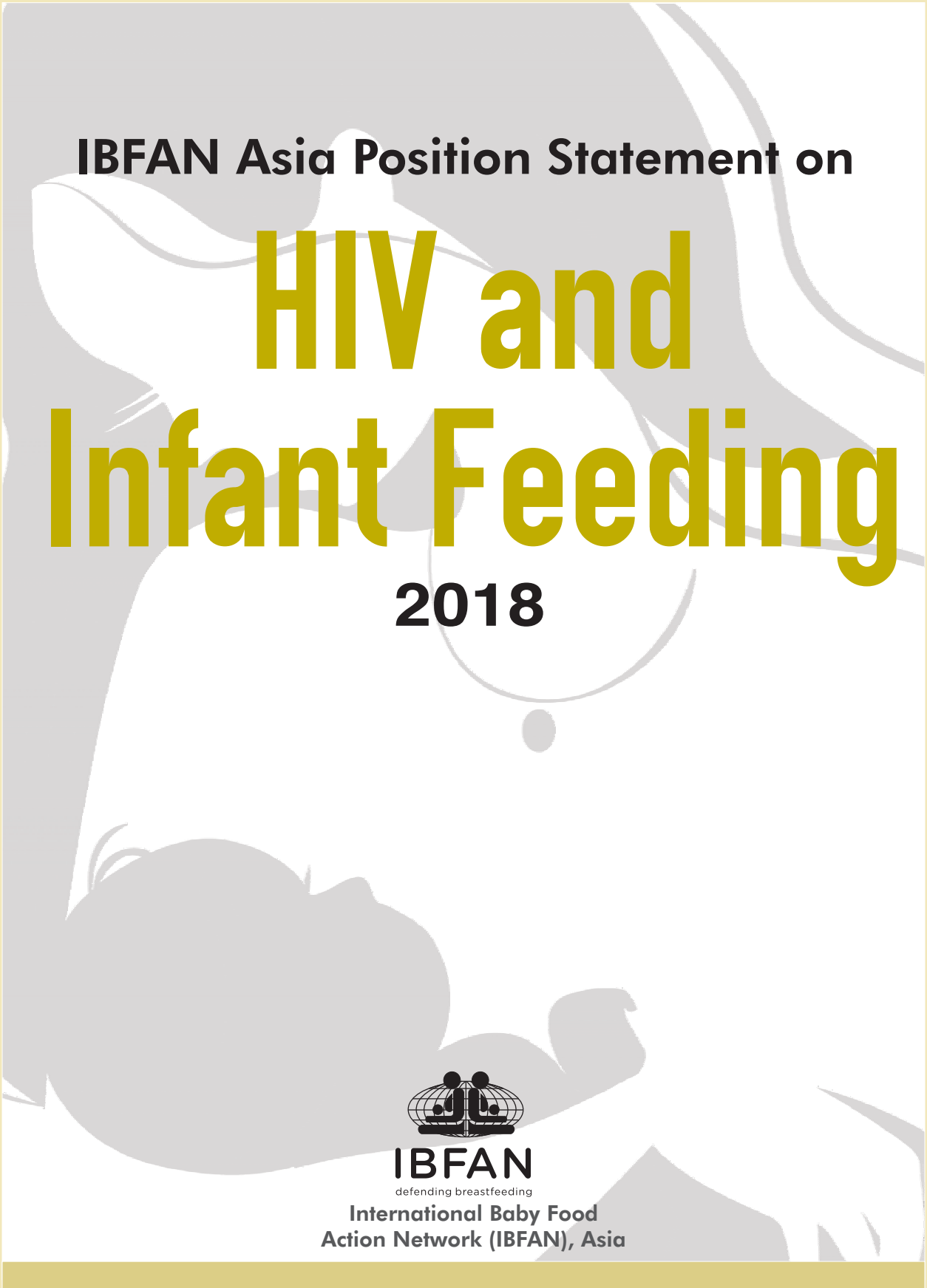
IBFAN Asia Position Statement on

HIV and Infant Feeding

2018



IBFAN
defending breastfeeding

International Baby Food
Action Network (IBFAN), Asia

INTRODUCTION

IBFAN Asia developed a "Position Statement on HIV and infant feeding" in the year 2001 and revised it in 2008,2012 and 2015 based on the scientific evidence available at that time including guidelines of WHO and other key international documents (1-6), envisaging that it would be useful for policy makers, programme managers, NGOs and international organizations working on maternal and child health and prevention of HIV infection in children. In 2008, IBFAN Asia and BPNI also developed a consensus call to national child health programs, titled "Drop mixed-feeding" to emphasize the need to avoid mixed feeding, thereby reducing chances of mother to child transmission of HIV (7). BPNI/IBFAN Asia also published 'HIV and Infant Feeding-An information booklet for policy and programme managers in India' in 2013 (8). In 2015, BPNI developed a global status report of policy and programmes based on the World Breastfeeding Trends Initiative (WBT*i*) assessment findings from 57 countries (9).

In the past few years, a significant amount of new research evidence and programmatic experience on infant feeding in the women living with HIV has emerged, leading to a major shift in the policies on infant feeding counselling to the women and their families. Infant feeding recommendations to HIV positive mothers now aim for greater likelihood of HIV free survival of their children and not just prevention of transmission of HIV to the offspring. WHO has updated its infant feeding recommendations for HIV settings in 2016 [10] which says,"practicing mixed feeding is not a reason to stop breastfeeding in the presence of Anti-retroviral (ARV) drugs", though all efforts should be made to counsel mother to do exclusive breastfeeding." Updated guidelines also recommend **"mothers living with HIV should breastfeed for at least 12 months and may continue breastfeeding for up to 24 months or longer (similar to the general population) while being fully supported for ART adherence."**

This has prompted IBFAN Asia to revise its earlier Position Statement document incorporating current research findings, protocols and guidelines available up to September 2018.

RELEVANCE OF BREASTFEEDING

Breastfeeding is an important public health intervention for child health and nutrition as well as for maternal health. It also provides important benefits to the environment and economy.

Infant and young child feeding practices and child survival, growth and development

The first two years of life provide a critical window of opportunity for ensuring children's appropriate growth and development through optimal feeding. Exclusive breastfeeding (EBF) is a cornerstone of the child survival. According to global estimates, improving breastfeeding practices could save lives of more than 800,000 under 5 children annually (11). Breastfeeding ensures quality survival as it boosts children's brain development, modulates immune system of the body and protects from adult onset diseases like obesity, hypertension, and cholesterol abnormalities (11,12).

According to the Global Strategy for Infant and Young Child Feeding, adopted by the World Health Assembly in 2002, two thirds of all deaths under the age of five occur during the first year of life and are related to inappropriate feeding practices (5). Undernutrition is rampant among the infants and young children and this can be prevented to a significant extent by the optimal breastfeeding and timely appropriate, safe and adequate complementary feeding. There is also ample evidence to suggest that inappropriate feeding practices predispose the infants to metabolic syndrome including cardiovascular diseases, diabetes type 2 and obesity in the later life. The lipid profile of exclusive breastfeed infants is healthier compared to the formula fed and mixed fed infants and breastfeeding protects infants from rapid weight gain in the postnatal period, which is closely related to the development of insulin resistance and later on overweight and obesity (12,13). A systematic review has reported that subjects who were breastfed experienced lower mean blood pressure and total cholesterol, as well as higher IQ, learning capacity, educational attainment and monthly income. Prevalence of overweight/obesity and type-2 diabetes was lower among breastfed subjects (14).

A WHO study of infant feeding patterns and risk of death and hospitalization in the first half of infancy confirms that the risk of deaths is 10 times higher in the non-breastfed infants and 2.5 times higher in the partially-breastfed infants (15). Diarrhea and pneumonia are more common and severe in children who are artificially fed, and are responsible for many of these deaths. Diarrheal illness is more common in

artificially fed infants even in situations with adequate hygiene. Other acute infections, including otitis media, Haemophilus influenza meningitis and urinary tract infection are less common and less severe in the breastfed infants (16). Relevance of early initiation of breastfeeding to prevent neonatal mortality is well established. Longer the delay in initiation of breastfeeding, greater is the risk of morbidity and mortality in babies. Delayed initiation beyond 1 hour increases their risk of death by 1.3 times, and more than 2 times if delayed 1 day or more (17).

The preventive effect of exclusive breastfeeding on the major childhood morbidities like diarrhea and pneumonia and also on mortality due to these diseases has been amply highlighted in the Lancet series on maternal and child undernutrition (2008), which concluded that relative risk of mortality due to diarrhea and pneumonia was higher in non-exclusively breastfed children (18).

In spite of such strong scientific evidence, only 38% of infants aged 0-6months globally are exclusively breastfed. Inadequate rates of Exclusive Breastfeeding result from several factors including socio-cultural practices, poorly skilled health care providers, and lack of support from the health care delivery system, commercial influence, as well as poor knowledge about breastfeeding. With this background, in 2012, fifth target in the WHO global nutrition targets 2025 asks for an increase in the rate of exclusive breastfeeding in the first 6 months up to at least 50% (19).

Benefits of breastfeeding to mothers

Breastfeeding provides both short and long term benefits to the mothers also. Short-term benefits include decreased postpartum blood loss and increased bonding between the baby and mother. The long-term benefits include natural contraception (lactation amenorrhea), reduction in the risk of breast and ovarian cancers, type 2 diabetes and metabolic syndromes and osteoporosis (5).

Benefits of breastfeeding to family

Breastfeeding is cost effective, directly and indirectly, both on time and money. It helps in birth spacing.Mother can breastfeed anytime, anywhere, and in any situation including emergency. It doesn't require any preparation and there is no risk of contamination. (20)

Benefits of breastfeeding to society

Breastfeeding is environment friendly and does not add to the global warming and pollution unlike replacement feed, which requires production of the milk, and preparation of milk feeds and disposal of the non biodegradable material. Use of breastmilk substitutes generates significant amount of Green House Gases (21).

HIV TRANSMISSION AND BREASTFEEDING

Acquiring HIV infection from the mother to the baby is known as vertical transmission. It may occur at any time during pregnancy (through placenta), at the time of delivery or through breastfeeding. In the absence of any interventions to prevent or reduce transmission, about 5-10% of HIV-infected women pass the virus to their infants during pregnancy; between 10-20% during labour and delivery; and another 10-20% infants are infected in the post-natal period through breastfeeding over a period of 24 months (22). If we take an example of 100 HIV infected women, taking mid point of ranges of the HIV transmission, one would expect 7 of their infants to be infected with the HIV in the womb, 15 infants during labour and delivery, and another 15 babies over a period of 2 years of breastfeeding; 63 infants would not get HIV infection, even if breastfed for 2 years and without any intervention in place to prevent HIV transmission (23).

There are number of factors which affect transmission of HIV from mother to the baby:

1. **Immune status of the mother:** Low CD4 T-lymphocyte counts have been associated with a greater risk of postnatal HIV transmission. In an analysis of pooled data from two West African trials, maternal CD4 cell count below 500 cells per mm^3 in the plasma close to the time of delivery was associated with a 3-fold increase in the risk of late postnatal transmission compared to women with CD4 cell count equal to or greater than 500 per mm^3. The risk of late postnatal acquisition of infection increased eightfold when CD4 cell counts were below 200, and 3.7 fold where CD 4 cell counts were between 200 and 500 per mm^3 (23).
2. **RNA viral load in plasma and breast milk:** Increased maternal RNA viral load in the plasma and breastmilk are

strongly associated with an increased risk of transmission through breastfeeding. A study found that the rate of late postnatal transmission increased 2.6 fold for every one log 10 increase in the plasma RNA viral load (24). In another study the risk of transmission increased fivefold when RNA virus had been detected in breastmilk samples taken at six weeks postpartum (25).

3. **ART / ARV prophylaxis to HIV+ women and their babies:** There is now enough evidence that the risk of acquiring HIV infection through breastmilk is significantly reduced by concurrent ARV interventions (ART to all pregnant women / ARV prophylaxis to mother if ART is not indicated, and ARV prophylaxis to the infant) (26,27). ART/ARV intervention improves CD4 count of the mother and decreases RNA viral load in the plasma and breast milk and thus reduces HIV transmission to the breastfed infant.
4. **Type of Infant Feeding:** The chance of the transmission of HIV is maximal if the baby receives mixed feeding. According to a study from Africa, breastfed infants, who additionally received some solids, had 11 times higher risk of transmission of HIV and if other milk or formula were given along with breastfeeding the risk almost doubled (23). Immune factors present in the breast milk like sTLR2 play critical role in preventing infection in the exclusively breastfed infants (28).
5. **Breast Conditions:** Nipple lesions, mastitis or breast abscess are known to increase the risk of HIV transmission through breastfeeding(29). According to the available data, 11-13 per cent of HIV infected women experience one or more breast pathologies during breastfeeding more commonly during the first weeks of lactation (30).
6. **Recent infection with HIV:** A woman who has been infected with HIV during pregnancy or while breastfeeding is more likely to transmit the virus to her infant. Viral load in the maternal blood is high in the first few weeks after new infection until the body begins to produce antibodies that suppress the virus.
7. **Infection with Sexually transmitted Diseases (STDs):** Maternal STD infection during pregnancy may increase the risk of HIV transmission to the unborn baby.
8. **Obstetrical antenatal interventions:** Chorionic villi aspiration, amniocentesis, amnio infusion etc. increase the risk of HIV transmission.
9. **Intervention during delivery:** Artificial rupture of membranes (ARM), episiotomy, instrumentation, and version increase HIV transmission.
10. **Duration of breastfeeding:** The longer the duration of breastfeeding, the longer the infant is exposed to the risk of HIV infection, especially where breastfeeding is mixed with other foods/drinks and mother is not on ART or there is poor adherence to ART.
11. **Nutritional status of HIV infected women:** A good nutritional status of the mother is important as it boosts the mother's immune system and lessens progression of the HIV disease.
12. **Infant's oral health:** Breach in the mucosal linings of the oral cavity increases the risk of HIV transmission. Vigorous suction of the mouth after birth, stomatitis and oral thrush are some of the conditions carrying higher risk of transmission in the breastfed infant.

INFANT FEEDING CHOICES FOR HIV INFECTED WOMEN

The fact that the HIV can pass to the infant through breastfeeding, and that breastfeeding has life saving implications, has been the dilemma faced by all, including health personnel and women who are HIV positive, on what to choose to feed their babies: exclusive breastfeeding or replacement feeding.

In the past, mothers with HIV infection were counselled not to breastfeed to prevent HIV infection but it did not reduce child mortality; babies were dying of diarrhoea, pneumonia, and other infections. At the same time, in developing countries where the majority of mothers with HIV infection live, a complete avoidance of the breastfeeding is often neither feasible and nor acceptable, resulting in the mixed feeds and consequent increased risk of HIV transmission. For a HIV infected mother living in a poor household, it is important to consider carefully the risks related with not breastfeeding. Promotion of replacement formula feeding to prevent HIV infection in such situations might increase infant malnutrition, morbidity and mortality. Not breastfeeding is associated with the risk of serious infections during first 3 months of life (31). Thus mortality in HIV exposed infant receiving replacement feeds has been high and has negated the decreased risk of HIV transmission in such babies (32,33). Higher early infancy hospitalization was

seen in replacement-fed infants born to HIV infected mothers in Pune, India and other countries (34,35). Unsurprisingly the risk was higher even in the educated and well to do families (35). Balancing the risk of infants acquiring HIV infection through breastmilk with the risk of death from the causes other than HIV, particularly malnutrition and diarrhoea is the key principle for choosing feeding options now (36). Moreover the last decade has seen accumulation of a significant amount of research evidence and programmatic experience on antiretroviral (ARV) therapy to prevent mother to child transmission of HIV infection. Risk of acquiring HIV infection through breastmilk is significantly reduced by concurrent ARV interventions (ART to the mother /ARV prophylaxis to mother and /or ARV prophylaxis to infant) (26,37). There are several studies establishing efficacy of the antiretroviral therapy when started early for preventing mother-to-child transmission of HIV in mothers who exclusively breastfeed (38,39). Three drugs ART regimen decreases the risk of transmission to 2-5% in breastfed babies from 35-45% when no intervention is given (39).

Although there is strong scientific evidence in favor of breastfeeding along with ART interventions yet there are gaps in the knowledge of the health workers, and mothers are not getting correct information (40,41). WBT*i* assessment of the policies and programmes on HIV and infant feeding has identified various gaps in the national policies and programmes on the existence of appropriate guidelines, availability of counseling services and health care for the mother and infant, training of the health care staff etc., which affect mother's capacity to practice optimal IYCF practices, thus giving way to inappropriate feeding consequences. An assessment in 84 countries has revealed that only 51 countries have developed a national policy on infant feeding in HIV, and only half the countries are actually providing training on HIV and infant feeding counseling to their health staff and providing support to the mothers to make an informed breastfeeding choice (42). Providing regular and consistent services facilitate compliance with WHO breastfeeding recommendations and best practice in resource limited settings (41).

WHAT ARE THE INTERNATIONAL GUIDELINES?

In 2010, WHO for the first time recommended ARV drug interventions to prevent postnatal transmission of HIV through breastfeeding. WHO adopted a public health approach, recommending that national authorities should promote and support one feeding practice for all women living with HIV accessing care in public health facilities. WHO advised countries to choose a national approach for their ARV option for PMTCT based on operational consideration. WHO also recommended that countries while deciding feeding option should avoid harm to infant feeding practices in the general population by counselling and support to mothers known to be HIV-infected and health message to the general population should be carefully delivered so as not to undermine optimal breastfeeding practices among the general population (6).

Mothers who are known to be HIV uninfected or whose HIV status is unknown should be counselled to exclusively breastfeed their infants for the first six months of life and then introduce complementary foods while continuing breastfeeding for 24 months or beyond. Mothers whose status is unknown should be offered HIV testing. Mothers who are not infected with HIV should be counselled about ways to prevent HIV infection and about the services that are available, such as family planning, to help them to remain uninfected.

The 2013 WHO consolidated guidelines on the use of

ARV drugs recommended one of two approaches: (a) providing ART during pregnancy and counselling for breastfeeding to women living with HIV who are otherwise not eligible for ART (Option B); or (b) providing lifelong ART for all pregnant and breastfeeding mothers living with HIV regardless of their CD4 count or clinical stage (Option B+) (43). The WHO guidelines (2016) recommend ART to all adults and children as soon as they are known to be living with HIV and not just for the women fulfilling specific clinical or immunological criteria (44). WHO has also updated infant feeding recommendations in view of the emerging evidences on infant feeding in HIV settings (10).

The updated guidelines address four aspects of the infant feeding in the context of HIV:

1. **The duration of breastfeeding by mothers living with HIV**

   In 2010 WHO guidelines, mothers living with HIV were recommended to practice exclusively breastfeeding for 6 months, introduce complementary feeds and stopping breastfeeding at 12 months, if they were able to provide a nutritionally adequate and safe diet without breast milk. The updated 2016 guidelines conclude that extending the period of breastfeeding to 24 months or beyond is likely to improve HIV-free survival among HIV exposed infant when mother is on ART and has good adherence, especially where diarrhoea and pneumonia are significant causes of infant and child mortality This approach would also lead to programmatic simplification and facilitate the protection, promotion and support of optimal infant feeding practices in the entire population.

2. **Interventions to support infant feeding practices by mothers living with HIV**

   WHO guidelines development group, in their review, found that breastfeeding promotion and support favorably influence initiation and exclusive breastfeeding rates. It was observed that repeated contacts, combinations of group education and individual counseling sessions, involving fathers and other family members, and integrating programmes for preventing mother to child transmission of HIV along with access to ART, individually had positive effect on the exclusive breastfeeding rate.

3. **What to advise when mothers living with HIV do not exclusively breastfeed**

   This is the most important change in the updated WHO guideline. Compared with exclusive breastfeeding, partial breastfeeding or mixed feeding is associated with higher risk of diarrhoea and pneumonia in children in the absence of ART, mixed feeding is also associated with an increased risk of postnatal transmission of HIV. However, compared with non-breastfeeding (replacement feeding) in resource-limited settings, mixed feeding in the first six months of life is associated with reduced morbidity among both HIV-exposed and unexposed infants.(45)

   Emerging evidences also suggest that ARV drugs significantly reduce the risk of postnatal transmission even if a mother partially breastfeeds (46,47). Based on this observation, WHO- 2016 update has recommended that the mothers living with HIV and health-care workers can be reassured that ARV treatment reduces the risk of postnatal HIV transmission even in the context of mixed feeding. Although exclusive breastfeeding is recommended, practicing mixed feeding is not a reason to stop breastfeeding in the presence of ARV drugs therapy.

4. **What to advise when mothers living with HIV do not plan to breastfeed for 12 months**

   In both HIV- affected and in general population, some women choose to breastfeed for a duration less than 12 months because they go out to work and remain away from their children for a considerable time and no skilled support is available to them for continuing breastfeeding. WHO- 2016 guidelines based on a systemic review recommend that mothers living with HIV and health-care workers can be reassured that the duration of breastfeeding of less than 12 months are better than never initiating breastfeeding at all.

Updated 2016 WHO guidelines have the advantage of being harmonized with those for mothers without HIV which would simplify public health messaging and improve infant feeding practices in the entire community. These recommendations will also decrease stigma and increase acceptability by the mothers and family in particular and communities in general.

RECOMMENDATIONS

In view of the latest evidence and guidelines supporting use of ART intervention along with exclusive breastfeeding for 6 months as most effective strategy for HIV free survival of children, International Baby Food Action Network Asia (IBFAN Asia) and Breastfeeding Promotion Network of India (BPNI) make following recommendations:

1. Policies and Programmes on HIV and infant feeding:

- Countries should develop a national policy on infant and young child feeding that should include infant feeding by mothers Living With HIV along with the operational guidelines to implement the programme.
- The general principle of protecting, promoting and supporting breastfeeding should be followed irrespective of the HIV situation in a nation/State.
- Priority should be given to policies and programmes, which aim to prevent women of reproductive age, particularly adolescents and their parents from becoming infected with HIV in the first place. Voluntary and confidential counseling and HIV testing should be made available for women of childbearing age and their partners. This opportunity must be utilized for promoting exclusive breastfeeding during the first six months irrespective of HIV status.
- Infant feeding practices of the HIV infected women should support the greatest likelihood of HIV free survival of their children & should not harm the health of the mother. The infant feeding guidelines for HIV infected mothers should neither be discriminatory nor should give raise 'spillover effect' in the general population.

2. Provide ART to all pregnant and breastfeeding women:

Breastfeeding with concurrent ARV drugs intervention offers the greatest chance of HIV-free survival for babies born to HIV positive mothers. Risk of acquiring HIV infection through breast milk is significantly reduced by concurrent ARV interventions (ART to all pregnant and breastfeeding mothers for life along with ARV prophylaxis their infant). Countries should adopt this approach as their national policy.

3. Providing appropriate training to the health professionals/ counselors:

Infant feeding is influenced by community practices and family preferences. Therefore, attitudinal changes are required to empower mother and the family to be able to sustain exclusive breastfeeding for 6 months. To ensure successful adherence to the practice of exclusive breastfeeding by HIV positive mothers, counselling based training of health workers in breastfeeding/ lactation management is required. The training must be up-to-date and skill oriented to help prevent breast pathologies like breast engorgement and cracked nipples as well to manage these conditions if they arise. Since the pre-service and in-service curricula of doctors and nurses, as well as those appointed counselors are found inadequate, national level programme budgets should be identified by the AIDS control organizations to ensure training for HIV and infant feeding counseling.

4. Commercial promotion of Substitutes

Emphasis must be placed on complete adherence to the International Code of Marketing of Breastmilk Substitutes (1981) and the relevant World Health Assembly resolutions (WHA 58.32, 2005, WHA 63.23, 2010, WHA 69.9, 2016, WHA 71.9, 2018). Countries should ensure a strict compliance of the international code/national legislation and ensure increasing awareness on it.

This includes a complete ban on any form of promotion in the health care system including sponsorship of conferences or other inducements, ban on donations or subsidized supplies of commercial infant formula or infant foods within any part of the health care system. This protection assumes greater importance in the light of the HIV situation. Allowing more babies to be fed with the infant formula because of promotion of these products would be against any country's interests in child health. The commercial infant food industry has no role other than the one they had before the HIV-epidemic started: manufacturing and making available through normal marketing channels, safe products that meet an existing demand, as well as providing scientifically accurate information about these products to health workers on request. Any practice aimed at artificially increasing that demand, including offering inducements to the health professionals, lobbying and other interference in national, regional and international infant feeding policy making is ethically abhorrent and should continue to be counteracted by all organizations concerned with maternal and infant health.

5. Research in the field of HIV and infant feeding:

- Independent research is needed to fill gaps in existing knowledge about factors affecting adherence to the global recommendations
- Research should also address interventions to improve nutritional status of HIV infected mothers and children
- Research teams doing studies on such issues should include expertise not only in virology and research design, but also in breastfeeding management. Those who have no commercial interest in the outcome should finance research on infant feeding in a transparent and independent manner. Financing of both research and program activity should not create 'conflicts of interest'.

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The International Baby Food Action Network (IBFAN) was founded in 1979. IBFAN is the 1998 Right Livelihood Award Recipient. It is a network of 273 groups in 168 countries. Member groups include consumer organisations, health workers associations, parents' groups and diversity of organizations in the social justice movement. It has also individual members. Each group is autonomous and raises its own funds, with the assistance of IBFAN's Regional and Programme Coordinating Offices, in accordance with the Seven Principles of IBFAN. IBFAN Asia, based on the seven guiding principles of IBFAN, seeks to protect infant health and enhance infant and young child development through programmes designed to increase national commitments and public pressure to do so, for protection, promotion and support of optimal breastfeeding and infant and young child feeding. IBFAN Asia is one of the regional coordinating office (RCO) of IBFAN's global network which consists of 25 countries with 3 sub regions, South Asia, East Asia and Southeast Asia; each sub region being coordinated by the sub regional representative and overall coordination is done at the regional coordinating office in Delhi by Breastfeeding Promotion Network of India (BPNI).