

PART 2: TECHNICAL NOTES

The technical notes are the second of four parts contained in this module. They provide information on *infant and young child feeding* in emergencies (IYCF-E). The technical notes are intended for people involved in nutrition programme planning and implementation as well as all other actors in emergencies. They provide recommendations, technical details, highlight challenging areas and provide clear guidance on accepted current practices. Words in italics are defined in the glossary.

Summary

This module is about infant and young child feeding in emergencies (IYCF-E). IYCF-E is concerned with emergency preparedness and a timely and appropriate humanitarian response with the goal of safeguarding the survival, nutrition, health, growth and development of *infants* and *young children* and their mothers. Policy development and implementation, coordination, communication, assessment, monitoring, and capacity development in the context of IYCF are considered. The contribution of basic interventions and multi-sectoral roles and responsibilities to protect and support optimal IYCF-E are explored. Support for breastfeeding, *complementary feeding* and management of *artificial feeding* are considered specifically. The module deals briefly with infant feeding in the *HIV* context and management of *severe acute malnutrition* in infants. The module reflects the provisions of the 2003 WHO/UNICEF Global Strategy on Infant and Young Child Feeding, the Operational Guidance on IYCF-E and the International Code of Marketing of Breastmilk Substitutes (BMS) and subsequent relevant World Health Assembly (WHA) resolutions (collectively known as the Code).

These technical notes are based on the following references and Sphere standards in the box below:

- World Health Organization (2003) *Global Strategy on Infant and Young Child Feeding*. Geneva: WHO
- World Health Organization (1981). *The International Code of Marketing of Breast-milk Substitutes*. Geneva: WHO, and subsequent relevant World Health Assembly resolutions.
- Infant and Young Child Feeding in Emergencies Core Group. (2007, February). *Operational Guidance on infant and young child feeding in emergencies. version 2.1*. Emergency Nutrition Network and addendum 2010.
- Infant and Young Child Feeding in Emergencies Core Group (2010). Module 1 on IYCF-E. V2.1 IYCF-E Orientation Package. Emergency Nutrition Network & IYCF-E Core Group and Collaborators.
- Infant and Young Child Feeding in Emergencies Core Group (2007, December). Module 2 on IYCF-E. V 1.1. ENN, IBFAN-GIFA, Fondation Terre des hommes, CARE USA, Action Contre la Faim, UNICEF, UNHCR, WHO, WFP, LINKAGES.
- World Health Organization. (2004). *Guiding principles for feeding infants and young children during emergencies*. Geneva: WHO.

Introduction

IYCF-E response is concerned with interventions to protect, promote and support safe and appropriate (recommended) feeding practices for both breastfed and non-breastfed infants and young children in all emergencies wherever they happen in the world. Enabling recommended IYCF practices are key preparedness and response activities to maximise nutrition, health and development and minimise malnutrition, *morbidity* and *mortality* of children under 5 years in emergencies. IYCF-E centres on protecting, promoting and supporting optimal IYCF practices, and minimising the risks associated with risky practices that exist.

Key messages

1. Early initiation of breastfeeding, *exclusive breastfeeding* for six months, with timely and appropriate complementary feeding from six months, and *continued breastfeeding* until two years of age and beyond optimizes survival, nutrition, health, growth and development of children in all situations, including emergencies.
2. Infants and young children in exceptionally difficult circumstances, such as HIV-affected populations, orphans, *low birth weight* (LBW) infants, non-breastfed infants, and those severely malnourished, warrant particular attention.
3. The nutritional, physical and mental health of pregnant women and of breastfeeding mothers is central to the well-being of their children.
4. The prevailing IYCF practices of an emergency affected population should inform the IYCF-E response.
5. Relevant policy guidance includes the Operational Guidance on IYCF-E and the Code. Both are endorsed in World Health Assembly Resolutions.
6. A timely, appropriate response on IYCF relies on policy development and implementation, coordination, strong communication and advocacy, assessment and monitoring, technical capacity and resources. Emergency preparedness is essential.
7. IYCF-E involves implementing basic measures (such as providing shelter, security, access to adequate household food and water, non-food items), integrating IYCF support into services that target mothers, infants and young children and providing appropriate frontline assistance to mothers and caregivers with young children in the early response.
8. Basic breastfeeding assistance and more skilled breastfeeding counselling support may be needed as an intervention.
9. Appropriate complementary foods should be included in the general ration in food aid dependent populations, and access enabled to populations in receipt of food security/livelihood support.
10. Any artificial feeding in an emergency requires skilled management to minimize the risks in accordance with provisions of the Operational Guidance on IYCF-E and the Code. Non-breastfed infants are especially at risk and need early identification and targeted support.

The burden of malnutrition and disease

Maternal and child undernutrition accounts for 35% of child deaths worldwide. The youngest children are most vulnerable, especially children under five years. *Diarrhoea* and *pneumonia* are the most significant infections causing death, accounting for about 20% each¹. Nearly 70% of under five deaths occur in the first year of life and 38% of under one year deaths occur in the first months of life² (see Module 15: Priority health interventions that impact nutrition status in emergencies).

What is the impact of IYCF practices on child health?

The way an infant or young child is fed has a large impact on their vulnerability to disease, malnutrition and death. Infants who are not breastfed are especially at risk.

- Breastfeeding could reduce child mortality in children under-5 by 12%³ to 20%⁴, more than any other preventative measure⁵.
- Complementary feeding also features the top three interventions for preventing deaths under 5 years – a further 6% of deaths could be prevented⁶.
- Early initiation of breastfeeding significantly reduces the risk of *neonatal death* (death in the first four weeks)^{7,8}.
- A non-breastfed infant living in disease-ridden and unhygienic conditions is between six and 25 times more likely to die of diarrhoea than a breastfed infant⁹.

¹ Black, R.E., S.S. Morris, and J. Bryce (2003). *Where and why are 10 million children dying every year?* The Lancet, 361(9376): p. 2226-2234

² IYCF-E Core Group (2006) *Infant and Young Child Feeding in Emergencies. Making it Matter.* Proceedings of an International Strategy Meeting, 1-2 November 2006. IYCF-E Core Group.

³ R Black et al (2008). Maternal and child undernutrition: global and regional exposures and health consequences. *The Lancet*, 371: 243-60.

⁴ Save the Children UK (2009). *Hungry for Change.*

⁵ Black, R.E., et al. (2003) *Where and why are 10 million children dying every year?* The Lancet. 361.

⁶ Jones G et al (2003) *How many child deaths can we prevent this year? (Child survival II);* The Lancet; 65-71

⁷ Edmond, Karen M., et al. (2006). Delayed Breastfeeding Initiation Increases Risk of Neonatal Mortality. *Paediatrics*, 117, 3 March 2006

⁸ Lutter C. (2010). *Early Initiation of Breastfeeding: the Key to Survival and Beyond.* WHO Secretariat.

⁹ See www.unicef.org/nutrition/index_breastfeeding.html.

Sphere standard

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

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

Key actions

- Uphold the provisions of the Operational Guidance on infant feeding in emergencies (IYCF-E) and the International Code of Marketing of Breastmilk Substitutes and subsequent relevant World Health Assembly (WHA) resolutions (collectively known as the Code).
- Avoid soliciting or accepting donations of BMS, other milk products, bottles, and teats.

Key indicators

- A national and/or agency policy is in place that addresses IYCF and reflects the Operational Guidance on IYCF-E
- A lead coordinating body on IYCF is designated in every emergency.
- A body to deal with any donations of breastmilk substitutes, milk products, bottles and teats is designated
- Code violations are monitored and reported

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

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

Key actions

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

Key indicators

- Measurement of standard WHO indicators for early initiation of breastfeeding, exclusive breastfeeding rate in children <6 months, and continued breastfeeding rate at 1 and 2 years
- Caregivers have access to timely and appropriate, nutritionally adequate and safe complementary foods for children 6 to <24 months
- Breastfeeding mothers have access to skilled breastfeeding support
- There is access to Code-compliant supplies of appropriate BMS and associated support for infants that require artificial feeding

Source: *Sphere Handbook*, 'Chapter 3: Minimum Standards in Food Security and Nutrition', The Sphere Project, Geneva, 2011.

- A collaborative study by the World Health Organisation (WHO) showed that not being breastfed in less developed countries increases the risk of mortality (death) by six times in infants less than two months old. Even between 9 and 11 months the risk is increased by 40 per cent.¹⁰

¹⁰ World Health Organization collaborative study team (2000). Effects of breastfeeding on infant and child mortality due to infectious disease in less developed countries: a pooled analysis. *The Lancet*, 355 (9202), 5 February.

Box 1: Examples of vulnerability of young children in an emergency

In March 1991, 500 000 Kurds fled Iraq towards Turkey and were stranded in the mountains between the two countries. Despite the fact that the population was healthy prior to displacement, relief efforts were prompt and the acute phase of the emergency lasted only a few months, there were high mortality rates. Two thirds of all deaths occurred in children under five years and half among children under a year. An estimated 12% of all infants died during the first two months of the crisis. Most deaths were due to diarrhoea, dehydration, and resulting malnutrition¹¹.

In Leda refugee camp for Burmese refugees, Bangladesh 1978-79, over a 10 month period it was estimated that 53% of children under one year and 30% of children between one and four years died. The primary cause of death was diarrhoea.¹²

During conflict in the eastern Democratic Republic of Congo, 2001 under one year mortality was an average of 26% over five regions. It was estimated that 75% of children in two of these regions had died before their second birthday. Deaths were primarily due to malnutrition, febrile illness (thought to be *malaria*), respiratory disease and measles¹³.

In post-conflict Guinea Bissau (1998), non-breastfed children aged 9-20 months old were 6 times more likely to have died during the first three months of the war compared with children still breastfeeding. Before the conflict, there was no difference in mortality between breastfed and non-breastfed children.¹⁴

Why does infant and young child feeding need particular attention in emergencies?

In emergencies, although the causes of death remain the same as in non-emergency situations, mortality rates are often greatly elevated – up to 67 times higher than average¹⁵. A significant proportion of infants may be affected; published total mortality rates for children under a year of age in emergencies range from 12% to 53%.¹⁶

In many contexts, sub-optimal infant and young child feeding practices, coupled with maternal undernutrition, continue to contribute to the global burden of malnutrition, childhood illness and death and compromise child nutrition, health and development. The consequences of inappropriate infant and young child practices will be greatest in the most resource poor contexts. Unfortunately, it is also in these contexts that the most emergencies take place, placing an additional burden on already vulnerable children and caregivers.

Recommended IYCF practices

Global recommendations for infant and young child feeding practices maximise nutrition, health and development and minimise malnutrition, morbidity and mortality (see Box 1). Recommended IYCF practices are the same in emergency and non-emergency situations.

Important considerations in emergencies are:

- **Early initiation of breastfeeding is a life-saving intervention for mothers and infants.** This should be a priority early nutrition and health action in every emergency. Wherever women give birth, they need support to establish exclusive breastfeeding in the first days. It is important to identify pregnant women early, e.g. at the registration areas in displaced camps, during their first contact with health services and through community outreach.
- **Emergencies can reinforce risky IYCF practices.** Population displacement, overcrowding, food insecurity, poor water and sanitation, decreased availability of caregivers and an overburdened health care system all negatively impact on a mother's capacity to feed and care for her young children. A family's capacity to meet the demands of caring and feeding for their children may be overwhelmed.
- **Artificial feeding always carries risks that are heightened in emergency contexts.** This means that artificial feeding should only be used as a last resort, and that artificially-fed infants require special skilled support and considerable resources to manage.

¹¹ Centers for Disease Control (1991). *Public health consequences of acute displacement of Iraqi citizens—March-May 1991*. MMWR - Morbidity and Mortality Weekly Report 40(26): p. 443-7

¹² Khan, M.U. and M.H. Munshi (1983). *Clinical Illnesses and Causes of Death in a Burmese Refugee Camp in Bangladesh*. International Journal of Epidemiology, 12(4): p. 460-464

¹³ Roberts, L., et al. (2001). *Mortality in eastern Democratic Republic of Congo*. New York: International Rescue Committee

¹⁴ Jacobsen, M et al (2003). Breastfeeding status as a predictor of mortality among refugee children in an emergency situation in Guinea-Bissau. Tropical Medicine and International Health, volume 8, no 11, pp 992-996

¹⁵ Paquet, C. and M. van Soest (1994). *Mortality and malnutrition among Rwandan refugees in Zaire*. The Lancet 344(8925): p. 823.

¹⁶ Roberts, L., et al. (2001). *Mortality in eastern Democratic Republic of Congo*. New York: International Rescue Committee. Khan, M.U. and M.H. Munshi (1983). *Clinical Illnesses and Causes of Death in a Burmese Refugee Camp in Bangladesh*. International Journal of Epidemiology 12(4): p. 460-464. Yip, R. and T.W. Sharp (1993). Acute malnutrition and high childhood mortality related to diarrhoea. Lessons from the 1991 Kurdish refugee crisis. Journal of the American Medical Association, 270(5): p. 587-590.-

Box 2: Recommended IYCF Practices

Early initiation of breastfeeding: introducing breastfeeding within one hour of birth

Exclusive breastfeeding: an infant receives only breast milk for the first 6 months of life and no other liquids or solids, not even water, with the exception of prescribed vitamins, mineral supplements or medicines

Continued breastfeeding: sustaining breastfeeding to two years of age or beyond.

Complementary feeding: age-appropriate, adequate and safe solid or semi-solid food is provided in addition to breast-milk. The complementary feeding period extends from six months to two years of age.

Appropriate *complementary foods* are those that provide sufficient energy, protein and micronutrients through adequate amount, consistency and diversity to meet the child's growing nutritional needs.

From 0 up to 6 months breast milk, supplies all the 'energy needs' of a child

From 6 up to 12 months, breast milk continues to supply about half the 'energy needs' of a child; the other half of 'energy needs' must be filled with complementary foods

From 12 up to 24 months, breast milk continues to supply about one third of the energy needs of a child, the missing 'energy needs' must be filled with complementary foods

Besides nutrition, breastfeeding continues to provide protection to the child against many illnesses, and provides closeness, comfort, and contact that help development.

See Annex 1 for more information on age-appropriate feeding for 0 to 2 years.

- **Complementary feeding is a critical aspect of child nutrition, development and growth.** This is a vulnerable time in a child's life. Prevailing complementary feeding practices may not be optimal¹⁷. In an emergency, complementary foods may be lacking, breastfeeding may not be continued, a mother's time and capacity to care for her child insufficient, and the environment for food preparation and storage unsafe. The provision of adequate food for children is a complex activity being subject to political, psycho-social, cultural, economic, and commercial forces.
- **It is important to ensure that humanitarian assistance does not undermine safe IYCF.** Inappropriate interventions, such as general distribution of infant formula, milk or milk products, can reinforce risky practices and lead to early and unnecessary cessation or reduction of breastfeeding. It requires strong coordination and multi-sectoral cooperation to meet the obligation to infants and young children and their families to 'do no harm'.
- **Good IYCF interventions can have positive longer term impact.** A strong intervention in an emergency can be a catalyst for improvement and change in

prevailing IYCF practices. For example, interventions around breastfeeding support in Indonesia post-earthquake were found to strengthen the national programming on breastfeeding.¹⁸

Policy guidance relevant to IYCF-E

Global policy guidance and frameworks exist that are relevant to IYCF-E. Some of the key documents and considerations are:

WHO/UNICEF Global Strategy on Infant and Young Child Feeding¹⁹

The WHO/UNICEF Global Strategy on Infant and Young Child Feeding, adopted by the World Health Assembly in 2002²⁰ calls for appropriate feeding support for infants and young children in exceptionally difficult circumstances including emergencies and the development of the knowledge and skills base of health workers working with caregivers and children in such situations. The Global Strategy identifies the obligations and responsibilities of governments, organisations, and other concerned parties to ensure the fulfilment of the right of children to the highest attainable standard of health and the right of women to full and unbiased information about infant feeding and adequate health and nutrition.

¹⁷ WHO/UNICEF (2008). Strengthening action to improve feeding of infants and young children 6-23 months of age in nutrition and child health programmes. Report of Proceedings. Geneva, 6-9 October 2008.

¹⁸ Source: Assefa F, Sukotjo S, Winoto A and Hipgrave D. (2008). Increased diarrhoea following infant formula distribution in 2006 earthquake response in Indonesia: evidence and actions. Field Exchange October 2008; Issue 34. See also Case study 18.

¹⁹ UNICEF/WHO (2003). Global Strategy on Infant and Young Child Feeding. WHO.

²⁰ Resolution WHA54.2, 18 May 2002

The International Code of Marketing of Breastmilk Substitutes and subsequent relevant World Health Assembly resolutions (the Code)

The International Code of Marketing of Breastmilk Substitutes was adopted by the World Health Assembly (WHA) (the governing body of the World Health Organisation) in Resolution 34.22 in 1981. The 1981 Resolution and subsequent relevant WHA Resolutions are collectively referred to as 'the Code'.²¹ All provisions of the Code apply in emergencies and some parts are specific to emergencies, e.g. WHA 47.5 (1994).

The Code is intended to protect the mothers/caregivers of both breastfed and non-breastfed infants and young children from commercial influences on their infant feeding choices. The Code sets out the responsibilities of the infant food industry, health workers, governments and organisations in relation to the marketing of *breastmilk substitutes*²², feeding bottles and teats. The Code does not ban the use of infant formula or bottles but controls how they are produced, packaged, promoted and provided.

Adoption of and adherence to the Code is a minimum requirement. All Member States are called upon to support the implementation of the entire provisions of the Code (WHA 34.22). Governments are strongly advised to take legislative measures to implement the Code. At least 48 countries have national legislation based on the Code. However companies have to comply with the Code independently of any other measure taken (Article 11.3 of the Code).

Worldwide, 'typical' violators of the Code are the companies who produce these products (see www.ibfan.org 'Breaking the Rules' reports). National legislation, when in place and enforced, strengthens the capacity to meet the provisions of the Code as it allows for a legal recourse when violations of the Code take place (see www.ibfan.org, State of the Code by Country reports). The Code implementation is an important emergency preparedness activity at national level. Code violations are frequent in emergency situations²³

Operational Guidance on IYCF-E

The Operational Guidance on IYCF-E was developed and is managed by an interagency collaboration (IYCF-E Core Group

²⁴) to help those concerned with emergency response to meet their responsibilities to infants and young children and their caregivers in emergencies. It is a practical reflection of key policy and strategies, including the WHO Guiding principles for feeding infants and young children during emergencies, the UNICEF/WHO Global Strategy and the Code. The Operational Guidance on IYCF-E was endorsed by the WHA 43.23 (2010). The provisions of the Operational Guidance on IYCF-E have informed the Sphere IYCF Standards (2011) and the content of this module. It is currently available in 13 languages.

IYCF response in emergencies

Target group of children: All children under 5 years, and especially under 2 years, require protection and support of optimal IYCF. Infants and young children in exceptionally difficult circumstances, such as HIV-affected populations, orphans, LBW infants, non-breastfed infants and those who are severely malnourished, warrant particular attention.

Target women and caregivers: Protection and support of the nutritional, physical and mental health of both pregnant and breastfeeding women is central to the well-being of the mother and child. Female single-headed households warrant particular attention. The particular needs of caregivers who are grandparents, single fathers or siblings must also be considered.

Needs assessment: Timely implementation of basic interventions on IYCF-E should be informed by early needs assessment to establish the particular IYCF characteristics of the affected population, identify urgent needs and priority areas to support. Further assessment and ongoing monitoring may be needed.

Enabling and supportive environment for safe and appropriate IYCF. Multi-sectoral collaboration, coordination and preparedness at national and agency level is needed to meet the broader nutritional and care needs of infants and young children and their mothers.²⁵ Key sectors are reproductive health, child protection, water and sanitation, food security, logistics and psychosocial support. More technical IYCF interventions may be needed such as breastfeeding counselling support, artificial feeding interventions, and complementary feeding interventions.

²¹ WHO (1981) International Code of Marketing of Breast-milk Substitutes. Full Code and relevant WHA resolutions are at: <http://www.ibfan.org/English/resource/who/fullcode.html> http://www.who.int/nut/documents/code_english.PDF

²² *Breastmilk substitutes* are defined by the Code as any food being marketed or otherwise represented as a partial or total replacement of breastmilk, whether or not suitable for that purpose. In practice, this means any product promoted for use in an infant under six months of age or as a replacement for breastmilk from six months of age to 2 years or beyond.

²³ Focus, IBFAN-ICDC (2009). Infant feeding in emergencies and the Code.

²⁴ www.enonline.net/IYCF-E. List members

²⁵ (Source: The Sphere Project (2011). Sphere Handbook, 'Chapter 3: Minimum Standards in Food Security and Nutrition'. The Sphere Project, Geneva.)

Box 3: Importance of Policy in IYCF-E Response

During a country situation analysis by teams from the 16 countries participating in a regional workshop on IYCF-E in Bali, lack of a policy on IYCF-E or poor implementation of an existing policy was ranked as a constraint to effective IYCF-E response by 11 out of 16 countries (Making it Happen Bali report, 2007). Follow-up with participants six months after the IYCF-E workshop revealed that policy development was a priority area that they took action on: half of respondents had completed or were in progress on a national IYCF-E policy, and three quarters of respondents (8/11) were working on dissemination of policy and guidance²⁶.

Box 4: Examples of violations of the Code in Emergencies**Indonesia**

In Java, during the tsunami response, a foreign government donated six cartons (12 tins per carton) of formula for 6-12 month olds, labelled only in a foreign language (violation article 9.2)

In Java, post-earthquake donations were received by the Provincial Health Office directly from the company manufacturer (violation article 5.2)

In Bantul, an International NGO distributed boxes including infant formula to local health workers (Violation WHA resolution 47.5)

In Pundong, boxes of food supplies including infant formula were distributed to families even with no children, as part of the general ration (violation article 6.6)

In Jedis, infant formula was distributed as incentive/reward for partaking in a measles and tetanus vaccination campaign (violation article 6.2)

Lebanon

Foreign governments donated formula to the Lebanese government's aid organisation – the Higher Relief Commission (HRC) – that was not labelled in Arabic (violation article 9.2)

Tins of formula milk donated and imported by NGOs were in a foreign language (violation article 9.2)

Ali Maclaine and Mary Corbett (2006). Infant Feeding in Emergencies: Experiences from Indonesia and Lebanon. Field Exchange 29, December 2006.

Indirect influences on IYCF. Those who do not deal directly with infant feeding may also be confronted with issues associated with feeding infants and young children, or may take action that impacts on IYCF-E. For example, logisticians may be asked to transport unsolicited donations of infant formula or powdered milk to the emergency area. Those designing food rations may have the option of including milk powder. Those involved in camp management will influence mothers' access to resources or availability of safe spaces for mothers and children. Communications officers may provide information to the media about what sort of aid babies and young children need. It is important that staff who may indirectly impact on IYCF are aware of the importance of considering IYCF in their programming, and that actions are appropriate.

Key considerations in IYCF-E preparedness and response are reflected in the following sections of this module.

The importance of national and agency IYCF-E policy

Governments and agencies should develop or endorse an IYCF policy that sets out what they aim to do and who is responsible for doing it in the context of an emergency. This should clearly state roles and responsibilities. Specific considerations should include breastfeeding, complementary feeding, artificial feeding management, and compliance with the Code. Integrating key elements of IYCF-E into existing policies, such as emergency preparedness plans or national IYCF policies, and into operational procedures and guidelines for emergencies, should increase the chances of implementation. A communication strategy for policy is important.

²⁶ IYCF-E Core Group (2009). Regional IYCF-E Workshop, 10-13th March 2008. Evaluation Report. Available at www.enonline.net

The importance of policy development in IYCF response was highlighted in a regional workshop on IYCF-E preparedness and response in Bali in 2008 (see box 3). Many countries still lack a comprehensive IYCF policy that includes infant feeding in emergencies, highlighting that IYCF-E is not a priority in many contexts²⁷.

See Module 21 Standards and Accountability in Aid Response for indicators to monitor international policy implementation and key infant and young child feeding indicators.

Monitoring for Code violations and reporting them is an important contribution to accountability in humanitarian response. There are many examples of Code violations in emergencies (see Box 4 and sections below). Many Code violations relate to donations made to emergencies (see section “Managing artificial feeding in emergencies” on page 36). A simple Code monitoring form can be used to monitor for violations in emergencies.²⁸ Key contacts to report violations are included in the Operational Guidance on IYCF-E.

The importance of good IYCF-E coordination

The strength of coordination on IYCF-E is a key determinant of how timely, appropriate and effective the IYCF-E response is. Good coordination during the early response is critical to protecting and supporting safe and appropriate IYCF-E. The first days and weeks of an emergency is when international response may descend on a country, donations of BMS will arrive, mothers present with feeding difficulties, infants are orphaned and press content calls for aid.

The responsibility for emergency response ultimately rests with government. Establishing IYCF coordination leads and key decision makers at national level is part of preparedness. External support to coordination may be needed, depending on the context and capacity. Reflecting UNICEF’s Core Commitments to Children²⁹ and as lead agency for the Global Nutrition Cluster, UNICEF is the likely UN agency responsible for co-ordination of IYCF, in close collaboration with the government. Other UN agencies also have key roles and responsibilities towards IYCF. For example, the WHO’s lead role in health should facilitate integrated IYCF in health and malnutrition treatment services. WFP should prioritise the complementary food needs of target populations. In addition, many NGOs have developed specific expertise and accumulated experiences on IYCF that can support coordination as well as programming.

Coordination may involve dissemination of key policy guidance and issuing of joint statements, early needs assessment,

identification of technical capacity and support needs among operational partners, implementation of basic interventions, and ensuring appropriate interventions are implemented to meet assessed needs. Plans to prevent donations of BMS, milk products, bottles and to handle any that do arrive should be in place.

Coordination should engage across sectors as well as with those who may be operating outside established humanitarian coordination mechanisms (for example, international military, the private sector, civil society groups). Coordination on IYCF-E needs also to happen within agencies. For example, agreement on how best to achieve integrated programming that involves different sectors within an agency, e.g. nutrition and child protection, or nutrition and water, sanitation and hygiene (WASH).

Joint statements on IYCF-E have been effectively used in emergencies to help coordinate response by national governments and agencies in a specific emergency context, to bring attention to specific IYCF issues, to provide official advice to agencies including donors, the general public and the media in a specific emergency context, and to point to key policies and guidance materials. Joint statements are generally issued by the coordinating agency and/or group of agencies. Endorsement of the statement by the national government can help to reinforce the contents within the country. To facilitate consistency and rapid release of joint statements in emergencies, in 2008 a model joint statement was produced by participants of a regional IYCF-E workshop in Indonesia and has been used in subsequent emergencies (see Annex 5).

The importance of timely, consistent and accurate communication

Timely, consistent and accurate communication that speaks to different target audiences and addresses the concerns of the affected population, and those responding to their needs is needed in emergencies.

Communication to mothers, caregivers, and communities

Mothers, caregivers and the community are key targets for key messages that promote optimal IYCF practices, and address any specific concerns or myths in a given context. Also consider addressing influential people in the community like grandparents, local leaders and religious leaders about safe and appropriate infant and young child feeding. The negative impact of stress on breastfeeding is a common concern in some emergency contexts. Sample messages that have been used in emergencies to address this and other concerns and myths are included in Annex 6). Translation and field testing of mes-

²⁷ The IBFAN World Breastfeeding Trends Initiative (WBTi) – a participatory civil society initiative to track country progress in implementation of Global Strategy on infant and young child feeding – revealed in the 2010 33 country report that “only 8 out of the 33 countries reviewed have a comprehensive policy on IYCF that includes infant feeding in emergencies and IFE is not a priority in most countries”. The indicator for IFE in WBTi is “the country has a comprehensive policy on IYCF that includes IFE”. WBTi 33 country report. <http://www.worldbreastfeedingtrends.org/>

²⁸ IBFAN Code Monitoring Form (see Part 4 Resources).

²⁹ Core Commitments to Children.

Case Example 1: Breastfeeding poster developed by and for mothers during the Indonesia 2006 earthquake response

Urgent action was needed to reduce the use of widespread donations of infant formula by breastfeeding women. UNICEF developed posters and radio/TV spots using community focus groups. *Mothers gave a low score for conventional posters showing a mother and child happily breastfeeding.* They said they had seen such posters all their life, including on packets of infant formula, and that they didn't demonstrate the potential harmful effects of infant formula. *The community reacted well to an image that emphasised the cost of artificial feeding.* Mothers realised their reliance on donations made their breastmilk stop and once the donations stopped, they would need to buy more formula.

Source: Field Exchange 34



sages is needed. Innovative means of communication can be used, such as radio, press or mobile phone texts. For example, during the Haiti earthquake response in 2010, radio messages, local theatre group plays and an ‘advertising’ car with microphone were used to communicate key IYCF messages in Haitian Creole. Development of materials pre-emergency and in collaboration with beneficiaries can help achieve impact (see Case Example 1).

Engagement with the press and media

It is important to engage with the press/media to ensure IYCF-E information and calls for aid in the media are accurate and appropriate. The general press relies heavily on the press releases of UN agencies and NGOs for the content of their own communication. Agency communication/media/press departments can have a key influence on messages in the general media. Building relationships with the media – internally and externally – is a good emergency preparedness activity. Guidance exists on communication for the media on IYCF in emergencies (see Annex 12), such as what messages and stories to include in press releases and the reasons why³⁰.

The importance of assessment

In an emergency, initial or early rapid assessments are used to guide the early planning of urgent humanitarian interventions, identify needs for follow up assessments, and inform initial funding decisions. Initial rapid assessment tends to be multi-sectoral. They may be followed by more in-depth assessments and surveys (see Modules 7 and 8 on Nutrition and Health Assessment).

Initial or early rapid assessment on IYCF-E combines multi-sectoral information and specific IYCF information to enable a rapid analysis of the situation with regard to IYCF. It involves collating and analysing secondary data, background information and primary data. Specific IYCF information should always be gathered in initial rapid assessment in an emergency. Assessment teams should include at least one person who has received basic orientation on IYCF-E. Data should be analysed by those with expertise on IYCF to determine next steps, and results shared through the co-ordinating body.

Initial rapid assessment may indicate the need for more detailed assessment of the IYCF situation. This may be undertaken as ‘standalone’ IYCF-E assessments, or incorporated into other assessments, e.g. nutrition surveys, reproductive health surveys. It is important that standard indicators and methods of data collection and careful determination of child age are used when collecting data on IYCF practices (see resources for guidance). Expertise will be needed to guide on sampling, methodology, data analysis and to inform development of any necessary interventions.

Even if there is no immediate cause for concern, ongoing monitoring is needed to watch the IYCF situation, and to monitor the effectiveness of the emergency response and interventions. Both process or performance indicators and outcome indicators may be used.

See case example 2 for an example of IYCF assessment informing interventions in Haiti.

³⁰ See Media Guide on IYCF-E and Media Responsibility on IYCF-E on <http://www.enonline.net/resources/tag.aspx?tagid=122>

Box 5: Example IYCF Questions in Initial Rapid Assessment

Note: These questions are appropriate in a context where breastmilk substitutes may be used in the population and there is a suspicion that they may feature in the emergency response.

Q.1 Has infant formula (dried or ready to use) or other milk products (e.g., dried whole, semi-skimmed or skimmed milk powder, ready to use milk) and/or baby bottles/teats been distributed since the emergency started? If yes, by whom?
Why is this question useful? It is important to investigate if products are circulating that may be used as a BMS and expose infants to increased risk. Investigation of the spectrum of milk products (not just infant formula) that may be distributed is relevant too. If any products are marketed or represented as a breastmilk substitute, then they will fall under the scope of the Code.

Q.2 Estimate what percentage of infants 0-<6months old and 6-<12months old are **not breastfed**?

Compare with pre-emergency assessment.

Why is this question useful? Infants under six months are most vulnerable in an emergency if they are not breastfed. If a proportion of infants under six months are not breastfed, then they will need urgent identification and support with further more detailed assessment of the situation. Older infants are also vulnerable in an emergency, if they are not breastfed.

Q.3 Has the community/health staff/parents/caregivers identified any problems in feeding children <2 years since the crisis started? If yes, what problems have been reported?

Why is this question useful? This will help determine what are the immediate problems faced in feeding infants and young children, to inform early assistance in an emergency.

Q.4 Since the emergency, what foods are most commonly fed to children 6-24 months of age?

Why is this question useful? Inadequate complementary feeding increases the risk of malnutrition and illness in children. This information can be used to investigate whether basic food needs are being met and to inform decisions about complementary feeding interventions.

Q.5 What are the priorities expressed by parents and caregivers regarding infant and young child feeding?

Why is this question useful? Understanding what the family priorities are to meet the immediate feeding needs can be used to inform early assistance.

Secondary IYCF data and background information

Secondary data review helps build the picture of the population in the current crisis and informs the collection and interpretation of primary data. Ideally it is done in emergency-preparedness pre-crisis. Typical sources of IYCF data are large surveys and assessments carried out pre-emergency, e.g. Demographic Health Survey (DHS), Multiple Indicator Cluster Surveys (MICS). Key data to gather includes:

- Exclusive breastfeeding rates in 0-<6 month old infants in the population pre-emergency
- Pre-crisis rates of initiation of breastfeeding in newborn infants
- Proportion of infants or groups of infants that were not breastfed pre-emergency
- Proportion of infants who are mixed fed (breastfeeding combined with other fluids or foods, including breastmilk substitutes)
- Common complementary feeding practices
- Continued breastfeeding at 1 year and 2 years of age.

Background information should include:

- Resources available to support IYCF-E programming, e.g availability of skilled breastfeeding counsellors locally or nationally who could be mobilised to support breastfeeding
- Availability of local appropriate (energy and nutrient dense) foods for complementary feeding of children 6-24 months of age.
- Institutional factors, such as legislative status of the Code or existing national IYCF policies.

Primary IYCF data collection

Primary data collection involves gathering information directly from key informants such as mothers and caregivers of children <2 years, government staff (Ministry of Health (MOH)/ Maternal and Child Health (MCH), etc.), UN/NGOs working in humanitarian response, health facility staff, and direct observations.

Box 5 gives examples of IYCF questions to include in a multi-sectoral initial rapid assessment and the rationale. IYCF assessment should be context specific. Adaptation of standard assessment tools that exist may be needed to reflect specific concerns or contexts.

Case Example 2: Initial rapid assessment informing interventions in Haiti 2010

Following the massive earthquake that struck Haiti in January 2010, there was an urgent need to understand the types and causes of malnutrition that were present before; how and among which population groups the earthquake was likely to increase vulnerability and the type of response required. This was particularly important due to the overwhelming scale, rapid onset and unique urban context of the emergency.

At the time of the earthquake, the most recent nutrition assessments available came from the 2005 DHS and an Action Contre la Faim (ACF) survey in 2008/09. There was general agreement that the prevalence of acute malnutrition could rapidly escalate given the poor food security and hygiene conditions, and as a result, services for the community-based management of acute malnutrition (CMAM) were scaled up. It was also agreed, however, that one of the greatest risks to nutritional status and child survival was poor infant feeding practices.

While breastfeeding was the norm in Haiti, exclusive breastfeeding was not widely practiced. Before the earthquake, only 40% of infants under six months were exclusively breastfed (DHS 2005) this rate was only 22% in Port-au-Prince (Enquêtes nutritionnelle 2007-2009 Action Contre la Faim).

Based on this understanding of the situation pre-earthquake and the danger posed by the deterioration in the hygiene environment post-earthquake, infant feeding support in the form of 'baby tents' were established across the city. Here, individual infant feeding assessment, counselling and where necessary, controlled infant formula and the necessary supports were provided.

Subsequent evaluation found that project outcomes, such as exclusive breastfeeding rates, diarrhoea, malnutrition rates and mortality rates, were very encouraging. All data suggested that positive behaviour change had taken place that will even benefit future generations.

Source: Concern Worldwide 2011

Warning signs

Early IYCF assessment information is especially looking for factors that indicate that infants and young children are at increased and significant risk, and that warrant further investigation. Here are some of the warning signs:

- General distribution of infant formula and milk products, and/or bottles and teats
- Mothers reporting difficulties in breastfeeding or stopping breastfeeding due to the crisis situation.
- Reports of infants under 6 months who are not breastfed
- Reports of increased diarrhoea in infants under 12 months
- Poor availability of food for complementary feeding in the markets/food aid provided.
- Mothers reporting difficulties feeding their children.

In secondary data and background information, be alert for:

- Low exclusive breastfeeding rates in the population pre-emergency (e.g. <25% exclusive breastfeeding)
- Low initiation of breastfeeding rates in the population pre-emergency (e.g. < 75% initiation of breastfeeding)
- Low mean duration of breastfeeding
- Low breastfeeding rates at one year
- Artificial feeding practice pre-emergency

- Risky complementary feeding practices (e.g. early or late introduction of complementary foods, poor quality complementary foods)
- Use of baby bottles for feeding infants
- Legal status of the Code in the country, and history of Code violations in the country

Common concerns around IYCF

Many people may have heard that breastfeeding is difficult, especially in emergency situations. Some of these concerns are based on experience and some are deeply held but mistaken beliefs. Some may be held by mothers or their peers, others may be preconceptions by national and international health workers. Some mothers need specialist support to reinforce their confidence and capacity to breastfeed.

Here are some important common concerns and the information to help address them:

"Stress prevents mothers from producing milk."

Stress does not prevent milk production but it may slow the release of milk from the breasts. This can result in babies being 'fussy' when breastfeeding. Mothers and aid workers may think that there is not enough breastmilk. Frequent breastfeeding will help the mother and baby to get over this and ensure the baby receives enough. Reassuring support will decrease a mother's stress and increase her confidence.

‘Malnourished mothers cannot breastfeed.’

Malnourished mothers can breastfeed. However they should be provided with extra food and fluids to rebuild their own nutrient stores and be encouraged to breastfeed the infant very frequently. Moderate malnutrition has little or no effect on milk production. In fact the mother will continue to produce milk, even to the detriment of her own wellbeing. Milk production is only likely to be reduced if a woman is severely malnourished; then the woman herself would need immediate feeding/extra food while continuing breastfeeding. “Feed the mother and let her feed the baby” is the key approach.

“The mother thinks she is not producing enough milk to feed her baby.”

A mother produces enough milk to feed her baby if she breastfeeds frequently and for as long as the baby wants at each feed. Her breasts may seem soft and ‘empty’ but they are producing milk.

“HIV-infected mothers should not breastfeed their baby”

Even though there is a chance of transmission from mother to child through the breast milk, the risk is greater during pregnancy and birth. A mother who receives ARVs and who exclusively breastfeeds in the first six months significantly reduces the risk of transmission. This risk must be balanced with the risk of disease, malnutrition and death through unsafe or inadequate use of artificial milk. If social and environmental conditions for replacement feeding are not met, breastfeeding offers a much better chance of survival for the child. See the section on HIV and infant feeding and Module 18 on HIV/AIDS and nutrition.

Basic interventions**Registration of vulnerable groups**

Registration of vulnerable groups will help to identify needs and plan support. Steps to take include:

- Register mothers of all newborn infants within 2 weeks of delivery, to ensure timely access to additional household food entitlement for the breastfeeding mother, as well as for extra breastfeeding support if needed
- Register vulnerable groups such as orphans, pregnant women, single-headed households with children under 2 years, to ensure access to essential services.
- Record demographic breakdown at registration of children under 2 years with specific age categories: 0 to 6 months, 6 to 12 months, 12 to 24 months and children aged 24 to 60 months, as well as pregnant women
- Register infants who are not breastfed, who will need urgent assistance (see later).

Meeting immediate essential needs

Steps that can be taken to prioritise the basic needs of mothers and infants and young children include:

- Arrange rest stops and arrival areas, with private areas for breastfeeding if needed, for populations in transit.
- Screen for feeding problems on arrival that can be referred for skilled assistance.
- Enable access for caregivers to water and sanitation facilities, food and non-food items and shelter. For example, priority access for pregnant women and mothers/carers with children under 2 years, or separate distribution points where queues may be less, and/or seating areas/quiet areas where mothers can breastfeed while queuing
- Provide water to mothers and children while waiting. Infants less than 6 months do not need extra water and mothers should be encouraged to breastfeed them as frequently as possible to avoid dehydration in long hot queues.
- Provide a shaded area for waiting mothers and young children.
- Assist mothers to keep their infants with them, e.g. provide material to be used as a baby sling.
- Enabling access to adequate amounts of appropriate complementary foods, the means to prepare them safely, and support for complementary feeding is an important intervention from the outset of an emergency.

Providing safe and supportive ‘corners’

Provide a ‘safe space’ where mothers and their children can come together to access information and varying levels of support (see later). A shared/multi-sectoral setting, e.g. with psychosocial support or child protection services, can help to strengthen collaboration and access to key services in other sectors. In some cultures, privacy to breastfeed may be an important issue to plan around (see Case Example 3 from Pakistan). For many other cultures, breastfeeding is well accepted.

Complementary feeding

Complementary feeding means giving other foods in addition to breast milk. (When an infant is 6 months old, breast milk alone is no longer sufficient to meet his or her nutritional needs and therefore other foods and liquids should be given along with breast milk.). These other foods are called complementary foods.

Active/responsive feeding is being alert and responsive to a baby’s signs that she or he is ready to eat. It involves active encouragement, but not forcing the baby to eat. See Annex 7 for guidance on active feeding.

Case Example 3: Mother – Baby Tents/Corners in Pakistan

As a result of the Pakistan earthquake in 2006, many women lacked privacy. They were sharing shelters with distant male relatives or non-related males and were feeling uncomfortable breastfeeding in such circumstances. 'Mothers' corners' were created by MOH Pakistan and UNICEF in order to overcome the problems related to lack of privacy and support. These were tents where women could meet to breastfeed, provide mutual support and exchange information and receive support and information from a female health worker.

Source: ENN (2006) Field Exchange. No. 27.

Box 6: Complementary food options

- Nutritious complementary foods and recipes based on locally available foods.
- Fortified foods used in preparation of meals, e.g. iodised salt, vegetable oil fortified with Vitamin A.
- Fortified blended foods, e.g. *Corn Soya Blend* (CSB), *Wheat Soya Blend* (WSB) and many local versions, e.g. Unimix
- Point of use³¹ products that include micronutrient powders (solely micronutrients, such as Sprinkles), micronutrient powders plus plus (can include protein, milk powder and/or essential fatty acids, such as complementary nutritional sachets), and lipid based nutrient supplements (less than 20 g given per day, such as *Nutributter*).
- Micronutrient supplementation may be needed to fully meet the nutritional needs of young children, especially when the population is dependent on food aid.

Enabling access to complementary foods

A number of interventions across sectors may be needed to fully meet complementary food requirements in an emergency. From the outset, it should be a priority to enable access of mothers and caregivers to adequate amounts of nutritious and appropriate complementary food. It is important to remain sensitive to and support the mothers'/caregivers' central role in feeding and caring for their children.

There are a variety of complementary food options in an emergency, depending on the context. See Annex 8 for types of foods suitable for different ages of breastfed and non-breastfed children and Box 6 for some complementary food options in an emergency.

Important nutritional considerations are:

- Use iodised salt in preparing family foods
- In countries with endemic vitamin A deficiency, provide vitamin A supplementation to infants and young children beginning at 6 months (or as per national recommendations), every six months until 5 years (see Module 14 Micronutrient interventions)

- In countries with high levels of anaemia and micronutrient deficiencies, multiple micronutrient powders may be given beginning at 6 months, according to national recommendations (see Module 14 Micronutrient interventions)
- In countries with high levels of stunting and food insecurity, special supplements may be given to children beginning at 6 months. These supplements are usually added to the usual complementary foods to enrich the diet and should not replace local foods. If such products are available through the health system or can be obtained at reasonable cost from the market, they should be recommended to caregivers as a means to improve the quality of children's diets.

In an emergency, targeted interventions to provide micronutrient-rich complementary food to children 6 -<24 months of age may be needed, and may be provided to the 6 to 59 months age group (see Module 12 on Management of moderate acute malnutrition).

Provision of complementary food should be accompanied by advice to mothers and caregivers on complementary food preparation, especially for unfamiliar foods, and on hygiene and energy density.

³¹ 'Home fortification' or 'fortification/enrichment at the point of use' is used to describe the addition of less than 20g per day of product to food to increase the nutritional value.

Case Example 4: Improving Household Nutrition in Dadaab Refugee Camps, Kenya

In 2008, ACF found that the camp residents of three refugee camps in Dadaab, Kenya had little or no access to fresh food, such as vegetables and fruit. Reasons for this were that the refugees were prohibited from employment and were thus dependent on general food distributions. The latter were dry rations only. ACF started a fresh food programme to increase the dietary diversity of the beneficiaries. The project targeted children under five enrolled in the German Technical Cooperation selective feeding programmes and provided their caregivers with vouchers worth 600kSh per month which they could exchange on the local market for fresh vegetables, fruit, eggs or others. The project also aimed to address the limited knowledge of caregivers in terms of appropriate feeding practices, balanced diets and good food hygiene. This project proved to be effective to meet the needs for a large population, improve dietary diversity of refugee households and contribute to a reduction in malnutrition. In addition it helped improve the local economy.

Dunn S. (2009). External Evaluation Fresh Food Voucher Project Action Against Hunger Dadaab Refugee Camps Kenya. AAH 2009

Currently, there are no standard criteria for using fortified foods and supplements in children of complementary feeding age. Further research is needed to generate more evidence on which product is best for which circumstance, how best to promote their correct utilisation, and their contribution to improving nutritional, developmental and health status in different circumstances.³²

Cash or voucher distributions to families with children of complementary feeding age should be considered where markets are functioning and there is good food diversity (See Module 16 on Livelihood Interventions and Case Example 4). Longer term initiatives to strengthen complementary food provision in a community include supplying tools and seeds to enable cultivation of suitable complementary foods and strengthening links between livestock and nutrition programming to enhance food quality available to children.

Commercial 'baby foods' have featured in some emergency contexts, often arriving as donated items. They vary greatly in nutrient content, contribute to problems of waste disposal and in general, should not be included as a relief item.

See the section below "Infant and young child feeding in the context of HIV" for Complementary feeding considerations in the HIV context.

Complementary foods and the Code

Any foods or products that are distributed as complementary foods in emergencies should meet International Code provisions to ensure that mothers and caregivers are clear on their use to complement rather than substitute breastmilk. For example, all complementary foods and fortified foods should be adequately labelled in the appropriate language and with clear instructions on safe preparation, use and storage. Also the Code requires that the expiry dates should also be clearly indicated, with a minimum of one year shelf-life.

Frontline feeding assistance to mothers/ caregivers and their children

Emergency relief staff may come across mothers or caregivers who are seeking urgent help to care for their infant or young child, e.g. child protection staff identifying orphaned infants. Workers without specialist training in breastfeeding counselling can provide the caregivers of infants with some essential information, support and basic assistance. Such frontline assistance may involve encouraging effective breastfeeding; handling requests for infant formula and more supportive actions, e.g. how to access key services. This is not a substitute for skilled breastfeeding counselling that may be required but a 'stop-gap', especially in the early response when services are being set up and referral options may be limited in the immediate term.

Frontline support to breastfed infants and their mothers

A mother may present reporting difficulties in breastfeeding (an earlier section: Common concerns around IYCF reflects how to address in the immediate term some of the concerns she may have). Below are simple measures to encourage effective breastfeeding that do not need skilled counselling skills. Box 6 gives some technical insights. It is important that mothers who present with feeding difficulties are referred to supportive services.

Simple measures to support effective breastfeeding

It is important to reassure the mother that breastfeeding is the most vital food and fluid for her baby. A mother and baby may need referral for skilled assessment and support (see IFE Module 2 in Part 4 of this module). In the immediate term, frontline workers, who may have no counselling skills, can take some informed actions to help maintain and re-establish good breastfeeding:

³² WHO (2008). Strengthening action to improve feeding of infants and young children 6-23 months of age in nutrition and child health programmes: report of proceedings, Geneva, 6-9 October 2008.

Box 7: Technical tips on breastfeeding

A breastfeeding mother does not have a fixed 'supply' of breastmilk. She can always make more with the right technique, confidence and frequent feeding. A mother with twins can produce enough milk for both babies.

A mother can also produce enough milk even if she is moderately malnourished. In such cases, the woman needs support to continue to offer her baby the breast in order to maintain the milk-making process while she recovers herself. Some mothers need specialist support to reinforce their confidence and capacity to breastfeed.

In the case of weak or sick babies, the mother must initiate breastfeeding regularly herself as those babies might not indicate their need for milk. They will need to be fed more often than healthy babies as they can only take small quantities at a time.

For newborn infants (especially premature infants), skin-to-skin contact (*Kangaroo care*) is a life-saving, low-tech intervention. The naked infant is held upright between the mother's breasts under her clothing. It stabilises blood glucose in fragile infants, helps regulate temperature and blood pressure, increases survival and helps establish breastfeeding.

Understanding how breastfeeding works can help frontline staff to have confidence in responding to mothers. See annex 9 on how breastfeeding works. For more detailed guidance on assessing and supporting breastfeeding in emergencies, (see IFE Module 2 in Part 4: Resources).

- A baby that is floppy or disinterested in feeding needs urgent medical attention and skilled feeding assessment.
- Encourage the mother to have 'skin to skin' contact with her infant – holding the infant close to the breast on her bare chest as much as possible, even when not feeding. For feeding, the baby should be turned towards his/her mother and be held closely. Baby slings can be used to help mothers/caregivers and babies stay together and feel more secure.
- The recommended practice is to feed on demand. Therefore there is no recommended time in between two feeds; the mother should feed when the healthy baby indicates that he/she wants to drink.
- It is good to feed babies at night when they ask for it, as it is an indication they need the milk at that time. In addition, feeding at night is beneficial for the mother's milk production. The baby will indicate him/herself when he/she is ready to sleep through the night.
- In infants under six months of age, it is important to breastfeed exclusively and give no water, teas, milk, or other food to the infant.
- In infants over six months of age, encourage breastfeeding to continue as the main fluid source.
- Encourage the mother to breastfeed at night. Suckling stimulates release in the mother's body of a hormone called prolactin. Prolactin makes the breasts produce milk and is better secreted at night.
- Some babies drink fast, other babies drink slow, therefore there is no indicated time per feed. The mother can let the baby drink from one breast until the baby releases the breast by his/herself and then offer the other breast. Taking too little time at one breast will result in incorrect emptying of the breast which can be the cause of breast problems, insufficient weight gain in the baby and reduced milk production.

Handling requests for infant formula from breastfeeding mothers

It is important to respond sensitively to mothers or other caregivers who are asking for breastmilk substitutes, such as infant formula.

If a breastfeeding mother is requesting infant formula, find out why she is requesting it:

- A mother may ask for infant formula because she has lost confidence in her capacity to feed her baby and thinks she "does not have enough milk". You need to try and reinstall her confidence in breastfeeding (see above for simple measures). This mother may also need the support of an experienced breastfeeding counsellor to re-establish breastfeeding.
- A mother may believe that infant formula is better for her child – you can advise her that breastmilk is the most secure, safe, nutritious and protective food and drink for her infant.
- If infant formula is being distributed on request to mothers and caregivers whose babies cannot/are not breastfed, breastfeeding mothers may request infant formula because it has a monetary value and is free.

Box 8: A guide to breastfeeding counselling

Breastfeeding counselling involves practical, technical 'know-how' as much as strong communication skills. Listening to mothers, reinforcing their confidence and encouraging them, rather than "telling" them what to do, is an essential component. A skilled breastfeeding counsellor can provide assistance to breastfeeding women to ensure that the fundamentals of good breastfeeding are in place and to resolve common difficulties. Mothers are greatly helped to breastfeed and care for their infants if someone calm and friendly listens to them, and builds their confidence with reassurance and correct information. Breastfeeding counselling increases the success of breastfeeding³³. Breastfeeding counsellors may be health professionals, community health workers or peer counsellors (e.g. mothers and grandmothers) who have undertaken relevant training.

See IFE Module 2 and WHO/UNICEF breastfeeding counselling course for more detailed information.^{34, 35}

- A mother may decide that she does not want to/ no longer wants to breastfeed. She needs accurate information on the risks of artificial feeding so that she can make an informed decision.

If a mother is feeding both artificial milk or other liquids and breastfeeding and her infant is under six months of age, she should be advised it is much safer for her to exclusively breastfeed. It is likely that the mother/baby pair will need referral for more comprehensive assessment and assistance by skilled personnel trained in breastfeeding counselling (see next section).

Frontline assistance to non-breastfed infants and their mothers/caregivers

Cases of non-breastfed infants may also present to frontline workers. These infants may have been artificially fed pre-emergency, their mothers may have stopped breastfeeding during the emergency, or they may have been orphaned. Urgent referral to health services and for skilled assessment and support will be needed (see section on artificial feeding).

In the immediate term, it is important to:

- Investigate if there is any possibility of breastfeeding the infant, e.g. is a mother who has stopped breastfeeding willing to restart or is there a wet nurse available (even as a temporary solution) who could be a family member or other community member.
- For cases where there is no immediate prospect of breastfeeding, an adequate supply of an appropriate breastmilk substitute will be needed for the infant and referral for more skilled assistance and monitoring at a health facility to enable this.

- Cases of non-breastfed infants should be reported to the designated IYCF coordinating agency. Where orphaned cases present to nutrition and health services, it will be important to refer to child protection services to ensure adequate support is provided.

Skilled breastfeeding assistance**Breastfeeding counselling as an emergency intervention**

Mothers may present with a range of breastfeeding difficulties in an emergency. Some may have longstanding difficulties due to lack of earlier support or cultural practices that undermine optimal breastfeeding. Women can lose confidence and doubt the adequacy of their breastmilk. Mothers who are socially isolated find it even harder to care for their infants, and may have extra breastfeeding difficulties. New mothers may not have access to support. Traumatized and depressed women may have difficulty responding to their infants. The nature of the support, where and how it is delivered will depend on the specific needs of mothers. Skilled breastfeeding assistance in the form of breastfeeding counselling (see Box 7) and skilled psychosocial support may be needed.

Breastfeeding counsellors/lactation consultants have not been traditionally considered important members of humanitarian intervention teams. Their presence is, however, essential if an agency's aim is to provide skilled support to mothers. Ideally, such staff are local and can speak to mothers in their own language. Humanitarian agencies can contact the International Association of Lactation Consultants (IALCA), La Leche League International (association of mother to mother support), the IBFAN network and WABA (World Association of Breastfeeding

³³ Britton C, McCormick FM, Renfrew MJ, Wade A, King SE (2007), *Support for breastfeeding mothers*; Cochrane Database of Systematic Reviews 2007, Issue 1. Art. No.: CD001141. DOI:10.1002/14651858.CD001141.pub3

³⁴ WHO, UNICEF (1993) Breastfeeding Counselling: A training course. Online on <http://www.who.int/child-adolescenthealth/publications/NUTRITION/BFC.htm>

³⁵ IFE Core Group (2004) Module 2 for Health and Nutrition Workers in Emergency Situations. Version 1.0 December 2004. Online on: <http://www.enonline.net>

Case Example 5: Skilled support at a Baby Friendly Tent in Haiti

During the relief efforts in Haiti 2010, over 100 Baby Friendly Tents were set up by 12 NGOs in the relocation sites. Mothers and caregivers with children up to 2 years old came to receive infant and young child feeding advice and counselling. Each followed national guidelines, while adding activities within their capacity and expertise, such as psychological counselling, early childhood development activities, vaccination and growth monitoring.

This large scale programme drew major attention to the importance of IYCF and tens of thousands of mothers or caregivers with young children, as well as pregnant women were seen and followed up in this way.

Case Example 6: A wet-nurse who relactated during the post-cyclone intervention in Myanmar 2008

Sa Bei is 7 weeks old – she was born only a week or two after the cyclone in Myanmar. Her foster mother, San San Min, told us that Sa Bei's mother had given birth in her home after they were told to leave the monastery where they had sheltered from the storm. Sa Bei's mother abandoned her to return to her own village where her 4 older children had gone with their father.

Sa Bei had gained less than 200g in six weeks since her birth. Breastfeeding counsellors had been working with San San for about 10 days and her milk was beginning to flow – a remarkable effort since the counsellors had only seen her every 2 or 3 days.

Source: Nina Berry/Save the Children (SC) UK, Myanmar, 2008.

See IYCF-E Module 2 for more detailed information on relactation

Action) in order to get hold of lists of trained lactation consultants and breastfeeding counsellors in various regions/countries in the world, who may be willing to assist in emergencies. This is important as health professionals (doctors, nurses, midwives etc.) are generally not trained to support mothers with breastfeeding.

Delivering skilled breastfeeding assistance

Interventions may involve establishing 'safe corners' for mothers and infants (see earlier), one-to-one counselling, and mother-to-mother support (see Case Example 5 example from Haiti).

More experienced skilled support will be needed in situations such as where infants under six months are malnourished (see Box 9), for newborns (see below) or low birth weight infants, for *relactation*³⁶ or for supporting *wet-nursing*³⁷ (see Case Example 6). Integration of IYCF support into CMAM programmes offers an opportunity for identification of inappropriate feeding practices that may have contributed to the development of malnutrition, correction of those practices during the course of treatment, and follow-up post-discharge to prevent relapse³⁸.

Skilled expertise can be used to lead on group support; for example, in peer to peer support led by a skilled counsellor, where breastfeeding mothers are trained to support each other. Such support has been implemented at the community-level in emergencies (see Case Example 7: Indonesia).

Breastfeeding counsellors may work alongside or integrated into psychosocial and mental health, reproductive health and child protection services (see Case Example 8). Reproductive health services, in cooperation with nutrition and health service providers, may offer a route to target micronutrient supplementation of pregnant and lactating women, and the point to initiate growth monitoring of infants and children.

Early initiation of exclusive breastfeeding

Newborn infants are a priority group to establish breastfeeding. Steps to support early initiation of breastfeeding are:

- Include early initiation of breastfeeding as a key intervention in reproductive health services and nutrition programmes that target pregnant women.
- Assess and support capacity of maternity services and traditional birth attendants to provide skilled breastfeeding support and encourage skin-to-skin contact (see later).

³⁶ Relactation is the process by which a woman who is not breastfeeding begins to produce breastmilk in response to the suckling of a child.

A woman need not have recently or in fact ever been pregnant in order to relactate. Relactation requires that an infant suckle frequently at the breast.

³⁷ Wet nursing is where a woman who is not the mother of the child breastfeeds the child. Wet nurses may be already producing breastmilk or they may restart breastfeeding. In some communities, wet nursing is commonly practiced. It is an important practice to investigate in early needs assessment as it is a life-saving option for infants. Wet nurses may require additional emotional, social and practical assistance, and resources, as well as skilled breastfeeding support.

³⁸ ENN and NNP (2010). Integration of IYCF into CMAM. Facilitators Guide and Handouts.

Box 9: Managing acute malnutrition in infants under six months of age

An investigation into the management of acute malnutrition in infants <6 months in emergency programmes (the MAMI Project Review)³⁹ found that the global burden of care for infants <6m is significant and that programmes currently struggle to manage this age-group using current guidelines.

One of the MAMI Project Review proposals was to develop a community based model for acute malnutrition management in this age-group, similar to that for older children where uncomplicated cases are treated in the community and complicated cases in facilities (see Module 13, Management of severe acute malnutrition). Currently management of infants <6m is largely facility-based.

The MAMI Project Review and subsequent WHO consultation (2010)⁴⁰ highlighted some key resources, 'potentially better practices', complementary initiatives and priority operational research to improve management. These include:

- Any admissions of infants <6 months to programmes should be documented.
- Admission and discharge indicators for infants <6 months should include breastfeeding status on admission and on discharge.
- Where appropriate, infants <6 months should be included in nutrition surveys to determine programme coverage and burden of disease. Note this has implications for equipment and training needs, and capacity to manage cases identified.
- For infants <6 months with access to breastmilk, case management should aim to restore exclusive breastfeeding.
- Strategies with potential to improve *inpatient outcomes of 'complicated' cases of severe acute malnutrition in infants <6m* include implementation of routine Kangaroo care, breastfeeding 'corners' with skilled breastfeeding support, and psychosocial stimulation/support of the infant, the mother-infant dyad and their families.
- Strategies with potential for effective *outpatient-based care of infant <6m* moderate acute malnutrition and 'uncomplicated' severe acute malnutrition (SAM) include community-based breastfeeding support, psychosocial support programmes and women's groups programmes.
- MSF guidelines 2006, ACF Assessment and Treatment of Malnutrition, 2002, IFE Module 2 and Integration of IYCF in CMAM are good reference tools. UNICEF *b-r-e-a-s-t*^{41,42}, the UNICEF 2006 breastfeeding observation aid⁴³ and the aids described in IFE Module 2⁴⁴ are good tools to assess breastfeeding in programmes managing infants <6m.
- The IYCF guidance in CMAM training⁴⁵ should be used to strengthen the IYCF component of community services, including SFPs. IFE Module 2⁴⁶ should be used to strengthen individual level assessment and support at facility and community support/referral services, e.g. stabilisation centres, breastfeeding 'corners'/tents.

See Annex 10 for more details.

- Implement the *Baby Friendly Hospital Initiative* (BFHI) 'ten steps to successful breastfeeding', in whatever hospital/facility is set up in an emergency response⁴⁷ (see annex 11)
- The *Baby Friendly Initiative* considers the extended support that is needed on discharge from maternity services into the community antenatal services to women and their infants.

³⁹ <http://www.ennonline.net/research/mami>

⁴⁰ These reflect the consensus statements agreed at the WHO consultation on management of moderate malnutrition in U5s, Geneva, March, 2010 and the recommendations of the MAMI Review, 2010.

⁴¹ Body position, Responses, Emotional Bonding, Anatomy, Suckling, Time suckling.

⁴² WHO/UNICEF, 1993. Breastfeeding counselling a training course. Participants Manual. P21. 1993. WHO/CDR/93.5 UNICEF/NUT/93.3

⁴³ UNICEF, 2006. BABY-FRIENDLY HOSPITAL INITIATIVE. Revised, Updated and Expanded for Integrated Care. Section 3.2, p91

⁴⁴ IFE Core Group (2007) Infant feeding in emergencies. Module 2. Version 1.1 Developed through collaboration of ENN, IBFAN, Terre des Hommes, UNICEF, UNHCR, WHO, WFP. For training, practice and reference.

⁴⁵ ENN, IFE Core Group, Global Nutrition Cluster (2009). Integration of IYCF support into CMAM. October 2009. Nutrition, Policy, Practice. <http://www.ennonline.net/resources/722>

⁴⁶ IFE Core Group (2007). Infant feeding in emergencies. Module 2. For health and nutrition workers in emergency situations, Version 1.1, December 2007. <http://www.ennonline.net/resources/4>

⁴⁷ Revised BFHI package available at: <http://www.who.int/nutrition/topics/bfhi/en/index.html> See Module 2 on IYCF-E for more technical details on supporting breastfeeding: IFE Core Group (2004) Module 2 for Health and Nutrition Workers in Emergency Situations. Version 1.0 December 2004. Online on: <http://www.ennonline.net>

Case Example 7: Indonesia

Following the earthquake, there was widespread distribution of milk products and BMS, and assessment revealed increased morbidity amongst infants and young children. There were only 40-50 skilled breastfeeding counsellors in the country, not nearly enough to meet the need of thousands of mothers affected by the earthquake. A cascade method of breastfeeding support was developed by UNICEF/MOH where trainers were located in the community to train counsellors who, in turn trained mothers as peer educators. Using this approach, 4,260 families were targeted.

Follow up of fifty-four mothers who gave birth after the earthquake and who received the counselling revealed that almost all of these mothers initiated breastfeeding in the first hour after birth and that 63% were exclusively breastfeeding regardless of access to free BMS.

In November 2006, 247 mothers with babies born after the earthquake were assessed on their breastfeeding practices. All babies were under six months of age. Findings indicated a positive impact on exclusive breastfeeding rates and infant feeding knowledge amongst mothers of young infants born after the earthquake. Despite the widespread distribution of BMS to the population, the findings suggest that the intervention limited the negative impact this had – the reported use of BMS amongst those surveyed was similar to pre-earthquake levels. Feeding practices were not 'perfect', however better exclusive breastfeeding rates were achieved compared to pre-earthquake practice.

Source: Assefa F, Sukotjo S, Winoto A and Hipgrave D. (2008). Increased diarrhoea following infant formula distribution in 2006 earthquake response in Indonesia: evidence and actions. Field Exchange October 2008. Issue 34. Full article available at: www.ennonline.net

Case Example 8: Providing psycho-social support to stressed and traumatised mothers in Georgia

Local child-care experts were deployed to offer psychological support, as well as tips on breastfeeding and child-rearing. *"During the fighting, most of these mothers were traumatized. . . "*, said a director at Tbilisi Iashvili Child Clinic, Ketik Nemsadze, who is a member of IBFAN and one of the experts deployed by UNICEF.

While it remains uncertain when these mothers and other displaced people will be able to return to their homes, many already seem to be recovering.

"I was already going to start artificial formula feeding for Mariam, as I had lost hope in my breast milk", said Lia Kazarashvili, a 26-year old mother who fled the Gori region several weeks after giving birth to her daughter. "But the doctors here have explained how to restore my milk. They told me to think nice thoughts when nursing, to think about Mariam's happy future and her future joyful life." This method really helps. After feedings, Mariam is in a good mood and sleeps well.

Source: UNICEF. By Maya Kurtsikidze GENEVA, Switzerland, 11 September 2008. http://www.unicef.org/emerg/index_45601.html Accessed 30.09.2008

Where artificial feeding was common pre-emergency, skilled breastfeeding support will be especially important for mothers of newborns. Antenatal and postnatal care staff, midwives, etc. may also need orientation and training to renew skills and capacity to support breastfeeding mothers.

Non-counselling based interventions to support breastfeeding

Counselling based interventions to support breastfeeding are an important intervention in emergencies (see "Skilled breastfeeding assistance") Non-counselling based interventions may also positively impact on feeding practices. Sub-optimal IYCF practices are not necessarily a consequence of poor knowledge, but may also reflect poor coping at a household level. Failure to adequately address poor access to food and livelihood constraints is likely to limit the impact of counselling-based interventions. For example, initiatives to support livelihoods have shown a positive impact on breastfeeding rates (see Case Example 9).

Infant and young child feeding in the context of HIV**Maximising HIV free child survival**

The term HIV-free survival simply affirms that everyone should work to ensure that children are not only HIV uninfected but should also survive. Maximising HIV-free child survival is the primary consideration in determining the best feeding option for infants born to HIV-infected mothers. HIV-free child survival requires a balancing of risks between the risk of an infant becoming infected with HIV through breastfeeding versus the risks of malnutrition, infectious diseases and non-HIV related death. The balance of risk to maximise HIV-free child survival is reflected strongly in the latest WHO guidance on HIV and infant feeding (2010).

The risk of HIV transmission through breastfeeding depends on a number of factors, including:

Case Example 9: Use of Cash to Improve IYCF practices

In 2010 (2011) SCUK led a review of a programme in the delta of Myanmar where cash had been given to mothers with babies under 6 months, to enable them to stay at home and breastfeed exclusively, instead of going out to work. The monitoring data returned consistently high reports of exclusive breastfeeding among the beneficiaries. To investigate further, diets of the babies of a sample of 26 mothers were assessed using 24 hour and 7 day diet recalls. These were a part of detailed semi-structured interviews with mothers and their husbands, which included assessing knowledge and understanding of key practices and access to, and uptake of, various IYCF promotion and support and other livelihoods interventions.

The review found that mothers had good knowledge and understanding of key IYCF practices and all were staying at home, not working, buying more food and nutritious foods and eating better than before. The recalls suggested a high prevalence of exclusive breastfeeding where 12 mothers fed only breastmilk, 3 gave breastmilk and multivitamins, 5 gave breastmilk, multivitamins and traditional colic medicine and 4 gave breastmilk and traditional colic medicine (1 gave breastmilk and water, 1 breastmilk and formula).

The high prevalence of exclusive breastfeeding seemed strongly related to improved knowledge and understanding of best practices and the enabling 'force' of the cash which meant that mothers stayed at home with their babies. Although 'hunger' had been a barrier to breastfeeding promotion during the emergency response, there was also a strong suggestion that mothers/households had spent more on food and women were eating better, and feeling that this helped their breast milk production.

Source Vicky Sibson, SC UK, 2011. Shared on en-net <http://www.en-net.org.uk/question/384.aspx>

Box 10: Key infant feeding definitions

Exclusive breastfeeding: only breast milk, no other food or drink (including water) is given to the infant.

Replacement feeding is the process of feeding a child who is not breastfeeding with a diet that provides all the nutrients the child needs until the child is fully fed on family food. *During the first six months of life, replacement feeding should be with a suitable breast milk substitute, usually with infant formula, given exclusively (not mixed with breastmilk or other foods). After six months the suitable breast milk substitute should be complemented with other foods.*

Mixed feeding is giving breast milk plus other foods or drinks, including ready to use therapeutic foods) before the age of 6 months of age. *Giving solids or liquids to a breastfeeding child less than 6 months increases HIV transmission risk. The mother should be advised to EITHER exclusively breastfeed OR exclusively replacement feed her child up to 6 months of age. (Mixed feeding is dangerous for ALL infants less than 6 months, irrespective of knowing HIV status of mother. In an HIV prevalent area, there is even more reason to support exclusive breastfeeding.)*

Note: A baby less than 6 months has immature intestines. Food or drinks other than breastmilk can cause damage to the baby's stomach. This makes it easier for HIV and other diseases to pass to the baby.

Source: UNICEF IYCF Counselling Package (2010). See Part 4 of this module: resources.

- *Breastfeeding pattern:* Poor breastfeeding practices increase the risks of both HIV transmission and illness in HIV-exposed infants. Mixed feeding (see Box 9) before 6 months increases both the risk of HIV transmission and infections due to other causes, like diarrhoea⁴⁸.
- *The use or not of anti-retrovirals (ARVs):* ARV interventions to the HIV-infected mother and/or HIV-exposed infant significantly reduce the risk of transmission of HIV during pregnancy, labour, delivery and post-natally through breastfeeding.⁴⁹

⁴⁸ Coovadia et al (2007). Mother-to-child transmission of HIV-1 infection during exclusive breastfeeding in the first 6 months of life: an intervention cohort study. *Lancet* 2007; 369: 1107-16

⁴⁹ WHO (2010). Guidelines on HIV and infant feeding 2010. Principles and recommendations for infant feeding in the context of HIV and a summary of evidence. http://www.who.int/child_adolescent_health/documents/9789241599535/en/index.html

If a woman is HIV-infected, what is the risk of HIV passing to her baby when NO preventive actions are taken?

A baby born to an HIV-infected mother can get HIV from the mother during pregnancy, labour and delivery, and breastfeeding. **In the absence of any interventions**⁵⁰ to prevent or reduce HIV transmission, research has shown that if 100 HIV-infected women get pregnant, deliver, and breastfeed for two years⁵¹:

- About 25 may be infected with HIV during pregnancy, labour and delivery
- About 10 may be infected with HIV through breastfeeding, if the mothers breastfeed their babies for 2 years
- **About 65 of the babies will not get HIV**
- The aim is to have infants who do not have HIV but still survive (HIV-free survival) Therefore the risks of getting HIV through breastfeeding have to be compared to the risks of increased morbidity and mortality associated with not breastfeeding.

If a woman is HIV-infected, what is the risk of passing HIV to her baby if both take ARVs and practise exclusive breastfeeding during the first 6 months?

Combining ARV interventions with breastfeeding can significantly reduce post-natal HIV transmission. A pregnant woman living with HIV should be given ARVs to decrease the risk of passing HIV to her infant during pregnancy, birth, or breastfeeding. Her baby may also receive ARVs to decrease the risk of getting HIV during the breastfeeding period.

To reduce HIV transmission through breastfeeding, exclusive breastfeeding in the first six months is combined with provision of ARVs for the mother OR the baby. **This is the best way for a mother to breastfeed her infant safely.**

If 100 HIV-infected women and their babies take ARVs and practise exclusive breastfeeding during the first 6 months:

- About 2 babies are infected during pregnancy and delivery
- About 3 babies are infected during breastfeeding
- **About 95 babies will not get HIV**

Note: When mother takes ARVs from 14 weeks of pregnancy, the risk of transmission during pregnancy and labour is virtually non-existent. Some studies have also shown that the transmission during breastfeeding with ARVs is as low as 1 out of 100 babies.

WHO (2010) recommendations

The WHO (2010) guidance recommends that national or sub-national authorities should decide whether health services will principally counsel and support mothers known to be HIV-infected to either breastfeed and receive ARV interventions or to avoid breastfeeding. This national decision should be based on international recommendations and consideration of the:

- Socio-economic and cultural contexts of the populations served by maternal, newborn and child health services
- Availability and quality of health services
- Local epidemiology including HIV prevalence among pregnant women
- Main causes of maternal and child undernutrition
- Main causes of infant and child mortality.

What are the differences between infant feeding recommendations for HIV-infected mothers versus HIV-uninfected mothers?

Under the WHO 2010 guidelines, countries may choose to recommend breastfeeding to all mothers, regardless of whether or not they are HIV-infected. In this case, all mothers are encouraged to exclusively breastfeed during the first 6 months of their baby's life. The two differences in the recommendations for HIV-infected mothers are i) either the HIV-infected mother or her baby should receive an ARV intervention to prevent HIV transmission and ii) how long to continue breastfeeding after 6 months, while giving in addition adequate amounts of nutritious and safe complementary foods. Women in the general population are recommended to continue breastfeeding their infants up to 2 years of age or beyond, while the recommendation for HIV-infected women is for at least 12 months and to then assess whether an alternate, adequate diet without breast milk can be safely provided. The shortened period for HIV-infected mothers is based on balancing the risk to the infant of not breastfeeding with issues of feasibility and likely adherence to ARVs over a longer time period.

⁵⁰ Interventions to reduce mother to child transmission (MTCT)

During pregnancy: HIV counselling and testing; primary prevention; prevent, monitor, and treat STIs, malaria, opportunistic infections; provide essential Ante-Natal Care (ANC), including nutrition support; ARVs; counselling on safe sex; partner involvement; infant feeding options; family planning; self care; preparing for the future.

During labour and delivery: ARVs; keep delivery normal; minimize invasive procedures - artificial rupture of membranes (AROM), episiotomy, suctioning; minimize elective C- Section; minimize vaginal cleansing; minimize infant exposure to maternal fluids

During post-partum and beyond: Early breastfeeding initiation and support for Exclusive Breast Feeding (EBF) if breastfeeding is infant feeding choice; prevent, treat breastfeeding conditions; care for thrush and oral lesions; support replacement feeding if that is infant feeding choice; ARVs for mother and infant for duration of breastfeeding period; immunizations, and growth monitoring and promotion for baby; insecticide-treated mosquito nets; address gender issues and sexuality; counsel on complementary feeding at 6 months; treat illness immediately; counsel on safe sex; and offer family planning counselling

⁵¹ DeCock KM et al. Prevention of mother-to-child HIV transmission in resource-poor countries: translating research into policy and practice. *Journal of the American Medical Association*, 2000, 283(9): 1175-1182

Box 11: IYCF recommendations in the context of HIV (from WHO (2010))

HIV un-infected mother or mother of unknown status:

Exclusively breastfeed for up to 6 months, add complementary foods at 6 months and continue breastfeeding for 2 years and beyond

HIV-infected mother whose infant is HIV uninfected or of unknown HIV status:

Mother has **two main options** for feeding her baby (depending on national policy).

Option 1: Exclusively breastfeed together with ARVs for mother OR infant

- Exclusive breastfeeding in the first six months helps to significantly reduce the baby's risk of illness, malnutrition and death, and carries a relatively low average risk of transmission in the first six months as compared to mixed feeding.
- Same recommended breastfeeding practices that apply for HIV-negative mother and mother of unknown status (See *Participant Materials 5.2: Recommended breastfeeding practices and possible counselling discussion points*)
- Breastfeeding and ARVs should continue until 12 months. Breastfeeding should cease at 12 months if a nutritionally adequate diet without breast milk can be provided. Otherwise breastfeeding should continue until such time that such a diet can be provided.

Exclusively breastfeed even when no ARVs are available

- The 2010 WHO Guidelines on HIV and Infant Feeding, Principles and recommendations for infant feeding in the context of HIV and a summary of evidence state: *When a national authority has decided to promote and support breastfeeding and ARVs, but ARVs are not yet available, mothers should be counselled to exclusively breastfeed in the first six months of life and continue breastfeeding thereafter unless environmental and social circumstances are safe for, and supportive of replacement feeding.*
- *In circumstances where ARVs are unlikely to be available, such as acute emergencies, breastfeeding of HIV-exposed infants is also recommended to increase survival.*

Cessation of breastfeeding at 12 months (where indicated)

WHO recommends against early, abrupt or rapid cessation of breastfeeding. Mothers known to be HIV-infected who decide to stop breastfeeding at any time should stop gradually within one month. Mothers or infants who have been receiving ARV prophylaxis should continue prophylaxis for one week after breastfeeding is fully stopped.

HIV-infected mother whose infant is HIV-infected:

Exclusively breastfeed for up to 6 months, add complementary foods at 6 months and continue breastfeeding for 2 years and beyond

Option 2: If National Policy is Avoid All Breastfeeding OR if mother opts out of exclusive breastfeeding: Avoid All Breastfeeding and feed using industrially produced infant formula

Note: The replacement feeding option is also accompanied with provision of ARVs for the mother and the infant (the latter for six weeks after delivery)

The mother gives the baby industrially produced infant formula from birth (no breastfeeding). Maintaining the mother's central role in feeding her baby is important for bonding and may also help to reduce the risks in preparation of replacement feeds.

There may be circumstances in specific regions or all of a country which may lead national authorities to extend the recommended period of breastfeeding beyond 12 months. Where women cannot safely provide foods to replace breastmilk after 12 months, then national authorities can specify a different duration, and provide ARVs over this longer time. Health workers need to provide a consistent message and ensure that the supply chain to provide ARVs over an extended period operates effectively. Other circumstances when it may be appropriate to recommend that HIV-infected mothers breastfeed for longer than 12 months may include an emergency, such

as an earthquake, drought or conflict, or a region with very high infant mortality and/or limited health services.

Does breastfeeding negatively affect the health of HIV-infected mothers?

The health and survival of a mother is critical to the well-being of her child. Available evidence shows that breastfeeding does not cause any health problems for HIV-infected mothers. Evidence also shows that HIV disease progression is not more rapid in HIV-infected breastfeeding women compared with HIV-infected women who do not breastfeed. The most important

issue related to maternal health and breastfeeding is to identify those HIV-infected women who have low CD4 counts, and initiate them on ART according to current guidance. New mothers who do not know their HIV status should be offered testing in the postnatal period. Health facilities should ensure that CD4 testing is available for HIV-infected mothers during the breastfeeding period, and that referral for ARV treatment takes place. Services and support that assist mothers to remain HIV-uninfected are also essential.

If ARVs are not available immediately should health workers still recommend breastfeeding?

If there is a national decision to provide ARVs and promote and support breastfeeding for HIV-infected mothers, then the health worker should still recommend exclusive breastfeeding while waiting for ARVs to become available. However, the health worker should discuss with the mother the risks of breastfeeding without ARVs, as well as the risks of not breastfeeding. If a mother states that she would prefer to formula feed in the absence of ARVs, then the health worker should discuss her circumstances to ensure that specific conditions for replacement feeding are in place and that it is safe for her to do so. If the mother decides to formula feed, then she should be supported to practice this option. Health authorities should avoid giving different infant feeding messages in different parts of a health province or district depending on whether ARVs are currently available. Conflicting messages may confuse both mothers and health staff and compromise the quality of support mothers receive.

When a HIV-infected mother is breastfeeding, how should she feed her child from 6 up to 24 months of age?

Once an infant reaches 6 months of age, the mother should continue to breastfeed (along with ARVs for mother and child) up to 12 months. She should stop breastfeeding if an alternate, adequate diet without breastmilk can be safely provided. If such a diet is not available, she should continue breastfeeding (and ARVs) with periodic review (e.g. monthly) of the feeding situation. The same recommended complementary feeding practices that apply for HIV-negative mother and mother of unknown status should be followed.

When a HIV-infected mother is NOT breastfeeding, how should she feed her child from 6 up to 24 months of age?

- At about 6 months an infant is better able to tolerate undiluted animal milk and a variety of semi-solid foods.
- For infants 6 up to 12 months old, milk provides many essential nutrients and satisfies most liquid requirements. However, in some places, neither animal milk nor infant formula is available.
- Mother or caregiver needs to feed infant animal foods (meat, poultry, fish, eggs, or milk products), additional meals and/or specially formulated, fortified foods where suitable breast milk substitutes are not available.

- Calcium-rich foods such as papaya, orange juice, guava, green leafy vegetables, and pumpkin should be consumed daily.
- Infants not fed milk should be offered plain, clean, boiled water several times a day to satisfy thirst.
- Where neither breast milk substitutes nor animal milk or animal foods are available, nutrient requirements cannot be met unless specially formulated, fortified foods or nutrient supplements are added to the diet.

See also the related section on complementary feeding (above) and Annex 8.

Are the feeding recommendations the same for emergencies?

The balancing of risks to maximise HIV-free child survival is especially critical in emergencies. Safe water supplies, fuel to boil water and to sterilise feeding utensils are often in short supply. Sanitation and other conditions to prepare replacement feeds as safely as possible are typically non-existent. Health services to care for children who might develop diarrhoea or pneumonia are grossly over-stretched or missing.

In emergency settings, national authorities should endeavour to provide ARVs as soon as feasible. In acute emergency settings when ARVs are unlikely to be available, breastfeeding of HIV-exposed infants is recommended to increase child survival.

Deteriorating circumstances in an emergency may also have implications for implementation of national/sub-national feeding recommendations on the safest feeding option for HIV-free child survival.

- Where national/sub-national policy recommends breastfeeding pre-emergency, this becomes all the more critical in the emergency context. As described earlier, in an emergency it may be appropriate to recommend that HIV-infected mothers breastfeed for longer than 12 months in the interests of child survival.
- In a pre-emergency context where national policy was to avoid breastfeeding, the shift in the balance of risks means this is likely to no longer be the safest option in the immediate term (see Case Example 10 for example). Breastfeeding will be the safest option for HIV-exposed infants. National authorities and/or the authority managing the emergency should establish whether the recommendation for formula feeding is still appropriate given the circumstances. Urgent artificial feeding assistance will be needed for infants already established on replacement feeding (see 'Managing artificial feeding in emergencies'). Considering how national or sub-national feeding recommendations may need to respond to an emergency situation – and the programming implications – should form part of emergency preparedness, especially in HIV-affected populations. This is a challenging area of policy and programming.

Case Example 10: Lessons from Botswana 2006

This example from Botswana precedes the WHO (2010) recommendations but reflects a context where a national recommendation to offer replacement feeding was in place.

In Botswana, replacement feeding using infant formula was offered to all HIV-infected mothers as part of a national programme to prevent transmission of HIV from mother to child (PMTCT). But flooding led to contaminated water supplies, a huge rise in diarrhoea and national under five mortality increased by at least 18% over 1 year. An investigation by the Centre for Disease Control (CDC) into admissions in one hospital found that non-breastfed infants were 50 times more likely to need hospital treatment than breastfed infants, and much more likely to die. Many of the children admitted had developed severe acute malnutrition during or after bouts of diarrhoea. Use of infant formula 'spilled over' to 15% of HIV-uninfected women, exposing their breastfed infants to unnecessary risk.

As a consequence, Botswana modified its national policy in line with 2006 WHO recommendations on HIV and infant feeding, strengthening breastfeeding support and ensuring that conditions to minimise the risks of replacement feeding were in place for individual mothers before embarking on this feeding option.

(Creek et al, 2006)⁵².

What are the key messages for communities to hear to help them implement the WHO 2010 guidelines?

With regard to feeding practices, where breastfeeding is the national recommendation for HIV-infected women, the WHO 2010 guidelines recommend exclusive breastfeeding for the first six months, which corresponds to feeding practices that should already be the norm for the general community.

Communities should also be alerted about the major advance that ARVs represent in terms of enabling HIV-infected mothers to breastfeed with only a small risk of transmitting HIV to their infants while providing major protection against the major illnesses that kill young children. They should be informed that all mothers need to be supported, especially during the first 6 months of an infant's life, to exclusively breastfeed and to avoid giving other foods or fluids, such as formula milk or porridges, that can make young infants ill.

If replacement feeding with infant formula is the nationally recommended feeding practice for HIV-infected women, then communities should be helped to understand that there have always been a few women who need to practice artificial feeding for medical reasons, and HIV is one indication for this although it is not recommended for everyone.

It is fundamentally important to communicate the concept of HIV-free survival that considers not just the risk of HIV infection but other causes of death, such as diarrhoea and malnutrition. This is especially relevant for emergency affected po-

pulations, and where child mortality is high and health services lacking. Conveying this concept requires careful and simple explanations – probably many times over. It is important at all levels, including for communities, programme managers, mothers, health workers, policy makers, funders, civil society and other advocates.

See Part 4 Resources for current guidance and tools on HIV and infant feeding. For the most up to date guidance, visit www.who.int

Managing artificial feeding in emergencies**What is artificial feeding?**

Artificial feeding is where an infant or young child is fed with a breast milk substitute. An infant may be exclusively or partially fed on a BMS. The terms formula feeding and replacement feeding (in the HIV context) are sometime used.

Infant formula is a typical and an appropriate BMS, as it meets a specified formulation (Codex Alimentarius). Infant formula is usually non-sterile powder, or a sterile liquid as a ready-to-use-infant-formula (RUIF).

When breastfeeding is not possible and breastmilk is unavailable, infants require a BMS meeting Codex Alimentarius standards until breastfeeding is re-established or until at least six months of age, and up to a maximum of 12 months. Cow's milk is considered an appropriate BMS after 12 months⁵³.

⁵² Creek, T. (2006). Role of infant feeding and HIV in a severe outbreak of diarrhoea and malnutrition among young children- Botswana. In 3rd PEPFAR Implementers Meeting. 2006: Durban. Creek, T., et al. (2007). Role of infant feeding and HIV in a severe outbreak of diarrhoea and malnutrition among young children, Botswana, 2006, in 14th Conference on Retroviruses and Opportunistic Infections: Los Angeles.

⁵³ WHO (2004). *Guiding principles for feeding infants and young children during emergencies*. Geneva: WHO.

Box 12: Risks associated with powdered infant formula: *Enterobacter sakazakii*.

Powdered infant formula (PIF) has been associated with serious illness and death in infants due to infections with *Enterobacter sakazakii*. During production, powdered infant formula can become contaminated with harmful bacteria, such as *Enterobacter sakazakii* and *Salmonella enterica*. This is because, using current manufacturing technology, it is not feasible to produce sterile PIF. During the preparation of PIF, inappropriate handling practices can exacerbate the problem. It is therefore important to follow the WHO/FAO guidelines on the safe preparation, storage and handling of infant formula (2007)⁵⁴. For safe preparation, water no cooler than 70 degrees should be used to prepare feeds from PIF. This temperature will kill harmful bacteria that may be present in PIF. Any feeds that have not been consumed need to be thrown out within 2 hours, if there is no refrigeration. If there is refrigeration (less than 5 degrees), feeds should be used within 24 hours.

Indications for artificial feeding in an emergency

An emergency may affect a population where artificial feeding is common practice and many infants may be partially or exclusively artificially fed. In some situations, groups of infants in a population may need feeding support, for example where there are unaccompanied infants at a refugee camp or where there is institutional care, such as an orphanage. There are some circumstances where temporary or longer term use of a BMS for individual cases is needed.

The decision to support artificially fed infants and young children should be based on **needs assessment**. Interventions around artificial feeding should not be based on assumptions of feeding practices, on individual cases, emotive calls in the media for milk powder or in response to offers/receipt of donations of infant formula. Initial rapid assessment should provide key information (see earlier section).

Supporting artificial feeding in an emergency is challenging. It requires medical, nutritional and logistical expertise and capacity in programmes that can assess, target and monitor infants on an individual level. An agency should only supply another agency/institution with BMS if both are working as part of the nutrition and health emergency response and the provisions of the Operational Guidance on IYCF-E and Code are met.

Individual situations where artificial feeding is indicated include:

- The mother has died, or is absent for an unavoidable reason.
- The infant has been rejected by the mother due to having experienced rape or psychological trauma.

- Acceptable maternal or infant medical reasons for use of breastmilk substitutes. *See: Acceptable medical reasons for use of breast-milk substitutes. 2009. World Health Organisation, UNICEF*
- The infant was dependent on artificial feeding when the emergency occurred.
- During relactation or whilst moving from mixed feeding to exclusive breastfeeding

Source: Operational Guidance on IYCF-E (Section 6.2.2) and IYCF-E Module 2.

Conditions for artificial feeding in an emergency

Key conditions that all need to be in place for artificial feeding to minimise risks are:

- a. Safe water and sanitation are assured at the household level and in the community
- b. The mother, or other caregiver, can reliably provide sufficient infant formula milk to support normal growth and development of the infant
- c. The mother or caregiver can prepare it cleanly and frequently enough so that it is safe and carries a low risk of diarrhoea and malnutrition
- d. The mother or caregiver can, in the first six months, exclusively give infant formula
- e. The family is supportive of this practice
- f. The mother or caregiver can access health care that offers comprehensive child health services.

Cold bottled water is not sufficient for preparation of powdered infant formula, as it will not kill the potentially harmful bacteria contained in powdered infant formula (see Box 11).

⁵⁴ WHO (2007). WHO/FAO guidelines on the safe preparation, storage and handling of infant formula (2007). http://www.who.int/foodsafety/publications/micro/pif_guidelines.pdf

Case Example 11: Artificial feeding programming in Haiti

During the relief effort for the earthquake in Haiti in 2010, it was found that the use of infant formula was needed to accommodate those children who were already using infant formula pre-crisis or who lost their mothers during the earthquake and for whom no other alternative could be found.

Criteria for the use of infant formula were designed by the Nutrition Cluster and partners and endorsed by the Haitian Ministry of Health. The choice was made to use ready-to-use infant formula, since hygiene conditions were very poor. The RUIF was entrusted to the Nutrition Cluster who provided it to agencies who fulfilled the following criteria:

- At least one senior staff member must attend the Baby Tent Training Sessions (see later)
- The agency must sign an agreement in which it engages itself to adhere to the National Protocol (conform with the Code and Operational Guidance on IYCF-E)
- The agency must attend Nutrition Cluster meetings

Monitoring of the use of the RUIF by the relevant agencies was conducted by the Nutrition Cluster. If it was found that agencies did not use the RUIF as agreed upon, their provision of RUIF was stopped.

Source: Astrid De Brabandere, Nutrition Cluster Haiti, 2010

Supplies of BMS and feeding equipment

Procurement, management and distribution of BMS and milk products should be strictly controlled, based on technical advice and must comply with the Code. Where criteria for use of BMS are met, infant formula purchased by agencies working as a part of the nutrition and health emergency response⁵⁵ may be used in or distributed by the healthcare system. Distribution should be carried out sensitively and not as part of the general food aid, to prevent spillover. When infant formula is used, markets should be monitored to see whether the distributed formula is being sold (‘spillover’), or whether prices of formulas change.

Some important key points from the Code include:

- Labels should be in the appropriate languages, with specified information and warnings
- No free samples to mothers or families
- No advertising or promotion to the public
- No donations of free or subsidised supplies to the health care system; normal procurement channels must be used to obtain required breastmilk substitutes
- Obligation to provide breast milk substitutes to targeted infants for as long as needed (at least six months old or until breastfeeding is re-established)

Infant formula generally comes as powdered or liquid (ready to use) product. The choice of which to use depends on resources and size of need, availability, transportation, storage and preparation facilities. Preparation of a ‘home made’ BMS, using animal milk for example, should only be used as a last resort⁵⁶.

The use of bottles and teats should be actively discouraged due to the high risk of contamination and difficulty with cleaning. Use of cups without spouts should be actively promoted. In situations where bottle feeding is common and cannot be discouraged, attention must be given to the risk of contamination and the need for proper cleaning of the feeding tools.

There is a lack of detailed operational guidance to guide artificial feeding programming. However there are lessons from recent emergencies to draw upon (see Case Example 11).

Protecting breastfeeding in artificial feeding programmes

In meeting the needs of artificially fed infants, it is important that breastfeeding is protected and supported in the population. Distributing resources (e.g. infant formula, cooking equipment, soap, fuel, water) only to the caregivers of artificially fed infants has the potential to undermine breastfeeding, or may encourage breastfeeding mothers to report feeding difficulties when they have none, in order to qualify for commodities. Where a mother is mixed feeding, there should not be a disincentive to transition to exclusive breastfeeding. So securing breastfeeding mothers with an equivalent value incentive should be factored into any artificial feeding programme.

⁵⁵ Nutrition and health emergency response: For an agency to be part of the nutrition and health response, they must have staff actively involved in the healthcare system [governmental, non-governmental or private institutions or organizations engaged directly or indirectly in health care for mothers, infant and pregnant women; and nurseries or childcare institutions. It also includes health workers in private practice. It does not include pharmacies or other established sales outlets] who are responsible for targeting the BMS, monitoring the infants, and ensuring that the supply of BMS is continued for as long as the infants concerned need it.

⁵⁶ WHO (2006) *Home Modified Animal Milk for Replacement Feeding: is it feasible and safe?*. Discussion paper prepared for HIV Infant Feeding Technical Consultation 25-27 October 2006 WHO

Box 13: Lactose Intolerance

Lactose intolerance is a clinical syndrome of 1 or more of the following: abdominal pain, diarrhea, nausea, flatulence, and/or bloating after the ingestion of lactose or lactose-containing food substances. Lactose, is found exclusively in mammalian milk. Absorption of lactose requires activity of the enzyme lactase. Lactase is present at birth, but for many children it disappears when growing up, at various ages in different racial groups and is the most common cause of lactose malabsorption and lactose intolerance (Heyman 2006). Approximately 70% of the world's population has primary lactase deficiency (Kretchmer 1971, Kretchmer 1968). The percentage varies according to ethnicity. In populations with a predominance of dairy foods in the diet, particularly northern European people, as few as 2% of the population has primary lactase deficiency. In contrast, the prevalence of primary lactase deficiency is 50% to 80% in Hispanic people, 60% to 80% in black and Ashkenazi Jewish people, and almost 100% in Asian and American Indian people (Paige et al. 1977, Lloyd, Olsen 1995, Sahi 1994).

Distributing cow's milk or cow's milk products to population groups who do not use animal milk traditionally in their diet therefore holds the risk of triggering lactose intolerance symptoms among them.

Melvin B. Heyman (2006). *Lactose Intolerance in Children, Adolescents and Adults*. Pediatrics; 118;1279.
DOI: 10.1542/peds.2006-1721

Kretchmer N. (1971). *Lactose and lactase: a historical perspective*. Gastroenterology; 61: 805–813

Kretchmer N. *On the homology between human development and pediatrics*. Pediatr Res. 1968; 2: 283–286

Paige DM, Bayless TM, Mellitis ED, Davis L. *Lactose malabsorption in preschool black children*. Am J Clin Nutr. 1977;30: 1018–1022

Lloyd ML, Olsen WA. *Disaccharide malabsorption*. In: Haubrich WS, Schaffner F, Berk JE, eds. Bockus Gastroenterology. 5th ed. Philadelphia, PA: Saunders; 1995: 1087–1100

Sahi T. *Genetics and epidemiology of adult-type hypolactasia*. Scand J Gastroenterol Suppl. 1994;202:7–20

Further technical guidance is available in Module 2 on IYCF-E, Chapter 9, *When infants are not breastfed*, and in the online orientation package (lessons.enonline.net)

Handling milk and milk products in emergencies

Milk is a valuable nutritious food, a source of energy, good quality protein, and calcium. As an animal source food, it can make a valuable contribution to a young child's diet. Pastoral populations in particular rely heavily on animal milks as a nutrient source. Where used, it is important to ensure milk and milk products are safely accommodated into the diets of young children in emergencies. Milk is easily contaminated, and provides a perfect medium for bacterial growth – making it potentially deadly. In particular there are risks regarding dried milk powder and, in some contexts, liquid milk use, regarding hygienic preparation, storage, and the risk that they may be used inappropriately as a breastmilk substitute. Use of inappropriate images on packages can override the value of any written label advice. This is seen in an example from Laos (Case Example 12). Lactose intolerance may also be a consideration in some populations (see Box 12).

The [Sphere Standards](#) (2011) and the Operational Guidance on IYCF-E are clear in recommendations and specify there should be no distribution of free or subsidised milk powder or of liquid milk as a single commodity.

Managing donations of BMS and feeding equipment in emergencies

Donations of BMS, milk and milk products and infant feeding items have proved a significant problem in some emergency contexts.

What are the problems with donated milk and milk products?

Donations of milk and milk products are often made in response to emotive media appeals (see earlier section). Misconceptions about prevailing infant feeding practices amongst relief workers and using this as a basis for programming, can contribute to calls for donations in an emergency (see case example 13), and subsequent inappropriate use (see case example 14). The amount may be disproportionate to or may not be responding to the needs of the population. For example, other animal source foods, such as tinned fish or meat, may be locally available that could be included in the food basket. 'Free' supplies may have hidden costs – transport, storage, distribution and monitoring use. Agencies offered donations may not be equipped to deal with them. Handling donations of BMS that arrive draw staff away from delivering necessary assistance in emergencies.

Case Example 12: Example from Laos of misuse of a milk product as a breast milk substitute

An example of inappropriate use of a milk product as a breastmilk substitute comes from an investigation in Laos. Here, labelling on a coffee creamer that depicted the image of a bear holding a baby bear in a breastfeeding position meant mothers mistook the creamer as a suitable BMS and so fed it to their babies. This depiction is a violation of Article 5 of the Code (marketing a product depicting holding the baby bear in a breastfeeding position) and a twisted violation of Article 9 in using a baby bear as the label image, as pictures of infants are not allowed to appear on formula products.

Of 1098 adults surveyed, 96% believed that the can contains milk; 46% believed the Bear Brand logo indicates that the product is formulated for feeding to infants or to replace breast milk; 80% had not read the written warning on the can; and over 18% reported giving the product to their infant at a mean age of 4.7 months (95% confidence interval 4.1 to 5.3).

Of 26 paediatricians interviewed, 13 reported that parents “often” feed the Bear Brand coffee creamer to infants as a substitute for breast milk. Eleven reported that parents “sometimes” feed the product to infants. Paediatricians had encountered infants and children admitted to hospital with malnutrition who had been fed this product exclusively.

The authors concluded that: “The Bear Brand logo’s non-verbal message implies that the product contained is intended for infants. The powerful visual message is not mitigated by the addition of warning text or by the confusing symbol of the feeding bottle with a cross through it. The sale of coffee creamer with this logo places the health of infants and children at risk in a developing nation that already has extreme levels of malnutrition”.

Source: Barennes H et al (2008). Misperceptions and misuse of Bear Brand coffee creamer as infant food: national cross sectional survey of consumers and paediatricians in Laos. *BMJ* 2008;337:a1379 doi:10.1136/bmj.a1379 and Letters. Nestlé works to ensure appropriate use of milk products *BMJ* 2009;338:b198

**Box 14: Donations of infant formula in emergencies**

During the earthquake response in Indonesia in 2006, UNICEF conducted a survey into infant feeding practices, due to concerns over untargeted distribution of milk powder as part of relief. They found that 80% of households with children 0 to 5 months old surveyed had received donated infant formula, whereas only 32% of 0 to 5 months old children consumed infant formula before the earthquake. In addition, 76% of families received commercial porridge and 49% received powdered milk. Consumption of all types of BMS was higher among those who received donated commodities.

One week diarrhoea incidence was higher among those children who received donated infant formula (25.4%) than among those who did not (11.5%; Relative Risk = 2.12). There were strong associations between receipt of BMS and changes in feeding practices, and between receipt of infant formula and diarrhoea. Uncontrolled distribution of infant formula exacerbates the risk of diarrhoea among infants and young children in emergencies.

Hipgrave D, Assefa F, Winoto A., Sukotjo S. (2010) Donated Breast Milk Substitute and incidence of diarrhoea among infants and young children after the May 2006 earthquake in Yogyakarta and Central Java. *Public Health Nutrition* 2010 DOI: 10.1017/S1368980010003423

Case Example 13: Example of misconceptions fuelling response

Despite a strong perception amongst benefactors that BMS were already widely used in Indonesia (used to justify the wide distribution of BMS that had arrived), a UNICEF/Ministry of Health survey found only one-third (32%) of infants under six months had ever consumed infant formula before the earthquake. However, three-quarters of households with infants under six months (75%) had been given donations of infant formula and 15% had received baby bottles.

Source: Ninik et al, Field Exchange 34

Case Example 14: Technical training of NGO and government staff in Haiti 2010

In the aftermath of the earthquake in Port-Au-Prince, Haiti in 2010, the Nutrition Cluster partners identified the need for training within NGOs and government health services. A training of trainers of 3 days for NGO key personnel was designed specifically for this situation, based on the WHO/UNICEF Breastfeeding Course and IYCF-E Module 2. This was adapted to meet the implementation of “Baby Friendly Tents” as described in the national guidelines. The training consisted of basic breastfeeding information, technical breastfeeding counselling skills and how to protect breastfeeding while distributing RUIF to those in need. The training was obligatory for those NGOs distributing RUIF made available by the Nutrition Cluster and over a 100 key personnel were trained.

During a TOT to integrate CMAM into government health facilities targeting Departmental Nutrition Focal Points, planned before the emergency, a module on IYCF-E and on integration of IYCF into CMAM was added to the curriculum.

Source: Astrid De Brabandere, Nutrition Cluster Haiti, 2010

Case Example 15: Experience of Breastfeeding Counselling Training in Indonesia

During the earthquake response in Indonesia, the WHO/UNICEF 40 hours breastfeeding counselling training module was adapted to suit the context and deliver frontline breastfeeding support and counselling. Volunteers with modest formal education were successfully trained in breastfeeding counselling in an emergency. Providing hands-on practice, above and beyond the recommended numbers of practices in the WHO/UNICEF guidelines, was a key strategy in training volunteers with no prior health/ nutrition training and experience. Using community volunteers was the best choice in this setting, as they were well accepted by their communities to help and support the pregnant and lactating mothers. Creative adaptation of the training was made possible by using a local implementing agency, whose mandate was to train and counsel on breastfeeding.

Source: Assefa F, Sukotjo S, Winoto A and Hipgrave D (2008). Increased diarrhoea following infant formula distribution in 2006 earthquake response in Indonesia: evidence and actions. Field Exchange October 2008. Issue 34.

Informed by the experiences in emergencies, the Operational Guidance on IYCF-E advises that donated (free) or subsidised supplies of breastmilk substitutes (e.g. infant formula) should be avoided. Donations of bottles and teats should be refused in emergency situations. Any well-meant but ill-advised donations of breastmilk substitutes, bottles and teats should be placed under the control of a single designated agency.

Having plans in place to handle any donations that cannot be prevented is also needed. If donations arrive they should be collected by a designated agency, preferably from point of entry into the emergency area, under the guidance of the IYCF-E co-ordinating body (as specified in Operational Guidance 6.1.3). This allows any supplies that arrive to be controlled and a plan devised for their use.

Examples of strategies to handle unwanted donations of infant formula and milk products:

- Prepare a fortified blended food for use as complementary food for infants over 6 months.
- Use in institutional nutrition support, e.g. for the elderly, orphans
- Used in animal feed.
- Use in preparation of biscuits and cakes that can be distributed.
- Destruction.

Orientation and Training on IYCF-E

Different levels of orientation and training on IYCF-E are needed for all those involved in emergency response – from governments that respond in disaster-prone countries, to country offices of NGOs and UN agencies, to donors who fund emergency programmes.

Basic orientation on IYCF-E should be provided as a preparedness activity for managers, donors, logisticians, water and sanitation experts and those in charge of social services.

Integrating training on IYCF-E *into pre-service training* of key personnel is an important preparedness activity and requires a longer term approach to capacity development on emergency response.

In-service training can help build and refresh skills that are directly relevant to health staff in their daily work, e.g. training on IYCF in CMAM programming, breastfeeding counselling 40 hour training with added emergency component.

In identifying and working with *national capacity* when an emergency strikes, it is important to appreciate that staff may also be affected themselves by an emergency and may be struggling to meet their own family needs. Breastfeeding counsellors at community level are often women, with children themselves. In planning training, these constraints should be taken into account, for example conducting part-time training, offering childcare provision and enabling access to psychosocial support if needed.

Training has often proved necessary in an emergency (see case example 14). Training carried out in an emergency can help improve national capacity in the longer term (see case example 15).

Annex 1: Recommendations for feeding your child

RECOMMENDATIONS FOR FEEDING YOUR CHILD

Newborn, birth up to 1 week



- Immediately after birth, put your baby in skin to skin contact with you.
- Allow your baby to take the breast within the first hour. Give your baby colostrum, the first yellowish, thick milk. It protects the baby from many illnesses.
- Breastfeed day and night, as often as your baby wants, at least 8 times in 24 hours. Frequent feeding produces more milk.
- If your baby is small (low birth weight), feed at least every 2 to 3 hours. Wake the baby for feeding after 3 hours, if baby does not wake self.
- Do not give other foods or fluids. Breast milk is all your baby needs.

1 week up to 6 months



- Breastfeed as often as your child wants. Look for signs of hunger, such as beginning to fuss, sucking fingers, or moving lips.
- Breastfeed day and night, whenever your baby wants, at least 8 times in 24 hours. Frequent feeding produces more milk.
- Do not give other foods or fluids. Breast milk is all your baby needs



6 months up to 9 months



- Breastfeed as often as your child wants.
- Also give thick porridge or well-mashed foods, including animal-source foods and vitamin A-rich fruits and vegetables.
- Start by giving 2 to 3 tablespoons of food. Gradually increase to 1/2 cup at each meal.
- Give 2 to 3 meals each day.
- Offer 1 or 2 snacks each day between meals when the child seems hungry.



9 months up to 12 months



- Breastfeed as often as your child wants.
- Also give a variety of mashed or finely chopped family foods, including animal-source foods and vitamin A-rich fruits and vegetables.
- Give 1/2 cup at each meal.
- Give 3 to 4 meals each day.
- Offer 1 or 2 snacks between meals. The child will eat if hungry.
- For snacks, give small chewable items that the child can hold. Let your child try to eat the snack, but provide help if needed.



12 months up to 2 years



- Breastfeed as often as your child wants.
- Also give a variety of mashed or chopped family foods, including animal-source foods and vitamin A-rich fruits and vegetables.
- Give 3/4 cup at each meal.
- Give 3 to 4 meals each day.
- Offer 1 or 2 snacks between meals.
- Continue to feed your child slowly, patiently. Encourage-but do not force-your child to eat.



2 years and older



- Give a variety of family foods to your child, including animal-source foods and vitamin A-rich fruits and vegetables.
- Give at least 1 full cup at each meal.
- Give 3 to 4 meals each day.
- Offer 1 or 2 snacks between meals.
- If your child refuses a new food, offer "tastes" several times. Show that you like the food. Be patient.
- Talk with your child during a meal, and keep eye contact.



Annex 2: Additional Policy Guidance and Frameworks

Human rights

The mandate to protect and support IYCF-E is grounded in international human rights conventions. The International Covenant on Economic, Social and Cultural Rights (1966), the Convention on the Elimination of all forms of Discrimination Against Women (1979) and the Convention on the Rights of the Child (CRC) (1989) directly commit ratifying states and indirectly, non-state actors, to promote and protect the nutritional wellbeing of women and children.

UNICEF and Lancet conceptual frameworks

The UNICEF conceptual framework for causes of malnutrition (1990) was developed to help understand the causes of malnutrition and has been widely applied to emergency contexts. This is elaborated upon in the Lancet conceptual framework that also considers maternal undernutrition and poverty, and both the short-term and longer term consequences of maternal and child undernutrition.

The Lancet conceptual framework for causes of malnutrition illustrates how malnutrition is the result of a complex mixture of multiple causes at various levels with a reciprocal relationship. It differentiates between the immediate causes, the underlying causes that lead to the immediate causes, which in their turn are determined by the larger political, economic and social context.

Poor maternal nutrition will contribute to poor intra-uterine growth, low birth weight and subsequent suboptimal growth and development of a child. Sub-optimal infant and young child feeding and care practices will have a major negative impact on the nutritional and health status of an infant.

Unhygienic food preparation (storage and cooking) will also increase the risk of diseases- subsequently increasing vulnerability to acute malnutrition, while unequal distribution of food within the household will also contribute to undernutrition.

Inadequate provision of water and sanitation facilities will significantly increase the risk of infection/illness. Inadequate provision of basic health services will further compromise health and nutrition status when common illnesses are not properly treated.

Emergencies directly impact the basic and underlying causes of undernutrition. Humanitarian programming will primarily focus on addressing the immediate causes of undernutrition (disease and inadequate dietary intake) and the consequences of the underlying causes of undernutrition (household food insecurity, inadequate care, unhealthy environment and lack of services). IYCF fits into this framework.

This conceptual framework is a useful starting point in understanding the links between different factors and the need for multi-sector assessment and multi-sector interventions to prevent mortality and morbidity and undernutrition in an emergency context.

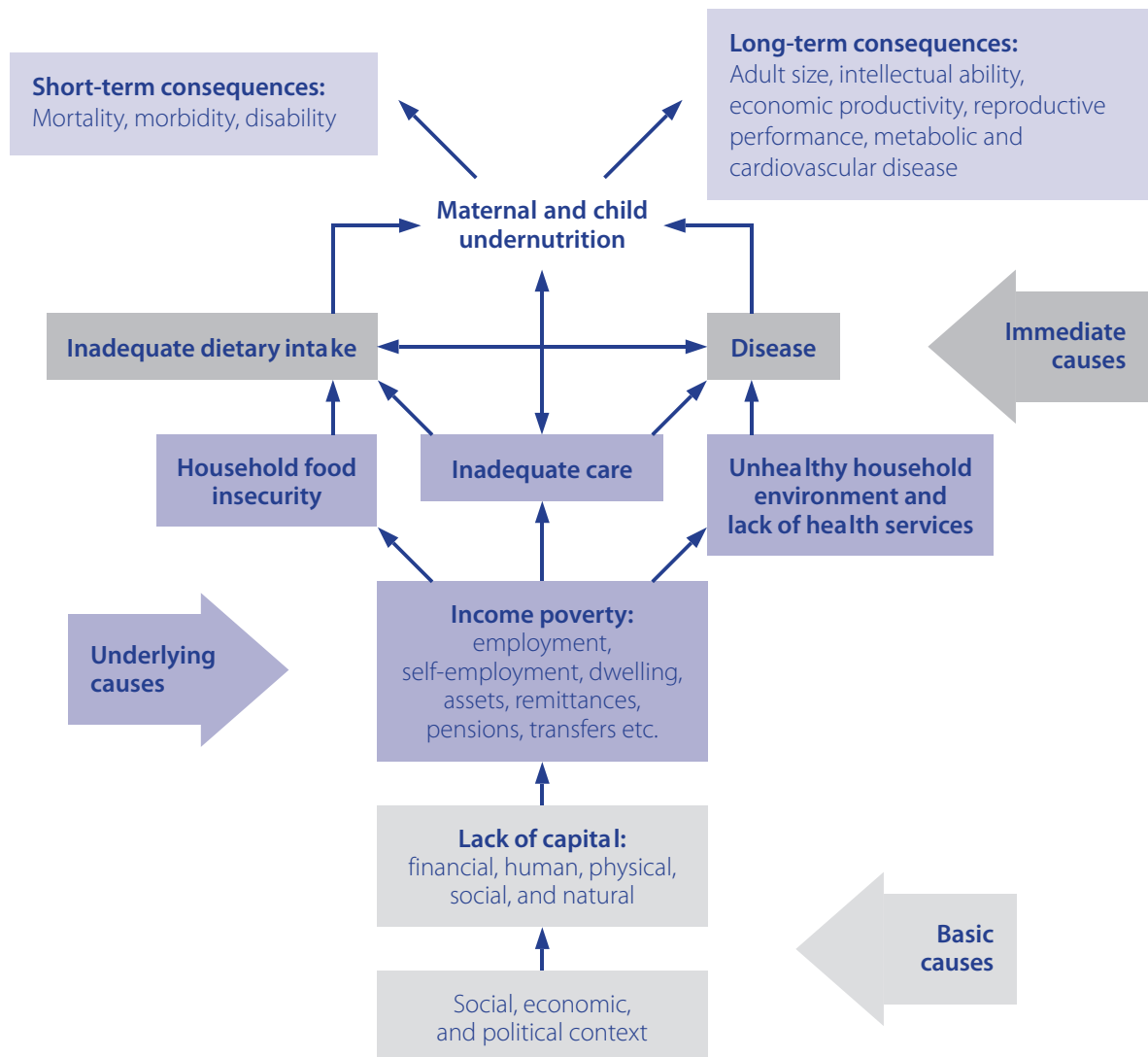
WHO guiding principles on infant and young child feeding in emergencies

In 2004, WHO set out 10 Guiding Principles in order to help prevent increased morbidity and mortality among children in emergencies and to serve as a basis for action. They are intended to:

- Clarify that optimal practices for feeding infants and young children during emergencies are essentially the same as those that apply in other, more stable conditions
- Inform decision-makers about the key interventions required to protect and promote optimal feeding for infants and young children that should be *routinely* included in any emergency relief response
- Provide a starting point for organizing pragmatic, sustained interventions that will ensure optimal feeding and care for infants and young children during emergencies.

Since feeding infants and young children during emergencies is only one aspect of a broader survival strategy for entire populations, the guiding principles should be applied *flexibly* in conjunction with manuals, guidelines, training curricula, and other practical field-oriented documentation that treat in detail a variety of related topics.

Figure 1: Framework of the causes of maternal and child under nutrition and its short-term consequences



Source: Lancet series on Maternal and Child Undernutrition 2008 – adapted from United Nations Children’s Fund, *Conceptual framework for analysing the causes of malnutrition*, UNICEF, New York, 1997

Annex 3: The International Code of Marketing of Breast-milk Substitutes and WHA Resolutions: Summary of portions relevant to emergencies

In 1979, WHO and UNICEF organized an international meeting on infant and young child nutrition. One of the recommendations made was that there should be an international code of marketing of infant formula and other products used as breastmilk substitutes. Member states of WHO and other groups and individuals who had attended the 1979 meeting, including representatives of the infant food industry, were then involved in a consultative process, which culminated in the production of the International Code. This Code was endorsed by the World Health Assembly in 1981 in a Resolution that stressed that the Code is a **minimum requirement** to be enacted **in its entirety** by **all countries**.

The Code sets out the responsibilities of the infant food industry, health workers, national governments and concerned organizations in relation to the marketing of breastmilk substitutes, feeding bottles and teats as well as information regarding the use of these products. Since 1981, subsequent WHA Resolutions have been passed which aim to strengthen and clarify the Code. These Resolutions have the same status as the Code itself and should be read with it.

The most important parts of the Code relating to infant feeding in emergencies are: **Aim:** *“The aim of the Code is to contribute to the provision of safe and adequate nutrition for infants, by the protection and promotion of breastfeeding, and by ensuring the proper use of breast-milk substitutes, when they are necessary, on the basis of adequate information and through appropriate marketing and distribution.”*

Scope: The Code applies to any product that is marketed or otherwise represented as a partial or total replacement for breastmilk, and to feeding bottles and teats. Only certain products are suitable as breastmilk substitutes, but many other unsuitable products (such as baby cereals, fruit or sugar drinks and follow-on formulas) fall under the scope of the Code when they are marketed inappropriately.

Advertising: No advertising of the above products to the public.

Samples: No free samples to mothers, their families or health workers (‘Sample’ means ‘single or small quantities of a product provided without cost.’)

Health care facilities (Article 6):

- No promotion of products, i.e., no product displays, posters or distribution of promotional material.
- ‘Feeding with infant formula... should be demonstrated only by health workers, or other community workers if necessary; and only to the mothers or family members who need to use it; and the information should include a clear explanation of the hazards of improper use’ (Article 6.5).
- No use of ‘mothercraft’ nurses or similar company-paid personnel.
- ‘There should be no free or subsidized supplies of breast-milk substitutes or other products covered by the Code in any part of the health care system.’ 1994 Resolution (WHA 47.50)

Health care workers (Article 7):

- No gifts or samples should be given to health care workers.
- ‘Health workers should not give samples of infant formula to pregnant women, mothers of infants and young children, or members of their families.’ (Article 7.7).
- Product information must be factual and scientific.

Supplies: No free or low-cost supplies of breastmilk substitutes to maternity wards and hospitals (The 1994 WHA Resolution (WHA 47.50) states that they should not be in any part of the health care system)

Information: Governments have responsibility to ensure that ‘objective and consistent information is provided on infant and young child feeding’. Such information should never promote or idealise the use of breastmilk substitutes and should include specified points. It should also explain the benefits and superiority of breastfeeding and the costs and hazards associated with artificial feeding. Manufacturers should provide only scientific and factual information to health workers and should never seek contact with mothers.

Labels (Article 9):

- The label must be 'in an appropriate language,' it should also be 'easily readable and understandable' (Article 9.2.)
- Must clearly state the superiority of breastfeeding, that 'the product should only be used on the advice of a health worker as to its use and the proper method of use' and warning about health hazards. (Article 9.2.)
- There must be no pictures of infants, nor 'pictures or text which may idealize the use of infant formula.' The terms 'humanized,' 'materialized' or similar terms should not be used.
- The label should also state the following: (a) the ingredients used; (b) the composition/analysis of the product; (c) the storage conditions required; and (d) the batch number, and the date before which the product is to be consumed, taking into account the climatic and storage conditions of the country concerned. (Article 9.4)

Products: Unsuitable products should not be promoted for infants, such as sweetened condensed milk. All products should be of high quality and take account of the climatic and storage conditions of the country where they are used. Manufacturers and distributors should comply with the Code **independent** of government action to implement it. NGOs have a responsibility to report any violations to governments and to manufacturers.

The WHA Resolutions most relevant to emergencies are:

- ➔ The **1981 Resolution** (WHA 34.22) stresses that the Code is a 'minimum requirement' to be enacted 'in its entirety' by all countries, that it should be translated into national legislation, regulation or other suitable measures and that compliance should be monitored.
- ➔ The **1986 Resolution** (WHA 39.28) states that:
 - Any food or drink given before complementary food is required may interfere with breastfeeding (less than six months of age) and so should not be promoted or encouraged for use by infants during this period.
 - 'Ensure the small amounts of breast-milk substitutes needed for the minority of infants who require them in maternity wards and hospitals are made available through the normal procurement process and not through free or subsidized supplies.'
 - The practice being introduced in some countries of providing 'follow-up milks' for older children is not necessary.
- ➔ The **1992 Resolution** (WHA 45.34) reaffirms that during the first 4-6 months no other foods or fluids (even water), except breastmilk, are required.
- ➔ The **1994 Resolution** (WHA 47.50) states that:
 - Mothers should be supported in their choice to breastfeed, obstacles should be removed and interference prevented in health services, the workplace or the community
 - Complementary feeding should be introduced from about six months of age
 - There should be no free or subsidized supplies of breastmilk substitutes or other products covered by the Code in any part of the health care system
 - To exercise extreme caution when planning, implementing or supporting emergency relief operations, by protecting, promoting and supporting breast-feeding for infants, and ensuring that donated supplies of breast-milk substitutes or other products covered by the scope of the International Code be given only if all the following conditions apply:
 - Infants have to be fed on breast-milk substitutes... (b) The supply is continued for as long as the infants concerned need it; (c) The supply is not used as a sales inducement'
- ➔ The **1996 Resolution** (WHA 47.15) states that
 - Financial support for professionals working in infant and young child health should not create conflicts of interest.
 - Monitoring of the Code and subsequent relevant resolutions should be carried out in a transparent independent manner, free from commercial influence.
- ➔ The **2001 Resolution** (WHA 55.2) states that exclusive breastfeeding should be promoted, protected and supported for six months as a global public health recommendation, and to provide safe and appropriate complementary foods, with continued breastfeeding for up to two years of age or beyond.

- ➔ the **2005 Resolution** (WHA 58.32) states that:
 - financial support and other incentives for programmes and health professionals working in infant and young child health do not create conflicts of interest
 - Member States should be aware of the risks of intrinsic contamination of powdered infant formulas and ensure this information is conveyed through label warnings
- ➔ The **2010 Resolution** (WHA 63.23) urges Member States “to ensure that national and international preparedness plans and emergency responses follow the evidence-based Operational Guidance for Emergency Relief Staff and Programme Managers on infant and young child feeding in emergencies, which includes the protection, promotion and support for optimal breastfeeding, and the need to minimize the risks of artificial feeding, by ensuring that any required breast-milk substitutes are purchased, distributed and used according to strict criteria”;

Annex 4: Operational Guidance on IYCF-E: Key Points

1. Appropriate and timely support of infant and young child feeding in emergencies (IFE) saves lives.
2. Every agency should endorse or develop a policy on IYCF-E. The policy should be widely disseminated to all staff, with agency procedures adapted accordingly and policy implementation enforced.
3. Agencies should ensure the training and orientation of their technical and non-technical staff in IYCF-E, using available training materials.
4. Within the United Nations Inter-agency Standing Committee (IASC) cluster approach to humanitarian response, UNICEF will likely be the UN agency responsible for coordination of IYCF-E in the field. Other United Nations agencies and NGOs do, nonetheless, have key roles to play in close collaboration with the government.
5. Key information on infant and young child feeding needs to be integrated into routine rapid assessment procedures. If necessary, more systematic assessment using recommended methodologies could be conducted.
6. Simple measures should be put in place to ensure that the needs of mothers, infants and young children are addressed in the early stages of an emergency. Support for other caregivers and those with special needs, e.g., orphans and unaccompanied children, must also be established at the outset.
7. Breastfeeding and infant and young child feeding support should be integrated into other services for mothers, infants and young children.
8. Foods suitable to meet the nutrient needs of older infants and young children must be included in the general ration for food-aid dependent populations.
Donated (free) or subsidized supplies of breastmilk substitutes (e.g., infant formula) should be avoided. Donations of bottles and teats should be refused in emergency situations. Any well-meant but ill-advised donations of breastmilk substitutes, bottles and teats should be placed under the control of a single designated agency.
9. The decision to accept, procure, use or distribute infant formula in an emergency must be made by informed, technical personnel in consultation with the coordinating agency, lead technical agencies and governed by strict criteria.
Breastmilk substitutes, other milk products, bottles and teats must never be included in a general ration distribution. Breastmilk substitutes and other milk products must only be distributed according to recognized strict criteria and only provided to mothers or caregivers for those infants who need them. The use of bottles and teats in emergency contexts should be actively avoided.

IFE Core Group, *Operational Guidance on Infant and Young Child Feeding in Emergencies (for emergency relief staff and programme managers)*, version 2.1, February 2007.

Full text including translated versions available at www.enonline.net.

Annex 5: Model Joint Statement on infant and young child feeding in an emergency

Note: Context-specific information required to produce a joint statement from this model is indicated by brackets.

Call for support for appropriate infant and young child feeding in emergencies

List of issuing organisations call for support for appropriate infant and young child feeding in the current emergency, and caution about unnecessary use of milk products.

INSERT OPENING LEADING LINES, CONTEXT SPECIFIC.

During emergency situations, whether manmade or natural disasters, [contexts and examples can be inserted here], disease and death rates among under-five children are generally higher than for any other age group. The younger the infant, the higher the risk. Mortality may be particularly high due to the combined impact of a greatly increased prevalence of communicable diseases and diarrhoea and soaring rates of under-nutrition. The fundamental means of preventing malnutrition and mortality among infants and young children is to ensure their appropriate feeding and care.

[List of issuing organisations] note that donations of infant formula and other powdered milk products are often made, whilst experience with past emergencies has shown that without proper assessment of needs, an excessive quantity of milk products for feeding infants and young children are often provided, endangering their lives. There should be no donations of breastmilk substitutes (BMS), such as infant formula, other milk products, bottle-fed complementary foods represented for use in children up to 2 years of age, complementary foods, juices, teas represented for use in infants under six months; and bottles and teats. Any unsolicited donations should be directed to the designated coordinating agency (see below).

[List of issuing organisations] reiterate that no food or liquid other than breastmilk, not even water, is needed to meet an infant's nutritional requirements during the first six months of life. After this period, infants should begin to receive a variety of foods, while breastfeeding continues up to two years of age or beyond. The valuable protection from infection and its consequences that breastmilk confers is all the more important in environments without safe water supply and sanitation. Therefore, creation of a protective environment and provision of skilled support to breastfeeding women are essential interventions.

Any provision of BMS for feeding infants and young children should be based on careful needs assessment. Therefore, all donor agencies, non-governmental organisations (NGOs), media, individuals wishing to help and other partners, should avoid calls for and sending donations of BMS, bottles and teats and refuse any unsolicited donations of these products. BMS should be used only under strict control and monitoring and in hygienic conditions, and in accordance with the International Code of Marketing of Breastmilk Substitutes and subsequent relevant World Health Assembly resolutions, as well as humanitarian agencies' policies and guidelines. **There should be no general distribution of BMS.**

There is a common misconception that in emergencies, many mothers can no longer breastfeed adequately due to stress or inadequate nutrition. A desire to help may result in the inappropriate donations of infant formula and other milk products. Stress can temporarily interfere with the flow of breast milk; however, it is not likely to inhibit breast-milk production, provided mothers and infants remain together and are adequately supported to initiate and continue breastfeeding. Mothers who lack food or who are malnourished can still breastfeed adequately. Adequate fluids and extra food for the mother will help to protect her health and well-being.

If supplies of infant formula and/or powdered milks are widely available, mothers who might otherwise breastfeed might needlessly start giving artificial feeds. This exposes many infants and young children to increased risk of infectious disease, malnutrition and death, especially from diarrhoea when clean water is scarce. The use of feeding bottles only adds further to the risk of infection as they are difficult to clean properly.

In exceptionally difficult circumstances, therefore, the focus needs to be on creating conditions that will facilitate breastfeeding, such as establishing safe 'corners' for mothers and infants, one-to-one counselling, and mother-to-mother support. Traumatized and depressed women may have difficulty responding to their infants and require particular mental and emotional support. Every effort should be made to identify ways to breastfeed infants and young children who are separated from their mothers, for example by a wet-nurse.

In addressing IYCF-E in the context of high HIV prevalence, a position reflecting the latest consensus may be stated here.

Treatment of severely malnourished children, whether facility or community based, should be treated in accordance with international standards and best practice and closely monitored. Standard commercial infant formulas are not meant for this purpose.

Children from the age of six months require nutrient-rich complementary foods in addition to breastfeeding. Complementary feeding should be addressed with priority for locally available, culturally acceptable, nutritionally adequate family foods.

Provision of fortified foods or micronutrient supplements such as vitamin A or zinc in supervised programmes for young children represent a much more appropriate form of assistance than sending milk products. In rations for general food distribution programmes, pulses, meat, or fish are preferable to powdered milk.

List of issuing organisations] strongly urge all who are involved in funding, planning and implementing an emergency response and in all levels of communication to refer to key policy and programme instruments to avoid unnecessary death following uncontrolled distribution of BMS. Community leaders are called upon to monitor and report any donations that may undermine breastfeeding.

We urge governments and partners to include capacity building for breastfeeding and infant and young child feeding as part of emergency preparedness and planning, and to commit financial and human resources for proper and timely implementation of breastfeeding and infant and young child feeding in emergencies.

The designated coordinating agency is Insert

Available on: <http://www.enonline.net>

Direct link: <http://www.enonline.net/resources/237>

Annex 6: Sample key messages on IYCF for communication to different target groups

Sample key messages on stress and breastfeeding to circulate in an emergency

- Breastfeeding can help a mother and baby or young child deal with stressful or traumatic situations.
- A traumatised mother can be helped through breastfeeding her baby.
- A frightened young child will get reassurance, as well as nourishment, from breastfeeding.
- Breastfeeding can also help in pain relief of infants and young children. So if a baby or young child is injured, breastfeeding can help – as well as supply essential food and fluid.
- If you have stopped breastfeeding, you can restart – if you breastfeed more, then you will produce more milk.
- Even if your breasts are soft, this does not mean they are empty – they will still produce enough milk.
- If you are breastfeeding your baby, encourage and support other mothers caught up in the crisis especially those who may be having difficulties, who may be traumatised or who have newborns. Help to build their confidence and reassure them of this amazing capacity they have to nourish and protect their babies in this emergency.
- If you are the father or the husband or the relative of a mother who is breastfeeding or who has breastfed and has stopped during this crisis, encourage her to continue or restart. Reassure her of the resilience of breastfeeding and how well she is equipped to nourish and protect her baby.

Sample key messages to mothers and caregivers in an emergency

Their use should be informed by the particular context and carefully translated to ensure accurate interpretation.

- Babies are very vulnerable but taking special care in feeding them can protect them. This is what you can do to protect your baby: The most effective way of protecting babies is to breastfeed them. Breastmilk gives your baby food and water and is a medicine that fights illness. Babies under 6 months should not be given anything except for breastmilk. Giving a baby under 6 months water or infant formula, milk powder or solid food under the current circumstances is dangerous. It can give them diarrhoea and this can be fatal, this is why it is so important to only breastfeed if it is at all possible. Children over 6 months should continue to be breastfed until at least 2 years.
- The youngest babies are at the greatest risk if they are not breastfed. So it is essential that newborn babies begin breastfeeding immediately after birth (within an hour) and are given only breastmilk.
- Some people think that stress or not having good food will make a mother's milk dry up, this is not true. A hand or shoulder massage can help you to feel less stressed and will help the milk to flow more easily when you are breastfeeding. Stressful or traumatic situations can interfere with how often and when you feed your baby, so that you may produce less breastmilk. Babies and young children may be disturbed by stressful situations and become difficult to settle down to feeding.
- Whatever the reason, **more frequent breastfeeds** will help you make more milk if you think you don't have enough. Keeping the baby close to you, the mother, day and night will help you to breastfeed more and make more milk.
- If you have had powdered milk given to you for your baby and you are breastfeeding, drink it yourself, nourishing yourself will help you to nourish your baby. Do not give your baby infant formula or powdered milk unless it is absolutely necessary because it is dangerous.
- If a baby does not have a mother or if their mother has stopped breastfeeding another woman can breastfeed the baby (depending on local context).
- If you have been using infant formula and breastfeeding you can increase your milk supply by reducing the amount of formula given to your baby and breastfeeding more frequently. If you have stopped breastfeeding you can start again; letting the baby suck at the breast will start the milk flowing again but this can take a few days to a couple of weeks for there to be enough milk – depending on how long it has been since you stopped.
- It is very important to take extreme care in feeding babies formula. This should only happen if there is no way that the baby can be breastfed. It is very important to make sure that everything used to feed the baby is clean. Cups are better for feeding than bottles, which are very hard to clean properly. Cleaning water and water to make up formula should be boiled. Made up formula should not be stored. Seek help from organisations supporting mothers feeding their babies. Seek medical help if your baby gets sick with diarrhoea or a chest infection.

English and French copies of this are available at www.enonline.net or direct link <http://www.enonline.net/resources/735>

Annex 7: Active/Responsive Feeding for Young Children

Definition: Active/responsive feeding is being alert and responsive to your baby's signs that she or he is ready-to-eat; actively encourage, but don't force your baby to eat.

Importance of active feeding:

When feeding him/herself, a child may not eat enough. He or she is easily distracted. Therefore the young child needs help. When a child does not eat enough, he or she will become malnourished.

- Let the child eat from his/her own plate (caregiver then knows how much the child is eating)
- Sit down with the child, be patient and actively encourage him/her to eat.
- Offer food the child can take and hold; the young child often wants to feed him/herself. Encourage him/her to, but make sure most of the food goes into his/her mouth.
- Mother/father/caregiver can use her fingers (after washing) to feed child.
- Feed the child as soon as he or she starts to show early signs of hunger.
- If your young child refuses to eat, encourage him/her repeatedly; try holding the child in your lap during feeding.
- Engage the child in "play", trying to make the eating session a happy and learning experience...not just an eating experience.
- The child should eat in his/her usual setting.
- As much as possible, the child should eat with the family in order to create an atmosphere promoting his/her psycho-affective development.
- Help older children to eat.
- Do not insist if the child does not want to eat. Do not force feed.
- If the child refuses to eat, wait or put it off until later.
- Do not give child too much to drink before or during meals.
- Congratulate the child when he or she eats.

Parents, family members (older children), child caretakers can participate in active/responsive feeding.

Source: UNICEF IYCF Counselling Package (2010). See Part 4 Resources.



Annex 8: Key information on complementary foods

Things to consider regarding complementary feeding are: A = Age of infant/young child, F = Frequency of foods, A = Amount of foods, T = Texture (thickness/consistency), V = Variety of foods, A = Active or responsive feeding, H = Hygiene

Energy and nutrient considerations

Energy

- From 0 up to 6 months breast milk supplies all the 'energy needs' of a child
- From 6 up to 12 months breast milk continues to supply about half ($1/2$) the 'energy needs' of a child; the other half of 'energy needs' must be filled with complementary foods
- From 12 up to 24 months breast milk continues to supply about one third ($1/3$) of the energy needs of a child; the missing 'energy needs' must be filled with complementary foods
- Besides nutrition, breastfeeding continues to:
 - provide protection to the child against many illnesses, and provides closeness, comfort, and contact that helps development.

Iron

- The iron stores present at birth are gradually used up over the first six months
- There is little iron from breast milk (although it is easily absorbed). After 6 months the baby's iron needs must be met by the food he or she eats.
- Best sources of iron are animal foods, such as liver, lean meats and fish. Some vegetarian foods such as legumes have iron as well. Other good sources are iron-fortified foods and iron supplements.
- Plant sources such as beans, peas, lentils and spinach are a source of iron as well.
- Eating foods rich in vitamin C together with/or soon after a meal, increases absorption of iron.
- Drinking tea and coffee with a meal reduce the absorption of iron.

Vitamin A

- Best sources of vitamin A are yellow-coloured fruits and vegetables (papaya, mangoes, passion fruit, oranges, carrots, pumpkins, yellow sweet potato); dark-green leaves, and organ foods/offal (liver) from animals; eggs, milk and foods made from milk such as butter, cheese and yoghurt; dried milk powder and other foods fortified with vitamin A.

Breastfed infants and young children requirements

At 6 months

- Babies have small stomachs and can only eat small amounts at each meal so it important to feed them frequently throughout the day
- Start with the staple cereal to make porridge (e.g. corn, wheat, rice, millet, potatoes, sorghum)
- *Animal source foods are very important* and can be given to babies and young children. Cook well and chop fine.
- The consistency of the porridge should be thick enough to be fed by hand
- When possible use milk instead of water to cook the porridge
- Use iodised salt to cook the porridge
- Continue breastfeeding to 24 months or older
- Foods intended to be given to the child should always be stored and prepared in hygienic conditions to avoid contamination, which can cause diarrhoea and other illnesses.

From 6 up to 9 months

- An 8-month old stomach holds about 200 ml or less than a cup
- Add colourful (variety) foods to enrich the staple including beans, peanuts, peas, lentils or seeds; orange/red fruits and vegetables (such as ripe mango, papaya, and carrots, pumpkin); dark-green leaves (such as kale, chard), avocado. Soak beans and legumes before cooking to make them more suitable for feeding children
- Add animal-source foods: meat, chicken, fish, liver; and eggs and milk, and milk products (whenever available)
- Mash and soften the added foods so your baby/child can easily chew and swallow.
- By 8 months the baby should be able to begin eating finger foods. It is important to give finger foods to children to eat by themselves only after they are able to sit upright.
- Use iodised salt
- Continue breastfeeding
- Additional nutritious snacks (such as fruit or bread or bread with nut paste) can be offered once or twice per day, as desired
- Foods intended to be given to the child should always be stored and prepared in hygienic conditions to avoid contamination, which can cause diarrhoea and other illnesses.

From 9 up to 12 months

- Add colourful (variety) foods to enrich the staple including beans, peanuts, peas, lentils or seeds; orange/red fruits and vegetables (such as ripe mango, papaya, and carrots, pumpkin); dark-green leaves (such as kale, chard), avocado.
- Add animal-source foods: meat, chicken, fish, liver; and eggs and milk, and milk products (whenever available)
- Give at least 1 to 2 snacks each day such as ripe mango and papaya, avocado, banana, other fruits and vegetables, fresh and fried bread products, boiled potato, sweet potato
- Use iodised salt
- Continue breastfeeding
- Foods intended to be given to the child should always be stored and prepared in hygienic conditions to avoid contamination, which can cause diarrhoea and other illnesses.

From 12 up to 24 months

- Add colourful (variety) foods to enrich the staple including beans, peanuts, peas, lentils or seeds; orange/red fruits and vegetables (such as ripe mango, papaya, and carrots, pumpkin); dark-green leaves (such as kale, chard), avocado.
- Add animal-source foods: meat, chicken, fish, liver; and eggs and milk, and milk products every day at least in one meal (or at least 3 times /week)
- Give at least 1 to 2 snacks each day such as ripe mango and papaya, avocado, banana, other fruits and vegetables, fresh and fried bread products, boiled potato, sweet potato
- Use iodised salt
- Continue breastfeeding to 24 months or beyond
- Foods intended to be given to the child should always be stored and prepared in hygienic conditions to avoid contamination, which can cause diarrhoea and other illnesses.

Non-breastfed infants and young children considerations

Recommended complementary feeding practices to address the need for milk products and extra fluids for a non-breastfed child

- Exclusive breast milk substitute from 0 up to 6 months
- After 6 months of age, add the following:
 - 1 to 2 extra meals and offer 1 to 2 snacks (especially 'animal flesh' foods), i.e. 4 meals/day of family foods
 - 1 to 2 cups of milk per day
 - About 2 cups/day of extra fluids (in addition to the 1 to 3 cups/day of water that is estimated to come from milk and other foods in a temperate climate, and 3 to 4 cups/day in a hot climate)

Hygiene

- Wash hands with soap and water before preparing food, eating, and feeding young children. Wash baby's hands before eating.
- Wash hands with soap and water after using the toilet and washing or cleaning baby's bottom.

Five keys to safer food

1. Keep clean (hands, working surfaces, utensils).
2. Separate raw from cooked foods including utensils and containers
3. Use fresh foods and cook thoroughly (especially meat, poultry, eggs and fish)
4. Keep food at safe temperature
5. Use clean and safe water

Feeding a sick child over 6 months of age

Encourage the child to breastfeed more and continue eating during illness and provide extra food after illness.

- Fluid and food requirements are higher during illness.
- It is easier for a sick child to eat small frequent meals. Feed the child foods he or she likes in small quantities throughout the day.
- Children who have been sick need extra food and should be breastfed more frequently to regain the strength and weight lost during the illness.
- Take advantage of the period after illness when appetite is back to make sure the child makes up for loss of appetite during sickness.

Source: UNICEF IYCF Counselling Package (2010). See Part 4 Resources.

Annex 9: How breastfeeding works

Understanding how breastfeeding works can help staff to see why appropriate support is necessary and dispel common concerns and misconceptions in emergencies. During emergencies, a breastfeeding counsellor's task is to build the mother's confidence, provide accurate information, help the mother to ensure adequate milk production and ensure that the mother has necessary support.

There are four key components to effective breastfeeding:

- Good attachment and positioning
- Milk flow and confidence
- Adequate milk production
- Age-appropriate feeding for the infant and young child

Interventions to support breastfeeding mothers should address these.

Good attachment

In order to ensure effective breastfeeding a baby needs to suckle effectively, by taking enough of the breast into his or her mouth: this is called ensuring a good attachment. Signs of good attachment are:

- more areola above the baby's mouth than below
- baby's mouth wide open
- lower lip turned out (can be hard to see)
- chin touching the breast (or nearly touching)

In addition, the baby is well attached if breastfeeding is comfortable and painless for the mother (see IFE Module 2 for illustration of attachment).

Good positioning

Positioning, how a mother holds her baby, can be very important in ensuring good attachment and feeding. For good positioning, the baby's body must be:

- straight and in line with the head so that the neck is not twisted or bent forward too far back
- facing the breast (baby's nose facing the nipple as s/he comes to the breast)
- close to the mother's body
- supported: a young infant needs the whole body supported, not just the head and neck; an older child may like to have his/her back supported even though s/he sits up to breastfeed
- good positioning of the baby done with different positions (mother lying down, sitting up); it is important to ensure that the baby's wrappings do not get in the way.

Milk flow and confidence

There are two things that affect milk flow: the baby's suckling (which also affects milk production) and the mother's feelings. The breasts of a breastfeeding mother are never completely empty. Milk is produced and stored in the breast all the time. When a baby suckles, a hormone called oxytocin is released. Oxytocin makes the stored breastmilk flow through ducts towards the nipple. Good feelings, such as pleasure in touching, seeing or hearing her baby, or feeling confident that her milk is good, help her milk to flow. Bad feelings, such as worries about her milk, or rejection by the baby, may interfere with the flow of milk.

The extreme stresses and disturbances of emergencies sometimes seem to interfere with milk flow. Fortunately, any stopping of milk flow is usually temporary. Protection, shelter and a reassuring atmosphere around a woman can help her milk to flow easily again. A mother does not need perfect calm or special conditions to breastfeed. Many women breastfeed without difficulty in extremely stressful situations. Some women find that breastfeeding soothes and helps them to cope with stress.

Adequate milk production

Breasts make milk in response to the suckling of an infant. There are two processes to know about:

- a) Suckling stimulates release in the mother's body of a hormone called prolactin. Prolactin makes the breasts produce milk. The milk is stored in the breast.
- b) Milk production slows down if a lot of milk is left in a breast at any time.

More suckling makes more milk

A breastfeeding mother does not have a fixed 'supply' of breastmilk. She can always make more with the right technique, confidence and frequent feeding. A mother with twins can produce enough milk for both babies. A mother can also produce enough milk even if she is moderately malnourished. Milk production is only likely to be reduced if a woman is severely malnourished; then the woman herself would need immediate feeding/extra food ('Feed the mother to feed the baby'). In such cases, the woman needs support to continue to offer her baby the breast in order to maintain the milk-making process while she recovers herself.

Recommended breastfeeding pattern

Frequent and unlimited breastfeeds throughout the first year of life ensures stimulation of the mother's breasts to make the milk that the baby needs to grow and develop healthily. The baby should:

- suckle as often as s/he wants, day and night, without long periods of separation
- suckle for as long as s/he wants at each feed (getting the rich milk that comes later in the feed).
- have the breast kept available if s/he pauses or lets go for some moments (pauses do not necessarily mean that s/he has finished the feed).
- finish the first breast and then be offered the second which s/he may or may not want – it is up to the infant to decide whether s/he wants one or two breasts at each feed (there is no rule).

Step 1: Ensure effective suckling

- Observe a breastfeed for the four points of good attachment (areola, mouth, lip, chin) and effective suckling.
- If attachment is not good, or suckling not effective, improve position (straight, facing, close, supported) and help attach the baby. If necessary, also improve the position by:
 - reducing baby's wrappings so s/he can reach the breast
 - showing the mother how to hold her breast well behind the nipple, without pinching
 - encouraging her to lie down and hold the baby under arm or across the body.
- Avoid distractions and let baby suckle at own speed.
- Avoid feeding-bottles and pacifiers.

Step 2: Build the mother's confidence and help milk flow

- Help mother and infant until suckling is effective.
- Encourage her to enjoy skin-to-skin contact and to play with her baby face-to-face.
- Build her confidence:
 - recognize and praise what she is doing right – including signs of milk flow,
 - give relevant information in an encouraging way and correct misconceptions.
- Help her to breastfeed near trusted companions, which helps relaxation.

Step 3: Increase milk production**Encourage more frequent breastfeeds**

- Ask mother to breastfeed very often, 12 times or more in 24 hours if the baby is willing.
- Tell her the value of keeping the baby with her day and night and breastfeeding at night.
- Encourage her to give the breast for comfort at any time.
- If baby is ill or unusually sleepy, encourage her to wake him/her up and offer her breast often.

Encourage longer breastfeeds

- Suggest that the mother continues each feed until baby stops him or herself and does not want more. It is best if she does not detach the baby or put her breast away quickly.
- Encourage her to offer the other breast, and let baby decide if s/he wants more or not

Ensure mother gets enough to drink (Supportive care has assured enough food).

- Help her to keep drinking water available for herself.

Remove interference

- Help the mother to reduce any milk supplements by 50 millilitres per day, monitoring weight weekly to reassure her that infant is still gaining 125 grams per week.
- Ask her to avoid separation from the baby, scheduled feeding, care of the baby by others, delaying feeds and, as above, giving bottles and pacifiers.
- Help her to prevent a new pregnancy with non-oestrogen family planning methods.

Step 4 : Encourage age-appropriate feeding

- Help the mother to establish or re-establish exclusive breastfeeding until the baby is six months old.
- If supplements are needed, teach her to give them by cup, not bottle.
- Show her how to prepare and give adequate complementary foods from six months of age, as well as frequent breastfeeds.

Source and for more detailed technical information: *IFE Core Group (2007) IFE Module 2 Part 4 Resources*

Annex 10: Challenges in managing acute malnutrition in infants <6 months

Global burden

Secondary data analysis⁵⁷ of demographic and health survey datasets in 21 developing countries found wasting among infants under 6 months was prevalent in many of the developing countries. Using National Centre for Health Statistics (NCHS) growth references, prevalence of wasting in infants under-6-months ranged from 1.1% to 15% (median 3.7%); this equates to around 3 million wasted infants <6 months worldwide. Prevalence was more than double using 2006 WHO growth standards: 2.0-34% (median 15%), equivalent to 8.5 million wasted infants <6 months worldwide. Prevalence differences using WHO standards are more marked for infants under 6 months than children and both moderate and especially severe wasting prevalence is increased. There are considerable implications for policy makers, programme managers and clinicians in child health and nutrition programmes.

Programme experiences

In the MAMI review⁵⁸, infants <6m accounted for 16% of admissions,⁵⁹ ranging from 1.2% in Uganda to 23.1% in Tajikistan (individual level data analysis). Inpatient care was the dominant form of treatment. Overall % mortality in infants <6m was significantly higher than children aged 6 to <60 months (4.7% vs. 4.0% respectively, $p < 0.01$). A risk ratio of 1.29 (ranging from 1.08-1.53, $p < 0.01$) was observed.

There was little information on programme coverage of infants <6m. Many programmes did not actively seek malnourished infants <6m and not all presentations or admissions/referrals of infants <6m were recorded. Assessment of growth history of infants <6m was difficult due to use of different indicators in the community (weight-for-age) and for admission (weight-for-height, MUAC), lack of serial measures and poor quality of anthropometric measurements. Guidelines for MAMI were inconsistent and lacked information on supporting mothers/ caregivers of this age group on specific issues, e.g. breastfeeding assessment tools, supplementary suckling technique. A combination of clinical judgement and/or anthropometric indicators, that varied greatly, was often used to determine admission.

Examples of good practice exist, such as the use of 'breastfeeding corners' to assess breastfeeding pre-admission and supplementary suckling – a core treatment in many current guidelines. Staff time and experience were important limiting factors in success rates.

Managing orphans and non-breastfed infants was identified as a major challenge, both in treatment and longer term follow-up. Follow-up was not clearly defined.

Priority research:

Key areas include:

- Develop a triage tool based on a set of clinical signs for 'complicated' cases in need of urgent inpatient treatment.
- Systematic review of studies of different anthropometric indicators suitable for use in the community in infants <6m, including a review of the suitability of MUAC for this age group.
- Review of the effectiveness of community-based breastfeeding support to assess its viability as a treatment option for uncomplicated cases of SAM in infants <6m.
- Review the effectiveness of breastfeeding assessment tools for use in the community to identify 'uncomplicated' and 'complicated' cases of SAM in infants <6m.
- Investigate the nature and effectiveness of skilled breastfeeding counselling and support in inpatient treatment of severely malnourished infants <6m.

Source Kerac et al. (2010). MAMI Project. Technical Review: Current evidence, policies, practices & programme outcomes. Jan 2010.

See full and summary reports at: <http://www.enonline.net/research/mami>

⁵⁷ Kerac M, Blencowe H, Grijalva-Eternod C, McGrath M, Shoham J, Cole TJ, Seal A. (2011). Prevalence of wasting among under 6-month-old infants in developing countries and implications of new case definitions using WHO growth standards: a secondary data analysis. *Arch Dis Child*. 2011 Feb 2. Full text available online at: <http://adc.bmj.com/content/early/2011/02/01/adc.2010.191882.short?rss=1>

⁵⁸ Kerac et al. (2010). Management of Acute Malnutrition in Infants (MAMI) Project. Technical Review: Current evidence, policies, practices and programme outcomes.

⁵⁹ A total of 25,195 children (4,002 infants <6m) were included in the main analysis, derived from thirty-three 'raw' databases with individual-level data from 12 countries.

Annex 11: 10 Steps to successful breastfeeding

Every facility providing maternity services and care for newborn infants should:

1. Have a written breastfeeding policy that is routinely communicated to all health care staff.
2. Train all health care staff in skills necessary to implement this policy.
3. Inform all pregnant women about the benefits and management of breastfeeding.
4. Help mothers initiate breastfeeding within a half-hour of birth.
5. Show mothers how to breastfeed, and how to maintain lactation even if they should be separated from their infants.
6. Give newborn infants no food or drink other than breastmilk, unless *medically* indicated.
7. Practice rooming-in – allow mothers and infants to remain together 24 hours a day.
8. Encourage breastfeeding on demand.
9. Give no artificial teats or pacifiers (also called dummies or soothers) to breastfeeding infants.
10. Foster the establishment of breastfeeding support groups and refer mothers to them on discharge from the hospital or clinic.

WHO/UNICEF (1998), *Evidence for the ten steps to successful breastfeeding*. WHO, Geneva.
Available on [World Health Organization](#).

Annex 12: Protecting infants in emergencies: Information for the Media

This briefing was prepared by the IFE Core Group, an international collaboration of UN agencies and NGOs developing policy guidance and capacity building on IYCF-E. This briefing was prepared with the support of the UNICEF-led Inter-Agency Standing Committee (IASC) Nutrition Cluster. Available (with references and key contacts) in English, Arabic, French, Spanish, Italian and German on: <http://www.enonline.net> or direct link: <http://www.enonline.net/resources/126>

"Although Sri Lanka is a country with a high exclusive breastfeeding rate, there was a myth among mothers about the inability to produce enough breastmilk when under stress. A major problem was the distribution of infant formula and feeding bottles by donors and non-governmental organisations (NGOs), without the appropriate controls, to breastfeeding mothers. Donors acted emotionally without any scientific basis, disregarding the dangers of artificial feeding in disasters. Additionally the mass media was very keen on feeding babies so made a public appeal to supply artificial milk and feeding bottles. The Ministry of Health faced many challenges to ensure that breastfeeding mothers continued to do so and did not swap to unsustainable and potentially dangerous infant formula." Statement from the Sri Lankan Ministry of Health after the 2004 Indian Ocean Tsunami

Natural and man-made disasters – earthquakes, floods, droughts and wars – regularly put lives at risk. And babies caught in the ensuing chaos are vulnerable to malnutrition and death. Journalists have an important role in helping to protect infants in emergencies by not supporting appeals for donations of infant formula and by reminding audiences that breastmilk is a reliable and sterile food that helps to prevent illness, while artificial feeding may further add to the health risks.

Why are infants vulnerable?

Babies have specific nutritional needs and are born with an undeveloped immune system. For infants who are breastfed, breastmilk provides both food and immune support, which protects them from the worst of emergency conditions. However, the situation is very different for babies who are not breastfed. In an emergency, food supplies are disrupted, there may be no clean water with which to make up infant formula or to clean feeding implements and the health care system is stretched past breaking point. This means that babies who are not breastfed are vulnerable to infection and to developing diarrhoea. Babies with diarrhoea easily become malnourished and dehydrated and so are at real risk of death. Whenever there is an emergency, it is extremely important that babies who are already being breastfed continue to be and that babies who are not breastfed re-start breastfeeding or, if this is not possible, are given infant formula in the safest possible way.

What about young children?

It is not only babies that are vulnerable. Under five year olds, and especially children under 2 years, are at risk of increased illness and death in emergencies. Breastfeeding still protects these children and the World Health Organisation (WHO) recommends that breastfeeding be continued until at least 2 years of age. Young children also need enough nourishing food that is safely prepared – this too can be a real challenge in an emergency.

What is the problem?

Past experience has shown that when there is an emergency, massive amounts of infant formula and powdered milk are commonly donated. Some donations are a direct result of media appeals for infant formula. These may originate with aid agencies, governments or from individual efforts to help. Media coverage may generate public pressure on governments to bring in formula. In the confusion that surrounds emergencies, these products are often distributed in an uncontrolled way and used by mothers who would otherwise breastfeed their babies. This results in unnecessary illness and death for many infants. For instance, a UNICEF audit after the 2006 Yogyakarta earthquake in Indonesia found that although breastfeeding rates were initially very high, 70% of children under six months had been given donated infant formula. In another example, a Centre for Disease Classification (CDC) investigation of the post-flood deaths of more than 500 children in Botswana in 2005-06, found that nearly all of the babies who died were formula fed. Here the risk of hospitalisation for babies who were not breastfed was 50 times greater than that of breastfed infants. It is also extremely common for powdered milk to be distributed as a part of general rations. However, this is also problematic since experience has shown that about half of such milk will be given to babies.

How can journalists help?

The media has an important role to play in protecting babies in emergency situations by disseminating information that will protect breastfeeding and promote the appropriate use of infant formula and powdered milk. Members of the media can assist by including the following messages in their stories:

- Supporting mothers to continue breastfeeding is the surest way of protecting infants in emergencies.
- Breastfeeding is not fragile and women who are physically and emotionally stressed are able to make enough milk for their babies.
- The indiscriminate use of infant formula in an emergency is extremely dangerous to babies, causing illness and death.
- Emergency workers do not need large amounts of infant formula when there is an emergency and any that they do need should be procured locally. There is no need for donations of infant formula, powdered milk or baby bottles to be sent to the site of an emergency.
- Members of the public who donate funds to aid agencies should be encouraged to ask the recipients of their donations if and how they are distributing infant formula or powdered milk and encourage them to act appropriately.
- Members of the public who become aware of aid agencies distributing infant formula or powdered milk inappropriately should report these activities to the relevant authorities (see key contacts).

Sometimes representatives of aid or government agencies will seek to place an appeal for donations of infant formula via the media. This is never appropriate. Such representatives should be directed to UNICEF for clarification on how to appropriately source and supply infant formula.

How can babies and young children be protected in emergencies?

There are accepted guidelines for the management of infant feeding in emergencies.

1. Mothers who are breastfeeding their babies are to be given support and practical assistance to continue, they should never be indiscriminately given infant formula or powdered milk. Experience has found that peer support programmes can help mothers to care for their babies and keep breastfeeding.
2. Mothers who have stopped breastfeeding completely, i.e. weaned their babies, should be encouraged to restart breastfeeding (relactate) and the option of wet nursing (where another woman breastfeeds the baby) should be explored for babies without mothers.
3. If there are infants who cannot be breastfed they should be provided with infant formula and the associated necessary resources to prepare it, under close supervision. Carers should be provided with education and support and the health of the baby monitored. Baby bottles should never be used because of the risk of contamination due to the difficulty of effectively cleaning them – even young babies can be fed via cup or spoon.
4. If powdered milk is to be provided it should be mixed with the local staple cereal prior to distribution so that it cannot be used as a breastmilk substitute.
5. Efforts to protect and support breastfeeding and ensure safe artificial feeding should extend to all young children.
6. Emergencies may be used by infant formula manufacturers as a way to enter new markets and increase sales. Unethical marketing of infant formula is a problem worldwide and an international code has been developed to protect mothers and babies from such unethical marketing.

Conclusion

The messages that the media present about the needs of infants in emergencies can have a far-reaching impact on the babies who are unfortunate enough to be affected by an emergency. Members of the public, NGOs and donor agencies want to assist babies and giving them good information about infant and young child feeding in emergencies will help to prevent harmful practices and help to protect the most vulnerable from malnutrition and death.

