

# MODULE 23

## NUTRITION OF OLDER PEOPLE IN EMERGENCIES

Part 1: Fact sheet

Part 2: Technical notes

Part 3: Trainer's guide

Part 4: Training resource list

**Harmonised Training Package (HTP):**  
Resource Material for Training on  
Nutrition in Emergencies  
Module 23 Version 1, 2013

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### Module 23: Nutrition of Older People in Emergencies

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*International Public Nutrition Resource Group*



<sup>i</sup> In 2007, the IASC GNC commissioned NW to develop a training resource to facilitate capacity development in the NiE sector. HTP Version 1 was launched in 2008. HTP Version 2 update was funded under an USAID OFDA grant to the UK based charity, the Emergency Nutrition Network (ENN). The update was led by NW which has been responsible for overall coordination and editorial management. The ENN has supported editorial management and module production

## The Harmonised Training Package (HTP): Resource Material for Training on Nutrition in Emergencies

### What is the HTP?

The Harmonised Training Package: Resource Material for Training on Nutrition in Emergencies (the HTP) is a comprehensive documentation of the latest technical aspects of Nutrition in Emergencies (NiE). It is organised as a set of modules by subject, each containing technical information, training exercises and a resource list for use in training course development.

The HTP is an initiative of the IASC Global Nutrition Cluster (GNC) and has been endorsed by the GNC and its member's agencies. The word **Harmonised** reflects the pulling together of the latest technical policy and guidance, the word **Training** refers to its main application and the word **Package** refers to the bringing together of the subject matter into one place.

### What the HTP is not

The HTP is not a ready-to-use training course. It cannot be used as an 'off the shelf' package; rather, it should be used as a resource package during a process of course development by experienced trainers.

### Who is the HTP for?

The HTP is a primarily a **resource for trainers** in the NiE sector and it can be used by individuals to increase their technical knowledge of the sector. It is designed to provide trainers from any implementing agency or academic institution with information from which to design and implement a training course according to the specific needs of the target audience, the length of time available for training and according to the training objectives. It is written in clear English and will be available in other languages in the future.

### How is the HTP organised?

The HTP is organized into four sections containing a total of 21 modules which can be used as stand-alone modules or as combined modules depending on the training needs.

#### Section 1: Introduction and concepts

1. Introduction to nutrition in emergencies
2. The humanitarian system: Roles, responsibilities and coordination
3. Understanding malnutrition
4. Micronutrient malnutrition
5. Causes of malnutrition

#### Section 2: Nutrition needs assessment and analysis

6. Measuring malnutrition: Individual assessment
7. Measuring malnutrition: Population assessment
8. Health assessment and the link with nutrition
9. Food security assessment and the link with nutrition
10. Nutrition information and surveillance systems

**Section 3: Interventions to prevent and treat malnutrition**

11. General food distribution
12. Management of moderate acute malnutrition
13. Management of severe acute malnutrition
14. Micronutrient interventions
15. Health interventions
16. Livelihoods interventions
17. Infant and young child feeding
18. HIV/AIDS and nutrition
19. Working with communities in emergencies

**Section 4: Monitoring, evaluation and accountability**

20. Monitoring and evaluation
21. Standards and accountability in humanitarian response

**Section 5: Additional Modules**

22. Gender responsive nutrition in emergencies
23. Nutrition of older people in emergencies

Each module contains 4 parts which have a specific purpose as follows:

**Part 1:** The Fact Sheet – provides an overview of the module’s topic and is designed for non-technical people to obtain a quick overview of the subject area.

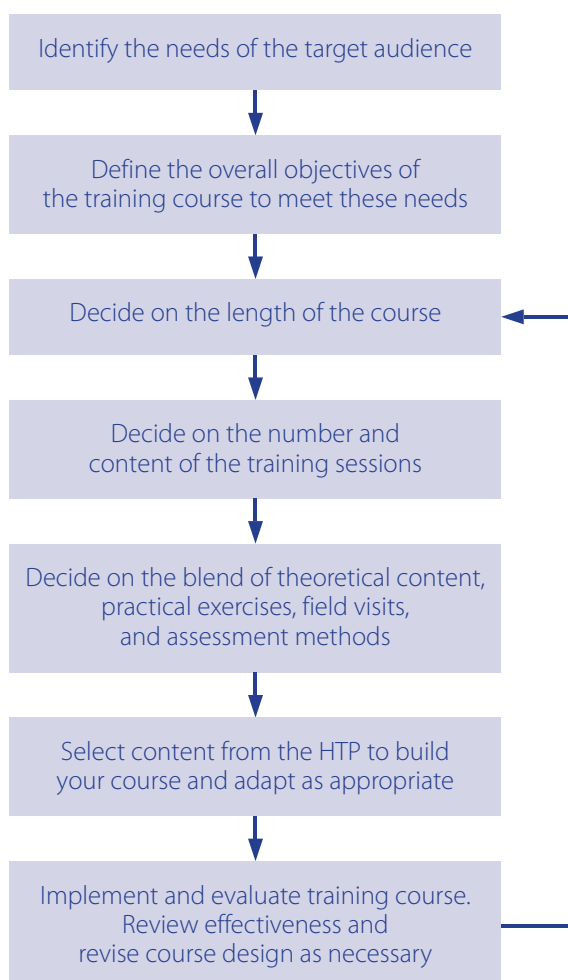
**Part 2:** The Technical Notes – for trainers and trainees, provides detailed technical guidance on current policies and practice.

**Part 3:** The Trainers’ Guide – aims to help trainers develop a training course and provides tips and tools which can be adapted to the specific training context.

**Part 4:** Resources – lists of relevant available resources (including training materials) for the specific technical area.

## How to use the HTP

The HTP should be used during a process of course development. The process of course development involves a number of steps and these are summarised in the diagram below.





## PART 1: FACT SHEET

The fact sheet is the first of four parts contained in this module. It provides an overview of the nutrition of older people in emergencies. Detailed technical information is covered in Part 2. Words in *italics* are defined in the glossary for this module. The Full Glossary accompanying the Harmonised Training Package (HTP) explains other terms. This module highlights key issues for older people that should be considered by the humanitarian response clusters.

### Who are “older people”?

In this module, the term “*older people*” refers to **people aged 50 and above**. This takes into account the social construction of ageing in low to middle income countries in contrast to the retirement-from-work age applied in high income countries.

### Our ageing world

Almost a quarter of the world’s population is over 50 years old. Rapid ageing affects low and middle income countries, with the largest numbers of older people living in Asia, and the fastest growth rates in sub-Saharan Africa. This **demographic transition** is accompanied by economic, social and cultural changes affecting older people in both urban and rural areas, as well as by changing disease patterns, particularly an increase in Non-Communicable Diseases (NCDs).

In low and middle-income countries, **older people play active roles** in their households and communities, through their involvement in livelihoods, income generation, agriculture, childcare and feeding; as well as family and economic decision-making. Making these important contributions and maintaining independence in *activities<sup>1</sup> of daily living (ADLs)* for as long as possible, depends largely on older people’s health and nutritional status.

### Commitments and policies addressing ageing

The **Madrid International Plan of Action on Ageing** (MIPAA), 2002, is the first international commitment to include ageing in national social and economic development policies. It states

that: “in emergency situations, older people are especially vulnerable and should be identified as such because they may be isolated from family and friends and less able to find food and shelter.” (Objective 2). MIPAA calls for an end to *ageism* and *age discrimination*, including in emergencies.

The Inter-Agency Standing Committee (IASC) (the UN’s primary mechanism for coordination of humanitarian assistance) works closely with HelpAge, the world’s leading international non-governmental organisation (INGO) focused on older people. In 2008, they jointly produced the “**IASC Guidelines: Humanitarian Action and Older Persons: an essential brief for humanitarian actors**”.

### Underfunding for older people in the humanitarian response

Older people form a significant proportion of those affected by emergencies. An estimated 26 million older people are affected by natural disasters every year, with millions more affected by conflict and internal displacement. However, funding does not reflect this. In 2010 and 2011 only 0.7 per cent of funding to the UN Flash and Consolidated Appeals Process was allocated to projects that included at least one activity targeted at older people or people with disabilities.

Older people are often not mentioned in the nutrition policy documents of many countries where emergencies occur, or in donor strategies for interventions and training for nutrition. Older people are also missing from most guidelines and protocols used by humanitarian response agencies. The only INGO dedicated to older people, HelpAge, has produced practical guidelines on dealing with older people in emergencies: guidelines on shelter programmes, health interventions, livelihood, protection and nutrition in emergencies.

### Rights of a ‘vulnerable’ but missing group

Everyone has a right to humanitarian assistance, regardless of age. This is underpinned by the UN Principle of Impartiality, endorsed by the UN General Assembly in 1991.

<sup>1</sup> Activities of Daily Living are: bathing, getting dressed, transferring from bed to chair or from the floor, using the toilet and being continent, without assistance or supports – also described as *functional ability*.

However, despite older people frequently described as a 'vulnerable group' and recognised as having distinct needs, this does not guarantee their inclusion or participation in humanitarian programmes, or the absence of ageism and age discrimination. In line with the humanitarian principle of fulfilling rights and acting with impartiality, the nutritional status and vulnerability assessment of older people in emergencies should be a standard component of humanitarian programming. However, older people are often excluded from assessments and livelihood and recovery interventions (which target younger adults), and from nutrition and feeding programmes (which target undernutrition in young children and pregnant and lactating women). Such focus on children under five years old is based on the high physiological need for energy intake in childhood. It is also due to an historical preferential value given to children by professionals in the humanitarian sector. These two factors have contributed to a low knowledge base about the specific nutrition experiences and needs of older people.

Given what we know about the crucial role that older people play in households and families, a complementary approach to avoiding mortality in young children in an emergency would be to ensure the nutritional status and functional ability of the older people that care for them.

### Ageing and nutrition

Many physiological changes accompany the ageing process and can impair nutrition status. These include changes in hormone activity altering body composition, weakening immune status raising the risk of infections, changes in the gastrointestinal tract that interfere with digestion and nutrient absorption and tooth loss which limits food choices and food intake.

Age-related changes in the proportions of fat and muscle in the body are particularly important because of their relationship with functional capacities such as muscle strength and mobility, which are key to independence in ADLs. Increasing age may also bring changes in appetite and a reduction in taste and smell senses, which can affect food intake.

### Nutritional requirements

The nutritional requirements (for energy, protein, fat, vitamins and minerals) for older people are very similar to the rest of the adult population. Recommendations for daily energy intake are available up to the age of 60 years, with calorie requirements dependent on weight, *basal metabolic rate* and physical activity level.<sup>2</sup> The energy requirement for a male weighing 60kg, and a female of 52kg, both less than 60 years old, is 1,890kcal (range 1,780-2,010) per day. However, these recommendations are largely based on populations living in

developed countries so their relevance to populations exposed to nutrition emergencies more common in low-income countries is unknown. Protein requirements are generally 0.8g/kg/day, providing approximately 10-12% of energy from protein, similar to younger adults. The requirement for energy from fat is also similar to younger adults (at least 15% of energy).<sup>3</sup>

With increasing age and decreasing physical activity, the nutritional requirements of older people for calories decreases whilst the requirements for most micronutrients, especially vitamin D and B12, stay the same or tend to increase. This means that older people need more **nutrient-dense** (the amount of nutrients in relation to the energy content of the food) foods: an older person's diet should contain adequate nutrients in a smaller amount of energy.

Fluid intake is also very important for older people because they are more vulnerable than younger adults to dehydration. The daily requirement for water is 30ml per kg, or approximately 1.5-2.0 litres per person (6-8 cups). The increased requirement is due to deteriorating changes in kidney function and a decreased thirst drive.

### Risk factors for undernutrition

Inadequate nutritional intake is the main cause of undernutrition in old age. This is influenced by a complex variety of risk factors. They include genetics as well as the physiological, psychological and social changes associated with ageing which affect food intake and body weight. The presence of illness, drug use and declining sensory functions (sight, taste, smell) are complicating factors. Social isolation and lack of supports can lead to depression and loneliness, which are related to undernutrition in this age group. Emotional and psychosocial trauma and changes in social and economic circumstances all affect food intake and food choice.

### Undernutrition in older people

The main nutrition concerns for older people in emergencies are acute malnutrition (wasting or oedema) and micronutrient deficiency diseases (particularly of Vitamin D, Vitamin B12 and iron).

The terms *Chronic Energy Deficiency* (CED) and *Acute Energy Deficiency* (AED), commonly used when referring to malnourished children and younger adults, are not entirely appropriate to describe undernutrition in older people because energy is not the only determining factor in this population group. Older people can be affected by *acute malnutrition* or have *stable malnutrition* with long-standing thinness. In emergencies, acute malnutrition in older people can occur quickly among the normally nourished, or it can occur on top of an already existing state of stable malnutrition.

<sup>2</sup> Report of a Joint FAO/WHO/UNU Expert Consultation, 2001. Human Energy Requirements Technical Report Series No.: 724

<sup>3</sup> Ausman L and Russel R, 1994. Nutrition in the elderly. In: Shils M and Olsen J (eds). Modern nutrition in health and disease. 8th Edition. Pennsylvania. Lea and Febiger. Pp 770-9



### Assessing nutritional vulnerability

Generally, social and psychosocial factors assume greater significance in the diet, food choices, food intake and nutritional and functional profiles of older people, as compared to other population groups. These are very important in emergency situations. Factors such as widowhood, bereavement, loss of home, witnessing violence and chaos, social and household isolation, and loss of social supports can lead to psychosocial problems from which it is difficult to recover, and which have profound nutritional and health consequences.

Checklists<sup>4,5</sup> and conceptual flow diagrams<sup>6,7</sup> are available for the assessment of nutritional vulnerability in older people, and should always be adapted to the local context. The extent and depth of enquiry will depend on the nature and stage of the emergency and available resources and priorities.

### Clinical and medical concerns

The symptoms of kwashiorkor and marasmus observed in children can also be seen in older people. Close attention should be paid to the assessment of **micronutrient deficiencies in older people**, particularly levels of *beriberi* (thiamine deficiency), *pellagra* (niacin deficiency) and *scurvy* (vitamin C deficiency). Attention should also be paid to the **dietary intake of vitamins D and B12, and iron** because of changing physiological requirements with age. More information on micronutrient assessment and interventions can be found in the HTP Module 4.

Underlying chronic diseases, existing infections including HIV and AIDS, medical issues and drug use can be complicating factors in the nutritional status of older people, and should be assessed in emergencies. Assessing deteriorating sensory abilities, particularly loss of sight, will also be very important. More information on health assessment and links with nutrition, and on health interventions, can be found in HTP Modules 8 and 15 respectively.

### Anthropometry

**There are no internationally agreed anthropometric indicators and related cut-off points to assess nutritional status in older people, including in emergency situations.** Research is urgently needed to define anthropometric and contextual indicators, and cut-off points for screening into feeding, and other, programmes and discharge. There are no

recommended categories of undernutrition classification for adults above 65 years old.

The latest guidelines from UNHCR/WFP (2011) state that, until new evidence is available, the cut-off points for adults from the WHO Expert Consultation Report (1995) for anthropometry should be applied.<sup>8</sup> However, this **refers only to adults up to 49 years of age and not older people.**

**Mid-Upper Arm Circumference, MUAC**, is recommended as the nutritional status assessment tool for older people. It is a sensitive indicator for the loss of muscle mass, and is also a simple and highly transportable method for use in emergencies. MUAC can be used for undernutrition prevalence surveys, for individual criteria for admission and discharge into intervention programmes, and for programme monitoring. For both genders, a MUAC measurement between 161mm and 185mm without clinical or social criteria has been used in humanitarian emergencies as a cut-off for moderate acute malnutrition and admission into adult (aged up to 60 years) supplementary feeding centres.<sup>9</sup> However, these cut-offs are yet to be validated and more research is needed.

The use of BMI with older people is often problematic especially when height cannot be measured accurately (although proxy measurements for standing height are available, such as *halfspan*). Body shape, particularly the ratio of sitting to standing height (Cormic Index), in different ethnic groups should be considered in any situation, although this is seldom done in practice. There are also interpretational problems with BMI in older people because of body composition changes with ageing affecting relative proportions of fat and muscle tissue. However, despite these limitations, and lack of evidence of its relationship to outcomes of functional relevance to older people, BMI continues to be used although MUAC is the better choice.

The WHO Expert Consultation Report (1995) for anthropometry recommended a BMI cut-off 16 to categorise severe acute malnutrition in older people (without oedema) up to the age of 65 years. However, field experiences have shown that using this cut-off can result in large numbers of adults who are healthy but thin. Additional clinical criteria (including dehydration, presence of oedema, inability to stand), social vulnerability factors and a history of recent weight loss are important parts of any assessment.

<sup>4</sup> Handicap International Disabled, Vulnerable and Frail Persons Assessment Module (see Annex D)

<sup>5</sup> Ismail S and Manandhar M, 1999 (Joint publication of HelpAge International and the London School of Hygiene and Tropical Medicine). Better nutrition for older people: assessment and action (page 73)

<sup>6</sup> Ismail and Manandhar, 1999 (page 42)

<sup>7</sup> Borrell A, 2001. Addressing the nutritional needs of older people in emergency situations in Africa: ideas for action. For HelpAge International Africa Regional Development Centre (page 46)

<sup>8</sup> These are: less than 224mms for severe acute malnutrition (SAM) for men, less than 214mms for women. Moderate acute malnutrition (MAM): between 231mms and 224 mms for men, and between 214 and 221 mms for women.

<sup>9</sup> Collins S, Duffield A and Myatt M, 2000. Assessment of nutritional status in emergency-affected populations, ACN/SCN

### Undernutrition and functional outcomes

In the absence of growth, and with mortality and morbidity outcomes confounded by the accumulative life effects of events, lifestyles and behaviours, functional ability is emerging as the most relevant outcome against which to measure nutritional status in older people. Functional ability<sup>10</sup> can be assessed using self-reported ADL questionnaires, and other tools including physical function tests such as hand-grip strength. These are rarely, if ever, used in emergencies however. More research is needed to clarify relationships between anthropometric indicators and functional outcomes of relevance to older people in low and middle-income countries.

### Interventions for older people in emergencies

A broad-based approach to interventions for tackling undernutrition is crucial for older people because of their vulnerability to a complexity of causes: social, cultural, psychosocial, economic, physiological, dietary, and medical. Consequently, a **broad range of intervention responses** will be necessary to tackle all the different determinants of undernutrition and vulnerability in this population group. These interventions should range from protecting health, a healthy environment and livelihoods, addressing social factors, providing care and support networks and improving food intake through various food aid mechanisms.

While food aid remains the dominant form of response to nutrition-related problems in emergencies, it is becoming widely recognised that to have maximum impact, food aid needs to be targeted well and coupled with other non-food interventions that address the health (physical and mental), care and social environments. As with other age groups, responses targeted at older people in emergencies will include those that aim to prevent, as well as treat, undernutrition.

Attention should be paid to the location (distance), layout and design, lighting, safety aids (such as hand rails) and the provision of toilets and kitchens in distribution centres to allow access for older people.

### Preventing undernutrition through food

Preventing undernutrition in older people can be addressed through the provision of a general ration, and through blanket and targeted supplementary feeding programmes. The general ration for older people is covered by the same criteria as for adults, but this is often inappropriate in terms of nutrient density. Analysis of the nutrient density and dietary diversity of foods and food intake should be conducted. The level of micronutrients does not usually meet older people's requirements and will need to be addressed.

The utilisation and acceptability of food aid provided are often key areas of concern for older people. It is important to provide foods that are easily prepared, digestible, familiar and culturally acceptable. Provision of fresh food items, nutrient-dense commodities and micronutrient-fortified foods are particularly important for older people.

### Non-food interventions to prevent undernutrition

Non-food interventions to prevent undernutrition in older people include income and livelihood support, particularly cash transfers, social support to reduce vulnerability, health and environmental support, social interactions and light physical activity, appropriate shelter and broad community support programmes.

Increasing frequency of food distributions, ensuring easy availability of fuel and water, adapting queuing systems and supplying manageable equipment (such as smaller sizes/capacities of carrying equipment) are ways to improve food security through access to food provisions and feeding programmes for older people.

### Treating undernutrition

Using a combination of MUAC and other vulnerability criteria (referred to above) older people with severe and moderate acute undernutrition can potentially be treated in the same way as other adults, through:

- In-patient Therapeutic Care (ITC)
- Targeted Supplementary Feeding Programmes (TSFP)
- Control and treatment of micronutrient deficiency diseases
- Community Management of Acute Malnutrition (CMAM) with stabilisation centres, food aid commodities (such as Ready-to-Use Therapeutic Foods, RUTF) and outreach.

However, with older people often absent from protocols and guidelines there is little documented evidence about whether such interventions are actually happening in emergencies, and very little is known about their effectiveness in this population group.

### Integration

In addition to nutrition and vulnerability responses, the impact of the emergency on HIV as it affects older people will need consideration. Disability, gender and protection principles should also be mainstreamed in any response. Principles of early recovery and disaster risk reduction require integration into all nutrition activities for older people, along with the building of national capacity on understanding and dealing with undernutrition in this population group.

<sup>10</sup> Manandhar M, 1995. Functional ability and nutritional status of free-living elderly people. *Proceedings of the Nutrition Society*: 54; 67-691

**Key messages**

1. Older people (aged 50 and above) make up nearly a quarter of the world's population and their numbers are growing fastest in low and middle income countries.
2. Older people are increasingly affected by natural disasters and conflicts.
3. Older people have specific vulnerabilities and needs that are often neglected by humanitarian responses.
4. Older people play important roles in household livelihoods and childcare, including child feeding, so it is important to protect their health and nutritional status as much as possible to maintain their ability to function actively in daily life.
5. Functional ability is the best outcome indicator against which to measure nutritional status in older people, in place of mortality and morbidity (and growth) used with children.
6. In line with human rights and UN Principle of Impartiality, humanitarian responses to undernutrition and vulnerability in older people should be a standard component of planning and programming.
7. The causes of undernutrition in older people are complex. They involve physiological, social, cultural, psychosocial, economic, and medical factors in addition to inadequate quantity and quality of diet and food intake.
8. All these factors need to be considered in nutritional vulnerability assessments through use of checklists and questionnaires.
9. With no agreed anthropometric indicators and cut-offs for assessing undernutrition in older people, WHO's 1995 recommendations for assessing physical status in adults should be used.
10. Mid-Upper Arm Circumference (MUAC) is the best anthropometric measurement to take in emergencies.
11. A broad-based approach to interventions for tackling undernutrition in older people is crucial.
12. Non-food based interventions relate to shelter, water and sanitation, distribution systems, social support, medical care, psychosocial support, livelihood and cash transfer activities.
13. Food interventions for older people should focus on the general ration and selective feeding programmes, including CMAM.
14. Nutrient-dense and micronutrient-fortified foods are needed to meet nutritional requirements for older people.
15. The participation of older people in all aspects of planning and programming to prevent and address undernutrition is essential.

**Monitoring and evaluation (M&E)**

M&E interventions for older people should include analysis of their situation to better understand their specific needs, track their ability to access basic services and to assess the appropriateness of food rations and feeding programmes to meet these needs. For monitoring overall programme effectiveness, monthly information can be collected on various outcome levels: nutritional and health outcomes; community and family supports; and perceptions of programme effectiveness. The population group 'older people' represents a crosscutting theme that needs to be taken into account in M&E programmes.

**Participation, voice and inclusion**

It is important to take enough time to adapt the physical and social environment and the humanitarian assessment and response system to maximise the participation and inclusion of older people, and particularly older women. Older people can, and should be facilitated to, take an active role in assessments, interventions and monitoring. Tools and guidelines for conducting participatory activities with older people are available from HelpAge and its partners and associates worldwide: see <http://www.helpage.org/resources>

A caring approach is needed when assessing and responding to older people in emergencies, with attention paid to communication, respect, privacy, dignity and a variety of physical, social and emotional assistance. See also: HTP Module 19: Working with Communities.



## PART 2: TECHNICAL NOTES

The technical notes are the second of four parts contained in this module. They provide an overview of the nutrition of older people (50 years and above) in emergencies. The technical notes are intended for people involved in nutrition programme planning and implementation. They provide technical details, highlight challenging areas and provide clear guidance on accepted current practices. Words in italics are defined in the glossary.

### Summary

This module discusses nutrition in older people in low to middle income countries affected by emergencies. It explores the demographics of ageing and how ageing affects nutrition. It then describes techniques for nutrition assessment and the assessment of functional outcomes of relevance to older people in their daily lives. Finally, it presents the range of interventions necessary to protect and support the nutritional wellbeing of this important population group in emergencies.

**These technical notes have five sections.** It starts with a discussion on ageing in the developing world and presents international commitments to older people. This is followed by a section on vulnerability and rights of older people in emergencies. The next examines the determinants of undernutrition in older people and the complexity of risk factors and vulnerability experienced by this population group. The fourth section deals with the assessment of undernutrition and nutritional vulnerability of older people in emergencies, and the fifth section describes the range of interventions which can be put in place to support and protect older people's nutritional well-being.

These technical notes draw on the other HTP modules as well as the following references and Sphere standards (see boxes below):

- Borrel A, 2001. Addressing the nutritional needs of older people in emergency situations in Africa: ideas for action. HelpAge International, Africa Regional Development Centre. Nairobi. [www.helpage.org/download/4c4a1362b392f/](http://www.helpage.org/download/4c4a1362b392f/)
- Collins S, Duffield A and Myatt M, 2000. Assessment of nutritional status in emergency-affected populations. UN Administrative Committee on Coordination, Sub-Committee on Nutrition (ACC/SCN), Geneva. (<http://www.unscn.org/layout/modules/resources/files/AdultsSup.pdf>)
- Emergency Nutrition Network publication, *Field Exchange*. [www.enonline.net/fex](http://www.enonline.net/fex)
- HelpAge International Ageways no 76; Food and older people, February 2011. (<http://www.helpage.org/what-we-do/health/ageways-76-food-and-nutrition/>)
- HelpAge International and Age UK, 2011. On the Edge: why older people's needs are not being met in humanitarian emergencies.
- IASC Guidelines 2008
- Ismail S and Manandhar M, 1999. Better nutrition for older people: assessment and action. HelpAge International and the London School of Hygiene and Tropical Medicine.

**Key messages**

- Older people (aged 50 and above) make up nearly a quarter of the world's population (22%) and their numbers are growing fastest in low and middle income countries.
- Older people are increasingly affected by natural disasters and conflicts, and have specific vulnerabilities and needs that are often neglected by humanitarian responses due to an emphasis on other groups, particularly children under five.
- Older people play important roles in household livelihoods and childcare so it is important to protect their health and nutritional status as much as possible to maintain their ability to function actively in daily life.
- Functional ability is the best outcome indicator against which to measure nutritional status in older people, in place of mortality and morbidity (and growth) used with children.
- In line with human rights and UN Principle of Impartiality, humanitarian responses to undernutrition and vulnerability in older people should be a standard component of planning and programming.
- The causes of undernutrition (either acute malnutrition or stable malnutrition) in older people are complex. They involve physiological, social, cultural, psychosocial, economic, and medical factors in addition to inadequate quantity and quality of diet and food intake.
- All these factors need to be considered in nutritional vulnerability assessments through the use of checklists and questionnaires.
- With no agreed anthropometric indicators and cut-offs for assessing undernutrition in older people, WHO's 1995 recommendations for assessing physical status in adults should be used.
- The participation of older people in all aspects of planning and programming to prevent and address undernutrition is essential.
- Mid-Upper Arm Circumference (MUAC) is the best anthropometric measurement to take in emergencies.
- A broad-based approach to interventions for tackling undernutrition in older people is crucial.
- Non-food based interventions relate to shelter, distribution systems, social supports, medical care, psychosocial supports, and livelihood and cash transfer activities.
- Food interventions for older people will focus on the general ration and selective feeding programmes. Nutrient-dense and micronutrient-fortified foods are needed to meet nutritional requirements for older people.

- Navarro-Colorado C, 2006. Adult malnutrition in emergencies: an overview of diagnosis and treatment Field Guidelines. Version 3. Action Contre La Faim. (<http://www.actionagainsthunger.org.uk/resource-centre/online-library/detail/media/adult-malnutrition-in-emergencies-an-overview-of-diagnosis-and-treatment-guidelines-version-3/>)
- WHO and Tufts University School of Nutrition and Policy, 2002. Keep fit for life: meeting the nutritional needs of older persons. Geneva. (<http://whqlibdoc.who.int/publications/9241562102.pdf>)
- WHO, 2002. Active Ageing: A Policy Framework.
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- Hutton D, 2008. Older people in emergencies: considerations for action and policy development. WHO.
- HelpAge International and UNHCR, 2007. Older people in disasters and humanitarian crises: guidelines for best practice.
- UNHCR/WFP, 2011. Guidelines for selective feeding: the management of malnutrition in emergencies.

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## Sphere standard

As a cross-cutting issue, ageing is mainstreamed in all Sphere standards and they all apply to the specific population of older people. Older people are specifically mentioned in the following sections:

### Outline of the cross-cutting themes: Older people (page 16)

Older men and women are those aged over 60 years, according to the UN, but a definition of 'older' can vary in different contexts. Older people are often among the poorest in developing countries and comprise a large and growing proportion of the most vulnerable in disaster- or conflict-affected populations (for example, the over-80s are the fastest-growing age group in the world) and yet they are often neglected in disaster or conflict management.

Isolation and physical weakness are significant factors exacerbating vulnerability in older people in disasters or conflict, along with disruption to livelihood strategies and to family and community support structures, chronic health and mobility problems, and declining mental health. Special efforts must be made to identify and reach housebound older people and households headed by older people. Older people also have key contributions to make in survival and rehabilitation. They play vital roles as carers of children, resource managers and income generators, have knowledge and experience of community coping strategies and help to preserve cultural and social identities.

### Minimum standards in food security and nutrition, Appendix 3 (page 223)

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.

Source: The Sphere Project 'Humanitarian Charter and Minimum Standards in Humanitarian Response; Chapter 3: Minimum Standards in Food Security and Nutrition', The Sphere Project, Geneva, 2011.

## Older people in a changing and challenging world

### Defining 'old'

For the purposes of this HTP module, the term '**older people**' refers to **people age 50 and above**. This definition differentiates the content from the term 'adult(s)' which refers to both men and women from 18 to 49 years.

Most high-income 'westernised' countries have adopted an arbitrary, chronological definition of an older adult or older (often referred to as 'elderly') person. This classification of 'old age' originated in economically driven government decisions about a set retirement age. Old age became inextricably linked to a transition in livelihood, marking a shift from working to retirement. It most commonly hinges on age cut offs of 60 or 65 years, although there is variation between countries.

This concept of old age does not always fit well in many low and middle income countries, including many that have experienced humanitarian emergencies in the last few decades. In non-western cultures, where formal retirement structures are only newly emerging, old age is more socially constructed. Age and life stage classifications tend to relate to changing health, the onset of physical impairments and disabilities and accompanying changes in social roles. Culture defines 'old' as the point when active contribution to household, agricultural or family livelihood activities is no longer possible.<sup>1,2</sup>

In recognition of these multidimensional aspects of defining 'old', initiatives, such as the Older Person in Africa for the Minimum Data Set (MDS) Project (1999-2003)<sup>3,4</sup>, have adopted the lower age of 50 years and above, arguing that this is a better representation of ageing for African populations as well as the social construction of old age.<sup>5</sup> Taking this age cut-off for older people also fits better with many relevant data

<sup>1</sup> Gorman M, 2000. Development and the rights of older people. In: Randel J et al., eds. *The ageing and development report: poverty, independence and the world's older people*. Earthscan Publications Ltd.; 3-21.

<sup>2</sup> Kinsella K and Phillips D, 2005. Global ageing: the challenge of success. *Population Bulletin*: 60 (1). New York.

<sup>3</sup> Ferreira M and Kowal P. See: [www.who.int/healthinfo/survey/ageing\\_mds\\_pub02.pdf](http://www.who.int/healthinfo/survey/ageing_mds_pub02.pdf)

<sup>4</sup> WHO, 2000. Report of a Workshop on creating a Minimum Data Set (MDS) for Research, Policy and Action on Aging and the Aged in Africa. Harare, Zimbabwe. Jan 20-22. Geneva. WHO: Ageing and Health Programme.

<sup>5</sup> WHO website on Health Statistics and health information systems: Definition of an older or elderly person.

collection and reporting systems, such as that for HIV/AIDS and other diseases, which include an adult category 'up to 49 years', and therefore older people as being 50 years and older.

### Our ageing world: a triumph and a challenge<sup>6</sup>

All of the world's countries are ageing as a result of social and economic progress. For the first time in human history, those who survive childhood can now expect to live past 50 years of age.

Twenty two per cent of the world's population is aged 50 years and above. About 12.6% is aged over 60 years. By 2050, the percentage over 60 years old is estimated to increase to 22% of the world's population, with absolute numbers passing 2 billion.<sup>7</sup> By then, older people will outnumber children under 14. People aged 80 and over are the fastest-growing population group, projected to increase almost fourfold by 2050. High HIV prevalence, low birth rate, conflict or economic migration means an even higher proportion of older people in the population.

Ageing is not just an issue for the world's richer countries. In low to middle income countries, low life expectancy at birth often masks the fact that there are millions of older people. Today 60% of the world's older people live in low to middle income countries. By 2050, this will have risen to 80%. The developing world will see a jump of 225% – to over 1.5 billion people over 60 years – between 2010 and 2050.<sup>8,9</sup> The ratio of older people to younger people is increasing fastest in low to middle income countries and disasters disproportionately affect poorer countries. Virtually all (97%) people killed by disasters live in low to middle income countries.<sup>10</sup> A recent estimation is that 26 million older people are affected by natural disasters every year, and many millions more are affected by conflict.

The Asian continent has the largest numbers of the world's older population. Over half of the world's older people live in Asia. For example, China is getting old before it is getting rich.<sup>11</sup> The sub-Saharan African region is considered to have the

fastest growing older population of any world region, although the exact demographic picture is unclear due to the absence of vital registration systems (recording of births and deaths) in most countries of the region, and the tenuous nature of demographic projections. As the poorest and least developed major world region, the ageing of Africa's population is largely unfolding in a context of widespread economic strain, social changes and, in many places, climate change, environmental degradation and political instability and conflict.<sup>12</sup> Most Africans enter old age after a lifetime of poverty and deprivation, poor access to health care and a diet that is often inadequate in quantity and quality.<sup>13,14</sup>

This demographic ageing transformation is accompanied by economic, social and cultural change affecting both rural and urban settings, changes which will also be played out in protracted and acute emergencies. Many of them not only have implications for the nutrition and health of the older people themselves, but also on the nutrition of other members of the household, particularly children, and pregnant and lactating mothers through the roles and responsibilities that older people have in their households and communities.

### Active role in livelihoods

In low to middle income countries, 80% of older people have no regular income. Less than 5% receive a pension.<sup>15</sup> Many older people have no choice but to work throughout their lives.

Older people in low to middle income countries are much more likely to be economically active than older people in the developed world. According to HelpAge's research, at least half of the over-60s in low to middle income countries are economically active, and a significant proportion (a fifth or more) are still working every day well into their late 70s. Overall, around half of the world's older people support themselves through informal labour, such as childcare and trading.<sup>16</sup> They contribute substantially to agricultural labour, animal husbandry, vegetable farming and household livelihoods and to the economic life of their communities. In South Africa, for example, research has shown that the income earned by older

<sup>6</sup> WHO, 2002. Active Ageing: a Policy Framework. Geneva.

<sup>7</sup> Population Division of the Department of Economic and Social Affairs of the UN Secretariat UNDESA Population Prospects 2010 update, <http://esa.un.org/unpp>

<sup>8</sup> State of the World's Older People, 2002.

<sup>9</sup> HelpAge International/AgeUK, 2011. On the edge: why older people's needs are not being met in humanitarian emergencies.

<sup>10</sup> IFRC, 2007. World Disasters Report.

<sup>11</sup> UNFPA, 2011. State of the World's Population: people and possibilities in a world of 7 billion.

<sup>12</sup> Aboderin I, 2010. Understanding and advancing the health of older people in sub-Saharan Africa: policy perspectives and evidence needs. *Public Health Reviews*: Vol 32 (no.2); 357-376.

<sup>13</sup> Charlton K and Rose D, 2001. Nutrition among older adults in Africa: the situation at the beginning of the Millennium. *Journal of Nutrition*: 131; 2424S-2428S.

<sup>14</sup> HAI Africa 2004.

<sup>15</sup> HelpAge International/AgeUK, 2011. On the edge: why older people's needs are not being met in humanitarian emergencies.

<sup>16</sup> Wells J, 2005. Protecting and assisting older people in emergencies. ODI Humanitarian Policy Group Network (HPN) Paper Number 53. December.

**Box 1: The impact of the loss of an adult**

At the household level, the impact of the loss of an adult cannot be underestimated. From a social and local economic point of view, the loss of an adult is more dramatic than that of a child – though both are equally regrettable. Adults are the main source of income and food for the rest of the group, they are the caretakers of the younger and older members of the group, and they are often the **only means for the family to be represented in social structures. Indeed, assessments of vulnerability** often consider the lack of the “head of the household” among the key criteria to identify families at particular risk of suffering the effects of the emergency (food shortages, malnutrition, and many others). The effect of the loss of one (or both) parents for the family and the social group has been demonstrated in the context of the HIV epidemic in Southern Africa. Avoiding adult deaths reduces the burden of any emergency, for example by preventing an increase in the numbers of orphans. It can also preserve the health and the lives of the main actors of post-crisis reconstruction, an invaluable asset.

Source: Navarro-Colorado, C. (2006) *Adult malnutrition in emergencies: an overview of diagnosis and treatment*. Field Guidelines, ACF, version 3.

people accounted for 30% of households' expenditure on child schooling, 20% on household food, and 15% on clothing.<sup>17</sup> Many young people start families without a reliable source of income and heavily rely on their parents and grandparents for livelihood support.

HelpAge and its associates across the world have documented the lives of older people in different situations and settings. A clear finding from research is that older people themselves consistently cite income as their number one priority. Maintaining independence as long as possible is crucial to older people as well as to society. Activities undertaken by older people that bring income into the household can also contribute to the nutritional status of household members.

However, some livelihood strategies can also put older people at risk. For example, venturing outside a camp to gather firewood or wild foods may expose older people, particularly women, to rape or other violence. Many older people may take on such tasks explicitly to protect younger members of the family from these risks.

The world is the most urbanised it has ever been in recorded history.<sup>18</sup> By 2030, 80% of the world's urban dwellers will be living in the cities and towns of low to middle income countries. The world urban population will be over 5 billion, and many of these new urbanites will be poor. Urbanisation modifies domestic roles and relations within the family, and redefines concepts of individual and social responsibility. In rapidly expanding urban areas in low to middle income countries, there has been a proliferation of non-traditional

family forms and new types of households. Smaller families and the dispersion of extended families in contemporary urbanized societies have, in combination, also reduced the level of kinship support systems available, especially for older women. In the context of growing urbanization, life for older people is increasingly challenging<sup>19</sup> especially for those affected by HIV/AIDS.<sup>20</sup>

Humanitarian emergencies also occur in rural areas. Older people in rural areas of many low to middle income countries are especially vulnerable to the effects of natural disasters or conflict.<sup>21</sup> Approximately 60% of the world's older people live in rural areas and this proportion is growing due to increased life expectancy and the high levels of migration of younger people to towns and cities in search of work.<sup>22</sup> Many older people choose to stay in the areas where they have always lived. The impact of humanitarian crises, in particular natural disasters, tends to be felt most strongly in rural areas, and the poorest will always suffer the most enduring damage. If older people are consistently among the poorest and most vulnerable parts of society, then the older poor living in rural areas are especially susceptible to the effects of disasters. Likewise, the migration of the young to the cities means that fewer people are available to care for, and support, older family members.

Rural-to-urban and transnational migration and the processes of urbanisation mean that the extended family is no longer as common as it once was. Some older people do not have families, and the people left around them may not have the resources or ability to help others at a time when they are also

<sup>17</sup> State of the World's Older People, 2002.

<sup>18</sup> UNDP 2007. Ageing and urbanisation.

<sup>19</sup> Aboderin I, 2004. Declining material family support for older people in urban Ghana. Oxford Institute of Ageing, 6th May.

<sup>20</sup> Chepnegenohanga G, 2008. HIV/AIDS and older people living in urban areas: a case of older people in Nairobi city slums. Paper presented at the Oxford Institute of Ageing Seminar 22 May.

<sup>21</sup> Wells J, 2005. Protecting and assisting older people in emergencies. ODI Humanitarian Policy Group Network (HPN) Paper Number 53. December.

<sup>22</sup> WHO 2002. Health and ageing Discussion Paper.

**Box 2: Mothers speak about grandmothers and childcare, Western Province, Kenya**

*"They help us a lot, especially when the baby is sick; they get us traditional herbs and if they fail to work, they assist us to go to the hospital. When we get busy or have somewhere to go, they remain with the children and take care of them until we have come back. They share with us the food that they cook, especially when it is something that the baby can eat. Those with cows that are milked provide milk for the baby. When you are not around, they cook for the children. They advise us to prepare the food in good hygienic conditions. They ensure the baby is kept clean always, and they are also very observant when it comes to the baby's health. They can tell when the baby is unwell, even when you as the mother didn't know."*

Source: Thuita F, (2011). *Engaging grandmothers and men in infant and young children feeding and maternal nutrition. Report of a formative assessment in Eastern and Western Kenya*. April. The Manoff Group, IYCN/PATH/USAID/Ministry of Health Kenya.

suffering. Given the context of limited access to social services, high incidence of poverty and low coverage of social security in many low to middle income countries, the increasing numbers of older people will challenge the capacity of national and local governments, and thus clearly needs to be more prominently on the agenda of development and humanitarian agencies.

### Changing social roles

Throughout the developing world, older people are key household decision-makers as well as carers for millions of children, the sick and people with disabilities. These older people survive through negotiating a complex combination of risks, vulnerabilities and resilience.

The UNICEF conceptual framework<sup>23</sup> for nutrition emphasises caregiving and feeding practices as critical for child growth and development. This is based on the premise that the mother, and to a lesser extent the father, is exclusively responsible for this caregiving. However, little attention has been paid to the caregiving and feeding practices conducted by older household members such as grandmothers. In recent years, research in Asia and Africa has revealed that grandmothers in particular have considerable influence on matters related to women and children's survival, growth and well-being and on other household members' attitudes and practices.<sup>24,25</sup> However, most emergency or development programmes neither acknowledge their influence nor involve them in efforts to strengthen existing family and community survival strategies.

Similarly, recent research dealing with child nutrition from numerous socio-cultural settings in Africa, Asia and Latin

America revealed common patterns related to the social dynamics and decision-making within households and communities. A major finding was that grandmothers play a central role as advisers to younger women. Grandmother social networks exercise collective influence on maternal and child nutrition-related practices, specifically regarding pregnancy, feeding and care of infants, young children and sick children. Another finding was that men play a relatively limited role in day-to-day childcare and nutrition within family systems. This indicates the need for nutritional policies and programmes to expand their focus beyond mother-and-child to include grandmothers.<sup>26</sup>

In The Gambia, longitudinal time-allocation research revealed the beneficial effects of older women, particularly maternal grandmothers, on the nutritional status, health, cognition and sociological well-being of children<sup>27</sup> in both rural and urban settings.<sup>28</sup> The reproductive status of the maternal grandmother also influences child growth, with young children being taller in the presence of post-menopausal grandmothers than grandmothers who are still reproductively active. In contrast, paternal grandmothers and male kin, including fathers, had negligible impacts on the nutritional status and survival of children. Maternal grandmothers provided the greatest protection from child mortality during the period of weaning.<sup>29</sup>

Recent in-depth research from Kenya (see **Box 1**) confirms that grandmothers are often frontline caregivers of young children, and powerful influencers of decisions related to their general care and feeding. They are the main alternative caregiver in the mother's absence. They are central in decision-making on issues related to food preparation and feeding young children, health care (recognising signs of illness and advising on the

<sup>23</sup> UNICEF Conceptual Framework Reference.

<sup>24</sup> Aube J, 2006. Grandmothers promote maternal and child health: the role of indigenous knowledge systems' managers. *IK Notes: World Bank Newsletter*; 89.

<sup>25</sup> Sharma M and Kanani S, 2008. Grandmother's influence on child care. *Indian Journal of Paediatrics* 73 (4); 295-298.

<sup>26</sup> Aube J, 2012. The role and influence of grandmothers on child nutrition: culturally designated advisors and caregivers. *Maternal & Child Nutrition*. Volume 8, Issue 1, pages 19-35, January

<sup>27</sup> n = 1,691

<sup>28</sup> Sear R, Mace R and McGregor I, 2000. Maternal grandmothers improve nutritional status and survival of children in rural Gambia. *Proceedings of the Biological Society*: Aug 22: 267 (1453); 1641-7.

<sup>29</sup> n = 780; OR 1:00, p <0.01

course of action when children are sick), family livelihood (food production), and spiritual nurturing. They provide advisory support to daughters-in-law on running the household and on family life in general.

In many countries, as the middle generation dies of medical complications due to AIDS, or in conflict, or migrates from home in search of work, a generation of young children and a generation of older people are left behind. More older people than ever before in history are assuming the role of caretaker for their grandchildren and other orphaned children.<sup>30</sup>

HelpAge estimates that up to half of the world's children orphaned by AIDS are cared for by a grandparent. An on-going study<sup>31</sup> in Uganda found that in 34% of households, the caregivers of HIV/AIDS orphans are people over 50 years of age, and often much older. Almost all households headed by older people (98%) had on average three school-going orphaned children living in the household. The caregiving burden is likely to be complicated by issues related to poverty. One study showed that poverty rates in households with older people are up to 29% higher than in households without older people. Research in Zimbabwe found that older people were the main providers for people living with AIDS and children orphaned as a result of AIDS in 84% of cases, and 71% of these caregivers were female.<sup>32</sup>

It follows then, that maintaining good nutrition as an older person is likely to have beneficial effects on those cared for. The most widely used conceptual framework on nutrition<sup>33</sup> (see **Figure 1** in the section on undernutrition in older people, p.30) recognises the link between older people's nutritional status and the nutrition of young children through older peoples' roles as caregivers. It also makes reference to the important role that older people play in the treatment of malnutrition and sickness through supervision of adherence, for example, to feeding regimes. The effectiveness of this role will vary according to the educational level of caregivers. In poor countries, older people, particularly women, are more likely to have low literacy than younger adults. Less than 15% of women over 60 years in both South Asia and sub-Saharan Africa are literate.<sup>34</sup> Research has revealed positive associations between child nutrition and grandmothers' education in India and community-level maternal literacy in Vietnam.

All these findings imply that an individual-level perspective may fail to capture the entire impact of education on child nutrition, and support a call for a widening of focus of nutrition

policy and programmes from the mother-child pair towards the broader context of their family and community.<sup>35</sup> We are beginning to realise just how great a role grandmothers and older women have on the feeding and care of young children, either directly, or indirectly through instruction and supervision of younger women as they exert the power of senior status in households.

## Ageing, health and sickness

The ageing process is a change in which the physical, nervous and mental capacities of the human body gradually break down. The most obvious physical signs of ageing are bones that become weak and brittle, and muscles that weaken and shrink. Stiffening of the rib cage, weakening heart muscle and changes in the walls of arteries and veins lead to high blood pressure, breathlessness and general weakness. Stiffness and pain in the joints and muscles is a common and disabling problem for many older people. Low nourishment from a poor diet can be aggravated by loss of teeth and a lack of saliva. Nerve-endings may weaken and lose their sensitivity, which affects all the faculties. Poor vision and hearing can damage balance and reduce mobility. Physical changes in the brain and nervous system may result in short-term memory loss. This may lead to confusion and disorientation. The combination of these physical changes leaves the individual less able to cope with the activities of daily living. In an emergency where survival may depend on being able-bodied, the capacity of older people to survive can be seriously compromised by the ageing process.

In developed countries, substantial research programmes into aspects of ageing, health and nutrition are well advanced. A number of major studies on ageing, including aspects of health, nutrition and functional dis/abilities have also been taking place in low to middle income countries including: the WHO SAGE (global study of ageing and adult health, [www.who.int/sage](http://www.who.int/sage)); the International Union of Nutritional Sciences (IUNS) (a longitudinal study of ageing, food intake and nutrition in the Asia-Pacific region); and the Ibadan study, Nigeria (a major longitudinal study on ageing with a focus on the development of functional disabilities).

WHO has shown that, as a developing country ages, there is a corresponding shift in disease patterns, with an increase in **non-communicable diseases** (NCDs) that particularly affect older people. NCD deaths are expected to rise substantially as the population ages. Thirty-six million of the 57 million global

<sup>30</sup> Population Research Bureau, 2007.

<sup>31</sup> MRC/URVI/LSHTM.

<sup>32</sup> WHA II, HIV/AIDS and older people, March 2002.

<sup>33</sup> UNICEF/ACC/SCN, ACF 2011.

<sup>34</sup> State of the World's Older People, 2002.

<sup>35</sup> Moestue H and Huttly S, 2008. Adult education and child nutrition: the role of family and community. *Journal of Epidemiology and Community Health* 2008; 62; 153-159 doi:10.1136/jech.2006.058578



**Box 3: Older people and HIV/AIDS**

While the AIDS epidemic affects older people mainly through their role as caregivers, the elderly are also vulnerable to HIV infection. Older people do engage in sexual activity, including as a transactional activity to get cash (especially older women). However, because they are not considered a target group, older people miss out on many of the HIV prevention messages. Additionally, many of the statistics on HIV/AIDS do not include those over the age of 50. For example, UNAIDS prevalence data refers to adults between 15 and 49 years, further reinforcing the notion that older people are not at risk of contracting HIV. None of the 25 core UNGASS indicators includes people 50 years and over. However, data from national programmes in Africa, Asia and Latin America indicate that people aged 50 and older do make up a proportion of reported AIDS cases. Additionally, as access to antiretroviral therapy expands and the survival time of those living with HIV is extended, greater numbers of people with HIV will be living into their older years. As the epidemic progresses, older people must be counted and educated about the risks of HIV. Supported with appropriate knowledge and tools, they will also be able to play a greater role in educating and protecting their communities.

Source: adapted from PRB 2007, UNAIDS and WHO 2006, and other sources.

deaths each year are due to NCDs, mainly cardiovascular diseases, cancers, chronic respiratory diseases and diabetes. Nearly 80% of these deaths occur in low and middle income countries. Mental health issues, including dementia and depression, are also expected to rise.

Of the estimated 40 million people living with **HIV**, the vast majority are adults in their prime working years,<sup>36</sup> although relatively limited data exists on the number of older people who are infected with HIV and AIDS in low to middle income countries. What is becoming increasingly clear, however, is that HIV/AIDS is having a wide impact on older people in low to middle income countries, both in terms of the social and economic burden they have to contend with through illness or death of their adult children and taking care of surviving grandchildren, but also on their own health and survival prognosis.

The physical demands and emotional strain of caring for the seriously ill can also adversely affect the health of older people. Evidence from Thailand indicates that the increase in daily chores and activities related to caregiving adversely affects older people's physical health and well-being during the time they care for their ill adult children, and take on the care of grandchildren. In addition, worry and stress are commonly reported emotional problems as older people suffer anxiety over the illness and death of loved ones.<sup>37</sup>

The epidemic of HIV/AIDS is also contributing to changing perceptions of ageing in many affected low to middle income

countries. For example, in Nigeria, 62% of people affected by HIV and AIDS in Yoruba society are older people. The perception of ageing has changed from peaceful retirement to a crisis-ridden state of living, and the negative effects of neglect, poor feeding and poor health status. Loss of respect as repositories of experience, memory, authority and wisdom leads to psychological problems. These are exacerbated by a lack of income and disintegrating social support systems.<sup>38</sup>

Together with the childhood bias generally widespread throughout humanitarian interventions, older people are also largely neglected in the HIV and AIDS response, as well as in standard data collection and monitoring systems (see **Box 3**). For example, a wide-ranging review of nutrition and food security approaches in HIV and AIDS programmes in Eastern and Southern Africa referred only to adults aged 15-49 years, and did not mention older people.<sup>39</sup>

**Physical and mental health**

With immunity weakening with age, older people are vulnerable to epidemics such as cholera and dysentery. Cholera epidemics have occurred in refugee camps in Malawi, Zimbabwe, Swaziland, Nepal, Bangladesh, Turkey, Afghanistan, Burundi, and Zaire. Outbreaks of dysentery have been reported since 1991 in Malawi, Nepal, Kenya, Bangladesh, Burundi, Rwanda, Tanzania, and Zaire with case-fatality rates as high as 10% in young children as well as in the older people.<sup>40,41</sup>

<sup>36</sup> UNAIDS and WHO, 2006.

<sup>37</sup> Kespichayawattana J and VanLindingham M, 2003. Effects of co-residence and caregiving on health of Thai parents of adult children living with AIDS. *Journal of Nursing Scholarship* 35; 3; 217-214.

<sup>38</sup> Ajala A, 2006. The changing perception of ageing in Yoruba culture and its implications on the health of the elderly. *Anthropologist*: 8 (3); 181-188.

<sup>39</sup> Panagides D, Graciano R, Atekyereza P, Gerberg L and Chopra M, 2007. A review of nutrition and food security approaches in HIV and AIDS programmes in Eastern and Southern Africa. Equinet Discussion Paper no 48. Medical Research Council of Africa and Regional Network for Equity in Health in East and Southern Africa EQUINET.

<sup>40</sup> Centre for Disease Control Prevention, 1994. Health status of displaced persons following civil war-Burundi, December 1993-January 1994. *MMWR* 43:701-3.

<sup>41</sup> Toole MJ and Waldman RJ, 1997. The public health aspects of complex emergencies and refugee situations. *Annual Reviews of Public Health*: 18; 283-312.

**Box 4: Changes affecting older people in refugee camps in Angola**

The prolonged conflict in **Angola** and the consequent forced migration of millions have drastically reduced the level of interaction between older people and younger people that would have been common in rural areas. The setting up of community schools, for example, has lessened the role played by the older members of society in the lives of youth, as they are no longer perceived as the bearers of wisdom and advice. The Nzango, a traditional meeting place where members of the community, young and old, would tell stories, discuss important matters, settle disputes, pass on skills, was crucial to community life in Angola. Refugees, however, have no such place to congregate and interactions between older and younger generations is limited to the nuclear family. Skills that would have been taught to boys are no longer relevant, negating the role of older male members of the family. NGOs focus on empowering women, adding to the erosion of the traditional male role. Older men can start to feel worthless and insignificant. Hunting, fishing and farming as traditional livelihoods in which older men had seniority, status, leadership and decision-making power are no longer possible and subject to regulations in refugee camps. Members of many ethnic groups are placed together in refugee camps. In Mayukwayukwa camp in Zambia, for example, Mdundas, Kaluchazis and Lubales live side by side. As youngsters from all groups mix together, it is impossible for older men of the various groups to pass on customs and values.

Source: Erusetto, (2002) *Older people displaced: at the back of the queue?* (extract). Forced Migration Review no 14, University of Oxford. Adapted: <http://reliefweb.int/node/414745>

In addition to acute infections, trauma and fever, the chronic sickness burden of older people represents an additional factor to be considered during nutrition emergencies. Two thirds of older people interviewed by HelpAge in Darfur in January 2005 said that they suffered from chronic illnesses such as arthritis and gastritis, and a similar proportion of older people interviewed in Sierra Leone in May 2000 reported joint pains and arthritis.<sup>42</sup> For many older people in emergencies, physical health is their most important asset, and is bound up with the ability to work and to function independently. A third of older people surveyed in West Darfur in January 2005 were disabled in some way, and a quarter suffered from eye problems or blindness. Similarly, 47% of older people interviewed in Sierra Leone in 2000 suffered with poor eyesight.<sup>43</sup> This suggests a need for support to reduce the burden of disability among older people.

Emotional distress in emergencies is a common experience for many older people. Older people are at increased risk of poor emotional and mental health, including post-traumatic stress and war trauma. Loss of family members, carers and cultural and community ties can leave older people isolated and feeling excluded. Many older people live alone, especially widowed women. For many survivors, the most difficult aspect of a disaster is coping with day-to-day life afterwards. Some older people report feeling depressed at losing the status they once had in their community. For older people, the sense of status, security and comfort that a home provides is particularly important, so losing their home in a disaster or conflict can have a profound psychological impact, particularly on the older old (over 80 years old).<sup>44</sup> Some of these feelings are reflected in analysis summarised in **Box 4** above.

**International commitments, national responses**

In the light of these demographic, health and socio-economic realities, all national governments and international organisations working on development and humanitarian assistance, need to focus on older people as well as under-fives and mothers.

Compared to other vulnerable groups such as children and women for whom specific international rights conventions exist, older people tend to be covered implicitly via the universality of human rights. There is lack of adequate coverage under international law, with few legal instruments relating specifically to older people as a distinct category. The most important international events and documents relating to older people in humanitarian situations are depicted in **Annex 1**.

The first major international milestone for older people came in 1982 with the International Plan of Action on Ageing, agreed in Vienna at the First World Assembly on Ageing. This called on each state to formulate and implement policies on ageing on the basis of its specific national needs and objectives. It also suggested that each government establish multidisciplinary national commissions on ageing to develop its own national policy on ageing. In 1991 (16th December), to “add life to the years that have been added to life”, the UN General Assembly adopted **18 Principles for Older Persons** (see **Annex 2**). This called for ensuring the independence, participation, care, self-fulfilment and dignity of older people. It also specifically states that older people should have access to basic services, including shelter, adequate food and health care. In

<sup>42</sup> Wells J, 2005.

<sup>43</sup> HelpAge International, 2000. Assessment of the nutritional status amongst older people of Kenema District, Sierra Leone.

<sup>44</sup> HelpAge International, undated. Guidelines on including older people in emergency shelter programmes.

Table 1: Priorities of the Madrid International Plan of Action on Ageing MIPAA (2002)

<b>Priority 1</b>	<b>Older persons and development</b>	<ul style="list-style-type: none"> <li>• Active participation in society and development</li> <li>• Work and the ageing labour force</li> <li>• Rural development, migration and urbanization</li> <li>• Access to knowledge, education and training</li> <li>• Intergenerational solidarity</li> <li>• Eradication of poverty</li> <li>• Income security, social protection/security and poverty</li> <li>• <b>Emergency situations</b></li> </ul>
<b>Priority 2</b>	<b>Advancing health and well-being into old age</b>	<ul style="list-style-type: none"> <li>• Health promotion and well-being throughout life</li> <li>• Universal access to health care services</li> <li>• Older persons and HIV/AIDS</li> <li>• Training of care providers and health professionals</li> <li>• Mental health needs of older persons</li> <li>• Older persons and disabilities</li> </ul>
<b>Priority 3</b>	<b>Enabling and supportive environments</b>	<ul style="list-style-type: none"> <li>• Housing and the living environment</li> <li>• Care and support for caregivers</li> <li>• Neglect, abuse and violence</li> <li>• Images of ageing</li> </ul>
<b>Implementation and follow up</b>		<ul style="list-style-type: none"> <li>• National and international action</li> <li>• Research</li> <li>• Global monitoring, review and updating</li> </ul>

1998, the UN Guiding Principles on Internal Displacement<sup>45</sup> included age in provisions against discrimination, and specified that older people are entitled to special protection and assistance, and to treatment that takes into account their special needs.

The Second World Assembly on Ageing was held in Madrid in 2002. This meeting provided a prime opportunity to reinforce previous commitments and rally UN member states to take the issue of ageing and the rights of older people seriously. Specific consideration was paid to older people in humanitarian crises. The meeting produced the **Madrid International Plan of Action on Ageing (MIPAA)**, signed by the 159 governments present. MIPAA is the first international agreement explicitly committing governments to include ageing in social and economic development policies. It stated that: **“in emergency situations, older persons are especially vulnerable and should be identified as such because they may be isolated from family and friends and less able to find food and shelter”** (Objective 2). MIPAA priorities were identified, as summarised in **Table 1**.

A number of articles and objectives related to older people in emergency situations were specified: see **Annex 3**. MIPAA also calls for an end to **ageism and age discrimination**, as defined in **Box 5**.

Despite these plans and guiding principles agreed at international level, national responses often lag behind. HelpAge’s Asia-Pacific Office and Age UK conducted an analysis of policies relating to older people in countries in the Asia-Pacific region. This includes several countries affected by humanitarian emergencies caused by recent natural disasters. The analysis revealed that, although most countries have some form of Disaster Reduction Strategy, most do not mention older people specifically. Myanmar is the only country in the region to include older people in its national action plans.

Similarly, nutrition policies drawn up by national governments often fail to make specific mention of older people. For example, Sudan published a National Nutrition Policy in 2008.<sup>46</sup> While stating the policy is aimed at “all citizens”, the conceptual framework and nutrition activities refer almost exclusively to

<sup>45</sup> UN OCHA, 2004. Guiding Principles on Internal Displacement.

<sup>46</sup> National Nutrition Policy and Key Strategies 2008-2012, Federal Ministry of Health, Republic of Sudan. June 2008.



**Box 5: Ageism and age discrimination**

The word 'discrimination' comes from the Latin '*discriminare*' which means 'to distinguish between'. Discrimination is action based on prejudice, resulting in unfair treatment of people. Ageism is becoming at least as important as racism and sexism. However, policy makers and the public continue to view age discrimination as less pervasive and less insidious or harmful than race or sex discrimination. The joint effects of combined ageism, sexism and/or racism can be significant.

Source: Mooney-Cotter A-M, 2008. Just a number: an international legal analysis on age discrimination. Ashgate Publishing, UK.

children. In the analysis of the basic causes of malnutrition, there is acknowledgement that these are exacerbated by differentials in terms of accessing and utilising these resources across geographic areas, ethnic groups and gender, but age is not mentioned.

The UN system plays a unique coordination role in the global humanitarian system. Its coordination system has the potential to ensure that older people's needs are specifically met. However, there is no dedicated or specialised UN agency to look after older people. Over the last decade, the UN system has increasingly recognised older people as a cross-cutting issue as well as a specific emergency nutrition challenge (see **Table 1**). In 1999, the UN declared 1st October the annual International Day of Older Persons. Important recent developments include the UN General Assembly establishment of an Open-Ended Working Group on Ageing (OEWG) in October 2010, followed by the 78th Inter-Agency Standing Committee (IASC) Working Group Meeting in November 2010, another OEWG.

The IASC is the UN's primary mechanism for inter-agency co-ordination of humanitarian assistance, and has been working with HelpAge since 2008 to mainstream older people into all areas of humanitarian action. Guidance is available from the IASC on humanitarian action and older people. However, recent HelpAge/Age UK research has shown that the humanitarian coordination system focuses mainly on younger age groups and fails to ensure the inclusion of older people in the humanitarian response.

Within WHO, the Ageing and Life Course Department leads on World Health Days theme of ageing and older people (e.g. 2012 World's Health Day slogan was "good health adds life to years") and hosts a website on ageing (<http://www.who.int/ageing/en/>). Whilst WHO's Nutrition for Growth and Development Department has not recently focused on older people, it commissioned and published the Physical Status anthropometry review in 1985, which covered the nutritional status assessment of adults for the first time. An update on this is under consideration.

Very few international non-governmental organisations (INGOs) are dedicated to older people. HelpAge is the only INGO solely dedicated to addressing the needs and rights of older persons and implements activities through regional centres, country offices, affiliates and civil society consortia. Age Demands Action (ADA) is a HelpAge advocacy campaign, which aims to bring about changes for older people by older people on a sustainable basis through influencing local policies. For example, during the Pakistan floods, one initiative was to influence the public transport system to provide older people with better services and seating. Other key INGO's include Global Age Action and the Global Alliance for the Rights of Older People.

**Vulnerability and rights**

HelpAge believes that, in its current state: "the humanitarian system is poorly equipped to ensure an equitable response for the most vulnerable. Whilst issues specific to children, age, old people, women and those with disability are widely written about, there are few mechanisms to deal with them".

In a disaster, all parts of a population may have been exposed to the same risks but the vulnerability and resilience of some households, and/or some specific members of a household to the impact of a shock on their food security will vary. The term 'vulnerable group' is widely used throughout the humanitarian literature, in guidelines and protocols, with frequent references to 'vulnerable groups' in need of special assistance and/or targeting, including for undernutrition. However, there is no universally accepted clear definition of vulnerability, leaving the term open to interpretation. While the 'elderly', 'older people', 'widowed', 'disabled', 'unaccompanied old' are often included under the umbrella group 'vulnerable', they compete with the more readily targeted children and women. Being mentioned in a long list of the 'vulnerable' does not guarantee inclusion in programmes.

HelpAge favours the following (Handicap International) **definition of vulnerability:**

*"The conditions determined by physical, social, economic and environmental factors or processes, which increase the susceptibility of an individual or community to the impact of hazards and risks e.g. age, gender, poverty or location"*

This definition highlights two main aspects of vulnerability:

- Individual/household/community impairment versus capacities and coping mechanisms.
- External constraints/events/crises versus a stable situation.

Vulnerability is not necessarily a permanent state because it combines personal factors (such as physical condition) with situational factors (such as displacement, or risk of hypothermia). To be results orientated, the existing situation should always be at the forefront of any consideration of vulnerability.

This definition also stresses the various dimensions of vulnerability. Social and psycho-social vulnerability refers to the disruption, or risk of losing, normal social support networks, whether kin or non-kin, formal or informal. An additional key source of social vulnerability for older people is ingrained stigma, ageism and age discrimination (see **Box 5**) to which many people are subjected.<sup>47</sup> Biological or physical vulnerability refers to risk of partial or complete loss of functional ability, either permanently or through temporary impairment. This can result from chronic disease, illness or accident as well as exposure to cold (older people are more susceptible than young people to hypothermia) and extreme heat through dehydration.

In the context of food insecurity, FAO<sup>48</sup> has defined vulnerability as:

*“The full range of factors that place people at risk of becoming food insecure. The degree of vulnerability of individuals, households or groups of people is determined by their exposure to the risk factors and their ability to cope with or withstand stressful situations.”*

In terms of undernutrition, the vulnerability focus should be on reducing the risk of, and preventing, early deterioration of nutritional status. There is more discussion of nutritional vulnerability in the assessment section of this module.

### Rights and the principle of impartiality

Vulnerability assessment and analysis are commonly used in humanitarian emergencies (see section on assessment for more detail), including for older people as a vulnerable group with distinct needs. However, the terminology of needs and vulnerability may be insufficient to address the determinants and effects of undernutrition in older people because other population groups also described as ‘needy’ and ‘vulnerable’, such as young children and pregnant women, take precedence. Scarcity of funds and resources and lack of agency

capacity and skills to deal with those groups are often cited as reasons for this. However, it is important to acknowledge that in any situation, including disasters and conflict, everyone has the same human rights. Despite the demographic evidence of population ageing, and increasing advocacy, there is still little evidence that the rights (rather than the needs) of older people are being systematically identified within mainstream humanitarian response or coordination.

The principle of impartiality stems from this equity of rights. Everyone has a right to humanitarian assistance regardless of race, nationality, political ideology or affiliation, religion, gender or age. This is the basic tenet under which almost all humanitarian actors claim to operate. However, research shows that the particular needs of older people as a ‘vulnerable’ group are not usually included in consultations and assessments and do not receive appropriate humanitarian assistance.

The UN Humanitarian Principles, endorsed in 1991 by the UN General Assembly, refer to Humanity, Neutrality and Impartiality (OCHA 2010), although age is not specifically mentioned. The Sphere Project (2011)<sup>49</sup> does refer to age as a ground for non-discrimination under the right to humanitarian assistance. Sphere’s rights-based approaches to humanitarian assistance asserts that it is time to shift the emphasis away from a needs-focused humanitarian system to one that is more grounded in human rights for all and underpinned by the principle of impartiality. This means challenging the existing ‘childhood bias’ in humanitarian assistance and the provision of more funding, capacity, resources and monitoring for the realisation of the rights of older people in humanitarian crises. There is also a need to facilitate the opportunities for communities to identify vulnerable groups and households themselves, according to their own criteria as part of strengthening participatory processes.

Although human rights law recognises that all people have certain fundamental rights, including the right not to be discriminated against, most legal instruments predate the problem of ageing in low to middle income countries and age is not prohibited as a basis for discrimination. Therefore, HelpAge believes that the development of a specific legal treaty devoted to upholding and protecting the rights of older people, should be considered (for example, a Convention on the Rights of the Older Person).

The ability to feed oneself and one’s family adequately is a human right. The right to adequate food is realised “when every man, woman and child, alone or in community with others, have physical and economic access at all times to adequate food or means for its procurement.” This implies the “availability of food in a quantity and quality sufficient to satisfy the dietary

<sup>47</sup> WHO 2011. Statement: Panel discussion on the realization of the right to health of older persons. 18th session of the UN Human Rights Council).

<sup>48</sup> FAO 2000.

<sup>49</sup> Sphere Project, 2011. Humanitarian Charter and Action Sheet 3.1.

**Box 6: Examples of participatory processes with older people**

- Livelihoods Analysis – in which people analyse and quantify different sources of income and support – is a useful tool for finding out about sources of cash and non-cash income, expenditure and use of resources. It can help us understand how older people make resource decisions, their livelihood strategies and how household resources are acquitted and shared among members.
- Flow diagrams – to show causes, effects and relationships.
- Daily activity diagrams – e.g. life in camp (for facilitating discussion about gender roles).
- Mapping
- Guided transect walk (e.g. how far people have to go to fetch water or fuel, or get to the distribution or health centre, what that journey is like and observe physical, sensory and mental capacities). While walking we can notice problems seeing, hearing, walking or sitting for long periods, what they are required to carry and how easy this is for them.

Source: HelpAge International, 2002. Participatory research with older people: a sourcebook.

needs of individuals, free from adverse substances, and acceptable within a given culture”, and the “accessibility of such food in ways that are sustainable and that do not interfere with the enjoyment of other rights.”<sup>50</sup>

All stakeholders in nutrition emergencies need to be aware of their full responsibilities as duty-bearers to promote the realisation of the right to food for everyone, including older people, and to make efforts to ensure that there is equitable access to healthy and appropriate food for all sections of the population. This right refers not just to the right to be fed but also to be supported in their capacities and efforts to achieve sustainable food security for themselves, their households and their communities.

The Fifth Report on the World Nutrition Situation<sup>51</sup> urged the practical application of the right to food. It cited the example of India’s Supreme Court ruling in 2001, which invoked the right to food, named ‘the aged’ among groups who saw this right violated through inequitable availability of food, and called for a Targeted Public Distribution Scheme for below poverty level families, issuing of cards, and commencement of distribution of 25kgs of grain per family per month.<sup>52</sup>

In September 2001, a panel discussion at WHO discussed the realisation of the right to health of older persons in the framework of the 18th session of the Human Rights Council, Geneva. The discussion concluded with the urge to shift the paradigm from responding to the needs of older persons to realising the rights of older persons.

## Participation

The importance of working with a community is reflected in the Humanitarian Charter and the Minimum Standards in Disaster Response produced by the Sphere Project. ‘Working with communities’ is one of the pillars that humanitarian work is based upon. It forms a common standard that all sectors, including nutrition, should follow.

The right to participate is central to the realisation of other rights, including the rights to health and the right to food. This is particularly important for older people.

With the right support, older people can, and do, make significant contributions to the development of their communities. The participation of older people and their involvement in decision-making are stated priorities of MIPAA (see **Table 1**). The importance of older people’s direct involvement in conducting their own analysis and using their knowledge in advocacy and decision-making is increasingly recognised. Now developed and adapted by practitioners and researchers all over the world, participatory research methods are increasingly used with older people in poor communities.

The participatory process goes beyond simply gathering information and voice, although that is very important. It extends to engaging older people, especially those who are poor and marginalised, in service and policy development. By taking part in planning, carrying out and disseminating research, older people can open up new opportunities to communicate their situation directly to practitioners and

<sup>50</sup> General Comment 12, adopted in 1999 by the Economic, Social and Cultural Rights, the treaty body for the International Covenant on Economic, Social and Cultural Rights.

<sup>51</sup> UN ACC/SCN, 2004.

<sup>52</sup> PUCL Bulletin, July 2001. Supreme Court of India, Record of Proceedings. Writ petition (civil) no. 196 of 2001.

**Box 7: Older people speak out**

During a national dissemination workshop on community research in Ghana (1999), older people who had been involved spoke about the issues it had raised for them:

An older woman spoke about livelihoods:

*"Bush fires have caused a lot of problems for older people who farm cocoa. The government helped us for the first two years but now they have stopped. We are not government workers and have no pension. Cocoa is our livelihood, as well as yam and other crops. But we are not as strong as we were. Older people do many household chores such as looking after children, training them and keeping a good house."*

A chief's representative spoke of older people's knowledge and experience:

*"The research showed we took a lot of things for granted. We didn't realise that older people had so much experience. In the fishing community, for example, the older people know where to fish and which waters to avoid."*

Source: HelpAge International, 2002. Participatory research with older people: a sourcebook.

decision-makers. Participatory needs assessment and research has been part of HelpAge's approach for several decades. HelpAge believes that full participation of older people in the economic, social and cultural life of their communities, and in emergency situations, is both a key to sound and inclusive development and a matter of basic human rights. Consultation, inclusion and empowerment through partnership have now emerged as the primary indicators of best practice.<sup>53</sup>

**Boxes 6 and 7** give examples of methods used in participatory research, assessments and programme planning with the active inclusion of older people.

### Missing and under-funded: older people in the humanitarian system

In 2007, an inter-agency review of the inclusion of older people in humanitarian action found continuing neglect of this vulnerable group.<sup>54</sup> Since then, the situation has not improved.

**Box 8** summarises recent evidence of the lack of funding for older people in emergencies.

Having global covenants and national policies in place are important foundations for ensuring the inclusion of older people on the agenda. However, the real test lies in whether these are actually translated into commitments in terms of financing, implementation and monitoring. The evidence that

programmes and interventions targeting older people in humanitarian crises are lacking is increasingly systematic and quantitative, and not just from anecdotal reports of operational NGOs and observers. For example, during the 1998 famine in southern Sudan, 18 NGOs were running 50 Selective Feeding Interventions and 21 Therapeutic Feeding Centres, serving over 47,000 beneficiaries in Bahr el Ghazal. However, not one of these centres provided services tailored towards adults.

"Although some centres did include small numbers of adults, particularly if they were categorised as 'vulnerable' (disabled, elderly, pregnant and lactating women), the inclusion of adolescents and adults was generally on an ad-hoc basis."<sup>55</sup>

More recently, HelpAge Pakistan reviewed the humanitarian response to the floods of 2010:

"Almost all relief organisations extended relief services in such a way that the specific needs of older people could not be addressed. This was due to the shortage of time to respond to the disaster and also due to low priority, to the quality of planning and designing phase of relief services. Some organisations incorporated older people into their programmes as one of the vulnerable groups. However, the majority of organisations did not take age as a vulnerability factor. Other vulnerabilities such as disability, injury, illness, and income poverty were used as criteria for relief, older people generally remained excluded and invisible to the humanitarian response."<sup>56</sup>

<sup>53</sup> HelpAge International, 1999: Older people in disasters and humanitarian crises: guidelines for best practice, p2.

<sup>54</sup> IASC/HelpAge International, 2007. Inter-Agency review of the inclusion of older people in humanitarian action.

<sup>55</sup> Salama P and Collins S, 2000. An ongoing omission: adolescent and adult malnutrition in famine situations. *Refuge*, Vol. 18 (5); 12-15 (January).

<sup>56</sup> Pirzada W, Tayyab M and Asfar M, 2010. Impact assessment: overall humanitarian response. HelpAge International Pakistan Programme.

**Box 8: The funding gap in the humanitarian response for older people**

HelpAge quantified the extent to which older people, and people with disabilities, were specifically targeted through the UN Consolidated Appeals Process (CAP) for 14 countries and four Flash Appeals between 2010 and 2011, covering 6,003 appeals. The main findings were:

- Out of the US\$10.9 billion contributed by official donors to the CAP and Flash Appeals, only \$73 million (0.7% of overall funding) was allocated to projects that included at least one activity targeted at older people or people with disabilities.
- A total of US\$26.6 million went to projects targeted exclusively at older people or people with disabilities (0.3%). (A similar study analysing CAP and Flash Appeal funds between 2007 and 2010 showed that just 0.2% was allocated to projects that included an activity specifically targeted at older people)
- Of the 6,003 projects submitted to the CAP and Flash Appeals in 2010 and 2011, only 145 (2.4%) included at least one activity targeting older people or people with disabilities, and of these 61 (1%) were funded.
- In 21 countries affected by humanitarian crises, there were no projects with activities targeting older people in any sector in 2010 and 2011. This includes Chad, Central African Republic, the Republic of Southern Sudan, Yemen, Zimbabwe and 16 countries in West Africa.
- The total amount of projects and funding for older people and for people with disabilities remains extremely low, highlighting the significant disparity between the needs of these two vulnerable groups and the humanitarian assistance delivered to meet those needs.

Source: HelpAge International, 2012. A study of humanitarian financing for older people and people with disabilities, 2010-2011.

**Box 9: Older refugees generating income for food in Liberia, 2004**

How do older refugees support themselves? Those who can still move around, walk for miles in the bush gathering palm branches to make house brooms that are sold for five Liberian dollars, which is less than 10 US cents. A 98 year old woman making a broom says: *"If I can sell four of these brooms, I will buy one cup of rice and palm oil to eat today"*.

Source: Maxi M, 2004. Report on the situation of the elderly at the Fendall and Soul Clinic Internally Displaced People Camps.<sup>57</sup>

**What we know about older people in humanitarian emergencies**

HelpAge and other agencies are reporting that the number of older people affected by emergencies is growing fast.<sup>58</sup> In internally displaced populations (IDP) and refugee camps, the numbers, and proportions, of older people can be very high. For example, in Gulu District of Northern Uganda, 65% of those remaining in camps in 2009 were over 60 years of age.<sup>59</sup>

Older people will still attempt to focus on generating livelihood and caring for others, if at all possible, in an emergency situation. For example, a study in Rwandan refugee camp in Tanzania showed that 72% of older people were cultivating kitchen gardens for sale as well as for household consumption.<sup>60</sup> See **Boxes 9 to 11**.

Micro-credit and other activities that can help older people earn a living often target younger adults. When communities return home, older people typically face difficulties in accessing land and other scarce resources.

**Missing from the humanitarian nutrition agenda**

As described above, many organisations working in emergency and conflict situations do not generally consider the special nutrition and food requirements of older people, or address undernutrition in this population group.

There are many gaps and inconsistencies in the nutrition-related policies and guidelines of humanitarian agencies in relation to older people. For example, the WFP's recent Nutrition Policy (2012) does not mention older people at all, even

<sup>57</sup> <http://www.globalaging.org/armedconflict/countryreports/Africa/fendall.htm>

<sup>58</sup> HelpAge International and Age UK, 2011. On the edge: Why older people's needs are not being met in humanitarian emergencies.

<sup>59</sup> HelpAge International, 2010. A study of Humanitarian Financing for Older People.

<sup>60</sup> Pieterse S, 1998. The nutritional status of older Rwandan refugees. *Public Health Nutrition*: 1 (3); 1-6.



**Box 10: Proving sole care for children in Sudan, 2004**

Fatima thinks she is over 70 years old. She lives in Krinding camp in Sudan:

*"I came to this camp from Kria, a village seven kilometres west of Geneina, nearly eight months ago. I came here by myself with seven grandchildren, aged 3 to 11. One of their fathers was killed when the fighting started. Another was shot in the knee and is now in hospital. I don't know if he will recover. Another son fled to Chad when the fighting started, and the fourth went to Khartoum to find work because our family needed money. When we came we had nothing. Everything in our village had gone or been burnt. I made this shelter from wood and twigs, and we were given some plastic sheeting. Neighbours who have cards for food share what they get with us. We haven't got a card for food yet, only for plastic sheeting and soap. My eldest granddaughter collects grass from around the camp to sell at the market. Sometimes she makes some money to buy food. The four boys go to school and the youngest children stay here with me. It would be good for us to go back to our village but I am not willing to take the children back unless the UN makes it safe. Seven of my relatives have been killed. I don't want to risk these bad things happening again."*

Source: Holt K, 2004. Sudan Emergency: Older People's Voices. HelpAge, November 12, 2004. <http://www.globalaging.org/armedconflict/countryreports/africa/voices.htm>

**Box 11: The experience of a Somali refugee in Dadaab refugee camp, Kenya, 2011**

Abdullahi is about 70 years old. He has just been through Hagadera Reception Centre, and as proof of registration, a red plastic bracelet has been tied around his wrist. This gives him access to a ration for three weeks consisting of food (wheat flour, oil, cornmeal, sugar, beans, corn-soya blend, salt) a cooking kit, a blanket, a mat, a 10-litre jerry can and soap. Arriving from Somalia after 15 days of travelling, Abdullahi says:

*"I am one of the lucky ones who were transported by truck from the border to Dadaab. I used to live alone and work on my small piece of land. I have been a widower for seven years. My sons disappeared and my only daughter is married and looks after her own family. The drought took away my only means of livelihood, and I was forced to leave."*

Now he has to find a place to live before being officially registered by the Kenyan Government's Directorate of Refugee Affairs and UNHCR. This registration can take up to two months, and Abdullahi has received food for only three weeks.

Source: Adapted from Fritsch P, 2011: East Africa crisis: older refugees arrive at Dadaab in search of better life. HelpAge International Blog, posted 5 August 2011.

under the term 'vulnerable group'. In contrast, FAO's 2005 report *"Protecting and promoting good nutrition in crisis and recovery: Resource Guide"* makes numerous references to adults, including:

- the effects of malnutrition on adults;
- blended foods are designed for children and not well appreciated by adults;
- the best methods for assessing malnutrition in older adults are still unclear; and
- a lack of clarity of the use of MUAC/BMI cut-offs for classification levels of malnutrition.

The report also refers to older persons (elderly) in terms of:

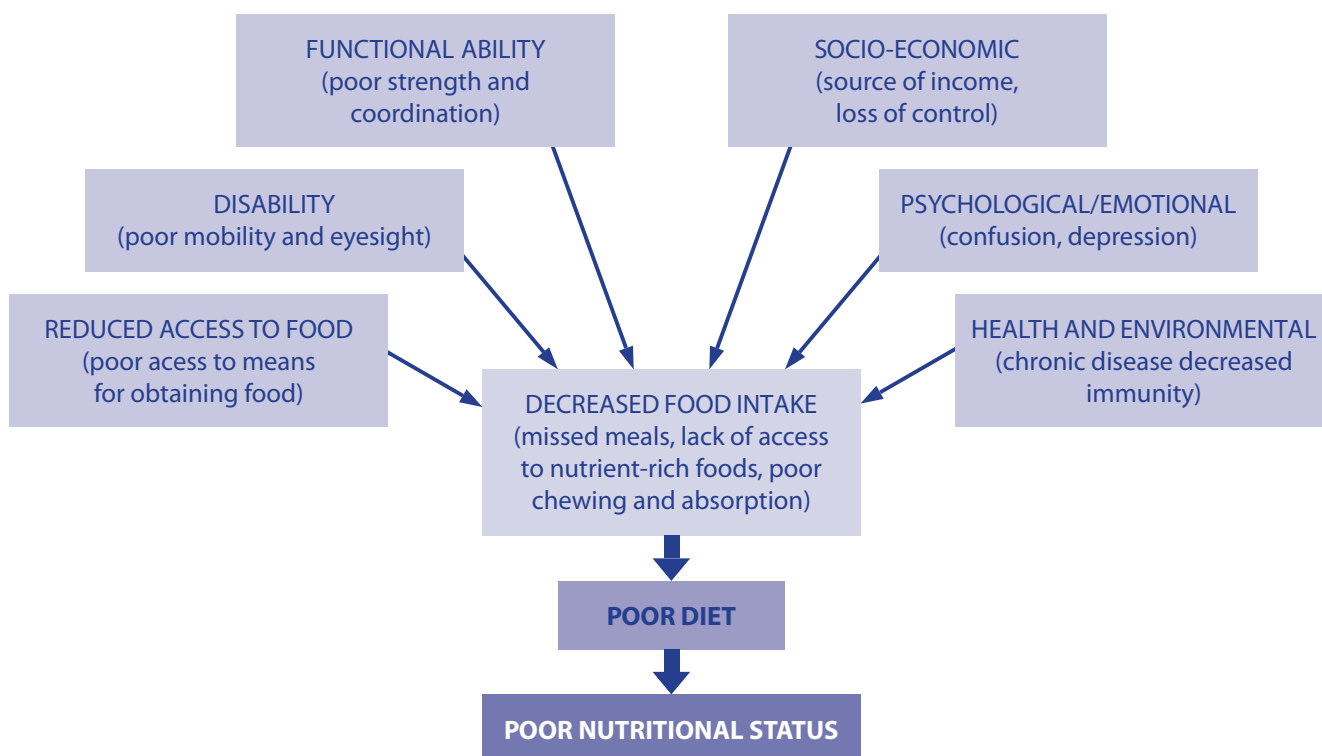
- being a vulnerable group, and thus a priority problem;
- targeting for inclusion in Supplementary Feeding Programmes (SFP) and Therapeutic Feeding Programmes (TFP);
- use of anthropometry cut-offs;

- their active roles in the care of children; and
- the importance of their participation in mapping, gardening, passing on knowledge, and employment for adherence to Supplementary Feeding Programme.

The current international donor environment is not conducive to increased efforts on older people, generally and in particular in humanitarian and nutrition emergencies. There is a broad tendency (acknowledged by aid workers unofficially) to exert the bulk of resources, manpower and effort into the children and women part of the 'vulnerable groups' mandate, often overlooking the fact that older people are also included in that vulnerable category. This imbalance needs to be addressed. Added to this, there is a tendency to rely on the specialist INGOs, mainly HelpAge and its affiliates and partners, to address the needs of older people.

A decade after MIPAA, Priority 1 relating to emergency situations for older people is not well implemented, and the principle of impartiality in access to humanitarian assistance is being undermined.

Figure 1: Nutritional risk factors for older people



Source: Borrell 2001, adapted from Ismail and Manandhar, 1999.

*"Perhaps the single most important factor in determining and addressing the nutritional vulnerability of older people affected by emergencies is the attitude of humanitarian personnel who feel that older people 'have had their day' or are 'a waste of resources'."*<sup>61</sup>

## Undernutrition in older people

### Defining terms for undernutrition in adults

Since the 1980s, two terms have generally been used to describe undernutrition in adults: Acute Energy Deficiency (AED) and Chronic Energy Deficiency (CED).<sup>62</sup> AED is a state of negative energy balance (a progressive loss of body energy) leading to wasting of peripheral tissues. CED is a steady state at which a person is in energy balance although at a cost, either in terms of increased risk to their health or as an impairment of functions (see next section on assessment) and health.

However, the use of the term CED for adults has recently been questioned, for example, by the ACC/SCN report on the assessment of nutrition status in emergency-affected populations (2000)<sup>63</sup> and in an ACF guidelines paper on malnutrition in adults in emergencies (2006).<sup>64</sup> They argue that the CED emphasis on energy alone obscures the importance of protein catabolism and deficiencies of vitamins and minerals. For older people, the focus needs to be less on energy and more on a nutrient-dense dietary intake which is proportionately richer in micronutrients, especially Vitamins D, B and iron, than for younger adults who are not pregnant or lactating, or are ill (for example, with HIV and AIDS). A discussion on the Emergency Nutrition Network's En-Net Forum<sup>65</sup> argues that the use of the term 'Chronic Energy Deficiency' is out dated and should not be used. A low BMI defines degrees of thinness, but thinness should not be used as a proxy for the deficiency of any particular nutrient or energy.<sup>66</sup>

<sup>61</sup> Nhongo TM, 2001. Regional Representative, HelpAge International. Foreword In: Borrel A, 2001. *Addressing the nutritional needs of older people in emergency situations in Africa: ideas for action*. HelpAge International Africa Regional Development Centre.

<sup>62</sup> James W, Ferro-Luzzi A and Waterlow J, 1988. Definition of chronic energy deficiency in adults. Report of a working part of the International Dietary Energy Consultative Group. *European Journal of Clinical Nutrition*, 42 (12); 969-981.

<sup>63</sup> Collins S, Duffield A and Myatt M, 2000. Adults: assessment of nutritional status in emergency-affected populations. For ACC/SCN Secretariat, Geneva. July.

<sup>64</sup> Navarro-Colorado C, 2006. Adult malnutrition in emergencies: an overview of diagnosis and treatment. Field guidelines. ACF Technical and Research Department. Version 3, September.

<sup>65</sup> <http://www.en-net.org.uk/>

<sup>66</sup> Golden M, 2009. En-Net Forum discussion on MUAC cut-offs for adults. 7 December.

Table 2: Metabolic rates (MR) of organs and tissues in man

Organ	Adult			Neonate		
	Weight*kg	MR/day kcal	% of whole body MR	Weight*kg	MR/day+ kcal	% of whole body MR
Liver	1.60	482	27	0.140	42	20
Brain	1.40	338	19	0.350	84	44
Heart	0.32	122	7	0.020	8	4
Kidney	0.29	187	10	0.024	15	7
Muscle	30.00	324	18	0.800	9	5
Miscellaneous			20			20
Total	70.00	1,800	100	3.500	197	100

\* Organ weights taken from Boyd.

+ Metabolic rates for the neonate are estimated by assuming that the metabolic rate of each organ per unit weight is the same as in the adult. The total activities of the tissues listed are expressed as fractions of the total basal energy expenditure in the adult and the neonate. The total basal metabolic rate in the neonate approximates to that measured by Benedict and Talbot.

Source: FAO/WHO 1985. Protein energy requirements. Technical report 724. (p 43).

To address this, the terms *undernutrition* or *stable malnutrition* have been recommended. ACF recommends the use of the following terms for describing undernutrition in adults:

- **Acute malnutrition:** producing metabolic distress and endangering the life of the patient in the short-term. This is similar to the use of the term acute malnutrition in children relating to rapid weight loss due to illness or an inadequate consumption of food, or both. In emergencies, most interventions will be dealing with acute situations.
- **Stable malnutrition:** simple long-standing thinness, with relative preservation of metabolic function and not life threatening in the short-term, but having some relationship with outcomes of functional importance in daily living (see later section). The word 'stable' is used to differentiate it from the term 'chronic malnutrition' which is used to refer to inhibited growth in height, or stunting, in children caused by poor nutrition over a period of time.

### Nutritional risk factors for older people

Individuals are malnourished, or suffer from undernutrition if their diet does not provide them with adequate macronutrients (protein, fat, carbohydrates) and micronutrients (minerals and vitamins) in relation to their age- and sex-specific physiological requirements, and/or if they cannot fully utilise the food they eat due to illness or some form of *functional disability*.

<sup>67</sup> See page 12.

<sup>68</sup> Andre Briend, personal communication, April 2012.

The risk factors for individual older people developing undernutrition are multifaceted, as depicted in **Figure 1**.

The risk factors include physiological, psychological, medical and drug-related, and social changes associated with ageing which affect food intake and body weight, possibly exacerbated by the presence of illness.

### The focus on children under five

The conceptual framework of undernutrition most commonly used in international nutrition policy and programming is the **UNICEF framework**, developed in the early 1990s and described in **HTP Module 1**.<sup>67</sup> This framework was developed to 'unpick' the likely causes of undernutrition in children and therefore, does not refer to older people.

This child-centred focus rests on a physiological explanation.<sup>68</sup> Children have a higher energy requirement per kg of body weight than adults, their nutritional stores are proportionately lower and they have a low proportion of muscle in relation to body mass than adults. Young children are more physiologically vulnerable than older adults in terms of macronutrient requirements, and therefore, undernutrition.

This is mainly related to a different body composition between children and adults, as described in **Table 2**. Children have a higher proportion of their body made up of energy consuming organs, particularly the growing brain, than adults, but they



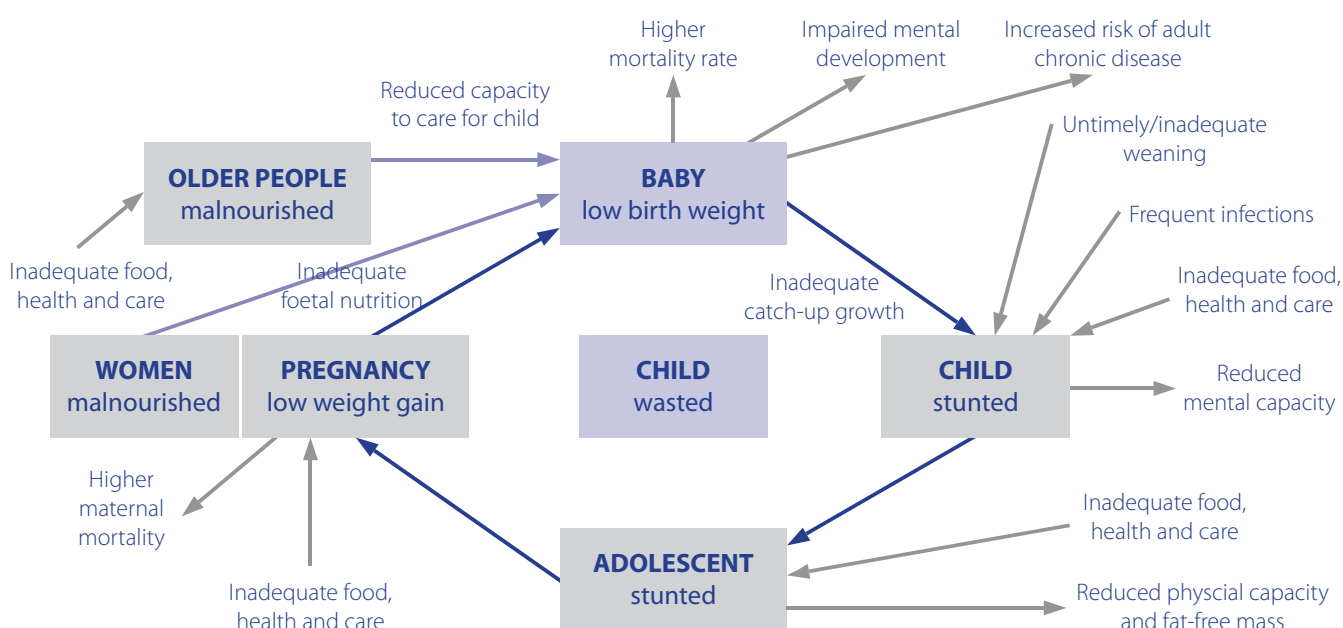
Box 12: Physiological vulnerability of older people

Older people (and disabled people) who are reliant on others for fulfilling their basic needs such as food, water, medical support and care, can lose these support systems in an emergency.

For example, the 2010 earthquake in Haiti displaced over 200,000 people over the age of 60, many of whom found shelter in camps with the help of family, friends and humanitarian workers. Blindness in the elderly population in Haiti is highly prevalent, limiting mobility to access food, water and medicines. The vulnerability of the elderly to dehydration and undernutrition is compounded by the fact that ageing reduces the body's resilience.

Source: HTP Module 1, page 25.

Figure 2: Lifecycle conceptual framework of undernutrition, including older people



Source: Girerd-Barclay E, 2010. ACF White Paper.

have a low proportion of muscle, with minimum energy consumption (at least in the absence of physical activity).

In addition to this understanding of the physiological vulnerability of children to undernutrition, the so called 'childhood bias'<sup>69</sup> observed in most humanitarian agencies has, it has been argued, arisen from a cultural bias of western donors towards young children. This emphasis on the young child has recently been invigorated by the influential work of the Commission on the Social Determinants of Health<sup>70</sup> which focuses on reducing inequities in health, and argues that the most-cost-effective and transformative window of opportunity is the 'minus 9 months to 2 years' or '1,000 days' (*developing foetus through to age 2*) period. Older people are not mentioned, although they also have physiological vulnerabilities as highlighted in **Box 12**.

Some agencies have recently begun to expand the UNICEF framework of nutrition to include older people, and to take a more holistic and inter-generational approach. ACF's 2010 White Paper,<sup>71</sup> for example, includes a flow diagram (see **Figure 2**), showing the impact of hunger and malnutrition through the life cycle. In this figure, the effect of malnutrition of older people on the capacity to care for children is depicted, though this does not depict older people as vulnerable to, and suffering from the consequences of, undernutrition directly.

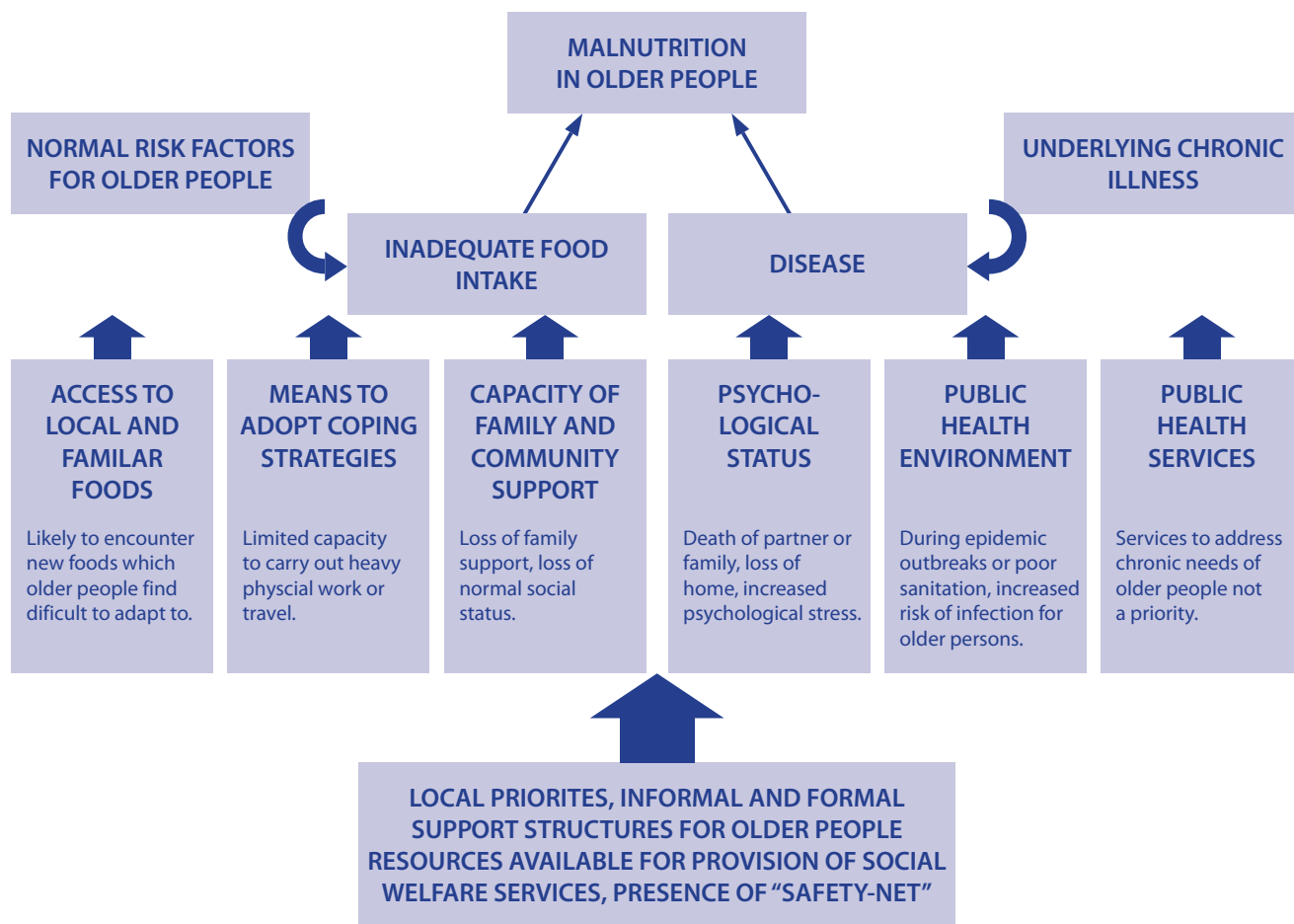
A refinement of the original conceptual framework on nutrition was made in a key paper on addressing the nutritional needs of older people in emergencies in 2001, shown below in **Figure 3**.

<sup>69</sup> Marlow M, 1992. Malnutrition in elderly people: challenging the childhood bias. *The Health Exchange* (December 1992/January 1993); p. 5.

<sup>70</sup> WHO, 2008. Report of the Commission on the Social Determinants of Health, WHO.

<sup>71</sup> Girerd-Barclay E, 2010. ACF White Paper.

Figure 3: A conceptual model for the causes of malnutrition in older people



Source: Borrel A, 2001, Addressing the nutritional needs of older people in emergency situations in Africa: ideas for action. HelpAge International, Africa Regional Development Centre, Nairobi.

### Ageing and nutritional status

Good nutrition plays a vital role in the well-being and health of older people, and also helps delay and reduce the risk of developing diseases.<sup>72</sup> Older people are subject to such factors as nutrition, genetics, physical activity and everyday stress to influence physical and psychological ageing. Much still remains to be learned about how nutrition interacts with these other factors in order to extend healthy life expectancy, independence and well-being in old age, and more well-designed control trials are needed. In the meantime, observational studies continue to provide clues to healthy ageing. Knowledge about the nutrient needs and nutritional status of older people has grown considerably in recent years.

In old age both the quality and the quantity of the diet are important to ensure that requirements for macronutrient and micronutrient intakes are met. Extensive research in developed countries has shown inadequate nutrient intake leading to a reduction in body weight to be the predominant cause of undernutrition in community-living old age, often in combination with disease. When nutrient intake becomes inadequate and declines to levels below requirements, foods which are *nutrient-dense* (maintain high nutrients in the presence of less energy content) become increasingly important,<sup>73</sup> particularly when older people continue to have high levels of physical activity, as is common in many low to middle income countries.

<sup>72</sup> Jones J, Duffy M, Coull Y and Wilkinson H, 2009. Older people living in the community: nutritional needs, barriers and interventions: a literature review. Scottish Government Social Research.

<sup>73</sup> Morley J and van Staveren WA, 2009. Undernutrition: diagnosis, causes, consequences and treatment. In Raats M, de Groot L and Van Staveren W (eds). *Food for the ageing population*. 1st edition. Woodhead Publishing Limited. Cambridge. pp 153-166.

Table 3: Summary of selected nutrient concerns in older people

Nutrient	Effect of ageing	Comment
<b>Energy</b>	The body's need for energy decreases with loss of muscle mass and physical activity decline.	Physical activity moderates the decline.
<b>Protein</b>	Needs may stay the same or rise slightly.	Fat, and high fibre legumes and grains, meet protein, and other nutrient, needs.
<b>Iron</b>	In women, iron status improves after menopause. Deficiencies are linked to chronic blood loss (hookworm, schistosomiasis) and low stomach acid output.	Adequate stomach acid is needed for absorption. Antacid or other medications may aggravate iron deficiency. Vitamin C increases absorption of iron coming from vegetables.
<b>Calcium</b>	Intakes may be low. Osteoporosis is common.	Stomach discomfort limits milk intakes. Calcium substitutes or supplements may be needed, linked with vitamin D supplements. Yogurt and cheese are good alternatives to milk.
<b>Vitamin B12</b>	Atrophic gastritis common.	Deficiency causes neurological damage, supplements may be needed.
<b>Vitamin D</b>	Increased likelihood of inadequate intake, skin synthesis reduces.	Sunlight exposure only in moderation or supplements may be beneficial.
<b>Fibre</b>	Likelihood of constipation increases with low food intakes and changes in the gastrointestinal tract.	Inadequate water intakes and lack of physical activity, along with some medications, compounds problem.
<b>Water</b>	Lack of thirst and decreased Total Body Water make dehydration likely.	Mild dehydration is a common cause of confusion. Difficulty obtaining water or getting to the toilet may compound the problem.

Many changes that accompany ageing impair nutrition status. A summary of some of the nutrient concerns affected by ageing is presented in **Table 3** below.

The immune system declines with age and it is compromised by nutrient deficiencies. This combination of age and malnutrition makes older people vulnerable to infectious diseases. Antibiotics are often not effective against infections in people with compromised immune systems. Consequently, infectious diseases are a major cause of death in older adults.

In the gastrointestinal (GI) tract, the intestinal wall loses strength and elasticity with age, and GI hormone secretions change and diminish appetite. All of these actions lead to decreased energy intake and weight loss, and slow motility. Constipation is much more common in older people than in the young. Atrophic gastritis (a condition that affects almost one-third of those over 60) is characterised by an inflamed stomach, bacterial overgrowth and a lack of hydrochloric acid and intrinsic factor. All of these can impair the digestion, and absorption of nutrients, notably vitamin B12, but also biotin, folate, calcium, iron and zinc.

Difficulty in swallowing (medically known as *dysphagia*) occurs in all age groups but especially in older people. Being unable to swallow a mouthful of food can be scary, painful and dangerous. Even swallowing liquids can be a problem for some people. Consequently, the person may eat less food and drink fewer beverages, resulting in weight loss, malnutrition and dehydration. Tooth loss and gum disease also have serious nutritional consequences, making chewing difficult and painful. People with tooth loss tend to limit their food selections. This often leads to a reduction of fruits and vegetables and lower intake of fibre and vitamins, which exacerbates their dental and overall health problems.

Sensory loss and other physical problems can also interfere with an older person's ability to obtain adequate nourishment. Failing eyesight can make getting to the store or market impossible or so difficult that the person avoids the activity. Carrying bags or baskets becomes an unmanageable task. Similarly a person with limited mobility may find cooking and cleaning hard to do. Loss of vision and hearing may contribute to social isolation, and eating alone may lead to poor appetite. Not surprisingly, the prevalence of undernutrition is high

Table 4: Macronutrient requirements for older adults

<b>Energy</b>	1.4-1.8 multiples of BMR to maintain body weight at different levels of physical activity (PAL) <ul style="list-style-type: none"> <li>• General requirement is 2,100 kcals/day</li> <li>• <i>For men and women aged 30-59.9 years, and aged 60 or more</i></li> <li>• <i>Adjustments will be needed for moderate and heavy activity levels</i></li> </ul> <i>FAO/WHO/UNU Expert Report (2004) presents reference tables for daily energy requirements according to BMR factor (or PAL) and body weight.</i>
<b>Fat</b>	30% of total energy intake in sedentary older people 35% of total energy intake in active older people
<b>Protein</b>	0.9-1.1 g/kg per day

Source: FAO/WHO/UNU, 2004. Human Energy Requirements: Report of joint Expert Committee, 17-24 Oct, 2001. Rome.

Note: The requirements as expressed above do not take into account the varying fibre content, digestibility and complex-carbohydrate composition of the diet. In low to middle income countries, a relatively high proportion of fibre and less-available carbohydrate is usually present. For more discussion, see WHO Technical Report Series No. 724, Section 7.1. If the Atwater factor (4 kcal per gram) is applied to carbohydrate by difference, the real energy available in the food should be decreased by 5% or the requirement for this type of diet increased by 5%; which, for this table, means an increase of +100 kcal in the energy requirement indicated.

among those who are homebound or bedbound, and who have high levels of sensory impairment. Sensory losses can also interfere with a person's willingness to eat and enjoyment of eating. There is deterioration in taste and smell sensitivities with increasing age, and this impacts on dietary intake and nutritional status. The texture and flavour of food may be particularly important for some older people in order for them to meet their nutritional requirements.

Although not an inevitable component of ageing, depression is common among older people. Depressed people, even those without disabilities, lose their motivation to perform simple physical tasks (e.g. to cook or even eat). An overwhelming sense of grief or sadness at the death of a spouse, friend or family member may leave a person feeling powerless to overcome depression. When a person is suffering the heartache and loneliness of bereavement, cooking meals may not seem worthwhile. The support and companionship of family and friends, especially at mealtimes, can help overcome depression and enhance appetite. Older people who live alone do not necessarily make poor food choices, but they often consume too little food. Loneliness is directly related to nutritional inadequacies, especially overall energy intake.

As it ages in adulthood, the human body changes in its composition of fat and muscle, influenced by changing hormonal activity. There is also a progressive loss of muscle stores and an increase in fat stores. With increasing muscle loss, people lose their ability to move and maintain balance, making falls more likely. The limitations that accompany loss of muscle mass and strength play a key part in the diminishing health that often accompanies ageing. Changes in muscle mass and

quality play a central role in the pathway linking malnutrition, its biological and molecular consequences, and function. The functional consequences of this are discussed in the section on how to assess undernutrition in older people. In a vicious cycle related to *sarcopenia*, the prevalence of malnutrition increases with increasing frailty and physical dependence.<sup>74,75</sup>

### Nutritional requirements for older people

Setting standards for older people is difficult because individual differences become more pronounced as people grow older. People start out with different genetic predispositions and ways of handling nutrients, and the effects of these differences become magnified with years of unique dietary habits. For example, one person may tend to avoid most fruits and vegetables from his diet, and by the time he is old, he may have a set of nutrition problems associated with a lack of fibre and antioxidants. Also as people age they suffer different chronic diseases and take various medicines – both of which will affect nutrient needs. For all of these reasons, researchers have difficulty even defining healthy ageing, a prerequisite to developing recommendations to meet the needs of practically all healthy people.

It is usually the case that the nutritional needs for older people are sub-divided into different categories of 'old'. For example, the FAO/WHO/UNU human energy requirement data tables refer to women of 51 to 65 years, and those over 65. In the USA, the Dietary Reference Intakes (DRI) group people over 50 years into two categories: 51 to 70, and 71 and older. Increasingly, research is showing that the nutrition needs of people who are 50-70 years old are different from those over 70.

<sup>74</sup> MacIntosh C, Morley J and Chapman I, 2000. The anorexia of aging. *Nutrition*: 2000; 16; 983-995.

<sup>75</sup> Visvanathan R, Newbury J and Chapman I, 2004. Malnutrition in older people: screening and management strategies. *Australian Family Physician*: 33 (10), 799-805.

## Macronutrients

Since 1949, the FAO, and, since the early 1950s, WHO have convened groups of experts to evaluate current scientific knowledge in order to define the energy requirements of humans and propose dietary energy recommendations for populations. The latest recommendations from this group were published in 2004.<sup>76</sup> Energy requirements of adults were calculated from factorial estimates of habitual total energy expenditure. With growth no longer an energy-demanding factor, it is habitually physical activity and body weight which are the main determinants for the diversity of energy requirements of adult populations with different lifestyles.<sup>77</sup> *Basal metabolic rate*<sup>78</sup> (BMR) declines from about 50 years because lean body mass and thyroid hormones diminish.

**Table 4** above presents general requirements for macronutrients for older adults. These requirements are based on the assumption that, on average, energy needs decline an estimated 5% per decade, as people usually reduce their physical activity as they age, although they need not do so. In fact, this assumption may be inappropriate in the context of the higher levels of activity of many older people in low to middle income countries, still involved in livelihood work and less sedentary than their counterparts in the developed countries.

Energy requirements for older people can be calculated on the basis of physical activity levels (PALs) just as they are for younger adults. Allowances must be made for population groups who are more or less active at an advanced age, rather than using age as the single cut-off point to define energy requirements for the older people.<sup>79</sup> Dietary energy intake of a healthy well-nourished population should allow for maintaining an adequate BMI at the population's usual level of energy expenditure. At the individual level, a normal range of 18.5 to 24.9 kg/m<sup>2</sup> BMI is generally accepted<sup>80</sup> (see later in the Assessment section for classification of undernutrition using BMI).

Protein is especially important for the elderly to support a healthy immune system, prevent muscle wasting and optimise bone mass. Because energy needs decrease, protein must be obtained from low kilocalorie sources of high-quality protein, such as lean meats, poultry, fish and eggs, milk products and legumes. Abundant carbohydrates are needed to protect protein from being used as an energy source.

As with adults of all ages, fat intake needs to be moderate in the diets of most older people, enough to enhance flavours and provide valuable nutrients (but not so much as to raise the risks of cancer, atherosclerosis and other degenerative diseases).

## Micronutrients

**Table 5** summarises current recommended vitamin and mineral nutrient intakes for older people according to gender. Note that the age group classifications used are not comparable by gender.

Micronutrient deficiencies are widespread in low to middle income countries with more than two billion people affected (see HTP Module 4). The main cause of micronutrient malnutrition is usually an inadequate dietary intake of vitamins and minerals in relation to the physiological requirements of an individual, which are sex and age dependent. Micronutrient deficiencies occur most frequently in individuals on a monotonous or restricted diet, or in those with infection and illness such as malaria, diarrhoea and tuberculosis.

**Iron** deficiency anaemia is a debilitating condition that leads to fatigue, restricting the individual's ability to travel around and do physical work. Although data on anaemia prevalence among older people are limited, as most national surveys only collect data on adults up to 49 years old, WHO/CDC estimates that nearly a quarter of elderly people worldwide are anaemic.<sup>81</sup> The absorption of iron appears to decrease with age so that iron deficiency anaemia prevalence may be high among older people who are reducing their intake of promoters of non-haem iron absorption such as fruit, beans and vegetables or haem iron such as animal food (due to cultural/religious reasons, difficulty chewing).

**In displaced camps, people depend on the General Food Ration (GFR) distributed by WFP. This is usually cereal-based, poor in green leafy vegetables, fruit and meat, and poor in iron (for more on the GFR, see Intervention section later in this module).**

The European Survey on Nutrition and the Elderly (SENECA) has noted **Vitamin D** insufficiency in many European populations.<sup>82</sup> This is not surprising considering that about one-third of the vitamin D requirements can be obtained by the diet and the rest by exposure to sunlight where it is synthesised in

<sup>76</sup> FAO/WHO/UNU, 2004. Human energy requirements: Report of joint FAO/WHO/UNU Expert Committee, 17-24 Oct, 2001. Rome.

<sup>77</sup> James and Schofield 1990.

<sup>78</sup> BMR is the rate of energy expenditure of the body when at complete rest, e.g., sleeping.

<sup>79</sup> FAO/WHO/UNU, 2004. Human energy requirements: Report of a joint FAO/WHO/UNU Expert Committee, 17-24 Oct, 2001. Rome.

<sup>80</sup> WHO 1995.

<sup>81</sup> WHO/CDC, 2008. World prevalence of anaemia 1993-2005. WHO Global Database on anaemia.

<sup>82</sup> De Groot L and Van Staveren W, 2010. Nutritional concerns, health and survival in old age. *Biogerontology*: 11; 597-602.

Table 5: Recommended nutrient intakes by population group: micronutrients

	Female 51-65 years*	Male 19-65 years	Female 65+	Male 65+
<b>Iron</b> $\mu\text{g/day}$	10.0	10.0	10.0	10.0
<b>Calcium</b> $\text{mg/day}$	1,300.0	1,000.0	1,300.0	1,300.0
<b>Selenium</b> $\text{mg/day}$	26.0	34.0	25.0	33.0
<b>Magnesium</b> $\text{mg/day}$	220.0	260.0	190.0	234.0
<b>Zinc</b> $\mu\text{g/day}$				
<i>High bioavailability</i>	3.0	4.2	3.0	4.2
<i>Moderate bioavailability</i>	4.9	7.0	4.9	7.0
<i>Low bioavailability</i>	9.8	14.0	9.8	14.0
<b>Vitamin C</b> $\text{mg/day}$	45.0	45.0	45.0	45.0
<b>Thiamine</b> $\text{mg/day}$	1.1	1.2	1.1	1.2
<b>Riboflavin</b> $\text{mg/day}$	1.1	1.3	1.1	1.3
<b>Niacin</b> $\text{mg/NE/day}$	14.0	16.0	14.0	16.0
<b>Vitamin B6</b> $\text{mg/day}$	1.5	1.3 (19-50) 1.7 (50+)	1.5	1.7
<b>Pantothenate</b> $\text{mg/day}$	5.0	5.0	5.0	5.0
<b>Water soluble vitamins</b>				
<b>Biotin</b> $\mu\text{g/day}$	30.0	30.0	30.0	30.0
<b>Folate</b> $\mu\text{g/DFE day}$	400.0	400.0	400.0	400.0
<b>B12</b> $\mu\text{g/day}$	2.4	2.4	2.4	2.4
<b>Fat soluble vitamins</b>				
<b>Vitamin A</b> $\mu\text{g/RE day}$	500.0	600.0	600.0	600.0
<b>Vitamin D</b> $\mu\text{g/day}$	10.0	5.0 (19-50) 10.0 (51-65)	15.0	15.0
<b>Vitamin E</b> $\text{mg alphaTE/day}$	7.5	10.0	7.5	10.0
<b>Vitamin K</b> $\mu\text{g/day}$	55.0	65.0	55.0	65.0

\* post-menopause

Source: WHO/FAO, 2004. Vitamin and mineral requirements in human nutrition. 2nd Edition. Geneva.

the skin. With calcium, Vitamin D is known for its critical importance for bone health. Both seem crucial targets for preventive and treatment measures of osteoporosis. Deficiency in vitamin D may also affect the broader spectrum of functional outcomes, involving brain, muscle, vascular and heart health.

**Vitamin B12** deficiency is highly prevalent in older people, particularly where digestive problems, such as atrophic gastritis, reduced the absorption of several nutrients. An estimated

10-30% of older adults over 50 have atrophic gastritis. The bacterial overgrowth that accompanies this condition uses up the vitamin and, without hydrochloric acid and intrinsic factor, digestion and absorption of Vitamin B12 are inefficient. Poor cognition, anaemia and neurological damage are negative effects associated with B12 deficiency, although the effects appear reversible if treated relatively soon. Both Vitamin D and Vitamin B12 are predominantly derived from animal sources.



Table 6: Nutrients that influence the development and activities of the ageing brain

Brain function	Depends on an adequate intake of:
Short-term memory	Vitamins B12, C, E
Performance problem solving tests	Riboflavin, folate, Vitamins B12, C
Mental health	Thiamin, niacin, zinc, folate
Cognition	Folate, iron, Vitamins B12, B6, E
Vision	Essential Fatty Acids, Vitamin A
Neurotransmitter synthesis	Tyrosine, tryptophan

Source: Rady Rolfe et al, 2008.

Some micronutrients are particularly important for the brain, which responds to genetic and environmental factors that can enhance or diminish its capacities. Age-related blood supply decreases the number of neurons (brain nerve cells that specialize in transmitting information), affecting hearing and speech, posture and balance. Some of the cognitive loss and forgetfulness generally attributed to ageing may be in part environmental, and therefore controllable, including by nutrient deficiencies. **Table 6** below outlines some of the interactions between intakes of micronutrients and aspects of brain function.

In poor areas of low to middle income countries, and in emergencies, some nutritional deficiency diseases, such as anaemia and Vitamin A deficiency, primarily affect children and women. Others, such as pellagra, are found more frequently in adults, men and women. Micronutrient deficiencies have also been documented in adolescents in African refugee camps. Older people are rarely, if ever, referred to in studies and reports on micronutrient malnutrition in emergencies. Certainly, the level of the challenges in assessing micronutrient problems in emergencies, and intervening appropriately and with beneficial effect for this population group, is even harder than for children.<sup>83</sup>

More attention needs to be paid to this area of the emergency response. Those micronutrient deficiencies for which older people can be included as part of 'whole population' in assessments are:

- Beriberi (clinical signs, thiamine level in blood and urine, dietary intake);
- Pellagra (clinical signs of dermatitis, diarrhoea and dementia, niacin level in urine, dietary intake of niacin equivalents); and

- Scurvy (by clinical signs, levels of serum ascorbic acid).

Assessments for Vitamin A deficiency, iodine deficiency and or iron deficiency do not include older adults or older people as an appropriate target group for detecting a suspected micronutrient problem.

#### Fluids and other requirements

Dehydration is a real risk for many older adults. Total body water decreases with age so even mild stresses such as fever or hot weather can precipitate rapid dehydration in older adults. Dehydrated older adults seem to be more susceptible to urinary tract infections, pneumonia, pressure ulcers, and confusion and disorientation. Despite their physiological needs, many older people do not seem to feel thirsty or notice mouth dryness. Many older women who have lost bladder control related to childbirth or obstetric fistula may be afraid to drink too much water to avoid the stress and stigma of incontinence. To prevent dehydration, older people need to drink at least 6 glasses of water a day. Clinical support may be necessary to advise on quantity, because too much water in undernourished old age can cause cardiac failure.

Eating high fibre foods and drinking water can alleviate constipation. Sources of complex carbohydrates such as legumes, vegetables, whole grains and fruits are rich in fibre and essential vitamins and minerals. Average fibre intakes among older adults are often lower than recommendations (14gm per 1,000kcal). Physical inactivity and medications also contribute to the high incidence of constipation.<sup>84</sup> Generic guidance on a healthy diet for older people is provided by a number of international bodies.<sup>85</sup>

<sup>83</sup> Seal A and Prudhon C, 2007. Assessing micronutrient deficiencies in emergencies: current practice and future directions. *Journal of Nutrition, Health and Ageing*: vol 12 (8): 599-604.

<sup>84</sup> Jones J Duffy M, Coull Y and Wilkinson H, 2009. Older people living in the community – nutritional needs, barriers and interventions: a literature review. Scottish Government Social Research.

<sup>85</sup> WHO, 2002. Keep fit for life: meeting the nutritional needs of older persons. WHO/Tufts University School of Nutrition and Policy.

### Food intake in its social context

Across human cultures, food is never just food and its significance can never be purely nutritional. Humans share food. It is our central social ritual, it is a focus for social exchange, it acts as social and intergenerational glue.<sup>86</sup> Anthropological literature provides many examples of how food and meal rituals and practices contribute to family identity and domestic life. So, for older people who have spent so many years involved in the provision of food for their families, food and eating can never be removed from its social context.

Even in emergencies, food is intimately bound up with social relations, including those of power, of inclusion and exclusion, as well as with cultural ideas about classification, the human body and the meaning of health.<sup>87</sup> While these issues are not important for young children, they are very important for older people whose seniority is often tied up with the provision, choice and preparation of food for family members. In an emergency, this role is frequently undermined, if not completely disrupted. In addition to the other stresses of the emergency or conflict, this unfamiliar loss of control over food can have negative consequences on older people's emotional and psychological health, in turn impacting on their appetite, food intake and choices dependent on food preferences, regardless of what food is available.

Food is shared and allocated differently within different types of households depending on demographic composition, who within the household is sick or has died, has social standing or economic status and other power factors, many of which are related to gender and age seniority.<sup>88</sup> Intra-household food distribution, and patterns of self-abstinence, can also be important causes of undernutrition in older people in low to middle income countries, both in long-term, development settings and in emergencies.

The focus on children in most work on undernutrition also misses this intra-household context in which older people may voluntarily miss meals, or certain nutritious foods, so that other family members can be fed. HelpAge's operational programmes, and those of many other development agencies, are frequently reporting examples of many older people going short of food themselves to feed other family members, particularly children. For example, in Sri Lanka, where the price

of milk powder almost tripled in February 2009, older people went without, so that children in their care did not.<sup>89</sup> However, there is little systematic research on this.<sup>90</sup>

### Undernutrition in older people in middle and low income countries

In middle and low income countries, there is very little research on the nutritional status of older people. The WHO/Tufts University School of Nutrition and Policy publication "Fit for Life: meeting the nutritional needs of older persons" (2002) acknowledged that, despite the rapidly increasing proportion of older persons in the populations of low to middle income countries, there is a scarcity of information concerning this group's specific nutritional needs. However, we can be sure that the vast majority of older people in low to middle income countries enter their later years after decades of poverty and deprivation, poor access to health care, and a diet that is usually inadequate in quantity and quality.

For Europe's community-living older people, it was found that although general undernutrition is not common, they are at risk for developing poor nutritional status. As described in the preceding section, the reasons for poor nutrition are multifaceted and include the physiological, psychological and social changes associated with ageing which affect food intake and body weight, possibly exacerbated by the presence of disease and illness. Such multifaceted causes will require multifaceted responses. This will also apply for older people with, or at risk of, malnutrition in humanitarian situations.

The ACC/SCN 4th World Nutrition Situation Report published in 2000 was themed 'nutrition through the life cycle'. For the first time, a specific section was included relating to adult malnutrition. However, since then, older people in particular have not featured in World Nutrition Situation reports.

During the 1990s, a research programme partnership between the London School of Hygiene and Tropical Medicine and HelpAge documented the prevalence of, and risk factors for, undernutrition among large numbers of older people (aged 50-96 years) in several sites in Africa (rural area near Lilongwe, Malawi;<sup>91</sup> refugee camp for Rwandans in Tanzania<sup>92</sup>) and Asia (urban slums in Mumbai, India<sup>93</sup>). The highest prevalence of

<sup>86</sup> Quandt S, Arcury T, Bell R, McDonald J and Vitolins M, 2001. The social and nutritional meaning of food sharing among older rural adults. *Journal of Aging Studies*: 15; 145-162.

<sup>87</sup> Caplan 1997. *Food, health and identity*. Routledge, London.

<sup>88</sup> Haddad L, Pena C, Nishida C, Quisumbing A, Slack A, 1996. Food security and nutrition implications of intra-household bias: a review of the literature. Washington DC; International Food Policy Research Institute.

<sup>89</sup> Beales, S, 2011. *Ageways*. Issue 76. February; p5.

<sup>90</sup> Gorman 2011. Why NCD strategies must include older people. *Ageing and Development*. September; pp 6-7.

<sup>91</sup> Manandhar M, 1999. Undernutrition and impaired function amongst elderly slum dwellers in Mumbai, India. PhD thesis. London School of Hygiene and Tropical Medicine.

<sup>92</sup> Pieterse S, Manandhar M, and Ismail S, 1990. The nutritional status of older Rwandan refugees. *Public Health Nutrition*: 1; 250-264.

<sup>93</sup> Chilima D and Ismail S, 1998. Anthropometric characteristics of older people in rural Malawi. *European Journal of Clinical Nutrition*: 52; 643-649.



Table 7: Prevalence of undernutrition among older people (60+ years) in African countries

Country	BMI <16		BMI <18.5		MUAC ≤24 cm	
	Men	Women	Men	Women	Men	Women
Benin	–	–	8.0	11.8	–	–
Botswana	4.2	1.6	20.1	14.8	–	–
Cameroon	–	–	7.7	4.2	6.7	1.5
Ethiopia	–	–	30.1		50*	23.3*
Ghana	30.0	17.1	62.2	44.6	25.3	12.2
Kenya	–	–	15.3	10.0	–	–
Malawi	4.0	4.9	36.1	27.0	23.0	–
Senegal	4.0	3.0	14.5	9.0	18.5	14.0
South Africa	5.8	1.3	19.2	2.2	21.2	4.8
Tanzania	0.8	2.0	7.6	10.8	–	–
Uganda	2.9	1.4	13.3	9.4	–	28.5
<b>Emergency situations</b>						MUAC ≤22 cm
Kenya – Turkana	15.2	12.5	–	–	19.6	17.7
Kenya – Wajir	–	–	–	–		
Sierra Leone – Kenema	42.0	48.0	–	–	86.0	77.0

\* using MUAC <23cm

Source: HelpAge International Africa Regional Development Centre, 2004. Summary of research findings on the nutritional status and risk factors for vulnerability of older people in Africa. Nairobi.

undernutrition (BMI<18.5kg/m<sup>2</sup>) and severe undernutrition (BMI<16kg/m<sup>2</sup>) was in India where 35% of older people were undernourished. Figures from Malawi were similar. In contrast, the vast majority of refugees (97%) came from villages in East Rwanda where the food situation had been good. The refugee population was also a specific group, probably representing the fittest and healthiest people who had managed to reach the camp.

This multi-site research led on to the development of a research and advocacy programme within HelpAge. From 2000-2003, there was an intensification of research on older people's nutritional situation in Africa, coordinated by HelpAge's Africa Regional Development Centre. **Table 7** below summarises the information obtained from this research, using the recommended cut-offs for BMI and MUAC at the time (for more on this, see section on assessment below).

As well as highlighting the prevalence of undernutrition in older people across Africa, this work also contained valuable lessons relevant to understanding nutritional vulnerability

among older people throughout the developing world, including in emergency situations. All the risk factors depicted in Figure 3 above were identified, and the particular vulnerability of older people to undernutrition in emergencies was highlighted, including their:

- Ability to queue, fetch fuel and water, prepare food and cook;
- Mental health and emotional well-being;
- Lack of care and supports;
- Shelter and their vulnerability to hypothermia and/or dehydration; and
- Physiological state.

In many rural parts of the developing world, the acquisition of *wild foods* is still an important activity, particularly for older people. Older men tend to focus on small game hunting whereas women tend to forage for berries, mushrooms, roots, leaves and tubers and other items like caterpillars. **Box 13**

**Box 13: Consumption of wild foods in southern Sudan**

Wild foods are an extremely important food source for the Dinka in southern Sudan, particularly during food shortage periods. It is generally the older women in these communities who have the skills and knowledge on how to collect, process and prepare these foods. Older women can recognize the ‘good food types’ and will know where they are likely to grow. It is generally the younger women and men who are reluctant to make use of wild foods as a result of their lack of knowledge as well as the stigma associated with eating them. In this context, there is not only the potential for utilizing the older women’s knowledge and experience but also to promote and support the use of wild foods as a valuable source of micro-nutrient rich food source for older people.

Source: quoted in Borrel, 2001, Addressing the nutritional needs of older people in emergency situations in Africa: ideas for action. HelpAge International, Africa Regional Development Centre, Nairobi (page 46).

describes how wild foods continue to be an important activity among the Dinka of southern Sudan. During emergencies, the acquisition and consumption of wild foods needs to be investigated.

### Assessment of nutritional status and vulnerability of older people

This section presents the rationale behind, and techniques for, assessing the nutritional status of older people. It focuses on social and nutritional vulnerability risk factors to determine the underlying causes of undernutrition, on clinical signs and symptoms of physiological vulnerability, and on anthropometry for the assessment of physical nutritional status. This section also considers the relevance of *functional ability* in older people, based on the premise that impaired functional ability is an important outcome indicator for this population group against which to measure indicators of nutritional status. Only assessment methodologies that can be used in humanitarian settings are presented.

Assessing the nutritional vulnerability and nutritional status of older people is a requirement for ensuring an impartial humanitarian response. Moreover, ***given what we know about the crucial role of older people in households and families, it could be argued that another approach to avoiding mortality in young children in an emergency would be to ensure the nutritional status and functional ability of their older carers.***

The assessment of older people is currently not considered a key indicator for the severity or extent of an emergency or crisis, nor as a proxy for the situation in the whole community. However, there are signs that attention is now turning to their nutritional situation, as population groups in emergencies.

In 2001, in recognition of the fact that “what gets measured, gets noticed”;<sup>94</sup> an expert group (UN Administrative Committee on Coordination, Sub-Committee on Nutrition – ACC/SCN) met in Nairobi to discuss the assessment of adult malnutrition in emergencies. They agreed that it was appropriate to consider assessing malnutrition in adults as well as in children in specific circumstances, and made recommendations, as presented in **Box 14**.

Another meeting of the SCN Nutrition in Emergencies Working Group took place in New York in 2004.<sup>95,96</sup> These developments represented a pragmatic approach to the issues, and signalled progress in tackling the historical neglect of this population group in the field of undernutrition. However, since then, the focus on older people has not been maintained and efforts to reinvigorate work on assessment methods and nutritional vulnerability in older people in emergencies are urgently needed.

In 2001, HelpAge’s Africa Regional Development Centre published a report on addressing the nutritional needs of older people in emergency situations in Africa.<sup>97</sup> The rest of this section and the following section on interventions draw heavily on this publication, as well as the ACF publication on adult malnutrition in emergencies.<sup>98</sup>

Because of the multi-dimensionality of the causes of undernutrition in older people as described earlier, it is important to take a **broad approach** in any assessment of undernutrition in older people, taking into account the complexity of vulnerability risk factors and the non-food determinants of nutrition and functional outcomes. As anthropometric measurements cannot distinguish between acute malnutrition and stable malnutrition, it is necessary to first look at risk factors for undernutrition in order to differentiate between them.

<sup>94</sup> Woodruff B, 2004. Postscript on older people, nutrition in emergencies. *The Field Exchange*. Issue 14 <http://fex.enonline.net/14/scn.aspx>

<sup>95</sup> Nutrition in emergencies Working Group report, 2004. *The Field Exchange*. Issue 22. <http://fex.enonline.net/22/scn.aspx>

<sup>96</sup> Wyness L, 2004. Taking forward research on adult malnutrition. *The Field Exchange*. Issue 22 (see 101).

<sup>97</sup> Borrel A, 2001. Addressing the nutritional needs of older people in emergency situations in Africa: ideas for action. HelpAge International Africa Regional Development Centre. Nairobi.

<sup>98</sup> Navarro-Colorado C, 2006. Adult malnutrition in emergencies: an overview of diagnosis and treatment. Field Guidelines. ACF, version 3.

## Box 14: ACC/SCN recommendations on when to assess adult malnutrition in emergencies

- If the crude mortality rates begin to approximate or surpass the under-five mortality rates, suggesting that the over-five population is as vulnerable as the under-five population.
- If the prevalence of malnutrition is very high in the under-fives and is not due to a health problem mainly affecting that age group.
- If there is reasonable doubt that the nutritional status of children does not reflect the adult situation. For example, in Bosnia and Kosovo, it was suspected that older people were particularly vulnerable to malnutrition.
- If many adults attempt to enrol in selective feeding programmes or present to health posts.
- If anecdotal reports of adult malnutrition are received.
- If there is low coverage of food aid in dependent populations.
- If data is required to act as an advocacy tool to lever resources.

Source: ACC/SCN 2001. 31st Session: Report of the Working Group on Nutrition in Emergencies. <http://www.unsystem.org/scn/Publications/AnnualMeeting/SCN28/28emergencies.htm>

**Table 8** below summarises the variety of different methods to assess the nutritional status and nutritional vulnerability of older people in emergency situations, each of which will be described in more detail in this section. The choice of all, or some of these, will depend on context, stage of the crisis, available resources and technical capacity.

### Assessing complex vulnerabilities

In line with the humanitarian principle of fulfilling rights and acting with impartiality, the nutritional status and vulnerability assessment of older people in emergencies should be a standard component of humanitarian programming.

Social and psychological factors assume greater significance in the nutritional and functional profiles of older people. These are important in emergency situations when factors such as loneliness, bereavement and depression become prevalent. Widowhood (especially later in life) and forced displacement (due to political conflicts or natural disasters) lead to psychological insults from which it is difficult to recover, and which have profound nutritional and health consequences.<sup>99</sup> Wars, famines and disasters can act against older people as a form of forced triage phenomenon, whereby the old and frail are either left behind or not cared for, in favour of the younger and fitter majority.

Even when included in relief efforts, older individuals are less likely to adapt to new environments and situations and are more likely to feel the negative consequences of leaving a familiar home environment. In poor areas of the USA, the death rates from malnutrition are significantly higher where older adults were more likely to live alone or be widowed. Being

socially isolated can be harmful because social supports affect psychosocial well-being and foster healthier behaviours.<sup>100</sup>

Nutritional vulnerability among older people, as stated above is influenced by a variety of social, emotional, physical, economic and community factors. These are captured in several Vulnerability Risk Factors as shown in Figure 3 above and Figure 4 below.<sup>101</sup>

Various tools exist for assessing vulnerability risk factors for older people, including:

- Disabled, Vulnerable and Frail Persons (DVFP) Assessment Module
- Mini-Nutritional Assessment (MNA), and shortened version (MNA-SF)
- Subjective Global Assessment (SGA)

Of these, only the **Disabled, Vulnerable and Frail Persons (DVFP) Assessment Module**, developed by Handicap International (see **Annex 4**) is used in emergency situations. Although it focuses on disability and frailty, it includes information relevant to the vulnerability assessment of older people in emergencies, including:

- type of vulnerability: fast screening (*it includes if the person is cared for, though not if s/he is a carer*);
- causes of vulnerability;
- level of independence and participation, including the ability to prepare and cook food, and walking short distances;
- psychosocial issues, including changes in appetite;

<sup>99</sup> Zohoori N, 2001. Nutrition and healthy functioning in the developing world. *Journal of Nutrition*: 131; 2429S-2432S.

<sup>100</sup> Lee and Berthelot, 2010.

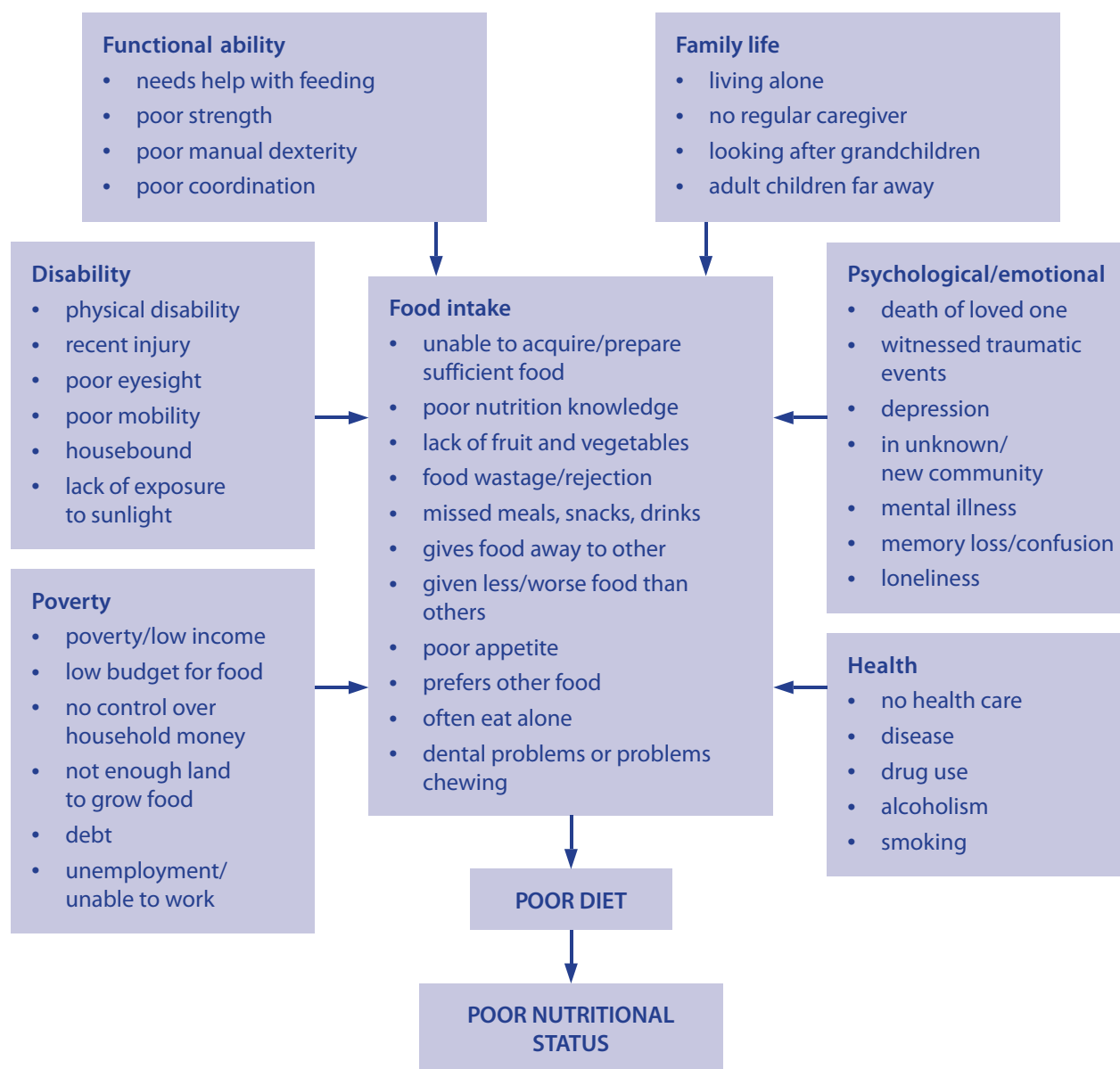
<sup>101</sup> Ismail S and Manandhar M, 1999. Better nutrition for older people: assessment and action. Joint publication of HelpAge International and the London School of Hygiene and Tropical Medicine.

Table 8: Summary of assessment methods for nutritional status and vulnerability of older people in emergency situations

Assessment method	Indicators	Tools available
<b>Vulnerability risk factors</b>	Functional abilities affecting Activities of Daily Living (ADLs) related to collecting food, water and fuel, queuing, preparing food, cooking and chewing (e.g. sight, mobility, dentition)  Social risk factors	<ul style="list-style-type: none"> <li>Disabled, Vulnerable and Frail People Checklist (DVFP) (Annex 4)</li> <li>Risk factors diagram (Figure 4)</li> </ul> Mini-Nutritional Assessment (MNA) and MNA-short version (MNA-SF) (Annex 5) Qualitative (participatory) research
<b>Clinical symptoms, observations</b>	Oedema, dehydration, anorexia, sarcopenia, infection and disease	Table 9: ACF Flow Diagram, Figure 6
<b>Anthropometry for:</b> <ul style="list-style-type: none"> <li>Identification of acute and/or stable malnutrition at population and individual levels.</li> <li>Entry and exit criteria for interventions at individual level.</li> </ul>	MUAC  BMI <i>(using armspan or halfspan if an accurate measurement of standing height is not possible, e.g. due to kyphosis) and taking into account the Cormic Index for standing-height: sitting-height ratio, and famine oedema</i> <b>See more technical details on BMI measurements – p.49</b>	Table 10: for classification cut-offs  Table 11: for classification cut-offs Figure 6: ACF Flow Diagram  Calculation of Cormic Index
<b>Criteria for referral and intervention</b>	Admission and discharge criteria into selected feeding programmes (CSP, SFP, TFP)	Table 15: Screening of older people for admission into targeted SFP Table 17: Anthropometric, clinical and social criteria for older people's admission into CSP, SFP and TFP
<b>Dietary intake</b> <a href="http://www.nutricalc.co.uk/home.php">http://www.nutricalc.co.uk/home.php</a> <a href="http://www.nutval.net/">http://www.nutval.net/</a>	Nutrient density in GFR  Intake of micronutrients (Vitamins B12, D, iron etc)  Fluid intake (to avoid dehydration)  Intake of wild foods  Intra-household food allocation	Calculate using computer software programmes (e.g. NutValu, NutCalc)  Assess micronutrient intake versus requirements (Table 5)  Clinician referral and advice  Qualitative (participatory) research  Qualitative (participatory) research
<b>Participation of older people</b>	Level of involvement of older people in nutrition and vulnerability assessments ( <i>older people are often excluded in research and assessments</i> )	It is important to take enough time to adapt the environment and methods to maximise the participation of older people <sup>102</sup>

<sup>102</sup> HelpAge International, 2002. Participatory research with older people: a sourcebook.

Figure 4: Risk factors for nutritional vulnerability in older people



Source: Ismail S and Manandhar M, 1999. Better nutrition for older people: assessment and action. Joint publication of HelpAge International and the London School of Hygiene and Tropical Medicine.

- family information;
- level of handicap, such as visual, deformity, pain, restricted use of body parts such as hands;
- income generating activities and contribution to household livelihood;
- medical needs and support;
- need for items and equipment, such as to help with sight and mobility; and

- need for further referral.

The **Mini-Nutritional Assessment (MNA)**<sup>103</sup> is the only nutritional tool that incorporates special consideration of the older adult (i.e. functionality, mobility, depression and dementia). It was specifically developed to identify older people at risk of malnutrition without the need for more invasive tests such as blood sampling.

<sup>103</sup> Guigoz et al, 2002; Abellan Van Kan G and Vellas B, 2011. Is the Mini-Nutritional Assessment an appropriate tool to assess frailty in older adults? *Journal of Health, Nutrition and Ageing*: 15 (3); 159.

Table 9: Guidelines for recognising basic clinical symptoms associated with severe acute malnutrition in older people in emergencies

Clinical symptom	Observation: <i>through physical examination during patient consultation. A physician or senior health worker usually carries out a physical examination on patients admitted to a TFP.</i>
<b>Famine oedema</b> <i>accumulation of fluid in tissues</i>	<ul style="list-style-type: none"> <li>Occurs bilaterally (e.g. in both feet or legs).</li> <li>On pressing down gently with a thumb for 10 seconds, a pit forms and remains visible for a few seconds ('pitting oedema').</li> <li>On pressing down gently with a thumb for 10 seconds, a pit forms and remains visible for Oedema following sleep or immobility which disappears after some exercise is usually a result of poor circulation or heart condition.</li> </ul>
<b>Inability to stand/immobile</b>	<ul style="list-style-type: none"> <li>Some patients will be too weak to stand/walk, and are usually carried in with stretchers by family members or out-reach workers.</li> <li>This inability to stand may be part of the natural ageing process and general debilitation, for example where there is kyphosis.</li> </ul>
<b>Extreme weakness</b>	<ul style="list-style-type: none"> <li>Patient does not have the strength to carry out daily tasks and may, in some cases, be too weak to prepare and eat food by himself.</li> <li>Patient will spend long hours sitting or resting.</li> <li>Muscle strength is severely depleted and muscle tissue is wasted.</li> </ul>
<b>Dehydration</b> <i>(see p.35 for the importance of fluids for older people)</i>	<ul style="list-style-type: none"> <li>Patient has dry mucosal membranes and dry mouth.</li> <li>When the skin is gently lifted away from the bone, skin remains upright for a few seconds.</li> </ul>
<b>Anorexia</b>	<ul style="list-style-type: none"> <li>Patient is vomiting and unable to keep food in their stomach.</li> <li>Often the patient will refuse to take food.</li> <li>Psychological aspect of anorexia, depression.</li> </ul>

Source: Borrell A, 2001. Addressing the nutritional needs of older people in emergency situations in Africa: ideas for action. HelpAge International Africa Regional Development Centre. April.

The MNA consists of a simple, non-invasive, clinician-completed assessment and screening instrument (**Annex 5**). This comprises 18 easily measureable items, classified into four categories:

1. Anthropometric measurements (four questions on weight, height and weight loss)
2. Dietary questionnaire (six questions related to number of meals, food and fluid intake, autonomy of feeding)
3. Global assessment (six questions related to lifestyle, medication and mobility)
4. Subjective assessment (two questions on self-perception of health and nutrition)

All answers and measurements are attributed a score, and a total score summed from all elements is calculated.

**A short form (MNA-SF)** has also been elaborated to screen older adults for malnutrition. The MNA-SF takes three minutes to administer and includes measurement of height and weight for the calculation of BMI.<sup>104</sup> Calf circumference has recently been added, for use when BMI calculation is not possible.

**Subjective Global Assessment (SGA)**<sup>105</sup> is a method commonly used for assessing nutritional status in various clinical situations, particularly in surgical patients and cancer care. First described in 1982 as a screening tool, it better identifies established malnutrition than nutritional risk but its sensitivity is suboptimal.<sup>106</sup> It is not routinely used in emergencies.

### Assessing nutritional status

Compared to guidance and methodologies for assessing the nutritional status of children (see HTP Module 6), there is only

<sup>104</sup> Rubenstein et al, 2001.

<sup>105</sup> Barbosa-Silva M, Ga C, Barros A, 2006. Indications and limitations of the use of subjective global assessment in clinical practice: an update. *Current Opinion in Clinical Nutrition & Metabolic Care*.

<sup>106</sup> Makhija S and Baker J, 2008. The Subjective Global Assessment: a review of its use in clinical practice. *Nutrition in Clinical Practice*.



limited literature on assessing the nutritional status of older people, and on diagnosing and treating malnourished individuals in the age group above 50 years old.

In line with the HTP Module 6: Measuring Malnutrition, which states that nutritional status cannot be observed directly in emergency field conditions, four observable proxy methods are used to **assess an individual's nutritional status**, some of which are appropriate and feasible for use in emergencies. These four methods are:

- Dietary intake;
- Biochemical assessment (*generally not practical in emergency situations*);
- Clinical assessment, including signs of micronutrient deficiencies; and
- Anthropometry.

### Dietary intake

There are numerous methods for assessing dietary intake, including diet histories, diet recalls and food-frequency questionnaires. These rely on locally-appropriate, accurate and validated food composition tables. Their accuracy is poor in most community-living populations. The situation is even more difficult in an emergency setting where the General Food Ration (GFR) and feeding programmes are controlled, but gathering of wild foods, exchange of food for cash or other goods, and the unknown factor of intra-household food distribution may complicate the picture.

### Clinical assessment

A number of clinical observations can be made to assess older people in an emergency, as outlined in **Table 9**. More detail is also given in HTP Module 3.

All the symptoms of kwashiorkor and marasmus usually observed in children can also be seen in adults, although they are less common. These include the presence of: anorexia, weakness, enlarged (fatty) liver, full moon face (signs of excessive cortisol); skin lesions and ulcerations; pale sparse hair and hair loss; discoloration of skin and hair; thinness; associated infections and other signs of immune depression; amenorrhoea in women and loss of libido.

The current recommended assessment methodologies and appropriate population groups for the assessment of suspected **micronutrient** problems in emergencies are presented in a 2007 SCN publication<sup>107</sup> (see HTP Module 4: Micronutrient Malnutrition). While there is no specific mention of older adults or older people in the SCN document, this group is captured in the 'whole population' assessment for the indicators of:

- Beriberi<sup>108</sup> (*through observation of clinical signs, thiamine levels in the blood and urine, dietary intake*);
- Pellagra<sup>109</sup> (*through observation of clinical signs of dermatitis, niacin levels in urine, dietary intake of niacin equivalents*); and
- Scurvy<sup>110</sup> (*by observation of clinical signs, levels of serum ascorbic acid*).

Several other micronutrients that are regarded as particularly important for older people, particularly Vitamin D and Vitamin B12 need more consideration in the future. Iron deficiency<sup>111</sup> is also an important omission, given the increasing evidence for anaemia among many older women and its potential relationship with functional outcomes such as handgrip strength.

### Anthropometric assessment of nutritional status

In emergency situations, MUAC and BMI are the two anthropometric indicators most commonly used to assess under-nutrition in older people.<sup>112</sup> However, **there are no internationally agreed indicators and related cut-off points to assess nutritional status in older people, including in emergency situations.**

This section discusses some of the practical issues that need consideration when making anthropometric measurements of older people. Illustrations for taking MUAC, weight and height measurements can be found in HTP Module 6.

### Using Mid-Upper Arm Circumference (MUAC)

Mid-upper arm circumference is the circumference of the left upper arm, measured at the mid-point between the tip of the shoulder and the tip of the elbow (olecranon process and the acromium). The use of MUAC for nutritional assessment of older people has many advantages, as it does for use in children (see HTP Module 6).

<sup>107</sup> A.Seal, C.Pruhdon, 2007. Assessing micronutrient deficiencies in emergencies. Current practice and future directions. NCIS, UNS/SCN.

<sup>108</sup> WHO/UNHCR, 1999. Thiamine Deficiency and its prevention and control in major emergencies. Geneva WHO/NHD/99.13.

<sup>109</sup> WHO/UNHCR, 2000. Pellagra and its prevention and control in major emergencies. WHO/NHD/00.10 and WHO, 2000. Management of nutrition in major emergencies (Provisional criteria).

<sup>110</sup> WHO/UNHCR, 1999. Scurvy and its prevention and control in major emergencies. WHO/NHD/99.11 (Provisional criteria).

<sup>111</sup> WHO, 2000. The management of nutrition in major emergencies.

<sup>112</sup> WHO, 1995. Physical status: the use and interpretation of anthropometry. Report of a WHO Expert Committee. Technical Report Series No. 854. Available at: [http://whqlibdoc.who.int/trs/WHO\\_TRS\\_854\\_\(chp3\).pdf](http://whqlibdoc.who.int/trs/WHO_TRS_854_(chp3).pdf)

Table 10: Summary of MUAC classifications used to assess undernutrition in older people

Author/source	Age (years)	Indicator of undernutrition using MUAC in mm		Rationale based on	Comment	
<b>Ferro-Luzzi and James, 1996</b> <sup>113</sup>	18-60	SAM MAM Under Normal	<b>Men</b> <169 170-199 200-229 ≥230	<b>Women</b> <159 160-189 190 - 219 ≥ 220	Extrapolated from more normally nourished populations in low to middle income countries	Criteria “probably inappropriate for screening acutely undernourished adults” (Collins, Duffield and Myatt, 2000).
<b>Ismail and Manandhar, 1999</b> <sup>114</sup>	50-96	Undernutrition <231 MAM 221-230 (in Africans) SAM <221 (in Africans)  <i>HelpAge produced a Shakir strip with colour band cut-offs: Red 0-220 Yellow 220-230 Blue 230-240 Green 240-250</i>		Cut-offs were linked to <16 BMI <sup>115</sup> distribution as well as actual functional ability performance test values	Data from multi-site cross-sectional research among poor older people in Asia (urban slum India) and Africa (Rwandan refugee camp in Tanzania, rural farmers in Malawi). Not acute emergency situations.	
<b>Collins, Duffield and Myatt (UN/SCN), 2000</b> <sup>116*</sup>  Based on Concern’s CHANCES model	20-60	<b>Severe undernutrition Admit into adult TFC if: MUAC &lt;160</b> irrespective of clinical signs <b>OR:</b> <b>MUAC 161-185 + one of</b> the following: <ul style="list-style-type: none"> <li>• bilateral pitting oedema (Beattie grade 3 or worse)</li> <li>• unable to stand</li> <li>• apparent dehydration</li> </ul> <p>Also admit if famine oedema (<i>Beattie grade 3 or worse</i>) alone, by clinician assessment</p> <b>Moderate undernutrition Admit into adult SFC if: MUAC 161-185 and no relevant signs or few social criteria</b> via screening for: <ul style="list-style-type: none"> <li>• access to food (quantity, quality)</li> <li>• distance from centre</li> <li>• presence/absence of carers</li> <li>• dependents</li> <li>• cooking utensils</li> <li>• shelter</li> </ul>		Applying these MUAC cut-offs to BMI distribution, a MUAC of 185mm corresponded to BMI 13 kg/m <sup>2</sup> , when applied to data from Ferro-Luzzi and James*  It is considered as severe undernutrition and is associated with risk of mortality	<b>Applies to extreme situations such as famine, and scarcity of resources. Deals solely with adults in emergencies.</b>  These are suggested starting points and will require consideration of additional situation-specific factors.  Recommends development of specific cut-off points to account for changing redistribution of fat during ageing.  Questions whether there is also a need for ethnic differences to be investigated.	

\* based on James, Mascie-Taylor, Norgan, Bistriaw, Shetty & Ferro-Luzzi, 1994; Collins, 1996.

<sup>113</sup> Ferro-Luzzi A and James W, 1996. Adult malnutrition: simple assessment techniques for use in emergencies. *British Journal of Nutrition* 75 (1); 3-10.

<sup>114</sup> Ismail I and Manandhar M, 1999. Better nutrition for older people: assessment and action. HelpAge International and the London School of Hygiene and Tropical Medicine.

<sup>115</sup> Using armspan, or another proxy, for height when an accurate height measurement is not possible.

<sup>116</sup> Collins S, Duffield A and Myatt M, 2000. Adults: assessment of nutritional status in emergency-affected populations. ACN/SCN.



Table 10: Summary of MUAC classifications used to assess undernutrition in older people (continued)

Author/source	Age (years)	Indicator of undernutrition using MUAC in ms	Rationale based on	Comment
<b>Borrel, 2001</b> <sup>117</sup>	>60	Entry into selective feeding programmes: <b>No</b> admission: >185 Normal ( <i>unless famine oedema present, refer to clinician</i> )  <b>SFC:</b> 160-185 MAM  <b>TFC:</b> <160 SAM  Entry into Community Support Programme <b>CSP:</b> >185 High nutritional risk If one or more social criteria but no anthropometric or clinical criteria, enter into CSP with the purpose of preventing further deterioration in nutritional status.	Based on data from Nilotic populations	Formed the basis for UNHCR/WFP 2011 recommendations, see Table 11.  Applies to emergency situations and famines.  Use in Burundi/Congo failed to confirm its usefulness as a diagnostic tool. <sup>118</sup> Not yet validated in other populations.
<b>Grellety (ACF), 2001</b> <sup>119</sup>		SAM <200 MAM 200-210	Figures are between WHO 1995/Ismail and Manandhar 1999/ Collins et al 2000	Personal communication based on experience in Rwanda, not research-based.
<b>Navarro-Colorado, 2006</b> <sup>120</sup>	20-50  50+	<210 thin, select for further evaluation (weight loss, physical strength and clinical signs)  <180 select for evaluation (weight loss, physical strength and clinical signs)		These are not meant as admission criteria or criteria for malnutrition.

Despite its simplicity and practical advantages (less affected by oedema than BMI and relatively independent of height), the use of MUAC to assess, and screen, the nutritional status of adults and older people in emergencies remains controversial. There is disagreement on the cut-off points to be used, the efficiency of a two-tiered screening process and poor reproducibility in the measurements. However, it is increasingly being recommended for use in emergencies.<sup>121</sup>

**Table 10** summarises the different cut-offs for MUAC recommended in the nutrition literature. **The latest guidelines from UNHCR/WFP (January 2011), state that, until new evidence is available, the cut-off points from the WHO Expert Consultation Report (1995) should be applied for adults (top line in the table).**

<sup>117</sup> Borrell A, 2001. Addressing the nutritional needs of older people in emergency situations in Africa: ideas for action. HelpAge International Africa Regional Development Centre. April.

<sup>118</sup> Navarro-Colorado C, 2006. Adult malnutrition in emergencies: an overview of diagnosis and treatment. Field Guidelines. ACF, version 3.

<sup>119</sup> Grellety, 2001 personal communication, as quoted in: Tilstone V, 2001. Older people, nutrition and emergencies in Ethiopia. *The Field Exchange*. Issue 14 <http://fex.enonline.net/14/older.aspx>

<sup>120</sup> Navarro-Colorado C, 2006. Adult malnutrition in emergencies: an overview of diagnosis and treatment. Field Guidelines. ACF, version 3.

<sup>121</sup> Collins S, Duffield A and Myatt M, 2000. Adults: assessment of nutritional status in emergency-affected populations. ACN/SCN.

Table 11: Using BMI (kg/m<sup>2</sup>) to assess undernutrition in people up to 65 years

Age in years	Classification and recommended use		Reference
≤65 and >18	≥18.5 (<25)	Normal	James, Ferro-Luzzi and Waterlow, 1988 WHO 1995
	17.0-18.4 16.0-16.9 ≤15.9	Undernutrition Grade I Undernutrition Grade II Undernutrition Grade III	
	<13 <10	Severe wasting Extreme wasting ( <i>incompatible with life</i> )	Ferro-Luzzi and James, 1996
≥50*	≥18.5 (<25) 17.0-18.4 16.0-16.9 ≤15.9	Normal Undernutrition Grade I Undernutrition Grade II Undernutrition Grade III <i>Developed BMI charts in colour coded bands for different populations to avoid need for calculation</i>	Ismail and Manandhar, 1999
20-60**	<p>BMI using James, Ferro-Luzzi and Waterlow (1988) classification is appropriate for assessing the prevalence of undernutrition in a population survey.</p> <p>BMI using James, Ferro-Luzzi and Waterlow (1988) classification is NOT appropriate for individual screening in emergencies because it is affected by oedema and body shape, and is also difficult to measure.</p>		Collins, Duffield and Myatt 2000  (based on James, Mascie-Taylor, Norgan, Bistriaw, Shetty and Ferro-Luzzi, 1994; Collins, 1996)
18-50  50+	<p>&lt;17: select thin patients for further evaluation (in a developing country emergency) ; see Fig.6</p> <p>&lt;16: select for further evaluation; see Fig.6</p> <p>Admission into TFC should also take into account social factors such as lack of support, physical or mental disability, difficulty or weakness affecting cooking, psychologically traumatised.</p>		Navarro-Colorado, 2006

\* When height cannot be measured accurately or easily due to kyphosis, a proxy for height such as halfspan should be used; see below.

\*\* The **Cormic Index** (sitting height/standing height) should be taken into account, and standardised for, when comparing BMI across different populations.

The main problem with classifications on undernutrition (acute and stable) based on MUAC is that we have insufficient data available that links MUAC with predictive risk of mortality, as well as with other outcomes of functional relevance to older people (i.e. those that will affect their strength and mobility, their ability to care for others, maintain livelihoods and avoid illnesses).

### Using Body Mass Index (BMI)

$$\text{BMI} = \text{mass (kg)} / (\text{height (m)})^2$$

The most widely used methodology for nutritional assessment of older people is BMI, using weight and height, or proxy measurements of height. Since its first recommendation in 1988, BMI has been used for population-level assessments of stable undernutrition.<sup>122</sup> The recognised categories of undernutrition for adults up to 65 years of age using BMI are shown in **Table 11**.<sup>123,124</sup> **Note that there are NO recommended categories for use in people aged over 65.**

<sup>122</sup> James W, Ferro-Luzzi A and Waterlow J, 1988. Definition of chronic energy deficiency in adults. Report of a working party of the International Dietary Energy Consultative group. *European Journal of Clinical Nutrition* 42 (12): 969-981.

<sup>123</sup> Ferro-Luzzi A, Sette S, Franklin M and James W, 1992. A simplified approach to assessing adult chronic energy deficiency. *European Journal of Clinical Nutrition* 46: 173-186.

<sup>124</sup> WHO, 1995. Physical status: the use and interpretation of anthropometry. Technical Report Series 854, Geneva.

Table 12: Alternatives measurements for standing height in older adults/older people

Proxy for height	Method	Interpretation
<b>Armspan</b> <sup>125</sup>	Measure between tips of middle fingers of both hands across the sternum, with both arms outstretched.	This measurement is known to approximate attained height at maturity across human groups before age-related changes begin. The usual approach is to substitute the arm proxy measurement directly for a measure of standing height and then calculate BMI.
<b>Halfspan</b> <sup>126</sup>	Measure from mid-sternal notch to the tip of middle finger of the hand of one outstretched arm.	This is doubled, and then used as armspan.
<b>Demispan</b> <sup>127</sup>	Measure from mid-sternal notch to the finger root of one hand of one outstretched arm.	Derived indices from arm measurements have also been suggested (for example, Mindex: weight/demispan for women; Demiquet: weight/demispan <sup>2</sup> for men <sup>128</sup> ) although these are mainly used in hospital settings.
<b>Knee height</b> <sup>129</sup>	Measure from the bottom of the heel pad and the top of the knee when both are flexed at 90 degrees, and measured in a sitting or recumbent position with a sliding calliper.	Requires the application of sex- and race- specific regression equations of height from knee height derived from data on population surveys (only available for Caucasians and African-Americans in the USA). Suitable population-specific correction factors to apply to proxy measures of height are not usually available in emergencies.

There are difficulties obtaining an accurate measurement of weight and height in many older people, described below. Despite this, BMI is used as the main anthropometric technique for the nutritional assessment of older people in many settings.

### Weight

The use of weight alone should be limited to monitoring the progress of patients suffering from long-term morbidity (illness), recovering from disease or surgery, or during nutritional rehabilitation within a therapeutic feeding centre. Weight measurements can be difficult to obtain in emergency situations. Chair or bed-scales are usually unavailable so older people must be able to stand unsupported in order to be weighed. Many severely undernourished adults requiring admission to therapeutic feeding centres cannot stand, so BMI cannot be estimated where this is the case. Older people who are unable

to stand should be weighed using a hanging scale of 50kg (similar to that used for children, but with a larger range) or MUAC should be used.<sup>130</sup>

### Height

After reaching skeletal maturity, humans tend to shorten with age. Evidence from longitudinal studies suggests that a male of 60-64 years could be 5-6cm shorter than he had been in his mid-20s, and as much as 7-8cm shorter by age 80. With increasing age, related physical activity and postural changes, the muscles of the back get weaker and the top of the backbone becomes curved, causing spinal *kyphosis*, particularly common in older women. The muscles of the legs also become weak, so that the legs cannot be fully straightened. Standing height should not be measured if the person's back is bent (e.g. due to *kyphosis* or *scoliosis*) and she/he cannot stand up straight,

<sup>125</sup> Haboudi N, Hudson P and Pathy M, 1990. Measurement of height in the elderly. *Journal of the American Geriatrics Association*: 38; 1008-10; Kwok T and Whitelaw M, 1991. The use of armspan in nutritional assessment of the elderly. *Journal of the American Geriatrics Association*: 39 (5); 492-6.

<sup>126</sup> Bassey J, 1986. Demi-span as a measure of skeletal size. *Annals of Human Biology*: vol 13 (5); 499-502.

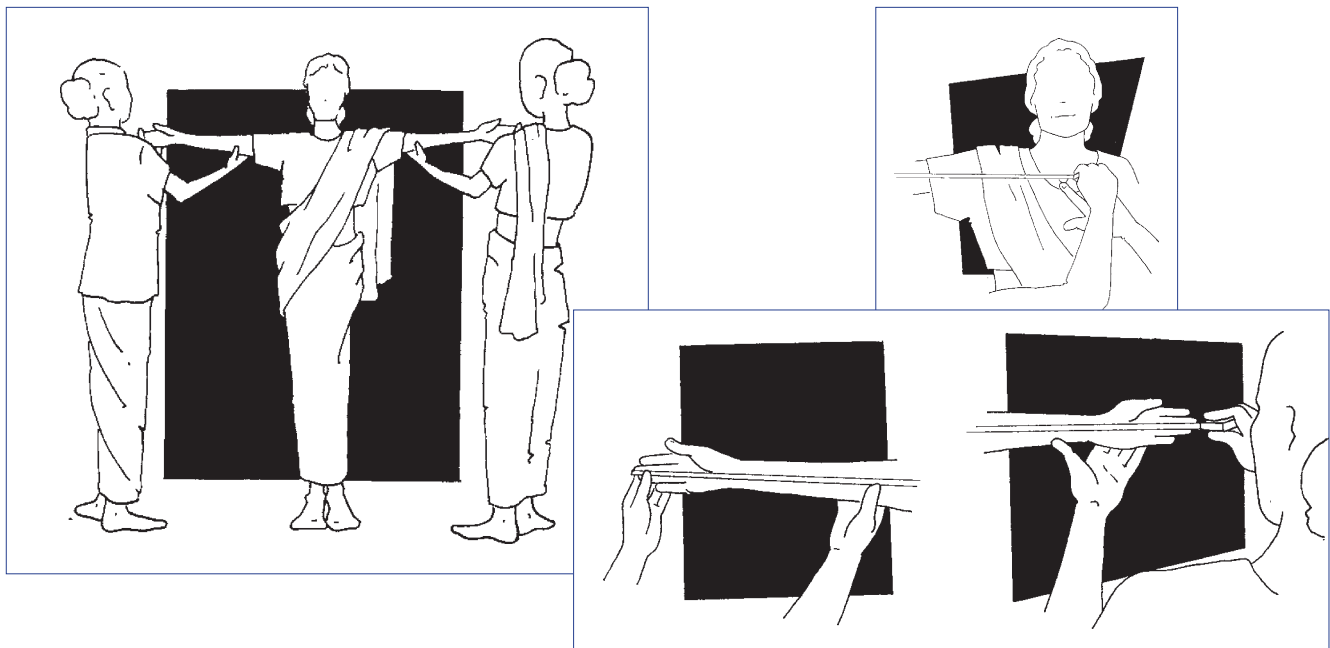
<sup>127</sup> Bassey J, 1986. Demi-span as a measure of skeletal size. *Annals of Human Biology*: vol 13 (5); 499-502.

<sup>128</sup> Lehmann A, Bassey J, Morgan K and Dallosso H, 1991. Normal values for weight, height, skeletal size and body mass indices in 890 men and women aged over 65 years. *Clinical Nutrition*: 10; 18-22.

<sup>129</sup> Chumlea W, Mukherjee D and Roche, 1987. Nutrition assessment of the elderly through anthropometry. Ohio: Fels Research Institute, Ross Laboratories; Kelly P and Kroemer K, 1990. Anthropometry of the elderly: status and recommendations. *Human Factors*: 32; 571-595.

<sup>130</sup> Navarro-Colorado C, 2006. Adult malnutrition in emergencies: an overview of diagnosis and treatment. Field Guidelines. ACF, version 3 (see page 64).

Figure 5: Risk factors for nutritional vulnerability in older people



Source: Ismail S and Manandhar M, 1999. Better nutrition for older people: assessment and action. HelpAge International and the London School of Hygiene and Tropical Medicine. **Drawings by Tricia Kelly.**

or if the person cannot straighten his/her legs. A measurement taken on a person with some curvature of the spine will underestimate real stature, and therefore overestimate BMI.<sup>131</sup> A study among older Rwandan refugees in Tanzania showed that individuals with kyphosis had a higher prevalence of under-nutrition (measured with MUAC and BMI using armspan as a proxy for height – see below) than those without, illustrating the importance of including this group in nutritional status assessments.<sup>132</sup> Many other studies have also reported extreme weakness, flexor contractions and scoliosis.<sup>133</sup>

There are a number of alternatives to standing height: (see **Table 12**), some of which are highly correlated with height at maturity and change little, if at all with age (although most evidence for this comes only from Caucasian populations).

### Armspan and halfspan

The recommended proxy measurements for height are **arm-span**<sup>134</sup> or **halfspan**, see **Figure 5**.

Halfspan measurement is advised when a person has difficulty straightening one arm or whose back is badly bent, or if one arm or hand is missing, injured or badly affected by arthritis. If it is not possible to take armspan or halfspan properly, then MUAC should be measured.

There is considerable individual variation in trunk and limb proportions and the width of the sternal notch, and errors in measurement. For example, the standard error of the estimate of standing height from armspan is reported to be between 2.5cm and 3.8cm,<sup>135</sup> and any errors are magnified once the value is squared for calculation of BMI.

### BMI: body shape and body composition issues (see also HTP Module 6)

While BMI continues to be the nutritional status indicator of choice for adults across the world, its use and interpretation in emergencies is increasingly questioned. This is mainly related to issues of oedema, the influence of body shape and changes in body composition with ageing.

<sup>131</sup> WHO 1995 Physical status.

<sup>132</sup> Pieterse S, 1998. The nutritional status of older Rwandan refugees. *Public Health Nutrition*: 1 (3); 1-6.

<sup>133</sup> Collins S, Duffield A, and Myatt M, 2000. Adults: assessment of nutritional status in emergency-affected populations. ACC/SCN. July.

<sup>134</sup> Ismail S and Manandhar M, 1999. Better nutrition for older people: assessment and action. HelpAge International and the London School of Hygiene and Tropical Medicine. Drawings by Tricia Kelly.

<sup>135</sup> Steele M and Chenier T, 1987. Armspan, height and age in black and white women. *Annals of Human Biology*: 17 (6); 533-541.

**Box 15: Correction of BMI using the Cormic Index (Sitting Height: stature ratio, SH/S)**

In order to standardize BMI to take into account changes in SH/S ratio, we recommend using the equations below to calculate BI standardized to the actual SH/S ratio for the population under study:

$$\text{Males} \quad \text{BMI} = 0.78 (\text{SH/S}) - 18.43$$

$$\text{Females} \quad \text{BMI} = 1.19 (\text{SH/S}) - 40.34$$

*Note: SH/S should be expressed as a percentage*

The observed BMIs can then be standardized to a SH/S ratio of 0.52 by adding the differences between the observed BMI and BMI standardized for the population SH/S ratio to a BMI standardized to 0.52 using the equation below:

$$\text{BMISstd} = \text{BMI}_{0.52} + (\text{BMlob} - \text{BMles}),$$

Where:

BMI = standardized BMI

BMI<sub>0.52</sub> = estimated BMI at SH/S of 0.52

BMlob = actual BMI

BMles = estimated BMI at actual SH/S

Examples:

**Male** population has a mean BMI of 18.5 kg/m<sup>2</sup> and a mean SH/S ratio of 50%.

$$\text{The BMI}_{0.52} = 0.78 * 52 - 18.43 = 22.13$$

$$\text{The BMI}_{es} = 0.78 * 50 - 18.43 = 20.57$$

$$\text{Therefore, the BMlstd} = 22.13 + (18.5 - 20.57) = 20.06 \text{ kg/m}^2$$

**Female** population has a mean BMI of 17.0 kg/m<sup>2</sup> and a mean SH/S ratio of 54%.

$$\text{The BMI}_{0.52} = 1.19 * 52 - 40.34 = 23.92$$

$$\text{The BMles} = 1.19 * 54 - 40.34 = 21.54$$

$$\text{Therefore, the BMlstd} = 21.54 + (17.0 - 23.92) = 14.62 \text{ kg/m}^2$$

Source: Collins S, Duffield A, Myatt M, 2000. Adults: assessment of nutritional status in emergency-affected populations. ACC/SCN (page 4).

**Oedema**

The oedema of malnutrition is an accumulation of fluids in the interstitial space, producing swelling of the affected area. Its development is associated with an increase in weight, producing an upward bias in BMI. Severe oedema may represent the accumulation of 10 or more litres of extracellular fluid.<sup>136</sup> The frequent co-existence of pitting oedema and ascites means that oedema fluid can often account for over 10% of body weight.<sup>137</sup> Adult nutritional oedema is common during famine but the prevalence of diseases that can produce oedema increases with age, so this needs to be taken into account when assessing whether a patient has non-nutritional oedema. Adults presenting with oedema should be referred to a clinician who is able to make this differentiation. Patients with severe famine oedema and a high BMI often have a poorer prognosis than those without oedema but lower BMI.<sup>138</sup>

**Correcting BMI for sitting height (Cormic Index)**

BMI is determined by nutritional status but also by other factors of which the most important is the body shape, in particular the ratio of leg-length to trunk-length, sometimes called the sitting-height to standing height ratio (SH/S) or the Cormic Index. It varies widely both between populations and within populations,<sup>139</sup> and can have a considerable influence on BMI, equivalent, at the extremes of the range, to a variation of over 6kg/m<sup>2</sup>. Sitting height can be measured by sitting the person on a straight-backed chair with a height board strapped to the back. The measurement is then used to correct BMI by applying a correction factor (Norgan's correction) based on a linear regression model.<sup>140</sup>

Comparisons of nutritional status using BMI between different populations can be made by applying a correction factor

<sup>136</sup> Navarro-Colorado C, 2006 Adult malnutrition in emergencies: an overview of diagnosis and treatment. Field guidelines. Action Contre la Faim, version 3.

<sup>137</sup> Collins S, Duffield A, and Myatt M, 2000. Adults: assessment of nutritional status in emergency-affected populations. ACC/SCN. July.

<sup>138</sup> Collins S, 1995. The limits of human adaptation to starvation. *Natural Medicine*: 1 (8); 810-814.

<sup>139</sup> Collins S, Duffield A, and Myatt M, 2000. Adults: assessment of nutritional status in emergency-affected populations. ACC/SCN. July.

<sup>140</sup> Collins et al, 2000. See Box 1, page 4.

**Box 16: Age-related changes in body composition**

- Loss of muscle mass with advancing age (called sarcopenia);
- Increase in body fat, especially internally;
- Redistribution of fat from limbs to trunk;
- Decrease in body water;
- Muscle tissue replaced by intramuscular fat (marbling); and
- Changes in the compressibility and elasticity of skin.

based upon the mean Cormic Index for each population, see **Box 15**. Follow-up surveys for the comparison of within-population data will not require this correction. If BMI is used to assess an individual's nutritional status, then the estimation of the individual's Cormic Index should also be used as a correction factor. Without this correction, the sensitivity and specificity of BMI as a screening indicator may be low.

There is a difference of opinion over whether or not it is appropriate or feasible to use sitting height and the Cormic Index correction for calculation of BMI in emergencies. The argument against is that, during emergencies, and especially at the peak of a famine, when there are large numbers of people competing for relatively scarce resources, there is almost never sufficient time or staff to perform this standardisation, rendering BMI an inappropriate indicator to use for assessment at either population, or individual screening, levels in an emergency, **so MUAC is preferred**<sup>141</sup> (See **Table 10** above on MUAC). However, the 2001 Expert Group meeting on nutrition in older people in emergencies<sup>142</sup> supported the use of *sitting-height: standing-height* in emergencies. They argued that, just as there was initial resistance to the measuring of weight and height for children and the calculation of Z scores, the resistance to the complex Cormic Index adjustment of BMI could be overcome once personnel are fully trained and computerised techniques become available.

**Body composition changes with ageing**

Ageing is associated with many changes in body composition, which affect the measurement and interpretation of nutritional status of older people, as shown in **Box 16**.

In young adults, BMI, highly correlated with the fat mass of the body, is a reasonably good index of the body energy stores

as fat and, in some age groups, is highly correlated with *fat-free mass*. Low BMI reflects a low body energy store and a low fat-free mass (FFM) or lean body mass (LBM) for a given stature. Thus BMI appears to be a plausible choice for the anthropometric assessment of nutritional status in adults for epidemiological studies.<sup>143</sup> However, BMI is also influenced by declining bone mass and changes in the hydration of the fat-free body with age.

These changes are still poorly understood but it is acknowledged that they will limit the specificity of BMI with age among normal individuals compared to those with disease. Body composition studies have also shown that BMI can overestimate body fat in older people because of the higher proportion of internal fat than in younger adults.<sup>144</sup> There are reports of BMI failing to change when weight or FFM fall at the same time.<sup>145</sup> So the use of BMI cut-offs as health indicators in older people has also been questioned. A comparative study of low BMI and morbidity among adults in the Philippines<sup>146</sup> reported that the threshold at which morbidity begins to rise is generally not consistent with the accepted cut-off for BMI at 18.5kg/m<sup>2</sup> (see **Table 11**).

The measurement of BMI is not entirely appropriate on its own for assessing individual undernourished adults for entry into feeding programmes: the presence of famine oedema, and the *sitting-height: standing-height* ratio for the population in question, first need to be accounted for.

**Figure 6** below is a flow chart for the assessment of, and interventions for, acute malnutrition and stable malnutrition in adults without oedema, taken from ACF's Technical Guidelines on Adult Malnutrition.<sup>147</sup> Note it is based on BMI cut-offs, and does not include MUAC.

<sup>141</sup> Collins S, Duffield A, and Myatt M, 2000. Adults: assessment of nutritional status in emergency-affected populations. ACC/SCN. July.

<sup>142</sup> SCC/SCN 2001. 31st Session: Report of the Working Group on Nutrition in Emergencies.

<sup>143</sup> Shetty P and James W, 1994. Body Mass Index: a measure of chronic energy deficiency in adults. UN FAO, Nutrition Paper 56, Rome.

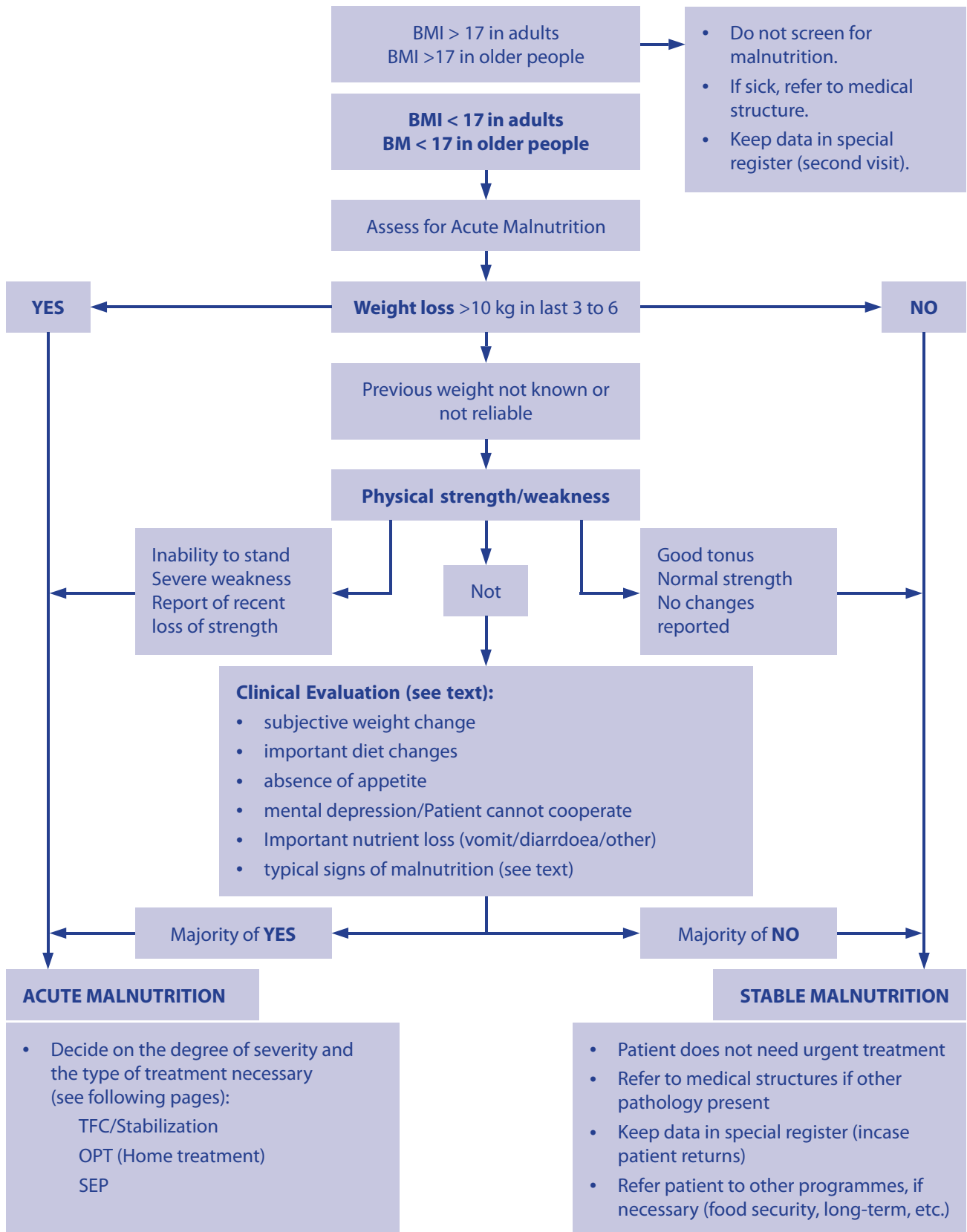
<sup>144</sup> Deurenberg P, van der Kooy K, Hulshof T and Evers P, 1989. Body mass index as a measure of fatness in the elderly. *European Journal of Clinical Nutrition* 43 (4): 231-6.

<sup>145</sup> Chumlea W, Guo S, Vellas B and Guigoz Y, 1997. Assessing body composition and sarcopenia with anthropometry. In: *Nutrition personnes agees* (Colloque Internationale) CERIN Symposium, Paris. 6-7 December.

<sup>146</sup> Garcia M and Kennedy E, 1994. Nutrition and health of the elderly in five selected baranuays in the Philippines. *Nutrition Research* 2: 545-60.

<sup>147</sup> Navarro-Colorado C, 2006. Adult malnutrition in emergencies: an overview of diagnosis and treatment. Field Guidelines. ACF, version 3.

Figure 6: Flow chart for dealing with acute malnutrition and stable malnutrition in adults without oedema



Source: Navarro-Colorado, 2006. Adult malnutrition in emergencies: an overview of diagnosis and treatment. Field guidelines. Action Contre la Faim, version 3 (page 31).



**Box 17: What is functional ability?**

**Functional ability** has been defined as “the ability to perform basic activities of daily life (ADLs) without support which is the key to overall independence and quality of life”. It involves ordinary activities and self-maintenance (transferring from bed or off the floor, getting dressed, using the toilet, self-bathing and level of continence).

ADL performance has been shown to decline with age, and to be associated with levels of physical disability, mobility, flexibility, strength and physical activity. If undernutrition compromises functioning to the point that older people cannot fully care for themselves then the burden on the family and the community as a whole will be substantial. Moreover, if nutritional status proves to be a correctable source of maintaining and postponing, for as long as possible, functional ability decline amongst older people, then early nutrition interventions may have considerable beneficial impact for all concerned.

Source: Manandhar, MC. (1995). Functional ability and nutritional status of free\_living elderly people. *Proceedings of the Nutrition Society*, 54, 677\_691.

### The relationship between nutrition and functional outcomes

The usefulness of any anthropometric indicator for nutritional status lies in its ability to identify and predict those at risk in terms of an important functional health outcome, giving it validity as a screening, assessment and monitoring tool. Without that prediction ability, the nutrition indicator is just a number, and any cut-off chosen for it will be a purely arbitrary choice of no functional relevance.

With infants and young children, the outcome of functional significance is mortality. However, with older people, the risk of death becomes increasingly likely with age, and the long- and short-term causes and effects of disease, diet and lifestyle are hard to disentangle from the onset of an emergency. Their nutritional outcomes are complicated by the accumulated level of their exposure to disease and illness throughout their life, together with known behavioural indicators that relate to mortality such as smoking, alcohol and drug use, and physical activity, as well as initial birth weight.

With older people, there is a complex and confounding relationship between anthropometric measurements, nutritional status, body composition and morbidity and mortality. Adults also tolerate a loss of a higher proportion of their body mass than do children. So in the absence of growth, and with mortality and morbidity outcomes overly confounded by other variables, **functional ability is emerging as the most relevant outcome against which to measure nutritional status in older people, see Box 17.**

One of the most important factors limiting independence in functional ability is **muscle weakness**. Many of the ADLs

involve mobility and strength, with muscle contractions being the basis for movement. Ageing is associated with decreases in muscle mass, muscle strength and muscle power, with muscle strength declining at a higher rate than muscle mass, but at a lower rate than muscle power. From research in developed countries, it is thought that, by age 70, muscle strength is about 35-40% lower than its peak value in youth, although this decline varies according to activity levels, muscle group and gender. As limb circumference measurements of MUAC (and calf circumference) are sensitive indicators of the loss of muscle mass in older people, they are appropriate measurements to take in nutritional assessment.

A major constraint to our understanding of the relationship between nutritional status and functional ability as an appropriate outcome indicator is that data on both themes for older people in low to middle income countries are scarce. During the 1990's, a research partnership between the London School of Hygiene and Tropical Medicine and HelpAge in various sites in low to middle income countries explored the relationship between anthropometric measurements and functional ability tests, including handgrip strength among community-living populations of poor older people (aged 50-96 years). **As expected, MUAC was found to be a more powerful predictor of impaired handgrip strength and mobility than BMI.**

Other research has also investigated the relationship between handgrip strength, BMI and arm muscle measurements in community-living young and older adults in Australia,<sup>148</sup> India (older female labourers)<sup>149</sup> and Nigeria.<sup>150</sup> However, much has to be inferred from studies based on adults and older people living in the developed world. Their relevance in humanitarian emergency situations is even more problematic.

<sup>148</sup> Massy-Westropp N, Gill T, Taylor A, Bohannon R and Hill C, 2011. Hand Grip Strength: age and gender stratified normative data in a population-based study. *BMC Research Notes* 4:127. <http://www.biomedcentral.com/1756-0500/4/127>

<sup>149</sup> Koley S and Kaur N, 2009. A study on handgrip strength and some anthropometric variables in younger and older female labourers of Jalandhar, Punjab, India. *The Internet Journal of Biological Anthropology*: 3 (2).

<sup>150</sup> Adedoyin R, Ogundapo F, Mbada C et al, 2009. Reference values for handgrip strength among healthy adults in Nigeria. *Hong Kong Physiotherapy Journal*: 27 (1): 21-29.

**Box 18: Anthropometric and vulnerability criteria used in Ethiopia, 2000**

Agencies have faced many challenges when including older people in targeted SFPs. HelpAge Ethiopia found that BMI measurements were problematic as different ethnic groups had different sitting:standing height ratios, while MUAC cut-offs recommended at the time were found to be very low and had to be adjusted.

Oxfam working in Bolosso Sore, Ethiopia, in 2000 enrolled over 200 older people (over 50 years old) in their SFP. The criteria used for selection was MUAC <18.5cm and >16.0cm. Almost all (98%) of those admitted were female – mostly widows without access to land. Many had lost their community support networks and had no relatives nearby to support them. Their nutritional problems were compounded by poor use of food and chronic illness.

Forms of welfare in Ethiopia at the time, such as the employment generation scheme, were not available to them as many were displaced. In this case, anthropometric indices as well as vulnerability criteria could have been appropriate to define the target group.

Source: Borrell A (2001). Addressing the needs of older people in emergency situations. Ideas for Action. *Field Exchange* 12 p.3.

**Box 19: Recommendations to agencies for assisting older people in emergencies**

- Make older people visible in research, planning and implementation of humanitarian and emergency relief responses, ensuring that they are given equal recognition as a vulnerable group, and that their specific needs are met.
- Ensure that data collection in times of humanitarian crisis assesses the needs of all vulnerable groups, is disaggregated by age and sex, and includes older age groups.
- Ensure that programme staff are familiar with the UN IASC Guidelines: *Humanitarian Action and Older Persons: an essential brief for humanitarian actors* (2008).
- Make preparations for the growth in the number of older people living in countries that are vulnerable to humanitarian emergencies.

Source: HelpAge and Age UK (2011): On the edge. Why older people's needs are not being met in humanitarian emergencies.

**What to use in emergencies?**

**Table 8** at the beginning of this section summarised the broad variety of methods available to assess nutritional status and vulnerability among older people. Guidelines on these for older people in emergency situations are still scarce, and those few that do exist<sup>151,152</sup> have not been fully evaluated. It is also unclear to what extent those that refer specifically to older people<sup>153,154</sup> are known and have been applied.

**Whilst there are statements above regarding MUAC as a preferred method to ascertain older nutritional status in an emergency, it is important to point out that that in the section of this module related to existing challenges, further research on MUAC normative guidance including the relationship between MUAC cut-off points and functional outcomes, is recommended.**

**Box 18** presents an example of some of the assessment and contextual issues covered in this section.

**Interventions and responses to address undernutrition in older people**

The previous section has discussed assessment methods and the value of these indicators in their relationship with outcomes of functional importance for older people. This section presents the interventions appropriate for humanitarian responses to undernutrition in older people. It is based largely on the guidelines produced by HelpAge and by ACF, and also incorporates material on non-food interventions.

**A broad range of intervention responses will be necessary to tackle all the different determinants of undernutrition and vulnerability in this population group: see Table 13.**

<sup>151</sup> Navarro-Colorado C, 2006. Adult malnutrition in emergencies: an overview of diagnosis and treatment. Field Guidelines. ACF, version 3.

<sup>152</sup> Collins S, Duffield A, and Myatt M, 2000. Adults: assessment of nutritional status in emergency-affected populations. ACC/SCN. July.

<sup>153</sup> Borrell A, 2001. Addressing the nutritional needs of older people in emergency situations in Africa: ideas for action. HelpAge International Africa Regional Development Centre. Nairobi.

<sup>154</sup> Ismail S and Manandhar M, 1999. Better nutrition for older people: assessment and action. Joint publication of HelpAge International and the London School of Hygiene and Tropical Medicine.

Table 13: Key cluster issues for interventions for older people in humanitarian response

Cluster	Key humanitarian requirements
<b>Food Security and Nutrition</b>	<ul style="list-style-type: none"> <li>• Older persons have access to food distribution points and are able to carry rations for long distances.</li> <li>• Older persons' access to appropriate nutritious foods is guaranteed.</li> <li>• Older persons' inclusion in nutritional assessments and monitoring is guaranteed.</li> <li>• Older people are screened and have access to treatment of moderate and severe acute malnutrition.</li> <li>• Older people have access to micronutrient malnutrition control and treatment interventions.</li> <li>• Older women's role in IYCF practices is emphasized.</li> </ul>
<b>Health</b>	<ul style="list-style-type: none"> <li>• Older persons have access to all health services and disability aids they need.</li> <li>• Medications for chronic diseases are included in emergency health kits.</li> <li>• Staff attitudes, skills, training on older persons' health issues are ascertained.</li> <li>• Data disaggregated by age and sex are collected to determine the number and specific needs of older persons.</li> </ul>
<b>Water, Sanitation and Hygiene</b>	<ul style="list-style-type: none"> <li>• Appropriate water carrying containers are provided to older persons (max 10l).</li> <li>• Latrines designed in such a way that older persons can use them e.g. handrails.</li> <li>• Older women's role in hygiene promotion is emphasized.</li> <li>• Distribution of hygiene kits?</li> </ul>
<b>Shelter</b>	<ul style="list-style-type: none"> <li>• Assistance with early warning and evacuation to safe places is provided.</li> <li>• Particular attention for the ill and disabled is ensured, e.g. provision of mattresses, warm blankets and clothing.</li> <li>• Assistance is provided to older persons to construct shelter if they are without family support.</li> <li>• Consultation of older persons on cultural practices and privacy is guaranteed.</li> </ul>
<b>Camp coordination and management</b>	<ul style="list-style-type: none"> <li>• Identification of housebound, vulnerable older persons is guaranteed as is assistance with replacing or accessing relevant documentation.</li> <li>• Inclusion of age/sex disaggregated data in camp population figures is ensured.</li> </ul>
<b>Early Recovery</b>	<ul style="list-style-type: none"> <li>• Livelihood programmes target older persons, particularly those who are alone or caring for children.</li> <li>• Return programmes take into account the needs of older persons.</li> </ul>
<b>Protection</b>	<ul style="list-style-type: none"> <li>• All data are disaggregated by sex and age to determine the numbers and kind of protection needed.</li> <li>• Older persons' involvement in decision-making, and in humanitarian prevention and response activities is facilitated.</li> <li>• The protection of older persons left without caretakers is ensured.</li> <li>• Older displaced persons are included in tracing and re-unification activities</li> <li>• Protection strategies include: <ul style="list-style-type: none"> <li>◦ older persons caring for young children/persons with disabilities;</li> <li>◦ addressing abuse of older persons and older women as victims of gender-based violence and sexual abuse; and</li> <li>◦ land/property rights for women, in particular for widows.</li> </ul> </li> </ul>

Source: IASC, 2008. Humanitarian action and older persons: an essential brief for humanitarian actors.

Table 14: Summary of non-food and food interventions for older people in emergencies

Rationale for intervention	Type	Activity
<b>Prevent undernutrition, and/or Prevent deterioration of stable malnutrition</b>	<b>Food</b>	<ul style="list-style-type: none"> <li>• General Food Distribution (GFD) and food ration</li> <li>• Blanket Supplementary Feeding</li> <li>• Micronutrient interventions (e.g. fortification)</li> </ul>
	<b>Non-food</b>	<ul style="list-style-type: none"> <li>• Income/livelihood supports, e.g. cash transfers</li> <li>• Social supports to reduce vulnerability and risk</li> <li>• Health support e.g. clean water and sanitation</li> <li>• Shelter and equipment</li> <li>• Community Support Programme (CSP)</li> </ul>
<b>Treat moderate and severe acute malnutrition</b> <i>(MUAC screening inclusion/ discharge criteria -see Table 16)</i>	<b>Food</b>	<ul style="list-style-type: none"> <li>• Targeted Supplementary Feeding</li> <li>• Community Management of Acute Malnutrition (CMAM) with food aid commodities (RUTF, RUSF, F75, F-100, fortified biscuits), stabilisation centre, outpatient therapeutic care, community involvement and home visiting.</li> <li>• Treatment of micronutrient deficiency diseases (using oral supplement tablet or capsule, new micronutrient powders approach)</li> </ul>
	<b>Non-food</b>	<ul style="list-style-type: none"> <li>• Medical check-ups and inpatient care</li> <li>• Community Support Programme (CSP)</li> </ul>

Source: based on HTP Module 1, pages 34-38; UNHCR 2011; and Borell A, 2001. Addressing the nutritional needs of older people in emergency situations in Africa: ideas for action. HelpAge International Africa Regional Development Centre. Nairobi.

Interventions for infants, young children and mothers in complex emergencies and refugee situations<sup>155</sup> are well documented (refer to HTP modules). However there are almost no documented experiences of planning, applying and evaluating nutrition interventions for older people. As stated in the 4th Report on the World Nutrition Situation, we have little idea of what works, nor do we even know if their nutritional status can be improved, or if such improvement would lead to better functional ability. Operational research in these areas is needed to fulfil the right of older adults to adequate nutrition.

**Box 19** summarises key recommendations made by HelpAge to agencies to underpin the process of planning and implementing interventions for older people in emergencies. They lay important foundations for the implementation of all non-food and food-based interventions.

Because the causes of undernutrition in older people and the determinants of their nutritional vulnerability are complex, a simple 'one-size-fits all' approach to interventions will not suffice. Table 13 below lists some of the key issues faced by the various clusters for interventions for older people in emergencies.

**Studies by HelpAge have shown that shelter, food, health and livelihoods are the most critical needs for older people in an emergency.** So any intervention for this population group should be implemented in coordination with other clusters such as the Health, Water, Sanitation and Hygiene (WASH) and Food Security Clusters. NGO partners and local government networks will need to link older people to a range of services and supports. Promoting partnerships and sharing resources and expertise among agencies will also allow gaps to be identified and a greater number of older people to be assisted.

Multiple vulnerabilities may need to be considered. For example, many older people care for children or people with disabilities. A large proportion of older people are women, who are heads of households. Older people may have disabilities. Older people also have particular nutritional, physiological, social, cultural and health needs that will often not be met by food, and a general food distribution alone.

**Table 14** below summarises the variety of food and non-food interventions needed to prevent and treat undernutrition in older people in emergencies. Interventions to support caring and social networks for socially vulnerable groups of older

<sup>155</sup> Toole MJ and Waldman RJ, 1997. The public health aspects of complex emergencies and refugee situations. *Anne Rev Public Health*: 18; 283-312.

people will be as important as interventions to prevent and alleviate malnutrition.

Some practical considerations are relevant for interventions including older people:<sup>156</sup>

- **Physiotherapy and adequate resting facilities:** Many older people will be bed-ridden or have limited mobility. These patients will benefit from physiotherapy and should be encouraged to take some physical activity if possible. Efforts should be made to provide appropriate bed facilities that offer adequate comfort for the patient. Adequate space and privacy should be provided, with separate wards for women and men.
- **Older people who are too weak to be weighed:** For purposes of monitoring, weight need only be taken once they are strong enough to stand. For purposes of estimating food requirements, an estimate of their body weight can be used.
- **Taking care of dependants in absence of other family support:** Some older people may have responsibility for young children (e.g. if parents have died or fled). If other family members or older siblings are absent, young children will need to be taken care of, especially if the older carer has to be admitted in a stabilisation centre.
- **Decision-making and management of patients with chronic illness:** It may be clear on admission if an older person is suffering from a chronic illness. However, sometimes this may only become evident after several weeks when the person fails to show signs of recovery, including weight gain. Where health services exist for diagnosis and treatment of chronic illness (e.g. TB, HIV/AIDS) patients should be referred to these facilities. However, in emergencies, these services are not always available. In this situation, providing support and care in the community is more appropriate when applicable. Following an individual case-assessment and consultation with family and/or carer, the patient should be referred into a Community Support Programme.
- **Dying at home:** Family members should be encouraged to be present at the time of death, for those individuals where death is likely to occur in the stabilisation centre. Older people may prefer to die in their own home rather than in the centre and in most cases, their wishes should be respected. Where family members are not present, efforts should be made to facilitate their return home from the TFP. Community members should be informed of this decision.

- **Being active** aids digestive functions, and this is particularly relevant for older people in emergencies who are suddenly no longer engaged in their normal routines and physical activities. As part of the general approach to the care and well-being of older people in emergencies, it is important to keep older people active, as much as it is possible. For example, during the floods of 2010, HelpAge International's Pakistan Programme introduced daily walks and collective exercises into Older People's meetings to increase digestion, mobility, social interaction and improve general health.<sup>157</sup>

### Non-food interventions

Non-food interventions for older people during emergencies include income generating and livelihood activities, cash transfers, psychosocial support, social activities, and health promotion and education. The value of these non-food interventions to older people should not be underestimated, and equal attention should be given.

### Income and livelihoods

A household's livelihood is secure when it can cope with and recover from shocks, and maintain or enhance its capabilities and productive assets.<sup>158</sup> As outlined at the beginning of this module, many older people continue to work into advanced age and contribute actively to the household income, so they should not be left out of livelihood interventions to reduce food insecurity during emergencies.

Once families become destitute, livelihoods are lost, decision-making processes in the family and intra-household patterns of food allocation are altered. When communities experience periods of extreme difficulty, older people may lose their social status, which previously ensured a certain degree of individual food security. Keeping older people actively involved in income generation will have multiple advantages.

Conditional and unconditional **cash transfers** are becoming an increasing component in humanitarian relief situations. However, their use among older people is often restricted to specialist agencies like HelpAge. They are a regular component of HelpAge's programmes on the grounds that the chronically vulnerable (sick, older people, disabled) usually need a separate safety net of direct food or cash distribution.<sup>159</sup>

**Box 20** below gives an example from Pakistan during which Older People Associations (OPAs) were established. They aimed to assist in integrating older people, enhancing networking, as well as promoting experience sharing and learning. OPAs

<sup>156</sup> Borrel A, 2011. Addressing the nutritional needs of older people in emergency situations in Africa: ideas for action. HelpAge International Africa Regional Development Centre. Nairobi.

<sup>157</sup> HelpAge Pakistan Policy Programme Policy Brief. Lessons learned Response to 2010 Floods.

<sup>158</sup> SPHERE, p 145.

<sup>159</sup> Beales C, 2011. Ageways: February; p.5.



**Box 20: Use of cash grants for older people during the Pakistan floods, 2010**

HelpAge International's Pakistan programme set up a Community Revolving Fund (CRF) in an effort to provide access to credit for older people. Financial institutions were reluctant to provide credit facilities for people over 50 years old, even those that were physically active, leaving them with little opportunities for accessing loans. CRF had a zero interest rate credit facility at the doorstep, increasing older people's options in taking initiatives that required capital.

With low levels of management skills for operating a micro-credit scheme, older people needed technical assistance on how to manage this money, and to ensure that the money was not diverted or used by people other than the intended beneficiaries.

Older people were made the custodians of this credit facility, and ownership of the process was high. HelpAge extended unconditional grants to the selected flood affected older people to help re-establish their basic life and fulfil their needs.

This was coupled with the conditional grants, which helped the older people in establishing businesses or fulfilling other agreed needs. These grants included: Noted Medication Assistance Grant, Food Purchase Grant, Shelter Construction Grant, Livelihood Assistance Grant (for purchase of goats, sheep, chicken flock).

Source: HelpAge International Pakistan. HelpAge Policy Brief: Lessons learned, response to Pakistan floods. HelpAge Pakistan Programme (2010).

advocated on behalf of older people and did training in financial management, project management and report writing.

In the planning of a livelihood intervention, it is important to consult older people to provide appropriate space for livelihood activities close to their shelters. Because of mobility problems, many older people prefer to set up small stores in front of their homes.

**Shelter (including food distribution and health centres)**

Shelter, including facilities to collect, prepare and cook food, are a vital component for meeting the physical, nutritional and emotional needs of older people in an emergency. Older people are physiologically more vulnerable to extreme temperatures of heat and cold. The loss of their homes with the onset of a crisis can have profound emotional effects.

A number of practical aspects of shelter should be considered during interventions targeting older people, including:

- **Ramps:** when building shelters and stores for livelihood activities and holding community meetings, ramps make access easier for older and disabled people (and pregnant women with children). Ramps with non-slip grips and no gaps will reduce the chance of crutches or walking sticks becoming stuck;
- **Lay-out and design:** involve older people to make sure they are age-friendly and culturally acceptable;
- **Lights:** ensure that light switches and electrical sockets are at a height that everyone can reach (between 45cm and 120cm from the floor);
- **Toilets and kitchens:** should be located where older people can access them easily. Entrance to toilets and kitchens should be kept clear. There should be adequate lighting for people to access at night;

- **Location and allocation:** decisions on the location and allocation of distribution points, supply depots, feeding centres, shelters should take into account levels of mobility and vulnerability. Older people prefer to live near facilities such as water sources, markets and health centres. With temporary and transitional shelters, older people should be allocated shelters that are close to toilets, health centres, feeding centres, cyclone shelters or other community centres and distribution points;
- **Safety and fall prevention:** non-slip floors, handrails on ramps and stairs, and grab bars in toilets can improve safety and prevent falls. Indicate changes in elevation, such as steps or slopes, by signs or colours;
- **Seasonal weather:** ensure that priority items such as winterisation kits containing blankets are distributed in good time. Weather-proofing or making shelters safe from flooding is also crucial to ensuring people's safety; and
- **Adaptation and flexibility:** providing gutters to harvest rain water from the roof, plus chlorination tablets, gives people access to water for drinking, cooking and washing without having to carry it far; provide adequate lighting, including natural light, into shelters helps to compensate for older people with poor eyesight and makes shelters more comfortable, cooking and other tasks easier.

**Psychosocial support interventions**

Appropriate psychological care should be provided for older people with symptoms of mental illness, such as depression or post-traumatic stress. Psychosocial assessment and treatment of older people, particularly those who are caring for young children and pregnant and lactating women, are frequently needed. They can positively impact on nutritional intake, food behaviours, appetite and ultimately nutritional status; see examples in **Box 21** and **Box 22**.



**Box 21: Social and economic support to older people through OPAs, Haiti (See also Part 3: Trainer's Guide, Case study 6)**

In Haiti, HelpAge International established Older People Associations (OPAs) in displaced camps and communes immediately after the earthquake. These OPAs aimed to involve older people in community activities such as home visiting, disaster risk reduction, livelihood and income generating activities, and social inclusion. They also aimed to strengthen representation of older people in the community and defend their rights. HelpAge provided each OPA with a small functioning budget (to be maintained through income generating activities) and with media equipment (TV, DVD, CD players) for each community centre.

Anecdotal evidence reveals the following initiatives and actions resulting from these OPAs:

- Croix des Bouquets: successful advocacy for the integration of older people in a cash for work activity.
- Croix des Bouquets: dismissal of a camp committee that was not working for the well-being of camp residents.
- Jacmel: created a cash box for members' contributions from which they were able to support members with their problems (e.g. covered funeral fees for one member).
- Petion-Ville: started a literacy programme and, in RSS camp, replicated a training programme on hygiene promotion to prevent cholera. Evidence of a more vocal demanding of rights.
- Petit-Goâve: OPA set up at the communal section level.
- In two camps (Marassa 14, Theatre National), OPA members joined the camp committee.
- Two health centres (Eliazar Germain in Petion-Ville, Memphis Medical Mission in Croix des Bouquets) opened up special lines for older people as a new good practice.
- Increased socialisation of older people, through games sessions and media club.

Source: HelpAge International, 2012.

**Box 22: Example of a psychosocial-income generation intervention for displaced older people in Congo**

The IDP camp of Mugunga III in eastern DRC, is home to around two thousand people originally from North Kivu who have been displaced due to the on-going violence and conflict in the region. The residents of Mugunga III have been victims of human rights violations such as physical and sexual violence, and as a consequence have suffered severe physical and psychological illnesses, and mental trauma.

HelpAge has been reaching out to this affected displaced population through a programme of social integration and income generation using rabbits. One hundred people psychologically traumatised by the on-going conflict are participating in the project, including 35 older people. The project is a rabbit-rearing programme run by a local psychologist. It is quite different from other forms of income generation. The aim of the project is to provide income and to support older people, severely affected by different forms of mental and physical trauma, using animal assisted therapy. Caring for the animal breaks down their barriers to society and gives them an activity, allowing them to take steps towards improving their mental health. In addition to psychosocial support, the project has also given older people the opportunity to gain a source of income.

Source: HelpAge, February 2012.

Appropriate activities include:

- Supporting groups for older people; and
- Ensuring neutral community spaces where elders can meet for conflict resolution or social and cultural activities.

Information and communication on all aspects of the humanitarian intervention response needs to be inclusive of, and appropriate for, older people (see HTP Module 19: Working with communities).

**A caring approach** is particularly important when assessing and responding to undernutrition in older people in emergencies. The following principles should be reflected in all activities of the programme and be addressed in staff training programmes:

- **Communication:** older people should be consulted and their needs and/or fears respected. They need to know that they have choices and that their opinions count. Taking time to explain procedures and give feedback on their progress is important. Older people are open to learning new behaviours.

**Box 23: Medical and micronutrient treatment used in therapeutic supplementary feeding for people in Juba, Sudan: 2000**

All adults and older persons received systematic treatment, which included Vitamin A (in post-menopausal women), folic acid, amoxicillin, mebendazole, ferrous sulphate and chloroquine.

They were seen daily by a medical assistant in Phase 1 to assess and follow up on their underlying medical problems. In Phases 2 and 3, older adults were attended to once every two days. For those whose condition was deteriorating, reviews were increased to once a day until their condition improved. Specific treatment was given according to diagnosis.

During the treatment, health education relating to the prevention and management of malnutrition was imparted to the beneficiaries on a daily basis.

Source: Action Contre La Faim (ACF) and HelpAge in Juba, 2004. Case study of supplementary selective feeding programmes by ACF and HelpAge in Juba. In: HelpAge International Africa Regional Development Centre. Summary of research findings on the nutritional status and risk factors for vulnerability of older people in Africa. pp 58-61. April: Nairobi.

- **Involving the carer or family:** the family or carer should be actively involved in the nutritional recovery process. They should always be consulted, encouraged to take responsibility and to participate in daily activities in a feeding centre. Regular feedback to the family and carer is essential.
- **Emotional support:** older people have often suffered trauma and part of the recovery process is achieved through providing emotional support. Simply listening and acknowledging their individual needs should always be a priority.
- **Privacy:** consideration should be given to the privacy needs of older people, particularly when washing and nursing care is required.
- **Physical assistance:** older people, especially the ill or very weak, will require assistance to carry out the most basic daily activities. Older people may require assistance with activities such as eating, drinking, sanitation and hygiene. However, older people may be reluctant to request assistance, so carers and health/community workers should be sensitive to their needs. Older persons should also be encouraged and given support to maintain some physical mobility while in the feeding centre. Those who are bed-ridden will need assistance to turn over or be moved regularly to prevent bedsores.
- **Burial arrangements:** death due to old age or failure to recover may be relatively common. If older people have no family support, it may be necessary to support burial arrangements for the deceased.

**Health interventions**

Medical complications are common in older people. In particular, dehydration and chronic illnesses will hinder the nutritional rehabilitation process if they are not addressed. Access and referral to medical facilities for diagnosis and treatment is essential. Descriptions of medical protocols in therapeutic feeding programmes can be found in other references, includ-

ing the "Management of Severe Malnutrition: a manual for physicians and senior health workers" (WHO 1999). In summary, following a thorough medical and nutritional history, the following clinical outcomes should be systematically addressed: dehydration; hypoglycaemia; hypothermia; infections; iron deficiency and anaemia; Vitamin A and B deficiencies; intestinal parasites.

More information can be found in HTP Module 15. An example of a combination of medical and micronutrient treatment for older people is given in **Box 23**.

**Older people living with HIV and AIDS<sup>160</sup>**

Dietary interventions as part of care and support for older people living with HIV and AIDS (PLHIV) will need specialist advice. A therapeutic high-energy diet may be appropriate for older PLHIV, whether or not they are on ART. Hypoglycaemia is common in older people with or without HIV. It is important to establish whether the condition is present in PLHIV because of the following nutritional considerations:

- Quantity and timing of food and drinks containing carbohydrates;
- Timing of meals in relation to medication; and
- Effects of alcohol on hypoglycaemia.

Older people are at greater risk of dehydration. PLHIV with diabetes may be at high risk of dehydration. These people should be monitored and provided with fluids and treatment modified to limit symptoms of hypoglycaemia.

**Interventions to improve food security for older people in emergencies**

This section summarises the issues related to food security for older people according to four components: availability, access, consumption and utilisation (The Sphere Project 2011, page 145).

<sup>160</sup> Ministry of Health, Zambia, 2011. Nutrition guidelines for care and support of people living with HIV and AIDS. February.

**Availability:**

*This refers to the quantity, quality and seasonality of the food supply in disaster-affected areas. It includes local sources of product (agriculture, livestock, fisheries, and wild foods) and foods imported by traders, government and agencies interventions can affect availability). Local markets are able to deliver food.*

Interventions for older people should ensure:

- **Ensuring non-discrimination** by age (and with other co-grounds such as gender) and impartiality in fulfilling older people's right to receive humanitarian assistance.
- **Involvement of older people in assessing the food supply context** and drawing on their knowledge and expertise of climatic conditions, markets, agriculture, seasonality, livestock, fishing and wild foods.

**Access**

*This 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.*

Interventions for older people should ensure:

- **Inclusion of older people** as a target group for non-food and food interventions, including participation in vulnerability mapping, assessments, planning and monitoring.
- **The design of food distributions** in emergencies often results in poor access to food rations by older people. Design factors can increase the risk of the elderly suffering from inadequate food intakes: an inadequate needs assessment and poor physical access to the ration. For example, during the Pakistan flood emergency in 2010, HelpAge recommended age to be considered when designing food packages, so that they could be easily divided according to the age group of the beneficiaries.<sup>161</sup>
- **Addressing distances to collection points:** in centralised food distributions, the distances are often too long for many sick and frail older people. For example, during the repatriation in Rwanda (1996), monthly rations for returnees were provided but in many cases, older people were unable to carry the sacks of grain and other non-food items; forcing their sale at nearby markets. Decentralisation of distribution sites and more frequent distributions to reduce weight are recommended.

- **Improving queuing** systems at distributions sites. These seldom prioritise older people, who may be physically weaker than other population groups. Provide shelter, seats, hand holds and smaller jerry cans for carrying (e.g. 10 litres capacity, not 20).
- **Checking for who is absent:** older people may be too weak to get to information meetings about entitlements and food distribution, or too busy caring for sick children or partners. They may also exclude themselves from social gatherings because of depression or psychological trauma.

**Consumption**

*This reflects the energy and nutrient intake of individuals in the households (not normally measured). A proxy for this can be changes in the number of meals consumed before and after a disaster. This can be a simple, yet revealing, indicator of 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.*

Interventions for older people should ensure:

- **Checking the Dietary Diversity Score** (see HTP Module 6). However, the dietary diversity score is only a rough indicator: many inadequate rations pass this, but would fail in terms of nutrient density for older people's requirements.
- **Checking the Nutrient Density** of the general ration using proper software with an integrated food composition table (see HTP Module 4). Nutrient density is very important for older people given their lower energy requirements. Micronutrient requirements can stay the same, or in some cases increasing. Underweight or malnourished older adults need protein and energy-dense snacks such as hard-boiled eggs, tuna fish and crackers, peanut butter on wheat toast and hearty soups. Drinking liquid nutritional formulas between meals can also boost energy and nutrient intakes.
- Taking into account cultural norms of **intra-household food distribution**, such as cultural and religious food taboos and self-abstinence by older people.
- Taking into account **household behaviours** that are coping strategies to deal with change, such as the preferential feeding of younger members.

**Utilisation (and acceptability)**

*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 also refers to an individual's ability to absorb and metabolise nutrients, which can be affected by disease and malnutrition.*

<sup>161</sup> HelpAge Pakistan Programme, Policy Brief: Lessons learned Response to 2010 Floods.

**Box 24: Some examples of inadequate foods for older people**

In 1994, pastoralists in Turkana, northern Kenya, complained of severe bloating and discomfort after consuming inadequately cooked whole grain maize and beans that they were unfamiliar with.

During an ACF-run therapeutic supplementary feeding that included older people in Juba, Sudan (2000), the number of older people defaulting was 5.4%, which was considered to be satisfactory.<sup>162</sup> The main reason given for defaulting was the preference for special solid food instead of the formula diet (i.e. milk).

**Box 25: UNHCR/HelpAge International 2000. Guidelines for good practice in addressing the special food needs of older people in disasters and humanitarian crises**

- ✓ Provide food that is digestible for older people (such as maize flour rather than whole grain maize), and that takes account of digestive disorders and a common lack of teeth.
- ✓ Food should be familiar and culturally acceptable.
- ✓ Provide support for feeding programmes to enable the inclusion of older people.
- ✓ Ensure that food for work programmes do not exclude older people.
- ✓ Ensure that older people have the resources, such as fuel, water and utensils, to cook their food ration.
- ✓ Ensure utensils available to older people are manageable; smaller cooking pots or even two smaller water containers rather than one large one (e.g. 10 litre capacity rather than 20).
- ✓ Link older people with supporting families for joint preparation of meals.
- ✓ Understand the particular risk factors and issues affecting the nutritional status of older people.
- ✓ Ensure that older people have access to food distribution.

Interventions for older people should ensure that:

- Constraints in **food processing and preparation** such as milling are understood and overcome.
- Food is **appropriate for older people to chew** and digest because of problems with teeth, and conditions that affect the absorption of nutrients (e.g. atrophic gastritis).
- Age-related changes in **taste and smell** senses, which reduce the enjoyment of food, and affects appetite, are accounted for. Blended foods, moist, soft-textured, tender-cooked pureed foods and thickened liquids are often needed. Thickened liquids or pureed food are also needed to avoid *fausse route*,<sup>163</sup> a high mortality cause among older people when liquid enters the lungs.
- **Whole grain cereals and beans are often difficult to digest** for older people, and they are relatively difficult to prepare.
- Older people may find it more difficult than other age groups to adapt to **new and unfamiliar foods**. Some examples are presented in **Box 24**.
- Training on how to prepare and cook new and unfamiliar foods. Many older people may lack the knowledge and skills to prepare non-indigenous foods. Training on food preparation usually targets mothers and younger women. Older people require a greater extent of assistance and support.
- Creative and participatory food-related projects can contribute to nutrient intake as well as support cohesion and mental health among older people. For example, a seasonal food preservation project was initiated for IDPs in Kyrgyzstan in 2010.<sup>164</sup>

Many of these food security interventions are reflected in HelpAge's Guiding Principles to address food needs are shown in **Box 25**.

**Food-based interventions**

Access to food and the maintenance of adequate nutritional status are critical determinants of people's survival in a disaster.<sup>165</sup> Often the parts of the population most affected are already chronically undernourished as the disaster hits, many of whom will be older people.

<sup>162</sup> ACF's target is <15%.

<sup>163</sup> Food passes into the windpipe/lungs and not into stomach, dysphagia.

<sup>164</sup> Ageways, 2011. Feb, page 7.

<sup>165</sup> Sphere 2011.

**Box 26: Suitable rations for older people**

Theoretically, a well-planned general ration (GFD) is usually adequate for older persons. However, in practice, a number of other factors often result in the general ration not actually meeting the nutritional needs of this demographic group. Some of these factors include: poor physical access to the ration as a result of marginalization or isolation; poor digestibility, especially of whole-grain cereals; lack of motivation or inability to prepare foods; and poorer access to opportunities for supplementing the ration.

In emergency situations, these factors are exacerbated due to a general breakdown in normal family and community-support mechanisms. Older people need access to easily digestible micronutrient rich foods with family and community support for food preparation.

**Energy requirements usually decrease in older people, but micronutrient requirements remain unchanged, therefore older people should have access to foods that are nutrient dense and of a high nutrient quality. Current standard GFD rations are often inadequate for older people and more attention should be placed on using fortified blended foods or possibly ready to use food designed for the prevention of malnutrition.**

Food-based interventions aim to provide for the consumption of sufficient, safe and nutritious food that meets dietary needs and food preferences for different parts of the population.

The most recent guidelines for selective feeding interventions for the management of malnutrition in emergencies are available from UNHCR (Public Health and HIV section). While older adults are referred to in sections about food aid, the general distribution and supplementary feeding programmes, they are not referred to in terms of therapeutic feeding.

The first food-based intervention for older people will be their inclusion in the General Food Distribution. For more information on this, see HTP Module 11.

**General Food Distribution**

This section draws on information on targeting and the general food distribution provided in HTP Module 11 (see **Box 26**).

The initial reference value for planning general food rations in emergencies is based on the average per capita nutritional requirements for a population. These requirements are considered in terms of energy, fat, protein and micronutrients and can be increased based on specific requirements, or decreased based on the population's access to other food sources.

Where populations are entirely dependent on food aid, the general ration should meet the following criteria:

- Provide 2,100kcal per day;
- Protein should provide at least 10-20% of total energy;
- At least 17% of the energy should be provided in the form of fat; and

- The overall micronutrient content of the ration meets the needs of the whole population.

The nutrient content of the general ration is often inappropriate for older people since they need relatively more vitamins and minerals, and less energy, than do younger people (see Undernutrition section above). For example, the Vitamin B12 content of the general ration is poor and will not meet the particular nutrient requirement for older people. This vitamin is mostly available in animal foods. UNHCR acknowledges that nutritionally, food aid is sub-optimal and that, in the case of refugee populations, even greater constraints to achieving good nutrition exist, given that, in many cases, their ability to produce food or access land or meat from wild animals is extremely compromised.

**The adequacy of the general ration for older people needs to be considered in the context of intra-household food distribution where the older person lives in a household with other people.**

The provision of no less than 50g of blended food per person per day as part of the general ration is recommended<sup>166</sup> by HelpAge. If quantities of blended food are limited, children under five and older people should be prioritised. If blended food is not provided as part of the general ration, resources should be allocated to procure for distribution to priority sub-groups, including older people. During periods when food rations are decreased or phased out, blended food should be retained as a food commodity in the food basket.

A full individual food ration for one month weighs roughly 18kg; a family of five, of which three are small children (and, thus, cannot carry their ration), must then carry away 90kg at once, that is, 45kg per adult – a considerable weight for most

<sup>166</sup> Borrel A, 2001. Addressing the nutritional needs of older people in emergency situations in Africa: ideas for action. HelpAge International Africa Regional Development Centre. Nairobi.



adults. For many older people, this can be near their own body weight, and impossible to carry. The frequencies of distribution rounds must therefore be set by referring to common sense, and adapt to circumstances. It may be more practical to conduct distributions on a weekly basis as agencies already often make arrangements for more manageable bag sizes.

**Box 26** presents a summary of the challenging issues related to providing suitable food rations for older people: (from HTP Module 11 on General Food Distribution).

HTP Module 4 covers micronutrient malnutrition, including the **lack of micronutrients in the general ration** provided by WFP. Techniques exist for the indirect assessment of micronutrient intakes, such as Dietary Diversity Score and Food Variety Score using Food Frequency Questionnaires. Please refer to HTP Module 4.

A variety of computer software tools have also been designed for calculating the nutrient content of food aid rations and fortified blended food (FBF) rations. The most well-known include NutCalc, which was developed by EpiCentre for Action Contre la Faim, and NutVal, which was developed for UNHCR and WFP by University College, London Centre for International Health and Development. NutVal 3.0 is currently recommended by WFP and UNHCR for use in planning and monitoring food aid rations (<http://www.nutval.net/>).

The level of the challenges in assessing micronutrient problems in emergencies, and intervening appropriately and with beneficial effect for this population group is even harder than for children.<sup>167</sup> However, given the heightened requirements for some micronutrients in terms of age-related deterioration in immune status and response, and co-morbidity, in older people, attention needs to be paid to this area of the emergency response.

The WFP nutrition toolbox already includes **fortified staples, fortified condiments and fortified blended foods**. Among the fortified blended foods is corn soya blend (CSB), which WFP has used for decades. WFP is working on ways of improving the composition of these foods (such as CSB++) to better meet the nutritional needs of specific groups (young children, pregnant and lactating women, the chronically ill). The WFP toolbox also includes new strategies such as home-fortification with multi-micronutrient powder (MNP, also known as 'sprinkles'). Home fortification means that beneficiaries themselves sprinkle the powder onto food after they have cooked it. It is a viable option when households already have some food but the food they have lacks important micronutrients, and it is suitable for older people.

**Micronutrient supplementation** refers to periodic administration of pharmacological preparations of nutrients as cap-

sules or tablets or by injection. Supplementation is necessary as a short-term emergency measure to reverse clinical signs of micronutrient deficiencies or for prevention in at-risk groups. Micronutrient supplementation should be restricted to vulnerable groups who cannot meet their nutrient needs through food: this applies to older people as well as women of child-bearing age, infants and young children, displaced people, refugees and populations experiencing other emergency situations.

In emergency interventions, a number of **complementary strategies for supplementary food should be adopted**:

- **The use of darkly-coloured vegetables** (including wild foods) in food preparation should be a priority. Diet diversification will also contribute to increased micro-nutrient intakes.
- **Supplements of specific vitamins** (Vitamin A, folic acid) are given routinely on admission into rehabilitation programmes.
- **A supplementary Concentrated Mineral and Vitamin pre-mix (CMV)** can be added to blended foods, maize porridges or traditional meals that are prepared on site. Attention should be paid to ensuring that the CMV is thoroughly mixed into the cooked food. The mineral/vitamin mix should not be added to dry-ration mixtures.
- **All food aid commodities should be fortified**: e.g. oil with Vitamin A, salt with iodine.

### Supplementary Feeding Programmes (SFP)

**Table 15** shows the recommended assessment criteria for admission of older people into SFP.

Depending on the prevalence of undernutrition and availability of partners, supplementary feeding can be provided through two different types of interventions:

- Blanket supplementary feeding
- Targeted supplementary feeding

### Blanket Supplementary Feeding Programmes (BSFP)

Blanket SFP are often implemented when the GFD has not been established or is inadequate, when numbers of vulnerable people are very large or when GAM levels are so high that blanket coverage is required (see HTP Module 12: Supplementary Feeding).

A BSFP has several objectives:

- To prevent nutritional deterioration and related mortality and morbidity in those who have additional nutritional requirements: *this should include older people, especially if they are sick or have a chronic condition.*

<sup>167</sup> Seal A and Prudhon C, 2007. Assessing micronutrient deficiencies in emergencies: current practice and future directions. SCN.



Table 15: Anthropometric, clinical and social criteria used for older people's admission into Selective Feeding Programmes (CSP, SFP, TFP)

Type of criteria	Measurement	Remarks	
<b>Anthropometric</b>	MUAC, using adult MUAC band	Measures acute loss of fat and muscle tissue	
<b>Clinical</b>	<ol style="list-style-type: none"> <li>1. Famine oedema (bilateral) or</li> <li>2. Inability to stand/immobile or</li> <li>3. Extreme weakness or</li> <li>4. Dehydration or</li> <li>5. Anorexia</li> </ol>	Clinical factors associated with poor nutritional status. All factors assessed visually and/or through consultation with the older person. Severe kyphosis is common in older people and can be a cause for immobility.	
<b>Social Risk Factors</b>	<ol style="list-style-type: none"> <li>1. Living alone without family support or</li> <li>2. Physical or mental disability or</li> <li>3. Not strong enough to engage in any household activities or</li> <li>4. Very low socioeconomic status or</li> <li>5. Psychologically traumatised (e.g. loss of home or family members)</li> </ol>	Specific social factors are defined by the community. These are social risk factors likely to lead to poor nutritional status. Older persons with one of more of these criteria (but no anthropometric/clinical criteria present) are admitted into a Community Support Programme CSP.	
Category and related action	MUAC mm	Criteria present (+) or absent (-)	
		Clinical	Social
<b>Normal nutritional status – do not admit*</b>	>185	+/-	-
<b>High nutritional risk – Community Support Prog.**</b>	>185	+/-	+
<b>Moderate malnutrition – Supplementary Feeding</b>	160-185	-	+/-
<b>Severe malnutrition – Therapeutic Feeding</b>	160-185	-	+/-
	<160	+/-	+/-

\* Except those older people presenting with bilateral oedema (regardless of MUAC status) who should be referred to a clinician.

\*\* With the purpose to prevent any further deterioration in nutritional status.

Source: Borrel A, 2001. Addressing the nutritional needs of older people in emergency situations in Africa: ideas for action. HelpAge International Africa Regional Development Centre. Nairobi.

- To restore nutritional status in those moderately malnourished among nutritionally vulnerable groups: *this should include older people, especially if they have disabilities, lack social support or have psychosocial problems. It could also be argued that they should be targeted if they are the sole carers for children under five.*

### Targeted Supplementary Feeding Programmes (SFP)

#### SFP are meant to treat moderate acute malnutrition.

Emergency SFP for older people can be fraught with problems. They often lack a clear rationale and the monitoring, evaluation and phase-out criteria are not sufficiently considered. Targeting generally falls into two broad categories: individuals or households (or groups of households).

### Targeting individual older people

Older people may be nutritionally vulnerable. Reduced physical or mental function may make it difficult for them to access food, particularly in situations of displacement where social support networks or access to traditional foods is disrupted. The nutritional vulnerability of older people should not be assumed in every context, but some specific older people may be nutritionally vulnerable in a situation where the majority of the population comprises of older people (e.g. the remainder of the population has fled or migrated).

### Targeting institutions

Institutions may be targeted to reach specific groups who are thought to be vulnerable, e.g. hospital patients or old people's homes. These groups may face special problems, as relatives find it difficult to provide support and government institutions may collapse.

Table 16: Advantages and disadvantages of different types of supplementary feeding for older people

Type	Characteristics	Advantages	Disadvantages
<b>Dry ration: take home</b>	Should provide 1,000 to 1,400kcal per person/day. Ration should provide at least 25% of energy from fat, 10-15% from protein. Dry rations are usually larger in comparison to prepared (wet) rations to take into account intra-household sharing. Normally provided on a weekly basis.	<ul style="list-style-type: none"> <li>Leaves responsibility of preparing food with household, either with older person/carer.</li> <li>Reduces travel time and distance for older person and/or family.</li> <li>Ration may be perceived as a contribution to food available to the household, may contribute to improved social status of the older person within the family.</li> </ul>	Supplement may be shared with the rest of the household.
<b>Wet feeding: on site</b>	Prepared ration should provide at least 700kcal energy per person/day. Should provide at least 25% of energy from fat and 10-15% from protein.	<ul style="list-style-type: none"> <li>Allows an opportunity for older people in the community to socialise and interact amongst themselves.</li> <li>Encourages older people to maintain some physical mobility on a regular basis (i.e. it provides motivation to leave the household).</li> </ul>	<ul style="list-style-type: none"> <li>Older people may be too weak to travel to centre every day.</li> <li>May be reluctant to go to crowded places.</li> <li>May encourage 'temporary' displacement of the population to a centralised location, increasing exposure to environmental public health risks, disease, infection.</li> <li>May erode family and/or community responsibility.</li> </ul>

Source: Borrel A, 2001. Addressing the nutritional needs of older people in emergency situations in Africa: ideas for action. HelpAge International Africa Regional Development Centre. Nairobi.

### Targeting households

Households are usually targeted by socio-economic indicators, health or nutritional status (usually of children under five) and are based on assessment or assumption that specific types of households in the population cannot meet their survival or livelihood needs. Targeted vulnerable feeding will provide a family ration to households on the basis of individual eligibility criteria, i.e., the household has a malnourished child, someone who is chronically ill (e.g. with tuberculosis or HIV), has a pregnant or lactating woman, an older person, a disabled person, or someone who is socially vulnerable, such as an orphan. This system recognises that vulnerable individuals are part of a household, and household members will share the food ration. By virtue of having a vulnerable individual in the household, all members of the household may be at an increased risk of food insecurity and possibly undernutrition. Targeting households headed by females, on the basis that such households are most vulnerable to food insecurity, is another strategy that is often used by agencies.

### Wet and dry feeding

Supplementary food can be distributed in two ways, as shown in **Table 16**, which outlines some of the advantages and disadvantages of the different types of supplementary foods for older people. The type of intervention will depend on the context.

Older people are less likely than others to eat foods that are unfamiliar to them (see **Box 27**). Efforts should be made to consult with them on the types of foods they prefer and the techniques to prepare them. These recipes then need adapting to the supplementary food basket and to meeting their protein and other nutrient needs.

### Therapeutic Feeding Programmes, CMAM

The principles of **therapeutic feeding programmes for severely malnourished older people**, and the overall phased approach to the management of severe acute malnutrition, are the same as for other adult groups. For more details on the treatment of severe acute malnutrition see HTP Module 13.

**Box 27: Older people and food issues during displacement in Liberia, 2004**

The plea for help of the older people at Fendall and Soul Clinic IDP camp has turned into an outcry. Their condition is critical. In the last six months, 15 have died due to hunger and lack of medical care. Most have spent the last five years running from one place to the other in search of shelter from the war. In June 2003, during the height of the conflict in Liberia, many of these old people arrived at Fendall and the Last Displace Camp, Soul Clinic, located on the outskirts of Monrovia. They resolved never to run anywhere again. There are 3,810 old people here, between the ages of 60 and 98. They are subsisting only on the meagre food rations provided by WFP. The elderly have no relatives to take care of them, nor is the government in a position to do so. Even those who have children do not know their whereabouts. Often the children are not capable of taking care of them.

Each month, an individual receives 6.9kg of maize meal, 0.45kg of vegetable oil, 1.05kg of beans/lentils, 1.8kg of corn soybean and 0.15 kg of salt. Liberia's staple food is rice. The old people find it very difficult to get adjusted to the new diet, so different from their own. Having no source of income, or any relatives to assist them, they are spending their last few days on the earth in misery. The blankets, and other clothing received from UNHCR in July 2003, have worn out. UNHCR also distributed cooking utensils to family heads only. Since most of these old people came to the camps unaccompanied, they did not receive pots and pans. Instead, they are using empty oil tins as cooking utensils and as buckets to do their laundry or taking a bath. They no longer have footwear. Soap, toothpaste, toothbrushes and other necessities are just not available to these older people.

Source: Maxi M, 2004. Report on the situation of the elderly at the Fendall and Soul Clinic Internally Displaced People Camps <http://www.globalaging.org/armedconflict/countryreports/Africa/fendall.htm>

There is very little information in humanitarian guidelines about older people and therapeutic feeding. Most information and guidance comes from HelpAge, and sometimes other agencies that have included older people directly. For example, **Box 28** describes a therapeutic feeding programme for older people from Juba, Sudan, in 2000.

**Discharge criteria** are defined as those that have attained a stable and satisfactory nutritional status and who are free from disease. UNHCR/WFP (2011) recommend discharge for adults achieving a BMI of 18.5 or more.

HelpAge recommends discharge of older persons to depend on anthropometric (MUAC >185mm), clinical and social risk factors.<sup>168</sup>

**Table 17** shows some criteria used for discharging older people from feeding programmes.

**Community-Based Management of Acute Malnutrition (CMAM)** is now an internationally established method of treating acute malnutrition in children under 5 years old during emergencies. To date, CMAM has not been implemented in large numbers of malnourished individuals in other age groups. Guidelines for other groups are therefore not included here. However, this does not mean that older people cannot be treated using the CMAM model with modified protocols.

**Food products used in selective feeding programmes**

Innovative and nutritious food products are being developed to prevent and treat undernutrition. There are new debates emerging about new products and approaches to supplementary and therapeutic feeding. It is being increasingly recognised that quantity is not enough and that a focus on the quality of food aid is needed.

Five key products are used by WFP to improve nutritional intake. These five products include Fortified Blended Foods (FBFs), Ready-to-Use Foods (RUFs), High Energy Biscuits (HEBs), Micronutrient Powder or "Sprinkles", and Compressed Food Bars (CFBs). (See also HTP Module 11 page 6, covers food interventions). RUFs products include ready-to-use supplementary foods (RUSFs), and ready-to-use therapeutic foods (RUTFs).

All these food products are specifically designed for acutely malnourished children and pregnant and lactating women. They are not designed for older people whose energy and micronutrient requirements are different and sometimes affected by illness and disease, particularly HIV and AIDS.

**High Energy Biscuits** (HEB) and 'BP5' are comparable in energy and protein and can be suitable to meet emergency food needs on a temporary basis. When cooking facilities are not in place, unknown or in case of sudden need, compact foods such as high-energy biscuits are easy to handle, transport and

<sup>168</sup> Borrel A, 2001. Addressing the nutritional needs of older people in emergency situations in Africa: ideas for action. HelpAge International Africa Regional Development Centre. Nairobi.

**Box 28: Example of therapeutic supplementary feeding programme for older people implemented by ACF and HelpAge in Juba, Sudan (2000) (see also Part 3: Trainer's Guide)**

The nutritional treatment of severe malnutrition in older people was based on the same formula used to treat children (F75, F100 or HEM\*, porridge, family meal and fruits/vegetables), with added minerals and vitamins. However, the amount of milk given per kg/body weight was much less for adults than children as dairy-related energy needs decrease with age.

The nutritional treatment was phased as follows:

### 1. ACUTE AND TRANSITION PHASE

- During the **acute phase** of the treatment, older people and other adults received only a diet of F75 milk, which contains low levels of protein, fat and sodium. The initial goal of this phase was to prevent further tissue loss. The average duration of Phase 1 was four days. When appetite was regained and, as in the case of kwashiorkor, as the oedema was reduced, individuals were promoted to the transition phase.
- The **transition phase** allowed a gradual increase in the amount of protein and fat, in order to restore the physiological imbalances. In this phase, the same quantity of milk than in acute phase is given to the patient but F75 milk is replaced by F100 milk. After two days in the transition phase, older adults entered Phase 2.

### 2. REHABILITATION PHASE

- Beneficiaries began to regain lost weight and appetite increased. During rehabilitation, older people and other adults became very hungry and often refused formula feed (milk), demanding solid foods.
- At this stage meals were given, based on the recipient's traditional foods, with added oil, minerals and vitamins. The diet comprised a variety of foods and allowed the older people to eat as much as they desire. The variety of food included vegetables (tomatoes and green leaves), beans, meat, fish and fruits. Older adults continued to receive the formula feed (F100) milk, which was supplemented with porridge made from corn soya bean (CSB), oil and sugar, and enriched with vitamins and minerals. At this stage, eight meals (7 servings of milk and 1 of porridge) were provided to the beneficiaries each day, as they still required intensive care. The beneficiaries moved onto the Consolidation Phase (Phase 3) once they reached a BMI equal to, or above 15 (for older persons) or a BMI equal to, or above, 17 for other adults.

### 3. CONSOLIDATION PHASE

- This is the final stage of the treatment where the beneficiary was prepared for discharge. The beneficiary continued to receive a formula feed (F100 milk) but the number of meals was reduced to five. They continued to receive porridge made from CSB, oil, sugar and enriched with a mineral and vitamin complex. The family plate (pulses, vegetables, meat and fish) and fruits continued to be provided for adults and older persons in this phase.

\* F75 and F100 are therapeutic milks used in Phases I and II in the treatment of severe malnutrition. F75 has an energy value of 75kcal per 100ml, while F100 provides 100kcal/100ml. Both milks are fortified with vitamins and minerals. HEM = High Energy Milk Formula is Dry Skimmed Milk + Oil + Sugar + Complex of minerals and vitamins.

Source: Action Contre La Faim (ACF) and HelpAge in Juba, 2004. Case study of supplementary selective feeding programmes by ACF and HelpAge in Juba. In: HelpAge International Africa Regional Development Centre. Summary of research findings on the nutritional status and risk factors for vulnerability of older people in Africa. pp 58-61. April: Nairobi.

distribute. BP5 requires no preparation and thus no additional resources are required to prepare it (e.g. fuel, cooking and serving equipment, water and trained personnel). Crushed into drinking water or milk they can produce porridge (thick or thin according to taste), no cooking is required and they are useful for feeding children/older people and/or those who are ill. HEBs also contain optimal amounts of minerals and are often used to complement a ration; BP5 has been developed for use as a complete food and sole source of both macro- and micro-nutrients. Both HEB and BP-5 contains about 458kcal, 15.5g of fat and 16.7g proteins per 100g. They are also vitamin and mineral fortified. 100-150ml of water should be provided

for every two biscuits consumed. However, BP5 is expensive; nearly three times as much compared to HEB, and is not a 'usual' food. Furthermore, it is monotonous to eat daily. As soon as possible normal food should be provided.

**Meals ready-to-eat** (MREs) or humanitarian daily rations (HDR). These rations are the most expensive food aid commodities and are usually reserved for immediate response during the first few days of a sudden disaster or the displacement of large numbers of people. Usually these products contain high quality protein, fat and carbohydrate with added vitamins and minerals.

Table 17: Transfer and discharge criteria for older people from feeding programmes

Type of support	Outcome	Criteria for exit or transfer
<b>Community Support Programme CSP</b>	<ul style="list-style-type: none"> <li>• Death</li> <li>• Default from programme</li> <li>• Nutritional status remaining stable</li> <li>• Integration into formal/informal support system</li> </ul>	<p><b>Criteria for exit:</b></p> <ul style="list-style-type: none"> <li>• Family carer in community managing to provide adequate support to older person <b>and:</b></li> <li>• No deterioration in nutritional status of older person <b>or</b></li> <li>• Maximum length in CSP three months or</li> <li>• Integration into formal/informal social support system</li> </ul>
<b>Supplementary Feeding Programme SFP</b>	<ul style="list-style-type: none"> <li>• Death</li> <li>• Default from programme</li> <li>• Nutritional status remaining stable</li> <li>• Integration into formal/informal support system</li> </ul>	<p><b>Transfer to CSP when:</b></p> <ul style="list-style-type: none"> <li>• No signs of deterioration in nutritional status i.e. nutritional status remaining stable <b>and</b></li> <li>• Family and/or carer identified in community and type of assistance/support defined <b>or</b></li> <li>• Maximum length of stay in SFP is 8 weeks</li> </ul>
<b>Therapeutic Feeding Programme TFP</b>	<ul style="list-style-type: none"> <li>• Death</li> <li>• Transfer to hospital</li> <li>• Default from programme</li> <li>• Recovery – transfer to SFP</li> </ul>	<p><b>Transfer to SFP when:</b></p> <ul style="list-style-type: none"> <li>• MUAC &gt;185mm and absence of clinical factors <b>and</b></li> <li>• Trend of positive weight gain</li> </ul> <p><b>OR:</b></p> <p><b>Transfer to CSP when:</b></p> <ul style="list-style-type: none"> <li>• Presence of underlying chronic illness (e.g. TB) when no health facilities to treat chronic illness and no improvement in nutritional status <b>and</b></li> <li>• Family and/or carer identified in community and type of assistance/support declined <b>or</b></li> <li>• Maximum length of stay 6 to 8 weeks in TFP</li> </ul>

## Monitoring and evaluation

It is important to consider the extent to which any indicator of nutritional status or vulnerability in older people shows a positive response to a treatment or intervention at different levels of malnutrition. Some very old people are unable to walk unaided, not because of malnutrition, but as a result of a very low muscle mass and muscle function related to ageing. These physical conditions resulting from old age will not be addressed by nutritional supplementation or other food intervention. However, their quality of life and prolonged independence may be improved.

Unfortunately, there is very little documented on the effects of various interventions for older people in developing countries, either living in settled and stable communities or in humanitarian emergencies.

For more on Monitoring and Evaluation (M&E) see HTP Module 20. This refers to older people as a cross-cutting theme that needs to be taken into account in any M&E programme. The M&E of nutrition interventions for older people should include an analysis of their situation to better understand their specific needs, track their ability to access basic services and assess the appropriateness of food rations to meet their needs. Relevant factors to monitor and evaluate food security include:

- Are older people involved during the assessment phase?
- Is blended food provided as part of their ration?
- Is physical access to the general ration good enough?
- Do older people also have sufficient access to fuel and water for cooking?
- Is older people's nutrition status being assessed?
- Are older people with acute malnutrition receiving treatment?

Table 18: Indicators for monitoring progress of older people in a TFP, SFP or CSP

<b>Therapeutic Feeding Programme (TFP)</b>	Health status monitored on a daily basis by nurse or physician
	Weight gain measured two to three times per week depending on the mobility of the older person
	Monitor loss of oedema, average daily weight gain, change of MUAC status, length of stay in nutrition centre
	Food intakes carefully monitored and recorded every day
	Monitor ability of older person to engage in daily activities and increasing muscle strength
	Monitor and address capacity of family or carer to support older people
<b>Supplementary Feeding Programme (SFP)</b>	Nutritional status (weight, MUAC) assessed every one or two weeks
	Capacity of family or carer to support older person assessed and monitored
	Average daily weight gain, change of MUAC status, length of stay in SFP recorded
<b>Community Support Programme (CSP)</b>	In Phase I: weekly household visits by out-reach worker to assess health and nutritional status of older person and the capacity of family/carer to support the older person
	In Phase II: as above, but visits reduced to a monthly basis

Source: Borrell A, 2001. Addressing the nutritional needs of older people in emergency situations in Africa: ideas for action. HelpAge International Africa Regional Development Centre. April.

Most of the Sphere indicators that can be monitored in emergencies only refer to children aged 6-59 months, and cannot be adapted to older people without a consensus (Sphere, 2011, page 165-166).

### The Minimum Reporting Package (MRP) (<http://www.mrp-sw.com>)

This package, i.e. the Emergency Supplementary and Therapeutic Feeding Programme User Guidelines,<sup>169</sup> consists of guidelines on what data to collect and provides software for standard analysis and reports. It refers to performance indicators and reporting categories for targeted Supplementary Feeding Programmes (SFPs), Outpatient Therapeutic Programmes (OTPs) and Stabilisation Centres (SCs). There is also guidance on interpreting and taking action on programme performance indicators. It targets two treatment groups for SFP: 6-59 months and pregnant and lactating women (PLW). However it also facilitates reporting against other categories e.g. 'elderly' (+60 years).

### SQUEAC (Semi-Quantitative Evaluation of Access and Coverage).

This is a low-cost resource method **for evaluating access and coverage in selective feeding programmes**. SQUEAC, and

the Simplified LQAS Evaluation and Coverage (SLEAC)<sup>170</sup> were designed to evaluate community-based management of severe malnutrition in children. However, they could be adapted to evaluate community management of acute malnutrition in adults and older people. Information on both methods can be found here: [www.brixtonhealth.com](http://www.brixtonhealth.com)

**Table 18** summarises suggested indicators for monitoring of an individual's progress in a TFP, SFP or CSP.

For monitoring and evaluation of the overall programme effectiveness, monthly information can be collected on various outcome levels:

- **Nutritional and health outcomes:** these include standard indicators such as the proportion recovered, died, defaulted; the average length of inclusion, average weight gain. It is also appropriate to record the proportion regaining some functional capacities such as strength and ADLs.
- **Community and family support outcomes:** indicators should relate to: proportion of older people with active and involved family or community members; proportion of older people maintaining good nutritional and health status; types of skills acquired and improvement in capacity of family and community to support older people.

<sup>169</sup> Save the Children/ECHO/ENN/USAID, April 2012

<sup>170</sup> Valid and Brixton Health.



**Box 29: Including older people in feeding programmes in Southern Sudan, 1998**

During early 1998, Ajiep in Bhar el Ghazal, Southern Sudan, was at the epicentre of the famine. The population of Ajiep had increased seven-fold from 3,000 to 21,000 persons, displaced as a result of severe food shortages, insecurity in the surrounding areas and the attraction of (potential) access to a general food ration.

Emergency nutrition interventions focused predominantly on the needs of children under 5 years old (with blanket feeding, supplementary and therapeutic feeding). However, levels of malnutrition among older people were extremely high, exacerbated by an outbreak of shigella caused by poor sanitation, over-crowding and lack of community-based public health interventions. By September, a therapeutic and supplementary feeding programme for adults and older people had been established. Patients with shigella were referred and treated in the field hospital and transferred to the TFP for nutritional recovery. Of the 440 people that were admitted into the TFP during the next months, over 20% were older people (over 50 years). The programme demonstrated high recovery rates (92%), low mortality (5%) and a low defaulter rate (3%).

As part of the programme evaluation, the community elders were asked their opinion. Their response was simply: "finally, the old people have been considered".

Source: Salama P, 1995 Presentation at ACC/SCN April 199. Reported in Borrel, 2001. Addressing the nutritional needs of older people in emergency situations in Africa: ideas for action. HelpAge International Africa Regional Development Centre.

**Box 30: Older people: a vulnerable population of concern for disaster responses**

Older people are often among the poorest in low to middle income countries and comprise a large and growing proportion of the most vulnerable in disaster or conflict affected populations and yet they are often neglected in disaster or conflict management. Isolation and physical weakness are significant factors exacerbating vulnerability in older people in disasters or conflict, along with disruption to livelihood strategies and top family and community support structures, chronic health and mobility problems, and declining family health. Special efforts must be made to identify and reach housebound older people and households headed by older people. Older people also have key contributions to make in survival and rehabilitation. They play vital roles as carers of children, resource managers and income generators, have knowledge and experience of community coping strategies and help to preserve cultural and social identities.

Source: Sphere, 2011 (page 16).

- **Perception of programme effectiveness:** qualitative information collected from the older participants themselves, as well as the wider community's perception should be included as part of the programme monitoring process.

Areas subject to recurrent natural disasters of long-running conflicts may have local early warning and emergency response systems or networks and contingency plans which should be incorporated into any assessment. In project design and implementation it is critical to equally engage older women and men.

**Participation, voice and inclusion**

Sphere<sup>171</sup> calls for measures to ensure non-discrimination in the humanitarian assistance. Special measures to facilitate the participation of older people should be taken, while considering the context, social and cultural conditions and behaviours of communities. Any such measures should avoid the stigmatisation of this group. Meaningful participation of different groups of older women and men and appropriate local organisations and institutions at all stages of assessments and interventions are vital. Programmes should build on local knowledge, be based on need and tailored to the local context.

Older people often complain about being excluded from programmes in emergencies. **Box 29** describes what happened during emergency feeding programmes in Southern Sudan in 1998 and what older people thought about it.

In conclusion, **Box 30** from Sphere summarises why older people need consideration in responses to humanitarian emergencies. This will include nutritional and non-nutritional interventions to address the complex nature of their needs and vulnerabilities.

<sup>171</sup> Sphere, page 37.



## Box 31: What HelpAge does in emergencies

- **Identify older people:** carry out a rapid needs assessment, collect and analyse data broken down by age and gender.
- **Consult them:** ask people in later life what they need, and represent their interests. In the recovery stage, set up Older People's Associations (OPAs) so that older people can support themselves and others.
- **Make distributions accessible:** ensure that there are seats for those who cannot stand for long periods. Organise separate distributions for older women and men where this is culturally appropriate.
- **Delivery age-appropriate emergency relief:** ensure that food and non-food items are appropriate for older people. For example, ensure that contents take into account the difficulty that older people may have in chewing, digesting and absorbing nutrients; design packages so that they can be easily carried and opened.
- **Provide age-appropriate healthcare:** provide specialist staff in existing health facilities, deliver basic training in gerontology, distribute equipment such as mobility aids and glasses, and provide medication for chronic illnesses.
- **Provide financial support:** offer age-appropriate work, grants or loans for those who can work, and cash transfers to those who cannot.
- **Offer psychological support:** employ psychologists and recruit home-care volunteers to help older people recover from the trauma of disasters and conflict.
- **Provide protection:** if older people have been separated from their families, or are already alone, ensure that they are involved in family tracing and re-unification programmes.
- **Help communities prepare themselves against future disasters:** ensure that older people – with historical knowledge – are included in disaster-risk reduction work so that they can help their communities to prepare for future disasters.

Source: HelpAge International and Age UK (date). On the edge. Why older people's needs are not being met in humanitarian emergencies.

As the world's leading INGO focusing on older people, HelpAge delivers funds to support local partner organisations for age-friendly aid. It deploys specialist staff who provide training and resource materials about older people's needs to other aid agencies, give health and social support to older people living in refugee camps, and work with communities in disaster-prone areas to prepare for future emergencies by training and equipping networks of older volunteers. **Box 31** summarises the range of activities and interventions that HelpAge delivers in different emergency situations, all of which should be monitored and evaluated in terms of their existence and quality within a response. A more comprehensive list is also available in Annex 6.

## Existing challenges and areas for research

**Existing challenges and areas for research** in the area of undernutrition of older people in emergencies include:

### Advocacy, awareness and capacity

- a) Lack of awareness and knowledge within the humanitarian sector, including donors and governments, about the demographics of ageing, active roles of older people, the complexity of their vulnerability to undernutrition in emergencies, and their rights.

- b) Inadequate skills to deal with undernutrition in this population group within humanitarian agencies, national government systems and at operational level in emergencies.
- c) Persisting ageism and age discrimination within the humanitarian system, and breaches of the UN Principle of Impartiality.
- d) Underfunding of programmes tackling undernutrition in older people in emergencies, in marked contrast to funding levels for other population groups.
- e) The child-focused nutritional conceptual framework and focus on children under five, recently re-invigorated with prioritisation of the '1000 days' period, should not prevent inclusion of older people in nutrition policies and programmes.
- f) Address gaps and inconsistencies in existing policies and guidelines on nutrition, ageing and emergencies.

### Assessment

- a) Lack of commonly agreed, functionally related, undernutrition classification system for older people using anthropometric assessment based on MUAC. Agreement is needed to develop normative guidance for assessments and responses.

## TECHNICAL NOTES

- b) Continued preference for, and use of BMI, in the anthropometric assessment of older people despite problems in its measurement, particularly of standing height, and its interpretation in terms of age-related physiological changes.
- c) Research is needed on the relationship between various MUAC cut-offs and functional outcomes of importance to older people, such as muscle strength, mobility and ADLs.
- d) Lack of clarity and agreement on the best assessment methodologies for all aspects of nutritional vulnerability of older people in emergencies. This acts as an unacceptable barrier that sustains the nutritional neglect of this population group.

### Interventions

- a) How can the recent proliferation of food-based products for the treatment of acute malnutrition be adapted for use in older adults?

- b) How to link nutrition interventions for older people with interventions for other population groups, and with other sectors?
- c) How to improve techniques and standardisation for non-food interventions?

### Monitoring and evaluation

- a) Limited evidence for what works in the treatment of acute malnutrition in older people.

### Participation

- a) Strengthen use of participatory methods with older people on all aspects of planning, assessment, intervention and monitoring programmes aimed at preventing and treating undernutrition in older people in emergencies.

**Annex 1: Key events and documents related to older people in humanitarian situations**

Year	Event or publication
1982	First World Assembly on Ageing, Vienna
1991	UN Declaration of International Year of Older Person IYOP and UN Principles for Older Persons (Resolution no 46/91, 1991) – see Annex 1
1995	UN Committee on Economic, Social and Cultural Rights: General Comment No. 6 on the economic, social and cultural rights of older persons
1998	UN International Plan of Action on Ageing and UN principles for Older Persons, UN Department of Public Information (DPI/932/Rev.1-98-24545. New York). Guiding Principles on Internal Displacement
1999	International Year of Older Persons
1999	HelpAge International and EarthScan publish <i>Ageing and development report: poverty, independence and the world's older people</i>
1999	World Health Day April 7th on theme of ageing
2001	State of the World's Older People
	UN General Assembly established Open Ended Working Group on Ageing
2002	Second World Assembly on Ageing and <i>Madrid International Plan of Action on Ageing (MIPAA)</i> with Political Declaration, signed by 159 governments and adopted by consensus later that year by the United Nations General Assembly
2002	WHO and Tufts University School of Nutrition and Policy published <i>Keep Fit for Life</i>
2002	African Union published a <i>Policy Framework and Plan of Action on Ageing</i>
2004	HelpAge International Africa Regional Development Centre: <i>Summary of research findings on the nutritional status and risk factors for vulnerability of older people in Africa</i> published
	UNHCR Policy on Older Refugees
2007	HelpAge International and Inter-Agency Standing Committee Working Group (IASC-WG) review report on the inclusion of older people in humanitarian action
2008	UN cluster mechanism (IASC) produced an <i>Essential brief and guidelines for Humanitarian Action and Older People</i>
2010	HelpAge International and UNFPA review policies, legislation and data on older people from 133 countries to assess progress in implementing MIPAA
2011	Revision of Sphere Humanitarian Charter and Minimum Standards in Disaster Responses to include more on older people
2011	HelpAge International and Age UK published <i>On the edge: why older people's needs are not being met in humanitarian emergencies</i>
2012	International Year of Older Persons (UN) and European Year of Ageing
2012	World Health Day (April 7th) on theme of older people
2012	Second review of MIPAA (MIPAA+10) Publication of second <i>State of the World's Older People</i>

## **Annex 2: UN General Assembly Resolution no 46/91: 18 General Principles for Older Persons, 1991**

### **Participation**

1. Older persons should remain integrated in society, participate actively in the formulation and implementation of policies that directly affect their well-being and share their knowledge and skills with younger generation.
2. Older persons be able to seek and develop opportunities for service to the community and to serve as volunteers in positions appropriate to their interests and capabilities.
3. Older persons should be able to form movements or associations of older persons.

### **Dignity**

4. Older persons should be able to live in dignity and security and be free of exploitation and physical or mental abuse.
5. Older persons should be treated fairly regardless of age, gender, racial or ethnic background, disability or other status, and be valued independently of their economic contribution.

### **Independence**

6. Older persons should have access to adequate food, water, shelter, clothing and health care through the provision of income, family and community support and self-help.
7. Older persons should have the opportunity to work or to have access to other income-generating opportunities.
8. Older persons should be able to participate in determining when and at what pace withdrawal from the labour force takes place.
9. Older persons should have access to appropriate educational and training programmes.
10. Older persons should be able to live in environments that are safe and adaptable to personal preferences and changing capacities.
11. Older persons should be able to reside at home for as long as possible.

### **Self-fulfilment**

12. Older persons should be able to pursue opportunities for the full development of their potential.
13. Older persons should have access to the educational, cultural, spiritual and recreational resources of society.

### **Care**

14. Older persons should benefit from family and community care and protection in accordance with each society's system of cultural values.
15. Older persons should have access to health-care to help them to maintain or regain optimum level of physical, mental and emotional well-being and to prevent or delay the onset of illness.
16. Older persons should have access to social and legal services to enhance their autonomy, protection and care.
17. Older persons should be able to utilise appropriate levels of institutional care providing protection, rehabilitation and social and mental stimulation in a humane and secure environment.
18. Older persons should be able to enjoy human rights and fundamental freedoms when residing in any shelter, care or treatment facility, including full respect for their dignity, beliefs, needs and privacy and for the right to make decisions about their care and the quality of their lives.

### Annex 3: Madrid International Plan of Action on Ageing. Issue 8: Emergency Situations

In emergency situations, such as natural disasters and other humanitarian emergencies, older persons are especially vulnerable and should be identified as such because they may be isolated from family and friends and less able to find food and shelter. They may also be called upon to assume primary caregiving roles. Governments and humanitarian relief agencies should recognize that older persons can make a positive contribution in coping with emergencies in promoting rehabilitation and reconstruction.

#### **Objective 1: Equal access by older persons to food, shelter and medical care and other services during and after natural disasters and other humanitarian emergencies.**

##### **Actions**


- a) Take concrete measures to protect and assist older persons in situations of armed conflict and foreign occupation, including through the provision of physical and mental rehabilitation services for those who are disabled in these situations.
- b) Call upon governments to protect, assist and provide humanitarian assistance and humanitarian emergency assistance to older persons in situations of internal displacement in accordance with General Assembly resolutions.
- c) Locate and identify older persons in emergency situations and ensure inclusion of their contributions and vulnerabilities in needs assessment reports.
- d) Raise awareness among relief agency personnel of the physical and health issues specific to older persons and of ways to adapt basic needs support to their requirements.
- e) Aim to ensure that appropriate services are available, that older persons have physical access to them and that they are involved in planning and delivering services as appropriate.
- f) Recognize that older refugees of different cultural backgrounds growing old in new and unfamiliar surroundings are often in special need of social networks and of extra support and aim to ensure that they have physical access to such services.
- g) Make explicit reference to, and design national guidelines for, assisting older persons in disaster relief plans, including disaster preparedness, training for relief workers and availability of services and goods.
- h) Assist older persons to re-establish family and social ties and address their post-traumatic stress.
- i) Following disasters, put in place mechanisms to prevent the targeting and financial exploitation of older persons by fraudulent opportunists.
- j) Raise awareness and protect older persons from physical, psychological, sexual or financial abuse in emergency situations, paying particular attention to the specific risks faced by women.
- k) Encourage a more targeted inclusion of older refugees in all aspects of programme planning and implementation, inter alia, by helping active persons to be more self-supporting and by promoting better community care initiatives for the very old.
- l) Enhance international cooperation, including burden-sharing and coordination of humanitarian assistance to countries affected by natural disasters and other humanitarian emergencies and post-conflict situations in ways that would be supportive of recovery and long-term development.

**Objective 2: Enhanced contributions of older persons to the reestablishment and reconstruction of communities and the rebuilding of the social fabric following emergencies.****Actions**

- a) Include older persons in the provision of relief and rehabilitation programmes, including by identifying and helping vulnerable older persons.
- b) Recognizing the potential of older persons as leaders in the family and community for education, communication and conflict resolution.
- c) Assist older persons to re-establish economic self-sufficiency through rehabilitation projects, including income generation, educational programmes and occupational activities, taking into account the special needs of older women.
- d) Provide legal advice and information to older persons in situations of displacement and dispossession of land and other productive and personal assets.
- e) Provide special attention for older persons in humanitarian aid programmes and packages offered in situations of natural disasters and other humanitarian emergencies.
- f) Share and apply, as appropriate, lessons learned from practices that have successfully utilized the contributions of older persons in the aftermath of emergencies.



## Annex 4: Example of an older people's vulnerability assessment form (used in South Sudan)

Individual Assessment Form											
<b>1. General information – Assessment</b>											
Assessors' Name:				Camp:			Date:				
				Place of assessment:							
<b>2. Personal Information</b>											
Name, Surname:					Sex: <input type="checkbox"/> F <input type="checkbox"/> M		Age:				
Civil Status: <input type="checkbox"/> Single <input type="checkbox"/> Married <input type="checkbox"/> Widow <input type="checkbox"/> Divorced					Place of origin:			Date of arrival:			
Present address:											
Registered: <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> In Process				If Yes, number/ID:			If No, Why: <input type="checkbox"/> didn't know <input type="checkbox"/> Issue to access				
Name of the head of household:					Other (precise):						
Age of the head household:				Number and age of children in the household:							
<b>3. Economic situation</b>											
Past activity (before displacement):											
Present activity:											
Household's source of income:											
<b>4. Type of vulnerability (fast screening)</b>											
<input type="checkbox"/> OP with permanent dependency			<input type="checkbox"/> OP with temporary impairment			<input type="checkbox"/> OP with chronic disease/ illness					
			<input type="checkbox"/> OP head of household			<input type="checkbox"/> Household without any/male presence					
<b>5. Type of impairment</b>											
<input type="checkbox"/> Physical impairment			<input type="checkbox"/> Hearing impairment			<input type="checkbox"/> Speech impairment					
<input type="checkbox"/> Visual impairment			<input type="checkbox"/> Mental illness								
Existing or past medical support:			<input type="checkbox"/> Need of long term medical treatment								
			If yes, medication still available: <input type="checkbox"/> Yes <input type="checkbox"/> No								
<b>6. Nutrition</b>											
<input type="checkbox"/> MUAC $\geq$ 210mm			<input type="checkbox"/> MUAC <210mm			<input type="checkbox"/> MUAC <185mm		<input type="checkbox"/> Oedema			
<b>7. Independence and participation 8. Psychosocial (only if response available)</b>											
<b>Daily activities</b>	<b>Yes</b>	<b>No</b>	<b>With help</b>	<b>Frequency</b>	<b>Always</b>	<b>Often</b>	<b>Sometimes</b>	<b>Never</b>			
Bathing				Changes in sleep pattern							
Using toilets				Images about what happened							
Dressing				Feeling of being isolated							
Eating				Changes in the appetite							
Cooking				Changes in the behavior							
Cleaning				Crying spells							
Walking in the camp				Scared/fear							
IGAs				How would you describe your relationship? <input type="checkbox"/> Good <input type="checkbox"/> Average <input type="checkbox"/> Poor							
Community activities											
<b>9. Protection</b>											
<input type="checkbox"/> Isolation and dependency			<input type="checkbox"/> Neglect and deprivation			<input type="checkbox"/> Family situation					
<input type="checkbox"/> Family separation			<input type="checkbox"/> Loss/no documentation			Precise:					
<input type="checkbox"/> Unsafe living conditions: <input type="checkbox"/> Shelter <input type="checkbox"/> Environment						<input type="checkbox"/> Discrimination: <input type="checkbox"/> Family <input type="checkbox"/> Community					
<input type="checkbox"/> Threats and harassment						<input type="checkbox"/> Humanitarian assistance					
Precise:						<input type="checkbox"/> Violence					
						Precise:					
<b>10. Needs of items</b>											
<b>Assistive devices:</b>				<b>Specific items:</b>			<b>Protection items</b>				
<input type="checkbox"/> Crutches		<input type="checkbox"/> Walking aids (sticks)		<input type="checkbox"/> White		<input type="checkbox"/> Mattress		<input type="checkbox"/> Jerri can		<input type="checkbox"/> Flashlight	
<input type="checkbox"/> Toilet Chair		<input type="checkbox"/> Wheel Chair		<input type="checkbox"/> Bedpan		<input type="checkbox"/> Blanket				<input type="checkbox"/> Radio	
<input type="checkbox"/> Urine flask		<input type="checkbox"/> Incontinence kit								<input type="checkbox"/> Whistle	
<b>11. Needs of referral</b>											
<input type="checkbox"/> Health		<input type="checkbox"/> Psychosocial		<input type="checkbox"/> Child protection		<input type="checkbox"/> Shelter		<input type="checkbox"/> NFIs			
<input type="checkbox"/> Nutrition		<input type="checkbox"/> Protection		<input type="checkbox"/> Disability/Rehabilitatee		<input type="checkbox"/> Livelihood					

## Annex 5: Mini-Nutritional Assessment MNA used for nutritional assessment and screening of older people in high-income countries

In high-income countries, the comprehensive assessment of older people is a regular part of health screening and interventions, involving a combination of questions, measurements and clinical tests related to physical, psychological and social factors that may have an impact on nutritional status. These assessments typically cover a range of dimensions of physical and mental health and functioning, as shown in the following table:

### Comprehensive Geriatric Assessment (CGA)

Domain	Assessment method	Acronym
Cognitive status	Mini Mental Status Examination	MMSE
Affective status	Geriatric Depression Scale	GDS
Mobility, gait and balance	Tinetti Performance-Orientated Mobility Assessment	POMA
Functional status	Activities of Daily Living	ADL
Functional status	Lawton Instrumental Activities of Daily Living	ADL
Nutritional Adequacy	Mini Nutritional Assessment	MNA

Click here for more information <http://www.mna-elderly.com>

As part of Comprehensive Geriatric Assessment, the rapid screen Mini Nutritional Assessment, MNA, was developed by Nestlé Research Centre and Toulouse University in 1991. Worldwide, it is the most validated and referenced nutrition screening and assessment tool for people over 65 years old. Validation criteria have been calculated as 96% for specificity (ability to identify malnourished or those at risk), specificity as 98% (ability to identify well-nourished) and predictive value as 97%. A strong correlation between the MNA and biochemical parameters has been shown, particularly with albumin.

The MNA is the only nutrition screening tool that incorporates special considerations of the older adult (i.e. functionality, mobility, depression and dementia) and was specifically developed to identify older people at risk of malnutrition without the need for more invasive tests such as blood sampling.<sup>172</sup>

- In community-living older people, it detects the risk of malnutrition and life-style characteristics associated with nutritional risk while clinical markers of malnutrition, such as albumin levels, are still in the normal range.
- In outpatients and in hospitalized older patients, it is predictive of outcome and cost of care.
- In older home-care patients and nursing home residents, it is related to living conditions, meal patterns and chronic medical conditions, and allows targeted interventions.

The MNA has two components: screening and assessment.

### Screening with MNA-SF

- A score of 11 or less in the screening indicates a problem and the need for a completion of the assessment portion.
- A MNA-SF score of 12 and above indicates a good nutritional status without the need to continue the whole assessment.
- The assessment score is then added to the screening score.

### Screening plus assessment with full MNA

- If the total score on both parts totals 17-23.5, there is a risk of malnutrition
- A score of <17 indicates existing malnutrition

<sup>172</sup> Guigoz et al, 2002; Abellan Van Kan G and Vellas B, 2011. Is the Mini-Nutritional Assessment an appropriate tool to assess frailty in older adults? *Journal of Health, Nutrition and Ageing*: 15 (3); 159.

The MNA includes several risk factors for 'frailty', such as low BMI, decrease of mobility, low muscle mass and low calorie intake. A statistically significant U-shaped association has been found between frailty and BMI. It has been shown to accurately identify older people at risk of increased mortality and morbidity.<sup>173</sup>

In 2008-2009, Nestle Nutrition embarked on the MNA International Initiative, conducting research in geriatric settings across the globe to validate a new **MNA-SF**. The new features of this are:

- It is now validated as a standalone nutrition screening tool, which can be completed in less than 10 minutes.
- Calf circumference may be used instead of BMI.
- It can identify an older person as well nourished, at risk of malnutrition or malnourished.

The MNA requires at least 15 minutes with each patient so is hardly applicable in most humanitarian settings. The MNA-SF takes only 3 minutes but has not been validated or used in community-living settings in developing country contexts, or emergencies. For both the MNA and MNA-SF, cultural issues may apply that have not been considered.

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<sup>173</sup> Visvanathan et al 2004

## Annex 6: Guiding principles for nutrition interventions for older people in emergencies

- 1. Older people should have physical access to an adequate general ration that is suitable in terms of quantity and quality, that is easily digestible and culturally acceptable.**
  - Older people should have access to milled cereal and legumes that they are familiar with or alternatively to milling facilities in situations where whole grain cereal is produced.
  - Measures should be taken to ensure that older people are:
    - (i) Informed of their eligibility; and
    - (ii) Have physical access to the general ration.
- 2. The physiological changes associated with ageing and its consequences for nutritional requirements and special needs should be reflected in programme design.**
  - Older people should be supported and encouraged to access and consume nutrient-dense foods, adequate fluid volumes and easily digestible foods.
  - A fortified blended food should be included as part of the basic general ration. Where this is unavailable, older people (in addition to young children) should be prioritised to receive a supplement of blended food or other nutrient-dense food.
- 3. Older people should be involved in the assessment, design and implementation of the programme.**
  - The nutritional status and nutritional needs of older people should be systematically assessed during emergency nutrition assessments.
  - Older people should be involved at all stages of the emergency programme.
- 4. The chronic nature of their needs should be reflected in the programme design.**
  - Until livelihoods are restored, community support structures are re-established or families reunited, older people are likely to remain relatively food insecure.
  - Provision of community-based follow-up support for older people should be ensured until such a time as appropriate structures are in place which provide secure and adequate support.
- 5. Existing community support structures should be rebuilt and strengthened as the most important strategy of food and nutrition assistance programmes for older people.**
  - Where possible, older people should be given the opportunity to continue to live normally in their communities, engage and contribute actively with the help of community support where needed.
  - Every effort should be made not to create institutional structures for older people, especially where such institutions are not considered the norm.
- 6. Malnourished older people should have equal access to selective feeding programmes for nutritional rehabilitation.**
  - Out-reach activities, referral mechanisms and information dissemination should be addressed.
  - Moderately and severely malnourished older people should be targeted and ensured equal access (similar to other population groups) to existing supplementary and therapeutic feeding programmes.
  - A commitment to operational research should be made to better understand assessment criteria and nutritional risk factors that will facilitate effective targeting among older people.

## Annex 7: Checklist for older people in internally displaced persons camps

Submitted to the Representative of the UN Secretary General on the Human Rights of Internally Displaced Persons Mr Walter Kalin by HAO and Global Action on Ageing, July 2005.

### Demographic data

1. Is there demographic data available in the IDP camp disaggregated by age and gender? If not, could it be included in data collection?
2. What is the number of unaccompanied older people?
3. What is the number of children being cared for by older people?
4. How many older headed households are there?
5. How many housebound older persons are there?

### Health

1. Are there special clinic days for older people?
2. Are there outreach health services for the housebound?
3. Are there drugs available to treat the common causes of morbidity amongst older people?
4. What are the main disabilities of older people? Is there a record in the camp?
5. Are mobility aids available?

### Nutrition

1. Is the ration suitable for older people?
2. Have older people been screened to enter feeding programmes?

### Distributions

1. Are there special provisions to avoid older people queuing for long periods of time?
2. Are there special provisions to help older people carry loads back from distribution points?
3. Are NFIs appropriate for older people? E.g. clothes, extra blankets etc.

### Inclusion

1. Are older people represented on committees (e.g. health, water, women's aid etc.)?
2. Has an older people's committee been established?
3. Are older people active participants in camp activities e.g. literacy projects, life skills, agriculture, income generation etc.?
4. Are older people represented as a vulnerable group at camp management level?

### Social support

1. Do older people receive support from family and neighbours?
2. Who is collecting fuel and water for older people?
3. Have older people been separated from their families?

Source: UNHCR/HelpAge International 2000. Older people in disasters and humanitarian crises. Guidelines for best practice.

### Annex 8: Summary of supplementary foods recommended by WFP in an emergency

Food product	What they are/ ingredients	When, where used	How used	Nutritional value per 100g
<b>Fortified Blended Foods</b>	FBFs are blends of partially precooked and milled cereals, soya, beans, pulses fortified with micronutrients (vitamins and minerals). Special formulations may contain vegetable oil or milk powder. Corn Soya Blend (CSB) is the main blended food distributed by WFP but Wheat Soya Blend (WSB) is also sometimes used.	Designed to provide protein supplements. In food assistance programmes to prevent and address nutritional deficiencies Generally used in <b>WFP Supplementary Feeding and Mother and Child Health</b> programmes, and also to provide extra micronutrients to complement the general ration.	Usually mixed with water and cooked as a porridge.	Energy per 100g of product min 380Kcal Protein min. 18% Fat min. 6%  <b>Micronutrients added:</b> Vitamins A, C, B12, D, E, K, B6, Thiamine, Riboflavin, Niacin, Pantothenic acid, Folic acid plus Zinc, Iron, Calcium, Potassium
<b>Ready-to-Use Foods</b>	Better suited to meet nutritional needs of <b>young and moderate malnourished children</b> than FBFs. May contain vegetable fat, dry skimmed milk, malt dextrin, sugar whey. <b>Plumpy'Doz:</b> peanuts paste, vegetable fat, skimmed milk powder, whey, maltodextrines, sugar. <b>Supplementary Plumpy:</b> peanut paste, vegetable fat, soy protein isolates, whey, maltodextrines, sugar, cocoa.	Mostly in emergency operations or at the beginning of a WFP intervention for prevention or treatment of moderate malnutrition. RUFs are to be used in addition to breast milk and other food for <b>children (6 to 59 months)</b> which are at high risk of developing malnutrition due to severe food insecurity.	<i>Plumpy'Doz</i> , (Nutraset) comes in tubs containing a weekly ration. <i>Plumpy Sup</i> (Nutraset) comes in one-day sachets. Both can be eaten directly from their containers and are designed to be eaten in small quantities, as a supplement to the regular diet.	<b>Nutritional value per 100g of Plumpy'Doz:</b> Energy 534Kcal, Protein 12.7g, Fat 34.5 g <b>Micronutrients:</b> Vitamin A, E, B1, B2, Niacin, Pantothenic acid, Vitamin C, B6, B12, Calcium, Magnesium, Selenium, Zinc, Iron, iodine, Copper, Phosphorus, Potassium, Manganese, Folic acid <b>Nutritional value per 100g of Plumpy Sup:</b> Energy 500kcal, Protein 12.5g, Fat 34.5g. <b>Micronutrients:</b> as above +Vitamin D, K and Biotin
<b>High Energy Biscuits</b>	Wheat-based biscuits which provide 450kcal, with a minimum of 10g and max of 15g of protein per 100g and fortified in vitamin and minerals. Price \$0.12 per 100g packet.	In the first days of emergency when cooking facilities are scarce. Easy to distribute and provide a quick solution to improve the level of nutrition.	Wheat flour, Hydrogenate Vegetable Shortening, Sugar, Soy flour, Invert Syrup, High fructose, Corn Syrup, Skimmed milk powder, Sodium and Ammonium, Bicarbonates, Salt	Energy 450Kcal Protein 10 to 15g Fat 15g <b>Minerals and vitamins</b> as: Calcium, Magnesium, Iron, Iodine, Folic Acid, Pantothenic Acid, Vitamin B1, B2,B6,B12b C,D,E, Niacine, Vitamin A-retinol.



Food product	What they are/ ingredients	When, where used	How used	Nutritional value per 100g
<b>Micronutrient Powder “Sprinkles”</b>	A tasteless powder containing recommended daily intake of 16 vitamins and mineral for one person. Can be sprinkled onto home-prepared food after cooking just before eating. <b>Price:</b> \$2-3 per 100 sachets.	Useful when fortification of cereal flour cannot be implemented or when it is inadequate for specific groups.	One sachet per person is sprinkled onto home prepared food. Can be used in <b>school feeding programmes</b> that provide a hot meal to children.	One individual sachet provides the daily intake of 16 vitamins and mineral for one person.
<b>Compressed food bars</b>	Bars of compressed food, composed of baked wheat flour, vegetable fat, sugars, soya protein concentrate and malt extract.	Used in disaster relief operation when local food can't be distributed or prepared. Should not be used for children under six months and in the first two weeks of treatment of severe malnutrition.	Can be eaten as a bar straight from the package or crumble into water and eaten as porridge. Drinking water must be provided as the bars are very compact and dry. Number of bars to be eaten depends on age, gender, weight and physical activity.	<b>Ingredients:</b> baked wheat flour, vegetable fat, sugars, soya protein concentrate, malt extract. Vitamins and minerals: Vit. A, D3,E, C, B1, B2, B6, B12, Niacin, Folic acid, Pantothenic acid, Biotin, Calcium, Phosphorus, Magnesium, Iron, Zinc, Potassium, Sodium, Copper, Selenium, Iodine <b>Nutritional value per 56g bar:</b> Energy 250kcal, Protein 8.1 Fat 9.4g



# PART 3: TRAINER'S GUIDE

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

## Navigating your way round the guide

The trainer's guide is divided into six sections:

1. **Tips for trainers** provide pointers on how to prepare for and organize a training course.
2. **Learning objectives** sets out examples of learning objectives for this module that can be adapted for a particular participant group.
3. **Testing knowledge** contains an example of a questionnaire that can be used to test participants' knowledge at the start or at the end of a training course.
4. **Classroom exercises** provide examples of practical exercises that can be done in a classroom context by participants individually or in groups.
5. **Case studies** contain examples of case studies that can be used to get participants to think by using real-life scenarios.
6. **Field-based exercises** outline ideas for field visits that may be conducted during a longer training course.

When developing this section, the author has considered three main categories through which exercises and case studies have been selected:

- Context, mandate, inclusion, equity of access, civil society and rights;
- Vulnerability and nutritional assessment; and
- Interventions and broader programmatic response.

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**Case study 5:** Selective feeding programmes by Action Contre la Faim and HelpAge International in Juba, Southern Sudan

**Case study 6:** Haiti: HelpAge International tackles psychosocial components

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<sup>1</sup> Adapted from Maxi, M, 2004. Report on the situation of the elderly at the Fendell and Soul Clinics, Internally Displaced People Camps, Liberia. <http://www.globalaging.org/armedconflict/countryreports/Africa/fendall.htm>

# 1. Tips for trainers

## Step 1: Do the reading!

- Read Part 2: Technical Notes, of this module.
- Familiarise yourself with the technical terms from the glossary.
- Read through the key documents (see full references and how to access them in Part 4 of this module).
- Be sure that you take time to read the exercises and cases studies so that you can decide if they meet your training objectives.
- Decide which sessions to include and within sessions, which activities to include.

## Step 2: Know your audience!

- Find out about your participants in advance of the training.
- How many participants will there be?
- Investigate their expectations for the training.
- Have any of them got experience of nutrition programming or working with older people?
- Could participants with experience be involved in the sessions by preparing a case study or contribute through describing their practical experience?
- Examine the possibility of counterpart trainers from Government and NGO stakeholders.

## Step 3: Design the training!

Decide how long the training will be and what activities can be covered within the available time. In general the following guide can be used:

- A **45-60-minute** classroom-based training session can provide a very basic overview of the issues facing older people.
- A **90-minute** classroom-based training session can provide a more in-depth overview of the issues facing older people and include practical exercises to reinforce learning.
- A **half-day** classroom-based training session can provide a more in-depth understanding and include all three practical exercises or a case study.
- A **full-day** classroom-based training session is appropriate if you do Module 23 as a stand-alone one-day course. You could include the case study material in the session where participants work in groups of about four people and present back their findings in plenary. If your participants all work in one country and have contextual experience of a specific scenario, you could use the session to develop your own case study with the group by getting them to write up the scenario following the model from the case studies presented here. This will reinforce their active learning.
- A **3-5 day** classroom plus field-based training can provide a full training in order to carry out a more comprehensive training and simulation on programme intervention.

**Step 4: Get prepared!**

Ensuring you are prepared and ready will elevated confidence and reduce any pressure of facilitation. Some key points to consider when preparing for any length of training include:

- Check the room, lighting and set-up of helpers and tables to promote conversation and open group work.
- Check any equipment and IT hardware that may be used throughout the training. Familiarize yourself with the equipment and know the individual responsible to support you within the training facility/hosting location.
- Have all flipcharts, papers and stationery ready and available.
- Write up the schedule and agenda for each day prior to the start of the daily session to promote good time keeping and let participants be aware of breaks.
- Have all key references available within the training facility. Ensure all hand-outs and training materials are printed, bound and available for the participants from day one.

**REMEMBER**

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

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



## 2. Learning objectives

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

### Examples of learning objectives

- Show the importance of involving older people from the outset.
- Understand their existing decision-making structures, the importance of partnerships with appropriate groups, acknowledging their roles in future steps such as assessments and implementation.
- Understand older people as a vulnerable group, outline the variety of risk factors, understand older people's roles and responsibilities. Examine the process through which to influence for inclusion in assessments.
- Allow participants to examine the results and main findings of an actual assessment and prioritise objectives and methods for intervention.
- Understand the shelter and physical needs of older people. Examine how to target this group.
- Allow participants to consider the layout and design including accessibility and location, safety and fall prevention, weather proofing and lighting.
- Generate awareness of psychosocial components within planning and design of interventions.

### 3. Training exercises from other key modules

**Quiz: 'True' or 'False' statements<sup>2</sup> about older people in humanitarian emergencies. This includes key discussion points around each statement.**

**Q: Older people are not affected by humanitarian emergencies. Children are.**

**A: FALSE**

26 million people of all age groups are affected by disasters every year.

**Q: The numbers of older people in developing countries is roughly static.**

**A: FALSE**

Low life expectancy figures mask the fact that there are millions of older people in developing countries. The most rapid increase in the 60+ population is occurring in the developing world, which will see a jump of 225% (to over 1.5 billion people) between 2010 and 2050.

**Q: Age specific interventions for older people do exist.**

**A: TRUE**

Interventions that consider the needs of older people in terms of social and physical requirements do exist. Vulnerability analysis focused on older people and conducted in conjunction with that group, will allow the design and content of interventions to be age-specific and appropriate to older people.

**Q: The extended family and community protects their older adults and older people.**

**A: FALSE**

Migration and urbanisation mean that the extended family is no longer as common as it once was. Some older people do not have families, others are caring for orphaned grandchildren. People may not have the resources or ability to help others at a time when they are also suffering.

**Q: There are methods available to measure the nutritional status of older people**

**A: TRUE**

Whilst there remains some ambiguities and contention over the accepted international standards for the measurement of older people's nutritional status within emergency settings, guidance is available, methods and standards have been recommended, if not fully ratified, and national level settings have to be established through a peer reviewed and coordinated mechanism.

**Q: Older people's needs will automatically be covered by general aid distributions.**

**A: FALSE**

Older people have particular nutritional, cultural and health needs that are often not met by a general relief distribution. Sick and frail people might find it difficult to queue at, or walk to, relief distribution points, and they may not be able to access general aid distributions in the first place.

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<sup>2</sup> **Sources:** HelpAge UK/HelpAge International, 2011. On the Edge: why older people's needs are not being met in humanitarian emergencies. Humanitarian Emergency Response Review (an independent review published by the UK's Department for International Development).

**Q: Older people only have themselves to worry about.**

**A: FALSE**

Many older people are looking after grandchildren as their children migrate in search of work or die through conflict and illness. HelpAge International estimates that up to half of the world's children orphaned by AIDS are cared for by a grandparent.

**Q: Older people can play a crucial role in the design, implementation and monitoring of programming.**

**A. TRUE**

Their role and importance in gaining a comprehensive situational analysis as well as ensuring credibility and accuracy of subsequent responses has been well detailed within the literature, the details of which are included within Part 2 of this module.

**Q: There are agencies that specialise in older people and who are responsible for their needs.**

**A: FALSE**

Whilst there are a number of agencies and bodies that would be responsible, represent or focus on older people within emergency programming, it is important to establish that all actors should be aware of the vulnerability, inclusion and benefits of targeting older people within the design and implementation of responses.

## 4. Classroom exercises

### Exercise 1: Exploring MIPAA and generating awareness

**Activity:** Using the Madrid International Plan of Action (MIPAA), which you will find on p.16 in Part 2 Technical Notes, hand out the General Principles, MIPAA Priorities and Priority 1, Issue 8. Ask the group to understand and summarise the evolution and key content of MIPAA. Provide the group with 30 minutes to read the documents and prepare a presentation or feedback to the rest of the participants.

#### **Additional Questions and Group Discussion**

*Q1. Having read the documents, what experience have you faced with regard to age discrimination in certain settings and the implications for planning?*

*Q2. How would the group define the difference between ageism and age discrimination?*

## Exercise 2: Match the Guiding Principles and Activities

Use the sheet below to allow participants to match the principles to the activities. This sheet can be printed off and cut up so the activities and principles have to be matched by the groups. This is a quick activity that can be used as an introduction to an afternoon session for example. The matching of activities and principles can stimulate a discussion that can be examined and elaborated upon in a subsequent plenary session.

### 7 Guiding Principle For Nutrition Programmes Targeting Older People In Emergencies

The guiding principles that apply to working with older people in emergencies are given below. These provide a framework for specific programme design issues that are considered in Section 8.

In 1982, UN General Assembly endorsed the 'International Plan of Action on Ageing' (resolution 37/51) – designed to guide the thinking and formulation of policies and programmes on ageing. Nine years after endorsing the Plan, the General Assembly adopted the UN Principles for Older Persons (resolution 46/91) addressing issues of independence, participation, care, self-fulfillment and dignity (Annex 4).

Although the UN Principles for Older Persons and the International Plan provide a framework for action, more specific nutritional principles and approaches are required. Therefore, for the purpose of guiding programme design for nutrition intervention, HAI recommends that the following guiding principles be used. These principles, specific to food and nutrition interventions in emergencies, reinforce the broader Vienna (Nutrition) Recommendation for the Plan of Action on Ageing (1982).

#### Guiding Principles for Nutrition Interventions for Older People in Emergencies

**1. Older people should have physical access to an adequate general ration that is suitable in terms of quantity and quality that are easily digestible and culturally acceptable.**

- Older people should have access to milled cereal and legumes that they are familiar with or alternatively, to milling facilities in situations where whole grain cereal is provided.
- Measures should be taken to ensure that older people are (i) informed of their eligibility and (ii) have physical access to the general ration.

**2. The physiological changes associated with ageing and its consequences for nutrition requirements and special needs should be reflected in programme design.**

- Older people should be supported and encouraged to access and consume nutrition-dense food, adequate fluid volumes and easily digestible foods.
- A fortified blended food should be included as part of the basic general ration. Where this is not available, older people (in addition to young children) should be prioritized to receive a supplement of blended food or other nutrition-dense food.

**3. Older people should be involved in the assessment, design and implementation of the programme.**

- The nutritional status and nutritional needs of older people should systematically be evaluated during emergency nutrition assessments.
- Older people should be involved in all stages of the emergency programme.

**4. The chronic nature of their needs should be reflected in the programme design.**

- Until livelihoods are restored, community support structures are re-established or families reunited, older people are likely to remain relatively food insecure. Provision of community-based follow-up support for older people should be ensured until such a time as appropriate structures are in place which provide secure and adequate support.

**5. Existing community support structures should be rebuilt and strengthened as the most important strategy of food and nutrition assistance programmes for older people.**

- Where possible, older people should be given the opportunity to continue to live normally in their communities, engage and contribute activity in daily activities with the help of community support where needed.
- Every effort should be made not to create institutional structures for older people, especially where such institutions are not considered the norm.

**6. Malnourished older people should have equal access to selective feeding programmes for nutritional rehabilitation.**

- Out-reach activities, referral mechanisms and information dissemination should be addressed.

**Exercise 3: Considering assessment and vulnerability information in designing response**

**Activity:** Using the Handicap International Individual Assessment form (Part 2 Technical Notes, Annex D) and the Risk Factor for Nutrition Vulnerability Diagram (Part 2, p.43), consider this key question:

In what way would you adapt or improve the design of a feeding programme to address different aspects and needs that are highlighted within these documents? Make sure to consider a key design adaptation from each component of the Nutrition Vulnerability Diagram.

**Exercise 4: Composition of the food ration in Dadaab, May 2011**

Item	Amount (in grams)	Frequency	Grams per month
Maize	3,150	Twice a month	6,300
Wheat flour	3,150		6,300
Pulses	900		1,800
Fortified oil	450		900
Corn soya blend (CSB)	675		1,350
Salt	75		150

Source: Care International, Dadaab, June 2011; and UNHCR, Dadaab, November 2011.

**Analysis of this food ration:**

	Daily Portion	% of recommended daily ration
Energy	1,866.9kcal	98.3%
Protein (9%)	43.9g	91.4%
Fat (19%)	40.0g	51.9%
Carbohydrate (72%)	335.4g	95.6%
Dietary fiber	24.8g	82.8%
Phytic acid	2,642.4mg	–%
Calcium	60.9mg	6.1%
Calcium absorption	16.8mg	–%
Magnesium	339.9mg	109.6%
Zinc	5.9mg	84.4%
Zinc absorbed	0.9mg	–%
Iron	11.6mg	77.4%
Iron absorbed	0.8mg	–%
Vitamin B1	1.1mg	112.5%
Vitamin B2	0.5mg	45.0%
Niacin equivalent	17.8mg	–%
Vitamin B6	0.8mg	65.5%
Pantothenic acid	1.9mg	30.9%
Folic acid equivalent	168.3µg	–%
Vitamin B12	0.0µg	0.0%
Vitamin C	0.6mg	0.6%
Retinol equivalent	0.0ug	–%
Grains and roots	420.0g	–%
Legumes nuts	60.0g	–%
Dairy products	0.0g	–%
Flesh food	0.0g	–%
Eggs	0.0g	–%
Vitamin A from fruit/veg	0.0g	–%
Other fruits/veg	0.0g	–%
Fats/oils	30.0g	–%



This ration provides the 2,100kcal/day (recommended by HelpAge International guidelines for older people, HelpAge International 2001). According to the same standards, the protein content of the ration is adequate (12% of the ration), as well as the fat content (19% of the ration – i.e., at least 17% of the ration).<sup>3</sup> There is not enough fibre, and some micronutrients (including calcium, Vitamin C and Vitamin B12) are insufficient.

**Questions:**

*Q: List the existing and potential micronutrient deficiencies resulting from this food package?*

*Q: Using NutVal, how would you improve the quantity and quality of the package?*

*Q: How would you then advocate for these improvements?*

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<sup>3</sup> These standards differ slightly from the 2011 Sphere standards for minimum nutritional requirements. The global energy intake is similar, as well as the percentage of energy provided by fat, but older people need more protein intake. They also need more calcium, Vitamin D, B6 and B12.

## 5. Case studies

### Case study 1: Engaging with and involving older people in situation setting and planning<sup>4</sup>

**Learning objectives:** To show the importance of involving older people from the outset. Understanding their existing decision making structures, the importance of partnership with appropriate groups, acknowledging their roles in future steps such as assessments and implementation.

**Methods:** Handout, provide sufficient time for comprehension.

**It is August 2011 in Dadaab, Kenya – the largest refugee camp in the world.** More than 400,000 people have fled their country to settle in this hot, sandy and windy place. It has not rained for months, but there are some cows, sheep and goats surviving on a few green bushes and pockets of pasture. The influx of new arrivals from Somalia does not stop. They are fleeing the insecurity, but mostly they could not stay in their homes because of the persistent drought.

Abdullahi is about 70 years old, although he has no documentation to prove this. He has just been through Hagadera reception centre. A red plastic bracelet has been tied around his wrist as proof of his having been processed. This gives him access to a ration of food for three weeks (wheat flour, oil, cornmeal, sugar, beans, corn-soya blend, salt) as well as a cooking kit, a blanket, a mat, a 10-litre jerry can and soap. Arriving from Somalia after fifteen days of travelling, he says:

*"I am one of the lucky ones who were transported by truck from the border to Dadaab. I used to live alone and work on my small piece of land. I have been a widower for seven years. My sons disappeared and my only daughter is married and looks after her own family. The drought took away my only means of livelihood, and I was forced to leave."*

Now Abdullahi has to find a place to live before being officially registered by the Directorate of Refugee Affairs (Government of Kenya), and UNHCR. The registration can take up to two months, and Abdullahi has received food for only three weeks. Being registered allows refugees to have access to food distribution, and to be given an official plot with a tent, a real shelter. However some refugees have to wait for several months before being allocated a definitive plot.

There are 13,000 older people in Dadaab, and the number is growing every day. Some arrived twenty years ago while others are new arrivals. Some are alone, some are with families and others are the sole care providers for their family. They all have to adapt to harsh environmental conditions and heavy bureaucratic procedures. They are not used to food rations and often cannot consume them as they are too hard to chew. Being allotted shelter and a place to live is also uncertain.

<sup>4</sup> Adapted from Fritsch P, 2011: East Africa crisis: older refugees arrive at Dadaab in search of better life. Blog, HelpAge International. 5 August 2011. For full article: [www.helpage.org/blogs](http://www.helpage.org/blogs)

**Questions:**

**You arrive in Dadaab with an international aid agency and have to assess the immediate nutritional needs and vulnerability of people over 50 years old.**

*Q: What nutritional status indicators would you use?*

*Q: What particular challenges would you face from the community, as well as your own organization?*

*Q: How would you investigate vulnerability?*

*Q: How would you involve older people in this work?*

**Case study 2: Identifying nutritional risk vulnerability factors and influencing for assessment; camp for Rwandan refugees, North West Tanzania (1998)**

**Learning objectives:** Understand older people as a vulnerable group, outline the variety of risk factors, understand older people's roles and responsibilities. Examine the process through which to influence older people's inclusion in assessments.

**Methods:** Listed questions and role play.

Before the war in Rwanda, Mr Musirikare (aged 74) and his wife (aged 72) were quite wealthy. They had 10 children: five of them died before the war, four were killed by rebel soldiers. They managed to escape with their daughter-in-law and her three children. Arriving in Chabalisa, Tanzania, they registered in the refugee camp and received food, a plot of land and a plastic sheet to make their hut. Their daughter-in-law now lives in Chabalisa and comes to visit them regularly. However, their surviving son lives far away and has a family of 12 to take care of.

Mr and Mrs Musirikare are both undernourished. Mr Musirikare is in the red zone of the BMI chart and his wife in the yellow zone. They receive two shares of food (maize, oil and sometimes beans) from the food distribution and this is enough to eat porridge in the late morning and dinner. Mr Musirikare says: "it is not enough. We digest the porridge quickly and then feel hungry until dinner." They both find it difficult to eat grain because of their teeth but are forced to do so when they run out of money. Occasionally they receive some food from the HelpAge garden, and sometimes bananas from their daughter-in-law who has a salary. Mrs Musirikare says: "We only eat maize porridge to survive. Food I really like is rice and milk."

Mr Musirikare rates his health as being poorer than it was in Rwanda: "Since I'm here I always feel sick. I'm becoming weaker each day due to lack of vegetables and milk. In Rwanda I did heavy work, but I lost my strength since I had dysentery in the camp and remained weak because of the poor diet. I also suffer horribly from malaria attacks and the horrible memories of what happened in the war." He perceives himself as a burden to his wife as he is no longer able to support her and provide the household with what is needed. He says: "I feel like a flat bicycle tyre." He mentions that older people in the camp feel rather bored, as they are less active due to poor health and lack of land for cultivation. His main concern is better food so that he will revive.

**Questions:**

*Q: What risk factors for nutritional vulnerability do you notice?*

*Q: Are there gaps in understanding vulnerability that may need further investigation?*

*Q: How would you convince your line manager/organisation to include older people in a more comprehensive vulnerability assessment and if necessary, within an anthropometric survey?*

**Case Study 2 Option 2, Role Play:** You are Mr Musirikare and you need to describe your situation to an interviewing assessor. Make good use of the case study description as well as the risk factors.

**These risk factors are given to the audience:** Death of loved ones, witnessed traumatic events, poor health, poor strength, unable to work, low income, missing meals, not enough land to cultivate food, unable to obtain sufficient food, problems chewing, prefers other foods (from HelpAge/LSHTM Handbook 1999, page 43).

**Questions:**

*Q: What risk factors for nutritional vulnerability do you notice?*

*Q: Are there gaps in understanding vulnerability that may need further investigation?*

*Q: How would you convince your line manager/organisation to include older people in a more comprehensive vulnerability assessment and if necessary, within an anthropometric survey?*

### Case study 3: Assessment of the nutritional status, food security, socio-economic status and care of older people in Lokitaung Division, Turkana District

**Learning objectives:** Allow participants to examine the results and main findings of an actual assessment and prioritise objectives and methods for intervention.

Under an Oxfam Great Britain/UNICEF-led health and nutrition subcommittee, a nutrition assessment of older adults took place in Lokitaung, Turkana district. This assessment took place at the same time as Oxfam was undertaking their regular six monthly assessment of children younger than five years. Older people are considered the custodians of the Turkana culture and they care for young children. They are highly respected and receive care from the community and family members, but due to the loss of their cattle, caregivers are threatened. Unlike children, older persons are not targeted for supplementary feeding schemes. The assessment was an effort to gather information for advocacy of the needs of older people in emergencies since older persons had previously been excluded from regular assessments by aid agencies.

#### Objectives of the assessment

- To describe the situation of older people in emergency situations, with a special focus on their nutritional and socio-economic status;
- To test tools used to identify malnourished older people in emergency situations; and
- To identify risk factors for older people in Lokitaung Division, to make recommendations for targeting older people in emergencies.

#### Methods

A total of 457 older people were assessed. Key indicators for health and nutritional vulnerability in older people including morbidity, functional ability, psychosocial problems, changes in economic and social risk factors were identified. These indicators were assessed at household level, plus individual anthropometric measurements and observation of clinical signs.

A total of 12 focus group discussions (FGD) of older people and their caregivers were held. Focus groups were randomly chosen from the 30 clusters identified for the nutrition assessment based on their livelihood activities. Four of these clusters were from a fishing area, four from a pastoral zone and four from peri-urban centres. Discussions were participatory, and gender balance was observed in each group. Data was analysed using Epi Info 6.04 with the nutritional analysis performed by the EPINUT programme.

#### Major findings

22.9% and 20.5% of older persons had a BMI indicative of respectively moderate (BMI = 16-16.9) and severe (BMI <16) malnutrition. The prevalence of malnutrition assessed using a MUAC reference value of less than 22cm was 19.5% for men and 17.7% for women. No significant association between age and nutritional status (assessed using either BMI or MUAC) was found.

Loss of economic livelihood negatively affects the nutritional status of older people. Older people who reported having received gifts from their family (in the form of livestock products, money, indigenous fruits and part of the food ration given by humanitarian agencies) had a better nutritional status (higher MUAC and frequency of meals/day) than those who did not receive donations.

Other factors that were found to adversely affect the nutritional status of older people, based on MUAC assessment, were loss of a caregiver, loss of formal employment (during the first year of retrenchment), and evidence of symptoms of severe depression and reporting of raids by Karamojong neighbours in Uganda. During raids, younger people escape, leaving behind older persons and the livestock.

The presence of dehydration, extreme weakness, oedema, vomiting, immobility and kyphosis (extremely bent backs) were entered into regression models to determine predictors of poor nutritional status (MUAC <22cm). Oedema, dehydration, immobility and extreme weakness were found to predict the nutritional status of older people, followed by vomiting. Musculoskeletal conditions, such as arthritis (53.8%) and backache (43.3%), as well as abdominal pains (37.2%), loss of teeth/dental problems (28.7%), poor eyesight (43.9%), having child-care responsibilities (12.7%), and impaired mobility (3.1%) adversely affected older people's nutritional status.

During focus group discussions, older adults claimed that the transition from livestock-trading to a cash economy had negatively affected their well-being and ability to cope. Being a predominantly pastoralist community, with little or no literacy skills, the repeated droughts and political unrest had diminished grazing opportunities for their livestock, and had depleted the availability of indigenous fruits. Older people measure their food security in terms of the number of animals they own, and were thus experiencing severe food insecurity. They had learnt to eat maize and beans, provided by food relief agencies, in order to survive. Older adults reported that they felt powerless and depressed in their current circumstances, but that the church met their emotional needs.

Since 1999, registration for food aid has depended on the presence of a child, pregnant or lactating women or a caregiver. Thus, a group of older people was unable to register for aid. Many agencies do not have the skills to screen older people for selective feeding programmes. The general food ration, comprising yellow maize and beans, was not appropriate for older people. 81% reported disliking the yellow maize because of chewing difficulties (60%), tastelessness (32%), and difficulty to mill (19.3%). Unimix (a corn, soya bean and powdered milk supplement, with added vitamins and minerals) was commonly provided to children under five, and was occasionally given by the World Food Programme to older people in supplementary and therapeutic feeding schemes. Unimix was preferred to the maize and beans by the older adults.

Older people had no access to health facilities due to lack of money. Some obtained income by selling part of their food ration. Among the various groups, malnutrition among older persons was highest in the peri-urban community (18.8%), followed by the fishing community (15.3%) and then pastoralists (11.5%).

In children, the prevalence rate of global acute malnutrition (wasting: WFH <-2 and >-3 Z score) was 19.1% (95% Confidence Interval = 16.6-21.9%). Severe acute malnutrition (WFH <-3 Z score) was 2.6% (95% CI = 1.7-3.9%). The situation had rapidly deteriorated from March 2001, when global and severe malnutrition was found in 9.9% and 1.0% of children, respectively.

### Questions:

*Q: What are the main reasons for malnutrition in older people?*

*Q: What are the key interventions that are required by the humanitarian actors when targeting older people?*

*Q: What specific design considerations would be needed to ensure an effective intervention in these circumstances?*



**Case study 4: General food ration and related equipment for older IDPs in Liberia, 2004<sup>5</sup>**

**Learning objectives:** Understand the shelter and physical needs of older people. Examine how to target this group. Allow participants to consider the layout and design including accessibility and location, safety and fall prevention, weather proofing and lighting.

**Methods:** Refer to the HelpAge shelter guidelines, p.108 to allow participants to enhance and improve the case study response. Access document here: <http://www.helpage.org/resources/practical-guidelines/emergency-guidelines/>

The situation for older people at the Fendell and Soul Clinic for Internally Displaced People (IDP) in Monrovia is critical. In the last six months, 15 have died in Fendell due to hunger and lack of medical care. The majority of these older people come from Lofa and Bong Counties. About 30% come from other counties. Most have spent the last five years running from one place to the other in search of shelter from the war. In June 2003, during the height of the conflict in Liberia, many of these older people arrived at the Camp, resolving to stay and never to run anywhere again.

There are now 3,259 older people in Soul Clinic's Last Displace Camp, and 551 in Fendell between the ages of 60 and 98. The older people have no relative to take care of them nor is the government in a position to do so. Many of the older displaced people do have children but do not know their whereabouts. Often the children that are with them are not capable of taking care of them.

The old people are subsisting only on the food rations provided by the World Food Programme. Each month, an individual receives:

6.9kg maize meal	0.45kg vegetable oil
1.05kg beans/lentils	1.8kg corn soybean
0.15kg salt	

Liberia's staple food is rice. The older people find it difficult to get adjusted to this new diet, so different from their own.

UNHCR distributed cooking utensils to family heads only. Since most of these old people came to the camp unaccompanied, they did not receive pots or pans. Instead, they are using empty oil tins as cooking utensils and as buckets to do their laundry or take bath. They no longer have footwear. Soap, toothpaste, toothbrush and other basic necessities are just not available to these older people. The blankets, and other clothing received from UNHCR in July 2003, have worn out.

How do they support themselves? Those who can still move around, walk for miles in the bush gathering palm branches to make house brooms that are sold for 5 Liberian dollars, which is less than 10 US cents. A 98 year-old woman making a broom says:

*"If I can sell four of these brooms, I will buy one cup of rice and palm oil to eat today."*

Having no source of income, or any relatives to assist them, many older people say that they are spending their last few days on earth in misery.

As the manager of these two IDP camps, UMCOR has been doing all in its power to alleviate the hardship these older people are facing by setting up a special group in Fendell to cater to their chores on a 24-hour basis. Plans are underway to have a similar group organised in Soul Clinic. The group comprises eight IDPs who have volunteered to help the old and vulnerable. The head of the group is given a small token at the end of each month. Taking full responsibility of such a volunteer group is not an easy job.

<sup>5</sup> Adapted from Maxi, M, 2004. Report on the situation of the elderly at the Fendell and Soul Clinics, Internally Displaced People Camps, Liberia. <http://www.globalaging.org/armedconflict/countryreports/Africa/fendall.htm>

**Questions:**

*Q: What are the issues that older people face in their use of the ration and how can they be overcome?*

*Q: What improvements in the general ration would you advise to ensure improved quality and accessibility of the ration for older people?*

*Q: What suggestions do you have for ensuring that distribution mechanisms include and account for the specific needs of older people?*

## Case study 5: Selective feeding programmes by Action Contre la Faim and HelpAge International in Juba, Sudan

### Background

During the International Year of Older Persons in 1999, HelpAge International (HelpAge) undertook awareness-raising activities on the situation of older persons in Juba, Sudan. In the process, it was recognized that many older persons had no access to feeding programmes due to lack of family support or neglect.

In August 1999, community mobilisation efforts began to identify housebound older persons with severe malnutrition who required therapeutic feeding. By April 2000, 100 cases had been assisted and recovery was observed to be successful with no individuals regressing back into the state of severe malnutrition.

In August 2000, HelpAge began implementing a community-based programme designed to improve older people's access to health and nutrition services. Further cases of severe malnutrition, particularly amongst housebound older people or those with poor mobility, were identified.

In October 2000, at the request of HelpAge, Action Contre La Faim (ACF) agreed to increase its capacity at the Therapeutic Feeding Centre (TFC) to admit severely malnourished older people referred by HelpAge community workers.

The project was aimed at providing therapeutic feeding facilities to older persons with severe malnutrition in Juba and surrounding accessible areas and to provide supplementary feeding to patients who were discharged from the therapeutic feeding programme.

### Objective

To document the feeding programmes provided to severely malnourished older persons admitted to an NGO-operated therapeutic feeding centre in Juba, Sudan.

### Major findings

Between October 2000 and February 2001, 103 adults and older people were admitted into the ACF Therapeutic Feeding Centre and treated as follows:

The nutritional treatment of severe malnutrition in adults and older persons is based on the same formula used to treat children, F75, F100 or HEM,<sup>6</sup> porridge, family meal and fruits/vegetables), with added minerals and vitamins. However, the amount of milk given per kilogram of body weight is much less for adults than children as dairy-related energy needs decrease with age. The nutritional treatment is divided into four phases:

**Phase 1:** during the acute phase of the treatment, older people and other adults receive only a diet of F75 milk, which contains low levels of protein, fat and sodium. The initial goal of this phase is to prevent further tissue loss. The average duration of Phase 1 is four days. When appetite is regained and, as in the case of kwashiorkor, as the oedema is reduced, individuals are promoted to the Transition Phase.

**Transition Phase:** it allows gradual increase in the amount of protein and fat, in order to restore the physiological imbalances and avoid any abrupt changes in diet (from F75 milk to F100 milk). After 2 days in the Transition Phase, older adults enter Phase 2.

**Phase 2 (Rehabilitation phase):** beneficiaries begin to regain lost weight and appetite increases. During rehabilitation, older persons and other adults become very hungry and often refuse the formula feed (i.e. milk), demanding solid foods. At this stage, meals are given, based on the recipient's traditional foods with added oil, minerals and vitamins. The diet comprises a variety of foods and allows the older people to eat as much as they desire. The variety of food includes vegetables (tomatoes and green leaves), beans, meat, fish and fruits. Older adults continue to receive the formula feed (F100 milk), which is supplemented with porridge made from corn soya bean (CSB), oil and sugar, and enriched with vitamins and minerals. At this stage, eight meals (seven servings of milk and one of porridge) are provided to the beneficiaries each day, as they still require intensive care. The beneficiaries move onto the Consolidation Phase (Phase 3) once they reach a BMI equal to or above 15 (for older persons) or a BMI equal or above 17 for other adults.

**Phase 3 (Consolidation Phase):** this is the final stage of the treatment where the beneficiary is prepared for discharge. The beneficiary continues to receive a formula feed (F100 milk) but the number of meals is reduced to five. They continue to receive porridge made from CSB, oil and sugar and enriched with a mineral and vitamin complex. The family plate (pulses, vegetables, meat and fish) and fruits continue to be provided for adults and older persons in this phase.

All adults<sup>7</sup> and older persons received systematic treatment, which included Vitamin A, folic acid, amoxicillin, mebendazole, ferrous sulphate and chloroquine. They were attended to by a medical assistant every day in Phase 1 to assess and follow up on their underlying medical problems. In Phases 2 and 3, older adults were attended to once every two days. For those whose condition was deteriorating, reviews were increased to once a day until their condition improved. Specific treatment was given according to diagnosis.

During the treatment, health education relating to the prevention and management of malnutrition was imparted to the beneficiaries on a daily basis. Health educators also tackled the problem of defaulters from the centre. During the reporting period, the number of defaulters among adults and older persons was 5.4%, which was considered to be satisfactory (the ACF target is <15%). ACF health educators and home visitors continued to spread messages in the community about malnutrition. The main reason for defaulting was the preference for special solid food instead of the formula diet (i.e. milk).

Adults, mainly pregnant and lactating women, were discharged from the feeding centre when they were considered to be eating well, had gained weight, had maintained a BMI of equal or above 17.5 for eight days, no longer had oedema for 15 days and were able to walk. For older people, the same criteria applied, with the exception that BMI should remain equal to or greater than 16.5 for at least eight days.

<sup>6</sup> F75 and F100 are therapeutic milks used in Phases I and II in the treatment of severe malnutrition. F75 has an energy value of 75kcal per 100ml, while F100 provides 100kcal/100ml. Both milks are fortified with vitamins and minerals.  
HEM = High Energy Milk formula is Dry Skimmed Milk+Oil+Sugar+Complex of minerals and vitamins.

<sup>7</sup> Postmenopausal women.

The outcomes of the individuals followed up during the study period study were as follows:

- Of the 103 admitted, 68% (17 adults and 53 older persons) were successfully treated during the period. By the end of Feb 2001, 19 adults and older persons were still being treated in the TFC.
- Two adults and eight older persons were transferred to hospital. Among the eight transferred older people, two died (one due to TB and the other due to severe pneumonia), while the remaining six were later discharged from hospital and went home.
- Four older persons defaulted during the reporting period (Default rate = 5.4%).
- No death of adults or older persons occurred in the TFC between October 2000 and February 2001.
- The average weight gain for both adults and older persons was 6.6g/kg/day and the average length of stay for both adults and older persons was 42.1 days.
- The average weight gain was lower than ACF's general recommendations<sup>8</sup> and the length of stay longer than recommended. Thus, treatment of severe malnutrition in these two groups takes longer than in children.

ACF planned to follow-up the nutritional status of the older persons and other adults for six months after discharge. However, in January 2001, the period of follow up was reduced to three months due to lack of food supplies from WFP. During the first month of follow up, adults and elders were visited weekly and their nutritional status assessed.

They received a ration of CSB, oil and sugar which provided a total of 1,019kcal per day. For the second month, beneficiaries were seen every two weeks and then once during the third month. They continued to receive a ration that provided 509kcal per day in the second month and 255kcal per day in the third month.

### Challenges faced and solutions

The main constraints that the TFC staff faced were:

- The absence of adequate numbers of carers to accommodate the additional needs (i.e. assistance with toileting, bathing, and laundry) of adults or older persons who were very weak or disabled.
- Some of the adults and older persons preferred to eat solid food and were unwilling to consume the formula diet (milk).

To address this problem, HelpAge appointed a social worker to care for those adults and older persons who were disabled or too weak. A family meal (lentils, vegetables, meat and fish) was provided from Phase 2 onwards. It is usually recommended to introduce the family meal only during Phase 3 as the most efficient treatment regimen is based on the specific nutritional products (F75, F100 or HEM). The introduction of the porridge and family meal is only to prepare the person for the food that she/he will receive at home.

### Activity:

*The group is to establish the key four facts relating to this situation and be prepared to highlight these to an in-coming CEO.*

*You have 3 minutes with the CEO before they leave for a field visit, including this project site.*

*What do you want them to be aware of and what do you wish to share to enable this project to be further supported by the CEO?*

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<sup>8</sup> Adult Malnutrition in Emergencies, Field Guidelines, Action contre la Faim, Carlos Navarro-Colorado; 2006.  
[http://www.actioncontrelafaim.org/sites/default/files/publications/fichiers/adult\\_malnutrition\\_guidelines\\_gb0108-sept2006\\_0.pdf](http://www.actioncontrelafaim.org/sites/default/files/publications/fichiers/adult_malnutrition_guidelines_gb0108-sept2006_0.pdf)

### Case study 6: Haiti: HelpAge International tackles psychosocial components

**Learning objective:** Generate awareness of psychosocial components within planning and design of interventions.

In Haiti, HelpAge International established Older People Associations (OPAs) in displaced camps and communes immediately after the earthquake. These OPAs aim at involving older people in community activities such as home visiting, disaster risk reduction, livelihood and income generating activities, and re-socialisation of older people. They also aim at representing older people in the community and defend their rights.

HelpAge provided each OPA with a small functioning budget (to be maintained through income generating activities) and with media equipment (TV, DVD and CD players). Each OPA has an equipped community centre.

Anecdotal evidence points to a number of self-started initiatives and actions taking place as a result of these OPAs:

- In Croix des Bouquets, the OPA has successfully advocated for the integration of older people in a 'cash for work' activity and obtained the dismissal of a camp committee that was not working for the well-being of camp residents.
- In Jacmel, one OPA has created a cash box where members can contribute. With the contributions, they are able to support a members facing problems. For example they were able to cover funeral fees for one member.
- In Petion-Ville, OPA members have started a literacy programme for those of the association who cannot read and members have replicated the training they receive on hygiene promotion to prevent cholera.
- In Petit-Goâve, the communal association has taken the initiative of setting up OPA at the communal section level.
- In two camps (Marassa 14 and Theatre National) OPA members were allowed to join the camp committee.
- In Petion-Ville, OP are more aware of their rights and are more demanding. For example one OP requested better service at one health centre.
- Two health centres: Eliazar Germain in Petion-Ville and Memphis Medical Mission in Croix des Bouquets have opened up special lines for older people, as a new good practice.
- A video clip produced by HelpAge has allowed an older person placed in a nursing home to reunite with relatives who thought she was dead.
- Older people are socialising more now, while attending games sessions or the 'media club'.

#### Questions:

*Q: Outline three key reasons from this article as to the importance of establishing OPAs?*

*Q: List some of the opportunities and challenges of supporting OPAs in an emergency setting.*

*Q: From your experience, what recommendations would you give to the group to enable these associations to be effectively established?*

# PART 4: TRAINING RESOURCE LIST

The training resource list is the fourth of four parts contained in this module. It provides a comprehensive list of reference material relevant to this module including guidelines, training courses and reference manuals. Part 4 provides background documents for trainers who are preparing training material.

#### **What can you expect to find here?**

1. An inventory of existing **guidelines** and **manuals** listed alphabetically by agency name with details about their availability.
2. An inventory of some of the most useful research, publications and internet resources and website links pertinent to the module topic.



## Guidelines and manuals

There are numerous guidelines to nutrition intervention in emergencies and the majority have sections or chapters on how to carry out assessments, establish and use monitoring systems and carry out evaluations. In addition there are specific resource materials that deal exclusively with assessments, monitoring and evaluation.

### 1. **ACF (2006). Adult malnutrition in emergencies: a review of diagnosis and treatment. Field guidelines.**

Version 3. September.

Authored by: Carlos Navarro-Colorado

Availability: Downloadable as a pdf online

Contact: <http://www.actioncontrelafaim.org/>

Available at: [http://www.actioncontrelafaim.org/sites/default/files/publications/fichiers/adult\\_malnutrition\\_guidelines\\_gb0108-sept2006\\_0.pdf](http://www.actioncontrelafaim.org/sites/default/files/publications/fichiers/adult_malnutrition_guidelines_gb0108-sept2006_0.pdf)

### 2. **ACF (2010). Taking action: nutrition for survival, growth and development.**

White Paper that emphasise the lifecycle approach (page 29) and includes references to adults and older people.

Authored by: Ellen Girerd-Barclay

Availability: Downloadable as a pdf online

Contact: <http://www.actioncontrelafaim.org/>

Available at: [http://www.actionagainsthunger.org.uk/fileadmin/contribution/0\\_accueil/pdf/ACF%20International%20White%20Paper.pdf](http://www.actionagainsthunger.org.uk/fileadmin/contribution/0_accueil/pdf/ACF%20International%20White%20Paper.pdf)

### 3. **FAO (2005). Protecting and promoting good nutrition in crisis and recovery. Rome: FAO.**

Guidelines designed to further the development of a more strategic focus that strengthens programme planners' capacity to protect and promote good nutrition in crisis situations.

Availability: Printed and downloadable as a pdf online in English

Contact: <http://www.fao.org/>

Available at: <http://www.fao.org/docrep/008/y5815e/y5815e00.htm>

### 4. **HelpAge International/UNHCR/ECHO (1999). Older people in disasters and humanitarian crises: guidelines for best practice. London.**

These guidelines for best practice are based on wide ranging research from Asia, Africa, Europe and the Americas and many years of global disaster experience. They aim to help relief agencies meet the special needs of older people in emergencies. The guidelines give examples of key approaches and actions that could help the humanitarian community decrease the vulnerabilities associated with ageing. They also suggest ways to enhance the capacities and contributions of older people in emergencies.

Availability: Order printed copy in English, downloadable as pdf

Contact: <http://www.helpage.org/>

Availability: [http://www.sheltercentre.org/sites/default/files/UNHCR\\_OlderPeopleInDisasters.pdf](http://www.sheltercentre.org/sites/default/files/UNHCR_OlderPeopleInDisasters.pdf)

### 5. **HelpAge International and the London School of Hygiene and Tropical Medicine (1999). Better Nutrition for Older People: assessment and action.**

Easy-to-use, simple language field handbook produced to enable organizations working with older people in developing countries to assess and improve the nutritional status of older adults. The handbook draws on operational field research programmes in India (urban slum), Tanzania (refugee camp) and Malawi (rural area). The first publication of its type, now needs updating and revision.

Authored by: Suraiya Ismail and Mary Manandhar

Availability: Currently out of print, originally version in English, French version available from the HelpAge International East, West and Central Africa Regional Development Centre, Nairobi.

Contact: <http://www.helpage.org/> or [helpage@helpage.co.ke](mailto:helpage@helpage.co.ke)

- 6. HelpAge International and African Regional Development Centre (2001). Addressing the Nutritional needs of Older People in Emergency Situations in Africa: Ideas for Action. London: HelpAge.**  
Technical paper that brings together key issues affecting the nutrition of older people in emergencies and suggests ways in which the rights and needs of older people can be more effectively addressed.  
Authored by: Anneliese Borrel  
Availability: Printed and downloadable as a pdf version in English  
Contact: <http://www.helpage.org/>  
Available at: <http://www.forcedmigration.org/sphere/pdf/food/helpage/nutritional-needs.pdf>
- 7. HelpAge International (2002). Participatory research with older people: a sourcebook.**  
A practical sourcebook on how to engage with older people through participatory processes for research and programme planning. Includes case studies from HelpAge International and its overseas partners, a series of participatory exercises and tools, practical examples of materials developed and a glossary of terms.  
Authored by: Amanda Heslop  
Availability: Printed in English and downloadable as a pdf  
Contact: <http://www.helpage.org/>  
Available at: <http://www.globalaging.org/elderrights/world/sourcebook.pdf>
- 8. HelpAge International and International Federation of the Red Cross and the Red Crescent (2011). Guidance on including older people in emergency shelter programmes.**  
A booklet that provides a framework for the different phases of a shelter programme (temporary, transitional and permanent) with guidelines for including older people in shelter programmes.  
Availability: Printed in English and downloadable as a pdf  
Contact: [www.helpage.org/](http://www.helpage.org/)  
Available at: <http://www.helpage.org/what-we-do/emergencies/guidance-on-including-older-people-in-emergency-shelter-programmes/>
- 9. HelpAge International and UNHCR (2008). Note on Communicating with Older People, 10 July 2008.**  
Authored by: Susan Erb  
Availability: Downloadable as a word document in English  
Contact: <http://www.humanitarianresponse.info/themes/age>  
Available at: <http://oneresponse.info/crosscutting/age/publicdocuments/Forms/DispForm.aspx?ID=1>
- 10. HelpAge International and UNFPA (2011). Manual for MIPAA plus 10 Bottom-Up, Participatory Approach. "The voices of older persons. A contribution to the State of the World's Older Persons, 2012".**  
Availability: Printed and downloadable as a pdf  
Contact: <http://www.helpage.org/>  
Available at: [www.helpage.org/download/4e427cf44ec0b/](http://www.helpage.org/download/4e427cf44ec0b/)
- 11. HelpAge International / IASC (2008). Humanitarian action and older persons: an essential brief for humanitarian actors. An important advocacy paper on humanitarian assistance and older people developed by a wide range of humanitarian actors.**  
Availability: Printed in English and downloadable as a pdf  
Contact: <http://www.helpage.org/>  
Available at: <http://www.enonline.net/resources/658>
- 12. Humanitarian Response (2011). Age and emergencies: key things to know.**  
Tip sheet on dealing with older people in emergencies.  
Availability: Downloadable as a word document in English  
Contact: <http://www.humanitarianresponse.info/>  
Available at: <http://www.humanitarianresponse.info/document/age-and-emergencies-tip-sheet>

## TRAINING RESOURCE LIST

**13. IASC Nutrition Cluster (2008). A toolkit for addressing nutrition in emergency situations.**

The toolkit describes tools and approaches representing the current thinking in nutrition. The toolkit does not provide information on measuring nutritional status, rapid assessments, needs assessments, early warning or evaluating interventions. It provides the what, why, when, and how for different nutrition interventions, including basic monitoring benchmarks and expected standards. The toolkit offers guidance and support for nutritionists and humanitarian workers to ensure that basic guidelines are followed and the basic nutritional needs of populations in emergencies are met. It is not intended to be an exhaustive resource for each intervention presented, but rather an overview for interventions to be considered with references and links to more detailed technical guidance for each issue.

Availability: Downloadable as a pdf from the Global Nutrition Cluster. The toolkit is available in English, French, Spanish and Arabic.

Contact: [http://www.unicef.org/nutritioncluster/index\\_training.html](http://www.unicef.org/nutritioncluster/index_training.html)

Available at: [www.humanitarianreform.org/humanitarianreform/Default.aspx?tabid=74](http://www.humanitarianreform.org/humanitarianreform/Default.aspx?tabid=74)

<http://www.enonline.net/resources/568>

**14. IASC (2003). Guidelines for HIV/AIDS Interventions in Emergency Settings. Geneva: IASC.**

Guidelines to help individuals and organizations to address the special needs of HIV and HIV-affected people living in emergency situations.

Availability: Printed in English and downloadable as a pdf

Contact: <http://www.unaids.org>

Available at: [www.humanitarianinfo.org/iasc/downloaddoc.aspx?docID=5145](http://www.humanitarianinfo.org/iasc/downloaddoc.aspx?docID=5145)

**15. ICRC and International Federation of Red Cross and Red Crescent Societies (2007). Guidelines for cash transfer programming. Geneva: ICRC and IFRC.**

Guidelines on how to use cash and vouchers in multi-sectoral integrated programming, planning and disaster response. Provide practical step by step support to the design and implementation of cash programmes.

Availability: Printed in English and downloadable as a pdf

Contact: <http://www.icrc.org>

Available at: <http://www.ifrc.org/Global/Publications/disasters/guidelines/guidelines-cash-en.pdf>

**16. ICRC (2008). Nutrition Manual for Humanitarian Action (Manuel de nutrition pour l'intervention humanitaire). Geneva: ICRC.**

Manual with a comprehensive description of nutrition in emergencies for ICRC staff.

Availability: Printed and downloadable pdf version in English and French

Contact: <http://www.icrc.org>

Available at: <http://www.icrc.org/eng/resources/documents/publication/p0820.htm>

<http://www.icrc.org/fre/resources/documents/publication/p0820.htm>

**17. Médecins Sans Frontières (1995). Nutrition Guidelines. MSF.**

Guidelines to facilitate the application of fundamental concepts and principles necessary for the assessment of nutritional problems and the implementation of nutritional programmes in emergency situations. The guidelines are aimed at fieldworkers and are presented in three parts.

Available: Revised edition in printed format in English, French and Spanish

Contact: <http://www.msf.org>

Available at: <http://www.unhcr.org/3c4d391a4.html>

**18. Nutval**

Nutval is a spread sheet application developed through WFP, UNHCR, University College London and the IASC Global Nutrition Cluster for planning, calculation and monitoring of nutritional value of general food rations. Nutval aims to ensure a nutritionally adequate ration to minimize public health problems such as micronutrient deficiencies.

Availability: Download Excel spread sheet in English

Contact: [www.nutval.net](http://www.nutval.net)

Available at: <http://www.nutval.net/>

**19. Overseas Development Institute (2005). Protecting and assisting older people in emergencies.**

ODI Network Paper 53.

This paper argues that changes are required in the way essential services are delivered, and in how older people are viewed.

Authored by: J. Wells

Availability: Printed in English and downloadable as a pdf

Contact: <http://www.odi.org.uk/>

Available at: <http://www.odihpn.org/documents/networkpaper053.pdf>

**20. The Sphere Project (2011). Humanitarian Charter and Minimum Standards in Humanitarian Response. Geneva: The Sphere Project.**

The new edition of the Sphere Handbook takes into account recent developments in humanitarian practice in water and sanitation, food, shelter and health, together with feedback from practitioners in the field, research institutes and cross-cutting experts in protection, gender, children, older people, disabled people, HIV/AIDS and the environment. It is the product of an extensive collaborative effort that reflects the collective will and shared experience of the humanitarian community, and its determination to improve on current knowledge in humanitarian assistance programmes.

Availability: Available in English, French, Spanish, Arabic in hard copy; CD-ROM and electronically via the sphere website

Contact: [www.sphereproject.org](http://www.sphereproject.org)

Available at: <http://www.spherehandbook.org/>

**21. UNHCR policy on older refugees (October 2000).**

As endorsed at the 17th Meeting of the Standing Committee, 29 February – 2 March 2000.

This policy seeks to highlight that older refugees often serve as formal and informal leaders of communities; they are valuable resources for guidance and advice, and transmitters of culture, skills and crafts that are important in preserving the traditions of the dispossessed and displaced.

Availability: Online

Contact: <http://www.unhcr.org>

Available at: <http://www.unhcr.org/4e857c279.html>

**22. UNHCR, UNICEF, WFP and WHO (2005). Food and Nutrition Needs in Emergencies. Geneva: United Nations.**

This manual aims to strengthen the understanding of managers and practitioners to ensure the food and nutrition needs of affected populations are addressed appropriately.

Availability: Printed version and pdf downloadable in English

Contact: <http://www.who.int>

Available at: <http://whqlibdoc.who.int/hq/2004/a83743.pdf>

**23. UNHCR (2003). Handbook for Registration: Procedures and Standards for Registration, Population Data Management and Documentation, Geneva: United Nations.**

Guidelines on registration, documentation and population data management in various operational contexts. It defines new standards and processes for registration.

For managers and practitioners involved in registration in a camp setting.

Availability: Printed version and pdf downloadable from website in English

Contact: <http://www.unhcr.org>

Available at: <http://www.unhcr.org/refworld/pdfid/3f967dc14.pdf>

**24. UNHCR (2007). Handbook for Emergencies, 3rd ed. Geneva: United Nations.**

A reference tool which serves to reinforce a common understanding among the main key actors in emergency situations. Of particular relevance is the section on Community Services and Education which refers to groups at risk and vulnerable groups, which includes older persons.

Availability: Printed version and pdf downloadable from website in English

Contact: <http://www.unhcr.org>

Available at: <http://www.unhcr.org/472af2972.pdf>

## TRAINING RESOURCE LIST

**25. UNHCR (1997). Commodity Distribution: A practical guide for field staff. Geneva: United Nations.**

This guide outlines procedures to assist UNHCR field staff and operational partners in the design and implementation of systems for commodity distribution, needs assessment, the planning of rations and the management of the logistics chain.

Availability: Printed version and pdf downloadable from website in English

Contact: <http://www.unhcr.org>

Available at: <http://www.unhcr.org/3c4d44554.pdf>

**26. UNHCR and WFP (2004). Integration of HIV/AIDS activities with food and nutrition support in refugee settings: Specific programme strategies. Geneva: United Nations.**

Provides practical guidance on the integration of food and nutrition programmes with support activities for people with HIV/AIDS among refugees and host populations. While the guidelines focus mainly on refugees, internally displaced populations and asylum-seekers, they are also applicable to host communities and other emergency-affected populations.

Availability: Printed version and pdf downloadable from website in English

Contact: <http://www.unhcr.org>

Available at: <http://www.unhcr.org/45fa72ea2.html>

**27. UN ACC/Sub-Committee on Nutrition, 2000. Supplement: Assessment of nutritional status of adults in emergency-affected populations.**

Authored by Collins S, Duffield A and Myatt M.

Availability: Downloadable as a pdf

Contact: <http://www.unscn.org/>

Available at: <http://www.unscn.org/layout/modules/resources/files/AdultsSup.pdf>

**28. WFP (2009). Cash and Vouchers Manual. Rome: WFP.**

This manual defines processes, procedures, safeguards and standards to guide the application of cash and vouchers in WFP.

Availability: pdf downloadable from website in English

Contact: <http://www.wfp.org>

Available at: [http://foodsecuritycluster.org/c/document\\_library/get\\_file?p\\_l\\_id=224242&groupId=120482&folderId=196617&name=DLFE-11131.pdf](http://foodsecuritycluster.org/c/document_library/get_file?p_l_id=224242&groupId=120482&folderId=196617&name=DLFE-11131.pdf)

**29. WFP (2008). Food Assistance in the Context of HIV: Ration Design Guide. Rome: WFP.**

This guide has been prepared primarily for WFP programme officers in the field who are responsible for designing rations for HIV programmes. The guide will also be helpful to other agencies, including WFP cooperating partners, to help them understand the rationale behind different WFP rations and to strengthen partnership.

Availability: pdf downloadable from website in English

Contact: <http://www.wfp.org>

Available at: [http://www.unscn.org/layout/modules/resources/files/Food\\_Assistance\\_in\\_the\\_Context\\_of\\_HIV\\_Ration\\_Design\\_Guide.pdf](http://www.unscn.org/layout/modules/resources/files/Food_Assistance_in_the_Context_of_HIV_Ration_Design_Guide.pdf)

**30. WFP (2005). Food and Nutrition Handbook. Rome: WFP.**

Manual designed to enable staff to assess and analyse the nutrition situation in their country or region. It aims to help manage the design, implementation, monitoring and evaluation of interventions. It is designed as a stand-alone document, but can be used with the WFP basic training course Nutrition in Emergencies. The manual provides a comprehensive overview for planning, implementing and monitoring a food distribution.

Availability: Printed version and pdf downloadable from website in English

Contact: <http://www.wfp.org>

Available at: <http://skishore.wikispaces.com/file/view/FN+Handbook.pdf>

**31. WFP (2002). Emergency Field Operations Pocketbook. Rome: WFP.**

A quick-reference resource for all WFP staff engaged in the provision of humanitarian assistance in the field. The Pocketbook provides a brief aide-mémoire on relevant WFP policies, guidelines and procedures; check-lists and data that may be useful for assessment, planning, monitoring and problem-solving field visits; cross-references to more detailed guidance.

Availability: Printed version and pdf downloadable from website in English

Contact: <http://www.wfp.org>

Available at: [http://www.unicef.org/emerg/files/WFP\\_manual.pdf](http://www.unicef.org/emerg/files/WFP_manual.pdf)

**32. WFP (2006). Food Distribution Guidelines. Rome: WFP.**

Guiding principles of food distributions including general food distribution, food-for-work and vulnerable feeding.

Availability: Printed version in English

Contact: <http://www.wfp.org>

**33. WFP and UNHCR (1997). Guidelines for estimating: Food and nutritional needs in emergencies. Rome: WFP.**

These guidelines describe the rationale for increasing the ration from 1,900kcal to 2,100kcal and describes the factors to consider when planning a ration.

Availability: Printed version and pdf downloadable from website in English

Contact: [www.wfp.org](http://www.wfp.org)

Available at: <http://www.unhcr.org/3b9cbef7a.html>

**34. WHO (1995). Physical status: the use and interpretation of anthropometry. Report of a WHO Expert Committee. Technical Report Series No. 854.**

Availability: Printed version and pdf downloadable from website in English

Contact: <http://www.who.int/en/>

Available at: [http://whqlibdoc.who.int/trs/WHO\\_TRS\\_854.pdf](http://whqlibdoc.who.int/trs/WHO_TRS_854.pdf)

**35. WHO ACC/SCN (1999). Nutrition and health ageing. SCN News No 19. December. Rome.**

Provides information on how to identify, assess and provide nutrition advice for elders at risk and for healthy ageing.

Contributors from Africa, China, Brazil, Cuba and the Americas region present material on diabetes, energy requirements, lifestyles and human rights as they relate to the ageing process.

Availability: Online

Contact: <http://www.who.int/en/>

Available at: <http://www.unsystem.org/scn/archives/scnnews19/index.htm>

**36. WHO, UNHCR, IFRC and WFP (2000). The management of nutrition in major emergencies. Geneva: United Nations.**

This manual aims to assist those involved in the management of major emergencies with a nutritional component.

A practical guide to measures needed to ensure that the food and nutrition needs of disaster-stricken populations are adequately met.

Availability: Printed version, and downloadable online as pdf

Contact: <http://www.who.int/>

Available at: <http://whqlibdoc.who.int/publications/2000/9241545208.pdf>

**37. WHO & FAO (2002). Living well with HIV/AIDS: A manual on nutritional care and support for people living with HIV/AIDS. Geneva: United Nations.**

This manual provides practical recommendations for a healthy and balanced diet for PLWHA in countries with a low resource base.

Availability: Printed version and pdf downloadable from website in English

Contact: <http://www.fao.org/>

Available at: [http://bvsm.s.saude.gov.br/bvs/publicacoes/34living\\_well.pdf](http://bvsm.s.saude.gov.br/bvs/publicacoes/34living_well.pdf)

**38. WHO and Tufts University, School of Nutrition and Policy (2002). Keep fit for life: meeting the nutritional needs of older people, WHO 2002.**

A comprehensive report on, and review of, scientific evidence linking diet and other factors – particularly exercise – affecting nutritional status, disease prevention and health promotion for older persons. Chapters include:

Epidemiological and social aspects of ageing, health and functional changes with ageing, impact of physical activity, assessing the nutritional status of older persons (Chapter 5, pages 49-53) and nutritional guidelines for healthy ageing.

Availability: Printed version and pdf downloadable from website in English

Contact: <http://www.who.int/>

Available at: <http://whqlibdoc.who.int/publications/9241562102.pdf>



## TRAINING RESOURCE LIST

**39. WHO (2008). Older people in emergencies: an active ageing perspective.**

This report considers the contribution that older people can make during natural or conflict-related emergencies and in reconstruction phases. It describes the converging trends of rapid growth of the population over 60 years of age and of health emergencies, and outlines the resulting challenges. It then outlines the basic elements of emergency planning, drawing on case studies to identify the impacts of these situations on older people. It looks at the WHO Active Ageing policy framework and offers a policy response.

Authored by: Louise Ploiffe

Availability: Printed version and pdf downloadable from website in English

Contact: <http://www.who.int/>

Available at: <http://www.who.int/ageing/publications/EmergenciesEnglish13August.pdf>

**40. World Vision International (2008). Food Resource Manual: 2nd Edition. USA: WVI.**

The core purpose of this manual is to equip those involved in the delivery and distribution of food to better serve the poor, improve management and accounting for the food aid resources, and to show good stewardship of the food aid resources entrusted to World Vision.

Availability: Printed version in English, French and Spanish and online

Contact: <http://www.wvi.org/>

Available at: <http://www.wvifood.org/foodmanual/index.html>

## Additional reviews, articles, resources and web links to nutrition and other information related to older people

The following resources, links and websites can provide you with further information on current events, debates and discussions on a variety of aspects of the lives, and nutrition, of older people in emergencies, and in developing countries generally.

## Technical discussion papers and reviews

**41. ENN and SCUK (2004). Targeting food aid in emergencies. ENN special supplement. Oxford: ENN.**

Technical paper that provides guidance on the design of food targeting systems in emergencies including rapid and slow onset emergencies and responses aimed at emergency preparedness, in acute and protracted settings.

Availability: Printed version and pdf downloadable from website in English

Contact: <http://www.ennonline.net/>

Available at: <http://www.ennonline.net/pool/files/ife/supplement22.pdf>

**42. ENN (2007). Review of the published literature of the impact and cost-effectiveness of six nutrition related interventions. Oxford: ENN.**

Review of the published evidence for the impact and cost-effectiveness of six key humanitarian interventions commonly implemented in emergencies – including general ration distribution. The review identifies gaps in the literature and suggests methodologies for filling these gaps.

Availability: Printed version and pdf downloadable from website in English

Contact: <http://www.ennonline.net/>

Available at: <http://www.ennonline.net/pool/files/ife/enncidasfpreport.pdf>

**43. ENN and Oxfam (2007). From food crisis to fair trade; livelihood analysis, protection and support in emergencies. Oxford: ENN.**

Technical paper that collates and analyses recent experiences of livelihoods programming in emergencies. Chapter 4 examines situations where food aid is not necessarily the right response to address food insecurity or impact of disasters on livelihoods.

Availability: Downloadable pdf format in English

Contact: <http://www.ennonline.net/>

Available at: [http://reliefweb.int/sites/reliefweb.int/files/resources/C5D10E3135542FDDC12575150032976B-ENN\\_Mar2006.pdf](http://reliefweb.int/sites/reliefweb.int/files/resources/C5D10E3135542FDDC12575150032976B-ENN_Mar2006.pdf)



**44. FANTA (2002). Use of Compact Foods in Emergencies: Technical Note 3. Washington DC: FANTA.**

Provides a brief overview of the growth of compact foods in emergencies and seeks to highlight the key issues and considerations on the use of compact foods and to identify gaps. The focus of this note is on compact foods used for the whole population in the initial stages of an emergency.

Availability: Downloadable pdf format in English

Contact: <http://www.fantaproject.org/>

Available at: [http://www.unscn.org/layout/modules/resources/files/Refman\\_84\\_FANTA\\_Technical\\_Note\\_3\\_-\\_use\\_of\\_compact\\_foods.pdf](http://www.unscn.org/layout/modules/resources/files/Refman_84_FANTA_Technical_Note_3_-_use_of_compact_foods.pdf)

**45. FAO, WFP and IFAD, 2012. The State of the World's Food Insecurity (2012).**

Availability: Downloadable pdf format in English

Contact: <http://www.fao.org>

Available at: <http://www.fao.org/docrep/016/i3027e/i3027e.pdf>

**HelpAge International (2010). A study of humanitarian financing for older people. London: HelpAge.**

Study quantifying the humanitarian aid explicitly directed at older people through the UN Consolidated Appeals Process (CAP) and Flash Appeals in 12 humanitarian crises since 2007, covering a total of 1,912 projects.

Availability: Printed and pdf version in English

Contact: <http://www.helpage.org/>

Available at: [www.helpage.org/download/4cd984edb1147/](http://www.helpage.org/download/4cd984edb1147/)

**46. HelpAge International and handicap international (2012). A study of humanitarian financing for older people and people with disabilities. London: HelpAge.**

Study analysing humanitarian financing for older people and people with disabilities, following on from the 2010 report (see above).

Availability: Printed and pdf version in English and French

Contact: <http://www.helpage.org/>

Available at: [www.helpage.org/download/4f4222be3ce76](http://www.helpage.org/download/4f4222be3ce76)

Or <http://www.handicap-international.fr/report> (French version)

**47. HelpAge International (2012). Nutrition and baseline survey of older people in Haraze Albiar, Chad, June 2012.**

A detailed report of a nutrition survey conducted among people aged 60 years and above in a district of Chad in June 2012. Also provides recommendations for the inclusion and targeting of services for older people, and the need to integrate the management of chronic diseases in humanitarian response.

Authored by: Pascale Fritsch and Mark Myatt

Availability: pdf downloadable from website in English

Contact: <http://www.helpage.org>

Available at: <http://www.helpage.org/silo/files/nutrition-and-baseline-survey-of-older-people-in-haraze-albiar-chad-june-2012.pdf>

**48. HelpAge International (2011). Nutrition and baseline survey of older people in three refugee camps in Dadaab, October 2011.**

A detailed report of a nutrition survey conducted among refugees aged 60 years and above in the three main camps of Dadaab, North East Kenya in October 2011. Also provides recommendations for the inclusion and targeting of services for older people, and discusses thresholds for screening into feeding programmes.

Authored by: Pascale Fritsch and Mark Myatt

Availability: pdf downloadable from website in English

Contact: <http://www.helpage.org>

Available at: [http://www.google.co.uk/url?sa=t&rct=j&q=&esrc=s&frm=1&source=web&cd=1&cad=rja&sqi=2&ved=0CDEQFjAA&url=http%3A%2F%2Fdata.unhcr.org%2Fhorn-of-africa%2Fdownload.php%3Fid%3D729&ei=vOjBULPNKsazhAeokoGoDw&usg=AFQjCNEyRRVUOO3zP18AgFCLGFHnZlhmXw&sig2=4\\_OWYU6BUOiwkCOXSydAA](http://www.google.co.uk/url?sa=t&rct=j&q=&esrc=s&frm=1&source=web&cd=1&cad=rja&sqi=2&ved=0CDEQFjAA&url=http%3A%2F%2Fdata.unhcr.org%2Fhorn-of-africa%2Fdownload.php%3Fid%3D729&ei=vOjBULPNKsazhAeokoGoDw&usg=AFQjCNEyRRVUOO3zP18AgFCLGFHnZlhmXw&sig2=4_OWYU6BUOiwkCOXSydAA)

**49. HelpAge International Ageways (2011). Issue 76, February. Themed Issue on Food and Nutrition.**

A themed issue of "Ageways" that documents the contribution that older people make to nutrition in families households and communities and is a call to action at all levels to alleviate older people's hunger.

Availability: Printed version and pdf downloadable from website in English

Contact: <http://www.helpage.org>

Available at: <http://www.helpage.org/resources/practical-guidelines/health-and-care-guidelines/>

**50. IASC Inter-Agency Standing Committee (2008). Humanitarian action and older persons: an essential brief for humanitarian actors.**

Availability: Printed version and pdf downloadable from website in English and other languages

Contact: <http://www.humanitarianinfo.org/iasc/>

Available at: <http://www.unhcr.org/refworld/docid/490b0c102.html>

**51. Jaspars, S. (2000). Solidarity and Soup Kitchens: A review of principles and practice for food distribution in conflict. HPG Report 7. London: ODI.**

Technical paper of current principles and practice for food distribution in conflict. The objective of the report is to assist humanitarian agencies develop a more principled approach to food distribution.

Availability: Printed and pdf version in English

Contact: <http://www.odi.org.uk/>

Available at: <http://www.enonline.net/pool/files/ife/7-solidarity-soup-kitchens-principles-practice-food-distribution-conflict.pdf>

**52. ODI Humanitarian Policy Group (2010). Food aid and food assistance in emergency and transitional contexts: A Review of current thinking. London: ODI.**

This report presents the findings of a review of changes in food aid and food assistance policies and strategies within the international aid system, discusses the shift from food aid to food assistance by key donors, UN agencies and NGOs, details changes in the context in which food assistance is provided and reviews changes in the international architecture and the delivery of food assistance.

Availability: Printed and pdf version in English

Contact: <http://www.odi.org.uk/>

Available at: <http://www.odi.org.uk/sites/odi.org.uk/files/odi-assets/publications-opinion-files/6036.pdf>

**53. ODI Relief and Rehabilitation Network (1995). General Food Distribution in Emergencies: from Nutrition Needs to Political Priorities: Good Practice Review 3.**

This review is chiefly concerned with assessing the need for food assistance, targeting, planning and determining food rations, and the management and organization of the delivery of general food rations.

Availability: Printed version and pdf downloadable from website in English

Contact: <http://www.odi.org.uk/>

Available at: <http://www.odihpn.org/documents/gpr3.pdf>

**54. WFP (2006) Targeting in Emergencies. Rome: WFP.**

Policy document that reviews the definitions of targeting and WFP policies related to targeting in emergencies discusses the process of targeting and targeting errors and offers recommendations for good targeting practice.

Availability: pdf downloadable from website in English

Contact: <http://www.wfp.org/>

Available at: <http://www.wfp.org/sites/default/files/wfp083629.pdf>

**55. UNFPA (2007). State of the world's population. Unleashing the potential of urban growth.**

Raises issue of older people in urban areas and the need to understand their lives.

Availability: Printed version and pdf downloadable from website in English

Contact: <http://www.unfpa.org/public/>

Available at: [http://www.unfpa.org/webdav/site/global/shared/documents/publications/2007/695\\_filename\\_sowp2007\\_eng.pdf](http://www.unfpa.org/webdav/site/global/shared/documents/publications/2007/695_filename_sowp2007_eng.pdf)

**56. WFP (2010) Revolution: From Food Aid to Food Assistance. Rome: WFP.**

This paper documents a compilation of state-of-the-art food assistance innovations by WFP. It lays out both new tools and traditional responses that provide life-saving relief, improve nutrition, enhance human capital and strengthen food markets, while supporting country-led food security strategies.

Availability: pdf downloadable from website in English

Contact: <http://www.wfp.org/>

Available at: <https://www.wfp.org/content/revolution-food-aid-food-assistance-innovations-overcoming-hunger>

**57. WFP (2010) Nutrition Improvement Approach. Rome: WFP.**

The Nutrition Improvement Approach was built on the 2004 WFP Nutrition Policy Papers and 2008-2013 Strategic Plan to help WFP offices translate policy into reality.

Availability: pdf downloadable from website in English

Contact: <http://www.wfp.org/>

Available at: <http://home.wfp.org/stellent/groups/public/documents/resources/wfp214222.pdf>

**58. WFP (2007). Enhanced commitments to women to ensure food security. Rome: WFP.**

This is a comprehensive study based on research in 48 countries showing how WFP has implemented its 2003-2007 gender policy. For managers planning a food aid intervention targeting women.

Availability: Printed version and pdf downloadable from website in English

Contact: <http://www.wfp.org/>

Available at: [http://www.wfp.org/sites/default/files/Gender%20Policy%20\(2003-2007\)%20Enhanced%20Commitments%20to%20Women%20to%20Ensure%20Food%20Security.pdf](http://www.wfp.org/sites/default/files/Gender%20Policy%20(2003-2007)%20Enhanced%20Commitments%20to%20Women%20to%20Ensure%20Food%20Security.pdf)

**59. WFP/IFPRI (2005). Assessing the effectiveness of community-based targeting of emergency food aid in Bangladesh, Ethiopia and Malawi. Rome: WFP.**

Provides an overview of effectiveness of three community-based targeting food distribution systems. For managers planning community-based targeting systems.

Availability: Printed version and pdf downloadable from website in English

Contact: <http://www.ifpri.org/>

Available at: [http://www.ifpri.org/sites/default/files/publications/Community-based\\_targeting.pdf](http://www.ifpri.org/sites/default/files/publications/Community-based_targeting.pdf)

**60. WFP/IFPRI (2004). Rethinking food aid to fight AIDS. Rome: WFP.**

This document reviews food aid strategies using an HIV/AIDS lens in order to reduce the risk and mitigate the impact of the pandemic. For managers planning an intervention to assist HIV/AIDS affected people.

Availability: Printed version and pdf downloadable from website in English

Contact: <http://www.ifpri.org/>

Available at: <http://www.ifpri.org/sites/default/files/publications/rethinkaids.pdf>

## Training courses

**61. FANTA (2004). A Training Manual. Washington: FANTA.**

A three- to five-day course is designed to enable African institutions to integrate nutrition and HIV and AIDS into their training programmes. The manual provides technical content, presentations, hand-out materials and can be used in conjunction with a set of PowerPoint training modules.

Availability: Printed version and pdf downloadable from website in English

Contact: <http://www.fantaproject.org/>

Available at: <http://www.fantaproject.org/focus/preservice.shtml>

**62. FAO (1999). Field programme management: Food, Nutrition and Development. Rome: FAO.**

The one-week training package provides technical information, case studies and exercises to assist fieldworkers in carrying out the daily tasks and aims to improve skills in solving community nutrition problems. Participants learn to assist communities in identifying their problems and planning, implementing and monitoring activities. All of the key elements required to conduct a five-day course are provided in one package. It includes some good examples for field workers involved in establishing community-based targeting food distribution systems.

Availability: Printed version in English

Contact: <http://www.fao.org/>

## TRAINING RESOURCE LIST

**63. FAO and University of Western Cape (2004). User's training Manual: Improving Nutrition Programmes – An assessment Tool for Action. Rome: FAO.**

Training manual developed to enhance the capacity of the assessment team members to conduct nutrition programme assessments, founded on a common understanding of concepts underpinning effective and sustainable community-based nutrition programmes. The manual is divided into six topics, to be taught over three to five days. The package can be adapted to the level of the learners involved and the amount of time available. A field visit is recommended. Each topic consists of key issues, case studies, ideas for discussion related to conducting an assessment, trainer's notes and a set of hand-outs for the learners. A series of overhead transparencies have also been prepared to assist you. It is based on the lessons learned from them. A technical guide entitled *Improving Nutrition Programmes: an Assessment Tool for Action (AT)* was developed by FAO (separate reference). The most useful modules would be on participatory monitoring including methods for collecting information and basic analysis and interpretation.

Availability: Printed version and pdf downloadable from website in English

Contact: <http://www.fao.org/>

Available at: [http://www.unscn.org/layout/modules/resources/files/Refman\\_70\\_FAO\\_2004\\_Training\\_manual\\_Improving\\_nutrition\\_progr.pdf](http://www.unscn.org/layout/modules/resources/files/Refman_70_FAO_2004_Training_manual_Improving_nutrition_progr.pdf)

**64. UNHCR and ICH (2003). Micronutrient malnutrition-detection, measurement and Intervention – training pack for field staff. Geneva: UNHCR.**

Training course on micronutrient malnutrition made up of PowerPoint presentations, hand-outs and photo cards aimed at raising awareness of micronutrient deficiencies. Useful for managers planning food aid rations and must consider the risk of MDD.

Availability: Printed version and pdf downloadable from website in English

Contact: <http://www.unhcr.org>

Available at: <http://www.unhcr.org/45fa70012.pdf>

**65. University of Nairobi, FSAU and FAO (2005). Training Package of Materials for the Course Food and Nutrition Surveillance and Emergency. Rome: FAO.**

This training course provides an understanding of the nutritional outcomes of emergencies (malnutrition, mortality and morbidity) and also the causes of malnutrition and mortality in emergencies (the process and dynamics of an emergency). The course has an operational focus and incorporates relevant applied research. The course is divided into three parts.

Availability: Unknown

Contact: <http://www.unscn.org/en/home>

Available at: [http://www.unscn.org/en/resource\\_portal/index.php?&themes=211&resource=238](http://www.unscn.org/en/resource_portal/index.php?&themes=211&resource=238)

**66. WFP and Feinstein International Famine Centre (2001). WFP Food and Nutrition Training Toolbox. Rome: WFP.**

A basic five-day training course on food and nutrition aimed at getting participants to gain a greater understanding of food and nutrition in relation to WFP's work, and will provide opportunities for participants to practise related basic skills. It includes 13 sessions and three guides: Trainer's guide, Workshop Organizer's Guide and Training Materials for Participants. It provides a comprehensive overview of issues surrounding food aid.

Availability: Cannot be downloaded

Contact: <http://www.wfp.org/>

**67. WFP (2000). Gender-sensitive Food Aid programme. Rome: WFP.**

Training manual for WFP gender trainer.

Availability: Printed version

Contact: <http://www.wfp.org/>

**68. WHO and FAO (2002). Nutritional care and support for people living with HIV/AIDS: A training course. Geneva: United Nations.**

A training course for caregivers of PLWHA and their families that focuses on practical nutrition care and communication skills.

Availability: Printed version

Contact: <http://www.who.int/>

## Key resources relating to older people in emergencies

- 69. ADTF (2011). Ageing and disability in humanitarian response: a resource book of inclusive practices.**  
Availability: [http://www.cbm.org/article/downloads/54741/ADTF\\_Report.pdf](http://www.cbm.org/article/downloads/54741/ADTF_Report.pdf)
- 70. Age UK and HelpAge joint report (2011). On the edge: why older people's needs are not being met in humanitarian emergencies.**  
Availability: [www.helpage.org/resources/publications/?ssearch=On+the+edge&adv=0&topic=0&region=0&language=0&type=0](http://www.helpage.org/resources/publications/?ssearch=On+the+edge&adv=0&topic=0&region=0&language=0&type=0)  
Contact: <http://www.helpage.org/>
- 71. Bramucci G (2006). Rebuilding lives in longer-term emergencies: Older people's experience in Darfur. London: HelpAge International.**  
Contact: <http://www.helpage.org/>
- 72. Busolo D (2002). Assessment of adults and older people in emergencies: approaches, issues and priorities. Recommendations. HelpAge International presentation.**  
Contact: <http://www.helpage.org/>  
Available: [http://pdf.usaid.gov/pdf\\_docs/PNACS014.pdf](http://pdf.usaid.gov/pdf_docs/PNACS014.pdf)
- 73. HelpAge International (1999). Ageing and development report: poverty, independence and the world's older people. HAI/EarthScan, London.**  
Availability: Printed version and pdf downloadable from website in English  
Contact: <http://www.helpage.org>  
Available at: [www.helpage.org/download/4d066f9532eba/](http://www.helpage.org/download/4d066f9532eba/)
- 74. HelpAge International (2000). Rights pack: Rights and older people.**  
Pack explains human rights theory, and contains key texts and further resources. Free, in English.  
Contact: <http://www.helpage.org/>
- 75. HelpAge International (2001). Equal treatment, equal rights: ten actions to end age discrimination.**  
This report describes the impact that age discrimination has on older people and their families. It sets out the action needed to ensure that older people across the world benefit from the full range of internationally accepted human rights.  
Availability: Booklet, in English and Spanish  
Contact: <http://www.helpage.org/>  
Available at: [www.helpage.org/download/4c463e3e0ab97/](http://www.helpage.org/download/4c463e3e0ab97/)
- 76. HelpAge India, HelpAge Sri Lanka, ResAge in Indonesia (2005). The impact of the Indian Ocean tsunami on older people – issues and recommendations.**  
London: HelpAge International.  
Availability: <http://www.helpage.org/Emergencies/IndianOceansunami/News/@23298>
- 77. HelpAge International (2007). Older people's associations in community disaster risk reduction.**  
Availability: Printed version and pdf downloadable from website in English  
Contact: <http://www.helpage.org>  
Available at: [www.helpage.org/download/4c3ce6b507af6](http://www.helpage.org/download/4c3ce6b507af6)
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Authored by: Day W, Pirie A and Roys C.  
Availability: Printed version and pdf downloadable from website in English  
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## TRAINING RESOURCE LIST

**79. HelpAge International (2010). Unreported lives: the truth about older people's work.**

A report that reveals the scale and breadth of the work that older people do in low- and middle-income countries, the reasons they work and the challenges they face. It dispels the myths about older people – that they are inactive, are a burden on society and on their families and make no positive contribution in the economy.

Availability: Printed version and pdf downloadable from website in English

Contact: <http://www.helpage.org/>

Available at: [www.helpage.org/download/4c3cf8a72ad62](http://www.helpage.org/download/4c3cf8a72ad62)

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Availability: Printed version and pdf downloadable from website in English

Contact: [http://www.helpage.org](http://www.helpage.org/)

Available at: [www.helpage.org/download/4cbec81f1ec4c](http://www.helpage.org/download/4cbec81f1ec4c)

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Availability: Printed version and pdf downloadable from website in English

Contact: <http://www.who.int/>

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**82. Public Health Agency of Canada (2008). Building a global framework to address the needs and contributions of older people in emergencies.**

Minister of Public Works and Government Services.

This report reflects the collective views of participants at the 2007 Winnipeg International Workshop on Seniors and Emergency Preparedness.

Contact: <http://www.phac-aspc.gc.ca/index-eng.php>

Availability: Printed version and pdf downloadable from website in English

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**83. UNHCR (2001). Women, children and older refugees – the sex and age distribution of refugee populations with a special emphasis on UNHCR policy priorities.**

Availability: Printed version and pdf downloadable from website in English

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Availability: Printed version and pdf downloadable from website in English

Contact: <http://www.unfpa.org>

Available at: <http://www.unfpa.org/public/publications/pid/381>

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**Aboderin I (2012). Ageing Africa: Opportunities for development.**

In: Beard J, Biggs S, Bloom D, Fried L, Hogan P, Kalache A and Olshansky J. *Global population ageing: peril or promise?* Harvard University Program on the Global Demography of Aging Working Paper Series, no. 89. January. Chapter 14: pages 69-73.

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Unpublished MMedSci thesis, University of Sheffield. June 2008 cohort.

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*Journal of Nutrition*: 131; 2429S-2432S. Report of a Symposium: Nutrition and Aging in the Developing World. Useful academic paper that discusses the social and economic determinants of nutrition for older people and the relationship of nutritional status to healthy functioning in daily life.

## Web links

### 85. Age UK

<http://www.ageuk.org.uk/international>

The organisation has a vision of a world in which older people flourish and a mission to improve the lives of older people, not just in the UK, but all around the world. Age UK and HelpAge International work together to support older people to lead more fulfilling lives in over 40 developing countries. They run long-term development and short-term emergency relief programmes.

### 86. ENNET (Emergency Nutrition Network)

ENNET resources (regular publications, special supplements, meeting reports, research papers, information on training courses, activity reports. The Field Exchange).

Available: <http://fex.ennonline.net>

See in particular discussions relevant to the nutritional assessment of older people in emergencies:

- MUAC cut-offs for adults, 2009 (B Teshome, M Golden, M Myatt); available at: <http://www.en-net.org.uk/question/169.aspx>
- Nutritional status and vulnerability of older people, 2012 (M Manandhar, M Myatt, P Delchevalerie, C Bader, T Walters); available at: <http://www.en-net.org.uk/question/597.aspx>
- Treatment of SAM in older people through outpatients, 2012 (Pascale, Gwyneth, C Bader, M Golden, P Delchevalerie); available at: <http://www.en-net.org.uk/question/866.aspx>

## TRAINING RESOURCE LIST

**87. Global Action on Aging**

<http://www.globalaging.org>

Contact: [globalaging@globalaging.org](mailto:globalaging@globalaging.org)

**88. Global AgeWatch**

An eNewsletter focusing on policies around ageing, and briefings on key topics such as health, income security and global ageing.

Available at: <http://www.helpage.org/enewsletters>

**89. Global Ageing Issues and Action**

<http://www.ifa-fiv.org>

**90. Global Alliance for the Rights of Older People**

<http://www.rightsalliance.org>

**91. The Grandmother Project**

<http://www.grandmotherproject.org>

Builds on cultural values and assets, and the knowledge and experience of grandmothers and elders as resources in the development of community programmes and the promotion of sustainable change in communities.

**92. Handicap International**

<http://www.handicap-international.org>

An independent impartial international aid organization operating in situations of poverty and exclusion, conflict and disaster. Working alongside persons with disabilities and other vulnerable groups. Handicap International also produces the Disabled, Vulnerable and Frail Persons DVFP Assessment Tool which is used by HelpAge International for assessment and surveillance.

Contact: [Contact@handicap-international.org](mailto:Contact@handicap-international.org)

**93. HelpAge International**

<http://www.helpage.org>

HelpAge helps older people to claim their rights, challenge discrimination and overcome poverty, so that they can lead dignified, secure, active and healthy lives. The work is strengthened through a global network of like-minded organizations – the only one of its kind in the world. The website gives details of all publications, provides regularly updated news features and describes a variety of practical and advocacy work carried out by HelpAge International staff, members and partners around the world, including reports and documents from HelpAge International Regional Office for Africa.

**94. HelpAge International's "Ageing and Development"**

A regular briefing which aims to raise awareness of the contribution, needs and rights of older people and to promote the development of laws and policies that will bring a lasting improvement to the quality of life of disadvantaged older people. Published three times a year in English and Spanish (*Tercera Edad y Desarrollo*). Free to policy makers, programme planners and researchers concerned with development and poverty alleviation.

For example, see 2012, Issue 31. Aid failing older people.

Availability: <http://www.helpage.org/resources/publication>

**95. HelpAge International's "Ageways"**

A journal exchanging practical information on ageing and age care issues, particularly good practice developed in the HelpAge International network. Published three times a year in English and Spanish (*Horizontes*). Free to carers, health workers, members of older people's groups and project staff working with or for older people in developing countries and East and Central Europe.

Also published in Lithuanian and Russian.

<http://www.helpage.org/ageways>

**96. Humanitarian Response**

<http://www.humanitarianresponse.info/themes/age>

**97. IAHASA: International Association of Homes and Services for the ageing.**

Forms the Global Ageing Network. Represents 20,000 aging service providers across the world serving almost 5 million people worldwide.

<http://www.iahsa.net>

Contact: [iahsa@aahsa.org](mailto:iahsa@aahsa.org)

**98. International Federation of Aging**

Holds global conferences on the theme of ageing.

<http://www.ifa-fiv.org>

**99. IUNS: The International Union of Nutritional Sciences**

Conducts research on ageing and nutrition in the Asia-Pacific region, with a focus on activities of daily living and has a IUNS Task Force on diet, nutrition and long-term health.

<http://www.iuns.org>

**100. Non-Communicable Disease Alliance**

<http://www.ncdalliance.org>

[www.who.int/nmh/events/un\\_ncd\\_summit2011/en](http://www.who.int/nmh/events/un_ncd_summit2011/en)

**101. Pension Watch**

An organisation that focuses on pensions, poverty and older people around the world.

<http://www.pension-watch.net>

**102. Population Reference Bureau**

Reports on demographic change and uses animated graphics to show global trends in population size of children under five and adults over 65.

<http://www.prb.org/articles/2011/agingpopulationclocks.aspx>

**103. United Nations Programme on Ageing**

Available at <http://www.un.org/esa/socdev/ageing>

**104. UNOCHA IRIN Humanitarian news and analysis**

See for example:

<http://www.irinnews.org/report.aspx:reported=94856>

**105. UN SCN archives**

For example on Body Mass Index in adults:

<http://www.unsystem.org/scn/archives/adults/ch05.htm>

**106 WHO SAGE**

WHO Study on global ageing and adult health. Part of a longitudinal survey programme to compile comprehensive longitudinal information on the health and well-being of adult populations and the ageing process. Sample populations in six countries: China, Ghana, India, Mexico, Russian Federation and South Africa.

<http://www.who.int/healthinfo/systems/sage/en/>

**International conferences, plans, policies and rights instruments related to ageing****107. Gorman M (2000). Development and the rights of older people.**

In: Randel J et al., eds. The ageing and development report: poverty, independence and the world's older people. Earthscan Publications Ltd.; 3-21.

**108. International Symposium on the rights of older people (2009). London.**

See: J Kollapan: The rights of older people – African perspective

See: N Saxena: The rights of older people in Asia

## TRAINING RESOURCE LIST

**109. UN First World Assembly on Ageing (1982), Vienna and the Vienna International Plan of Action on Ageing.**

Availability: [www.un.org/es/globalissues/ageing/docs/vipaa.pdf](http://www.un.org/es/globalissues/ageing/docs/vipaa.pdf)

**110. UN Principles for Older Persons (1991).**

UN General Assembly Resolution 46/91, 16 December 1991.

Availability: [http://www.un.org/esa/socdev/ageing/un\\_principles.html](http://www.un.org/esa/socdev/ageing/un_principles.html)

**111. UN Declaration (1992) of International Year of Older Person IYOP and UN Principles for Older Persons.**

(Resolution no 46/91, 1991).

Availability: <http://www.unescap.org/ageing/res/res46-91.htm>

**112. UN Convention of Economic, Social and Cultural Rights (CESCR) (1994).**

General Comment no 5 (1994) on persons with disabilities.

Availability: [http://www.unhcr.ch/tbs/doc.nsf/\(Symbol\)/482a0aced8049067c12563ed005acf9e?Opendocument](http://www.unhcr.ch/tbs/doc.nsf/(Symbol)/482a0aced8049067c12563ed005acf9e?Opendocument)

**113. UN Convention of Economic, Social and Cultural Rights (CESCR) (1995).**

UN CESCR General Comment no 6 (1995) on the economic, social and cultural rights of older people.

Availability: <http://social.un.org/ageing-working-group/documents/Coalition%20to%20Strengthen%20the%20Rights%20of%20Older%20People.pdf>

**114. UN (1999). International Plan of Action on Ageing and United Nations Principles for Older Persons.**

International Year of Older Persons, 1999. UN Department of Public Information (DPI/932/Rev.1-98-24545). New York.

Availability: <http://www.un.org/en/globalissues/ageing/>

**115. UN Fact Sheet no 34: The Right to Food (undated).**

This fact sheet explains what the right to adequate food is, illustrates its implications for specific individuals and groups, and elaborates upon State parties' obligations with respect to this human right. The fact sheet also provides an overview of national, regional and international accountability and monitoring mechanisms.

Availability: <http://www.ohchr.org/Documents/Publications/FactSheet34en.pdf>

**116. UN Second World Assembly on Ageing (2002), Madrid.**

Contact: [www.un.org/swaa2002/](http://www.un.org/swaa2002/)

Availability: [www.c-fam.org/docLib/20080625\\_Madrid\\_Ageing\\_Conference.pdf](http://www.c-fam.org/docLib/20080625_Madrid_Ageing_Conference.pdf)

**117. UN (2002). The Madrid International Plan of Action on Ageing (MIPAA).**

MIPAA is an international agreement that sets out the policies needed to provide people with security as they enter later life, including several pages devoted to humanitarian action.

Available at [http://www.un.org/ageing/documents/building\\_nat\\_capacity\\_guiding.pdf](http://www.un.org/ageing/documents/building_nat_capacity_guiding.pdf)

**118. UN (2004). Voluntary guidelines to support the progressive realization of the right to adequate food in the context of national food security.**

Availability: [www.fao.org/righttofood/kc/downloads/vl/docs/AH269\\_en.pdf](http://www.fao.org/righttofood/kc/downloads/vl/docs/AH269_en.pdf)

**119. Draft UN Declaration on the rights of older persons (2009).**

Allard K Lowenstein International Human Rights Clinic, Yale Law School, with the International Longevity Center. 3rd June.

Availability: <http://lifeforce-in-later-years.org/LiLY-docs-PDF/Draft-United-Nations-Declaration-on-the-Rights-of-Older-Persons.pdf>

**120. The Right to Food Nutrition Watch.**

A consortium of 15 civil society organizations across the world that produces an annual report (since 2008) which monitors the state of food security and nutrition policies from the perspective of the progressive realisation of the right to food.

Contact: [www.rtfn-watch.org/](http://www.rtfn-watch.org/)



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