

Supporting breastfeeding in emergencies: protecting women's reproductive rights and maternal and infant health

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Women have the right to support that enables them to breastfeed. Supporting breastfeeding in emergencies is important because artificial feeding places mothers and children at risk. In emergencies, artificial feeding is dangerous to the infant, difficult and requires substantial resources. In contrast, breastfeeding guards infant health. It is also protective against postpartum haemorrhage, maternal depletion, maternal anaemia and closely spaced births and should therefore concern not only nutritionists, but also those involved in reproductive health. However, it is common for women's ability to breastfeed to be undermined in emergencies by the indiscriminate distribution of breast-milk substitutes and the absence of breastfeeding support. Controlling the distribution of breast-milk substitutes, providing supportive environments, and appropriate medical and practical assistance to breastfeeding women safeguards the health and well-being of mothers and babies. Greater collaboration between the nutrition and reproductive health sectors is required to promote best practice in protecting breastfeeding women and their children in emergencies.

Keywords: aid agencies, breastfeeding, disasters, emergencies, infant formula, reproductive health

Breastfeeding within a reproductive rights framework

Breastfeeding is the process by which a mother nourishes her child with the milk produced by her breasts. Lactation begins with the production of the first milk around the sixteenth week of pregnancy and with the removal of the placenta after birth, the onset of copious secretion of milk occurs (Riordan, 1999). Breastfeeding is initiated with the first suckling of the child at the breast and may continue for some years thereafter. Pregnancy, birth and lactation are thus a part of the same continuum, and breastfeeding is a biological process that has reproductive health implications and reproductive rights associated with it.

According to the 1994 Cairo Programme of Action on Population and Development, '[r]eproductive rights rest on the recognition of the basic right of all couples and individuals to decide freely and responsibly the number, spacing and timing of their children and to have the information and means to do so, and the right to attain the highest standard of sexual and reproductive health' (UNFPA, 1995, p. 40). Reproductive rights as a subset of human rights first appeared in an international context with the Proclamation of Teheran in 1968 (UNCHR, 1968). However, it was not until the late 1970s, when it became widely known that the marketing activities of breast-milk substitute manufacturers were undermining women's rights with

catastrophic consequences for maternal and child health, that the protection of women's breastfeeding rights were considered and began to be codified. Since that time, a number of international instruments—which have generally been well supported by governments—have delineated women's rights in relation to breastfeeding. These include the:

- 1981 Convention on the Elimination of All Forms of Discrimination against Women (193 parties), which states that 'parties shall ensure to women appropriate services in connection with pregnancy, confinement and the post-natal period, granting free services where necessary, as well as adequate nutrition during pregnancy and lactation', Article 12 (UN, 1981).
- 1981 International Code of Marketing of Breast-milk Substitutes (WHO, 1981) and subsequent relevant World Health Assembly (WHA) resolutions (193 parties), which seek to protect women from unethical marketing of breast-milk substitutes, bottles and teats so as to enable them to make decisions about infant feeding free of commercial influence. In addition, they place responsibility for the creation of environments that support women in breastfeeding with governments, including ensuring that health professionals are able to provide appropriate breastfeeding support (WHO, 1981).
- 1990 Convention on the Right of the Child (193 parties), which specifies that '[s]tates shall take appropriate measure to ensure that . . . all segments of society, in particular parents and children, are informed, have access to education and are supported in the use of basic knowledge of child health and nutrition, the advantages of breastfeeding', Article 24 (OHCHR, 1990).
- C183 Maternity Protection Convention, 2000 of the International Labour Organization (ILO) (17 parties), which stipulates that '[a] woman shall be provided with the right to one or more daily breaks or a daily reduction of hours of work to breastfeed her child. The period during which nursing breaks or the reduction of daily hours of work are allowed, their number, the duration of nursing breaks and the procedures for the reduction of daily hours of work shall be determined by national law and practice. These breaks or the reduction of daily hours of work shall be counted as working time and remunerated accordingly', Article 10 (ILO, 2000).

Thus, women's rights in relation to breastfeeding have been summarised as:

- the right to appropriate prenatal and postnatal care from health professionals who are knowledgeable about and supportive of breastfeeding;
- the right to education on the importance of breastfeeding, the risks of artificial feeding and the practice of breastfeeding;
- the right to family and community support in breastfeeding their children; and
- the right to protection from misinformation on infant feeding and from other factors that can hinder or constrain breastfeeding (Latham, 1997; UNICEF, 1998; WABA, 1998; Kent, 2001; Labbok, 2006).

These rights apply to all women in all situations and locations, however they have particular pertinence in emergencies. This is because mothers and infants are vulnerable groups that are disproportionately adversely affected by emergencies (Al Gasseer et al., 2004) and the negative ramifications of breaching these rights are enhanced in emergency conditions. This paper aims to outline the reasons why upholding women's reproductive rights in relation to breastfeeding are important in emergencies, the ways in which these rights are undermined, and how the reproductive health sector can be involved in supporting breastfeeding, and therefore supporting maternal and child health in emergencies.

Methods

A review of the scientific literature was conducted to identify research on the consequences of infant feeding practices on infant health in emergencies and on maternal health, fertility and psychological well-being. The scientific literature, as well as reports from non-governmental and governmental organisations, also were examined to determine the extent of the problem of the undermining of breastfeeding rights in emergencies and ways in which action has been taken to support breastfeeding women.

The impact of infant feeding practices on infant health in emergencies

The importance of protecting the breastfeeding rights of women in emergencies relates to both infant and maternal outcomes. Infants are extremely vulnerable in emergencies and mortality rates often are very high, with diarrhoeal illness being a common killer (Khan and Munshi, 1983; Yip and Sharp, 1993; O'Connor et al., 2001). Supporting good infant feeding practices maximises the chances of infants surviving emergencies. Good feeding practices entail exclusive breastfeeding for the first six months of life, followed by continued breastfeeding with the addition of appropriate complementary foods for up to two years or more (WHO and UNICEF, 2003). Breastfeeding provides protection against diarrhoeal illness by supplying a secure and safe food and water supply and anti-bacterial, anti-viral and anti-protozoal factors that help to prevent and treat illness (Gribble, 2007).

Serious outbreaks of diarrhoea in infants and young children are common in emergencies because food insecurity, unclean water, overcrowding and limited access to and quality of medical treatment usually prevail (Toole and Waldman, 1997; Adhisivam et al., 2006; Doocy and Burnham, 2006). Infants who are artificially fed are made vulnerable to diarrhoea by their mode of feeding because they can be exposed to pathogens contained within powdered breast-milk substitutes or introduced through contaminated water (Pan American Health Organization, 2002; Barron and Forsythe, 2007). In addition, the use of breast-milk substitutes retards the development of the immune system and actively makes the intestine of infants more susceptible

to infection by pathogens (Hanson, 2004; Gribble, 2007). A single exposure to breast-milk substitutes can increase vulnerability to illness for several weeks after consumption via its impact on the intestinal environment (Brown and Bosworth, 1922). A diarrhoeal outbreak that occurred during a flood in Botswana in 2005–06, demonstrated the vulnerability of artificially-fed infants. More than 500 infants died in this episode and investigators found that babies who were fed breast-milk substitutes were 50 times more likely to present for hospital treatment with diarrhoea than babies who were breastfed (Anonymous, 2006a; Creek et al., 2007). However, few breastfed infants were seriously affected and in one village, for example, no breastfed infants died whereas 30 per cent of artificially-fed infants perished (Creek et al., 2007).³ In other emergencies, mortality rates of artificially-fed infants have been similarly greatly elevated in comparison to those of breastfed babies (WHO, 1997).

The impact of infant feeding practices on maternal health, fertility and psychological well-being

Ensuring a mother's right to breastfeed also has a direct bearing on her health. Postpartum haemorrhage is a common cause of maternal morbidity and mortality (Geller et al., 2006; Khan et al., 2006) and it is affected by infant feeding practices. Stimulation of the nipple, such as through breastfeeding, results in the release of the hormone oxytocin, which stimulates the contraction of the uterus (Chua et al., 1994). These uterine contractions assist in preventing excessive haemorrhage (Sobhy and Mohame, 2004; Geller et al., 2006) and delaying or abstaining from breastfeeding increases maternal morbidity (Marchant et al., 2006) and it is thought, mortality, due to postpartum haemorrhage. Reproductive health problems associated with delaying breastfeeding are likely to be common because delaying breastfeeding for up to several days post-partum is customary in many cultures (Niehoff and Meister, 1972; Geller et al., 2006).

Infant feeding practices also affect maternal fertility. The suckling stimulus inherent in breastfeeding alters the hormonal milieu of women and prevents ovulation and menstruation for some time after birth (McNeilly, 2001). The duration of infertility is dependent on a variety of factors, the most important of which is the frequency of suckling (McNeilly, 2001). Breastfeeding suppresses fertility such that it offers more than 98 per cent protection against pregnancy in amenorrhic women who are exclusively breastfeeding an infant of less than six months of age (Kennedy et al., 1989).³ However, depending on the circumstances, breastfeeding can inhibit pregnancy for more than two years postpartum (Panter-Brick, 1991) and it is frequently claimed that breastfeeding prevents more pregnancies worldwide than all other forms of contraception put together (Ebrahim, 2005). In the absence of breastfeeding, ovulation can occur within six weeks of birth (McNeilly, 2001).

The suppression of post-birth fertility by breastfeeding provides protection against maternal depletion and anaemia. Maternal depletion occurs when women enter pregnancy with inadequate physical reserves (King, 2003). It is a serious condition that

is associated with a higher risk of pre-term birth, and low birth weight of infants and a higher risk of third trimester bleeding, pre-labour rupture of membranes, puerperal endometritis, anaemia and death in mothers (King, 2003). Maternal depletion can arise when the inter-pregnancy interval is short and the risk of maternal depletion increases when fertility returns prematurely because exclusive breastfeeding has been terminated (Kennedy et al., 1989). Minimising the risk of a short inter-pregnancy interval is of particular importance in environments where food supplies are limited, which often is the case in emergencies. Closely spaced births also are a risk factor for increased child mortality (Hobcraft et al., 1983; Miller et al., 1992).

Iron deficiency anaemia is a common condition that occurs in up to 50 per cent of women (De Maeyer et al., 1989; Stoltzfus, 2001). Anaemia can result when an insufficient amount of iron is absorbed to meet the requirements of the body (WHO, 2001). Women of childbearing age are at risk of anaemia because they lose iron in menstrual blood and iron also is transferred to the foetus and placenta during pregnancy as well as being removed in postpartum bleeding (WHO, 2001). Anaemia adversely affects immune status and decreases physical capacity (WHO, 2001). During pregnancy, iron deficiency anaemia is associated with prenatal and perinatal infant loss, and prematurity (Scholl and Hediger, 1994). It is also associated with maternal mortality; 40 per cent of all maternal perinatal deaths are linked to anaemia (WHO, 2001). Infant feeding practices can influence the risk of anaemia. As discussed, delaying breastfeeding after birth can increase postpartum haemorrhage, which increases the risk of anaemia (Sserunjogi et al., 2003). Again, as noted, early termination of exclusive breastfeeding results in a premature return to menstruation and fertility, which increases the risk of anaemia via two methods:

- first, menstruation involves a significant loss of iron from which women experiencing lactational amenorrhoea are protected;⁴ and
- second, the associated early return to fertility places women at risk of a subsequent pregnancy before their iron stores have recovered from the previous pregnancy.

Infant feeding practices affect the degree of difficulty of caring for an infant in an emergency. Such events are inevitably stressful for those involved and women have been found to experience greater stress than men in these situations (Aksaray et al., 2006). Neither breast-milk production nor quality is adversely affected by stress or moderate malnutrition (Prentice et al., 1983; Hill et al., 2005). However, breastfeeding reduces women's physiological responsiveness to both physical and emotional stress (Altemus et al., 1995; Groer et al., 2002; Mezzacappa and Katlin, 2002), which may assist them in dealing with the difficult circumstances associated with emergencies. In addition, it may help mothers to be able to be responsive caregivers to their children (Gribble, 2006) and thus limit the emotional damage of trauma. In contrast, artificial feeding increases the resources needed and the work associated with caring for an infant. Provision of artificial feeds requires a constant supply of breast-milk substitutes, clean water, a clean place to prepare feeds, fuel and implements for sterilisation and feeding (WHO et al., 2001). These resources may be obtained

only with great difficulty in emergencies; collecting water, for instance, may require walking some distance and then queuing for some time. The actual preparation of artificial feeds also takes considerable time, approximately 30 minutes for each feed (Papathakis and Rollins, 2004), of which there are at least eight per day for a newborn. In an environment where completing the basic activities necessary for survival is difficult, artificial feeding places a serious burden on mothers. Artificial feeding also makes the mother dependent on aid for her child's well-being. Breastfeeding, however, requires no preparation time, and allows mothers to nourish their children with dignity and self-reliance, which is good for their psychological welfare.

The undermining of breastfeeding rights in emergencies

Despite the evidence that protecting breastfeeding guards mothers and babies, aid that undermines women's rights in relation to breastfeeding is a problem in humanitarian emergencies. This aid primarily takes the form of poorly targeted distribution of breast-milk substitutes. This problem has been evident for at least the past decade, as shown by reports from emergencies such as the Balkan crisis (1999) (United Nations Sub-Committee on Nutrition, 1999; Borrel et al., 2001), the Chechen conflict in Ingushetia (2000) (WHO et al., 2000), the conflict in Angola (2001) (UNICEF, 2001), Iraq before and after the second Gulf War (2000–) (FAO, 2000; Office of the Iraq Programme, UN, 2002; International Study Team, 2003), the Indian Ocean tsunami in India, Indonesia, Sri Lanka and Thailand (2004) (Carballo and Heal, 2005; Gribble, 2005; Jayathilaka, 2005; Adhisivam et al., 2006), the 2005 Pakistan earthquake (Arts, 2006), the 2006 Israel–Lebanon conflict (Maclaine and Corbett, 2006), Cyclone Sidr in Bangladesh (2007) (UNICEF, 2007), the 2008 conflict in Georgia (UNICEF, 2008), and the 2009 northwest Pakistan internally-displaced persons crisis (OCHA, 2009).

The scale of the problem is such that emergency areas can become overwhelmed with donations of these products. For example, after the earthquake in Yogyakarta, Indonesia in 2006, 70–80 per cent of the carers of babies in the affected area were given donated breast-milk substitutes despite low levels of artificial feeding pre-emergency (Sukotjo, 2006). Such widespread and poorly targeted distribution is problematic because it immediately results in an increase in artificial feeding and the associated negative consequences (WHO et al., 2001; WHO, 2004, 2006, 2007; Harutyunyan, 2008). As former Indonesian Minister of Health Siti Fadilah Supari described in relation to the Yogyakarta earthquake:

Diarrheal disease outbreak was a concern because babies were frequently given instant formula milk by their mothers instead of being breast fed . . . because survivors had received a large amount of donated supplies of breast milk substitutes (Anonymous, 2006b).

Problematic distribution of breast-milk substitutes often is simply via general food distribution channels or in 'baby kits' that are given to every person responsible for

the care of an infant (see, for example, Caritas, 2004). However, other troublesome methods also are employed. After the 2006 earthquake in Java, Indonesia, for instance, tins of breast-milk substitutes were used by one non-governmental agency as an incentive for parents to participate in an immunisation programme (Maclaine and Corbett, 2006). And after the 2004 Indian Ocean tsunami, midwives in Aceh, Indonesia gave new mothers leaving hospital breast-milk substitutes ‘in case’ they were required (Jennings and Njuguna, 2006). Although it is the breastfed babies who suffer most harm through such inappropriate distributions, poor management of breast-milk substitutes also harms babies who cannot be breastfed. This is because those involved in such distributions are invariably unaware of the dangers of artificial feeding and so do not provide the carers with the practical and educational support necessary to decrease risk, insofar as it can be reduced.

The inappropriate distribution of powdered milk and breast-milk substitutes can continue to affect mothers and infants adversely after the emergency. For example, the humanitarian response to the 1988 earthquake in Armenia included the widespread distribution of breast-milk substitutes by aid agencies, resulting in a large decline in breastfeeding rates (Harutyunyan, 2008). A decade after the earthquake, health authorities recognised that the repercussions of this aid were continuing to be felt among mothers and babies in Armenia. The post-earthquake aid had changed feeding practice norms and introduced routine artificial feeding. As one paediatrician noted:

Often, mothers who were able to feed their children with breast milk gave artificial food to their children without even understanding what they did (Abrahamyan, 2007).

In developing countries, where many emergencies occur, health and sanitation services are frequently poor, infant and maternal mortality rates are high, and even in non-emergency situations, there is a significant risk associated with artificial feeding. Since the inappropriate distribution of breast-milk substitutes during an emergency can have a sustained negative impact on breastfeeding rates, it can contribute to infant and maternal morbidity and mortality for many years.

How to support the breastfeeding rights of women in emergencies

Those involved in the provision of aid have the obligation to protect those affected by the emergency from its avoidable consequences and from further harm, discrimination and rights violations (Chunkath et al., 2005). This principle applies in relation to breastfeeding women and their infants. The breastfeeding rights of women in emergencies can be protected by controlling the distribution of breast-milk substitutes and providing supportive environments for breastfeeding, appropriate health support and practical assistance to breastfeeding women.

Controlling the distribution of breast-milk substitutes

As discussed, past experience has found that where breast-milk substitutes are distributed in a poorly targeted way, rates of artificial feeding and associated morbidities increase. This occurs because women are unaware of the importance of breastfeeding to themselves and their infants and of the dangers of artificial feeding (Latham, 1997). Such a lack of knowledge is a direct consequence of the violation of women's breastfeeding rights by commercial and social influences. In many contexts it is common for mothers to believe that breast-milk substitutes are nutritionally superior to breast-milk (Yupayong, 2006; Anderson et al., 2007). This belief is an outcome of the widespread exploitative marketing of these products, including claims that they prevent illness and enhance brain development (Yeong and Allain, 2004). The notion that breast-milk substitutes are a good food for babies also is supported by the observation that women in developed countries generally artificially feed, which makes it something that many mothers in developing countries aspire to. Finally, the high cost of breast-milk substitutes makes them a valuable commodity that is difficult to discard in a resource-poor environment.

In light of these influences, it is hardly surprising that a mother given breast-milk substitutes by an aid worker or health professional will feed them to her baby. Supplying breast-milk substitutes to women as a precautionary measure, in the event that they produce insufficient milk, also undermines their confidence in their ability to breastfeed. Thus, it is recommended that the distribution of breast-milk substitutes should be tightly controlled so that they are supplied only where there is demonstrated need, and where appropriate education and support is provided. It is also recommended that donations of breast-milk substitutes and commercial baby foods not be solicited or accepted by aid agencies in emergencies (Infant and Young Child Feeding in Emergencies Core Group, 2007b). Solicitation or acceptance of donations creates difficulties with controlling appropriate distribution because it results in a supply that is invariably in excess of that required while often also being of an unsuitable nature (Borrel et al., 2001). Rather, breast-milk substitutes should be procured by agencies, preferably locally, unbranded and in the quantity required (Infant and young Child Feeding in Emergencies Core Group, 2007b). Similarly, the distribution of milk powder and other milk products should be restricted and, as described in the *Humanitarian Charter and Minimum Standards in Disaster Response* (also known as the Sphere Standards), never distributed as a single commodity (Sphere Project, 2004). Consequently, any powdered milk that is to be distributed should be mixed with the local milled staple cereal before delivery so that it cannot be mistaken for a breast-milk substitute (WHO, 2004).

Provide supportive environments in which women can breastfeed

It should not be assumed that breastfeeding is something that women just do and that therefore mothers do not require any support to breastfeed. Women affected by emergencies may have seen their normal social support network severely disrupted or even destroyed. Furthermore, they may lack privacy and fear for their physical

safety. They may mistakenly believe that physical or emotional stress or moderate malnutrition will prevent them from being able to make milk of sufficient quality or in appropriate quantity. Their culture may support the belief that young babies need foods or water in addition to breast-milk (Niehoff and Meister, 1972). These factors can make it difficult for mothers to breastfeed their children exclusively.

Experience shows that providing breastfeeding mothers with safe spaces where they can receive encouragement, be in contact with health workers and meet with other breastfeeding women assists them in continuing breastfeeding (Anonymous, 1999). In addition, it has been found that the training and deployment of peer breastfeeding counsellors can prevent the unnecessary use of breast-milk substitutes in emergencies (Maclaine and Corbett, 2006). Peer counsellors increase women's confidence in their ability to breastfeed by providing informational and emotional support while also warning them of the dangers of artificial feeding. Women who have received peer counselling are more likely to breastfeed exclusively regardless of whether they have received donated breast-milk substitutes (Sukotjo, 2006).

Provide appropriate health support

Just as pregnant women have the right to access appropriate gynaecological and obstetric services, breastfeeding women have the right to be able to access health professionals who are knowledgeable about and supportive of breastfeeding. Health professionals have an important role to play in advocating early and exclusive breastfeeding as necessary to protect the health of mothers and babies. They can also assist mothers who have weaned their babies to relactate as a preventative and treatment for infantile diarrhoea (De et al., 2002) and facilitate the maintenance of lactation while mothers or infants are treated for illness or malnutrition. Health professionals may be required to provide treatment for medical issues associated with breastfeeding. It is vital that health workers not be involved in the inappropriate distribution of breast-milk substitutes because such action is an endorsement of artificial feeding as a healthy, safe food for babies and directly undermines breastfeeding.

Provide practical assistance

In emergencies, women are most often responsible for the care of not just babies but also young children and the elderly. Providing women who are caring for others with priority access to food, water and other resources enables them to care for others as easily as is possible. Providing supplementary rations for pregnant and lactating women recognises their additional nutritional needs.

How to support the carers of babies who are not breastfed

As discussed, babies who cannot be breastfed are at great risk in emergencies and special attention and support must be extended to the carers of artificially-fed babies, including:

- assessment of the need for breast-milk substitutes on a case-by-case basis by a qualified health professional to ensure that they are provided only when there is no other option;
- providing breast-milk substitutes for as long as the child requires them with instructions in the local language;
- supplying appropriate feeding implements,⁵ clean water, fuel to boil water and education in how to feed artificially most safely; and
- offering health care and monitoring of artificially-fed babies.

The implications of the termination of breastfeeding on the return to fertility should be considered in the provision of contraceptives to mothers who are artificially feeding.

HIV and infant feeding in the context of emergencies

High rates of HIV infection in an emergency-affected population create additional challenges for the provision of aid to mothers and children. Current recommendations for the requirements necessary for formula feeding by HIV-positive mothers are as follows:

‘Mothers known to be HIV-infected should only give commercial infant formula milk as a replacement feed to their HIV-uninfected infants or infants who are of unknown HIV status, when specific conditions are met:

- a. safe water and sanitation are assured at the household level and in the community; and
- b. the mother, or other caregiver can reliably provide sufficient infant formula milk to support normal growth and development of the infant; and
- 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; and
- d. the mother or caregiver can, in the first six months, exclusively give infant formula milk; and
- e. the family is supportive of this practice; and
- f. the mother or caregiver can access health care that offers comprehensive child health services.’ (WHO et al., 2010, p. 37).

During an emergency, meeting these conditions often will be impossible to achieve and the risk of artificial feeding will be substantially greater than that associated with HIV transmission via breastfeeding (Infant and Young Child Feeding in Emergencies Core Group, 2007b). Recent research suggests that the rate of transmission of HIV via breastfeeding in the first six months of life can be as low as one per cent (Palombi et al., 2007; Marazzi et al., 2009). Thus, supporting exclusive breastfeeding and the use of antiretroviral drugs by HIV-positive mothers who give birth after the emergency is likely to be the most effective method of promoting the survival of both mothers and infants in most situations.

The greatest challenge that may be encountered in areas where there are high rates of HIV in the population is high rates of artificial feeding. Prior to an emergency, the conditions necessary to support artificial feeding by HIV-positive women may have existed and replacement feeding may have been supported by prevention of mother-to-child transmission (PMTCT) of HIV programmes. Many HIV-positive mothers may have chosen to replacement feed as a consequence. The presence of PMTCT programmes also can result in ‘spill-over’ of artificial feeding to HIV-negative mothers (De Wagt and Clark, 2004). This can lead to high levels of artificial feeding in the HIV-negative population. Given the challenges of supporting artificial feeding, this compounds greatly the difficulty of supporting the survival of infants in emergencies (as was shown in the previously described case study from Botswana). The low rates of transmission of HIV via breastfeeding that have been achieved in recent programmes coupled with the difficulty of maintaining the conditions necessary to formula feed in resource-poor settings has led to calls to rethink the effectiveness of PMTCT programmes that support replacement feeding (see, for example, Coutsoudis et al., 2008).

High rates of HIV may add further complexities to the provision of aid to mothers and infants that are beyond the scope of this paper, such as under what conditions wet nursing and relactation should be supported. These issues and others are discussed in *Guidance on Infant Feeding and HIV in the Context of Refugees and Displaced Populations* (UNHCR, 2009).

Supporting the reproductive rights associated with breastfeeding in emergencies

The challenge of supporting breastfeeding rights in emergencies is twofold in nature:

- first, to do no harm and ensure that breast-milk substitutes are not distributed inappropriately; and
- second, to assist women actively by implementing programmes that will support them to breastfeed.

Given this challenge, the knowledge and skills of those working in aid operations are crucial, from a policy level to those working on a one-to-one basis with mothers and children. The inter-agency Infant and Young Child Feeding in Emergencies Core Group⁶ has developed tools to increase capacity among all those involved in the provision of aid. These include the *Operational Guidance on Infant and Young Child Feeding in Emergencies* (Infant and Young Child Feeding in Emergencies Core Group, 2007b), associated training modules (WHO et al., 2001; Infant and young Child Feeding in Emergencies Core Group, 2007a) and online lessons.⁷ Use of these resources by all involved in emergencies will increase capacity and improve aid delivery to women and infants.

Historically, infant feeding issues have been primarily the domain of those engaged in the nutritional aspects of the emergency response. However, as outlined in this paper, infant feeding practice affects maternal reproductive health. Greater collaboration and cooperation between the emergency nutrition and reproductive health sectors has the potential to strengthen greatly emergency response in this area to the benefit of mothers and infants (Infant and Young Child Feeding in Emergencies Core Group, 2006). Specific ways in which the reproductive health sector might be involved in supporting breastfeeding women include:

- incorporating the principles and practice of appropriate infant feeding in emergencies in the training of all reproductive health specialists;
- integrating basic breastfeeding counselling into the training of reproductive health counsellors and birth attendants;
- adding information on the importance of immediate and exclusive breastfeeding and the dangers of feeding young infants other food or liquids (including breast-milk substitutes) to maternity packs;
- referring women with breastfeeding difficulties and the carers of artificially-fed infants to the lead agency for infant and young child feeding;
- reporting problematic distribution of breast-milk substitutes or other milk products to the lead agency for infant and young child feeding; and
- cooperating with infant feeding specialists in finding wet nurses for motherless infants.

Capacity development, and sensitisation of the issues involved, in the area of infant feeding in emergencies may be required in order for reproductive health professionals to be able to provide the described support. However, supporting appropriate infant feeding in emergencies does not require just the involvement of the nutrition and reproductive health sector; it could be considered a cross-cutting issue—like gender or HIV (Sphere Project, 2004). For example, shelter and protection can ensure that women with infants have access to privacy and safe shelter and can identify women in need of infant feeding support; food security can give mothers priority access to food and water; psychosocial support can assist mothers in dealing with trauma and in caring for their infants; logistics can prevent the acceptance and distribution of donations of milk products; water and sanitation can ensure that the water made available to carers of infants is suitable for reconstituting breast-milk substitutes; livelihoods can design programmes that enable mothers to keep their infants close to them; and media and communications can provide messages on safe infant feeding practices to those affected by the emergency, which will help to prevent inappropriate donations and distributions of breast-milk substitutes.

Protecting the breastfeeding rights of women before emergencies happen

Emergencies expose the vulnerabilities of individuals and among the most vulnerable are women who are artificially feeding their infants when an emergency occurs.

Protecting the breastfeeding rights of women under non-emergency conditions ensures that mothers are able to breastfeed and hence that their infants are best placed to survive any emergency that might manifest itself. This recommendation applies in all contexts because, as was shown in New Orleans, Louisiana (United States) after Hurricane Katrina in 2005, even in developed contexts, artificially-fed babies are endangered.⁸ Practical steps that can be taken to put this in place include:

- enshrinement of the 1981 International Code of Marketing of Breast-milk Substitutes into law;
- making provision for appropriate maternity protection measures such as paid maternity leave and lactation breaks;
- making discrimination against breastfeeding women illegal;
- adequate training of health professionals in breastfeeding; and
- accreditation of health facilities as baby-friendly and promotion of breastfeeding as a public health imperative.

Emergencies, however, also can have a positive long-term impact on communities, organisations and governments as the lessons learned during a crisis and the interventions put in place at that time, can continue to influence practice. For example, community breastfeeding counsellors who were trained to support breastfeeding mothers after the Yogyakarta earthquake of 2006 in Indonesia, continued to provide their voluntary support services in their communities after the formal aid programme was completed.⁹ By way of another example, previous experience in the Philippines of unsolicited donations of breast-milk substitutes from foreign governments, galvanised health authorities to develop an administrative order prohibiting the acceptance of such donations that was disseminated to the media and all embassies in the country (Panlilo, 2008). This appears to have affected subsequent emergency responses.

Conclusion

The vulnerability of women and their infants in emergencies magnifies the importance of protecting the breastfeeding rights of women. Those involved in the provision of aid have the responsibility to ensure that actions do not undermine breastfeeding but actively support breastfeeding women. Collaboration between the reproductive health and nutrition sectors has the potential to be mutually beneficial and improve the well-being of the women and children affected by emergencies.

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- ² Botswana has a national prevention of mother-to-child transmission of HIV (human immunodeficiency virus) programme that involves facilitating replacement feeding of infants of HIV-positive women, but neither maternal nor infant HIV status were risk factors for infant mortality during the flood. However, there was significant spill-over of the use of breast-milk substitutes to mothers who were HIV-negative. Ninety-three per cent of infants hospitalised for diarrhoea were not breastfed but only 65 per cent of mothers were HIV-positive (Creek, 2006).
- ³ Since infertility is dependent on the frequency of suckling, any factor that decreases breastfeeding frequency will shorten the period of infertility. Thus, early supplementation of the infant's diet with any other food or liquid will not only adversely affect the health of the child but also will increase the probability of the mother returning to fertility prematurely because this may extend the time between breastfeeds (McNeilly, 2001).
- ⁴ Breast-milk contains iron, yet the loss of iron via menstruation is greater than that of iron lost via breast-milk (De Maeyer et al., 1989).
- ⁵ Bottles are not an appropriate feeding implement in an emergency because they are difficult to clean adequately, meaning that bacterial contamination poses an unacceptable risk (WHO, 2004).
- ⁶ The members are Action Contre la Faim, CARE, Concern, the Emergency Nutrition Network, the Geneva Infant Feeding Association (GIFA) of the International Baby Food Action Network (IBFAN), Save the Children UK, Save the Children USA, the United Nations Children's Fund (UNICEF), the United Nations High Commissioner for Refugees (UNHCR), the World Food Programme (WFP) and the World Health Organization (WHO). Since November 2006, the Infant and young Child Feeding in Emergencies Core Group, represented by the Emergency Nutrition Network, has been a member of the UNICEF-led Inter-Agency Standing Committee Nutrition Cluster, to represent infant feeding in emergencies.
- ⁷ See <http://www.enonline.net/ife/orientation>.
- ⁸ According to reports from New Orleans after Hurricane Katrina, many artificially-fed babies were without adequate food for some days (Gruich, 2006) and a number died as a result (Lipton et al., 2005). Extremely high rates of artificial feeding among the poorest and most disadvantaged women in New Orleans placed mothers and babies at tremendous risk (Cropley and Herwehe, 2002).
- ⁹ Personal communication with Utami Roesli, Chairperson, Indonesian Breastfeeding Center, 13 March, 2008.

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