**Meeting the special nutritional needs of the vulnerable persons during emergencies-infant and young children, pregnant and lactating mothers, the elderly**

Experience has shown that infant and child morbidity and mortality rates often dramatically increase during emergencies. Malnutrition during the early years of life has a negative impact on cognitive, motor-skill, physical, social and emotional development. As part of estimating food and nutritional needs, specific interventions are required during emergencies to protect and promote optimal infant- and child-feeding practices. These interventions should be routinely included in any relief response and should be sustained throughout the period of response.

**a. Breastfeeding**

Breast milk is the ideal food for healthy growth and development of infants and young children. The availability of nutrients from breast milk exceeds that from any other substitute. Breast milk not only provides all the nutrient requirements for infants but also protects children from infection. The practice of exclusive breastfeeding for the first six months of life can also provide a contraceptive effect for the mother, who is spared the depleting effects of closely spaced pregnancies. In addition, breastfeeding enhances bonding between mother and child, providing crucial physical and emotional support for the child. In most emergencies, breastfeeding becomes even more important for infant nutrition and health. The resources needed for safe artificial feeding—such as water, fuel and adequate quantities of infant formula—are usually scarce in emergencies. Artificial feeding in these circumstances increases the risk of diarrhoeal diseases and malnutrition, which in turn substantially increases the risk of infant death. If absolutely required, infant formula should only be used when all other options have been exhausted. For these reasons, infant formula should only be purchased and distributed based on needs assessments carried out by adequately trained nutrition and health workers. Strategies should also be developed to promote best practices in situations where formula is used. If used,

infant formula should have generic labeling as well as reconstitution instructions in the local language.

Supplementary feeding may be an important intervention for protecting the nutritional status of the lactating mother and maintaining the nutritional quality of the breast milk. Support and encouragement may also be required to maintain and enhance breastfeeding in individuals affected by high levels of psychological stress.

**Breast-feeding and HIV**

For mothers who are HIV-infected, recommended breastfeeding practices can sometimes differ, as HIV can be transmitted through breast milk. Globally, the risk of mother-to-child HIV transmission (MTCT) through breastfeeding ranges between 10 percent and 20 percent if the infant is breast-fed for 18 to 24 months. On the other hand, infants who are not breast-fed may be exposed to higher risk of morbidity and mortality associated with malnutrition and infectious diseases other than HIV. In a typical emergency, the majority of women do not know their HIV status. For women to be able to make appropriate informed choices on infant feeding, availability of voluntary counseling and testing (VCT) is crucial.Current policies on breastfeeding and infant

feeding by HIV-infected women are these:

* Exclusive breastfeeding should be protected, promoted, and supported for six months. This applies to women who are known not to be infected with HIV and for women whose infection status is unknown.
* When replacement feeding is acceptable, feasible, affordable, sustainable and safe, avoidance of breastfeeding by HIV-infected mothers is recommended; otherwise, exclusive breastfeeding is recommended during the first months of life.
* To minimize HIV transmission risk, breastfeeding should be discontinued as soon as feasible, taking into account local circumstances, the individual woman's situation and the risks of replacement feeding (including infections other than HIV and malnutrition).
* HIV-infected women should have access to information, follow-up clinical care and support, including family planning services and nutritional support.

It is important to ensure that replacement feeding, advised as one option for feeding infants of HIV-infected women, does not "spill over" to the general population as being the best option for all children.

**2. Complementary feeding for older infants and young children**

At 6 months of age, infants should start to receive complementary foods in addition to breast milk. These should be safely prepared from locally available foods that are rich in energy and micronutrients to meet the infants’ changing nutritional requirements. This can be a significant challenge during emergencies, since constraints often exist. Available foods may be difficult to prepare into a soft, semi-solid form. Environmental conditions may hinder safe food preparation

and feeding. Traditional ingredients that were normally used to prepare weaning foods may not be available. Furthermore, basic food-aid commodities—cereals, pulses and oil—do not by themselves readily meet the nutritional needs of young children. During the complementary feeding period, older infants and young children require foods that are easily digestible. Equally important, complementary foods used during this period should provide adequate amounts of fats and oils (30–40 percent of energy should come from fat). The period from ages 6 to 24 months is the most critical for a young child because of rapid growth and an increasing reliance on complementary food. Therefore, energy derived from protein should be at least 12 percent. And

these young children must have access to foods rich in micronutrients for sufficient growth and development. During the second 6 months of life, breast milk normally continues to provide about 50 percent of the nutritional needs of the infant. During the second year, it can provide 35-40 percent of total energy needs. In emergency situations, there are a number of foods that can be used for the preparation of suitable complementary foods. There are a number of other considerations to take into account when planning food rations to address the nutritional needs of older infants and younger children. These include feeding frequency, household food security, safe and appropriate food preparation.

**3. Pregnant and lactating women**

During pregnancy and lactation, women’s nutritional needs for energy, protein and micronutrients significantly increase. Pregnant women require an additional 285 kcals/day, and lactating women require an additional 500 kcals/day. Both pregnant and lactating women have increased needs for micronutrients. Adequate intake of iron, folate, vitamin A and iodine are particularly important for the health of both women and their infants. Intra-household food distribution practices in many situations result in pregnant and lactating women consuming less than their minimum requirements. The consequences of poor nutritional status and inadequate nutritional intake for women during pregnancy and lactation not only directly affects the women’s health status but may have a negative impact on infant birth-weight and early development. Therefore, to meet the additional requirements of pregnancy and lactation, five important interventions may be undertaken in addition to the provision of a basic food ration. These include: taking of fortified food commodities, micronutrient supplements (iron-60mg, 400 microgram per day), drinking water, malaria management, prophylaxis for management of intestinal parasites

**4. Older persons**

The energy requirements for older persons (defined by WHO as those over the age of 60 years) usually decrease in comparison with younger adults as a result of less physical activity and decreased basal metabolism that results from a higher relative loss of muscles mass. The requirements for micronutrients, however, do not decrease. Hence, an adequate diet for older persons must ensure that micronutrient requirements are still met even with reduced energy intakes (i.e. foods must be sufficiently nutrient-dense). Another important consideration for older persons is that sufficient intakes of fluids are required to prevent dehydration and improve digestion. Theoretically, a well-planned general ration is usually adequate for older persons. However, in practice, a number of other factors often results in the general ration not actually meeting the nutritional needs of the older persons. 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 become worst due to a general breakdown in normal family and community-support mechanisms. Strategies that should be considered to ensure that the nutritional and food needs of older persons are better addressed include:

* **ACCESS TO EASILY DIGESTIBLE, MICRONUTRIENT-RICH FOODS**

-Older persons, or families including older persons, should be provided with blended foods. In situations where blended food is not provided to the whole population, under-5-year-olds, pregnant and lactating women and older persons should be prioritized.

-Access to milling facilities in situations where whole-grain cereal is provided.

-Older persons (caregivers/families) should be assisted and encouraged in small-scale horticultural activities to increase consumption of fresh foods.

* **FAMILY AND COMMUNITY SUPPORT FOR FOOD PREPARATION**

-Older persons, without family or community support, can be assisted through community-based support programmes.

-Assistance with tasks such as collection of rations, food preparation and collection of water may be required for older persons.