

HEALTH CARE AND HEALTH EDUCATION



KEY MESSAGES

- ▶ The health status of a camp population is often fragile and many are vulnerable to a complex array of threats and risk factors for disease and death. Health service providers in coordination with the Camp Management Agency should ensure that appropriate health care services, including active case finding and health education, are available to all camp residents to mitigate their vulnerabilities.
- ▶ Reducing loss of life (mortality), reducing illness (morbidity) and contributing to an improved quality of life are the main goals of health services in a camp situation. Thus, health service providers should prioritise the main causes of avoidable illness and death, identify priority gaps in the health response and advocate for appropriate interventions to fill them.
- ▶ For health care services to be effective, the camp population must be involved in key decisions from the start and remain an essential part of the overall programme for delivery and evaluation of health services. Health services should be provided ‘with’– and not ‘for’ – the population.
- ▶ Measles is one of the most serious health problems encountered in a camp situation and has been a leading cause of death in many refugee/IDP emergencies in the past. Initiating a mass measles immunisation campaign is a top priority for health service providers in a camp.
- ▶ Acute malnutrition is known to be a major cause of mortality in camp populations, mainly because malnutrition increases vulnerability to disease. A nutrition assessment and implementation of need-based feeding programmes are an important initial activity in the camp, ensuring that the population consumes at least 2,100 kilocalories/person/day. Vulnerable groups and those with specific needs in the camp should receive special attention, including food rations, as appropriate.
- ▶ While the Camp Management Agency is often not a health specialist, concrete steps can be taken in collaboration with health cluster/service providers in the camp to limit the impact of epidemics and promote health education. The quality of camp management can be a major determinant of life and death to a camp population.

INTRODUCTION

Reducing loss of life (mortality), reducing illness (morbidity) and contributing to an improved quality of life is the goal of health services in a camp situation. Refugees/IDPs living in a camp environment are often faced with overcrowded living conditions, inadequate food and shelter, unsafe water, inadequate health care services, lack of immunity to the diseases of a new environment and poor sanitation. Furthermore, these persons may have arrived in the camp already in a frail state from disease, hunger, persecution, physical violence and trauma. These circumstances enable diseases, either alone or in combination with malnutrition, to result in high mortality rates.

Good health can be challenging to maintain or achieve in a camp setting but can be accomplished with multi-sector interventions. The activities include:

- improving the environment and living conditions of the camp population by decreasing overcrowding
- proper excreta disposal
- ensuring adequate food and water supplies
- vector control
- providing adequate shelter
- health education and training on key messages.

The health sector contributes to the goal of reducing mortality, reducing morbidity and increasing quality of life via the implementation of preventative measures and appropriate case management of diseases. This entails:

- putting a surveillance system in place and, if data suggests the occurrence of an outbreak, ensuring there is an early and adequate response
- ensuring coordination and planning mechanisms are in place so that information is shared and translated into effective and timely decision-making and action planning
- implementing a basic health system, which is rapidly staffed and provided with supplies to ensure early and adequate treatment of the main diseases
- providing health education regarding prevention of disease and maintenance of good health to all persons living or working in the camp.

The various stages of camp life – often referred to as the ‘cycle of displacement’ or the ‘camp life cycle’ – begins at the onset of displacement and lasts until a durable solution is implemented. The emergency phase is associated with the onset of displacement that forces individuals to seek refuge outside of their home areas or countries. The emergency phase can be characterised by:

- high mortality rates – over 1 death/10,000 population/day
- absence of health services in the camp or the health infrastructure is overwhelmed and inadequate
- inadequate response from the local or national authorities
- breakdown of any regular coordination mechanisms.

The ideal is not always feasible in the emergency phase of a camp environment and there are often significant constraints to delivering basic services. However, every possible effort should be made to implement best practices, even with limitations in staffing, material resources, support systems, security, funding and coordination. Emergency services are specific to each camp environment, and services challenging to sustain in the long-term are often justified until mortality rates are brought under control.

The second phase, or post emergency phase, is marked by greater stability. Mortality rates have lowered to less than 1 death/10,000 population/day and minimum standards for basic needs such as food, water and shelter have usually been met. This phase is a chance to expand and improve health services established during the emergency phase, and to develop and see the benefits of, health education programmes.

In the third, and final stage, durable solutions are identified, and camp inhabitants leave the camp. At this stage issues around information management such as information campaigns, referrals and the confidentiality of medical records need consideration. Likewise the handover/decommissioning of health care facilities in the camp, and an assessment of health care provision in areas of return and/or resettlement is required. The health care needs of the camp population during camp closure and the returns/resettlement process need to be planned, especially for those with impaired mobility and other specific health care needs.

This chapter will present health care issues that a Camp Management Agency needs to be aware of in order to support the coordination of the health sector and monitor interventions of health service providers as required in the various phases of a camp life cycle.

ROLES AND RESPONSIBILITIES

The Camp Management Agency is the overall coordinating and monitoring body in the camp, but generally a health service provider coordinates the health sector. This health service provider is therefore primarily responsible for the planning, implementation, management and monitoring of health services. If there are several health service providers, including governmental and privately-run health facilities operating within the camp, the Camp Management Agency should work with government partners and the health cluster to establish a lead health agency in the camp.

The primary roles and responsibilities of the lead health agency are:

- coordinating with local health authorities in all aspects of the health services within the camp
- facilitating cooperation among all health service providers to ensure appropriate implementation and monitoring of health services agreed in coordination meetings
- collecting information from the health service providers and generating reports on relevant health issues
- disseminating information on health issues to other relevant sectors and agencies
- coordinating with the Camp Management Agency.

Primary roles and responsibilities of the Camp Management Agency are:

- understanding key terminologies and strategies of health services in camp situations in order to interpret results of reports from health services providers
- disseminating information updates on health issues and alerting relevant coordination bodies about any gaps and duplications
- using this information to advocate for appropriate responses to health issues in the camp
- supporting and coordinating with the lead health agency on any matters which may require additional assistance.

Both agencies are responsible for ensuring that the level and quality of health services provided by all health agencies adhere to locally or internationally accepted standards and medical ethics.

! Local health authorities must be contacted and involved from the outset of medical programmes in a camp. Their cooperation in establishing or supporting health structures is key to successful and sustainable programmes.

Health care information management is an important aspect of the role of coordination that can be facilitated by the Camp Management Agency and it should be clear how information is shared. Generally, information from the camp population feeds directly to the health service providers. When a camp has multiple health service providers the information flow can be complex. Not only do the lead health agency and Camp Management Agency need to have all relevant information for planning and decision-making, but other health service providers should be provided with information.

In these situations, health coordination meetings should occur on a regular basis and be managed by the lead health agency. These meetings should collect and disseminate health information between providers and generate important information to feed to the overall camp coordination meetings convened by the Camp Management Agency. Health meetings should happen on a weekly or monthly basis (sometimes daily during epidemic outbreaks), but communication channels should also enable the health agencies providing services within the camp to share information or concerns with the lead health agency when needed for emergency issues.

! It is advantageous to hold health coordination meetings a few days before general coordination meetings, so that key points brought up during the sector meeting can be raised in a timely fashion with all sectors and the Camp Management Agency in the general coordination meetings.

The following sections of this chapter will highlight key terminology and aspects of health strategies and services in a camp and explain important points for supervising and coordinating health services. Additional roles and responsibilities of the Camp Management Agency/lead health agency are included.

Coordination between Local Health Authorities and Health Relief Agencies

Local health officials may be resistant to assessment findings or health interventions which reflect poorly on the government or the nation. The Camp Management Agency should advocate for necessary interventions and appropriate standards while maintaining a functional working relationship with the authorities.

ASSESSMENTS

An initial assessment coordinated by the lead health agency in cooperation with the Camp Management Agency will identify health needs, services available and gaps. The results of the assessment will inform implementation strategies including whether to support established services or if new services are required.

It is important that the assessment team be experienced, as objective as possible and independent of political or other influences. Ideally, the initial assessment should be completed within three days of forming a camp or within three days of arrival at an already established camp. If there is time to plan for a camp set-up, and persons arrive in a moderate and manageable stream, then health screening for each person can constitute an initial assessment.

Elements of a Health Assessment

General Information

Key information includes background of the displacement, population size disaggregated by age and sex and availability of food and water. Accurate population figures are important for meaningful health statistics.

Identification of the Priority Health Issues

Information collected includes an estimation of mortality rates and causes of mortality, morbidity data on the most common diseases, presence of diseases with epidemic potential (such as cholera, shigellosis, measles and meningitis), prevalence of acute malnutrition and data on vaccine coverage. Mortality rates offer the best indicator for assessing the severity of a situation and understanding the causes of mortality. They are key to guiding initial interventions.

The Presence and Activities of UN, Government and Non-Governmental Actors in the Health Sector

The initial assessment should give an overview of who is present in the camp, what services are offered or planned to be offered by each organisation, what is their operational capacity and what areas their services will cover. In very large camps health agencies may offer the same services in different zones of the camp. This overview is essential in order to maximise resources available and prevent overlapping services. Existing health services within or outside the camp should be explored and their ability to provide health care to the camp population identified. This includes identifying and ensuring access to a referral hospital, a referral laboratory for specimen analysis and already established medical services. The team should identify the qualified health personnel available from the local health authorities and health relief agencies already present within the camp as well as camp residents with health qualifications. Their level of training should also be assessed.

▶▶ *For more information on frameworks for mapping organisations and activities, see the Tools section.*

Methods

The above data should be collected quickly and simply in the initial assessment in order to produce a reliable snapshot of the population. Examples of assessment methods are interviews with the local health authorities, interviews with the camp population, collection of morbidity and mortality data from medical facilities, interviews with informal health providers (e.g. traditional birth attendants) and direct observation – such as counting graves to determine mortality rates and visiting existing health facilities.

! Often less information is more useful: remember that all information collected should be useful and resist the urge to collect volumes of detailed information with no immediate application.

▶▶ *For an example of an initial health assessment see the Reading and References section.*

Initial assessments are done rapidly and are used to inform emergency action. A follow-up assessment is required within one to three weeks and will provide more detailed information to maintain an organised, coordinated health response to the camp population. In addition, thematic assessments can be conducted at this time, such as assessing the prevalence of micronutrient deficiencies or immunisation rates among children. Surveys using a representative sample methodology should be implemented at this stage. Relief activities in the initial days (e.g. measles vaccination, food and water interventions) should not wait for a comprehensive assessment. These follow-up assessments can be carried out in coordination with the below activities.

! Take care when choosing key informants. The most accessible key informants, such as camp elders and leaders, may overlook health concerns of important health service users. Child mortality is a key concern and women and adolescents are usually children's primary caregivers. They should be consulted in assessments. Further, persons with specific needs and groups at risk, such as minorities and persons with disabilities, may have challenges to access health care and should be included as key informants.

VACCINATIONS

Mass Measles Vaccination Campaign

Measles has been regularly reported by the World Health Organization (WHO) as the leading cause of mortality in children in many recent emergencies. Population movement and high population densities are risk factors that facilitate transmission of the virus and may contribute to outbreaks even in areas with high immunisation coverage. In addition, poor health and poor nutritional status of measles-infected persons is associated with high rates of mortality. For these reasons, even if the initial assessment finds no measles cases, mass immunisation for measles is a top priority.

! Measles outbreaks can still occur in a population with high levels of vaccine coverage. The current measles vaccine, under normal conditions, covers 85% of children when administered at nine months of age. A significant number of people are still susceptible to measles and vulnerable to further outbreak due to the extreme infectiousness of the disease. The aim is to ensure coverage of 100% of children aged six months to 14 years of age.

Local health authorities maintaining an Expanded Programme of Immunisation (EPI) should be involved in the coordination and implementation of a mass vaccination campaign from the outset. A mass immunisation campaign is principally a logistics exercise. It is the Camp Management Agency and the lead health agency's responsibility to ensure that all systems coordinate in order to reach the goal of close to 100% coverage rate. UNICEF and WHO usually support national authorities and other partners to ensure that all children are immunised against measles in emergency situations.

Ideally, all children from six months to 14 years of age should be vaccinated regardless of previous vaccination status. This non-selective vaccination strategy has the following advantages:

- A second dose of the measles vaccine does not have adverse effects and can improve the immunological response.
- The vaccination campaign can cover the population rapidly while checking individual vaccine cards is time consuming.
- There is less possibility of error (e.g. cards may be read incorrectly or sibling cards may be switched).

However, vaccine availability, funding, human resources and local measles epidemiology may influence the choice of the groups covered. If it is impossible to immunise the entire camp population, then the following groups should be vaccinated, in this order of priority:

- malnourished or sick children aged six months to 12 years who are enrolled in feeding centres or in-patient wards
- all other children aged six–23 months
- all other children aged 24–59 months
- all other children aged 60 months–14 years old

Vaccination under six months of age is not recommended as there is a risk of interfering with maternal antibodies. Measles vaccination programmes in stable situations vaccinate only to age five, but due to the high risk environment in camp situations the recommendation extends to children aged 14. Mass measles immunisation campaigns should be coupled but not delayed by Vitamin A distribution to children aged six months through 14 years. Vitamin A supplementation has been shown to markedly reduce measles-associated mortality.

! All children under nine months of age should receive a second dose of measles vaccine at nine months of age with a minimum interval of one month between the two doses. Children may receive a second dose of Vitamin A if there has been an interval of four/six months since the previous dose.

Measles vaccination can occur on arrival in the camp. However, if this is not possible because the population is settled or is overwhelming reception centres, then a mass immunisation campaign is required. This campaign has the following elements:

- Information and education campaign: Camp populations should be informed about location of vaccination posts, information about the vaccine, risks involved and the importance of receiving the vaccine.
- Training of immunisation teams: Some team members do not have to be qualified health workers as comprehensive training can prepare them for the campaign.
- Immunisation posts: There should be one or two vaccination posts per 10,000 people. Distance to vaccination posts is a potential obstacle to immunisation and multiple posts dispersed within the camp are preferable to a centralised facility.
- Outreach activities: Community health workers can move through the camp during the campaign and refer children to the immunisation posts.
- Vaccination cards: These are issued to every child. If a child is 6-8 months old it should be clearly indicated on the card, and explained to the caregiver, that a second vaccine should be given at the age of nine months.
- Reporting: A daily record should be made of the numbers vaccinated per day (and per site) and the number of doses used.

►► For an example of a measles surveillance vaccination form see the Tools section.

Logistical Considerations for Measles Vaccines

- The order of measles vaccine has to be based on the size of the target population; vaccine lost during a mass campaign should not be higher than 15%; vaccine reserves should be held (ideally additional 25% of the total quantity).
- The measles vaccine is heat-sensitive and must be transported and stored between 2-8°C. A cold chain system must be established that keeps vaccines safely in appropriate temperatures whatever the outside temperature and seasonal climatic variations.
- To support universal precautions – the set of procedures designed to prevent transmission of human immunodeficiency virus (HIV), hepatitis B virus (HBV), and other blood borne pathogens when providing first aid or health care – sufficient quantities of auto-destruct syringes (designed to make reuse impossible) and safety boxes for sharps disposal should be available.

►► For more information on maintaining a cold chain, see the Reading and References section.

It has been established that one immunisation team with two vaccinators can vaccinate approximately 500–700 people per hour. The following is an example of staffing needs for a mass vaccination campaign:

IMMUNISATION POST	STAFF	NUMBERS
One or two immunisation posts should cover 10,000 population	Supervisor – Nurse or qualified health staff	One – This person can supervise several teams
	Logistics Officer	One – This person can work together with several teams
	Staff to prepare vaccines	Four
	Staff to administer vaccines	Two
	Staff to register and tally	Six
	Staff to maintain order and crowd control	Six

Other Vaccines for Epidemic-Prone Diseases

Unlike the measles vaccine, all other mass vaccination campaigns should be initiated only after confirmation of an epidemic-prone disease in the camp and an epidemic threshold (a point at which an outbreak is declared and mass vaccination can be considered) has been reached. The lead health agency should confer with local health authorities, officials and experts in communicable disease when considering whether to start a mass immunisation vaccination campaign for epidemic-prone diseases, as the methodology for vaccination differs according to context. Some important vaccine preventable epidemic-prone diseases include:

- Bacterial meningitis – caused by the pathogen *Neisseria meningitidis* and commonly referred to as meningococcal meningitis. Clinical features include a sudden onset with fever, intense headache, stiff neck and occasional vomiting and irritability. As the infection is usually transmitted person-to-person via aerosols in crowded situations the epidemic threshold is lower in a camp situation. The priority group for vaccination is children aged between two and ten.

! An epidemic threshold is how many cases of a disease must be confirmed in order to declare an outbreak. A low epidemic threshold indicates that the environment is more sensitive to the transmission of epidemic-prone diseases.

- Yellow fever causes very serious epidemics with high mortality rates. The virus is spread to humans via mosquito vectors. Clinical features include a sudden onset of fever, headache and backache, muscle pain, nausea and vomiting and red eyes. These clinical symptoms appear in the acute phase and can be confused with many other diseases. A period of remission follows and then a toxic phase where the patient presents with jaundice (yellowing of the skin) two weeks after onset of the first symptoms. There may also be bleeding from the gums, nose, in the stool and vomit. A vaccine can be given to everyone in the camp from the age of two months and gives immunity for at least ten years.

Routine Immunisation: Expanded Programme of Immunisation (EPI)

In the post-emergency phase, a complete EPI programme should be an integral part of the longer term health care programmes. The standard EPI programme consists of measles, diphtheria, pertussis (whooping cough) and tetanus toxoid (DPT), oral polio (OPV) and Bacille Calmette-Guerin (BCG) vaccines. All children under five should receive necessary immunisations for their relevant age groups. This programme should not be started unless the population is expected to remain stable (tentatively after six months but still depending on the context), the human and material resources are adequate for implementation, (e.g. cold chain) and a plan exists for integration into the national immunisation programme. Routine immunisations should be offered via fixed immunisation points such as a hospital, health centre, health posts, feeding centres or screening/registration centres. Each of these points should check vaccination status via vaccination cards and vaccinate children on the spot if vaccine facilities are available, or refer to an immunisation point. Outreach activities via community health workers should also check vaccination status and refer to immunisation points.

▶▶ *For an example of a routine EPI schedule, see the Tools section.*

NUTRITION

In a displaced population inadequate or threatened food security often leads to an increased risk of malnutrition, which is a factor for increased morbidity and mortality. Malnutrition can be caused from deficiencies in macronutrients (nutrients that provide energy) and deficiencies in micronutrients (such as vitamins and minerals). Often, camp populations are vulnerable to nutritional deficiencies due to livelihoods lost, food supplies interrupted, long journeys to the camp and infectious disease outbreaks. Persons arriving at the camp may already have high levels of malnutrition. Causes of malnutrition are often complex and cross-sectoral. The Camp Management Agency needs to monitor whether food and nutritional programmes are coordinated with health and other vital sectors such as water, sanitation and hygiene (WASH), education and livelihoods. UNICEF is the global lead for nutrition and should be consulted by the Camp Management Agency or lead health agency for advice or additional expertise. WFP is the lead agency on food, responsible for both the general as well as supplementary feeding rations.

! Food security is a concept that refers to the ability of a household to feed its members, enabling them to live full and active lives.

Nutritional Requirements

When calculating energy requirements and designing food rations in a camp, 2,100 kcal/person/day is the initial planning figure in the emergency phase. An increase in the kilocalories/person/day of general rations should be considered if:

- there are a disproportionate number of adult men, for adult men require more kilocalories per day to maintain optimal nutritional status
- there is widespread illness, epidemics, general malnutrition and/or a crude mortality rate (CMR) > 1. (CMR is defined as deaths per 10,000 per day)
- there are increased activity levels among the entire population (e.g. when a food-for-work programme is implemented in the camp and labour-intensive work is undertaken)
- the average temperature is below 20°C.

Major Nutritional Deficiency Diseases

Nutritional deficiencies can occur or deteriorate during an emergency and these deficiencies and disease are inter-related. Diarrhoea can result in mal-absorption and nutrient loss and other diseases suppress appetite while increasing the need for macro and micronutrients to help fight illness.

There are two categories of malnutrition – acute and chronic. Chronic malnutrition is associated with malnutrition over a long period of time and is not associated with high rates of mortality. Acute malnutrition is the category that contributes to high morbidity and mortality rates in a camp and is thus, what should be assessed during the emergency phase. Severe acute malnutrition can present itself in different forms:

- Marasmus: this is characterised by severe wasting of fat and muscle, which the body breaks down for energy. This is the most common form of protein energy malnutrition in an emergency.
- Kwashiorkor: this is characterised primarily by oedema (swelling due to an accumulation of fluid in intercellular spaces of the body usually beginning in the feet and legs) and sometimes accompanied by changes in hair colour to greyish or reddish. Clinical features also include apathetic and irritable demeanour and a lack of appetite.

- Marasmic Kwashiorkor: this is characterised by a combination of severe wasting and oedema.

Vitamins and minerals are also needed for adequate functioning of the body and protection against disease. Vitamins B, C, A, D and minerals such as iron, sodium, iodine, zinc, magnesium and potassium are the major nutrients the body needs in order to function properly. Micronutrient deficiencies can lead to an increased risk of mortality, morbidity, blindness, adverse birth outcomes and susceptibility to infection. With food distributions in camps it is imperative to verify that persons are provided with appropriate micronutrients. The general food ration should provide required micronutrients, which is normally achieved by adding some fortified food commodities (e.g. iodised salt, fortified grains). However, it may still be necessary to provide micronutrient supplementation through the health system (e.g. iron tablets for pregnant women and vitamin A for children).

►► *For more information on food distribution, see chapter 13.*

Assessment and Surveillance of Nutritional Status

A nutrition survey will quantify the acute malnutrition in the population and is used to establish the degree of emergency for the delivery of food aid and to plan complementary food interventions. It is also baseline data used for comparison with future surveys to monitor the situation over time. An initial assessment of the nutritional status of the camp population should be done as soon as possible in the emergency phase and should be supervised by a nutritionist. The survey should measure a representative sample of children aged 6 – 59 months. When the age of a child is difficult to ascertain, then children of height 65 cm – 110 cm is the inclusion criteria. The measurements collected during the survey should include:

- Weight and height. These two measurements will be used to calculate the weight for height (WFH) index of each child and this body measurement is an objective assessment of acute malnutrition. This index is expressed as a Z score. The Z score is a standard deviation from a reference population, (see box below for Z score malnutrition indicators).
- Age and Sex of child. Z score formulas are different for male and female and recording age verifies the inclusion criteria.
- Presence of oedema. Defined above, bilateral oedema indicates severe malnutrition even without a corresponding WFH Z score.

Additional measurements to be collected as deemed necessary are:

- **Mid Upper Arm Circumference.** MUAC is a rapid, simple measurement of the left arm circumference at the mid-point between the elbow and shoulder. It can be a predictor of the immediate risk of death from malnutrition. However, this measurement has a high risk of error and it should be part of a two-step screening process. If a child falls below a certain cut-off circumference, then s/he is referred to a WFH measuring post where a second measurement is taken for inclusion in a selective feeding programme.
- **Body Mass Index.** BMI measurements can be used in adolescents (persons > 137 cm) and non-pregnant adults to determine malnutrition. Adults and adolescents are usually at less risk than young children from malnutrition, but in specific contexts it may be necessary to include this age group. The formula is calculated as $[\text{weight}/(\text{height} \times \text{height})] = \text{BMI}$.

Below are the cut-off points used to define acute malnutrition for different indicators.

NUTRITIONAL STATUS	WFH Z SCORE	MUAC
Global Acute Malnutrition (GAM)	< - 2 Z score or oedema	<125 mm or oedema
Moderate Acute Malnutrition	between - 3 and < - 2 Z score	Between 110 mm and < 125 mm
Severe Acute Malnutrition (SAM)	< - 3 Z score or oedema	< 110 mm or oedema

! Global Acute Malnutrition includes both moderate and severe acute malnutrition.

There are no specific rules for repeated nutritional surveys, but it is recommended in the emergency phase that a nutritional survey be repeated as often as necessary and as resources allow, as food supply systems may be weak, there may be influxes of more people and a greater risk of epidemics and elevated mortality rates. Additional surveys can expand the indicators to include assessment such as of micronutrient deficiencies or measles vaccination status according to the priorities of the evolving situation.

Capturing Representative Samples

A displaced population fled an insecure area in East Africa. Those who arrived first established a self-settled camp and new arrivals settled in ever-widening circles around its periphery. There was no systematic population count or organisation of households and the camp population fluctuated on a daily basis. A cluster sampling technique was implemented for a nutrition survey, but only started measuring children from the centre of the camp. Those households on the periphery of the camp had spent longer in their journey to the camp, which included longer periods without proper food or basic health services. The results of the nutritional survey were reviewed by the lead health agency and malnutrition levels were low. No complementary nutritional programmes were implemented. However, there were needs among the newly arrived population which were not measured. Were the most vulnerable and at highest risk for malnutrition properly represented in the survey? What questions could the Camp Management Agency have asked to the nutritional survey team before making programmatic decisions? Could corroborative data from health facilities have raised alarms? Survey results are relevant and useful only if sampling procedures are standardised and properly applied to ensure that the individuals measured are representative of the whole population and that the results are comparative over time.

Selective Feeding Programmes

There are two types of feeding programmes:

- general feeding programmes for the entire camp population
- selective feeding programmes consisting of therapeutic and/or supplementary feeding for vulnerable groups.

The hierarchy of nutrition intervention prioritises the provision of basic food rations to the majority of the population over intensive, specialised nutritional support to malnourished individuals. Once the majority of the population has access to adequate quantities of food, the second priority is to provide high quality supplementary food to individuals with acute/moderate malnutrition. When adequate supplementary rations are available to the majority of people affected by moderate/acute malnutrition, therapeutic care for those with severe/acute

malnutrition can then be effective. Persons with specific needs (e.g. pregnant women) may be included in supplementary and therapeutic feeding programmes even if they do not qualify as acutely malnourished.

Selective feeding programmes can be implemented in two ways: feeding at health centres or feeding programmes or ‘take home’ rations for supplementary feeding. In case of the latter, rations are increased to take into account sharing at household level.

Below is a decision chart for the implementation of selective feeding programmes. Please note that this decision chart should be used as a guide and should be adapted to local camp situations.

FINDING	ACTION REQUIRED
Food availability at household level below 2,100 kcal per person per day and/or inadequate micronutrient availability	<i>Unsatisfactory situation</i> Improve general rations until food availability and access can be made adequate.
Malnutrition prevalence 15% or more or 10–14% with aggravating factors	<i>Serious situation</i> <ul style="list-style-type: none"> • General rations (required if the refugees/IDPs are entirely dependent on food aid and not required if the situation is limited to groups with specific needs), plus: • blanket supplementary feeding for all members of persons with specific needs and groups at risk especially young children and pregnant and lactating women • therapeutic feeding programmes for severely malnourished individuals.
Malnutrition prevalence 10–14% or 5–9% with aggravating factors	<i>Risky Situation</i> <ul style="list-style-type: none"> • General food rations only if the refugees/IDPs are entirely dependent on food aid, and • supplementary feeding targeted to individuals as malnourished in groups with specific needs • therapeutic feeding programmes for severely malnourished individuals.
Malnutrition prevalence under 10% with no aggravating factors	<i>Acceptable Situation</i> <ul style="list-style-type: none"> • General food rations only if the camp population is entirely dependent on food aid. • no need for population interventions for supplementary feeding • attention for malnourished individuals through regular community services.

! Aggravating factors include a general food ration below the mean energy requirement, crude mortality rate greater than 1/10,000 population/day, epidemic of measles or other, high incidence of respiratory or diarrhoeal diseases.

New Methodologies in Therapeutic Feeding Programmes

The World Health Organisation (WHO), the World Food Programme (WFP), the United Nations Standing Committee on Nutrition (SCN) and UNICEF have highlighted new evidence that about three-quarters of children with severe acute malnutrition – those who have a good appetite and no medical complications – can be treated at home with fortified, Ready-to-Use Therapeutic Foods (RUTFs).

These are soft nutrient- and energy-rich foods that can be eaten by children over the age of six months without adding water, thereby reducing the risk of bacterial infection. RUTFs provide the nutrients required to treat a severely malnourished child at home, without refrigeration, and even where hygiene conditions are unsatisfactory. This community-based approach to severe malnutrition maybe considered by the health service providers in camp environments with severe malnutrition.

▲ Integration of Therapeutic Feeding Programmes with Existing Clinical Health Systems

A nutritional survey of a camp found Global Acute Malnutrition rates of 14% with Severe Acute Malnutrition rates of 3.5%. A health relief agency made plans to establish a therapeutic feeding programme in a referral hospital. However, the plan was revised during a coordination meeting with the Camp Management Agency, which revealed that a government health centre within the camp had an in-patient therapeutic feeding programme for severely malnourished children with medical complications. Practices were out of date and default rates (number of children leaving the feeding programme before their discharge date) were 55%. The agency provided the government health centre with specialised milk preparations and other supplies not available. The agency also worked with the clinical officer and supervisor to update



protocols and teach staff appropriate methodologies for therapeutic feeding centres. Supporting existing services, instead of setting up parallel systems, increased the long-term capacity of the government health staff to treat severe malnutrition.

Feeding Practices – Infants and Young Children

Mortality among infants and children is highest in an emergency phase when conditions are the most threatening. Exclusive breastfeeding for infants up to six months of age is recommended. From six months to the age of two it is recommended that breastfeeding continues while adequate supplementary foods are added. Supporting caregivers and channeling scarce resources to meet the nutritional needs of infants and young children in the camp is a priority. Guidance on breastfeeding and complementary feeding for mothers living with HIV/AIDS has different and specific recommendations.

▶▶ *For additional information on breastfeeding and complementary guidance to mothers living with HIV/AIDS see the Reading and References section.*

The following activities can reduce malnutrition amongst infants and children:

- Community Health Workers (CHWs) should identify vulnerable households with infants, young children or pregnant women.
- Priority registration for food distribution should be negotiated for persons with specific needs and groups at risk.
- Sheltered breastfeeding stations should be organised near registration and distribution points.
- Women can be recruited to provide encouragement and practical assistance on feeding practices to households with infants and small children.
- Those responsible for unaccompanied children need to be identified: they should receive appropriate food supplementation (e.g. breastmilk substitutes for orphaned infants).

! Community Health Workers (CHWs) are trained workers who operate in the field, usually performing health education activities, active case finding, and making referrals to health facilities.

STRUCTURE OF HEALTH CARE SERVICES

The structure of health care services in a camp should offer active case finding, early diagnosis and appropriate treatment of the priority diseases. It is essential to coordinate with and support established health structures. However, in most camp situations the high number of patients using the services (especially during the emergency phase) may overwhelm the local governmental or private health services, even when supported. Therefore, it may be necessary to implement a new health structure. Regardless of the strategy, health services in a camp structured according to the following four-tier model has proven successful in various conditions.

- **Outreach activities:** Community health workers and trained birth attendants provide outreach activities. Their duties include home visiting; identification and referral of sick persons and malnourished children; identification of pregnant women for referral to reproductive health services; basic health education; mortality data-gathering for the health information system.
- **Peripheral facilities:** Health posts should provide basic consultations, basic curative care (no injectable medications and a limited essential drug list), oral rehydration therapy (ORT), dressings for wounds, a locked pharmacy, simple sterilisation facilities and data collection.
- **Central facility:** This should provide a 24-hour service with in-patient and out-patient services. Basic laboratory services may be available, but this is not the priority in the emergency phase.
- **Referral Hospital:** The health system within the camp must be able to refer patients to hospitals for advanced services. A referral hospital should provide emergency surgical and obstetric care, laboratory and x-ray services and treatment of severe diseases. Only in very specific cases, when a referral hospital is not available or overwhelmed (e.g. by many war-wounded surgical cases), should a camp/field hospital be established. Normally only a small number of patients will require referral. Therefore a local referral hospital should be supported instead of setting up a parallel structure within the camp.

 **The Camp Management Agency should support the lead health agency (or health service provider) in establishing regular health coordination meetings to ensure a clear referral system within each tier of the health structure and standardised treatment protocols and data collection tools.**

In the emergency phase, it is not a priority to establish a laboratory in the camp. The key priority is to identify an established referral laboratory where specimens collected for outbreak investigation (e.g. shigellosis and cholera) may be sent. Most patients presenting to camp health facilities in the emergency phase can be treated based on a clinical diagnosis derived from protocols. Before blood transfusion services commence within the camp a laboratory that tests all blood for HIV must be established.

! “In emergencies, preventative and curative health services should be provided free of charge to refugees and displaced populations. Evidence has shown that systems of ‘cost recovery’ in developing countries at best recover five per cent of costs, and act as barriers to those most in need of health services. Local populations living nearby may also be extended free-of-charge services, and this should be negotiated with the health authorities in line with national policy.” (UNHCR Handbook for Emergencies 3rd edition p. 361)

Human Resources

Staff salaries and incentives should be addressed from the outset of recruitment. In principle, all staff working on a daily basis with clearly identified responsibilities and defined working hours should receive salaries or incentives. The Camp Management Agency should support the lead health agency in coordinating all health actors in the camp ensuring all are adhering to the same standards.

When recruiting staff for health services, the order of preference for selection is: camp population/IDPs/refugees; experienced nationals from the local host community; outsiders. Most camp situations will require a mixture of these sources, but it is important to remember that health services are being developed ‘with’ and not ‘for’ the camp population. Women are an important part of the health system within the camp, and they should be encouraged to apply for health care jobs. Health services dominated by men may discourage use or acceptance by the primary users – women.

! The percentage of women recruited and trained to provide health services should correspond to the percentage of women in the camp.

The table below indicates minimum staffing requirements – as set out in the Sphere Standards – for different tiers of the health system.

HEALTH STRUCTURE LEVEL	POSITION	STAFFING LEVELS
Outreach activities at community level	Community Health worker	One per 500–1000 population
	Traditional Birth Attendant (TBA)	One per 2,000 population
	Supervisor	One per 10 Community Health Workers/TBA
	Senior Supervisor	One
Peripheral health facility One for approximately 10,000 population	Total staff	Two to Five
	Qualified health worker	At least one, based on a maximum of 50 consultations per worker per day
	Non-qualified staff	At least one for ORT, dressings, registrations, administration, etc
Central Health Facility One for approximately 50,000 population	Qualified health workers	
		Minimum five, maximum 50 consultations per worker per day (out-patient care), 20–30 beds per worker per shift (in-patient care)
	Midwife	At least one
	Doctor	At least one
	Laboratory Technician	At least one
	Pharmacist	At least one
	Non-qualified health worker	At least one for ORT; at least one for pharmacy; at least one for dressings, injections and sterilisation.
	Non-qualified staff	Registration and Security
Referral Hospital	Variable	
	Doctor with surgical skills	At least one
	Nurse	At least one: 20–30 beds per shift

Qualified health workers, as specified in the above chart, are defined as formally-trained clinical providers, such as a physician, nurse, clinical officer or medical assistant. However, in a camp setting it may be difficult to recruit formally-trained clinical staff for health care services. Staff without formal clinical training may be able to perform certain clinical duties with additional support and careful supervision. There also may be camp residents who have received formal training from their home countries or places of origin, but their qualifications are not recognised by the local health authorities. In these cases, it is important for the health agencies and the Camp Management Agency to discuss with national health authorities the possibility of employing such individuals in clinical jobs if necessary.

Training

It is essential that if a mix of health staff recruited among the camp population and local government are working together in a health facility, initial training should be done to clarify case definitions and appropriate protocols for case management. Even if local health authorities' case definitions and protocols are utilised, it is a good time for refresher training for local staff and a chance to be clear that all staff are carrying out responsibilities in the same way.

Training all health workers and non-health workers assisting in health care in proper universal precautions is essential when managing health systems within a camp. Health agencies should ensure that all clinical staff have logistical supplies (e.g. sharps disposal containers, appropriate quantities of disposable needles and syringes) to facilitate practicing universal precautions. The basic concepts of universal precautions are:

- All workers should wash hands thoroughly with soap and water, especially after contact with body fluids or wounds.
- Protective gloves and clothing should be used when there is a risk of contact with blood or other potentially infected body fluids.
- Safe handling and disposing of waste material, needles and other sharp instruments, as well as properly cleaning and disinfecting medical instruments between patients.

❗ Sufficient Water, Sanitation and Hygiene (WASH) facilities and adequate equipment for universal precautions are essential in all health facilities, even small health posts.

❗ Health services have to be flexible: If an outbreak occurs, the need for curative care may be very high and additional human and material resources will be required.

Logistics and Supply

During the initial assessment of a camp, all available medical materials should be documented. If these resources are inadequate for the camp population's health needs and additional resources cannot be sourced from local government authorities or other health actors, then a WHO 'New Emergency Kit' can be ordered via WHO or UNHCR. The basic kit has essential medicines and primary health care medical supplies for 10,000 people for three months. UNFPA also has 12 pre-packaged kits specific for different reproductive health needs. However, these kits should only be used in the short term and a regular supply of essential medicines and materials should be identified to stock all health facilities in the camp as soon as possible.

Health facility site planning, infection control, referral transport, cold chain maintenance and medical store/pharmacy issues also need to be considered when planning health care structures.

- ▶▶ *For more information regarding “New Emergency Kit” and UNFPA Reproductive Health Kits, see the Tools section.*
- ▶▶ *For more on WHO’s Model List of Essential Medicine for Adults and Children see the Tools section.*

HEALTH INFORMATION SYSTEMS (HIS) – Monitoring and Surveillance of Communicable Diseases and Health Care Services

Health information systems (HIS) should be implemented as soon as health care services are initiated. There are three methods of data collection:

- routine reporting of consultations on a weekly or monthly basis, including an alert system to report epidemic-prone diseases
- outbreak investigations – collected on an ad hoc basis when an outbreak is suspected
- surveys – implemented when routine reporting is delayed or for specific data collection (e.g. nutrition or vaccination household surveys).

As soon as health care systems are in place and consultations performed, routine reporting should be established. Case definitions should be developed for each health event or disease and all health workers should be trained on the definitions, especially the epidemic-prone diseases. Case definitions and the HIS should follow the definitions and systems of the host country. If these are inadequate or not available, these systems need to be formulated in cooperation with the local health authorities.

▶▶ *For more on standard WHO case definitions, see the Tools section.*

In routine reporting from health centres, health workers provide data on the number of consultations (morbidity) and deaths (mortality) from diseases disaggregated for age (under five and over five) and sex. All levels of a health system, including the central health facility, health post, or field hospital should contribute data. Community health workers active in the camp should also submit mortality figures, but not morbidity figures because they refer these cases to the appropriate health facility. Mortality figures from the community health workers contribute to the health post statistics from their respective zones.

! Avoid duplication of mortality figures. Individuals dying in health facilities should be recorded in the routine report from that facility. Community health workers should not double count these same deaths in their records from the community.

▶▶ *For examples of weekly morbidity and mortality surveillance forms, see the Tools section.*

The morbidity and mortality surveillance forms should highlight epidemic-prone diseases such as bloody diarrhoea, acute watery diarrhoea, suspected cholera, lower respiratory tract infections, measles, meningitis and malaria. Alert thresholds for epidemic-prone diseases should be established and communicated to all health actors in the camp. One designated health worker should tally all consultations seen at the end of each day. When an alert threshold is reached, this person initiates an outbreak alert report to the lead health agency. Time is crucial when reporting on epidemic-prone diseases. Delays in outbreak response can increase mortality within the camp.

▶▶ *For examples of alert thresholds for epidemic-prone diseases, and an outbreak reporting form, see the Tools section.*

! It is important to note that HIS should be simple and easy to implement. Do not collect data that health actors will not use. Extremely complex and time-consuming health data forms discourage use by health providers.

At the end of each week or month, data collected from each health facility in the camp should be compiled by the lead health agency and disseminated to all relevant actors as well as the Camp Management Agency. This data will influence health strategies for the following week or month and should include the following minimal elements:

- Crude Mortality Rate = (total number of deaths during time period/total population) x (10,000/number of days in the time period).
- Under Five Mortality Rate = (total number of deaths of under-fives during time period/total number of children under five years of age) x (10,000/number of days in time period).
- Cause-specific mortality rate = total number of deaths from a specific cause during a time period/total population during the same time period.
- Incidence Rate Definition: The number of new cases of a disease that occur during a specified period of time in a population at risk of developing the disease.

- Incidence Rate = (Number of new cases due to a specific disease in time period/population at risk of developing disease) x (1,000 persons/number of months in a time period).
- Health Facility Utilisation Rate = (total number of visits to health facilities in one week/total population) x 52 weeks.
- Number of Consultations per Clinician per Day = (total number of consultations (new and repeat)/number of full time equivalent clinicians in health facility)/number of days health facility is open per week.

Full-time equivalent clinicians refers to the number of clinicians working in a health facility adjusted for part-time work. For example, if the clinic has 10 full-time staff and two half-time staff then the full-time equivalent would be 10 (full-time staff) + 1 (this is both half-time staff calculated to one full-time staff) = 11.

! Crude Mortality Rate Benchmarks (under five crude mortality rates are usually twice the CMR):

Average rate in most developing countries	0.5 deaths/10,000/day
Relief Programme: under control	<1.0 deaths/10,000/day
Relief Programme: very serious situation	>1.0 deaths/10,000/day
Emergency: out of control	>2.0 deaths/10,000/day
Major catastrophe	>5.0 deaths/10,000/day

If a baseline CMR is known (normally not the case in camp situations) then the Sphere Standards advise that a doubling of the baseline CMR indicates a significant public health emergency, requiring immediate response.

When collecting health data ensure patient confidentiality. All information regarding the patient, her/his history, condition, treatment and prognosis is discussed only between the patient, the health provider and the supervisors. No staff member should share patient information with others not directly involved in patient care without the patient's permission. In the emergency phase, training health care workers on the confidentiality of patients and their data should be completed. Practically, this is often not the case. It is the responsibility of the Camp Management Agency and/or the lead health agency to ensure that all health staff undergo proper training on confidentiality issues during the

post-emergency phase if it has not already been done in the emergency phase. Health care workers should also be provided with appropriate logistical support to maintain confidentiality – such as cupboards with locks, registration books with appropriate covers, rooms available for private consultations.

Outbreak Investigation

Reports and alerts of outbreaks are usually frequent in camp environments, but each and every report should be followed up by the lead health agency or a designated outbreak response team. Diagnosis must be confirmed either by laboratory testing or by clinical presentation, depending on the disease and context.

▶▶ *For a sample outbreak investigation form, see the Tools section.*

Epidemics often follow a pattern. Cases are fewer at the beginning of an outbreak, crescendo to a peak and then fade. However this is not always the case. Once an outbreak is declared, the lead health agency should graph daily or weekly cases of the disease. This graph uses the ‘number of cases’ on the vertical axis and the time in ‘days’ or ‘weeks’ on the horizontal axis. Interpreting the curve should be done cautiously, but it can give an indication of the future of the epidemic and enable resources to be mobilised appropriately. The implications of the epidemiological curve should be explained to all health actors in the camp.

CONTROL OF COMMUNICABLE DISEASES AND EPIDEMICS

Outbreak Response

The lead health agency in coordination with the Camp Management Agency should initiate epidemic contingency plans when an outbreak is declared. Health service providers must be ready to react to epidemics and the lead health agency should have contingency plans in place before an outbreak occurs in order to prevent high morbidity and mortality rates. A contingency plan should include verifying stocks of vaccines and materials (e.g. intravenous fluids, specific antimicrobials [medication for treating bacterial infections], etc) as well as maintaining an updated map of all actors in the camp and their available material and human resources. Training for active/passive case finding and appropriate reporting mechanisms should be continually reinforced. Standard protocols for prevention, diagnosis and treatment must be made available to all health staff regarding the

priority communicable diseases in the camp and specifically the epidemic-prone diseases. These protocols should be harmonised with the local health authorities or adapted from WHO guidelines and agreed by all health actors.

Many communicable diseases surface in camp situations such as typhus, relapsing fever, tuberculosis, typhoid fever, yellow fever, meningococcal meningitis and hepatitis. As the cause-specific mortality rates of these diseases during the emergency phase are usually minimal, a response is indicated if an alert threshold has been reached. In the post-emergency phase, health services to respond to the above communicable diseases may be implemented as appropriate. The following is a synopsis of the priority communicable diseases to be addressed during the emergency phase and their appropriate case management and outbreak response.

Diarrhoeal Diseases

Diarrhoeal diseases are a leading cause of morbidity and mortality in a camp environment. In camp situations, diarrhoeal diseases have accounted for more than 40% of deaths in the acute phase of the emergency.

The Camp Management Agency should ensure: Prevention methods such as clean water, adequate latrine coverage, distribution of soap, education on personal hygiene, promotion of food safety and breastfeeding should be implemented as soon as possible. Uncomplicated, non-bloody diarrhoea can normally be managed with appropriate rehydration methods, but in a camp environment it is important to always train staff and monitor for the epidemic-prone diarrhoeal diseases – shigellosis and cholera.

 **Diarrhoea is defined as three or more abnormally loose or fluid stools over a period of 24 hours.**

Shigellosis (also known as bacillary dysentery) is an acute bacterial disease affecting the large and small intestine. The most severe form of the disease and the cause of outbreaks in camp settings is *Shigella dysenteriae* Type 1 (Sd1) presenting as acute bloody diarrhoea. Transmission occurs through contaminated food and water and from person-to-person contact and is highly contagious. Case fatality rates can be as high as 10% without prompt and effective treatment.

The Camp Management Agency should ensure that if Sd1 is suspected, the health worker should first verify blood in a stool specimen and then report to the lead health agency or outbreak team using the outbreak reporting form. Proper laboratory confirmation and antimicrobial sensitivity tests should be completed. This may require a referral laboratory as the tests are complicated. However, this should not delay treatment or control activities. If the supply of effective antimicrobials is limited, then treatment to high-risk patients should be the priority. These are:

- children under five years of age, especially infants – a child younger than two
- severely malnourished children and children who have had measles in the previous six weeks
- older children and adults who are obviously malnourished
- patients who are severely dehydrated, have had a convulsions, or are seriously ill when first seen
- all adults 50 years of age or older.

►► *For more information on Shigellae Dysenteriae Type 1, see the Reading and References section.*

Vibrio cholerae is an acute bacterial disease causing profuse watery diarrhoea sometimes coupled with projectile vomiting. If these patients are not promptly treated, the life cycle of the disease results in loss of large amounts of fluid and salts leading to severe dehydration and death within hours. The transmission mode is faecal-oral and is often transmitted by contaminated food or water.



In camp situations, with poor sanitary conditions and overcrowded living spaces an improperly managed cholera outbreak can produce case fatality rates of 40%. An example of camps reporting these case fatality rates are the refugee camps in the Democratic Republic of Congo (then Zaire) in 1994.

The Camp Management Agency should ensure that all health staff are trained to suspect cholera when:

- a patient over five years of age develops severe dehydration from acute watery diarrhoea (usually with vomiting)
- any patient over two years of age has acute watery diarrhoea in an area where there is an outbreak of cholera.

Cholera is asymptomatic in 90% of cases, but these asymptomatic carriers actively pass the bacteria in stools. About 20% of those who are infected with *V. cholerae* develop the acute, watery diarrhoea and of these about 10–20% develop severe watery diarrhoea with vomiting. The number of cases can rise rapidly because the incubation period is extremely short (two hours to five days). One confirmed case of cholera indicates an outbreak and cholera treatment centres for case management should be established.

! Once cholera is suspected in a camp, the spread of the bacteria should be prevented through early detection, confirmation of cases, appropriate treatment, isolation of patients and dissemination of hygiene messages.

Case management for cholera includes treatment of dehydration via oral rehydration salts and/or intravenous fluids. The use of antimicrobials is not essential for the treatment of cholera and should only be used for severe cases or when bed occupancy or stocks of intravenous fluids are expected to reach critical levels.

▶▶ *More information on outbreak investigation strategies, design and set-up of isolation centres, essential rules in a cholera centre, disinfection preparation and calculation of treatment needs can be found in the Reading and References section.*

! Trade and travel restrictions do not prevent the spread of cholera and are unnecessary.

Acute Respiratory Infections (ARIs)

ARIs of the upper respiratory tract include the common cold and those of the lower respiratory tract include pneumonia. Lower respiratory tract infections (LRTIs) are a significant cause of morbidity and mortality in camp situations. The Camp Management Agency should therefore ensure that trained health workers are able to recognise the signs and symptoms of pneumonia and diagnose, treat or refer cases as quickly as possible. Community health workers should be trained to refer all children with a cough and/or breathing difficulties to the health post for further investigation. WHO recommends the following for appropriate case management of LRTIs:

- Signs of malnutrition should be assessed. Malnutrition increases the risk of death from pneumonia.
- Severely malnourished children must be referred to in-patient care at a referral hospital.
- Management of pneumonia consists of antimicrobial therapy, but choice of antimicrobial depends on national protocols and available drugs.
- If protocols or drugs are not available from the local health authorities or the Ministry of Health, then oral cotrimoxazole can be used for most cases. For severe pneumonia, injectable antimicrobials can be used such as penicillin, ampicillin or chloramphenicol.
- Supportive measures, such as oral fluids to prevent dehydration, continued feeding to avoid malnutrition, measures to reduce fever and protection from cold are essential.

▶▶ *For WHO examples of diagnosis and management clinical protocols for respiratory infections and diarrhoea, see the Tools section.*

Measles

Measles is a highly communicable viral infection spread person-to-person via respiratory droplets which damages the immune system. Deaths most frequently occur from complications of co-morbidities (accompanying but unrelated diseases) such as pneumonia, diarrhoea and malnutrition.

The Camp Management Agency should ensure that health workers are educated regarding the initial symptoms in order to facilitate early referral and case management. They should know that initial signs and symptoms are high fever, cough, red eyes, runny nose and Koplik spots (small white spots on the inner lining of the cheeks and lips). A red, blotchy rash may also appear behind the ears and on the hairline spreading to the entire body. All persons found with these initial signs and symptoms should be referred to the closest health facility for symptomatic management and should have their nutritional status monitored for possible enrolment in selective feeding programmes. It is not necessary however to isolate cases in an emergency situation.

Malaria

Four species of the parasitic disease termed 'malaria' develop in humans, but *Plasmodium falciparum* is of prime public health importance, especially when managing a camp in sub-Saharan Africa. WHO estimates that 300 million malaria cases occur every year with more than a million deaths of which 90% occur in

sub-Saharan Africa. The disease is transmitted by the bite of the female *Anopheles* mosquito, which mainly attack during the night. Simplified case definitions to be used in an emergency are:

- Uncomplicated malaria: person with fever or history of fever in the past 48 hours, with or without symptoms of headache, back pain, chills, nausea, vomiting, diarrhoea or muscle pain where other obvious causes of fever have been excluded. In a high malaria risk area or season, all children under five with fever or history of fever should be classified as having malaria. In a low malaria risk area or season, children with fever or history of fever are classified as having malaria and given an anti-malarial only if they have no runny nose (a sign of ARI), no measles or other obvious cause of fever such as pneumonia or a sore throat. In the low-risk areas, parasitological confirmation is recommended.
- Severe malaria: fever and symptoms of uncomplicated malaria but with associated neurological signs such as disorientation, convulsions, loss of consciousness and/or severe anaemia, jaundice, spontaneous bleeding, pulmonary oedema and/or shock.

►► *For more information on malaria in emergencies, see the Reading and References section.*

The Camp Management Agency should recognise that in the emergency phase of a camp, laboratory diagnosis for malaria is usually not feasible and diagnosis and treatment should be based on clinical symptoms coupled with knowledge of the risk of malaria in the camp area. As soon as laboratory services can be established, diagnosis should be confirmed – unless there is a malaria epidemic in which case clinical diagnosis is acceptable. Rapid diagnostic tests, although expensive, can be useful during the emergency phase to confirm malaria cases in a low malaria risk area or season before appropriate laboratory services can be established.

Effective treatment for malaria should be implemented with current knowledge of the drug resistance patterns in the camp area. In camp situations where mortality from malaria is high, drug combinations with artemisinin (ACT) are recommended. These combination drugs are increasingly used as first-line treatments in many countries and are rapidly effective in most areas. If the local health authorities do not use ACT as a first-line treatment and no recent efficacy studies on their recommended first-line drug have been conducted, then ACT is recommended. Coordination with the local health authorities is imperative and

may require lengthy discussions in order to implement ACT in a camp situation. If there are high treatment failure rates and high case fatality rates for malaria it is recommended that the lead health agency and/or Camp Management Agency together with the Sector/Cluster Lead advocate for change in the drug regime with the local health authorities.

▶▶ *For information on anti-malarial drug resistance and testing protocols, see the Tools section.*

The first health priority in an emergency is to implement effective diagnosis and treatment for malaria. Additionally, barrier methods for mosquito bite prevention (e.g. insecticide-treated mosquito nets) are important to implement but after the above priorities have been accomplished. Community distribution of treated nets in the emergency phase of a camp is only recommended when the camp residents are already in the habit of using nets. Vector control activities and extended distributions of personal protection against mosquito bites as well as Intermittent Preventive Treatment (IPT) during pregnancy to avert severe anaemia and low birth weight is recommended in the post-emergency phase. IPT is a dose of anti-malarial medication given to pregnant women on a regular basis, to prevent malaria throughout the pregnancy.

▶▶ *See WHO examples of treatment guidelines for diarrhoea, respiratory tract infections, measles, fever and other communicable and non-communicable diseases in the Tools section.*

Human Immunodeficiency Virus (HIV)/Acquired Immunodeficiency Syndrome (AIDS)

Vulnerability to HIV/AIDS is intensified during an emergency. Social norms regulating behaviour can be weakened. Fragmentation of families threatens stable relationships. Displacements may bring populations with different HIV prevalence rates into contact. Health structures may be stressed and have inadequate supplies to prevent the transmission of HIV, such as universal precautions supplies or condoms. As well, in camps with large numbers of arriving war-wounded, HIV infection can be passed via blood transfusions.

HIV can be transmitted via four main modes:

- sexual intercourse with an infected partner, especially in the presence of a sexually transmitted infection

- contaminated needles (needle stick injuries, injections)
- transfusion of infected blood or blood products
- mother-to-child transmission during pregnancy, labour and delivery or through breastfeeding.

The Camp Management Agency should ensure that the response to HIV/AIDS in a crisis is multi-sectoral. The lead health agency in cooperation with the Camp Management Agency should supervise and ensure a minimum set of interventions are initiated by health service agencies in the camp to mitigate the transmission of HIV. Beyond the context of the immediate crisis HIV/AIDS influences the life and situations of this person and their social network for years to come.

In accordance with UNAIDS guidelines, the HIV response from the health sector should include the following minimum interventions:

- providing a safe blood supply (by having HIV testing of blood before transfusion) and avoiding all non-essential blood transfusions
- adhering to universal precautions
- providing basic HIV education materials
- providing good quality condoms, preferably free of charge via appropriate channels as identified during the rapid initial assessment
- offering syndromic sexually-transmitted infection (STI) treatment (syndromic approach treats STIs according to signs and symptoms, requiring no laboratory confirmation).
- managing the consequences of gender-based violence
- ensuring safe maternal deliveries.

! Mandatory testing for HIV represents a violation of human rights and has no public health justification. A voluntary HIV testing and counselling (VCT) programme can be established in the camp, but it is not a priority intervention during an emergency phase.

HIV services during the post-emergency phase should expand to more comprehensive interventions related to preventing HIV transmission, as well as providing support, care and treatment to those living with HIV/AIDS and their families. These should include services or strategies to prevent sexual violence; provide post-exposure prophylaxis; provide information-education-communication

materials for high-risk groups; voluntary counseling and testing; and services for preventing mother-to-child transmission of HIV. Palliative and home-based support and care should be provided for people living with AIDS. Other care and treatment interventions for people living with HIV include prophylaxis and treatment of opportunistic infections and antiretroviral therapy.

▶▶ *For more information, see the WHO communicable diseases country-specific toolkit in the Reading and References section.*

REPRODUCTIVE HEALTH

Reproductive Health (RH) services should be provided in a camp environment as an integral part of primary health care services. Providing appropriate services can overcome the complications of pregnancy and delivery which are the leading causes of death and disease among refugee/IDP women of child-bearing age. A RH response in the emergency phase of a camp is necessary.

Quality RH services provided by trained staff should be available in the camp, while leaving the decision to the individual regarding use of the services. As RH services affect very personal aspects of a persons' life, they must be implemented in a culturally appropriate manner, considering the religious and ethical values of the camp population. Those providing the services should provide an enabling environment where those seeking services can feel comfortable and secure. The following minimum reproductive health interventions should be provided in the emergency phase:

- A reproductive focal person/agency should be identified to supervise all services within the camp and bring issues and information to health coordination meetings.
- All pregnant women, birth attendants and midwives should be identified within the camp and issued with 'Clean Delivery Kits' – a square metre of plastic sheet, a bar of soap, a razor blade, a length of string and a pictorial instruction sheet. Multiple kits should be provided to birth attendants and midwives and a system established to replenish them as needed. Health facilities and trained midwives should be issued with professional midwife delivery supplies using WHO's 'New Emergency Health Kit'.
- A referral facility and transport should be identified for obstetric emergency transfers.
- A medical response should be provided to survivors of sexual violence,

including emergency contraception as appropriate via the health facilities (small quantities are available in the WHO ‘New Emergency Kit’).

- Community leaders, pregnant women, birth attendants and community health workers should start community education on indications for referral.

As soon as feasible, comprehensive services for antenatal, delivery and postpartum care must be organised. These services must include family planning services, sexually transmitted infection (STI) services, vaccinations (tetanus toxoid) and ‘well baby’ clinics. The objectives of comprehensive RH services include:

- ensuring all pregnant women attend antenatal clinics at least four times during pregnancy for antenatal care, health education and early detection and management of complications of pregnancy
- ensuring all women have access to clean, safe delivery attended by a skilled health worker
- providing post-natal care to all newborn infants
- promoting, protecting and supporting early, exclusive (up to six months), and sustained (up to two years) breastfeeding
- ensuring all women receive basic post-natal care through home visits and referral for complications
- managing the complications of spontaneous or induced abortion and reducing the incidence of unsafe abortion
- providing family planning services as needed
- preventing HIV transmission through universal precautions
- providing prevention of mother-to-child transmission (PMTCT) of HIV
- preventing and reducing sexual transmission of STIs and HIV/AIDS.

MENTAL HEALTH AND PSYCHOSOCIAL SUPPORT

Refugees or IDPs arriving in a camp have frequently lived through trauma which they may still be experiencing. After arrival in the camp, idleness and loss of traditional roles may also be a hardship to endure. Others may present with past medical histories of psychopathology. A distinction must be made between psychosocial problems and persons living with psychiatric illnesses and these two groups of people require different interventions.

Those persons not able to cope with the recent events or the new situation in which they live may have signs and symptoms such as: anxiety disorders, depressive disorders, suicidal thoughts, anger or violent behaviour, drug and alcohol abuse, paranoia, hysteria or insomnia. Persons living with histories of

psychiatric illnesses may have similar signs or symptoms as above and may indirectly benefit from preventative psychosocial interventions, but usually require a more medical approach to their illness. Psychosocial interventions are not directed primarily towards those with psychiatric diagnoses, but for those not able to cope with the recent events or the new situation in which they live.

Psychosocial support should be a cross-cutting factor that influences each step of the services provided in a camp. The minimum response for the health sector in the emergency phase of a refugee/IDP situation should include:

- strengthening the national capacity of health systems to provide mental health and psychosocial support in emergencies
- including specific psychological and social considerations (e.g; providing quiet spaces), in provision of general health care specifically providing services to those with acute mental distress after exposure to traumatic stressors
- encouraging adults and adolescents to participate in concrete, purposeful, common interest activities
- strategies to minimise harm related to alcohol and other substance abuse.

For those with pre-existing mental disorders, access to care should be provided and relevant treatment continued. People with severe mental disorders previously living in institutions should have strategies initiated which provide protection for their basic needs.

Mental health and psychosocial support can expand during the post-emergency phase and it is recommended that:

- health service providers advocate for appropriate government mental health policy and legislation
- a broad range of care for emergency-related and pre-existing mental disorders be developed through general health care and community-based mental health services
- the sustainability of newly-established mental health services is ensured
- local, indigenous and traditional health systems are investigated and health service providers collaborate with them as appropriate
- collaborative relationships with local health systems are continued and augmented as appropriate
- health service providers ensure that people normally requiring care in psychiatric institutions can access community-based care and appropriate alternative living arrangements while in the camp.

HEALTH EDUCATION

All persons in the camp should have access to health information that allows them to protect and promote their own health status and that of their children. Women, men, adolescents and children should understand how their bodies work and how they can maintain good health in an unfamiliar environment. Dissemination of health information is usually done via health education programmes and should be initiated with the first activities in a camp. Although health education is primarily disseminated via community-based outreach programmes, every contact the health system has with an individual should be an opportunity for health information dissemination. The following should be remembered:

- Health education in the camp should be context specific and take into account the health-seeking behaviors of the population as well as their personal health beliefs.
- The messages and materials should be formulated in local languages with options for non-literate populations.
- Information provided should concentrate on the priority diseases within the camp, major health risks for these diseases, the availability and location of health services and promotion of behaviors that protect and promote good health.
- Education on feeding and care practices of infants and children should be implemented as this is critical in preventing malnutrition and diseases.
- The lead health agency/Camp Management Agency should coordinate health education messages to ensure that all health service providers in the camp are providing consistent and accurate messages.
- Health service providers should conduct regular assessments of the effectiveness of the health messages to the target audience and those who implement them.
- Health messages can be expanded during the post-emergency phase to include messages coinciding with comprehensive health services implemented in the camp.

▶▶ *For a field guide to designing health communication strategies, see the Tools section.*

 An IDP camp in Northern Uganda experienced a cholera outbreak. The Camp Management Agency advised people not to draw water from the river because of defecation upstream and confirmed faecal contamination of river water. However, the camp residents continued to collect water from the river, as the quantity of water from chlorinated boreholes was not enough. Community health workers were trained to educate the population regarding the contamination of the river water and began health education outreach activities. The population continued to collect water from the river and while the Camp Management Agency was distracted with an outbreak in another camp, the CHWs began beating and humiliating people collecting river water. Health education in a camp environment can lead to unintended consequences if the Camp Management Agency or health agencies do not properly supervise outreach activities.

HEALTH PRIORITIES AT CAMP CLOSURE

The closure of a camp is complex and requires coordination from all sectors. The health agencies coordinating activities during this planning phase should remember:

- Epidemics of communicable diseases with high mortality should warrant the camp remaining open. Those affected should be treated in the area of transmission as camp closure and movement out to a larger population may spread the disease further.
- Health facility utilisation rates and total population remaining in the camp are indicators for planning to phase down health services (e.g. decreasing the number of in-patient beds and outreach activities).
- Medical services must be available until every camp resident has left. Usually those last to leave the camp – such as women delayed by childbirth, malnourished children and older people – have the greatest health needs.

The camp population should be aware of health services available to them on leaving the camp. The Camp Management Agency/lead health agency should coordinate with health authorities in areas where the population will return to gather and share information. Information gathered should be disseminated to the population before leaving the camp. This is more difficult for cases of camp

population scattering to geographically diverse areas and will require a more detailed plan of action.

Health screening should take place before departure but may be difficult in camps where return is spontaneous. When screening is possible, information campaigns should have clear objectives. Health screening can be misinterpreted as a way to prevent persons from leaving the camp or to gather confidential health data for reporting to areas of return. Objectives for health screening include:

- education, referral and correct management of groups with specific needs such as the malnourished
- recognising the need to remain in treatment, the consequences of deciding to return and the programmes that may be available to them during or on return (e.g. special vehicles to take them to their area of return or feeding programmes to assist them on return)
- identification of persons who should be referred to specific health services in their area of return. A referral letter should be issued to each person identified in the language of their area of return
- identification of children who need referral for immunisations (measles or EPI if the camp has initiated this programme).

Ensuring the confidentiality of medical records and ensuring that any outdated or unwanted documentation is destroyed must be considered during camp closure.

CHECKLIST FOR A CAMP MANAGEMENT AGENCY

- The Camp Management Agency ensures that all health service providers within the camp have a Memorandum of Understanding (MoU) with the local health authorities outlining roles and responsibilities for health services implementation, exit strategies and the extent of assistance from already existing health facilities.
- Health services are coordinated between agencies and with local health authorities via information sharing and regular meetings.

Assessments

- A rapid health assessment is completed within three days of the arrival of the first camp residents. Those conducting the assessment have appropriate training and relevant experience and have no political or other compromising affiliations.
- The results of the rapid health assessment are used to inform a health response.
- Mapping of health service providers in the camp is regularly updated, including what their activities are and where they are working.
- A context-specific, comprehensive assessment is repeated within one to three weeks after the initial health assessment to steer health care strategies. Assessments are periodically repeated thereafter as required.

Immunisations

- A well-monitored mass measles vaccination campaign is organised together with agencies and national authorities for all children aged six months to 14 in the camp.
- It is determined whether other mass vaccination campaigns should be initiated, such as against yellow fever and/or bacterial meningitis.
- Routine immunisations (EPIs) are established as part of the overall health care strategy for the camp as soon as emergency health care strategies are in place.

Nutrition

- ❑ A nutrition survey of children aged six months- 59 months is initiated to quantify the degree of acute malnutrition in the camp population. Additional nutrition surveys are implemented at regular intervals to monitor changes in the malnutrition rates.
- ❑ All persons in the camp are food secure and able to meet their energy and micronutrient requirements. If not, general or selective feeding programmes are initiated. The general food ration should provide all camp residents with adequate energy and micronutrients. The supplementary food ration is to provide vulnerable groups and those with specific needs with additional support.
- ❑ Health service providers train staff on strategies ensuring appropriate feeding practices of infants and young children (e.g. exclusive breastfeeding of infants from birth to six months).

Structure of Health Care Services

- ❑ Health structures within the camp are designed to provide health services for all levels of care. All health service providers use a common and agreed referral system within the health structure and specifically to a referral hospital.
- ❑ All health service providers implement health policies, use clinical definitions and diagnostic protocols and prescribe essential medicines in line with local health authority guidelines or, if not deemed appropriate, with international standards.
- ❑ Standards are ensured for recruitment, training and supervision of staff, both local and international (e.g. guidelines on salary and incentives) and all health service providers abide by them.
- ❑ Materials are in place for adequate practice of universal precautions and training of all health agencies in them is supervised.
- ❑ The overall supply and logistic systems to health service providers in the camp is supported. If resources are inadequate there is advocacy for assistance via the CCCM/Health Cluster.

Health Information Systems (HIS)

- ❑ The establishment of effective health information management and coordination systems with all health service providers in the camp is ensured.
- ❑ The training of all health agencies in routine reporting forms, identification of epidemic-prone diseases, alert thresholds and protocols for outbreak reporting is supported.

Control of Communicable Diseases and Epidemics

- ❑ One health agency is appointed to coordinate disease outbreak response. The outbreak response is planned by identifying a referral laboratory for confirmation of specimens and maintaining and disseminating an epidemic contingency plan. The contingency plan should include pre-positioned stocks and mapping of all resources available for outbreaks.
- ❑ Standards and clinical protocols for priority communicable diseases (diarrhoeal diseases, acute respiratory infections, measles and malaria) are developed and disseminated expanding to all context-specific diseases during the post-emergency phase. Evidence-based treatments are advocated for.
- ❑ The training of all health agencies is ensured using agreed guidelines for clinical definitions, diagnoses and treatment of communicable diseases.
- ❑ Services are expanded for those living with HIV/AIDS in the post-emergency phase to include support, care and possibly treatment as well as developing a comprehensive information campaign targeted towards prevention of HIV transmission and awareness of HIV services.

Reproductive Health

- ❑ An organisation or individual is identified as focal point for the reproductive health response in the camp.
- ❑ The minimum package of reproductive care is available to all health service providers (according to phase) and reproductive care services in the camp are supervised. 'Clean delivery kits' are available and distributed, professional midwife delivery supplies are available at health centres and a referral system to manage obstetric emergencies is established.

- ❑ The consequences of sexual violence are prevented and managed – specifically ensuring that a medical response to survivors of sexual violence is available and the camp population know about it.

Mental Health and Psychosocial Support (MHPSS)

- ❑ The health response of MHPSS is supported, which should primarily support psychosocial activities, with medical services capable of treating those with pre-existing psychopathologies.

Health Education

- ❑ Health agencies are assisted to assess the health situation and target population to identify the most important problems to address through health education communication strategies.
- ❑ The most appropriate channels and tools for communicating are used with the target population.
- ❑ Evaluation and supervision activities are planned to monitor and measure the effectiveness of the health education strategy.

Health Issues at Camp Closure

- ❑ Basic health services within the camp remain operational until every camp resident has left.
- ❑ Planned phase-down of health services based on health facility utilisation rates coupled with total population remaining in the camp, is ensured.
- ❑ Information with health service providers in areas of return is coordinated and exchanged when possible. Information campaigns inform the camp population of services available in areas of return and how to access them on arrival.
- ❑ Activities for health screening and coordinated information campaigns are in place to give proper messages to the camp population regarding rationales for screening interventions.

TOOLS

- Example of a 3 W form for Camp Management Agencies
- Example of an initial rapid health assessment form
- Example of camp data collection format including health care (TSST)
- Examples of diagnosis and clinical management protocols for respiratory infections and diarrhoea
- Example of Expanded Programme for Immunisation Schedule
- Examples of morbidity and mortality surveillance forms
- Examples of treatment guidelines for diarrhoea , respiratory tract infections, measles, fever and other communicable and non-communicable diseases
- Field guide to designing a health communication strategy.
<http://www.jhuccp.org/pubs/fg/02/>
- Information involving requirements and how to request a UNFPA Reproductive Health Kits available at <http://www.unfpa.org/procurement/>
- Information on anti-malarial drug resistance and testing protocols.
<http://www.who.int/malaria/resistance.html>
- Information regarding “New Emergency Kit”
<http://www.who.int/hac/techguidance/ems/healthkit/en/>
- Sample outbreak investigation form
- Standard WHO case definitions
- WHO Model List of Essential Medicine for Adults and Children
- Z score reference values of WFH by sex

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