

PART 1: FACT SHEET

The fact sheet is the first of four parts contained in this module. It provides a broad overview of the links between health and nutrition, major causes of excess morbidity and mortality in emergencies with a specific focus on those illnesses which have an impact on the nutritional status of the population; and outlines key priority health interventions that have a high impact on nutritional status in emergencies. More detailed technical information is provided in Part 2 of the module. Words in *italics* are defined in the glossary.

The link between undernutrition and health

The World Health Organisation (WHO) estimates that *undernutrition* contributes to more than one third of all child deaths 0-59 months. Leading causes of death in under-five children are pneumonia, diarrhoea and health problems during the first month of life. A child's risk of dying is highest in the neonatal period (the first 28 days of life) with about 40% of child deaths under the age of five taking place during this period. Preterm birth, birth asphyxia (lack of breathing at birth), and infections cause most neonatal deaths.

There is a close relationship between undernutrition and illness and the interplay between the two tends to create a vicious cycle: Where a child is undernourished, *immunity* to infection is compromised, thus the child may fall ill and then undernutrition worsens, leading to further reduction in resistance to illness. Children who enter this undernutrition – infection cycle can quickly fall into a potentially fatal spiral, as the severity and duration of illnesses increases one condition feeds off the other.

The health and nutritional status of pregnant women will significantly impact the health, well-being and nutritional status of their infants.

The conceptual framework of the factors associated with maternal and child undernutrition clearly illustrates the linkages between health and nutrition and the **multiple and inter-related** underlying factors that influence undernutrition: Household food insecurity, inadequate care practices, unhealthy environment and lack of adequate water and sanitation facilities, and lack of access to basic health services.

Major causes of morbidity and mortality in emergencies

The major causes of excess morbidity and mortality in emergencies are: *Acute respiratory infections*, diarrhoeal diseases, *malaria* (Where prevalent), measles and undernutrition. Because undernutrition and disease are closely linked, there is likely to be an increase in the incidence of infectious diseases, especially among young children and other vulnerable groups as the nutritional situation worsens.

Other communicable diseases such as meningococcal meningitis and typhoid may cause large scale *epidemics* in emergencies. Tuberculosis (TB) is a serious disease causing high levels of morbidity and mortality among emergency-affected populations and is of particular importance in long term chronic emergencies where living conditions are poor and undernutrition is prevalent. The situation is further exacerbated where Human Immunodeficiency Virus (HIV) seroprevalence rates are high.

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. Pre-emergency HIV services may be disrupted and people may no longer have access to services for care, support and prevention. Their health is put at risk as nutritional needs are not met. The ability of mothers and other carers living with HIV to provide optimal nutrition and care for their children may be affected and subsequently affect the nutritional status of those children.

The impact of emergencies (poor health environment and inadequate quality and quantity of food) exacerbates already existing reproductive health vulnerabilities and risks. Lack of key components of reproductive health services (family planning, antenatal and safe delivery services and treatment of STIs) will have an additional negative impact on maternal, neonatal and child health.

Mental health and psychosocial issues also contribute to excess morbidity and mortality in emergencies.

Key messages

1. Undernutrition contributes to more than one third of all deaths of children under five years.
2. A child's risk of dying is highest in the neonatal period with about 40% of under five deaths taking place during the period. Neonatal deaths are primarily caused by pre-term birth, birth asphyxia and infections.
3. From the end of neonatal period through to the first five years of life the main causes of death are pneumonia, *diarrhoea and malaria*; and *undernutrition* is a contributory factor for each of these diseases.
4. There is a close relationship between undernutrition and ill health: Where a child is undernourished *immunity* to infection is compromised, so the child is more vulnerable to fall sick and the undernutrition worsens.
5. Inadequate shelter, lack of access to clean water and sanitation facilities; and lack of access to basic health services will have a major impact on the health and nutritional status of young children.
6. In emergencies the major causes of death are *acute respiratory infections* (ARI), diarrhoeal diseases, malaria, measles and undernutrition.
7. Emergencies exacerbate the severity and magnitude of childhood diseases and subsequently mortality rates are highest in children under five.
8. The health and nutritional status of pregnant women will significantly impact the health, well-being and nutritional status of their infants.
9. Where a mother is sick, undernourished or has multiple pregnancies in quick succession, the child is more likely to be born premature, with low birth-weight and to be more vulnerable to illness and undernutrition.
10. Humanitarian crises, which are often linked to displacement, food insecurity and poverty, increase vulnerability to *Human Immunodeficiency Virus* (HIV) and negatively affect the lives of those people living with HIV
11. The role of operational health agencies in emergencies is to provide essential services that effectively reduce health risks.
12. It is essential that agencies enhance the existing health system when planning and establishing essential health services in an emergency.
13. Establishment of good quality control of communicable diseases interventions will have a significant impact on health and nutritional status of an emergency-affected population.
14. Implementation of key priority reproductive health interventions before and during pregnancy; and during and after childbirth will have a positive effect on the health, well-being and nutritional status of both the infants and the mothers.
15. Provision of quality basic child health care at first line health facilities, supported by promotion of key infant and young child feeding and care practices will have a positive impact on the health and nutritional status of young children.

Priority health interventions that impact nutritional status in emergencies

Essential health services are **priority health interventions** (Curative, preventative and promotional) **that are effective in addressing the major causes of excess morbidity and mortality.**

Implementation of essential services should be carried out in a way that supports and strengthens the health system and does not undermine it or its future development. Health and nutrition programming should be integrated or well coordinated and focus on the key priority proven effective interventions that will have high impact on the main causes of excess morbidity and mortality.

Communicable diseases key interventions with high impact on nutritional status

A systematic approach to the control of communicable diseases is key to a quality humanitarian response and requires cooperation among agencies working at all levels.

Health Sector/agency interventions include:

- Prevention (vaccination and hygiene promotion),
- Diagnosis and case management, and
- Outbreak detection, investigation and response

For effective communicable disease control important interventions are required from other sectors:

Shelter – adequate numbers of climate appropriate shelters, well planned sites (Sufficient space between shelters and adequate ventilation).

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

Food and Nutrition – appropriate food basket ration (Quality and quantity), general nutrition support of the population and management of acute malnutrition and micronutrient deficiencies.

Child health care key interventions with high impact on nutritional status

It is essential to establish child-focused health interventions which address the major causes of excess morbidity and mortality: ARI, diarrhoea, measles, malaria (where prevalent), neonatal causes and undernutrition. Management of newborns will include care after birth (airway, cord, early initiation of breastfeeding, body temperature, treatment of infections, identification of severe illness and appropriate initial management and referral).

Health care workers should promote and support positive behaviours at community level including:

- Exclusive breastfeeding
- Infection prevention (General hygiene, hand washing, cord care, and safe disposal of babies' faeces and vaccination)
- Prevention of indoor air pollution
- Newborn stimulation and play
- Recognition of problems/illness and timely care seeking

Management of care for sick children should be provided at first level health facilities, using national protocols, or the Integrated Management of Childhood Illnesses (IMCI) guidelines where implemented, with referral to hospital for severely ill children.

Other priority child health interventions include:

- Immunisation and vitamin A supplementation
- Use of Long Lasting Insecticide treated Nets (LLIN)
- Screening for acute malnutrition and referral for treatment as required
- Additional micronutrient supplementation (As required depending on context and risk)

An important aspect of child health care in emergencies is promotion of **key infant and young child feeding (IYCF) and care practices**. It is important to design and disseminate culturally appropriate health promotion messages to:

- a) Encourage the affected population to seek early care for any illness in newborns and young infants
- b) Promote optimal IYCF and care practices

Health and nutritional support for the elderly

Specific consideration must be given to the health and nutritional needs of the elderly to ensure that vulnerable individuals have access to appropriate medical treatment, an adequate and appropriate diet and that they have the capacity to prepare and cook food.

Impact on nutritional status of Gender Based Violence (GBV) and mental health

Gender based violence and mental health and psychosocial issues will have an impact on a mother's ability to provide optimal feeding and care for a young infant. Nutrition staff should work with health and social care providers to support optimal feeding and care of infants and children of carers who have been exposed to GBV and/or are suffering from mental health and psychosocial issues.

Reproductive health care key interventions with high impact on nutritional status of mothers and infant by phase of care

Reproductive health is a key health programme component that should be initiated in the early stages of an emergency to reduce excess maternal, neonatal and infant morbidity and mortality. Planning for the integration of these services into the Primary Health Care (PHC) system from the outset is essential to ensure sustainability of provision of services.

In the initial stage of an emergency a Minimum Initial Services Package (MISP) should be provided. These are the services that are most important for preventing reproductive health morbidity and mortality among women, men and adolescents in humanitarian settings. The MISP comprises a set of priority interventions to

- a) Prevent and manage the consequences of sexual violence,
- b) Reduce the transmission of HIV,
- c) Prevent maternal and new born morbidity and mortality, and
- d) Begin planning for comprehensive RH services.

As the situation stabilizes comprehensive reproductive health (RH) services are established.

FACT SHEET

This table is an extract from **Table 2: Key reproductive health interventions that have a high impact on maternal, neonatal and infant nutritional status** in the technical notes of this module.

Phase of care	Key Reproductive Health interventions that impact nutrition
Care for girls and women before pregnancy	<ul style="list-style-type: none"> – Nutrition promotion, especially in girls and adolescents – Prevention and management of HIV and STIs – Family planning
Care during pregnancy	<ul style="list-style-type: none"> – Focused antenatal care – Nutrition promotion and support including supplementation – Malaria prevention (intermittent preventative treatment in pregnancy and LLIN) – Treatment of illnesses and treatment of worms – Detection and transfer of high risk pregnancies – Prevention of mother to child HIV transmission – Preparation of birth plan
Care during childbirth	<ul style="list-style-type: none"> – Skilled attendance at birth and clean delivery – Emergency obstetric care – Skilled care of newborn
Care after birth	<ul style="list-style-type: none"> – Postnatal care for mother for early identification and referral for illness – Preventive care for mother: Promotion of healthy behaviours, family planning, vitamin A supplementation – Preventive care for baby: Promotion of healthy behaviours (Hygiene, warmth, early and exclusive breastfeeding, clean cord care and immunisation) – Management and care of pre-term and low birth weight babies with breathing problems – Identification and management of neonatal illnesses

Nutrition staff should work with providers of antenatal, newborn and postnatal care to ensure promotion of maternal nutrition and optimal infant nutrition.

Prevention of HIV is addressed within the MISP. As the situation stabilises HIV prevention, treatment and support services are developed in the context of the situation and need.

HIV Key components with impact on nutrition:

- Establishment of comprehensive services to provide care, support and treatment for people living with HIV and AIDS – this includes treatment of opportunistic infections and antiretroviral treatment.
- Establishment of system to ensure provision of treatment, care and support for infants born from mothers known to be HIV-positive, including guidance and counselling on infant feeding
- Establishment of referral for required nutritional care and support for adults living with HIV and AIDS and their families – this includes targeted food support and treatment of acute malnutrition
- Establishment of links between HIV and TB programmes where TB programmes exist/function