do you think about the boy's health and nutrition (he is 12)?

He is malnourished. He might be living with HIV. He is sad/depressed, so is the grandmother.

4. What kind of emergencies do these people face on a daily basis?

- On-going chronic disease, and suffering
- Daily hunger
- Not able to work, no money, poverty, daily worries about paying rent, and might face eviction
- Danger in the slums
- No sanitation or clean water supply
- They have no land to grow food on.
- They have to pay bribes to local authorities just to stay where they are.
- Depression, sadness and hopelessness

5. What health and nutrition interventions are needed?

- Intensive nutritional support – CTC, or fortified foods/high protein and energy foods and micronutrient supplements
- Intensive medical support – including TB treatment, ART, antibiotics for treating opportunistic infections, rehydration for diarrhoeal disease

6. What long-term help does this family need?

- Economic support, including income generating capacity
- Long term free ART and other drugs
- On-going nutritional support if economic means stay very limited
- Security on their accommodation (ownership, affordable rent, etc.)
- Clean water and proper sanitation

Exercise 6: To have an understanding of HIV in emergencies and key health interventions in relation to HIV in the various phases of an emergency

What is the aim?

- To understand the factors which exacerbate HIV transmission in a humanitarian crisis and key HIV related interventions that should be implemented by the health sector /health agencies in the acute stage of an emergency and as a humanitarian crises progresses

When should this exercise be done?

- As part of a longer training course – i.e. 1 day or longer

How long should the exercise take?

- 45 -60 minutes

What materials are needed?

- [Handout 6a: HIV in emergencies -Questions](#)
- [Hand out 6b: HIV in emergencies -Answers](#)

What does the trainer need to prepare?

- Read through the HIV related sections in part 2 of this module and also HTP module 18 relating to HIV

Instructions

Step 1: Give each participant a copy of Handout 2a and divide participants into group of maximum five people.

Step 2: Allow participants 20 minutes to work in groups to discuss the underlying causes and record answers for reporting back.

Step 3: Allow up 15 minutes for reporting from all groups

Step 4: Use remaining time to facilitate discussion on feedback - ensuring that the key points have been raised / discussed

Hand out 6a HIV in emergencies -Questions

Humanitarian crises, which are often linked to displacement, food insecurity and poverty, increase vulnerability to HIV and negatively affect the lives of people living with HIV

Discuss the following questions in groups and prepare feedback on a flip chart

- 1) What are the factors which exacerbate HIV transmission in a humanitarian crisis?
- 2) What are the key HIV related interventions that should be implemented by the health sector /health agencies in the acute stage of an emergency?
- 3) As a humanitarian crisis progresses beyond the first phase, what additional HIV interventions should be implemented by the health sector?

Hand out 6b HIV in emergencies - Answers

1) What are the factors which exacerbate HIV transmission in a humanitarian crisis?

The factors that determine HIV transmission during a humanitarian crisis are complex and depend on the context -

- Existing gender inequalities may be further exacerbated, making women and children disproportionately more vulnerable to HIV, e.g. sex work and sexual exploitation may increase as a consequence of loss of livelihood and lack of employment opportunities.
- Population displacement may lead to separation of family members and breakdown of community cohesion and of the social and sexual norms that regulate behaviour.
- Women and children may be used by armed groups and may be particularly vulnerable to HIV infection as a result of sexual violence and exploitation, while rape may be used as a weapon of war.
- Pre emergency HIV services may be disrupted during humanitarian crises - people may no longer have access to information about HIV prevention, to Voluntary Counselling and Testing (VCT), to condoms or to services for Prevention of Mother to Child Transmission (PMTCT).
- Breakdown in reproductive health services leading to lack of availability of family planning services, antenatal and safe delivery services, and treatment of STIs may also accelerate the spread of HIV in emergencies.

2) What are the key HIV related interventions that should be implemented by the health sector /health agencies in the acute stage of an emergency?

- The Minimum Initial Service Package for Reproductive Health in emergencies includes Reduction of HIV transmission through - Ensuring safe blood transfusion - Facilitating and enforcing respect for standard precautions and Making free condoms available - The other key interventions are - syndromic treatment of STIs for patients presenting with symptoms; and ART available to continue treatment for patients already on ART, including PMTCT; and

3) As a humanitarian crisis progresses beyond the first phase, what additional HIV interventions should be implemented by the health sector?

Comprehensive services should be established as appropriate including

- Community education;
- Comprehensive service to provide care, support and treatment for people living with HIV/AIDS with
- Establish links between HIV and TB programmes where TB programmes exist
- Establish referral for required health and nutritional care and support
- Ensure provision of treatment, care and support for infants born from mothers known to be HIV-positive including guidance and counselling on infant feeding.
- Ensure people who are high risk of exposure to HIV have access to HIV prevention interventions for sexual transmission of HIV and access to clean injecting equipment for known injecting drug users where these services already exist
- Broaden range of HIV control service in the post emergency phase
- Ensure Post Exposure Prophylaxis (PEP) is available for individuals potentially exposed to HIV (occupational exposure and none-occupational exposure) PEP should be given within 72 hours

5. Case studies

Three case studies are presented in this section, one from Chad, one from Sudan and one from India. Case studies are useful for getting participants to think through real-life scenarios. They also provide an opportunity for participants to work in a group and develop their analytical and decision-making skills. Trainers should develop their own case studies which are contextually appropriate to the particular participant group. Ideally, trainers should use scenarios with which they are familiar.

Exercise 7: Examining the needs of refugees and host populations

What is the aim?

- To emphasize the importance of planning for host populations as well as refugees, and how to integrate nutrition and health programming

When should this exercise be done?

- As part of a longer in-depth training

How long should the exercise take?

- 2 hours

What materials are needed?

- **Handout 7a:** Health and nutrition data, and information about programmes for refugees and host populations in Chad 2005–2006

What does the trainer need to prepare?

- Prepare copies of the case study on Handout 9a or create a similar study related to the country in which the workshop is being held. Other relevant documents that the trainer may want to read are inter-agency health and nutrition reports on Chad:
 - ✓ *Humanitarian oasis in a parched health sector: Refugees and host populations in eastern and southern Chad*, 2006, Michael, M. et al., www.unhcr.org/research/RESEARCH/456abf7a2.pdf
 - ✓ *Chad – country in crisis*, 2007, Pearson, N., www.unhcr.org/publ/RESEARCH/45ebf2d82.pdf

Note: Answers are open-ended and require participants to examine available data and also to imagine likely scenarios, so no model answer is given. **Therefore the trainer is advised to read Handout 9a very carefully and work through some potential answers.**

Instructions

Step 1: Give each participant a copy of Handout 9a and allocate 10 minutes for participants to read through the handout.

Step 2: Divide the participants into groups of (maximum) five people.

Step 3: Give the groups 40 to 50 minutes to discuss the questions and prepare for presentation of their answers. The trainer circulates among the groups to help guide the discussions, as necessary.

Step 4: Give each group 10 minutes for feedback in plenary

Step 4: Use remaining time to facilitate discussion on feedback - ensuring that the key points have been raised / discussed.

Handout 7a: Case study I: Health and nutrition data, and information about programmes for refugees and host populations in Chad 2005–2006

Time for completion: 2 hours

Read the following case study from Chad,¹ and discuss the questions in groups. Prepare a brief presentation of your discussion that will be discussed when the groups come back together again.

Background

Chad is one of the poorest countries in the world with a UNDP Human Development Index of 173 (of 177) for 2004. Four fifths of its population live on less than US\$1 a day. It has a high population growth rate of 3.2 per cent with an estimated population of over 9 million. The country is extremely unstable, with an influx of 234,000 Sudanese refugees from Darfur, and 48,000 from the Central African Republic. The fighting in both neighbouring countries has spilled over into Chad, which now has at least three rebel groups operating in the east of the country. One rebel group took the main eastern town of Abéché in November 2006 and threatened to move on to the capital N'djamena. Janjaweed militia have combined with local groups to attack communities near Goz Beida, which has caused the internal displacement of 100,000 Chadians, and further Chadian refugees have moved into Sudan. Insecurity has plagued humanitarian agencies that operate principally in the east and south where the refugees and IDPs are. There are very few agencies working specifically with Chadian populations outside the conflict zones. UNHCR initially coordinated all of the humanitarian response, with OCHA now giving more attention to the Chadian population. UNHCR coordinates health and nutrition activities in the refugee camps, UNICEF for the IDPs, and WHO for the rest of the country. UNICEF has increased its leadership in the nutrition cluster.

Water and sanitation

In November 2006, 7 out of 12 camps did not have enough latrines, and in 2005 and 2006 there had been epidemics of hepatitis E, and shigella dysentery and diarrhoea had been endemic. A total of 27 per cent of the morbidity in refugee camps was attributable to diarrhoea, but there had been a substantial decrease in cases since the refugees first arrived in 2005. As a country, Chad has the second worst access to clean drinking water in the world (e.g., 30 per cent, with only 45 per cent of the population using a latrine), according to a UNDP study. In the east of the country, only 2 per cent of the population has access to drinking water.

Nutrition

In 2006 there has been significant improvement in the nutritional status of children in refugee camps due to the collective efforts of all partners in increasing food rations, in effective nutritional rehabilitation, the impact of curative and preventive health care and thanks to a good harvest in 2005 and 2006. Most therapeutic feeding centres (TFCs) in the camps were only treating a few cases per week in late 2006. It had

¹ This is taken from *Chad – a country in crisis*, A follow-up report, Interagency Health and Nutrition Evaluation (IHE), from <www.unhcr.org/publ/RESEARCH/45ebf2d82.pdf>.

planned to close some therapeutic feeding centres but the arrival of undernourished children amongst the displaced population in the districts of Goz Beida and Adré required keeping the TFCs open. In the Amnabak and Gaga camps, the acute malnutrition rate was still over 10 per cent at the end of 2006.

The nutritional situation of the host population is still very worrying. In July, 35 per cent of monitored children at sentinel sites in the east were acutely malnourished. In August, in the village of Doroti the acute malnutrition rate was 23 per cent for children under-five diagnosed using upper arm circumference (MUAC). A survey conducted by UNICEF in the region of Guerra in August revealed an acute malnutrition rate of 24 per cent among children between six months and five years. Outside of camps, there are no feeding centres in the country.

A detailed study on the environmental impact of the refugees has been carried out. One agency, the Women's Commission, is exploring the various sustainable solutions available to diversify the domestic sources of energy in order to reduce the risks of sexual violence against women when they collect firewood.

Health services

Mortality rates decrease in the refugee camps in 2006. The main cause of mortality of children under age five in camps in the south in 2006 was malaria and diarrhoea, and in the east it was malaria, respiratory infection and neonatal complications. There were isolated cases of meningitis, but only one epidemic, of hepatitis E in the eastern camps, with 280 cases and 3 deaths. The lab in Abéché has bacteriological equipment to test for epidemics like cholera and meningitis, and there are pre-positioned stocks of perfusions and other supplies ready for epidemics.

There is no mortality data available from surrounding villages, apart from the demographic and health surveys (which showed that under-five mortality had not decreased – it was 194/1000 in 1997 and 191/1000 in 2004, and infant mortality rate was 102/1000 in 2004). UNICEF compared under-five mortality in the camps of 45 per 1000 with some surrounding villages where it was 191 per 1000 – four times higher! Consultation rates in health facilities not assisted by humanitarian agencies do not reach 0.1 per person per year. 13.5 per cent of children in eastern Chad suffer with acute malnutrition (wasting) and 41 per cent have chronic malnutrition (stunting). Maternal mortality for the country have increased from 827 per 100,000 live births in 1997 to 1099/100,000 in 2004, and 19 per cent of children were born underweight. A total of 59 cases of neonatal tetanus were reported in 2006, with 20 deaths in health districts in the east.

In the refugee camps, by comparison, the maternal mortality rate was 240/100,000 and neonatal mortality rate was 6.7/100,000. The rate of assisted delivery in health facilities was 90 per cent in one camp but only 5 per cent in another, in a camp where the agency promoted assisted home delivery. Abéché hospital had a mortality rate of 1227 per 100,000 births partially because there were so many late referrals – but that was not the only reason. Near Am-dam hospital there is a graveyard with many

women who died after needing to be transfer to Abéché to deliver – but in the wet season there is no road to get there.

The health information system in Chad is very rudimentary, so there is very little data available from health facilities. Local populations living close to refugee camps have benefited with better health care, but three district hospitals are still not supported by humanitarian agencies. Blood transfusion is not available in these hospitals, and as there are no working generators, the operating theatres do not work. The regional hospital in Abéché has a good operating theatre and lab, and a blood bank is being set up.

UNICEF organized a large distribution of insecticide-treated mosquito nets for displaced people, but a study carried out by the Mentor initiative showed that 40 per cent of these nets had been resold. In the camps, less than 50 per cent of the nets were kept by beneficiaries.

In 2006 there was no national prevention of mother-to-child transmission of HIV in Chad, and only one voluntary counselling and testing centre in the east, at Abéché. Humanitarian partners have done a lot of work in promoting messages about condom use and HIV prevention. UNICEF increased its support of the expanded programme of immunization in the east, and in the first six months of 2006 there were only 23 reported cases of measles in the Ouaddaï region, compared with 1319 cases in 2005.

Some donors supporting health systems across the country had actually withdrawn their support because of problems related to management of resources, including the World Bank (who spent \$45 million between 2001 and 2005) and the IMF (which had supported HIV projects). The European Development Fund remains the main donor in the health sector, and gives some support to pharmacies, district hospitals and health facilities.

Questions are to be discussed in groups, and answers formulated into a short report.

- 1. What are your impressions of health and nutrition care for refugees in eastern and southern Chad. How have the humanitarian agencies lead by UNHCR done in meeting their needs? What are the challenges?***
- 2. What are your impressions of the health and nutrition status of the surrounding Chadian population?***
- 3. From the available data, what are the principal causes of sickness, undernutrition and under-five deaths? What do you suppose are the other causes in the surrounding villages for which no data exists? Can you spot any link between reproductive health, birth weight, newborn care and rates of death and malnutrition for under-fives?***
- 4. What are the priorities for health and nutrition care in the refugee camps? How about for the Chadian displaced people?***

- 5. Design a health programme for the villages in one health district in the east, ensuring inclusion of priority interventions with high impact on health and nutrition status.*

Exercise 8: Examining health and nutrition in an impoverished society affected by natural hazards

What is the aim?

- To understand how nutrition and health status is related to extreme poverty and vulnerability, how these are exacerbated by natural hazards, and to learn how to plan for high impact nutrition and health interventions

When should this exercise be done?

- As part of a longer in-depth training

How long should the exercise take?

- 2 hours

What materials are needed?

- **Handout 8a: Case study II: Health and nutrition in an impoverished state affected by natural hazards in Orissa state, India 2007**

What does the trainer need to prepare?

- Prepare copies of the case study on Handout 10a or create a similar study related to the country in which the workshop is being held. For India, the trainer may want to read: World Bank, *India: Undernourished children: A call for reform and action*, found at:

<http://siteresources.worldbank.org/SOUTHASIAEXT/Resources/223546-1147272668285/IndiaUndernourishedChildrenFinal.pdf>.

There are many online resources dealing with the natural hazards and health and nutrition data in Orissa. If the training is spread out over several days, participants could look for material themselves from online sources.

Note: Answers are open-ended and require participants to examine available data and also to imagine likely scenarios, so no model answer is given. **Therefore the trainer should read Handout 10 a very carefully and work through some potential answers.**

• Instructions

Step 1: Give each participant a copy of Handout 8a and give them 15 minutes to read through the document.

Step 2: Divide the participants into groups of (maximum) five people.

Step 3: Give the groups 40 minutes to discuss the questions and prepare for presentation of their answers. The trainer circulates among the groups to help guide the discussions, as necessary.

Step 4: Give each group 5- 10 minutes for feedback in plenary

Step 4: Use remaining time to facilitate discussion on feedback - ensuring that the key issues have been raised / discussed.

Handout 8a: Case study II: Health and nutrition in an impoverished state affected by natural hazards in Orissa state, India 2007

Time for completion: 1.5 to 2 hours

Read the following case study from Orissa, India and discuss the questions in groups. Prepare a brief presentation of your discussion that will be discussed when the groups come back together again.

One in four of the 10 million under-five child deaths worldwide occur in India, and one in five maternal deaths are in India. Although rates of under-five child mortality are not as high in the Indian subcontinent as in sub-Saharan Africa, rates of malnutrition are as bad, and because of the size of India's population, the highest numbers of malnourished children in the world are found there.

India: facts and figures²

Population: 1.1 billion, with 300 million under \$1 a day
Under-five mortality has fallen from 123 to 90 deaths per 1000 live births (1990 to 2002) and infant mortality has fallen from 84 to 65 deaths per 1000 live births (1990 to 2002).
The maternal mortality rate (per 100,000 live births) stands at 407.
47% of children under three are malnourished, ranging from 21% in the best states to 56% in worst.
77.9% have access to improved water and 36% have access to improved sanitation. Good progress is being made on water and primary education targets.
HIV prevalence is 0.9%, with a total 5.2 million cases.

India is politically stable and is the world's largest democracy. The economic growth rate is 8 per cent per year since 2002. If sustained, India will be the world's fourth largest economy within 20 years. A total of 83 per cent of children attend primary school; 91 per cent boys and 76 per cent girls. Yet despite this, India still has the highest numbers of child deaths and of malnourished children in the world. Although there is progress on the MDG goal for income poverty, even meeting that target would still leave over 250 million poor in 2015. According to a World Bank report,³ malnutrition and poverty are concentrated in a relatively small number of states, districts and villages – **50 per cent of villages in five states account for about 80 per cent of all malnutrition cases**, and when these figures are disaggregated, the worst affected groups are girls, rural area populations, the poorest and certain tribes and

² From DFID country profile, India at www.dfid.gov.uk/countries/asia/india.asp.

³ World Bank, *India: Undernourished children: A call for reform and action*, 2005 at <http://siteresources.worldbank.org/SOUTHASIAEXT/Resources/223546-1147272668285/IndiaUndernourishedChildrenFinal.pdf>

castes. These inequalities appear to be increasing. The following excerpt is taken from the report.

“Malnutrition in India has been estimated to be associated with about half of all child deaths and more than half of child deaths from major diseases, such as malaria (57 per cent), diarrhoea (61 per cent) and pneumonia (52 per cent), as well as 45 per cent of deaths from measles (45 per cent). In India, child malnutrition is responsible for 22 per cent of the country’s burden of disease. Undernutrition also affects cognitive and motor development and undermines educational attainment. A total of 30 per cent of Indian children are born with low birth weight. Micronutrient deficiencies alone may cost India US\$2.5 billion annually. More than 75 per cent of pre-school children suffer from iron deficiency anaemia (IDA) and 57 per cent of pre-school children have sub-clinical vitamin A deficiency (VAD). Iodine deficiency is endemic in 85 per cent of districts. Progress in reducing the prevalence of micronutrient deficiencies in India has been slow – IDA has not declined much, in part due to the high prevalence of hookworm. As with underweight, the prevalence of different micronutrient deficiencies varies widely across states. Economic growth alone is unlikely to be sufficient to lower the prevalence of malnutrition substantially – certainly not sufficiently to meet the nutrition Millennium Development Goal of halving the prevalence of underweight children between 1990 and 2015. It is only with a rapid scaling-up of health, nutrition, education and infrastructure interventions that this MDG can be met.

Protein-energy malnutrition weakens immune response and aggravates the effects of infection and, so, children who are malnourished tend to have more severe diarrhoeal episodes and are at a higher risk of pneumonia. Underweight and stunted women are also at more risk of obstetric complications (because of smaller pelvic size) and low birth weight deliveries. The result is an intergenerational cycle of malnutrition since low birth weight infants tend to attain smaller stature as adults. In addition, malnutrition in early infancy is associated with increased susceptibility to chronic disease in adulthood, including coronary heart disease, diabetes and high blood pressure. Although the precise mechanisms are not clear, protein-energy malnutrition in early childhood is also associated with poor cognitive and motor development.

It is also noteworthy that although Rajasthan, Orissa and Manipur are the only states identified as experiencing increases in total underweight prevalence from 1992 to 1998.”⁴

Child mortality and malnutrition rates in Orissa are among the highest in the country, despite a relatively rapid fertility decline and quite high levels of antenatal coverage. There are, however, extremely low levels of investment in the health sector and the quality of care in health facilities is not reported to be very high.⁵ There may be good

⁴ World Bank, *India’s Undernourished children: A call for reform and action*, 2005. For details, see <http://siteresources.worldbank.org/SOUTHASIAEXT/Resources/223546-1147272668285/IndiaUndernourishedChildrenFinal.pdf>.

⁵ Arokiasamy, P. et al. *High infant and child mortality rates in Orissa: an assessment of major reasons*, International Institute for Population Sciences, 2006.

coverage of a service, but that doesn't guarantee its quality. See the box below for an example of the angry reaction of one local journalist.⁶

The rot in Orissa's reproductive health services

Although the reproductive and child health programme was introduced in Orissa in 1997 and 1998, and external donors, such as the World Bank, the European Commission and the United Nations Population Fund (UNFPA), poured in funds to the tune of hundreds of crores of rupees, Orissa's health indicators continue to show little progress. The state's infant mortality rate (IMR), which improved from 1996 in 2000, now is the second highest in the country, at 87 (rural: 91). That's much higher than the national IMR of 64. While the national doctor/population ratio is 1 to 1916, in Orissa it is an alarming 1 to 7462. When doctors are posted to remote areas of the state, they respond by going on leave. The reasons are not difficult to come by. As an overwhelming number of testimonies showed, there is wilful neglect at public health facilities and at the hands of government health personnel. These include childbirth deaths, pregnancies that occur after family planning operations have been carried out, babies delivered after abortions, STI and RTI infections and, above all, payment for services that are meant to be free. The public hearing clearly exposed that one of the major reasons for high-interest borrowing was expenses incurred to save loved ones from 'health sharks'.

The most important reason cited by the Orissa State Government's Department of Health and Family Welfare for the high numbers of infant deaths is maternal malnutrition and lack of antenatal care for mothers. "For reducing infant mortality, interventions for improving maternal health and nutrition are essentially required. To reduce infant deaths, care of the newborn is also an essential intervention."⁷ On paper, there are 158 community health centres, 157 primary health centres, 1167 primary health centres, 115 area hospitals and 32 district hospitals in the state, however, numbers give no indication of quality. There are 32 million people that live in the state, 87 per cent in rural areas, with one third of the rural population not owning any land. A total of 24 per cent of the population are from tribal minorities, coming from 62 different ethnic communities, many of these quite marginalized.

⁶ Manipadma, Jena, writing for *Info change India*. Available at www.infochangeindia.org/features221.jsp.

⁷ Government of Orissa, Department of Health and Family Welfare.



Another factor increasing Orissa's vulnerability is its geographical location, in the Bay of Bengal. On 29 October 1999 a super cyclone smashed into the eastern seaboard of the state, affecting 12 million people and leaving more than 10,000 dead, 774,000 homes destroyed and 1 million animals lost (and an estimated economic loss of \$2.5 billion, including 2 million tonnes of rice crop). The cyclone had been spotted in advance, but relief efforts only started three days after the storm hit. Five days after the storm, the coordination centre consisted of six workers, two telephones and a fax machine. In 2001, 1 million people in Orissa were stranded by floods, which have occurred repeatedly in 2003, 2006 and 2007, the latter affecting 1 million people and causing 38 deaths. As well as displacing people, the floods waterlog farmland and destroy crops. For more than a decade Orissa has experienced contrasting extreme weather conditions with heat waves and droughts, floods and cyclones. A heat wave in 1998 was estimated to have killed 1500 people. Ironically the worst drought was in 2001, the same year as the worst ever recorded flood. These natural hazards have severely weakened the economy. A cholera outbreak in August 2007 following the floods hospitalized at least 700 people, with at least 58 deaths.

Questions to be discussed in groups, and answers formulated into a short report.

- Why will India not meet its MDGs for nutrition and child health?
- Why are malnutrition and under-five death rates so high, and where are these cases concentrated?
- Why does Orissa have much higher rates of malnutrition and child deaths?
- Why is Orissa so exposed to natural hazards?
- Why do these hazards become disasters for the state?
- Design a health and nutrition programme for a population of 20,000 people on the eastern seaboard of the state, with one reference health centre and five primary health centres. Concentrate on the elements that will have a high impact on childhood malnutrition and death rates.
- What disaster and epidemic preparedness measures are necessary? How can the effect of future floods, droughts and cyclones be mitigated? What measures are needed in other sectors (water, sanitation, education, economy) that will have a high impact on child malnutrition and health?
- When should humanitarian agencies respond to Orissa's problems – when the next cyclone hits or drought occurs, or should agencies work with government programmes in creating sustainable programmes that can tackle the root causes of the poverty, vulnerability, malnutrition and mortality, thereby reducing vulnerability to the predictable natural hazards?

Exercise 9: Health programming in a chronic emergency scenario

What is the aim?

- To understand the multiple linkages between health and nutrition and how to plan key health interventions which will impact on nutritional status - specifically response to measles outbreak, reproductive and child health care and health promotion initiatives

When should this exercise be done?

- As part of a half day or longer training

How long should the exercise take?

- 1.5 - 2 hours

What materials are needed?

- [Handout 9a: South Sudan Case Study 2007](#)

What does the trainer need to prepare?

- Prepare copies of the case study on Handout 9a or create a similar study related to the country in which the workshop is being held.
- Depending on the participant mix and time available the trainer may select to focus on one or all of the three optional exercises provided

Note: Answers require participants to examine available information and to imagine the likely scenarios, so model answers are not given. **The trainer should read Handout 9a carefully and then back to the technical guidance in part 2 of this module to work through some potential answers - see trainer guidance in Handout 10 b**

Instructions

Step 1: Give each participant a copy of Handout 11a and give them 15 minutes to read through the document.

Step 2: Divide the participants into groups of (maximum) five people.

Step 3: Give the groups 20-40 minutes to discuss the questions and prepare for presentation of their answers. If each group has to answer questions from all three exercises then 40 minutes will be required. The trainer circulates among the groups to help guide the discussions, as necessary.

Step 4: Give each group 10 minutes for feedback in plenary

Step 4: Use remaining time to facilitate discussion on feedback - ensuring that the key issues have been raised / discussed for each exercise

Handout 9a: Case study III: South Sudan - case study (This case study has been adapted from a Concern WorldWide Project Document)

Time for completion: 1.5 - 2 hours

Read the following case study from south Sudan and discuss the three sets of questions in groups. Prepare a brief presentation of your discussion for feedback in plenary session

General information

Southern Sudan has recently emerged from nearly five decades of war, which claimed more than two million lives, caused huge internal displacement (with estimates of over 4 million persons displaced) and was responsible for the erosion of health, education and other vital public services. The obvious and very visible ramifications of this pre-longed war include food insecurity, entrenched poverty, paucity of basic services provision, stunted infrastructure development, and a severe paucity of educated human capital.

Against most indicators, southern Sudan is one of the most deprived areas in the world: The proportion of population earning less than a dollar day is over 90%.⁸ Although the south is primarily dependant on subsistence agriculture/agro-pastoralists, about half the counties in the south are “highly” or “moderately” food insecure, 47% of households do not own livestock and one in three people rely on food aid. In terms of water and environmental sanitation,⁹ 75% of the rural population lacks access to safe water, up to 65% of safe water sources may be out of order at any one time, 70% of the population lacks access to appropriate sanitation facilities and the general level of hygiene awareness is very low. In terms of education, 70% of primary age boys and 90% of primary age girls are out of school, 28% of those who enrol make it to grade 5 while the primary completion rate is 2%, education quality is very poor with 6% of teachers fully trained, and 76% of adults are illiterate¹⁰. All food production/access and basic social service indicators show marked regional variation across southern Sudan with Equatoria significantly better off than Bahr-el-Ghazal and Upper Nile.

Health profile

The health profile¹¹ for Southern Sudan is sobering: the infant mortality rate is 150 per 1000 live births and the under-five mortality rate is 250 per 1000, with 48% of under-five deaths attributed to water related diseases, primarily malaria and diarrhoea. The maternal mortality ratio is 1,700 per 100,000 with a lifetime risk of one in nine of dying in pregnancy or childbirth. 95% of deliveries are at home while the proportion of births attended by trained health staff is 5%. The percentage of children who have

⁸ *Towards a Baseline: Best Estimates of Social Indicators for Southern Sudan* NSCSE Series Paper, 1/2004, New Sudan Center for Statistics and Evaluation (in association with UNICEF), May 2004

⁹ Joint Assessment Mission (JAM) *Basic Social Services Cluster Report*, 2005

¹⁰ UNICEF/Africa Educational Trust, 2003, *School Baseline Assessment Report for south Sudan*

¹¹ *Towards a Baseline: Best Estimates of Social Indicators for Southern Sudan*, NSCSE Series Paper, 1/2004, New Sudan Center for Statistics and Evaluation (in association with UNICEF), May 2004

received full DPT vaccination coverage (DPT1-DPT3) is estimated at 5%, with 24% of one year olds immunized against TB, up to 95% of under-5s against polio and 24.3% against measles. Antenatal care coverage is estimated at 16%, and contraceptive prevalence at below 1%. Malaria is endemic across southern Sudan while the TB incidence is 325 per 100,000 per year. Malnutrition levels vary across the regions, with seasonal GAM rates above 15%, in many areas, resulting in requirement for on-going emergency feeding programmes.

Health services provision

Overall the health service provision in south Sudan is grossly inadequate and the distribution of health facilities among the States is unequal: Three Equatorial States which accounts for 26% of south Sudan's population had 48% of the facilities, while Bahr-el-Ghazal's four States with 49% of the population had only 21% of the facilities. Grossly inadequate health facilities and limited transportation options has resulted in a situation where the majority of the population of south Sudan has very poor access to health services. The lack of trained health staff and inadequate equipment and drug supply at facility level means that even where services are available the quality is poor. During the war, the responsibility for health care for the majority of south Sudan with the exception of those living in the garrison towns, was shouldered primarily by the international community (staff remuneration, training, equipment and supplies, medicines, infrastructure and maintenance, etc.) with over 60 agencies (UN and NGOs), involved in its provision. This health service support was carried out in a fairly ad hoc uncoordinated and fragmented fashion and in the absence of any regulatory framework. While the SPLM Secretariat for Health based in Rumbeek had a role in co-ordination of services to some extent, as most of the international agencies were based in Nairobi and many passed to project areas via Locki rather than Rumbeek coordination was not easy...

Health Provider Staff

The number of trained health staff in South Sudan is seriously inadequate and distribution is not equitable, with most of the better qualified staff working in the main towns. Away from the main towns many of the personnel providing health services have limited or no training. During the war middle and university level training previously located in Juba, Wau and Malakal was relocated to Khartoum. A number of training institutes continued to function in the south during the war, with support from international agencies, primarily offering training for Clinical Officers, Nurses, Midwives, CHW and MCHW and Laboratory Technicians. Student course fees and living costs were generally sponsored by NGOs. In addition to pre-service training a number of INGOs carried out significant in service training for staff health staff in their employment.

Information about Aweil West and North counties in Bahr-el-Ghazal

The population of Aweil West and North Counties is predominantly Dinka, who in the past were primarily agro-pastoralists. However, major asset depletion -including livestock- during the protracted war has severely disrupted their livelihoods mechanisms and resulted in widespread poverty. Resultantly, poor socio-economic

households, currently constituting 57% of the population, principally depend on wild foods and fish, with grain being their third most important food source. Typically poor households produce a maximum of half the grain they consume and consequently have a high dependence on relief food for most of the year. Aweil West and North have been identified as two of the most food deficient counties of south Sudan. The food situation in both counties has been exacerbated significantly over the last 3 years by large numbers of returnee arrivals, who are placing an additional strain on their already overstretched kin.

Health related indicators

Access to safe water in Aweil West and North Counties is severely limited with an average of over 3,500 persons per safe water source. A KAP study conducted by an NGO in 2006 showed that 38-46% of households are dependent on unsafe pond and river water, while access to appropriate sanitation facilities is virtually non-existent.

Child health indicators

The top three causes of infant morbidity and mortality in Aweil West and North are malaria, diarrhoea, and respiratory infections. And it is consistently reported (by mothers in nutrition surveys) that between 40 and 60% of children under-five may be sick at any one time. In another survey of Aweil west and north carried out by an NGO in 2006, more than 90% of families stated that they had cases of diarrhoea in the family, and that children under five suffered ‘regularly’ from diarrhoea. Malaria (*P. falciparum* strain) is endemic to Aweil West and North. The risk of malaria is high primarily April through December, with a peak in cases during June to September. As the dry season advances (generally February and March), malaria risk lessens but the incidence of diarrhoea tends to increase as the quantity and quality of water available for washing and drinking declines. Eye and respiratory infections also tend to be worse during the dry season, and intestinal worms are a common condition throughout.

KAP surveys carried out in 2005 and 2006 showed that hygiene practices are very poor and some 20% of under-5 children have diarrhoea within a 2 week period during the wet season.

Measles vaccination coverage is estimated to be approximately 50%. Vitamin A coverage is high, at approximately 80%, due in large part to the polio campaigns that have been conducted and to the fact children admitted to a nutrition programme for supplementary or therapeutic care received vitamin A on admission.

Persistent high levels of malnutrition have been recorded in both counties. Of 12 nutrition assessments conducted in the area by an NGO between 2003 and 2006, nine have revealed under-5 global acute malnutrition rates ranging from 17.4% to 24.3%. On only three occasions, following relatively good grain and fish harvests in 2003, 2005 and 2006, the rates dropped to between 12.5 and 14.9%, marginally below the threshold for emergency intervention.

A Causal Analysis study carried out in Aweil west and north showed high rates of under nutrition among pregnant and lactating women which showed a highly significant correlation with under nutrition among their children. This backs up the evidence that undernutrition in pregnant mothers is commonly linked to low birth weight infants; and that these infants are susceptible to infections that could lead to undernutrition and death if the situation is not addressed early enough.

Reproductive health situation

Despite the lack of available quantitative reproductive health indicators from the project area the reproductive health situation in the area is recognised to be extremely poor.

Health service provision in Aweil west and north.

The quality of the provision of basic health care services in Aweil West and North has been inadequate for a number of years.

Within the programme area there are 31 primary health care facilities; 3 Primary Health Care Centres and 28 Primary Health Care Units. During the war and INGO was providing support to the 3 PCHC and 12 PHCUs, support included provision of drugs and supplies, payment of small salary and some supervision of facilities. The INGO also trained and provided some support to TBAs across the two counties, however supportive supervision for TBAs was limited. During the war the quality of care at these INGO supported facilities was poor; the facilities were in poor physical disrepair, staff were often absent; drugs and supplies often unavailable and supervision was limited. The NGO discontinued support of the health facilities in June 2006 leaving a situation where there is no provision of basic health services in the area.

UNICEF also provided drugs to a number of PHCUs across the 2 counties, however in the absence of any supervision, the quality of care provided by unpaid, community volunteers at these PHCUs was questionable.

In the period 2001-2006 the poor quality of health service provision (basic curative care and vaccination services) was repeatedly noted as a contributing factor to the on-going cycle of child illness and malnutrition.

An international NGO has been implementing a community based programme for the treatment of acute malnutrition for a number of years (supplementary and therapeutic treatment). Weekly outpatient nutrition consultations are held in mobile clinics across both counties, with children with SAM and medical complications being referred to an inpatient stabilisation centre which was also managed by the NGO

During the war there was an established system and support for the referral of medical/obstetrical emergencies to Loki in Kenya, however this service discontinued mid 2006 leaving a situation where medical/obstetrical emergencies need to be transported to the hospital in Aweil town. This presents problems given distance, lack of transportation and in some places general security.

Optional Case Study Exercises to be carried out by working groups:

i) Responding to a suspected outbreak of measles

High numbers of cases of measles have been reported across several villages in two counties in Bahr-el-Ghazal. The cases are mainly among children under five years of age although there are a few reported cases of older children. The children are presenting with high fever, red eye, cough and rash - and some also presenting with diarrhoea.

As Health Programme Manager of an international agency responsible for leading the response what are the steps you would take to

- a) Confirm the outbreak
- b) Control the outbreak
- c) Ensure effective diagnosis and case management of those children with measles

ii) Establishment of a reproductive and child health programme

You are a programme manager of an international NGO that has just arrived in the area to establish a reproductive and child health programme across both counties -

- a) What are the key components/proved effective interventions which will significantly impact the nutritional status of the population?
- b) Why is it important to coordinate activities with other agencies?
- c) Who are the key stakeholders that you need to coordinate with at county and sub county level?

iii) Establishment of health promotion initiative

You are a programme manager of an international NGO responsible for establishing a health promotion initiative in one of the counties:

- a) List the key areas that should be included in a health promotion initiative
- b) Outline some of the specific messages that should be disseminated to the population
- c) List the key stakeholder who should be consulted and involved in this initiative
- d) Discuss the methods that may be used and key issues that should be considered in terms of how this context initiative is implemented

Handout 9b: Trainer guidance on optional Case Study Exercises

i) Responding to a suspected outbreak of measles

Read through the technical notes in part 2 of this module - basic information about important communicable diseases (measles), control of communicable diseases- diagnosis and management and outbreak detection; and child health programming - prevention of vaccine preventable diseases.

ii) Establishment of a reproductive and child health programme

Read through the technical notes in part 2 of this module

Key components/proved effective interventions which will significantly impact the nutritional status of the population should include:

- Reproductive health care interventions along the various phases of care from pre pregnancy to care after delivery
- Child health care components should include prevention of vaccine preventable diseases, management of newborn and childhood illnesses and promotion of key behaviours to improve child survival

Coordination of activities with other agencies prevents duplication of activity and facilitates greater collaboration as appropriate - sharing of information and resources and establishment of referral system, etc. it also facilitates standardisation/complimentary of key health information/messages that are being disseminated to the community.

Key stakeholders to coordinate with at county and sub county level include Government, UN and other NGO health and nutrition agencies operating in the area, local administration officials and community representatives and other UN and NGO agencies providing interventions which impact on health and nutrition status eg shelter; and water and sanitation sectors.

iii) Establishment of health promotion initiative

The trainer should read through the technical notes in part 2 of this module - See health promotion under Sphere health service delivery standard 1.2 and also refer to the child health programming and sexual and reproductive health programming sections.

HP is covered fully in HTP module 19 - and the trainer may wish to refer to this module for greater detail on HP approaches and methods.

6. Field-based exercises

The section outlines an exercise that can be carried out as part of a field visit. Field visits require a lot of preparation. An organization that is actively involved in programming or nutrition surveillance has to be identified to ‘host’ the visit. This could be a government agency, an international NGO or a United Nations agency. The agency needs to identify an area that can be easily and safely visited by participants. Permission has to be sought from all the relevant authorities and care taken not to disrupt or take time away from programming activities. Despite these caveats, field based learning is probably the best way of providing information that participants will remember.

Exercise 10: Field-based analysis of how disease and malnutrition are linked in a real life situation

<p>What is the aim?</p> <ul style="list-style-type: none">• To provide the opportunity for participants to explore how undernutrition and illness are linked in a real life situation <p>When should this exercise be done?</p> <ul style="list-style-type: none">• As part of an in-depth course, after participants have worked through most of the technical guidelines and have also conducted some of the classroom based exercises. <p>How long should the exercise take?</p> <ul style="list-style-type: none">• 1-2 days in total for participant briefing and preparation, travel to site and conducting the exercise, presentation and analysis of findings and review of process. <p>What materials are needed?</p> <ul style="list-style-type: none">• Handout 10a: Stakeholder questionnaire on nutrition and health <p>What does the trainer need to prepare in advance?</p> <ul style="list-style-type: none">• The trainer needs to ask permission from authorities at each of the sites chosen for the field study. The trainer should visit the sites in advance of the exercise to identify the various settings and key informant groups; and identify potential problems.• Organise and brief translators where required.• Transport and food will need to be arranged and it is important to ensure there are no security concerns. <p>(Continued)</p>

Steps to be taken day by the trainer before travel to site

- Adapt and/or contextualize the questionnaire and print out multiple copies of questionnaire/answer sheet for each group/pair (depending on how many interviews / focus group discussions are planned).
- Brief the participants on the objective of the exercise and the scenario.
- Review the questionnaire with participants and explain how the exercise will be conducted: with each group (or pair) of participants conducting interviews with individuals and/or focussed discussion with small groups at health facility and/or community level.
- Emphasise that the questions are open ended and that participants will need to take notes during the interview/group discussion, so the group will need to organise a system for someone to ask questions and someone to take notes.
- It would be useful to role-play a few interviews / group discussions; to help participants practice asking the questions and recording the answers.
- Explain that participants should also make their own observations; and that on completion of the exercise they will prepare a short report for presentation
- Outline the issue of confidentiality to participants and explain that participants must explain why they are asking the questions, the type of questions they will be asking; and get the consent of each individual and group they interview before starting to ask questions.
- Divide participants into small groups or pairs and allocate responsibility for specific aspects of the exercise, depending on the number of participants and the context and ensuring that as wide a range of key stakeholders are included in the exercise as is possible.

Site visit

- During the site visit the trainer should support and supervise the participants as they undertake their respective tasks, and may sit in on some of the interviews and group discussions.

Post visit activity

- Following the site visit each group/pair should spend some time preparing a report on their work for feedback
- The trainer and participants should then meet for a feedback session and the trainer should facilitate
- Presentation of findings from each of the groups/pairs and discussion and identification of key issues
- Analysis of the links between undernutrition and health based on the findings from the site visit
- Relating findings from the site visit back to the conceptual framework for factors associated with undernutrition and ill health

The feedback session would ideally happen on the afternoon of the field study day, preferably after participants have had lunch or the next day.

Handout 10a: Stakeholder questionnaire on health and nutrition

Time for completion: 7 to 8 hours over 2 to 3 days

Three to five groups are needed for this exercise. Each group will interview stakeholders in different settings. On day 1 in the classroom, each group will be shown the questionnaire and will choose which setting they will visit. The field visits will take between three to four hours, plus travel time usually the morning of day 2. The feedback session with presentation of participants reports happens ideally on the after the field visits or the next day. An hour is needed for groups to discuss their findings and prepare their presentation.

There are between three and five groups who will interview stakeholders in different settings. These interviews will normally be carried out with individuals, or families, but can also be with small community groups. The type of settings will depend on the situation in which the module is being taught but it is envisaged that each group would interview five to eight stakeholders (or families) in one of the following settings:

- Parents of malnourished children at a CTC distribution or admitted for therapeutic and medical care
- Parents of sick children (and/or malnourished children) admitted to a health centre or hospital
- Vulnerable elderly people admitted to a health centre or hospital
- Families in a village, urban slum, in a displaced camp or refugee camp (house to house visit).
- Women with newborn babies on a maternity ward
- Women at an antenatal clinic
- Parents at an under-five/vaccination clinic

The following questionnaire acts only as a guide to the questions that could be asked. They will need to be contextualised, and of course translators may well be needed. The style of questioning is qualitative (with open ended answers) rather than quantitative (numbers), so this is not a statistical exercise. Participants are also encouraged to note their observations. Participants may also ask the health and nutrition professional team about the persons they have been interviewing, and are encouraged to use their initiative to find out more information in their own way.

Questionnaire

Note that these questions have not been numbered as they will need to be adapted for each situation (and may be further adapted by each group). The sheet that the questionnaire is printed on will need to allow enough space for the answer, or alternatively other sheets can be used for the answers. Enough space is needed for observations and other questions that will be thought of at the time of the visits.

- Are you/ is your child sick at the moment? If so, with what disease are you/ is your child suffering with?
- Has your child had a disease with fever, cough or diarrhoea in the past two weeks?
- Do you/ does your child suffer with a chronic/ long-term disease?
- Is your child vaccinated?
- Are you/ is your child suffering from malnutrition.
- What/how often do you eat? Is your diet sufficient? What are you short of?
- Do you have access to clean water at home? How do you make sure it is clean?
- Do you have a latrine at home, or access to a latrine?
- Has anyone in the family died recently? If so, do you know from what disease?
- Have you been sick in this pregnancy? Was it dangerous when you gave birth?
- Has your child been sick since birth? Are you breastfeeding? Did you give any other liquid to the child apart from breastmilk, if so what, and why? Has your baby needed treatment since birth?
- Other questions at the participant's discretion.
- Observations made by the participants.
- Discussion with any health or nutrition professionals who work in the setting.
- Discussion with any local authorities who may have been met during the visit.