



**Guidance on  
Infant feeding  
and HIV in the  
context of  
refugees and  
displaced  
populations**

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**UNHCR**  
The UN Refugee Agency

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Version 1.1 (June 2009) has been produced as a living document and will be updated to reflect developments in technical guidance and experiences in implementation.

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<sup>1</sup> The Infant and Young Child Feeding in Emergencies (IFE) Core Group is an inter-agency collaboration concerned with developing policy and capacity building related to infant and young child feeding in emergencies. Current IFE Core Group members are UNHCR, UNICEF, WHO, WFP, International Baby Food Action Network-Geneva Infant Feeding Association (IBFAN-GIFA), CARE USA, Action Contre la Faim (ACF) and the Emergency Nutrition Network (ENN).



# Guidance on Infant feeding and HIV in the context of refugees and displaced populations

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*This Guidance on Infant feeding and HIV aims to assist UNHCR, its implementing and operational partners, and governments on policies and decision-making strategies on infant feeding and HIV in refugees and displaced populations.*

*Its purpose is to provide an overview of the current technical and programmatic consensus on infant feeding and HIV, and give guidance to facilitate effective implementation of HIV and infant feeding programmes in refugee and displaced situations, in emergency contexts, and as an integral element of coordinated approach to public health, HIV and nutrition programming.*

*The goal of this guidance is to provide tools to prevent malnutrition, improve the nutritional status of infants and young children, to reduce the transmission of HIV infection from mother to child after delivery, and to increase HIV-free survival of infants.*

## 1.0 International Policy Context on infant feeding and HIV

The number of individuals of concern to UNHCR, which include refugees, internally displaced populations (IDPs) and returnees, asylum-seekers and stateless people, rose 6 percent in 2005 to 20.8 million, with refugees consisting 40% of the total<sup>i</sup>. By the end of 2003, refugee populations remained on average in their host country for 17 years<sup>ii</sup>. It is important that the populations of concern to UNHCR have access to comprehensive and integrated national programmes that address their HIV-related prevention, treatment, care and support needs.

The *Global Strategy on Infant and Young Child Feeding* recognises that an estimated 1.6 million children are born to HIV-infected women each year, mainly in resource-poor settings. This creates a considerable challenge regarding policy-making, technical and practical guidance and programme implementation.

The 2002 *Global Strategy on Infant and Young Child Feeding*<sup>iii</sup> also communicates a clear message on the challenges posed in emergencies: "Infants and children are among the most vulnerable victims of natural or human-

induced emergencies. Interrupted breastfeeding and inappropriate complementary feeding heighten the risk of malnutrition, illness and mortality. Uncontrolled distribution of breastmilk substitutes<sup>2</sup>, for example in refugee settings, can lead to early and unnecessary cessation of breastfeeding. For the vast majority of infants, emphasis should be on protecting, promoting and supporting breastfeeding and ensuring timely, safe and appropriate complementary feeding. There will always be a small number of infants who have to be fed on breastmilk substitutes based on proper assessment”.

The 2006 WHO/ UNICEF/UNFPA/UNAIDS HIV technical consultation to review new evidence and programme experience on HIV and infant feeding has produced recommendations<sup>iv</sup> and guidance<sup>v</sup> that should now be operationalised.

## 2.0 Influences of infant feeding practices on child HIV-free survival

HIV-free survival considers the combined risk of HIV infection and death. This requires a more comprehensive assessment of risks and benefits, including the implications of various feeding practices in different settings.

**Replacement feeding** is used in the context of HIV to describe feeding infants who are receiving no breastmilk with a diet that provides the nutrients infants need until the age at which they can be fully fed on family foods. During the first six months, replacement feeding should be with a suitable breastmilk substitute, which definition includes infant formula<sup>3</sup>. After six months the suitable breastmilk substitute should be complemented with other foods. *Artificial feeding* is often the term used for feeding non-breastfed infants in a non-HIV context<sup>4</sup>.

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<sup>2</sup> A *breast-milk substitute (BMS)* includes any food being marketed or otherwise presented as a partial or total replacement for breastmilk, whether or not suitable for that purpose. Note: In practical terms, foods may be considered a BMS depending on how they are marketed or represented. These include infant formula, other milk products, therapeutic milk, and bottle-fed complementary foods marketed for children up to 2 years of age and complementary foods, juices and teas marketed for infants under 6 months.

<sup>3</sup> *Infant formula* is a breastmilk substitute formulated industrially that should be in accordance with applicable Codex Alimentarius standards [developed by the joint FAO/WHO Food Standards Programme]. Commercial infant formula is infant formula manufactured for sale, branded by a manufacturer and may be available for purchase in local markets. *Generic* infant formula is unbranded and is not available on the open market, thus requiring a separate supply chain.

<sup>4</sup> For more general guidance on managing non-breastfed infants, see Chapter 9 of Module 2 on Infant Feeding in Emergencies (v1.1, Dec 2007) developed by the IFE Core Group. See endnote xxi

**Exclusive breastfeeding** is where an infant receives only breastmilk and no other liquids or solids, not even water, with the exception of drops or syrups consisting of vitamins, mineral supplements or medicines.

**Mixed feeding** is breastfeeding combined with feeding other fluids, solid foods and/or non-human milk, such as infant formula or animal milks. Predominant breastfeeding is where breastfeeding is combined with small amounts of water or water based drinks only. Partial breastfeeding is a type of mixed feeding where breastfeeding is combined with non-human milk or food based fluid or solid food. An infant who is either predominantly or partially breastfed is considered to be receiving mixed feeding.

**Complementary feeding:** the child should receive age-appropriate, adequate and safe solid or semi-solid food in addition to breastmilk or a breastmilk substitute. The complementary feeding period is 6 months to 2 years.

## 2.1 The risk of HIV transmission from mother to child

Transmission of HIV from the HIV-positive mother to her child may occur either during pregnancy, delivery or through breastfeeding. The transmission rate, without any intervention with antiretroviral drugs (ARV), is determined to be 5 - 10% during pregnancy and 10 – 20% during the approximate 24-hour period of labour and delivery (the single time point of greatest risk). The risk of transmission through breastfeeding is estimated at 5 - 20%, if a baby were to be breastfed for two years (see Figure 1)<sup>vi</sup>. Transmission through breastfeeding is more likely if a woman becomes infected with HIV during the breastfeeding period<sup>vii</sup>.

**Figure 1: Periods of Mother-to-Child HIV Transmission**

| Pregnancy                  |                                   | Labour and Delivery | Breastfeeding             |                           |
|----------------------------|-----------------------------------|---------------------|---------------------------|---------------------------|
| Early Antenatal (< 36 wks) | Late Antenatal (36 wks to labour) |                     | Early Postpartum (0 – 6m) | Late Postpartum (6 – 24m) |
| 5 – 10%                    |                                   | 10 – 20%            | 5 – 20%                   |                           |

Adapted from De Cock, 2000, CDC

## 2.2 Reducing the risk of HIV transmission

Studies in developed countries have shown that a set of interventions consisting of ARV combinations, elective caesarean section delivery and avoidance of breastfeeding have resulted in reduction of HIV transmission from mother to child to rates below 2%<sup>viii, ix</sup>.

In resource poor settings, a shorter and simpler regimen of ARV prophylaxis has been shown effective in reducing HIV transmission during pregnancy and delivery by up to 60%; thus presenting a partial solution in the case of these two routes of HIV transmission to the infant.

The risk of HIV transmission through breastfeeding can be significantly lowered by *exclusive breastfeeding*<sup>x</sup>. Further reduction of this risk is likely to be achieved if infants receive ARV prophylaxis for a longer period than currently recommended<sup>5</sup> and/or mothers receive ARV treatment. Mixed feeding in young infants carries a higher risk of HIV transmission.

## 2.3 The risks of not breastfeeding

Weighed against the low (<1% per month) but ongoing risk of HIV transmission through breastmilk<sup>xi</sup>, breastfeeding, as documented in non HIV-infected populations, substantially reduces the risk of infant mortality from other infectious diseases and malnutrition on average by 4–6 fold in the first six months and close to twofold in the second six months of life<sup>xii</sup>.

Avoidance or early cessation of breastfeeding in children of HIV positive mothers have been associated with increased morbidity, especially from diarrhoea<sup>xiii</sup>. In settings where ARV prophylaxis and free infant formula were provided, HIV-free survival at 18 months was comparable between non-breastfed infants and infants who were breastfed for 3–6 months<sup>xiv</sup>.

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<sup>5</sup> WHO currently recommends that mothers should receive zidovudine (AZT) from 28 weeks of pregnancy (or as soon as possible thereafter); single dose nevirapine and AZT/3TC during labour, and AZT/3TC for seven days after delivery, while infants should receive single dose nevirapine and AZT for one week after birth. *WHO (2006), Antiretroviral drugs for treating pregnant women and preventing HIV infection in infants. Towards universal access. Recommendations for a public health approach.*

Review WHO website for regular updates on prophylactic ARV regimen for pregnant women and infants. There are indications coming from recent research that a specific combination of ARV provided in late pregnancy and until six months into breastfeeding is likely to further reduce HIV-transmission through breastfeeding. Updated recommendations are expected by end 2009.

### 3.0 UN Policy on Infant feeding and HIV

Based on evidence and programmatic experience, the most recent United Nations (UN) recommendations for policy-makers and programme managers on infant feeding and HIV were adopted in October 2006<sup>xv</sup> (see Box 1). They are intended to supplement, clarify and update the 2000 UN guidance. **These recommendations apply in all settings and contexts, including emergencies**, and now unify the recommendation on duration of exclusive breastfeeding by HIV-positive women with that for the general population<sup>6</sup>.

### 4.0 UN policy on infant feeding decision

*The UN policy on infant feeding decision was captured in the conclusions and recommendations of the October 2002 WHO Consultation on mother to child transmission of HIV: "Because both parents have a responsibility for the health and welfare of their children, and because the infant feeding method chosen has health and financial implications for the entire family, mothers and fathers should be encouraged to reach a decision together on this matter. However, it is the mothers who are in the best position to decide whether to breastfeed, particularly when they alone may know their HIV status and wish to exercise their right to keep that information confidential<sup>xvi</sup>".*

#### 4.1 Guidance on implementing AFASS conditions

Based on the understanding of risks of artificial feeding and to assist with implementation of the recommendations, the UN broadly defines the five basic conditions of *Acceptable, Feasible, Affordable, Sustainable and Safe (AFASS)* for replacement feeding (See Box 2). **All of these conditions** must be in place for an individual mother to reduce risks and to ensure positive impact of replacement feeding on child survival. It is suggested that details regarding practical implementation of AFASS should be adapted in the light of local conditions and formative research.

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<sup>6</sup> Optimal infant and young child feeding recommendations for the general population are early initiation (within one hour of birth) of exclusive breastfeeding, exclusive breastfeeding for the first six months of life, followed by nutritionally adequate and safe complementary foods while breastfeeding continues for up to two years of age or beyond.

## 4.2 Wet nursing in the context of HIV

Wet nursing is where an infant is breastfed by a woman other than his/her mother. Wet-nursing may be considered in communities where this option is accepted. The wet-nurse must understand and agree to the implications of HIV counselling and testing (HCT), as she will need HIV testing before wet-nursing and 6–8 weeks after starting. In addition, she should be counselled about HIV infection and how to avoid infection during breastfeeding. There is anecdotal evidence of infected infants transmitting HIV to their HIV-negative breastfeeding mothers<sup>xvii</sup>. Where the *overall prevalence and incidence of HIV is low*, and HIV has thus not spread to significant levels in any of the sub-populations, HCT of a potential wet nurse is still indicated. If in these circumstances no HCT is available, the potential wet nurse should undergo a HIV risk assessment as a minimum requirement.

## 4.3 Heat treatment of breastmilk

The WHO recommends heat-treated breastmilk as one of the infant feeding options in the context of HIV. However, direct boiling of breastmilk causes significant nutritional damage, while standard pasteurisation for 30 minutes requires temperature gauges and timing devices that are unavailable in many communities. Flash-heat<sup>7</sup> is a recently developed, simple method that a mother can implement over an outdoor fire or in her kitchen. However, field studies are urgently needed to determine the feasibility of in-home flash-heating of breastmilk.

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<sup>7</sup> About 50 ml of breastmilk is expressed into a clean bottle and places it in a pot with warm water. As soon as the water comes to a rolling boil (100C) the bottle is removed and allowed to cool. A recent pilot study found the flash-heat method was capable of inactivating cell-free clade C HIV-1 while retaining most of the milk's nutritional and antimicrobial properties. *Israel-Ballard K et al. Flash heat inactivation of HIV-1 in human milk. A potential method to reduce postnatal transmission in developing countries. J Acquir Immun Defic Syndr 45 (3): 318-323, 2007*

**BOX 1: Current UN recommendations on infant feeding and HIV**

Where **HIV status of the mother is unknown or she is known to be HIV-negative**, she should be supported to exclusively breastfed for the first six months of life, for her child to achieve optimal growth, development and health. Thereafter, infants should receive nutritionally adequate and safe complementary foods<sup>xviii</sup> while breastfeeding continues for up to two years of age or beyond.

In areas of generalised HIV epidemic, all women and their partners should be encouraged to learn their HIV status. In concentrated and low level epidemics, the priority should be to ensure that people who present with signs and symptoms of HIV infection, including tuberculosis or at risk groups, are encouraged to learn their HIV status.

Where a **mother is known to be HIV-positive**, the UN Recommendations are as follows:

- The most appropriate infant feeding option for a HIV-infected mother should continue to depend on her individual circumstances, including her health status and the local situation, but should take greater consideration of the health services available and the counselling and support she is likely to receive.
- Exclusive breastfeeding is recommended for HIV-infected women for the first 6 months of life unless replacement feeding is **acceptable, feasible, affordable, sustainable and safe (AFASS)** for them and their infants before that time.
- When replacement feeding is **acceptable, feasible, affordable, sustainable and safe**, avoidance of all breastfeeding by HIV-infected women is recommended.
- At six months, if replacement feeding is still not **acceptable, feasible, affordable, sustainable and safe**, continuation of breastfeeding with additional complementary foods is recommended, while the mother and baby continue to be regularly assessed. All breastfeeding should stop once a nutritionally adequate and safe diet without breastmilk can be provided.
- Whatever the feeding decision, health services should follow-up all HIV-exposed infants, and continue to offer infant feeding counselling and support, particularly at key points when feeding decisions may be reconsidered, such as the time of early infant diagnosis and at six months of age.
- Breastfeeding mothers of infants and young children who are known to be HIV-infected should be strongly encouraged to continue breastfeeding.

Source: Extract from HIV and infant feeding: new evidence and programmatic experience. Consensus statement from a technical consultation. Geneva, Switzerland, Oct. 25-27, 2006, WHO/CAH

## Box 2: UN definitions of AFASS conditions

**Acceptable:** The mother perceives no barrier to replacement feeding. Barriers may have cultural or social reasons, or be due to fear of stigma or discrimination. According to this concept, the mother is under no social or cultural pressure not to use replacement feeding - she is supported by family and community in opting for replacement feeding, or she will be able to cope with pressure from family and friends to breast-feed, and she can deal with possible stigma attached to being seen with replacement food.

**Feasible:** The mother (or family) has adequate time, knowledge, skills and other resources to prepare the replacement food and feed the infant up to 12 times in 24 hours. According to this concept, the mother can understand and follow the instructions for preparing infant formula, and with support from the family can prepare enough replacement feeds correctly every day, and at night, despite disruptions to preparation of family food or other work.

**Affordable:** The mother and family, with community or health-system support if necessary, can pay the cost of purchasing/producing, preparing and using replacement feeding, including all ingredients, fuel, clean water, soap and equipment, without compromising the health and nutrition of the family. This concept also includes access to medical care if necessary for diarrhoea and the cost of such care.

**Sustainable:** Availability of a continuous and uninterrupted supply and dependable system of distribution for all ingredients and products needed for safe replacement feeding, for as long as the infant needs it, up to one year of age or longer. According to this concept, there is little risk that infant formula (for example) will ever be unavailable or inaccessible, and another person is available to feed the child in the mother's absence, and can prepare and give replacement feeds.

**Safe:** Replacement foods are correctly and hygienically prepared and stored, and fed in nutritionally adequate quantities, with clean hands and using clean utensils, preferably by cup. This concept means that the mother or caregiver:

- has access to a reliable supply of safe water (from a piped or protected-well source)
- prepares replacement feeds that are nutritionally sound and free of pathogens
- is able to wash hands and utensils thoroughly with soap, and to regularly boil the utensils to sterilise them
- can store unprepared feeds in clean, covered containers and protect them from rodents, insects and other animals.

Source: HIV and infant feeding. A guide for health-care managers and supervisors. UNICEF, UNAIDS, WHO, UNFPA, 2003. Available at: <http://www.who.int/child-adolescent-health/publications/NUTRITION>

## 5.0 Applying UN policy to UNHCR operations with particular consideration of emergency contexts

The *Operational Guidance on Infant and Young Child Feeding in Emergencies for Emergency Relief Staff and Programme Managers, v2.1, 2007 (Operational Guidance on IFE)*<sup>xix</sup> draws on the UN recommendations on HIV and infant feeding. It stresses that for most women in emergencies, the five AFASS conditions for introducing exclusive artificial feeding, referred to in the HIV context as replacement feeding, are unlikely to be met.

*“The risks of infection or malnutrition from using breastmilk substitutes are likely to be greater than the risk of HIV transmission through breastfeeding. Therefore, support to help all women to achieve early initiation and exclusive breastfeeding for the first six completed months and the continuation of breastfeeding into the second year of life are likely to provide the best chance of survival for infants and young children in emergencies.” (Ops Guidance on IFE, section 5.2.8, v2.1, Feb 2007).*

In an emergency, a proportion of infants may not be breastfed when a crisis strikes. The *Operational Guidance on IFE* details the comprehensive response needed to support non-breastfed infants in an emergency and to minimise the risks of artificial feeding for both breastfed and non-breastfed infants, regardless of HIV status. In the case of HIV-negative mothers of infants below 6 months of age who are not breastfeeding, support for relactation to exclusively breastfeed should be considered in the new and riskier context of an emergency<sup>xx</sup>.

**Key considerations** governing infant feeding and HIV in UNHCR operations include:

- In emergency contexts, programme implementation is strongly influenced by the emergency phase – rapid onset phase, post-emergency phase with greater stability, protracted situations and the final phase with more durable solutions. Responsive programming is required to adapt to the changing situation.
- The *UNHCR Policy related to the Acceptance, Distribution and use of Milk Products in Refugee Settings (UNHCR Milk Policy)*<sup>xxi</sup> is applicable for all UNHCR operations and UNHCR advocates and supports its implementation by UNHCR country teams, implementing partners and governments. Any provision of infant formula or milk product within UNHCR operations should be done in accordance with the *UNHCR Milk Policy* and the *Operational Guidance on IFE*.
- Strong protection and support of breastfeeding should be an integral part of all infant feeding and HIV programmes.

- UNHCR and partners are responsible for addressing all five elements of the AFASS set of conditions.

**Key principles** governing infant feeding and HIV in UNHCR operations are:

- An assessment of the local situation is needed to ensure comprehensive understanding of existing feeding practices, beliefs and capacities of the community to support the informed decision on infant feeding and HIV practices and to identify the necessary assistance.
- Women should know their HIV status and receive appropriate counselling to help them make and carry out informed infant feeding decisions. HCT of women and their partners should be encouraged.
- All HIV positive pregnant women should be provided with routine, periodic counselling and support to ensure that they are able to make safe and appropriate infant feeding decisions and carry them out effectively.
- All HIV positive mothers should receive follow-up and full support to practice their chosen infant feeding option (see Box 3 and Box 4 for practical examples).

### **Box 3: Follow-up and support of a mother's infant feeding decision**

Follow-up could take the form of a qualified, trained community health worker visiting a mother on a daily basis for the first two weeks (and less frequently thereafter) following her infant feeding decision. This would help to resolve any potential breastfeeding difficulties or, in the case of mothers who practice replacement feeding, to support the various phases of preparation, utilisation and cleaning of materials.

When a HIV positive mother decides to use replacement feeding, it is important to support her with appropriate, adequate amounts and timely supply of replacement feeds (e.g. infant formula), utensils and cleaning materials. This includes soap for hand washing, disinfecting liquids for utensils and timely replacement of worn materials. Access to safe water is key and extra fuel may need to be allocated for assuring boiling water for the preparation of infant formula.

Support for a mother's nutritional status is necessary both for her own well being and to enable her to provide and care for her child. In addition to advocating for an adequate household food ration, HIV positive mothers should be enrolled in supplementary feeding programmes, in collaboration with UNHCR operational partners.

**Box 4: Context and guidance on safe and appropriate infant feeding decisions**

*A/ Mother does not know her HIV status*

- Offer partner voluntary and confidential counselling and testing.
- Inform mother and her partner how to avoid exposure to HIV and remain HIV negative.
- Ensure access to male and female condoms.
- Inform mother and partner on prevention of sexually transmitted infections (STIs) and family planning.
- Promote exclusive breastfeeding for the first 6 months and continued breastfeeding for 2 years or beyond<sup>8</sup>, with introduction of appropriate complementary foods at 6 months<sup>xviii</sup>.
- Ensure regular assessment of the mother and baby through postnatal care and Maternal and Child Health (MCH) visits.
- Advocate with WFP and other implementing partners for adequate complementary food for older infants and young children.
- Promote and ensure personal, household and community hygiene for the infant, mother and family at large.
- Promote and ensure use of clean and safe water.

*B/ Mother has been tested and is HIV-negative*

- Offer partner voluntary and confidential counselling and testing.
- Inform mother and her partner how to avoid exposure to HIV and remain HIV negative.
- Ensure access to male and female condoms.
- Inform mother and partner on prevention of STIs and family planning.
- Promote exclusive breastfeeding for the first 6 months and continued breastfeeding for 2 years or beyond, with introduction of appropriate complementary foods at 6 months.

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<sup>8</sup> Where HIV testing is not available and where a mother's HIV status is not known, widespread artificial feeding would improve child survival only if the prevalence of HIV is high and if the risk of death due to artificial feeding is low - a combination of conditions that does not generally exist.

- Ensure regular assessment of the mother and baby through postnatal care and MCH visits.
- Advocate with WFP and other implementing partners for adequate complementary food for older infants and young children.
- Promote and ensure personal, household and community hygiene for the infant, mother and family at large.
- Promote and ensure use of clean and safe water.

### *C/ Mother is HIV-positive and is considering her feeding options*

*The most appropriate infant feeding option for a HIV-infected mother should continue to depend on her individual circumstances, including her health status and the local situation.*

*It should take greater consideration of the health services available and the counselling and support she is likely to receive.*

- Provide the mother and infant with ARV prophylaxis.
- Offer partner voluntary and confidential counselling and testing.
- Encourage the mother and her partner to attend antenatal care services for counselling and support.
- Counsel her on feeding options based the **Acceptability, Feasibility, Affordability, Sustainability and Safety (AFASS)** of replacement feeding (see Box 2) and the risks and benefits of exclusive breastfeeding.
- Assist the mother in deciding on the most appropriate feeding method to suit her local situation in relation to socio-economic and environmental context.

### *C1/Mother is HIV-positive and chooses to breastfeed*

- If available, ensure access to ARV treatment for the mother if her status requires.
- Inform mother and her partner how to avoid re-infection of HIV.
- Inform mother and partner on prevention of STIs and family planning.
- Ensure access to male and female condoms.

- Support mother in implementing safer breastfeeding, i.e. exclusive breast feeding up to 6 months, prevention and treatment of breast problems and of thrush in infants.
- Support mother in shifting to exclusive replacement feeding if/when it becomes AFASS.
- At six months, if she has chosen exclusive breastfeeding and if replacement feeding is still not AFASS, recommend continuation of breastfeeding with additional and appropriate complementary foods.
- Establish system of follow-up home visits by trained community health worker.
- Ensure regular assessment of the mother and baby through postnatal care and MCH visits.
- Advocate with WFP and other implementing partners for adequate complementary food for older infants and young children.
- Promote and ensure personal, household and community hygiene for the infant, mother and family at large.
- Promote and ensure use of clean and safe water

If the **infant is tested<sup>xxiii</sup> and known to be HIV-positive**, a mother should be strongly encouraged to continue breastfeeding exclusively for 6 months and to continue breastfeeding for 2 years or beyond in line with the recommendation for general population.

#### **PCR (polymerase chain reaction) testing of infants**

WHO recommends virological testing of infants from six weeks of age. Extra support on infant feeding for the mothers of these infants will be required at this time. A breastfeeding woman whose infant tests negative may understandably react to this knowledge by deciding to stop breastfeeding. However, counselling based on AFASS criteria should be used to help her consider if stopping is appropriate for her circumstances<sup>xxiv</sup>.

#### ***C2/ Women is HIV-positive and chooses not to breastfeed***

- Assist mother in choosing the safest *replacement feeding* strategy (method, feeding option, timing etc.).
- Emphasise importance of *exclusive* replacement feeding in infants under six months and avoiding mixed feeding (i.e. breastfeeding combined with replacement feeding).

- Support mother in implementing the chosen feeding option through provision of infant formula for as long as the infant needs it, supply of non-food items, such as water, utensils, fuel etc. to ensure and sustain AFASS conditions.
- Support introduction of appropriate complementary foods at 6 months<sup>xxv</sup>. This includes advocacy for adequate complementary food with WFP and other implementing partners.
- Establish system of follow up home visits by trained community health worker.
- Ensure access to male and female condoms.
- Teach mother and partner on prevention of STIs, HIV infection and family planning.
- Ensure regular assessment of the mother and baby through postnatal care and MCH visits.
- Promote and ensure personal, household and community hygiene for the infant, mother and family at large.
- Promote and ensure use of clean and safe water.

#### *D/Additional considerations for feeding infants and young children from 6 to 24 month*

Whether the child is exclusively breastfed or replacement fed, at six months complementary foods should be introduced into his/her diet to meet the growing nutritional needs<sup>xviii, xxv</sup>.

In the case of the exclusively breastfed child of a HIV-infected mother, introduction of complementary foods carries an additional risk of HIV transmission. However, WHO recommends against abrupt or rapid cessation of breastfeeding because of possible negative effects on the mother and infant, including mastitis and breast pain<sup>xxvi</sup>. The optimal duration for the cessation process is not known. Current understanding is that for most women and babies, a period of about two to three days up to two to three weeks would appear to be sufficient. As outlined earlier, AFASS conditions must be in place for replacement feeding before initiating cessation.

Recommendations for complementary feeding should be based on locally available foods, the food rations UNHCR and its operational partners provide, and should be sensitive to culturally accepted feeding practices.

## References

- <sup>i</sup> United Nations for Refugees, 2006. Global refugee trends. Available at: <http://www.unhcr.org/statistics/STATISTICS/4486ceb12.pdf>. Geneva, 2005
- <sup>ii</sup> United Nations High Commissionoer for Refugees, 2006. Global refugee trends: <http://www.unhcr.org/statistics/STATISTICS/4486ceb.12.pdf>. Geneva, 2005
- <sup>iii</sup> Global Strategy on Infant and Young Child Feeding. UNICEF/WHO. WHO, 2003.
- <sup>iv</sup> HIV and Infant Feeding New evidence and programmatic experience. Report of a Technical Consultation, Geneva, Switzerland, 25–27 October 2006. Held on behalf of the Inter-agency Task Team (IATT) on Prevention of HIV Infections in Pregnant Women, Mothers and their Infants. WHO, 2007.
- <sup>v</sup> HIV and infant feeding: new evidence and programmatic experience. Consensus statement from a technical consultation. Geneva, Switzerland, Oct. 25-27, 2006, WHO/CAH. Available at: [http://www.who.int/child-adolescent-health/New\\_Publications/NUTRITION/consensus\\_statement.pdf](http://www.who.int/child-adolescent-health/New_Publications/NUTRITION/consensus_statement.pdf)
- <sup>vi</sup> 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.
- <sup>vii</sup> Randomised trial of two post exposure prophylaxis regimens to reduce mother to child HIV-1 transmission in infants of untreated mothers. Grey, G.E. et al, 2005. *AIDS*. 19 (12):1289-97
- <sup>viii</sup> Dorenbaum A et al. Two-dose intrapartum newborn nevirapine and standard antiretroviral therapy to reduce perinatal HIV transmission: a randomized trial. *Journal of the American Medical Association*, 2002, 288 (2): 189–198
- <sup>ix</sup> Cooper ER et al. Combination antiretroviral strategies for the treatment of pregnant HIV-1 infected women and prevention of perinatal HIV-1 transmission. *Journal of Acquired Immune Deficiency Syndromes*, 2002, 29(5): 484–494.
- <sup>x</sup> Exclusive breastfeeding for up to six months was associated with >50% reduced risk of transmission of HIV compared to non-exclusive breastfeeding in three large cohort studies conducted in Côte d'Ivoire, South Africa and Zimbabwe. Evidence presented at WHO Technical Consultation (see reference iv).
- <sup>xi</sup> The BHITS Group. Late Postnatal Transmission of HIV-1 in breast-fed children: An individual patient data meta-analyses. *Journal of Infectious Diseases* 2004, 189:2154–2166.
- <sup>xii</sup> WHO Collaborative Study Team on the role of breastfeeding on the prevention of infant mortality, effect of breastfeeding on infant and child mortality due to infectious diseases in less developed countries: a pooled analyses. *Lancet*, 2000, 355:451–455.
- <sup>xiii</sup> Diarrhoea risk associated with not breastfeeding in Botswana. Summary of report and presentation. p22. *Field Exchange, Issue 29*. Dec 2006. Available at: <http://www.enonline.net>
- <sup>xiv</sup> Thior I, Lockman S, Smeaton LM et al. Breastfeeding plus infant zidovudine prophylaxis for 6 months vs. formula feeding plus infant zidovudine for 1 month to reduce mother-to-child HIV transmission in Botswana: A randomised trial: The Mashi Study. *JAMA* 296, 794–805 (2006). Also summarised in *Field Exchange Issue 29*. Infant feeding strategies and PMTCT – Mashi trial from Botswana. p25. Dec 2006. Available at: <http://www.enonline.net>
- <sup>xv</sup> see reference *iii*.
- <sup>xvi</sup> New data on prevention of mother-to-child transmission of HIV and their policy implications: conclusions and recommendations. Conclusions and recommendations regarding infant feeding, a October 2000 WHO Technical consultation on behalf of the UNFPA/UNICEF/WHO/UNAIDS Inter-agency Task Team on mother-to-child transmission of HIV. Oct 11-13, 2000. WHO/RH/01.28ed. Geneva, WHO 2001.

- <sup>xvii</sup> Infant feeding and HIV transmission. Consultation on Nutrition and HIV/AIDS in Africa: Evidence, lessons and recommendations for action. Durban, South Africa 10\_13 April 2005
- <sup>xviii</sup> Guiding Principles for Complementary Feeding of the Breastfed Child. PAHO/WHO, Division of Health Promotion and Protection/Food and Nutrition Program, Washington, DC, USA, 2003. Full text in English: [http://www.who.int/child-adolescent-health/New\\_Publications/NUTRITION/guiding\\_principles.pdf](http://www.who.int/child-adolescent-health/New_Publications/NUTRITION/guiding_principles.pdf)
- <sup>xix</sup> Operational Guidance on IFE for Emergency Relief Staff and Programme Managers, v2.1, February 2007. Developed by the IFE Core Group and supported by UN agencies (including UNHCR), NGOs and donors. Available at: <http://www.enonline.net/ife>
- <sup>xx</sup> Module 2 for health and nutrition workers in emergency situations. Version 1.1, December 2007. ENN, IBFAN, Fondation Terre des hommes, UNICEF, UNHCR, WHO, WFP. Available from the Emergency Nutrition Network (ENN) online (<http://www.enonline.net/ife>) and in print (email: [ife@enonline.net](mailto:ife@enonline.net)) in English and French.
- <sup>xxi</sup> Policy of the UNHCR related to the Acceptance, Distribution and use of Milk Products in Refugee Settings, UNHCR 2006. Available at: <http://www.unhcr.org> or <http://www.enonline.net/ife> Contact: [hiv aids@unhcr.org](mailto:hiv aids@unhcr.org) (Note: This policy is due for update).
- <sup>xxii</sup> For testing of infants, visit:  
[http://www.who.int/hiv/paediatric/EarlydiagnostictestingforHIVVer\\_Final\\_May07.pdf](http://www.who.int/hiv/paediatric/EarlydiagnostictestingforHIVVer_Final_May07.pdf)
- <sup>xxiii</sup> HIV and Infant Feeding: Update based on the Technical Consultation held on behalf of the Inter-agency Task Team (IATT) on Prevention of HIV Infection in Pregnant Women, Mothers and their Infants Geneva, 25–27 October 2006, WHO, 2007
- <sup>xxiv</sup> Feeding the non-breastfed child 6-24 months age. WHO/FCH/CAH/04.13. Available at: [http://www.who.int/child-adolescent-health/New\\_Publications/NUTRITION/WHO\\_FCH\\_CAH\\_04.13.pdf](http://www.who.int/child-adolescent-health/New_Publications/NUTRITION/WHO_FCH_CAH_04.13.pdf)
- <sup>xxv</sup> Sinkala M et al. for the Zambia Exclusive Breastfeeding Study (ZEBS) Team. No benefit of early cessation of breastfeeding at 4 months on HIV-free survival of infants born to HIV-infected mothers in Zambia: the Zambia Exclusive Breastfeeding Study. CROI 2007, Session 24, Abstract 74.



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