

Minimum Standards in Food Security and Nutrition



How to use this chapter

This chapter is divided into four main sections:

Food security and nutrition assessment

Infant and young child feeding

Management of acute malnutrition and micronutrient deficiencies

Food security

The fourth section, food security, is subdivided into three sections: food security – food transfers; food security – cash and voucher transfers; and food security – livelihoods.

The Protection Principles and Core Standards must be used consistently with this chapter.

Although primarily intended to inform humanitarian response to a disaster, the minimum standards may also be considered during disaster preparedness and the transition to recovery activities.

Each section contains the following:

- **Minimum standards:** These are qualitative in nature and specify the minimum levels to be attained in humanitarian response regarding the provision of food and nutrition.
- **Key actions:** These are suggested activities and inputs to help meet the standards.
- **Key indicators:** These are ‘signals’ that show whether a standard has been attained. They provide a way of measuring and communicating the processes and results of key actions; they relate to the minimum standard, not to the key action.
- **Guidance notes:** These include specific points to consider when applying the minimum standards, key actions and key indicators in different situations. They provide guidance on tackling practical difficulties, benchmarks or advice on priority issues. They may also include critical issues relating to the standards, actions or indicators, and describe dilemmas, controversies or gaps in current knowledge.

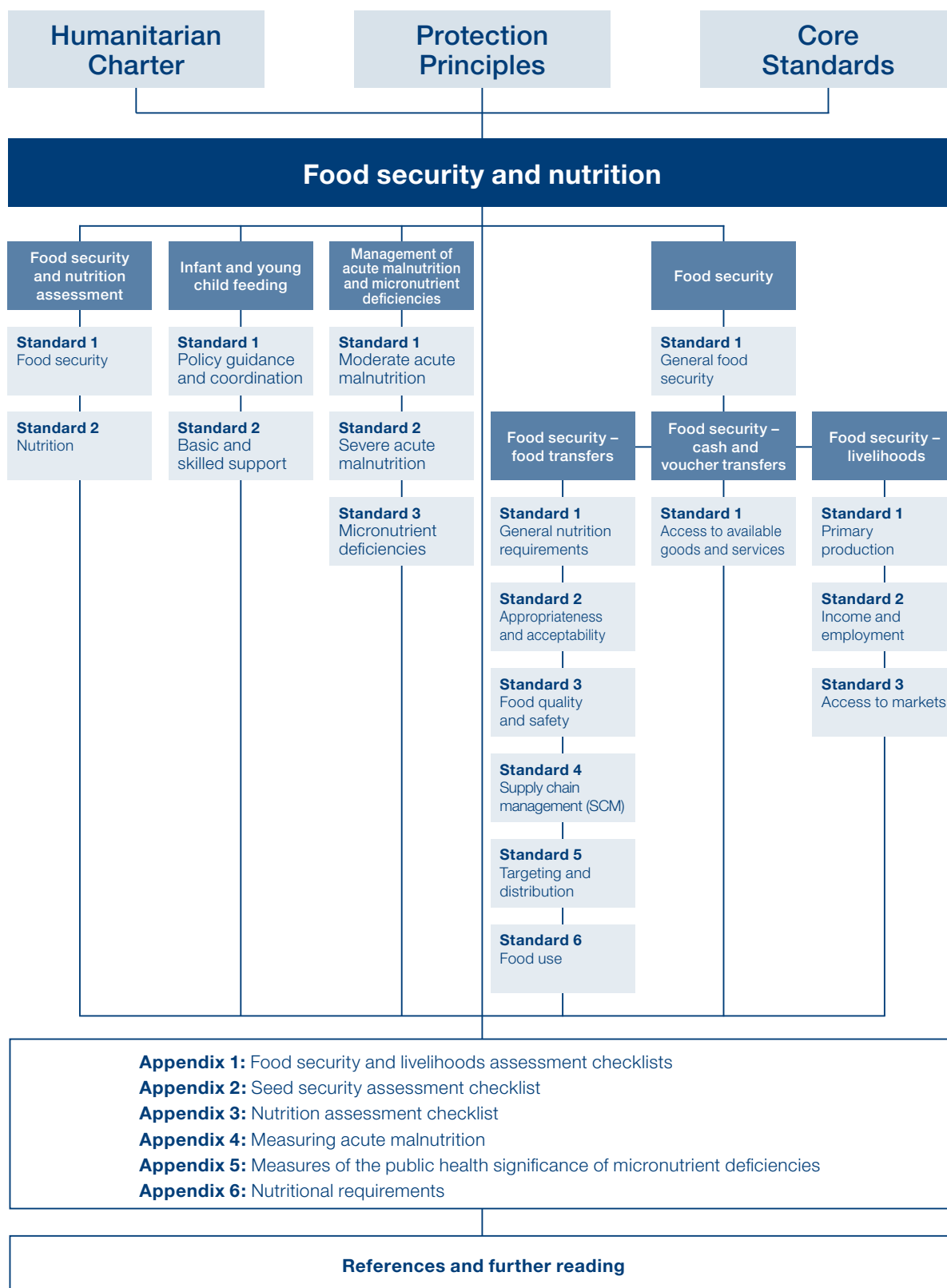
If the required key indicators and actions cannot be met, the resulting adverse implications for the affected population should be appraised and appropriate mitigating actions taken.

Appendices include checklists for assessments, guidance on measuring acute malnutrition and determining the public health significance of micronutrient deficiencies and nutritional requirements. A select list of references, which points to sources of information on both general issues and specific technical issues and is divided into source material and further reading, is also provided.

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Introduction

Links to the Humanitarian Charter and international law

The minimum standards for food security and nutrition are a practical expression of the shared beliefs and commitments of humanitarian agencies and the common principles, rights and duties governing humanitarian action set out in the Humanitarian Charter. Founded on the principle of humanity, and reflected in international law, these principles include the right to life and dignity, the right to protection and security, and the right to receive humanitarian assistance on the basis of need. A list of key legal and policy documents that inform the Humanitarian Charter is available for reference in Annex 1 (see page 356), with explanatory comments for humanitarian workers.

Although states are the main duty-bearers with respect to the rights set out above, humanitarian agencies have a responsibility to work with the disaster-affected population in a way that is consistent with these rights. From these general rights flow a number of more specific entitlements, including the rights to participation, information and non-discrimination that form the basis of the Core Standards as well as the specific rights to water, food, shelter and health that underpin these and the minimum standards in this Handbook.

Everyone has the right to adequate food. This right is recognised in international legal instruments and includes the right to be free from hunger. When individuals or groups are unable, for reasons beyond their control, to enjoy the right to adequate food by the means at their disposal, states have the obligation to ensure that right directly. The right to food implies the following obligations for states:

- ‘To respect existing access to adequate food’ requires states parties not to take any measure that results in the prevention of such access.
- ‘To protect’ requires measures by the state to ensure that enterprises or individuals do not deprive individuals of access to adequate food.
- ‘To fulfil’ (facilitate) means that states must proactively engage in activities intended to strengthen people’s access to and utilisation of resources and means to ensure their livelihoods, including food security.



In the case of disasters, states should provide food to those in need or may request international assistance if their own resources do not suffice. They should also facilitate safe and unimpeded access for international assistance.

The Geneva Conventions and additional protocols include the right to access to food in situations of armed conflict and occupation. It is prohibited to starve civilians as a method of warfare and to attack, destroy, remove or render useless foodstuffs, agricultural areas for the production of foodstuffs, crops, livestock, drinking water installations and supplies, and irrigation works. When one state occupies another by force, international humanitarian law obliges the occupying power to ensure adequate food for the population and to bring in necessary supplies if the resources of the occupied territory are inadequate. States should make every effort to ensure that refugees and internally displaced persons have access at all times to adequate food.

The minimum standards in this chapter reflect the core content of the right to food and contribute to the progressive realisation of this right globally.

The importance of food security and nutrition in disasters

Access to food and the maintenance of an adequate nutritional status are critical determinants of people's survival in a disaster (see The place of Sphere within humanitarian action on page 9). The people affected are often already chronically undernourished when the disaster hits. Undernutrition is a serious public health problem and among the lead causes of death, whether directly or indirectly.

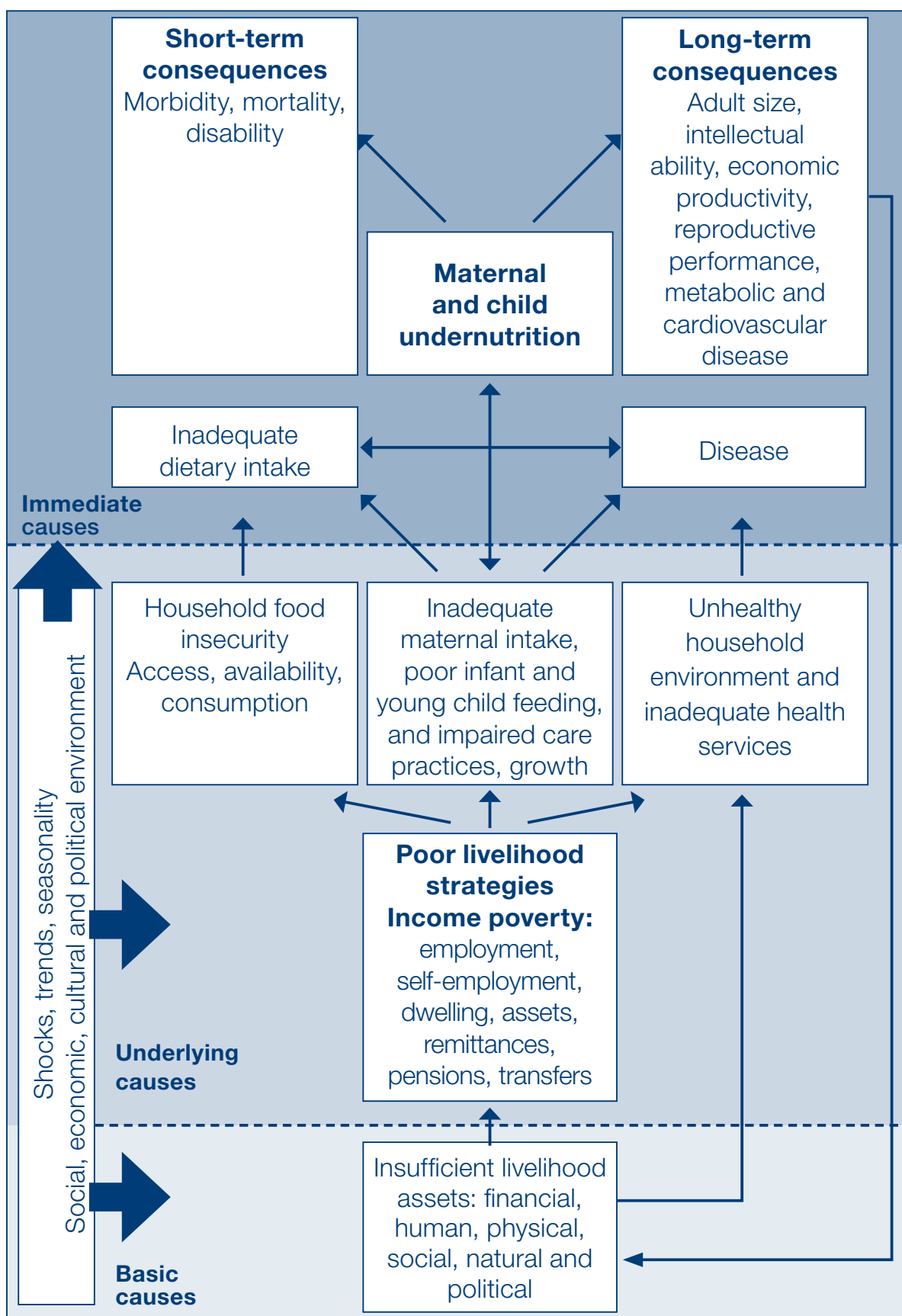
The causes of undernutrition are complex. The conceptual framework (see page 146) is an analytical tool that shows the interaction between contributing factors to undernutrition. The immediate causes of undernutrition are disease and/or inadequate food intake, which result from underlying poverty, household food insecurity, inadequate care practices at household or community levels, poor water, hygiene and sanitation, and insufficient access to healthcare. Disasters such as cyclones, earthquakes, floods, conflict and drought all directly affect the underlying causes of undernutrition. The vulnerability of a household or community determines its ability to cope with exposure to these shocks. The ability to manage the associated risks is determined largely by the characteristics of a household or community, particularly its assets and the coping and livelihood strategies it pursues.

For this chapter the following definitions are used:

- ▶ *Food security* exists when all people, at all times, have physical, social and economic access to sufficient, safe and nutritious food to meet their dietary needs and food preferences for an active and healthy life. Within this definition of food security, there are three components:
 - Availability refers to the quantity, quality and seasonality of the food supply in the disaster-affected area. It includes local sources of production (agriculture, livestock, fisheries, wild foods) and foods imported by traders (government and agencies' interventions can affect availability). Local markets able to deliver food to people are major determinants of availability.
 - Access refers to the capacity of a household to safely procure sufficient food to satisfy the nutritional needs of all its members. It measures the household's ability to acquire available food through a combination of home production and stocks, purchases, barter, gifts, borrowing or food, cash and/or voucher transfers.
 - Utilisation refers to a household's use of the food to which it has access, including storage, processing and preparation, and distribution within the household. It is also an individual's ability to absorb and metabolise nutrients, which can be affected by disease and malnutrition.
- ▶ *Livelihoods* comprise the capabilities, assets (including natural, material and social resources) and activities used by a household for survival and future well-being. Livelihood strategies are the practical means or activities through which people use their assets to earn income and achieve other livelihood goals. Coping strategies are defined as temporary responses forced by food insecurity. A household's livelihood is secure when it can cope with and recover from shocks, and maintain or enhance its capabilities and productive assets.
- ▶ *Nutrition* is a broad term referring to processes involved in eating, digestion and utilisation of food by the body for growth and development, reproduction, physical activity and maintenance of health. The term 'malnutrition' technically includes undernutrition and over-nutrition. Undernutrition encompasses a range of conditions, including acute malnutrition, chronic malnutrition and micronutrient deficiencies. Acute malnutrition refers to wasting (thinness) and/or nutritional oedema, while chronic malnutrition refers to stunting (shortness). Stunting and wasting are two forms of growth failure. In this chapter, we refer to undernutrition and revert to malnutrition specifically for acute malnutrition.



Conceptual framework of the causes of undernutrition



The framework shows that exposure to risk is determined by the frequency and severity of natural and man-made shocks and by their socio-economic and geographical scope. The determinants of coping capacity include the levels of a household's financial, human, physical, social, natural and political assets; the levels of its production, income and consumption; and its ability to diversify its income sources and consumption to mitigate the effects of the risks.

The vulnerability of infants and young children means that addressing their nutrition should be a priority. Prevention of undernutrition is as important as treatment of acute malnutrition. Food security interventions may determine nutrition and health in the short term and their survival and well-being in the long term.

Women often play a greater role in planning and preparation of food for their households. Following a disaster, household livelihood strategies may change. Recognising distinct roles in family nutrition is key to improving food security at the household level. Understanding the unique nutritional needs of pregnant and lactating women, young children, older people and persons with disabilities is also important in developing appropriate food responses.

Better food security and nutrition disaster response is achieved through better preparedness. Such preparedness is the result of the capacities, relationships and knowledge developed by governments, humanitarian agencies, local civil society organisations, communities and individuals to anticipate and respond effectively to the impact of likely, imminent or current hazards. Preparedness is based on an analysis of risks and is well linked to early warning systems. It includes contingency planning, stockpiling of equipment and supplies, emergency services and stand-by arrangements, communications, information management and coordination arrangements, personnel training and community-level planning, drills and exercises.

The main areas of intervention for food security and nutrition in disasters covered in this Handbook are infant and young child feeding; the management of acute malnutrition and micronutrient deficiencies; food transfers; cash and voucher transfers; and livelihoods.

Links to other chapters

Many of the standards in the other chapters are relevant to this chapter. Progress in achieving standards in one sector often influences progress in other sectors. For an intervention to be effective, close coordination and collaboration are required with other sectors. Coordination with local authorities, other responding agencies and community-based organisations is also necessary to ensure that



needs are met, that efforts are not duplicated and that the quality of food security and nutrition interventions is optimised.

The conceptual framework for undernutrition (see page 146) identifies poor household environment and inadequate health services among the underlying causes of malnutrition. Responses to prevent and correct malnutrition require the achievement of minimum standards both in this chapter and in the WASH, Shelter and Health chapters. They also require that the Core Standards be achieved and the Protection Principles addressed. In order to ensure food security and nutrition of all groups in a manner that ensures their survival and upholds their dignity, it is not sufficient to achieve only the standards in this chapter of the Handbook.

Reference is made, where relevant, to specific standards or guidance notes in other chapters and to companion and complementary standards.

Links to the Protection Principles and Core Standards

In order to meet the standards of this Handbook, all humanitarian agencies should be guided by the Protection Principles, even if they do not have a distinct protection mandate or specialist capacity in protection. The Principles are not 'absolute': it is recognised that circumstances may limit the extent to which agencies are able to fulfil them. Nevertheless, the Principles reflect universal humanitarian concerns which should guide action at all times.

The Core Standards are essential process and personnel standards shared by all sectors. The six Core Standards cover participation, initial assessment, response, targeting, monitoring, evaluation, aid worker performance, and supervision and support to personnel. They provide a single reference point for approaches that underpin all other standards in the Handbook. Each technical chapter, therefore, requires the companion use of the Core Standards to help attain its own standards. In particular, to ensure the appropriateness and quality of any response, the participation of disaster-affected people – including the groups and individuals most frequently at risk in disasters – should be maximised.

Vulnerabilities and capacities of disaster-affected populations

This section is designed to be read in conjunction with, and to reinforce, the Core Standards.

It is important to understand that to be young or old, a woman or an individual with a disability or HIV, does not, of itself, make a person vulnerable or at increased risk. Rather, it is the interplay of factors that does so: for example, someone who is over 70 years of age, lives alone and has poor health is likely to be more vulnerable than someone of a similar age and health status living within an extended family and with sufficient income. Similarly, a 3-year-old girl is much more vulnerable if she is unaccompanied than if she were living in the care of responsible parents.

As food security and nutrition standards and key actions are implemented, a vulnerability and capacity analysis helps to ensure that the disaster response effort supports those who have a right to assistance in a non-discriminatory manner and who need it most. This requires a thorough understanding of the local context and of how a particular crisis impacts on particular groups of people in different ways due to their pre-existing vulnerabilities (e.g. being very poor or discriminated against), their exposure to various protection threats (e.g. gender-based violence including sexual exploitation), disease incidence or prevalence (e.g. HIV or tuberculosis) and possibilities of epidemics (e.g. measles or cholera). Disasters can make pre-existing inequalities worse. However, support for people's coping strategies, resilience and recovery capacities is essential. Their knowledge, skills and strategies need to be supported and their access to social, legal, financial and psychosocial support advocated for. The various physical, cultural, economic and social barriers they may face in accessing these services in an equitable manner also need to be addressed.

The following highlight some of the key areas that will ensure that the rights and capacities of all vulnerable people are considered:

- ▶ Optimise people's participation, ensuring that all representative groups are included, especially those who are less visible (e.g. individuals who have communication difficulties, mobility difficulties, those living in institutions, stigmatised youth and other under- or unrepresented groups).
- ▶ Disaggregate data by sex and age (0–80+ years) during assessment – this is an important element in ensuring that the food security and nutrition sector adequately considers the diversity of populations.
- ▶ Ensure that the right to information on entitlements is communicated in a way that is inclusive and accessible to all members of the community.



The minimum standards

1. Food security and nutrition assessment

In an acute crisis and for immediate response, multisector initial rapid assessments may be sufficient to decide whether or not immediate assistance is required. Initial rapid assessments are designed to obtain a fast and clear vision of a specific context in time. There will likely be a need to carry out further, more in-depth food security and nutrition assessments which require considerable time and resources to undertake properly. Assessment is a continuous process, particularly in protracted crises, and should inform targeting and decision-making as part of response management.

Ideally, food security and nutrition assessments should overlap and strive to identify the barriers to adequate nutrition, as well as interventions to improve availability, access and optimal utilisation of food intake. Assessment checklists are provided in Appendices 1: Food security and livelihoods assessment checklists, 2: Seed security assessment checklist and 3: Nutrition assessment checklist.

The two food security and nutrition assessment standards follow on from Core Standard 3 (see page 61) and both apply wherever food security and nutrition interventions are planned or are advocated.

Food security and nutrition assessment standard 1: Food security

Where people are at increased risk of food insecurity, assessments are conducted using accepted methods to understand the type, degree and extent of food insecurity, to identify those most affected and to define the most appropriate response.

Key actions (to be read in conjunction with the guidance notes)

- ▶ Use a methodology which adheres to widely accepted principles and describe it comprehensively in the assessment report (see guidance note 1).

- ▶ Collect and analyse information at the initial stage of the assessment (see guidance note 2).
- ▶ Analyse the impact of food insecurity on the population's nutritional status (see guidance note 4).
- ▶ Build the assessment upon local capacities, including formal and informal institutions, wherever possible (see guidance note 9).

Key indicators (to be read in conjunction with the guidance notes)

- ▶ Food security and livelihoods of individuals, households and communities are investigated to guide interventions (see guidance notes 3–9).
- ▶ Assessment findings are synthesised in an analytical report including clear recommendations of actions targeting the most vulnerable individuals and groups (see guidance notes 1–10).
- ▶ The response is based on people's immediate food needs but will also consider the protection and promotion of livelihood strategies (see guidance note 10).

Guidance notes

1. **Methodology:** The scope of assessments and sampling procedures are important, even if informal. Food security assessments should have clear objectives and use internationally accepted methods. Confirmation via different sources of information (e.g. crop assessments, satellite images and household assessments) is vital to have a consistent conclusion (see Core Standard 3 on page 61 and References and further reading).
2. **Sources of information:** Secondary information may exist about the pre-disaster situation. As women and men have different and complementary roles in securing the nutritional well-being of the household, this information should be disaggregated by sex as much as possible (see Core Standard 3 on page 61 and Appendix 1: Food security and livelihoods assessment checklists).
3. **Food availability, access, consumption and utilisation:** (See definitions for food availability, access and utilisation on page 145.) Food consumption reflects the energy and nutrient intake of individuals in households. It is not practical to measure actual energy content and nutrient details during these assessments. Changes in the number of meals consumed before and after a disaster can be a simple yet revealing indicator of changes in food security. The number of food groups consumed by an individual or household and frequency of consumption over a given reference period reflect dietary diversity. This is a good proxy indicator, especially when



correlated with a household's socio-economic status and also with total food energy intake and diet quality. Tools that can give robust measures on food consumption patterns and problems include seasonal calendars, the Household Dietary Diversity Score, Household Food Insecurity Access Scale or Food Consumption Score.

4. **Food insecurity and nutritional status:** Food insecurity is one of three underlying causes of undernutrition. However, it should not be assumed that this is the sole cause of undernutrition.
5. **Context:** Food insecurity may be the result of wider macro-economic and structural socio-political factors, including national and international policies, processes or institutions that have an impact on the disaster-affected population's access to nutritionally adequate food and on the degradation of the local environment. This is usually defined as chronic food insecurity, a long-term condition resulting from structural vulnerabilities that may be aggravated by the impact of disaster. Local and regional food security information systems, including famine early warning systems and the Integrated Food Security Phase Classification, are important mechanisms to analyse information.
6. **Response analysis:** Food security varies according to people's livelihoods, their location, the market systems, their access to area markets, their social status (including sex and age), the time of year, the nature of the disaster and the associated responses. The focus of the assessment should address how the affected population acquired food and income before the disaster and how they cope now. Where people have been displaced, the food security of the host population must be taken into account. The assessment should also analyse markets, banks, financial institutions or other local transfer mechanisms in the case of cash transfers, and food supply chains, including the risks associated with them (see Protection Principle 1 on page 33). This will help assess the feasibility of cash or food transfer interventions and the design of safe and efficient delivery mechanisms.
7. **Market analysis** should be part of the initial and subsequent assessments. An analysis of markets should include price trends, availability of basic goods and services, the impact of the disaster on market structures and the expected recovery period. Understanding the capacity of markets to provide employment, food, essential items and services after a disaster can help the design of timely, cost-effective and appropriate responses that can improve local economies. Market systems can go beyond short-term needs after a disaster to protect livelihoods by supplying productive items (seeds, tools, etc.) and maintaining demand for employment. Programmes should be designed to support local purchase where possible (see Food security

– food transfers standard 4, guidance notes 2–3 on page 189, Food security – livelihoods standard 1, guidance note 7 on page 207 and Food security – livelihoods standard 3, guidance note 2 on page 212).

- 8. *Coping strategies:*** Assessment and analysis should consider the different types of coping strategy, who is applying them and when, how well they work and the nature of adverse impact (if any). Tools such as the Coping Strategies Index are recommended. While strategies vary, there are distinct stages of coping. Some coping strategies are normal, positive and could be supported. Other strategies, sometimes called crisis strategies, may permanently undermine future food security (sale of land, distress migration of whole families or deforestation). Some coping strategies employed by or forced on women and girls may significantly and adversely impact upon their health, psychological well-being and social integration. Coping strategies may also affect the environment, such as over-exploitation of commonly owned natural resources. Analysis should determine a livelihood threshold to identify the most appropriate combination of responses which ensure that food security is protected and supported before all non-damaging options are exhausted (see Protection Principles 1–2 on pages 33–36).
- 9. *Participatory analysis of vulnerability:*** Meaningful participation of different groups of women and men and appropriate local organisations and institutions at all stages of the assessment is vital. Programmes should build on local knowledge, be based on need and tailored to the local context. Areas subject to recurrent natural disasters or long-running conflicts may have local early warning and emergency response systems or networks and contingency plans which should be incorporated into any assessment. It is critical to engage women in project design and implementation (see Protection Principles 2–4 on pages 36–41).
- 10. *Immediate needs and long-term planning:*** Interventions which aim to meet immediate food needs can include food transfers and cash and voucher transfers. These can be either stand-alone or in combination with other livelihoods interventions. While meeting immediate needs and preserving productive assets will be the priority at the onset of a crisis, responses must always be planned with the longer term in mind, including an awareness of the impact of climate change on the environmental restoration of a degraded environment.



Food security and nutrition assessment standard 2: Nutrition

Where people are at increased risk of undernutrition, assessments are conducted using internationally accepted methods to understand the type, degree and extent of undernutrition and identify those most affected, those most at risk and the appropriate response.

Key actions (to be read in conjunction with the guidance notes)

- ▶ Compile existing information from pre-disaster and initial assessments to highlight the nature and severity of the nutrition situation (see guidance notes 1–6).
- ▶ Identify groups with the greatest nutritional support needs and the underlying factors that potentially affect nutritional status (see guidance notes 1–2).
- ▶ Determine if population-level qualitative or quantitative assessments are needed to better measure and understand anthropometric status, micro-nutrient status, infant and young child feeding, maternal care practices and associated potential determinants of undernutrition (see guidance notes 1–2).
- ▶ Consider the opinions of the local community and other local stakeholders on the potential determinants of undernutrition (see guidance note 7).
- ▶ Include an assessment of national and local capacity to lead and/or support response (see guidance notes 1 and 8).
- ▶ Use nutrition assessment information to determine if the situation is stable or declining (see guidance notes 7–8).

Key indicators (to be read in conjunction with the guidance notes)

- ▶ Assessment and analysis methodologies including standardised indicators adhering to widely accepted principles are adopted for both anthropometric and non-anthropometric assessments (see guidance notes 3–6).
- ▶ Assessment findings are presented in an analytical report including clear recommendations of actions targeting the most vulnerable individuals and groups (see guidance notes 3–6).

Guidance notes

1. **Contextual information:** Information on the causes of undernutrition can be gathered from primary or secondary sources, including existing health and nutrition profiles, research reports, early warning information, health centre

records, food security reports and community groups. Where information is not available for specific areas of assessment or potential intervention, other sources should be consulted such as Demographic Health Surveys, Multi Indicator Cluster Surveys, other national health and nutrition surveys, WHO Nutrition Landscape Information System, WHO Vitamin and Mineral Nutrition Information System, Complex Emergency Database (CE-DAT), Nutrition in Crisis Information System (NICS), national nutrition surveillance systems, and admission rates and coverage in existing programmes for the management of malnutrition. Where representative data are available, it is preferable to look at trends in nutritional status over time rather than the prevalence of malnutrition at a single point in time (see Appendix 3: Nutrition assessment checklist). Nutrition assessment should be considered within broader assessments, especially those focusing on public health and food security. Information on existing nutrition initiatives, their operational capacity and local and national response capacity should be gathered in order to identify gaps and guide response.

2. **Scope of analysis:** In-depth assessment should be conducted following the initial assessment (see Core Standard 3 on page 61) only where information gaps have been identified and where further information is needed to inform programme decision-making, to measure programme outcomes or for advocacy purposes. In-depth nutrition assessment refers to a number of possible assessment approaches including anthropometric surveys, infant and young child feeding assessments, micronutrient surveys and causal analyses. Nutrition surveillance and monitoring systems may also be used.
3. **Methodology:** Nutrition assessments of any type should have clear objectives, use internationally accepted methods, identify nutritionally vulnerable individuals and create an understanding of factors that may contribute to undernutrition. The assessment and analysis process should be documented and presented in a timely report in a logical and transparent manner. Assessment approaches need to be impartial, representative and well coordinated among agencies and governments so information is complementary, consistent and comparable. Multi-agency assessments may be beneficial in assessing large-scale multi-technical and wide geographical areas.
4. **Anthropometric surveys** are representative cross-sectional surveys based on random sampling or exhaustive screening. Anthropometric surveys provide an estimate of the prevalence of malnutrition (chronic and acute). They should report primarily Weight for Height in Z score according to WHO standards (see Appendix 4: Measuring acute malnutrition). Weight for Height in Z score according to the National Center for Health Statistics (NCHS) reference may also be reported to allow comparison with past surveys. Wasting and severe wasting measured by mid upper arm circumference (MUAC) should



be included in anthropometric surveys. Nutrition oedema should be assessed and recorded separately. Confidence intervals for the prevalence of malnutrition should be reported and survey quality assurance demonstrated. This can be done through the use of existing tools (e.g. Standardised Monitoring and Assessment of Relief and Transitions (SMART) methodology manual and tools, or ENA (Emergency Nutrition Assessment) software and EpiInfo software). The most widely accepted practice is to assess malnutrition levels in children aged 6–59 months as a proxy for the population as a whole. However, where other groups may be affected to a greater extent or face greater nutritional risk, assessment should be considered (see Appendix 4: Measuring acute malnutrition).

5. ***Non-anthropometric indicators:*** Additional information to anthropometry is essential, though should be carefully considered and remain limited when attached to anthropometric surveys so as not to undermine the quality of the survey. Such indicators include immunisation coverage rates (especially for measles), Vitamin A supplementation, micronutrient deficiencies and WHO infant and young child feeding (IYCF) indicators. Crude, infant and under-5 death rates may be measured, where appropriate.
6. ***Micronutrient deficiencies:*** If the population is known to have been deficient in Vitamin A, iodine or zinc or suffering from iron deficiency anaemia prior to a disaster, this will likely be exacerbated by the disaster. There may be outbreaks of pellagra, beriberi, scurvy or other micronutrient deficiencies which should be considered when planning and analysing assessments. If individuals with any of these deficiencies are present at health centres, it is likely to indicate lack of access to an adequate diet and is probably indicative of a population-wide problem. Assessment of micronutrient deficiencies may be direct or indirect. Indirect assessment involves estimating nutrient intakes at the population level and extrapolating deficiency risk by reviewing available data on food access, availability and utilisation (see Food security and nutrition assessment standard 1 on page 150), and by assessing food ration adequacy (see Food security – food transfers standard 1 on page 180). Direct assessment, where feasible, involves measuring clinical or sub-clinical deficiency in individual patients or a population sample, e.g. the measurement of haemoglobin during surveys whereby the prevalence of anaemia may be used as a proxy measure of iron deficiency.
7. ***Interpreting levels of undernutrition:*** Determining whether levels of undernutrition require intervention requires detailed analysis of the situation in the light of the reference population size and density, and morbidity and mortality rates (see Essential health services standard 1, guidance note 3 on page 310). It also requires reference to health indicators, seasonal fluctuations, IYCF indicators, pre-disaster levels of undernutrition, levels of

micronutrient deficiencies (see Appendix 5: Measures of the public health significance of micronutrient deficiencies), the proportion of severe acute malnutrition in relation to global acute malnutrition and other factors affecting the underlying causes of undernutrition. A combination of complementary information systems may be the most cost-effective way to monitor trends. Wherever possible, local institutions and populations should participate in monitoring activities, interpreting findings and planning any responses. The application of decision-making models and approaches which consider a number of variables including food security, livelihoods, and health and nutrition may be appropriate (see Food security and nutrition assessment standard 1, guidance note 5 on page 152).

8. **Decision-making:** Assessment findings should inform decisions on responses aimed at managing malnutrition. The decisions to implement general food distribution or other preventative or immediate treatment interventions in the acute phase of a disaster need not await the results of in-depth assessments. Where assessments are conducted, results must inform actions. Decision-making should rely on an understanding of undernutrition as laid out in the conceptual framework, results from nutrition assessments and the existing capacity to respond.



2. Infant and young child feeding

Suboptimal infant and young child feeding practices increase vulnerability to undernutrition, disease and death. The risks are heightened in disasters and the youngest are most vulnerable. Optimal feeding practices that maximise survival and reduce morbidity in children under 24 months are early initiation of exclusive breastfeeding, exclusive breastfeeding for 6 months, continued breastfeeding to 24 months or beyond, and introduction of adequate, appropriate and safe complementary foods at 6 months.

IYCF (infant and young child feeding) is concerned with interventions to protect and support the nutritional needs of both breastfed and non-breastfed infants and young children. Priority interventions include breastfeeding protection and support, minimising the risks of artificial feeding and enabling appropriate and safe complementary feeding. Infants and young children in exceptionally difficult circumstances, such as HIV-prevalent populations, orphans, low birth weight (LBW) infants and those severely malnourished, warrant particular attention. Protection and support of the nutritional, physical and mental health of both pregnant and breastfeeding women are central to the well-being of the mother and child. The particular needs of caregivers who are grandparents, single fathers or siblings must be considered. Cross-sector engagement is essential to protect and meet adequately and in time the broader nutritional needs of infants and young children and their mothers. IYCF is integral to many of the standards in this chapter and overlaps in other chapters.

Infant and young child feeding standard 1: Policy guidance and coordination

Safe and appropriate infant and young child feeding for the population is protected through implementation of key policy guidance and strong coordination.

Key actions (to be read in conjunction with the guidance notes)

- Uphold the provisions of the Operational Guidance on infant feeding in emergencies (IFE) and the International Code of Marketing of Breastmilk Substitutes and subsequent relevant World Health Assembly (WHA) resolutions (collectively known as the Code) (see guidance notes 1–2).
- Avoid soliciting or accepting donations of breastmilk substitutes (BMS), other milk products, bottles and teats (see guidance note 2).

Key indicators (to be read in conjunction with the guidance notes)

- A national and/or agency policy is in place that addresses IYCF and reflects the Operational Guidance on IFE (see guidance note 1).
- A lead coordinating body on IYCF is designated in every emergency (see guidance note 1).
- A body to deal with any donations of BMS, milk products, bottles and teats is designated (see guidance note 2).
- Code violations are monitored and reported (see guidance notes 1–2).

Guidance notes

1. **Policy guidance, coordination and communication:** Key policy guidance documents to inform emergency programmes include the Operational Guidance on IFE and the Code. Additional guidance can be found in the References and further reading section. WHA Resolution 63.23 (2010) urges member states to ensure that national and international preparedness plans and emergency responses follow the Operational Guidance on IFE. Disaster preparedness includes policy development, orientation and training on IFE, identifying sources of Code-compliant BMS and of complementary food. A lead coordinating body on IYCF should be assigned in every emergency. Monitoring and reporting on Code violations is an important contribution to aid accountability. Clear, consistent communication to the affected population and in press releases has a critical influence on the response.



- 2. Handling milk and milk products:** Milk and milk products should not be included in untargeted distributions (see Food security – food transfers standard 2, guidance note 5 on page 186). Indications for and management of artificial feeding should be in accordance with the Operational Guidance on IFE and the Code, ideally under the guidance of the designated IFE coordinating body. Donations of BMS, milk products, bottles and teats should not be sought or accepted in emergencies. Any donations that do arrive should be placed under the control of a designated agency and their management determined by the IFE coordinating body.

Infant and young child feeding standard 2: Basic and skilled support

Mothers and caregivers of infants and young children have access to timely and appropriate feeding support that minimises risks and optimises nutrition, health and survival outcomes.

Key actions (to be read in conjunction with the guidance notes)

- ▶ Undertake integrated multisector interventions to protect and support safe and appropriate IYCF (see guidance note 1).
- ▶ Give priority to pregnant and breastfeeding women to access food, cash and/or voucher transfers and other supportive interventions (see guidance note 1).
- ▶ Integrate skilled breastfeeding counselling in interventions that target pregnant and breastfeeding women and children aged 0–24 months (see guidance notes 2–7).
- ▶ Target mothers of all newborns with support for early initiation of exclusive breastfeeding (see guidance note 3).
- ▶ Support timely, safe, adequate and appropriate complementary feeding (see guidance note 5).
- ▶ Enable access for mothers and caregivers whose infants require artificial feeding to an adequate amount of an appropriate BMS and associated support (see guidance note 6).
- ▶ Give special consideration to feeding support of infants and young children in exceptionally difficult circumstances (orphans, acutely malnourished children, LBW infants and those affected by HIV) (see guidance notes 4–7).

Key indicators (to be read in conjunction with the guidance notes)

- ▶ Measurement of standard WHO indicators for early initiation of breast-feeding, exclusive breastfeeding rate in children <6 months, and continued breastfeeding rate at 1 and 2 years (see guidance notes 2–3, 5–6).
- ▶ Caregivers have access to timely, appropriate, nutritionally adequate and safe complementary foods for children 6 to <24 months (see guidance notes 5–6).
- ▶ Breastfeeding mothers have access to skilled breastfeeding support (see guidance notes 1–3).
- ▶ There is access to Code-compliant supplies of appropriate BMS and associated support for infants who require artificial feeding (see guidance note 5).

Guidance notes

1. **Simple measures and basic interventions** are needed to create a protective and supportive environment for IYCF. Be alert to and investigate reports of difficulties in breastfeeding, complementary feeding and/or practice of artificial feeding in children aged 0–24 months. Non-breastfed infants need urgent support. Support should be prioritised for mothers, caregivers and pregnant and breastfeeding women to meet immediate essential needs. Households with children under 24 months and breastfeeding mothers of all newborns should be registered and linked to food security programmes to ensure access to adequate food. Designated shelters for mothers and caregivers enables access to peer-to-peer and basic IYCF support. Breastfeeding support should be integrated within key services such as reproductive health, primary healthcare, psychosocial services and selective feeding programmes from the outset.
2. **Pregnant and breastfeeding women:** Inadequate nutrient intakes for pregnant and breastfeeding women risk pregnancy complications, maternal mortality, LBW infants and decline in maternal nutritional status associated with lower concentrations of certain nutrients in breastmilk. Low maternal body weight at conception is strongly associated with infant LBW and is a feature of adolescent pregnancy. Pregnant and breastfeeding women should receive daily supplements providing one daily requirement of multiple micronutrients to protect maternal stores and breastmilk content, whether they receive fortified rations or not. Iron and folic acid supplements when already provided should be continued. Women should also receive Vitamin A within six to eight weeks of delivery. Micronutrient supplementation should be in accordance with international recommendations on doses and timing. Referral to psychosocial services may be needed, especially in traumatised populations. Although nutrition support of the adolescent mother is impor-



tant, programmes to prevent adolescent pregnancy are likely to have the most impact on LBW incidence.

3. **Early initiation of exclusive breastfeeding** (within one hour of birth) is a priority intervention to safeguard the health of both the mother and the infant. LBW infants and their mothers will benefit especially from continued skin-to-skin contact at birth and early initiation of exclusive breastfeeding (see Essential health services – child health standard 2, guidance note 1 on page 324).
4. **Breastfeeding:** Exclusive breastfeeding requires an infant to receive only breastmilk and no water, other liquids or solids, with the exception of necessary micronutrient supplements or medicines. It guarantees food and fluid security in infants for the first six months and provides active immune protection. Breastfeeding also protects older infants and children, especially in contexts where water, sanitation and hygiene conditions are lacking, so is important to sustain to 24 months or beyond. Mothers, families, communities and health workers should be reassured of the resilience of breastfeeding; confidence can be undermined by acute emergency situations. Planning and resource allocation should allow for skilled breastfeeding support in managing more difficult situations including stressed populations and acutely malnourished infants under 6 months (see Management of acute malnutrition and micronutrient deficiencies standard 2 on page 169), populations where mixed feeding is common, and infant feeding in the context of HIV (see guidance note 7).
5. **Complementary feeding** is the process of giving other food in addition to breastmilk from the age of 6 months (or to an appropriate breastmilk substitute in non-breastfed infants). During the complementary feeding period (6–24 months), breastfeeding continues to significantly contribute to food and fluid security. Non-breastfed infants need support to make up the nutritional shortfall. Links with food security programmes are essential to support complementary feeding. Where a population is dependent on food aid, a suitable micronutrient-fortified food should be included in the general ration; blanket provision of complementary food may be needed. Clear criteria for the inclusion, use and duration of lipid-based nutrient supplements during the complementary feeding period are needed for different emergency contexts. Ready-to-use therapeutic foods are not a complementary food. Distribution of complementary food should be accompanied with practical guidance and demonstration on their preparation. The use of micronutrient supplementation, including Vitamin A, should be in accordance with the latest recommendations. LBW infants and young children may benefit from iron supplementation. If the population is in a malaria-endemic area, iron supplementation should be targeted to children who are anaemic and iron deficient with appropriate malaria control measures.

- 6. *Artificial feeding:*** Infants who are not breastfed require early identification and assessment by skilled personnel to explore feeding options. Where maternal breastfeeding is not available, donor breastmilk, particularly as wet nursing, has a valuable role, especially in feeding young and LBW infants. Where artificial feeding is indicated, mothers and caregivers need assured access to adequate amounts of an appropriate BMS for as long as is necessary (until infants are at least 6 months old) as well as to the associated essential supports (water, fuel, storage facilities, growth monitoring, medical care, time). Infants under 6 months who are mixed fed should be supported to move to exclusive breastfeeding. Feeding bottles should not be used due to difficulties in cleaning. Programmes that support artificial feeding should monitor the community's IYCF practices using standard indicators to ensure that breastfeeding is not undermined. Morbidity surveillance should be conducted at individual and population levels, with a particular focus on diarrhoea. Low-dose supplemental Vitamin A should be considered for non-breastfed infants under 6 months.
- 7. *HIV and infant feeding:*** Maximising the survival of HIV-free children is a primary consideration in determining the best feeding option for infants born to HIV-infected mothers. Mothers of unknown or negative HIV status should be supported to breastfeed as per general IYCF recommendations for populations (see guidance notes 3–5). For HIV-infected mothers, combining anti-retroviral (ARV) interventions with breastfeeding can significantly reduce post-natal HIV transmission. Accelerated access to ARVs should be prioritised (see Essential health services – sexual and reproductive health standard 2 on page 328). The risks to infants associated with replacement feeding are even greater under emergency conditions. This means that breastfeeding offers the greater likelihood of survival for infants born to HIV-infected mothers and for survival of HIV-infected infants, including where ARVs are not yet available. Urgent artificial feeding assistance is needed for infants already established on replacement feeding (see guidance note 6).



3. Management of acute malnutrition and micronutrient deficiencies

Acute malnutrition and micronutrient deficiencies are associated with an increased risk of morbidity and mortality for affected individuals. Therefore, when such prevalence or risk is high, it is necessary to ensure access to services which both correct and prevent undernutrition. The impact of these services will be considerably reduced if the underlying causes of undernutrition are not addressed simultaneously through other interventions to support health, WASH, food transfers and food security.

Moderate acute malnutrition can be addressed in a number of ways. In disasters, supplementary feeding is often the primary strategy for prevention and treatment of moderate acute malnutrition and prevention of severe acute malnutrition. This may be blanket or targeted depending on the levels of acute malnutrition, vulnerable population groups and risk of an increase in acute malnutrition. The indicators in Management of acute malnutrition and micronutrient deficiencies standard 1 refer primarily to targeted supplementary feeding. While there are no defined impact indicators for blanket supplementary feeding, monitoring of coverage, acceptability and rations provided are important.

Severe acute malnutrition is addressed through therapeutic care which can be delivered through a variety of approaches. Community-based management of acute malnutrition should be the preferred approach where conditions permit. Programmes addressing severe acute malnutrition should encompass community mobilisation (including effective communication, active case-finding, referral and follow-up), outpatient treatment for severe acute malnutrition without medical complications and inpatient management for those with medical complications or young infants.

Micronutrient deficiencies are difficult to identify in many contexts. While clinical signs of severe deficiencies may be easiest to diagnose, the greater burden on the health and survival of populations may be sub-clinical deficiencies. Where micronutrient deficiencies are known to have been prevalent in the population,

it may be assumed that this could be exacerbated by the disaster. These deficiencies should be tackled using population-wide interventions and individual treatment.

Management of acute malnutrition and micronutrient deficiencies standard 1: Moderate acute malnutrition

Moderate acute malnutrition is addressed.

Key actions (to be read in conjunction with the guidance notes)

- ▶ Establish from the outset clearly defined and agreed strategies, objectives and criteria for set-up and closure of interventions (see guidance note 1).
- ▶ Maximise access and coverage through involvement of the population from the outset (see guidance note 2 and Core Standard 1 on page 55).
- ▶ Base admission and discharge of individuals on assessment against nationally and internationally accepted anthropometric criteria (see guidance notes 3–4 and Appendices 4: Measuring acute malnutrition and 5: Measures of the public health significance of micronutrient deficiencies).
- ▶ Link the management of moderate acute malnutrition to the management of severe acute malnutrition and existing health services where possible (see guidance notes 5–6).
- ▶ Provide dry or suitable ready-to-use supplementary food rations unless there is a clear rationale for on-site feeding (see guidance note 8).
- ▶ Investigate and act on the causes of default and poor response (see guidance notes 5–6).
- ▶ Address IYCF with particular emphasis on protecting, supporting and promoting breastfeeding (see guidance note 7).

Key indicators (to be read in conjunction with the guidance notes)

These indicators are primarily applicable to the 6–59 month age group, although others may be part of the programme.

- ▶ More than 90 per cent of the target population is within less than one day's return walk (including time for treatment) of the programme site for dry ration supplementary feeding programmes and no more than one hour's walk for on-site supplementary feeding programmes (see guidance note 2).



- ▶ Coverage is >50 per cent in rural areas, >70 per cent in urban areas and >90 per cent in a camp situation (see guidance note 2).
- ▶ The proportion of discharges from targeted supplementary feeding programmes who have died is <3 per cent, recovered is >75 per cent and defaulted is <15 per cent (see guidance note 4).

Guidance notes

1. **Programme design** must be based on an understanding of the complexity and dynamics of the nutrition situation. Supplementary feeding can take a targeted or a blanket approach. The decision regarding which approach to take should depend on levels of acute malnutrition and caseload, risk of an increase in acute malnutrition, the capacity to screen and monitor that caseload using anthropometric criteria, available resources and access to the disaster-affected population. Targeted supplementary feeding generally requires more time and effort to screen and monitor individuals with acute malnutrition but requires fewer food resources, whereas a blanket approach generally requires less staff expertise but more food resources. Effective community mobilisation will support the population's understanding and effectiveness of the programme. Links to therapeutic care, health systems, HIV and AIDS and tuberculosis (TB) networks and food security programmes including food, cash or voucher transfers are important. The disaster-affected population should be involved in deciding where to locate programme sites. Consideration should be given to vulnerable people who may face difficulties in accessing sites. Exit strategies or plans for longer-term support should be considered from the outset.
2. **Coverage** refers to individuals who need treatment against those actually receiving treatment. Coverage can be affected by the acceptability of the programme, location and accessibility of programme sites, security situation, frequency of distributions, waiting time, service quality, extent of mobilisation, extent of home visiting and screening, and admission criteria alignment. Programme sites should be close to the targeted population in order to reduce the risks and costs associated with travelling long distances with young children and the risk of people being displaced to them. Methodologies to measure coverage vary in the level of reliability and type of information generated. The method used must be stated when reporting. Current guidance should be consulted when deciding which method is appropriate in the given context. Coverage assessment should be seen as a management tool so should not be left to the end of an emergency support phase.
3. **Admission criteria:** Individuals other than those who meet anthropometric criteria defining acute malnutrition may also benefit from supplementary feeding, e.g. people living with HIV (PLHIV) or TB, discharges from thera-

peutic care to avoid relapse, individuals with other chronic diseases or persons with disabilities. Monitoring and reporting systems will need to be adjusted if individuals falling outside of anthropometric criteria are included.

4. **Discharge criteria** should be according to national guidelines, or international guidelines where no national guidelines are available, and should be specified when reporting performance indicators (see guidance note 5).
5. **Performance indicators** relate to discharged individuals ending treatment. The total number of discharged individuals is made up of all who have recovered, died, defaulted or are non-recovered. Individuals who are referred for complementary services (such as health services) have not ended the treatment and will either continue treatment or return to continue the treatment later. Individuals transferred out to other sites have not ended the treatment and should not be included in performance indicators. Performance-related indicators are as follows:

Proportion of discharges recovered =

$$\frac{\text{Number of individuals recovered}}{\text{Total number of discharged}} \times 100 \text{ per cent}$$

Proportion of discharges died =

$$\frac{\text{Number of deaths}}{\text{Total number of discharged}} \times 100 \text{ per cent}$$

Proportion of discharges defaulted =

$$\frac{\text{Number of defaulters}}{\text{Total number of discharged}} \times 100 \text{ per cent}$$

Proportion of discharges non-recovered =

$$\frac{\text{Number of individuals non-recovered}}{\text{Total number of discharged}} \times 100 \text{ per cent}$$

Individuals admitted after being discharged from therapeutic care should be reported as a separate category in order to avoid biasing results towards better recovery. Children with acute malnutrition secondary to disability, cleft palate or surgical problems, etc., should not be excluded from programme reporting. When reporting, the core group is children aged 6–59 months. In addition to the indicators outlined above when analysing performance, systems should monitor the population's participation, acceptability of the programme (a good measure of this is the default and coverage rate), the quantity and quality of food being provided, coverage, reasons for transfers



to other programmes (particularly children whose nutrition status deteriorates to severe acute malnutrition) and number of individuals admitted and in treatment. External factors should also be considered, such as morbidity patterns, levels of undernutrition in the population, level of food insecurity in households and in the population, complementary interventions available to the population (including general food distributions or equivalent programmes) and the capacity of existing systems for service delivery. Causes of defaulting and failure to adequately respond to treatment should be investigated on an ongoing basis.

6. **Health inputs and considerations:** Targeted supplementary feeding programmes are an important contact point for screening and referring for illness. Programmes should take into account the capacity of existing health services and ensure effective provision of antihelminthics, Vitamin A supplementation, iron and folic acid combined with malaria screening and treatment, zinc for treatment of diarrhoea and immunisations (see Essential health services – control of communicable disease standard 2 on page 314 and Essential health services – child health standards 1–2 on pages 321–323). In areas of high HIV prevalence, HIV testing and prophylactic treatment should be available and the quality and quantity of the supplementary food ration should be given special consideration.
7. **Breastfeeding mothers** of acutely malnourished infants under 6 months should be admitted to supplementary feeding, independent of maternal nutrition status. Moderately malnourished mothers can successfully breast-feed and need adequate nutrition support to protect their own nutritional status. Mothers should receive supplementary feeding rations, skilled breastfeeding support on exclusive breastfeeding and advice on safe, nutritious and responsive complementary feeding. Infants under 6 months who are acutely malnourished should be referred appropriately for skilled breastfeeding support and inpatient care as necessary.
8. **Rations:** Dry rations or ready-to-use foods provided on a weekly or bi-weekly basis are preferred to on-site feeding but their composition and size should take into account household food security and the likelihood of sharing. Clear information should be given on how to prepare and store supplementary food in a hygienic manner, how and when it should be consumed (see Food security – food transfers standard 6, guidance note 1 on page 198) and the importance of continued breastfeeding for children under 24 months of age. Vulnerable people, such as those with mobility challenges, may require programme adaptations to meet their specific needs.

Management of acute malnutrition and micronutrient deficiencies standard 2: Severe acute malnutrition

Severe acute malnutrition is addressed.

Key actions (to be read in conjunction with the guidance notes)

- ▶ Establish from the outset clearly defined and agreed criteria for set-up or increased support to existing services and for scale-down or closure (see guidance note 1).
- ▶ Include interventions with inpatient care, outpatient care, referral and population mobilisation components for the management of severe acute malnutrition (see guidance note 2).
- ▶ Maximise access and coverage through involvement of the population from the outset (see guidance notes 1–3 and Core Standard 1 on page 55).
- ▶ Provide nutritional and medical care according to nationally and internationally recognised guidelines for the management of severe acute malnutrition (see guidance notes 4–8).
- ▶ Ensure discharge criteria include both anthropometric and non-anthropometric indices (see guidance note 6).
- ▶ Investigate and act on causes of default and non-response or an increase in deaths (see guidance notes 6–7).
- ▶ Address IYCF with particular emphasis on protecting, supporting and promoting breastfeeding (see guidance notes 9–10).

Key indicators (to be read in conjunction with the guidance notes)

These indicators are primarily applicable to the 6–59 month age group, although others may be part of the programme.

- ▶ More than 90 per cent of the target population is within less than one day's return walk (including time for treatment) of the programme site.
- ▶ Coverage is >50 per cent in rural areas, >70 per cent in urban areas and >90 per cent in camp situations (see guidance note 3).
- ▶ The proportion of discharges from therapeutic care who have died is <10 per cent, recovered is >75 per cent and defaulted is <15 per cent (see guidance note 6).



Guidance notes

- 1. Programme design:** Programmes should be designed to build on and support existing health system capacity wherever possible. The level of additional support required to ensure effective management of severe acute malnutrition should be determined based on existing capacity at health facility and community levels, the numbers and geographical spread of disaster-affected individuals and the security situation. From the start, programmes should consider exit strategies or plans for longer-term support beyond the emergency. Criteria for closure or transition of programmes should consider existing capacity and opportunities to integrate into existing systems.
- 2. Programme components:** Programmes addressing the management of severe acute malnutrition should comprise inpatient care for individuals with medical complications and all infants <6 months of age with acute malnutrition and decentralised outpatient care for children with no medical complications. Inpatient care may be through direct implementation or referral. Programmes should also be linked with other services addressing the immediate and underlying causes of undernutrition such as supplementary feeding, HIV and AIDS and TB networks, primary health services and food security programmes including food, cash or voucher transfers. Effective community mobilisation will help to achieve programme acceptance, accessibility and coverage. Outpatient programme sites should be close to the targeted population to reduce the risks and costs associated with travelling long distances with young children and the risk of people being displaced to them.
- 3. Coverage:** As with moderate acute malnutrition, coverage can be affected by the acceptability of the programme, location and accessibility of programme sites, general security situation, frequency of distributions, waiting time, service quality, extent of mobilisation, extent of home visiting and screening, and screening and admission criteria alignment. Methodologies to measure coverage vary in the level of reliability and type of information generated. The method used must be stated when reporting. Current guidance should be consulted when deciding which method is appropriate in the given context (see Management of acute malnutrition and micronutrient deficiencies standard 1, guidance note 2 on page 166).
- 4. Guidelines:** Where national guidelines exist, they should be adhered to. In the absence of national guidelines or where they do not reach international standards, international guidelines should be adopted. Internationally accepted guidelines can be found in the References and further reading section.
- 5. Admission criteria** should be consistent with national and international guidance (see Appendix 4: Measuring acute malnutrition, and References and further reading). Admission criteria for infants <6 months and groups

whose anthropometric status is difficult to determine should include consideration of clinical and breastfeeding status. Individuals who are tested or suspected to be HIV-positive and those who have TB or are chronically ill should have equal access to care if they meet the criteria for admission. PLHIV who do not meet admission criteria often require nutritional support, but this is not best offered in the context of treatment for severe acute malnutrition in disasters. These individuals and their families should be supported through a range of services including community home-based care, TB treatment centres and prevention programmes aimed at mother-to-child transmission.

6. **Discharge criteria and recovery:** Discharged individuals must be free from medical complications, have regained their appetite and have achieved and maintained appropriate weight gain without nutrition-related oedema (e.g. for two consecutive weighings). Breastfeeding status is especially important for infants under 6 months as well as for children to 24 months. Non-breastfed infants will need close follow-up. Discharge criteria should be adhered to in order to avoid the risks associated with premature discharge. Guidelines define limits for the mean length of stay for treatment and are aimed at avoiding prolonged recovery periods. Mean length of stay will differ depending on the guidelines in use and so should be adjusted to national context and guidelines in use. Mean weight gain should be calculated separately for individuals with and without nutritional oedema. HIV, AIDS and TB may result in some malnourished individuals failing to respond to treatment. Options for longer-term treatment or care should be considered in conjunction with health services and other social and community support services (see Essential health services – sexual and reproductive health standard 2 on page 328).
7. **Performance indicators** for the management of severe acute malnutrition should combine inpatient and outpatient care outcomes without double counting (i.e. removing transfers between the two components). Where this is not possible, interpretation of outcome rates should be adjusted accordingly, for example, programmes should expect better indicators where implementing outpatient care alone and should strive for the indicators as outlined for combined care when implementing inpatient care alone. The population of discharged individuals for severe acute malnutrition is made up of those who have recovered, died, defaulted, or not recovered (see Management of acute malnutrition and micronutrient deficiencies standard 1, guidance note 4 on page 167). Individuals who are referred to other services (e.g. medical services) have not ended treatment. Where programmes report for outpatient treatment only, transfers to inpatient care must be reported when assessing performance. Factors such as HIV clinical complexity will affect mortality rates where a proportion of admissions are HIV positive. Though performance indicators have not been adjusted for these situations, their



consideration is essential during interpretation. In addition to discharge indicators, new admissions, number of children in treatment and coverage rates should be assessed when monitoring performance. Causes of re-admission, deterioration of clinical status, defaulting and failure to respond should be investigated and documented on an ongoing basis. The definition of these should be adapted to guidelines in use.

- 8. *Health inputs:*** All programmes for the management of severe acute malnutrition should include systematic treatments according to national or international guidance and established referral for the management of underlying illness such as TB and HIV. In areas of high HIV prevalence, strategies to treat malnutrition should consider both interventions that seek to avoid HIV transmission and those that support maternal and child survival. Effective referral systems for TB and HIV testing and care are essential.
- 9. *Breastfeeding support:*** Infants who are admitted for inpatient care tend to be among the most unwell. Mothers need skilled breastfeeding support as part of nutritional rehabilitation and recovery, particularly for children <6 months. Sufficient time and resources should be provided for this – a designated area (breastfeeding corner) to target skilled support and enable peer support may help. Breastfeeding mothers of severely malnourished infants under 6 months should receive a supplementary ration regardless of their nutritional status unless they meet the anthropometric criteria for severe acute malnutrition in which case they should also be admitted for treatment.
- 10. *Social and psychosocial support:*** Emotional and physical stimulation through play is important for children with severe acute malnutrition during the rehabilitation period. Caregivers of such children often require social and psychosocial support to bring their children for treatment. This may be achieved through mobilisation programmes which should emphasise stimulation and interaction as both treatment and prevention of future disability and cognitive impairment (see Protection Principle 4 on page 41). All caregivers of severely malnourished children should be enabled to feed and care for their children during treatment through the provision of advice, demonstrations and health and nutrition information.

Management of acute malnutrition and micronutrient deficiencies standard 3: Micronutrient deficiencies

Micronutrient interventions accompany public health and other nutrition interventions to reduce common diseases associated with emergencies and address micronutrient deficiencies.

Key actions (to be read in conjunction with the guidance notes)

- ▶ Train health staff in how to identify and treat micronutrient deficiencies (see guidance notes 1–2).
- ▶ Establish procedures to respond effectively to the types of micronutrient deficiencies from which the population may be at risk (see guidance note 2).

Key indicators (to be read in conjunction with the guidance notes)

- ▶ Cases of micronutrient deficiencies are treated according to current best clinical practice (see guidance notes 1–2).
- ▶ Micronutrient interventions accompany public health interventions to reduce common diseases associated with emergencies such as measles (Vitamin A) and diarrhoea (zinc) (see guidance notes 3–4).

Guidance notes

1. **Diagnosis and treatment of clinical micronutrient deficiencies:** Diagnosis of some clinical micronutrient deficiencies is possible through simple examination. Clinical indicators of these deficiencies can be incorporated into health or nutritional surveillance systems, although careful training of staff is required to ensure that assessment is accurate. Case definitions are problematic and in emergencies can often only be determined through the response to supplementation by individuals who present themselves to health staff. Treatment of micronutrient deficiencies should involve active case-finding and the use of agreed case definitions and guidelines for treatment. Case-finding and treatment should take place both within the health system and within feeding programmes (see Food security and nutrition assessment standard 2, guidance note 6 on page 156). Where the prevalence of micronutrient deficiencies exceeds public health thresholds (see Appendix 5: Measures of the public health significance of micronutrient deficiencies), blanket treatment of the population with supplements may be appropriate. Scurvy (Vitamin C), pellagra (niacin), beriberi (thiamine) and ariboflavinosis (riboflavin) are the most commonly observed epidemics to result from inad-



equate access to micronutrients in food aid-dependent populations. With this in mind, deficiencies should be tackled by population-wide interventions as well as individual treatment.

- 2. *Diagnosis and treatment of sub-clinical micronutrient deficiencies:*** Sub-clinical micronutrient deficiencies can have adverse health outcomes but cannot be directly identified without biochemical examination. An exception is anaemia, for which a biochemical test is available which can be undertaken relatively easily in the field (see Food security and nutrition assessment standard 2, guidance note 6 on page 156 and Appendix 5: Measures of the public health significance of micronutrient deficiencies). Indirect indicators can be used to assess the risk of deficiencies in the affected population and determine when an improvement in dietary intake or the use of supplements may be required (see Food security and nutrition assessment standard 2, guidance note 6 on page 156 and Appendix 5: Measures of the public health significance of micronutrient deficiencies).
- 3. *Prevention:*** Strategies for the prevention of micronutrient deficiencies are briefly described in the food security – food transfers section (see Food security – food transfers standard 1 on page 180). Prevention also requires the control of diseases such as acute respiratory infection, measles and parasitic infections such as malaria and diarrhoea that deplete micronutrient stores (see Essential health services – child health standards 1–2 on pages 321–323). Preparedness for treatment will involve the development of case definitions and guidelines for treatment, and systems for active case-finding.
- 4. *Use of micronutrients in the treatment of common diseases:*** Micronutrient supplementation should be integrated in the prevention and treatment of certain diseases. This includes the provision of Vitamin A supplementation alongside measles vaccination and inclusion of zinc with oral rehydration salts (ORS) in guidelines to treat diarrhoea (see Essential health services – child health standards 1–2 on pages 321–323 and Infant and young child feeding standard 2 on page 160).

4. Food security

Food security responses should aim to meet short-term needs, ‘do no harm’, reduce the need for the affected population to adopt potentially damaging coping strategies and contribute to restoring longer-term food security.

An accurate assessment examines the appropriateness and feasibility of the potential response options (see Food security and nutrition assessment standard 1 on page 150). The food security responses in this section are grouped into standards for general food security, food transfers, cash and voucher transfers, and livelihoods responses.

If food is required, the appropriate form of transfer should be considered and the food basket carefully chosen for both in-kind and voucher transfers. Livelihood responses include primary production, income and employment, and access to market goods and services.

Cash and voucher transfers may be used for a range of goods or services in food security, as well as for other sectors. Understanding the market capacity and the appropriate modality for delivery is critical to designing food security interventions.

Food security standards consider the resources to meet the food needs of both the general population and specific vulnerable people at increased nutritional risk. Until these needs are met, any response aimed at the treatment of malnutrition will have a limited impact since those who recover from malnutrition will return to a context of inadequate food intake and their nutritional status is likely to deteriorate again.

Targeting, delivery and distribution methods should reduce the risk of inclusion and exclusion errors. This includes the risk that food, cash or other assistance is misappropriated by combatants. It is important that food security interventions are not diverted to worsen conflicts.



Food security standard 1: General food security

People have a right to humanitarian food assistance that ensures their survival and upholds their dignity, and as far as possible prevents the erosion of their assets and builds resilience.

Key actions (to be read in conjunction with the guidance notes)

- Design initial responses to meet immediate needs (see guidance note 1).
- Consider taking measures to support, protect and promote food security (see guidance note 2).
- Base responses on sound analysis, their benefits, associated risks and costs, and people's coping strategies (see guidance note 3).
- Develop transition and exit strategies for all responses to disaster, increase awareness of them and apply them as appropriate (see guidance note 4).
- Ensure that beneficiaries have access to appropriate support, including providing necessary knowledge, skills and services (see guidance note 5).
- Protect and preserve the natural environment from further degradation in all responses (see guidance note 6).
- Monitor to determine the level of acceptance and access to interventions by different groups and individuals and ensure overall coverage of the disaster-affected population without discrimination (see guidance note 7).
- Evaluate to measure the effects of responses on the local economy, social networks, livelihoods and the natural environment and ensure the findings are effectively shared and utilised to influence any further interventions (see guidance note 8).

Key indicators (to be read in conjunction with the guidance notes)

- All the disaster-affected people in need of food security responses receive assistance that meets their primary needs, prevents erosion of their assets, gives them choice and promotes their dignity.
- Households do not use negative coping strategies (see guidance note 3).
- The choice of cash, vouchers or a combination of these is based on thorough assessment and analysis (see Food security – cash and voucher transfers standard 1 on page 200).

Guidance notes

- 1. *Prioritising life-saving responses:*** Distribution of food, cash or vouchers or a combination of these is the most common initial response to acute food insecurity. Other types of response should also be considered, including food subsidies, temporary fee waivers, employment programmes, productive support to livelihoods, destocking, fodder provision and support to markets. When markets are functioning and accessible and there are no serious risks of inflation, the priority may be to re-establish normal market arrangements and revitalise economic activities that provide employment (see markets and food security interventions sections in References and further reading). Such strategies could be more appropriate than food distribution if they offer advantages in supporting livelihoods, reducing future vulnerability and upholding dignity. Agencies should take into account what others are doing to ensure that the combined response provides inputs and services that are complementary.
- 2. *Support, protect and promote food security:*** This includes a wide range of responses and advocacy. While meeting immediate needs and preserving productive assets will be the priority during the initial stages of a disaster, responses should be planned with a longer-term perspective and integrated with responses from other sectors. In the short term, it may not be feasible to achieve food security from people's own livelihood strategies. However, existing strategies that contribute to food security and preserve dignity should be supported. Food security responses should prevent further erosion of assets, lead towards recovery of assets lost through disaster and increase resilience to future hazards.
- 3. *Risks associated with coping strategies:*** Coping strategies contributing to food security and dignity should be supported. However, coping strategies may carry costs or incur risks that increase vulnerability (see Food security and nutrition assessment standard 1 on page 150). The risks must be recognised as soon as possible and early interventions undertaken to help people avoid resorting to such strategies. For example, wood distribution and/or fuel-efficient stoves can avoid overuse of natural resources and travel to insecure areas; cash grants can avoid distress sales of assets and land (see Protection Principle 1 on page 33).
- 4. *Exit and transition strategies*** must be considered from the outset, particularly where the response may have long-term implications, e.g. the provision of free services which would normally be paid for, such as veterinary services, may make it difficult to resume paid services. Before closing a programme or making the transition to a new phase, there should be evidence of improvement or that other better-placed actors can take responsibility. In the case of



food, cash and/or voucher transfers, it may mean linking with existing social protection or long-term safety-net systems or advocating with governments and donors to establish systems that address chronic food insecurity.

5. **Access to knowledge, skills and services:** Organisational structures should be designed and planned together with users, so that they are appropriate and adequately maintained, where possible beyond the life of the intervention. Some individuals have very specific needs, e.g. children orphaned as a result of AIDS may miss out on the information and skills transfer that takes place within families, which can be provided by appropriate services.
6. **Environmental impact:** The natural resource base for production and livelihoods of the disaster-affected population (and host population) should be preserved. Impact on the environment should be considered during assessment and planning of any response. For example, people living in camps require cooking fuel, which may accelerate local deforestation; distribution of food with long cooking times will require more cooking fuel, potentially affecting the environment (see Food security – food transfers standard 2 on page 184). Responses can also help the environment recover from degradation. For example, destocking reduces pressure on pasture during a drought, making more grazing available for surviving livestock. Where possible, responses should build the capacity of people to manage natural resources, particularly when supplying inputs. The risk of a response causing or exacerbating tensions over natural resources, and so fuelling conflict, should be appraised and mitigated (see Protection Principle 1 on page 33).
7. **Coverage, access and acceptability:** Beneficiaries and their characteristics should be assessed and their numbers, disaggregated by sex and age, estimated before determining the level of participation of different groups (paying particular attention to vulnerable people). Participation is partly determined by ease of access and the acceptability of activities to participants. Even though some food security responses are targeted at the economically active, they should not discriminate unfairly and should be accessible to vulnerable people and protect dependents, including children. Constraints may limit participation, including reduced capacity to work, heavy workload at home, pregnancy, feeding and caring for children, and illness and disability. Overcoming constraints involves identifying activities within the capacity of the groups or setting-up appropriate support structures. Targeting mechanisms based on self-selection should be established after full consultation with all groups in the population (see Protection Principle 2 on page 36).
8. **Monitoring and evaluation:** It is necessary to monitor the wider food security situation in order to assess the continued relevance of an intervention, determine when to phase out specific activities, introduce modifications

or new projects and identify any need for advocacy. The evaluation should be based on established Development Assistance Committee criteria recorded by the OECD, which measure the following: appropriateness, connectedness, coherence, coverage, efficiency, effectiveness and impact.

4.1. Food security – food transfers

The aim of food transfers is to ensure that people have safe access to food of adequate quality and quantity, and have the means to prepare and consume it safely.

General (free) distributions of food are introduced when assessed to be necessary, targeted to those who need the food most, and discontinued when beneficiaries have recovered the ability to produce or access their food through other means. Beneficiaries may require a transition to other forms of assistance, such as conditional transfers or livelihood responses. Supplementary feeding may be needed in addition to any general ration for individuals at risk (e.g. children aged 6–59 months and pregnant or breastfeeding women). This may be blanket or targeted depending on the context (see Management of acute malnutrition and micronutrient deficiencies standard 1 on page 165).

For both general food distributions and supplementary feeding, take-home rations are provided wherever possible. On-site feeding is undertaken only when people do not have the means to cook for themselves (immediately after a disaster or during population movements), where insecurity would put recipients of take-home rations at risk or for emergency school feeding (though take-home rations may be distributed through schools).

Supply chain management (SCM) must be particularly robust and accountable – lives can be immediately at stake and food transfers are often a major proportion of disaster response. Delivery and distribution systems should be monitored at all stages, including at community level, and transparency through effective communication can play a key role. Periodic evaluations should disseminate findings and be discussed with stakeholders, including the affected population and local institutions.



Food security – food transfers standard 1: General nutrition requirements

Ensure the nutritional needs of the disaster-affected population, including those most at risk, are met.

Key actions (to be read in conjunction with the guidance notes)

- Use levels of access to adequate quantity and quality of food to determine if the situation is stable or is likely to decline (see guidance notes 1, 4–5).
- Design food transfers on the basis of the standard initial planning requirements for energy, protein, fat and micronutrients, adjusted as necessary to the local situation (see key indicators, guidance note 2 and Appendix 6: Nutritional requirements).
- Ensure the population's access to appropriate nutritious foods and nutritional support is protected, promoted and supported (see guidance notes 3–8).
- Ensure children aged 6–24 months have access to nutritious, energy-dense complementary foods and pregnant and breastfeeding women have access to additional nutritional support (see guidance note 2).
- Ensure households with chronically ill members, including PLHIV, and members with specific impairments or vulnerabilities have access to appropriate nutritious food and adequate nutritional support (see guidance notes 6–8).

Key indicators (to be read in conjunction with the guidance notes)

- There is adequate access to a range of foods, including a staple (cereal or tuber), pulses (or animal products) and fat sources, that together meet nutritional requirements (see guidance notes 2–3, 5).
- There is adequate access to iodised salt for the majority (>90 per cent) of households (see guidance notes 2–4 and Appendix 6: Nutritional requirements).
- There is adequate access to additional sources of niacin (e.g. pulses, nuts, dried fish) if the staple is maize or sorghum (see guidance notes 2–3 and Appendices 5: Measures of the public health significance of micronutrient deficiencies and 6: Nutritional requirements).
- There is adequate access to additional sources of thiamine (e.g. pulses, nuts, eggs) if the staple is polished rice (see guidance notes 2–3).

- ▶ There is adequate access to adequate sources of riboflavin where people are dependent on a very limited diet (see guidance notes 2–3).
- ▶ There are no cases of scurvy, pellagra, beriberi or riboflavin deficiency (see guidance note 5 and Appendix 5: Measures of the public health significance of micronutrient deficiencies).
- ▶ The prevalence of Vitamin A deficiency, iron deficiency anaemia and iodine deficiency disorders are not of public health significance (see guidance note 5 and Appendix 5: Measures of the public health significance of micronutrient deficiencies).

Guidance notes

1. **Interpreting access to food:** Access to food can be measured by analytical tools such as the food consumption score or dietary diversity tools. Approaches that consider a number of variables including food security, access to markets, livelihoods, health and nutrition may be appropriate to determine if the situation is stable or declining and if food interventions are necessary (see Food security and nutrition assessment standard 1 on page 150).
2. **Nutritional requirements and ration planning:** The following estimates for a population's minimum requirements should be used for planning general rations, with the figures adjusted for each population as described in Appendix 6: Nutritional requirements:
 - 2,100 kcals/person/day
 - 10 per cent of total energy provided by protein
 - 17 per cent of total energy provided by fat
 - adequate micronutrient intake.

General food rations can be designed using ration planning tools (e.g. NutVal). Where people have no access to any food at all, the distributed ration should meet their total nutritional requirements. Agreed estimates must be established for the average quantities of food accessible to the affected population (see Food security and nutrition assessment standard 1 on page 150). Rations should then be planned to make up the difference between the nutritional requirement and what people can provide for themselves. Thus, if the standard requirement is 2,100 kcals/person/day and the assessment determines that people within the target population can, on average, acquire 500 kcals/person/day from their own efforts or resources, the ration should be designed to provide $2,100 - 500 = 1,600$ kcals/person/day. Aside from the energy content of the diet, consideration of protein, fat and vitamins and minerals in food planning is essential.



If a ration is designed to provide all the energy content of the diet, then it must contain adequate amounts of all nutrients. If a ration is intended to provide only part of the energy requirement of the diet, then it can be designed using one of two approaches. If the nutrient content of the other foods available to the population is **unknown**, the ration should be designed to provide a balanced nutrient content that is proportional to the energy content of the ration. If the nutrient content of the other foods available to the population is **known**, the ration may be designed to complement these foods by filling nutrient gaps. The average planning figures for general rations take into account the additional needs of pregnant and breastfeeding women. Adequate and acceptable food for young children should be included in the general ration, such as fortified blended food (see Infant and young child feeding standard 2 on page 160). Equity should be ensured so that similar food rations are provided to similarly affected populations and population sub-groups. Planners should be aware that different ration scales in adjacent communities may cause tension. Ingestion of excessive amounts of micronutrients can be harmful and ration planning needs to consider this especially if several different fortified food products are to be included.

- 3. *Preventing acute malnutrition and micronutrient deficiencies:*** If the key food indicators are met, then deterioration of the nutrition status of the general population should be prevented, provided adequate public health measures are also in place to prevent diseases such as measles, malaria and parasitic infection (see Essential health services – control of communicable diseases standards 1–2 on pages 312–314). Ensuring the adequate nutrient content of food aid rations may be challenging in situations where there are limited food types available. Options for improving the nutritional quality of the ration include fortification of staple commodities, inclusion of fortified blended foods, inclusion of locally purchased commodities to provide missing nutrients and/or use of food supplementation products such as lipid-based, nutrient-dense, ready-to-use foods or multiple micronutrient tablets or powders. These products may be targeted at vulnerable individuals such as children aged 6–24 or 6–59 months or pregnant and breastfeeding women. Exceptionally, where nutrient-rich foods are available locally, increasing the quantity of food in a general ration to allow more food exchanges may be considered, but cost-effectiveness and impact on markets must be taken into account. Other options that may also be considered for the prevention of micronutrient deficiencies include food security measures to promote access to nutritious foods (see Food security and nutrition assessment standard 1 on page 150 and Food security – livelihoods standards 1–2 on pages 204–208). Micronutrient losses, which can occur during transport, storage, processing and cooking, and the bioavailability of the different chemical forms of the vitamins and minerals should be taken into account.

4. **Monitoring utilisation of food rations:** The key indicators address access to food but do not quantify food utilisation or nutrient bioavailability. Direct measurement of nutrient intake would impose unrealistic requirements for information collection. However, utilisation may be estimated indirectly using information from various sources. These sources might include monitoring food availability and use at the household level, assessing food prices and food availability in local markets, examining food aid distribution plans and records, assessing any contribution of wild foods and conducting food security assessments. Food allocation within households may not always be equitable and vulnerable people may be particularly affected, but it is not usually feasible to measure these aspects. Appropriate distribution mechanisms (see Food security – food transfers standard 5 on page 192), the choice of food and discussion with the affected population may help contribute to improved food allocation within households (see Core Standard 1 on page 55).
5. **Older people** can be particularly affected by disasters. Risk factors which reduce access to food and can increase nutrient requirements include disease and disability, isolation, psychosocial stress, large family size, cold and poverty. Older people should be able to access food sources (including food transfers) easily. Foods should be easy to prepare and consume and should meet the additional protein and micronutrient requirements of older people.
6. **People living with HIV** may face greater risk of malnutrition as a result of a number of factors. These include reduced food intake due to appetite loss or difficulties in eating, poor absorption of nutrients due to diarrhoea, parasites or damage to intestinal cells, changes in metabolism, and chronic infections and illness. The energy requirements of PLHIV increase according to the stage of the infection. PLHIV need to ensure that they keep as well nourished and healthy as possible to delay the onset of AIDS. Milling and fortification of food or provision of fortified, blended or specialist food supplements are possible strategies for improving access to an adequate diet. In some situations it may be appropriate to increase the overall size of any food ration. Consideration should be given to the provision of anti-retroviral therapy (ART) and the supportive role nutrition may play in tolerance and adherence to this treatment.
7. **Persons with disabilities:** Disabled individuals may be at particular risk of being separated from immediate family members and usual caregivers in a disaster. They also may face discrimination affecting food access. Efforts should be made to determine and reduce these risks by ensuring physical access to food, developing mechanisms for feeding support (e.g. provision of spoons and straws, developing systems for home visiting or outreach) and ensuring access to energy-dense and nutrient-dense foods. Specific nutri-



tional risks include difficulties in chewing and swallowing (leading to reduced food intake and choking), inappropriate position or posture when feeding, reduced mobility affecting access to food and sunlight (affecting Vitamin D status), and constipation, which may for example affect individuals with cerebral palsy.

8. **Caregivers and those they are caring for** may face specific nutritional barriers, e.g. they may have less time to access food because they are ill or caring for the ill, they may have a greater need to maintain hygienic practices which may be compromised, they may have fewer assets to exchange for food due to the costs of treatment or funerals and they may face social stigma and reduced access to community support mechanisms. It is important that caregivers be supported and not undermined in the care of vulnerable individuals; support offered should address feeding, hygiene, health and psychosocial support and protection. Existing social networks can be used to provide training to selected members of the population to take on responsibilities in these areas (see Protection Principle 4 on page 41).

Food security – food transfers standard 2: Appropriateness and acceptability

The food items provided are appropriate and acceptable to recipients so that they can be used efficiently and effectively at the household level.

Key actions (to be read in conjunction with the guidance notes)

- ▶ Consult disaster-affected people during assessment and programme design on the acceptability, familiarity and appropriateness of food items, and ensure the results inform decisions on food choices (see guidance note 1).
- ▶ Assess people's ability to store food, their access to water and fuel, and cooking times and requirements for soaking when selecting food types (see guidance note 2).
- ▶ When unfamiliar food is distributed, provide instructions on appropriate preparation to people who prepare food, preferably in the local language (see guidance note 1).
- ▶ If wholegrain cereal is distributed, ensure recipients have either the means to mill/process it at home or access to adequate milling/processing facilities (see guidance note 3).
- ▶ Ensure disaster-affected people have access to culturally important items, including condiments (see guidance note 4).

Key indicators (to be read in conjunction with the guidance notes)

- ▶ Programme decisions are based on full participation of all targeted people in the selection of food items (see guidance notes 1 and 4).
- ▶ Programme design takes into account access to water, cooking fuel and food processing equipment (see guidance notes 2–3).
- ▶ There is no general distribution of powdered or liquid milk or milk products as single commodities (see guidance note 5).

Guidance notes

1. **Familiarity and acceptability:** While nutritional value is the primary consideration when choosing a food basket, the commodities should be familiar to the recipients and consistent with religious and cultural traditions, including any food taboos for pregnant or breastfeeding women. Vulnerable people should participate in consultations on food choice. If unfamiliar food is used, it should have the potential to be palatable locally. In assessment reports and requests to donors, choices of foods (inclusion and exclusion) should be explained. When disasters prevent access to cooking facilities, ready-to-use foods must be provided (see also Infant and young child feeding standard 2 on page 160). Without cooking facilities, there may be no alternative to providing unfamiliar food and special ‘emergency rations’ may also be considered.
2. **Food storage and preparation:** People’s ability to store food should inform the choice of commodity. For water requirements, see Water supply standard 1 on page 97. A fuel assessment is needed to inform food selection, ensure beneficiaries can cook food sufficiently to avoid health risks and prevent environmental degradation and possibly security risks through excessive wood-fuel collection (see Protection Principle 1 on page 33). Generally, food provided should not require long cooking time or large quantities of water. Milled grain normally reduces cooking time and fuel. For cooking equipment, see Food security – food transfers standard 6 on page 197 and Non-food items standards 3–4 on pages 273–274.
3. **Food processing:** Wholegrain cereal has the advantage of a longer shelf life and may have a higher value to recipients. Where household-level grinding is traditional or where there is access to local mills, wholegrain cereal can be distributed. Facilities can be provided for low-extraction commercial milling: this removes germ, oil and enzymes (which cause rancidity) and greatly increases shelf life, although it also reduces protein content. Milling is a particular concern for maize: milled whole maize has a shelf life of only six to eight weeks so milling should occur shortly before consumption. National laws on import and distribution of wholegrain cereals should be respected.



Milling costs to recipients may be met by cash or vouchers, the less-preferred approach of additional grain, or provision of milling equipment.

4. **Culturally important items:** The assessment should identify culturally important condiments and other food items that are an essential part of daily food habits (e.g. spices, tea) and determine the access people have to these items. The food basket should be designed accordingly, especially where people will depend on food rations for an extended period.
5. **Milk:** There should be no untargeted distribution of free or subsidised infant formula, milk powder, liquid milk or milk products as a single commodity (this includes milk intended for mixing with tea) in a general food distribution or a take-home supplementary feeding programme as their indiscriminate use may cause serious health hazards. Any interventions involving milk should be in accordance with the Operational Guidance on IFE, the International Code of Marketing of BMS and subsequent relevant WHA resolutions (see Infant and young child feeding standards 1–2 on pages 159–160).

Food security – food transfers standard 3: Food quality and safety

Food distributed is fit for human consumption and of appropriate quality.

Key actions (to be read in conjunction with the guidance notes)

- Select foods that conform to the national standards of the recipient country and other internationally accepted standards (see guidance notes 1–2).
- Distribute food before the expiry date or well within the ‘best before’ date (see guidance note 1).
- Consult recipients about the quality of food distributed and act promptly on the issues that arise (see guidance note 3).
- Choose appropriate food packaging that is sturdy, convenient for handling, storage and distribution, and is not a hazard for the environment (see guidance note 4).
- Label food packages in an appropriate language; for packaged foods, indicate the date of production, origin, expiry dates for potentially dangerous foods and details of the nutrient content (see guidance note 4).
- Transport and store food in appropriate conditions, using best practices in storage management, with systematic checks on food quality (see guidance note 5).

Key indicators (to be read in conjunction with the guidance notes)

- ▶ All recipients receive food that is ‘fit for purpose’: for safety, food should not pose a risk to health; for quality, food should match quality specifications and be nutritious (see guidance notes 1–2, 4).
- ▶ Accountability monitoring tracks all the beneficiaries’ complaints received and resolved (see guidance note 3).

Guidance notes

1. **Food quality:** Foods must conform to the food standards of the recipient government and/or the Codex Alimentarius standards with regard to quality, packaging, labelling and ‘fitness for purpose’. Food should always be ‘fit for human consumption’ but should also be ‘fit for purpose’. When food does not have the quality to be used in the intended manner, it is unfit for purpose even if it is fit for human consumption (e.g. the quality of flour may not enable baking at household level even if it is safe to consume). For quality testing, samples should be drawn according to the sampling plan and systematically checked by purchasing agencies to ensure quality is appropriate. Whenever required, foods either purchased locally or imported should be accompanied by phytosanitary certificates or other inspection certificates. Random sample testing should be carried out on stocks. Fumigation should use appropriate products and follow strict procedures. When large quantities are involved or there are doubts or disputes about quality, independent quality surveyors should inspect the consignment. Information on age and quality of food consignments may be obtained from supplier certificates, quality control inspection reports, package labels and warehouse reports. Food unfit for purpose should be carefully disposed of (see Food security – food transfers standard 4, guidance note 10 on page 190).
2. **Genetically modified foods:** National regulations concerning the receipt and use of genetically modified foods must be understood and respected. Such regulations should be taken into account when planning food transfers that are expected to use imports.
3. **Complaints and response mechanism:** Agencies should ensure adequate complaints and response mechanisms are in place on food quality and safety for accountability to recipients (see Core Standard 1, guidance note 2 on page 56).
4. **Packaging:** If possible, packaging should allow direct distribution without re-measuring (e.g. scooping) or repacking; appropriate package sizes can help ensure ration standards are met. Food packaging should not carry any messages that are politically or religiously motivated or divisive in nature. Environmental risks can be minimised by the choice of packaging and manage-



ment of empty packages (such as sacks and tins). Ready-to-use foods packaging (such as foil wrappers) may require specific controls for safe disposal.

5. **Storage areas** should be dry and hygienic, adequately protected from weather conditions and uncontaminated by chemical or other residues. They should also be secured against pests such as insects and rodents (see also Food security – food transfers standard 4 on page 188 and Solid waste management standard 1 on page 117).

Food security – food transfers standard 4: Supply chain management (SCM)

Commodities and associated costs are well managed using impartial, transparent and responsive systems.

Key actions (to be read in conjunction with the guidance notes)

- Establish a coordinated, efficient SCM system using local capacity where feasible (see guidance notes 1–3).
- Ensure a transparent, fair and open procedure for awarding contracts (see guidance notes 1–2, 4).
- Build sound relationships with suppliers and service providers and enforce ethical practices (see guidance notes 1–2, 4–5).
- Train and supervise staff at all levels of the SCM system to observe food quality and safety procedures (see guidance note 5).
- Establish appropriate accountability procedures including inventory, reporting and financial systems (see guidance notes 6–8).
- Minimise losses, including theft, and account for all losses (see guidance notes 9–11).
- Monitor and manage the food pipeline so that all possible actions are taken to avoid illegal diversions and interruption to distributions and all stakeholders are regularly informed on the performance of the supply chain (see guidance notes 12–13).

Key indicators (to be read in conjunction with the guidance notes)

- Food reaches intended distribution points (see guidance notes 1 and 7).
- Commodity tracking systems, inventory accounting and reporting systems are in place from the beginning of the intervention (see guidance notes 7–8, 11–13).

- ▶ SCM assessment reports show evidence of assessment and inventory of local SCM capacities, local food availability and local logistics infrastructure (see guidance notes 2–3).
- ▶ SCM reporting shows:
 - evidence of transparent, fair and open systems for awarding contracts
 - evidence of supplier/service provider performance management and reporting
 - number and proportion of SCM staff trained
 - completeness and accuracy of documentation
 - losses are minimised and maintained at less than 2 per cent and all food is accounted for
 - regular pipeline analysis and relevant stakeholders informed of food pipeline and supply chain.

Guidance notes

- 1. *Supply chain management*** is an integrated approach to logistics. Starting with the choice of commodity, it includes sourcing, procurement, quality assurance, packaging, shipping, transportation, warehousing, inventory management and insurance. SCM involves many different partners, and it is important that activities are coordinated (see Core Standard 2 on page 58). Management and monitoring practices should ensure commodities are safeguarded to distribution points. However, humanitarian agencies are also responsible for the food reaching the targeted beneficiaries (see Food security – food transfers standards 5–6 on pages 192–197).
- 2. *Using local services:*** An assessment should be made of the availability and reliability of local capability before sourcing from outside the area. Care must be taken to ensure that sourcing locally does not cause or exacerbate hostilities and do more harm in the community. Reputable local or regional transporters and freight forwarders have valuable knowledge of local regulations, procedures and facilities, and can help to ensure compliance with the laws of the host country and to expedite deliveries. In a conflict environment, the vetting of service providers should be especially rigorous.
- 3. *Local sourcing versus importation:*** The local availability of goods, and the implications for local production and market systems of food either being sourced locally or imported, should be assessed, including environmental sustainability (see Food security and nutrition assessment standard 1 on page 150 and Food security – livelihoods standards 1 and 3 on pages 204–211). Markets are stimulated and supported through buying food locally or regionally; this may give farmers an incentive to produce more and help boost the local economy. Where several organisations are involved,



local sourcing should be coordinated as far as possible. Other in-country sources of commodities may include loans or reallocations from existing food programmes (donor agreement may be necessary) or national grain reserves, or loans from, or swaps with, commercial suppliers.

4. **Impartiality:** Fair and transparent contracting procedures are essential to avoid suspicion of favouritism or corruption. Service provider performance should be evaluated and shortlists updated.
5. **Skills and training:** Experienced SCM practitioners and programme managers should be mobilised to set up the SCM system and train staff. Particular types of relevant expertise include contracts management, transportation and warehouse management, inventory management, pipeline analysis and information management, shipment tracking and import management. When training is carried out, it should include staff of partner organisations and service providers and be in the local language.
6. **Food is not used for payment:** The use of food to pay for logistics operations, such as unloading at warehouses and distribution points, should be avoided. If cash payments are not possible and food is used, adjustments should be made on the food amounts sent to distribution points so that originally planned amounts still reach targeted recipients.
7. **Reporting (including logistics cluster and inter-agency):** Most food donors have specific reporting requirements and supply chain managers should be aware of these requirements and establish systems that meet them. Day-to-day management needs include reporting promptly any delays or deviations in the supply chain. Pipeline information and other SCM reports should be shared in a transparent manner.
8. **Documentation:** Sufficient documentation and forms (waybills, stock ledgers, reporting forms, etc.) should be available in the local language at all locations where goods are received, stored and/or dispatched, in order to maintain a documented audit trail of transactions.
9. **Warehousing:** Dedicated warehouses for food are preferable to shared facilities but good management can minimise risks in the latter. When selecting a warehouse, it should be established that no hazardous goods have previously been stored there and there is no danger of contamination. Factors to consider include security, capacity, ease of access, structural solidity (of roof, walls, doors and floor) and absence of any threat of flooding.
10. **Disposal of commodities unfit for human consumption:** Damaged commodities should be inspected by qualified inspectors (such as food safety experts and public health laboratories) to certify them as fit or unfit for human consumption. Disposal should be executed quickly before food becomes

a health hazard. Methods of disposal of unfit commodities include sale for animal feed and burial/incineration authorised and witnessed by relevant authorities. For disposal as animal feed, certification must be obtained for fitness for this purpose. In all cases, unfit commodities must not re-enter the human or animal food supply chain and disposal must not harm the environment or contaminate water sources.

- 11. *Threats to the supply chain:*** In situations of armed conflict or general insecurity, there is a danger of food being looted or requisitioned by warring parties, and the risks to security of transport routes and warehouses must be managed. There is potential for theft at all stages of the supply chain: control systems must be established and supervised at all storage, hand-over and distribution points to minimise this risk. Internal control systems should ensure division of responsibilities to reduce the risk of collusion. Stocks should be regularly checked to detect illegal diversion of food. Measures should be taken not only to ensure the integrity of the supply chain but also to analyse and address broader political and security implications, such as the possibility of diverted stocks fuelling an armed conflict (see Protection Principle 1 on page 33).
- 12. *Pipeline analysis*** should be regularly performed and relevant information on stock levels, expected arrivals and distributions shared among stakeholders involved in the supply chain. Tracking and forecasting of stock levels should highlight anticipated shortfalls and problems in time for solutions to be found. Information-sharing among partners may facilitate loans to prevent pipeline breaks. Pipeline breaks may be unavoidable if resources are inadequate. In such cases, prioritisation of items in the food basket may be necessary when programming resources (i.e. choosing what to buy) with available funds. Stakeholders must be consulted and solutions may include reducing overall ration size or reducing or excluding the food types which beneficiaries have more access to (physically and economically).
- 13. *Providing information:*** Relevant information should be provided to appropriate stakeholders rather than to all stakeholders to avoid misunderstandings. The use of local media, traditional methods of news dissemination and current technologies (mobile phone text messages, email) should be considered as a way of keeping local officials and recipients informed about deliveries and reinforcing transparency.



Food security – food transfers standard 5: Targeting and distribution

The method of targeted food distribution is responsive, timely, transparent and safe, supports dignity and is appropriate to local conditions.

Key actions (to be read in conjunction with the guidance notes)

- Identify and target recipients of food on the basis of need, consulting appropriate stakeholders (see guidance notes 1–2).
- Design efficient and equitable food distribution methods that support dignity in consultation with partner organisations, local groups and recipients. The design process should have the active participation of women and representatives of persons with disabilities, older people and individuals with reduced mobility (see guidance notes 1-4).
- Consult local stakeholders on appropriate points for distribution that will ensure easy access and safety for recipients (see guidance notes 5–6).
- Inform recipients in advance on the distribution plan and quality and quantity of the food ration (see guidance notes 7–8).
- Monitor and evaluate the performance of targeted food distribution (see guidance note 9).

Key indicators (to be read in conjunction with the guidance notes)

- Targeting criteria must be based on thorough analysis of vulnerability (see guidance note 1).
- Targeting mechanisms are agreed among the disaster-affected population (see guidance notes 1–2).
- Existence of relevant alternative distribution models for people with reduced mobility (see guidance notes 3–4).
- Recipients should not have to walk more than 10 kilometres to the distribution site, i.e. no more than a four-hour walk (see guidance note 5).
- Presence of ration cards, banners and/or signposts specifying the food rations during distributions (see guidance notes 7–8).
- Monitoring and/or beneficiary accountability mechanisms (see guidance note 9) track:

- stakeholders' preferences on distribution methods
- information provided to beneficiaries on distribution
- beneficiaries/food receipt: actual versus planned (timeliness, quantity, quality).

Guidance notes

1. **Targeting:** Food should be targeted to the people assessed to be most in need: the most acutely food insecure households and malnourished individuals (see Vulnerabilities and capacities of disaster-affected populations on page 148 and Food security and nutrition assessment standards 1–2 on pages 150–154). Targeting spans throughout the intervention, not just the initial phase. Finding the right balance between exclusion errors (which can be life-threatening) and inclusion errors (which are potentially disruptive or wasteful) is complex; moreover, reducing errors normally increases costs. In acute emergencies, inclusion errors may be more acceptable than exclusion errors: blanket distributions may be appropriate in sudden-onset disasters where all households have suffered similar losses, or where a detailed targeting assessment is not possible due to lack of access. The selection of agents involved in targeting should be based on their impartiality, capacity and accountability. Targeting agents may include local elders, locally elected relief committees, civil society organisations, local NGOs, local governmental institutions, or international NGOs. The selection of women targeting agents is strongly encouraged. Targeting approaches need to be clear and accepted by both recipient and non-recipient populations to avoid creating tensions and doing harm (see Core Standard 1, guidance note 3 on page 57 and Protection Principle 2 on page 36).
2. **Registration:** Formal registration of households to receive food should be carried out as soon as is feasible, and updated as necessary. Information on beneficiaries is essential to design an effective distribution system (the size and demographic profile of a population influences the organisation of distribution), to draw up beneficiary lists, tally sheets and rations cards (if issued) and to identify people with specific needs. In camps, registration is often challenging, especially where displaced people do not have identification documents (see Protection Principle 4, guidance notes 4–5 on page 42). Lists from local authorities and community-generated household lists may be useful, provided an independent assessment proves them accurate and impartial. Women from the disaster-affected population should be encouraged to help in the registration process. Agencies should ensure that vulnerable individuals are not omitted from distribution lists, especially housebound people. While heads of household are normally registered, women should have the right to be registered in their own names: women may utilise trans-



fers more appropriately at household level. If registration is not possible in the initial stages of a disaster, it should be completed as soon as the situation has stabilised; this is especially important when food transfers are required for lengthy periods. A complaints and response mechanism should be established for the registration process (see Core Standard 1, guidance notes 2 and 6 on pages 56–57).

- 3. *Distribution methods for ‘dry’ rations:*** Most distribution methods evolve over time. A general food distribution is normally in the form of dry rations to be cooked by beneficiaries in their homes. Recipients could be an individual or household ration-card holder, a representative of a group of households, traditional leaders or leaders of a community-based targeted distribution. Conditions on the ground determine the best recipient to select, and changing conditions may change the recipient. The risks inherent in distributions via representatives or leaders should be carefully assessed. The selection of the recipients should consider the impact on workloads and possible risks of violence, including domestic abuse (see Protection Principles 1–2 on pages 33–36). The frequency of distributions should consider the weight of the food ration and the beneficiaries’ means to carry it home. Specific action may be necessary to ensure that older people and persons with disabilities can collect their entitlements: other community members may assist but providing weekly or two-week rations may be easier to collect than monthly rations. Attempts to target vulnerable people should not add to any stigma that they already experience: this may be a particular issue in populations with a large number of people living with HIV and AIDS (see Protection Principle 4, guidance notes 1, 9–11 on pages 41–43).
- 4. *Distribution methods for ‘wet’ rations:*** Exceptionally, a general food distribution can be a cooked meal or ready-to-eat food for an initial period during an acute emergency. These rations may be appropriate when, for example, people are on the move, extreme insecurity and carrying food home would put beneficiaries at risk of theft or violence, high levels of abuse or taxation excludes vulnerable people, major displacement results in people losing their assets (cooking equipment and/or fuel) or leaves them too weak to cook for themselves, local leaders are diverting rations or there are environmental considerations (e.g. to protect a fragile ecological environment by avoiding firewood collection). School meals and food incentives for education personnel may be used as a distribution mechanism in an emergency (see INEE Minimum Standards for Education).
- 5. *Distribution points and travel:*** Distribution points should be established where they are safe and most convenient for the recipients, not based on logistic convenience for the agency (see Protection Principle 3, guidance notes 6–9 on page 39). These should take into consideration terrain and

proximity to other sources of support (potable water, toilets, medical services, shade, shelter, safe spaces for women). Distribution points should avoid areas where people would have to cross military or armed checkpoints or negotiate safe passage. The frequency of distributions and the number of distribution points should take into account the time it takes recipients to travel to distribution points and the practicalities and costs of transporting commodities. Recipients should be able to travel to and from a distribution point within one day; alternative means of distribution should be developed to reach those who cannot and may be isolated (e.g. individuals with mobility difficulties). Walking speeds average 5 km/hour but are slower on poor terrain and on slopes; times vary with age and level of mobility. Access to distribution is a common source of anxiety for marginalised and excluded populations in a disaster situation. Distributions should be scheduled to minimise disruption to everyday activities, at times that allow travel to distribution points during daylight hours for the protection of recipients and to avoid beneficiaries staying overnight, as this carries additional risks (see Protection Principle 1 on page 33).

6. *Minimising security risks:* Food distributions can create security risks, including diversion and violence. Tensions can run high during distributions. Women, children, older people and persons with disabilities are at particular risk of losing their entitlements. The risks must be assessed in advance and steps taken to minimise them. These include supervision of the distributions by trained staff and guarding of distribution points by the affected populations themselves. If necessary, the local police may be involved, but they should be sensitised to the objectives of the food transfers. Careful planning of the site layout at distribution points can facilitate crowd control and lower security risks. Specific measures to prevent, monitor and respond to gender-based violence, including sexual exploitation associated with food distribution, should be enforced. These include segregating men and women, for example through a physical barrier or by offering separate distribution times, informing all food distribution teams about appropriate conduct and penalties for sexual abuse, and including female ‘guardians’ to oversee off-loading, registration, distribution and post-distribution of food (see also guidance note 5 and Protection Principle 2 on page 36).

7. *Dissemination of information:* Recipients should be informed about:

- the quantity and type of ration to be distributed and the reasons for any differences from the plan; ration information should be displayed prominently at distribution sites in formats accessible to people who cannot read or who have communication difficulties (e.g. written in the local language and/or drawn pictorially and/or as oral information) so that people are aware of their entitlements



- the distribution plan (day, time, location, frequency) and any changes
- the nutritional quality of the food and, if needed, special attention required by recipients to protect its nutritional value
- the requirements for the safe handling and use of the foods
- specific information for optimum use of food for children (see Infant and young child feeding standards 1–2 on pages 159–160)
- the appropriate ways for recipients to obtain more information on the programme and the process for complaints.

(See Core Standard 1, guidance notes 4–6 on page 57.)

8. *Changes to the programme:* Changes in the food basket or ration levels caused by insufficient availability of food must be discussed with the recipients, through distribution committees, community leaders and representative organisations. A course of action should be jointly developed before distributions are made. The distribution committee should inform people of changes, the reasons behind them and when normal rations will be resumed. The following options may be considered:

- reduce the rations to all recipients (an equal share of available commodities or a reduced food basket)
- give a ‘full’ ration to vulnerable individuals and a ‘reduced’ ration to the general population
- as a last resort, postpone the distribution.

If distribution of the planned ration is not possible, the shortfall is not necessarily corrected in the following distribution (i.e. retroactive provision may not be appropriate).

9. *Monitoring and evaluation* should be carried out at all levels of the supply chain and to the point of consumption (see Core Standard 5 on page 68). At distribution points, check that arrangements for distributions are in place before they take place (e.g. for registration, security, dissemination of information). Random weighing should be carried out on rations collected by households to measure the accuracy and equity of distribution management, with recipients interviewed. Random visits to households can help ascertain the acceptability and usefulness of the ration, and also identify people who meet the selection criteria but are not receiving food. Such visits can also discover if extra food is being received, where it is coming from, what it is being used for and by whom (e.g. as a result of commandeering, recruitment or exploitation, sexual or otherwise). Monitoring should analyse the impact of food transfers on the safety of the beneficiaries. The wider effects of food distributions should also be evaluated, such as implications of the agricultural cycle, agricultural activities, market conditions and availability of agricultural inputs.

Food security – food transfers standard 6: Food use

Food is stored, prepared and consumed in a safe and appropriate manner at both household and community levels.

Key actions (to be read in conjunction with the guidance notes)

- Protect beneficiaries from inappropriate food handling or preparation (see guidance note 1).
- Disseminate relevant information on the importance of food hygiene to food recipients and promote a good understanding of hygienic practices in food handling (see guidance notes 1–2).
- Where cooked food is distributed, train staff in safe storage and handling of food, preparation of food and the potential health hazards caused by improper practices (see guidance note 1).
- Consult (and advise where necessary) beneficiaries on storage, preparation, cooking and consumption of food distributed and the implications of targeted provision for vulnerable people and respond to issues that arise (see guidance notes 1–2).
- Ensure households have access to appropriate cooking utensils, fuel, potable water and hygiene materials (see guidance notes 1–4).
- For individuals who cannot prepare food or cannot feed themselves, ensure access to carers to prepare appropriate food and administer feeding where necessary (see guidance note 5).

Key indicators (to be read in conjunction with the guidance notes)

- No cases of health hazards from food distributed.
- Raise beneficiaries' awareness of good food hygiene (see guidance notes 1–2).
- All relevant staff must be trained on food handling and hazards from improper practices (see guidance note 1).
- Full household access to adequate and safe food preparation materials and equipment (see guidance notes 3–4).
- Full presence of carers for all individuals with special assistance needs (see guidance note 5).



Guidance notes

- 1. Food hygiene:** Disasters may disrupt people's normal hygiene practices. It may be necessary to promote food hygiene and actively support measures compatible with local conditions and disease patterns, e.g. stressing the importance of washing hands before handling food, avoiding contamination of water and taking pest-control measures. Food recipients should be informed about how to store food safely at the household level. Caregivers should be provided with information on the optimal use of household resources for feeding children and safe methods for food preparation (see Hygiene promotion standards 1–2 on pages 91–94). Where community kitchens have been set up to provide hot meals to a disaster-affected population, special attention is needed in selecting the kitchen site, taking into account accessibility, safety and hygiene conditions of the site, cooking and drinking water availability, and eating space.
- 2. Sources of information:** Mechanisms are needed for sharing information and collecting feedback from beneficiaries, particularly women (see Core Standard 1, guidance notes 2 and 6 on pages 56–57). For dissemination of instructions about food, schools and safe learning spaces should be considered as suitable locations. Accessible formats or diagrams may be needed for people with different communication requirements (see Core Standard 1, guidance note 4 on page 57).
- 3. Fuel, potable water and household items:** When necessary, appropriate fuel should be provided or a wood planting or harvesting programme established, with supervision for the safety of women and children, the main gatherers of firewood (for stoves and fuel, see Non-food items standard 4 on page 274). For water access, quantity, quality and facilities, see Water supply standards 1–3 on pages 97–103. For cooking and eating utensils and water containers, see Non-food items standard 3 on page 273.
- 4. Access to food processing facilities** such as cereal grinding mills enable people to prepare food in the form of their choice and also save time for other productive activities. Household-level food processing such as milling can reduce the time and the quantities of water and fuel required for cooking (see Food security – food transfers standard 2, guidance note 2 on page 185).
- 5. Specific needs:** Individuals who require assistance with feeding may include young children, older people, persons with disabilities and people living with HIV (see Infant and young child feeding standard 2 on page 160 and Food security – food transfers standard 1, guidance notes 5–7 on page 183). Outreach programmes or additional support and follow-up may be necessary to support some people with reduced capacity to provide food to dependents (e.g. parents with mental illness).

4.2. Food security – cash and voucher transfers

Cash and voucher transfers represent two forms of assistance: cash transfers provide people with money, while voucher transfers provide people with coupons to purchase a fixed quantity of a specified product such as food (commodity-based vouchers) or a fixed monetary value (value-based vouchers). While their objectives and design may differ, cash and voucher transfers share a market-based approach where beneficiaries are provided with purchasing power.

Cash and voucher transfers are used to meet basic food and non-food needs or to purchase assets enabling people to resume economic activity. Unconditional (or non-targeted or ‘universal’) cash grants have no conditions on how the money should be used, but if basic needs have been identified in the assessment, it is expected that the money will be used to cover these needs. If support to livelihoods or productive activities has been identified as a need, then the cash distributed would be expected to be used for this. Unconditional cash grants may be appropriate at the start of an emergency. Conditional cash grants have the condition that the recipient uses the cash for specific purposes (e.g. to rebuild houses, provide labour, establish or re-establish a livelihood and/or attend health services). Vouchers give access to a range of predetermined commodities (e.g. food, livestock, seeds, tools) or services (e.g. grinding mills, transport, market or stand access, bank loans). Vouchers may have either a cash value or a commodity value, to be used in pre-selected shops, with specified traders or service providers or at fairs. Voucher programmes should refer to the standards for the sector concerned; for example, food voucher programmes should refer to Food security – food transfers standards 1–3 and 6 on pages 180–197.

The choice of appropriate transfers (food, cash or vouchers) requires a context-specific analysis including cost efficiency, secondary market impacts, the flexibility of the transfer, targeting and risks of insecurity and corruption.



Food security – cash and voucher transfers

standard 1: Access to available goods and services

Cash and vouchers are considered as ways to address basic needs and to protect and re-establish livelihoods.

Key actions (to be read in conjunction with the guidance notes)

- Consult and involve beneficiaries, community representatives and other key stakeholders in assessment, design, implementation, monitoring and evaluation (see guidance notes 1, 3, 6–7 and Core Standards 1–3 on pages 55–61).
- Assess and analyse if people could buy what they need in local markets at prices that are cost-efficient compared with alternative transfers, and analyse the market chain (see guidance note 2).
- Choose cash or vouchers or a combination of these based on the most appropriate delivery mechanism and the likely benefits to the disaster-affected population and the local economy (see guidance notes 1–3, 5–6).
- Implement measures to reduce risks of illegal diversion, insecurity, inflation, harmful use and negative impacts on disadvantaged groups. Particular care is needed for targeting systems (see guidance notes 4 and 7).
- Monitor to assess if cash and/or vouchers remain the most appropriate transfer and if adjustments are needed (see guidance note 8).

Key indicators (to be read in conjunction with guidance notes)

- All targeted populations meet some or all their basic food needs and other livelihood needs (e.g. productive assets, health, education, transportation, shelter, transport) through purchase from the local markets (see guidance notes 1–2, 8).
- Cash and/or vouchers are the preferred form of transfer for all targeted populations, particularly for women and other vulnerable people (see guidance notes 3–8).
- The transfer does not result in anti-social expenditures (see guidance notes 4 and 8).
- The transfer does not generate insecurity (see guidance notes 3–4, 8).
- The local economy is supported to recover from the disaster (see guidance notes 1–2, 8).

Guidance notes

1. *Cash and voucher transfers are a tool:* Cash and vouchers are mechanisms to achieve desired goals, not interventions in themselves. A careful comparative assessment should indicate whether cash and/or vouchers are appropriate or not, and whether they should be used on their own or combined with other responses, such as in-kind support. Cash and voucher transfers can be used at different stages of a disaster. The response should be determined not only by the expected efficiency and effectiveness in meeting beneficiaries' basic needs or re-establishing livelihoods, but also by an expected lower level of associated risks. Cash and vouchers can offer greater choice and flexibility than in-kind responses and this may give recipients a sense of greater dignity. Cash and vouchers may also create positive multiplier effects in local economies, which should be considered during assessments. Cash and vouchers can be used as follows:

- cash grants – conditional or unconditional transfer of cash in either one or several instalments to meet a range of needs
- commodity or value-based voucher – transfer of paper or electronic vouchers to be exchanged for specific goods or a range of goods according to the value of the voucher
- cash for work – transfer of cash as income earned by participating in specified activities (usually activities requiring physical labour).

Planning, implementation and monitoring should involve local stakeholders such as governments, local authorities, community structures and representatives, cooperatives, associations, local groups and beneficiaries. This will help ensure relevance and sustainability. An exit strategy should be planned with key stakeholders from design onwards.

2. *Impact on local economies and market systems:* Market assessment should analyse the situation before and after the disaster, and the competitiveness and integration of the market to respond to current needs. Analysis should also show the roles of different market actors, availability and price of commodities (livelihoods assets, shelter materials, food and others depending on objectives), seasonality and physical, social and economic access by different groups of vulnerable people. Cash and vouchers can be appropriate when markets are functioning and accessible, and when food and other basic items are available in the required amounts and at reasonable prices. Such transfers may stimulate the local economy to a quicker and more sustainable recovery. Market responses can promote local procurement and better use of the capabilities of existing market actors. Cash and vouchers used when the context is inappropriate can distort markets and may have negative effects such as inflation. Market monitoring is essential



to understand the impact of cash and vouchers on local economies and people.

- 3. *Cash and voucher delivery mechanisms:*** Cash and vouchers can be delivered through local banks, shops, traders, local money transfer companies, remittance companies and post offices. They can be delivered physically or through technologies such as mobile banking and mobile phone networks. Banks are usually efficient and effective but may be less accessible to vulnerable people; if banks are accessible, perhaps through mobile banking, they can be a more secure option. The choice of delivery mechanism requires an assessment of options and consultation with recipients. Issues to consider are costs for recipients (bank charges, travel time and costs, time at collection points), costs for the organisation (charges and set-up costs of provider, staff time to set up and administer, and transport, security, education and training of recipients), efficiency and effectiveness (reliability, resilience, accountability, transparency, monitoring, flexibility, financial control, financial security and access by vulnerable people). An approach that may appear costly may still be the most appropriate transfer mechanism.
- 4. *Considering risks:*** Common concerns on the risks of cash and voucher transfers include fears that cash and vouchers could contribute to price inflation (leaving disaster-affected people, and others, with less purchasing power), the use of cash and vouchers for anti-social purposes (e.g. alcohol and/or tobacco abuse) and differential access of women and men to cash compared with in-kind resources. Other concerns are that transporting cash may create security risks for implementing staff and for the affected population (see Protection Principle 1 on page 33) and that the attractiveness of cash may make it more difficult to target recipients and may increase the risks of corrupt diversion or seizure by armed groups. However, in-kind distributions also have risks (see Food security – food transfers standards 4–5 on pages 188–192). The risks for cash and vouchers can be minimised through good design, thorough risk analysis and good management. Decision-making should be through evidence-based consultation: unfounded fears should not influence programme planning.
- 5. *Setting the value of the cash or voucher transfer:*** The value set for transfers is context-specific. Calculations should be in coordination with other agencies and based on the disaster-affected population's priorities and needs, prices for key goods expected to be purchased in local markets, other assistance that has been and/or will be given, additional related costs (e.g. travel assistance for people with restricted mobility), method, size and frequency of payments and timing of payment in relation to seasonality, and objectives of the programme and transfer (e.g. covering food needs based on the food basket or providing employment based on the daily labour rate).

Price fluctuations can reduce the success of cash and voucher transfers. Budget flexibility is essential to adjust the value of the transfer or add a commodity component, based on market monitoring.

6. **Choosing which type of cash or voucher transfer:** The appropriate type of transfer depends upon the programme objectives and local context. A combination of approaches may be appropriate, including with in-kind assistance and seasonal variations. Agencies should find out what disaster-affected populations consider the most appropriate form(s) of transfer through informed consultations (see Food security – livelihoods standard 2 on page 208).
7. **Targeting in cash and voucher transfer programmes:** The challenges can be as significant for in-kind commodities and services, but due to the attractiveness of cash and vouchers, particular attention is needed to minimise exclusion and inclusion errors. People can be reached either by direct targeting (to the disaster-affected households or population) or by indirect targeting (e.g. local traders or service providers). Insecure conditions may require an indirect targeting approach (see Protection Principle 1 on page 33). Gender affects decisions on the household member registered to receive cash or vouchers, as with in-kind transfers (see Food security – food transfers standard 5 on page 192). Coordination with stakeholders, including government welfare and social protection programmes providing cash transfers, is essential for targeting (as for in-kind transfers).
8. **Monitoring of cash and voucher transfers:** Baseline information is required, with monitoring before, during and after transfer programmes, taking into account the direct and indirect impacts of cash and vouchers in the market. Changes in the intervention should respond to the changes of the context and market situation. Monitoring should include prices of key goods, multiplier effects in local economies and price fluctuations. Key questions are: What are people buying with the cash and vouchers provided? Can people receive and spend cash safely? Are cash and vouchers being diverted? Do women influence how the cash or voucher is spent (see Core Standard 5 on page 68).

4.3. Food security – livelihoods

The resilience of people's livelihoods and their vulnerability to food insecurity are largely determined by the resources (or assets) available to them and how these have been affected by a disaster. These resources include financial capital (such as cash, credit, savings) and also include physical (houses, machinery), natural (land, water), human (labour, skills), social (networks, norms) and political



(influence, policy) capital. Key to those who produce food is whether they have access to land that can support production and whether they have the means to continue to farm. Key to those who need income to get their food is whether they have access to employment, markets and services. For people affected by disasters, the preservation, recovery and development of the resources necessary for their food security and future livelihoods should be a priority.

Prolonged political instability, insecurity and the threat of conflict may seriously restrict livelihood activities and access to markets. Households may have to abandon their plots and may lose assets, whether left behind, destroyed or taken by warring parties.

The three standards relate to primary production, income generation and employment, and access to markets, including goods and services.

Food security – livelihoods standard 1: Primary production

Primary production mechanisms are protected and supported.

Key actions (to be read in conjunction with the guidance notes)

- Base the interventions to support primary production on livelihoods assessment, context analysis and a demonstrated understanding of the viability of production systems, including access to and availability of necessary inputs, services and market demand (see guidance note 1).
- Introduce new technologies only where their implications for local production systems, cultural practices and the natural environment are understood and accepted by food producers and local consumers (see guidance note 2).
- Provide production inputs or cash to purchase a range of inputs in order to give producers flexibility in devising strategies and managing their production and reducing risks (see guidance note 3).
- Deliver inputs on time, ensure they are locally acceptable and conform to appropriate quality norms (see guidance notes 4–5).
- Introduce inputs and services with care, not to exacerbate vulnerability or increase risk, e.g. by increasing competition for scarce natural resources or by damaging existing social networks (see guidance note 6).
- Train food producers in better management practices where possible and appropriate (see guidance notes 1–2, 5–6).

- ▶ Purchase inputs and services locally whenever possible, unless this would adversely affect local producers, markets or consumers (see guidance note 7).
- ▶ Carry out regular monitoring to assess whether production inputs are used appropriately by beneficiaries (see guidance note 8).

Key indicators (to be read in conjunction with the guidance notes)

- ▶ All households with assessed needs have access to the necessary inputs to protect and restart primary production to the level pre-disaster, when justified, and in accordance with the agricultural calendar (see guidance notes 1–6).
- ▶ All targeted households are given cash or vouchers, where it is considered (or assessed) to be operationally viable, at market value of required inputs, giving households choices on livelihoods options (see guidance notes 3, 5 and 7).

Guidance notes

1. **Viability of primary production:** To be viable, food production strategies must have a reasonable chance of developing adequately and succeeding (see Livestock Emergency Guidelines and Standards (LEGS) in References and further reading). This may be influenced by a wide range of factors including:
 - access to sufficient natural resources (farmland, pasture, fodder, water, rivers, lakes, coastal waters, etc.). The ecological balance should not be endangered, e.g. by over-exploitation of marginal lands, over-fishing or pollution of water, especially in peri-urban areas
 - levels of skills and capacities, which may be limited where populations are seriously affected by disease or where education and training may be barred to some groups
 - labour availability in relation to existing patterns of production and the timing of key agricultural and aquaculture activities
 - availability and access to the inputs needed for agricultural and aquaculture production.

The pre-disaster level of production may not have been a good one and attempting to return to it could contradict the ‘do no harm’ principle (see Protection Principle 1 on page 33).

2. **Technological development:** ‘New’ technologies may include improved crop varieties, livestock or fish-stock species, new tools, fertilisers or innovative management practices. As far as possible, food production activities should build on or strengthen existing patterns and/or be linked with



national development plans. New technologies should only be introduced after a disaster if they have previously been tested in the local area and are known to be adapted and acceptable to beneficiaries. When introduced, new technologies should be accompanied by appropriate community consultations, provision of information, training and other relevant support. Wherever possible this should be done in coordination with private and public extension providers and input suppliers to ensure ongoing support and accessibility to the technology in the future and, critically, commercial viability.

- 3. *Improving choice:*** Interventions that offer producers greater choice include cash or credit in lieu of (or to complement) productive inputs, and seed and livestock fairs using vouchers that provide farmers with the opportunity to select seed or livestock of the varieties and species of their choice. Support to production should assess potential implications for nutrition, including access to nutrient-rich food through own production or through cash generated by this production. The provision of animal fodder during drought can provide a more direct human nutrition benefit to pastoralists than the provision of food transfers to people. The feasibility of transferring cash to households in order to provide access to production inputs should be based on availability of goods locally, access to markets and availability of a safe and affordable transfer mechanism.
- 4. *Timeliness and acceptability:*** Examples of production inputs include seeds, tools, fertiliser, livestock, fishing equipment, hunting implements, loans and credit facilities, market information and transport facilities. An alternative to in-kind inputs is to provide cash or vouchers to enable people to purchase inputs of their choice. The provision of agricultural inputs and veterinary services must be timed to coincide with the relevant agricultural and animal husbandry seasons. For example, provision of seeds and tools must precede the planting season and emergency destocking of livestock during drought should take place before excess livestock mortality occurs, while restocking should start when recovery is well assured, e.g. following the next rains.
- 5. *Seeds:*** Priority should be given to seed of crops and varieties that are already in local use, so that farmers can use their own criteria to establish quality. Crops on offer should be those of highest priority for the upcoming season. Specific varieties should be approved by farmers and local agricultural experts. Minimally, seeds should be adapted to the local agro-ecology and to farmers' own management conditions, be disease resistant and be chosen with consideration of future climate change scenarios such as floods or droughts and sea-level rise. Seeds originating from outside the region need to be adequately tested for quality and checked for appropriateness to local conditions. Farmers should be given access to a range of crops and

varieties in any seed-related intervention so that they themselves can strategise about what is best for their particular farming system. Hybrid seeds may be appropriate where farmers are familiar with them and have experience in growing them. This can only be determined through consultation with the population. When seeds are provided free of charge and farmers grow maize, farmers may prefer hybrid seeds to local varieties because these are otherwise costly to purchase. Government policies regarding hybrid seeds should also be complied with before distribution. Genetically modified (GMO) seeds should not be distributed unless they have been approved by the local authorities. In such cases, farmers should also be aware that the aid contains GMO seed.

6. **Impact on rural livelihoods:** Primary food production may not be viable if there is a shortage of vital natural resources (and may not be viable for the long term if they were on the decline before the disaster) or lack of access for certain populations (e.g. landless people). Promoting production that requires increased (or changed) access to locally available natural resources may heighten tensions within the local population, which in turn can restrict access to water and other essential needs. Care should be taken when providing resources, whether in-kind or cash, that these do not increase security risks for recipients or create conflict (see Food security – livelihoods standard 2 on page 208 and Food security – cash and voucher transfers standard 1 on page 200). Also, the free provision of inputs may disturb traditional mechanisms for social support and redistribution while pushing the private sector out of business and jeopardising future access to inputs.
7. **Local purchase of inputs:** Inputs and services for food production, such as veterinary services and seed, should be obtained through existing local legal and verifiable supply systems where possible. To support the local private sector, mechanisms such as cash or vouchers should be used, linking primary producers directly to suppliers. In designing such systems to enable local purchase, availability of appropriate inputs and suppliers' ability to increase supply should be considered, given the risk of inflation (e.g. raising prices of scarce items) and quality of inputs. Direct provision of imported inputs should only be undertaken when local alternatives are not feasible.
8. **Monitoring usage:** Indicators of the process and outputs from food production, processing and distribution may be estimated, e.g. area planted, quantity of seed planted per hectare, yield and number of livestock offspring. It is important to determine how producers use the inputs (i.e. verifying that seeds are indeed planted and that tools, fertilisers, nets and fishing gear are used as intended) or how cash is spent on inputs. The quality of the inputs should also be reviewed in terms of their performance, their acceptability and the preferences of producers. Important for evaluation is consideration of how the project has affected food available to the household, e.g. household



food stocks, the quantity and quality of food consumed or the amount of food traded or given away. Where the project aims to increase production of a specific food type, such as animal or fish products or protein-rich legumes, the households' use of these products should be investigated.

Food security – livelihoods standard 2: Income and employment

Where income generation and employment are feasible livelihood strategies, women and men have equal access to appropriate income-earning opportunities.

Key actions (to be read in conjunction with the guidance notes)

- Base the decisions on income-generation activities on a market assessment and on an adequate participatory analysis of the capabilities of households to engage in the activities (see guidance notes 1–2).
- Base the type of remuneration (cash, voucher, food or a combination of these) on sound analysis of local capacities, immediate needs, market systems and the disaster-affected population's preferences (see guidance note 3).
- Base the level of remuneration on needs, objectives for livelihoods restoration and local labour rates (see guidance note 4).
- Ensure procedures to provide a safe, secure working environment are in place (see guidance note 5).
- Take measures to avoid diversion and/or insecurity when involving large sums of cash (see guidance note 6).

Key indicators (to be read in conjunction with the guidance notes)

- All the targeted people generate incomes through their activities and contribute to meeting their basic and other livelihoods needs.
- Responses providing employment opportunities are equally available to women and men and do not negatively affect the local market or negatively impact on normal livelihood activities (see guidance note 7).
- Populations are kept aware of and understand remuneration as a contribution towards the food security of all household members equally (see guidance note 8).

Guidance notes

1. **Appropriateness of initiatives:** A market analysis is fundamental to justify and define activities. Existing tools to understand markets and economic

systems should be used (see markets section in References and further reading). There should be maximum use of local human resources in project design and the identification of appropriate activities. Alternatives for certain groups (such as pregnant women, persons with disabilities or older people) should be discussed within the targeted group. Where there are large numbers of displaced people (refugees or internally displaced persons), there should be consideration of opportunities to provide employment and skills to both displaced people and hosts. Locations for activities should consider the threat of attacks, risks to safety (such as mined areas) and environmentally unsuitable areas (e.g. land that is contaminated or polluted, prone to subsidence or flooding, or excessively steep) (see Protection Principles 1–3 on pages 33–38).

2. ***Income transfers to households with limited capacities to participate:*** While many households may be able to make use of employment and income-generation activities, the effect of disaster on some households may not allow them to take advantage of these opportunities or the period for receiving adequate returns may be too long for some. Safety-net measures such as unconditional cash and/or food transfers should be considered for such households, with a plan to either link up with existing social protection systems or advocate for new safety nets where needed.
3. ***Type of remuneration:*** Remuneration may be in cash or in food or a combination of these and should enable food insecure households to meet their needs. Rather than payment for community works, remuneration may take the form of an incentive to help people to undertake tasks of direct benefit to themselves. People's purchasing needs and the impact of giving either cash or food for other basic needs (such as school, access to health services and social obligations) should be considered. The type and level of remuneration should be decided case-by-case, taking account of the factors above, the availability of cash and food and possible impact on local labour markets.
4. ***Payments:*** There are no universally accepted guidelines for setting levels of remuneration, but where remuneration is in-kind and provided as an income transfer, the resale value (e.g. of food) on local markets must be considered. The net gain in income to individuals through participation in programme activities should be greater than if they had spent their time on other activities. This applies to food and cash for work activities and also credit, business start-ups, etc. Income-earning opportunities should enhance the range of income sources and not replace existing sources. Remuneration should not have a negative impact on local labour markets, e.g. by causing wage rate inflation, diverting labour from other activities or undermining essential public services.
5. ***Risk in the work environment:*** A high-risk working environment should be avoided by practical procedures for minimising risk or treating injuries, e.g.



briefings, protective clothing and first-aid kits, where necessary. This should include minimising the risk of HIV exposure. Practices for increasing safety in transit include securing safe access routes to work, ensuring routes are well lit, providing torches, using early warning systems (which may utilise bells, whistles, radios and other devices) and security norms, such as travelling in groups or avoiding travel after dark. Particular attention must be paid to women, girls and others at risk of sexual assault. Ensure that all participants are aware of emergency procedures and can access early warning systems (see Protection Principles 1 and 3 on pages 33–38).

6. **Risk of insecurity and diversion:** Handing out resources in the form of food or cash for work (e.g. loans or payments for work done) introduces security concerns for both programme staff and the recipients (see Food security – food transfers standard 5, guidance note 6 on page 195 and Food security – cash and voucher transfers standard 1, guidance note 4 on page 202).
7. **Caring responsibilities and livelihoods:** Participation in income-earning opportunities should not undermine childcare or other caring responsibilities as this could increase the risk of undernutrition and other health risks. Programmes may need to consider employing care-providers or providing care facilities. It may not be appropriate to introduce increased workloads into people’s lives, especially women’s. Programmes should not adversely affect access to other opportunities, such as other employment or education, or divert household resources from productive activities already in place. Participation in income generation should respect national laws for the minimum age for admission to employment, usually not less than the age of completion of compulsory schooling.
8. **Use of remuneration:** Fair remuneration means that the income generated contributes a significant proportion of the resources necessary for food security. Household management of cash or food transfers (including intra-household distribution and end uses) must be understood, because the way they are distributed can either exacerbate or diffuse existing tensions, affecting the food security of household members differently. Responses that generate income and employment often have multiple food security objectives, including community-level resources that affect food security. For example, repairing roads may improve access to markets and access to healthcare, while repairing or constructing water-harvesting and irrigation systems may improve productivity.

Food security – livelihoods standard 3: Access to markets

The disaster-affected population's safe access to market goods and services as producers, consumers and traders is protected and promoted.

Key actions (to be read in conjunction with the guidance notes)

- Protect and reinforce access to affordable operating markets for producers, consumers and traders (see guidance note 1).
- Base food security and livelihoods responses on a demonstrated understanding of whether local markets are functioning or are disrupted, as well as their potential for strengthening (see guidance note 2).
- Base advocacy for improvements and policy changes on the market analysis conducted before each intervention (see guidance note 3).
- Take steps to promote and support market access for vulnerable people (see guidance note 4).
- Control the adverse effects of responses, including food purchases and distribution, on local markets (see guidance note 5).
- Minimise the negative consequences of extreme seasonal or other abnormal price fluctuations on markets (see guidance note 6).

Key indicators (to be read in conjunction with the guidance notes)

- Interventions are designed to support the recovery of markets, either through direct intervention or through the promotion of local traders via cash and/or voucher programmes.
- All targeted populations have safe and full access to market goods, services and systems throughout the duration of the programme.

Guidance notes

1. **Market demand and supply:** Economic access to markets is influenced by purchasing power, market prices and availability. Affordability depends on the terms of trade between basic needs (food, essential agricultural inputs such as seeds, tools, healthcare, etc.) and income sources (cash crops, livestock, wages, etc.). Erosion of assets occurs when deterioration of trade forces people to sell assets (often at low prices) in order to buy basic needs (at inflated prices). Access to markets may also be influenced by the political



and security environment and by cultural or religious considerations, which restrict access by certain groups such as minorities.

2. **Market analysis:** Consideration should be given to access to functioning markets for all affected people, including vulnerable individuals. Responses that remunerate in cash, vouchers or food or provide inputs should be preceded by an appropriate level of market analysis for the commodity supplied. Local purchase of surpluses will support local producers but adverse risks also need to be identified. Imports are likely to reduce local prices (see Food security and nutrition assessment standard 1, guidance note 7 on page 152).
3. **Advocacy:** Markets operate in the wider national and global economies, which influence local market conditions. For example, governmental policies, including pricing and trade policies, influence access and availability. Although actions at this level are beyond the scope of disaster response, these factors should be analysed as there may be opportunities for a joint agency approach or to advocate for improvements with government and other organisations (see Protection Principle 3 on page 38).
4. **Vulnerable people:** Vulnerability analysis to identify the people who have restricted access to markets and livelihood opportunities should be carried out. Persons with disabilities, PLHIV, older people and women with caring responsibilities must be supported to access markets.
5. **Impact of interventions:** Local procurement of food, seeds or other commodities may cause local inflation to the disadvantage of consumers but to the benefit of local producers. Conversely, imported food may drive prices down and act as a disincentive to local food production, potentially increasing food insecurity. Provision of cash may have positive multiplier effects in local economies but could also cause local inflation for key goods. Those responsible for procurement should monitor these effects and take them into account. Food distribution could also affect the purchasing power of beneficiaries, as it is a form of income transfer. Some commodities are easier to sell for a good price than others, e.g. oil versus blended food. The 'purchasing power' associated with a given food or food basket will influence whether it is eaten or sold by the beneficiary household. An understanding of household sales and purchases is important in determining the wider impact of food distribution programmes.
6. **Abnormally extreme seasonal price fluctuations** may adversely affect poor agricultural producers, who have to sell their produce when prices are at their lowest (usually just after harvest) or livestock owners who are forced to sell during drought. Conversely, consumers who have little disposable income cannot afford to invest in food stocks, depending instead on small

but frequent purchases. Therefore, they are forced to buy even when prices are high (e.g. during drought). Examples of interventions which can minimise these effects include improved transport and storage systems, diversified food production and cash or food transfers at critical times.



Appendix 1

Food security and livelihoods assessment checklists

Food security assessments often broadly categorise the affected population into livelihood groupings, according to their sources of, and strategies for, obtaining income or food. This may also include a breakdown of the population according to wealth groups or strata. It is important to compare the prevailing situation with the history of food security pre-disaster. So-called ‘average normal years’ may be considered as a baseline. The specific roles and vulnerabilities of women and men, and the implications for household food security should be considered.

The following checklist questions cover the broad areas that are usually considered in a food security assessment.

1 Food security of livelihood groups

- Are there groups in the population who share the same livelihood strategies? How can these be categorised according to their main sources of food or income?

2 Food security pre-disaster (baseline)

- How did the different livelihood groups acquire food or income before the disaster? For an average year in the recent past, what were their sources of food and income?
- How did these different sources of food and income vary between seasons in a normal year? (Constructing a seasonal calendar may be useful.)
- Looking back over the past five or ten years, how has food security varied from year to year? (Constructing a timeline or history of good and bad years may be useful.)
- What kind of assets, savings or other reserves are owned by the different livelihood groups (e.g. food stocks, cash savings, livestock holdings, investments, credit, unclaimed debt, etc.)?
- Over a period of a week or a month, what do household expenditures include and what proportion is spent on each item?

- ▶ Who is responsible for management of cash in the household and on what is cash spent?
- ▶ How accessible is the nearest market for obtaining basic goods? (Consider distance, security, ease of mobility, availability of market information, transport, etc.)
- ▶ What is the availability and price of essential goods, including food?
- ▶ Prior to the disaster, what were the average terms of trade between essential sources of income and food, e.g. wages to food, livestock to food, etc.?

3 Food security during disaster

- ▶ How has the disaster affected the different sources of food and income for each of the livelihood groups identified?
- ▶ How has it affected the usual seasonal patterns of food security for the different groups?
- ▶ How has it affected access to markets, market availability and prices of essential goods?
- ▶ For different livelihood groups, what are the different coping strategies and what proportion of people are engaged in them?
- ▶ How has this changed as compared with the pre-disaster situation?
- ▶ Which group or population is most affected?
- ▶ What are the short- and medium-term effects of coping strategies on people's financial and other assets?
- ▶ For all livelihood groups, and all vulnerable people, what are the effects of coping strategies on their health, general well-being and dignity? Are there risks associated with coping strategies?



Appendix 2

Seed security assessment checklist

Below are sample questions for seed security assessments:

1. Pre-disaster (baseline)

- What are farmers' most important crops? What do they use them for – consumption, income or both? Are these crops grown each season? What lesser crops might become important in times of stress?
- How do farmers usually get seed or other planting material for these crops? (Consider all the channels.)
- What are the sowing parameters for each major crop? What is the average area planted? What are the seeding rates? What are the multiplication rates (ratios of seed or grain harvested to seed planted)?
- Are there important or preferred varieties of specific crops?
- Which production inputs are essential for particular crops or varieties?
- Who in the household is responsible for decision-making, managing crops and disposing of crop products at different stages of production and post-production?

2. After disaster

- Is a farming-related intervention feasible from the beneficiaries' point of view?
- Are farmers confident the situation is now stable and secure enough that they can successfully cultivate, harvest and sell or consume a crop?
- Do they have sufficient access to fields and other means of production (manure, implements, draught animals)?
- Are they prepared to re-engage in agriculture?

3. Assessing seed supply and demand: home stocks

- ▶ Are adequate amounts of home-produced seed available for sowing? This includes both seed from a farmer's own harvest and seed potentially available through social networks (e.g. neighbours).
- ▶ Is this a crop that farmers still want to plant? Is it adapted to local conditions? Is there still a demand for it?
- ▶ Are the varieties available through a farmer's own production still suitable for planting next season? Does the quality of the seed meet the farmer's normal standards?

4. Assessing seed supply and demand: local markets

- ▶ Are markets generally functioning despite the disaster (are market days being held, are farmers able to move, sell and buy freely)?
- ▶ Are current volumes of available seed or grain comparable to those under normal conditions at the same time during previous seasons?
- ▶ Are crops and varieties that farmers find suitable for growing found in the markets?
- ▶ Are current market prices of seed or grain comparable to the prices at the same time in previous seasons? If there is a price differential, is the magnitude likely to be a problem for farmers?

5. Assessing seed supply and demand: formal sector seed

- ▶ Are the crops and varieties on offer from the formal sector adapted to particular stress zones? Is there evidence farmers like them?
- ▶ Can the amounts of formal sector seed available meet any need for aid? If not, what proportion of farmers' needs could be covered?



Appendix 3

Nutrition assessment checklist

Below are sample questions for assessments examining the underlying causes of undernutrition, the level of nutrition risk and possibilities for response. The questions are based on the conceptual framework of the causes of undernutrition (see page 146). The information is likely to be available from a variety of sources and gathering it will require various assessment tools, including key informant interviews, observation and review of secondary data (see also Core Standards 1, 3–4 on pages 55–65).

Pre-emergency situation

What information already exists on the nature, scale and causes of undernutrition among the affected population (see Food security and nutrition assessment standard 2 on page 154)?

The current risk of undernutrition

1. The risk of undernutrition related to reduced food access – see Appendix 1: Food security and livelihoods assessment checklists.
2. The risk of undernutrition related to infant and young child feeding and care practices:
 - Is there a change in work and social patterns (e.g. due to migration, displacement or armed conflict) which means that roles and responsibilities in the household have changed?
 - Is there a change in the normal composition of households? Are there large numbers of separated children?
 - Has the normal care environment been disrupted (e.g. through displacement), affecting access to secondary caregivers, access to foods for children, access to water, etc.?
 - Are any infants not breastfed? Are there infants who are artificially fed?
 - Has there been any evidence or suspicion of a decline in infant feeding practices in the emergency, especially any fall in breastfeeding initiation or exclusive breastfeeding rates, any increase in artificial feeding rate and/or any increase in proportion of infants not breastfed?

- Are age-appropriate, nutritionally adequate, safe complementary foods and the means to prepare them hygienically accessible?
 - Is there any evidence or suspicion of general distribution of breastmilk substitutes such as infant formula, other milk products, bottles and teats, either donated or purchased?
 - In pastoral communities, have the herds been away from young children for long? Has access to milk changed from normal?
 - Has HIV and AIDS affected caring practices at household level?
3. The risk of undernutrition related to poor public health (see Health chapter on page 287):
- Are there any reports of disease outbreaks which may affect nutritional status, such as measles or acute diarrhoeal disease? Is there risk that these outbreaks will occur? (See Essential health services – control of communicable diseases standards 1–3 on pages 312–316.)
 - What is the estimated measles vaccination coverage of the affected population? (See Essential health services – child health standard 1 on page 321.)
 - Is Vitamin A routinely given with measles vaccination? What is the estimated Vitamin A supplementation coverage?
 - Are there any estimates of mortality rates (either crude or under-5)? What are they and what method has been used? (See Essential health services standard 1 on page 309.)
 - Is there, or will there be, a significant decline in ambient temperature which is likely to affect the prevalence of acute respiratory infection or the energy requirements of the affected population?
 - Is there a high prevalence of HIV?
 - Are people already vulnerable to undernutrition due to poverty or ill health?
 - Is there overcrowding or a risk of or high prevalence of TB?
 - Is there a high incidence of malaria?
 - Have people been in water or wet clothes or exposed to other harsh environmental conditions for long periods of time?
4. What formal and informal local structures are currently in place through which potential interventions could be channelled?
- What is the capacity of the Ministry of Health, religious organisations, community support groups, breastfeeding support groups or NGOs with a long- or short-term presence in the area?
 - What nutrition interventions or community-based support were already in place and organised by local communities, individuals, NGOs, government organisations, UN agencies, religious organisations, etc.? What are the nutrition policies (past, ongoing and lapsed), the planned long-term nutrition responses and programmes that are being implemented or planned in response to the current situation?



Appendix 4

Measuring acute malnutrition

In major nutritional emergencies, it may be necessary to include infants aged less than 6 months, pregnant and breastfeeding women, older children, adolescents, adults or older people in nutrition assessments or nutritional programmes.

Surveys of age groups other than children aged 6–59 months should only be undertaken if:

- ▶ a thorough contextual analysis of the situation is undertaken, including an analysis of the causes of malnutrition. Only if the results of this analysis suggest that the nutritional status of young children does not reflect the nutritional status of the general population should a nutrition survey for another age group be considered
- ▶ technical expertise is available to ensure a high quality of data collection, adequate analysis and correct presentation and interpretation of results
- ▶ the resource and/or opportunity costs of including other age groups in a survey have been considered
- ▶ clear and well-documented objectives for the survey are formulated.

Infants under 6 months

While research is ongoing for this age group, the evidence base for assessment and management is currently limited. Most guidelines recommend the same anthropometric case definitions of acute infant malnutrition as for older children aged 6–59 months (except for mid upper arm circumference (MUAC) which is not presently recommended for infants <6 months). Admission criteria focus on current size rather than an assessment of growth. The switch from NCHS growth references to WHO 2006 growth standards results in more cases of infant <6 month wasting. The implications of this change should be considered and addressed. Potential issues include more infants presenting to feeding programmes or caregivers becoming concerned about the adequacy of exclusive breastfeeding. It is important to assess and consider:

- the infants longitudinal growth – is the rate of growth good despite body size being small (some infants may for example be ‘catching up’ following low birth weight)?
- infant feeding practices – is the infant exclusively breastfeeding?
- clinical status – does the infant have any medical complications or conditions which are treatable or which make him/her high risk?
- maternal factors – e.g. does the mother lack family support or is she depressed? Inpatient admission to therapeutic feeding programmes should be a priority for high risk infants.

Children 6–59 months

The table below shows the commonly used indicators of different grades of malnutrition among children aged 6–59 months. Weight for height (WFH) indices should be calculated using the WHO 2006 child growth standards. The WFH Z score (according to WHO standards) is the preferred indicator for reporting anthropometric survey results. MUAC is an independent criterion for acute malnutrition and is one of the best predictors of mortality. The prevalence of low MUAC is also investigated in surveys to predict case loads for supplementary feeding and therapeutic care programmes. The cut-offs commonly used are <11.5cm for severe acute malnutrition, and 11.5–<12.5cm for moderate acute malnutrition. It is also often used, with a higher cut-off, as part of a two-stage screening process. It should not be used alone in anthropometric surveys but can be used as sole admission criteria for feeding programmes.

	Global acute malnutrition	Moderate acute malnutrition	Severe acute malnutrition
Children 6.0–59.9 months	WFH <-2 Z score and/or MUAC <12.5cm and/or nutritional oedema	WFH -3 - <-2 Z score and/or MUAC 11.5-<12.5cm	WFH <-3 Z score and/or MUAC <11.5cm and/or nutritional oedema

Children aged 5–19 years

Use of the WHO 2007 growth standards is recommended to determine nutrition status in children aged 5–19 years. These growth reference data curves are a reconstruction of the 1977 NCHS/WHO reference and are closely aligned with the WHO child growth standards for children 6–59 months and the recommended cut-offs for adults. The use of MUAC in older children and adolescents, particularly in the context of HIV, may be considered. As this is a developing technical area, it is important to refer to latest guidance and technical updates.



Adults (20–59.9 years)

There is no agreed definition of acute malnutrition in adults, but evidence suggests that cut-offs for severe acute malnutrition could be lower than a body mass index (BMI) of 16 and lower than 18.5 for mild and moderate acute malnutrition. Surveys of adult malnutrition should aim to gather data on weight, height, sitting height and MUAC measurements. These data can be used to calculate BMI. BMI should be adjusted for Cormic index (the ratio of sitting height to standing height) only to make comparisons between populations. Such adjustment can substantially change the apparent prevalence of undernutrition in adults and may have important programmatic ramifications. MUAC measurements should always be taken. If immediate results are needed or resources are severely limited, surveys may be based on MUAC measurements alone.

Because the interpretation of anthropometric results is complicated by the lack of validated functional outcome data and benchmarks for determining the meaning of the result, such results must be interpreted along with detailed contextual information. Guidance on assessment can be found under References and further reading.

For screening individuals for nutritional care admission and discharge, criteria should include a combination of anthropometric indices, clinical signs (particularly weakness, recent weight loss) and social factors (access to food, presence of caregivers, shelter, etc.). Note that oedema in adults can be caused by a variety of reasons other than malnutrition, and clinicians should assess adult oedema to exclude other causes. Individual agencies should decide on the indicator to determine eligibility for care, taking into account the known shortcomings of BMI and the lack of information on MUAC and the programme implications of their use. As this is a developing technical area, it is important to refer to latest guidance and technical updates.

MUAC may be used as a screening tool for pregnant women, e.g. as a criterion for entry into a feeding programme. Given their additional nutritional needs, pregnant women may be at greater risk than other groups in the population. MUAC does not change significantly through pregnancy. MUAC <20.7cm (severe risk) and <23cm (moderate risk) have been shown to carry a risk of growth retardation of the foetus. Suggested cut-off points for risk vary by country and range from 21cm to 23cm. Less than 21cm has been suggested as an appropriate cut-off for selection of women at risk during emergencies.

Older people

There is currently no agreed definition of malnutrition in older people and yet this group may be at risk of malnutrition in emergencies. WHO suggests that the BMI thresholds for adults may be appropriate for older people aged 60–69 years and above. However, accuracy of measurement is problematic because of spinal curvature (stooping) and compression of the vertebrae. Arm span or demi-span can be used instead of height, but the multiplication factor to calculate height varies according to the population. Visual assessment is necessary. MUAC may be a useful tool for measuring malnutrition in older people but research on appropriate cut-offs is currently still in progress.

Persons with disabilities

No guidelines currently exist for the measurement of individuals with physical disabilities and therefore they are often excluded from anthropometric surveys. Visual assessment is necessary. MUAC measurements may be misleading in cases where upper arm muscle might build up to aid mobility. There are alternatives to standard measures of height, including length, arm span, demi-span or lower leg length. It is necessary to consult the latest research to determine the most appropriate way of measuring disabled individuals for whom standard weight, height and MUAC measurement is not appropriate.



Appendix 5

Measures of the public health significance of micronutrient deficiencies

Where clinical micronutrient deficiencies are detected, they should be urgently treated on an individual basis. Individual cases of clinical micronutrient deficiencies are also usually indicative of an underlying problem of micronutrient deficiency at the population level. Measurement and classification of micronutrient deficiencies at the population level is important for planning and monitoring interventions.

Biochemical tests have the advantage of providing objective measures of micronutrient status. However, the collection of biological samples for testing often presents logistical, staff training, cold chain and sometimes acceptability challenges. Biochemical measurements are also not always as clearly useful, i.e. as sensitive and specific, as might be imagined. There may also be variations according to the time of day the sample is collected and according to the season of the year, as with acute malnutrition. Good quality control is essential and should always be considered when selecting a laboratory for sample testing.

When assessing micronutrient status the possibility of excessive intakes as well as deficiency should be kept in mind. This is of particular concern when multiple, highly fortified products or supplements are used to deliver micronutrients to the affected population.

The table below shows classifications of the public health significance of selected micronutrient deficiencies using different indicators.

Micronutrient deficiency indicator	Recommended age group for prevalence surveys	Definition of a public health problem	
		Severity	Prevalence (%)
Vitamin A deficiency			
Night blindness (XN)	24–71 months	Mild	> 0 – < 1
		Moderate	≥1 – < 5
		Severe	≥ 5
Bitots spots (X1B)	6–71 months	Not specified	> 0.5
Corneal Xerosis/ulceration/keratomalacia (X2, X3A, X3B)	6–71 months	Not specified	> 0.01
Corneal scars (XS)	6–71 months	Not specified	> 0.05
Serum retinol (≤ 0.7 μmol/L)	6–71 months	Mild	≥ 2 – < 10
		Moderate	≥10 – < 20
		Severe	≥ 20
Iodine deficiency			
Goitre (visible + palpable)	School-age children	Mild	5.0 – 19.9
		Moderate	20.0 – 29.9
		Severe	≥ 30.0
Median urinary iodine concentration (mg/l)	School-age children	Excessive intake	> 300 ¹
		Adequate intake	100 – 199 ¹
		Mild deficiency	50 – 99 ¹
		Moderate deficiency	20 – 49 ¹
		Severe deficiency	< 20 ¹



Micronutrient deficiency indicator	Recommended age group for prevalence surveys	Definition of a public health problem	
		Severity	Prevalence (%)
Iron deficiency			
Anaemia (Non-pregnant women haemoglobin <12.0 g/dl; children 6–59 months <11.0 g/dl)	Women, children 6–59 months	Low	5 – 20
		Medium	20 – 40
		High	≥ 40
Beriberi ¹			
Clinical signs	Whole population	Mild	≥ 1 case & <1%
		Moderate	1 – 4
		Severe	≥ 5
Dietary intake (< 0.33 mg/1000 kcal)	Whole population	Mild	≥ 5
		Moderate	5 – 19
		Severe	20 – 49
Infant mortality	Infants 2–5 months	Mild	No increase in rates
		Moderate	Slight peak in rates
		Severe	Marked peak in rates
Pellagra ¹			
Clinical signs (dermatitis) in surveyed age group	Whole population or women >15 years	Mild	≥ 1 case & <1%
		Moderate	1 – 4
		Severe	≥ 5
Dietary intake of niacin equivalents <5 mg/day	Whole population or women >15 years	Mild	5 – 19
		Moderate	20 – 49
		Severe	≥ 50
Scurvy ¹			
Clinical signs	Whole population	Mild	≥ 1 case & < 1%
		Moderate	1 – 4
		Severe	≥ 5

¹ For information about biochemical tests and public health thresholds consult the latest literature or seek specialist advice.

Appendix 6

Nutritional requirements

The following figures can be used for planning purposes in the initial stage of a disaster. The minimum nutrient requirements given in the table overleaf should be used to assess the adequacy of general rations targeting the population. Requirements are calculated based on an assumed demographic profile, assumptions about the ambient temperature and people's activity levels. They also take into account the additional needs of pregnant and breastfeeding women. The requirements are not intended for assessing the adequacy of supplementary or therapeutic care rations or for assessing rations targeted at particular groups of people, such as individuals suffering from TB or people living with HIV.

There are two important points to consider before using the requirements listed overleaf. Firstly, these average population minimum requirements for population groups incorporate the requirements of all age groups and both sexes. They are therefore not specific to any single age or sex group and should not be used as requirements for an individual. Secondly, nutritional requirements are based on a population profile.



Nutrient	Minimum population requirements¹
Energy	2,100 kcals
Protein	53 g (10% of total energy)
Fat	40 g (17% of total energy)
Vitamin A	550 µg RAE*
Vitamin D	6.1 µg
Vitamin E	8.0 mg alpha-TE*
Vitamin K	48.2 µg
Vitamin B1 (Thiamin)	1.1 mg
Vitamin B2 (Riboflavin)	1.1 mg
Vitamin B3 (Niacin)	13.8 mg NE
Vitamin B6 (Pyridoxine)	1.2 mg
Vitamin B12 (Cobalamin)	2.2 µg
Folate	363 µg DFE*
Pantothenate	4.6 mg
Vitamin C	41.6 mg
Iron	32 mg
Iodine	138 µg
Zinc	12.4 mg
Copper	1.1 mg
Selenium	27.6 µg
Calcium	989 mg
Magnesium	201 mg

* Alpha-TE - alpha-tocopherol equivalents

RAE - retinol activity equivalents

DFE - dietary folate equivalents

¹ Expressed as reference nutrient intakes (RNI) for all nutrients except energy and copper.

Reference: RNI from FAO/WHO (2004), *Vitamin and Mineral Requirements in Human Nutrition*. Second edition, were used for all vitamin and mineral requirement calculations except copper, as requirements for this mineral were not included in FAO/WHO (2004). Requirements for copper are taken from WHO (1996), *Trace Elements in Human Nutrition and Health*.

The following table gives an indicator of the average global population structure broken down by age. However, it is important to note that this is context-specific and can vary significantly. For example, in some rural communities, out-migration of middle generations has resulted in disproportionately high numbers of older people caring for children.

Group	% of population
0–6 months	1.32
7–11 months	0.95
1–3 years	6.58
4–6 years	6.41
7–9 years	6.37
10–18 years females	9.01
10–18 years males	9.52
19–50 females	17.42
51–65 females	4.72
19–65 males	27.90
65+ females	2.62
65+ males	2.18
Pregnant	2.40
Breastfeeding	2.60

Reference: United Nations (2003), World Population Prospects: The 2002 Revision, Interpolated Population by Sex, Single Years of Age and Single Calendar Years, 1950 to 2050.

The population energy requirements should be adjusted for the following factors:

- the demographic structure of the population, in particular the percentage of those under 5 years of age and the percentage of females
- mean adult weights and actual, usual or desirable body weights
- activity levels to maintain productive life – requirements will increase if activity levels exceed light (i.e. 1.6 x Basal Metabolic Rate)
- average ambient temperature and shelter and clothing capacities – requirements will increase if the mean ambient temperature is less than 20°C



- the nutritional and health status of the population – requirements will increase if the population is malnourished and has extra requirements for catch-up growth. HIV and AIDS prevalence may affect average population requirements (see Food security – food transfers standard 1 on page 180). Whether general rations should be adjusted to meet these needs will depend on contextual analysis and current international recommendations.

If it is not possible to gain this kind of information from assessments, the figures in the table above should be used as the minimum requirements.

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