

NATIONAL STRATEGY FOR INFANT AND YOUNG CHILD FEEDING



April 2004

**Federal Ministry of Health
Family Health Department
Ethiopia**

ACKNOWLEDGEMENTS

The Ministry of Health gratefully acknowledges the generous technical support from AED/LINKAGES in the process of development, reviewing, finalization and printing of the National Infant and Young Child Feeding Strategy document. Our special thanks goes to the USAID for funding this undertaking. We would also like to deeply thank WHO for the financial and technical support provided and UNICEF for their valuable inputs. The Ministry of Health would like to express its utmost appreciation to all organizations and individuals who directly or indirectly contributed to the successful finalization of this valuable document.

ACRONYMS

AFASS	Affordable, Feasible, Acceptable, Sustainable and Safe
BMS	Breastmilk substitutes
CSA	Central Statistical Authority
EBF	Exclusive breastfeeding
EDHS	Ethiopian Demographic and Health Survey
ENA	Essential Nutrition Actions
FADUA	Frequency, Amount, Density, Utilization and Active feeding
GDP	Gross Domestic Product
ILO	International Labor Organization
IMCI	Integrated Management of Childhood Illness
IYCF	Infant and Young Child Feeding
MoE	Ministry of Education
PMTCT	Prevention of Mother to Child Transmission (of HIV/AIDS)
SFP	Supplementary feeding programs
TFP	Therapeutic feeding programs

PREFACE

In Ethiopia, several efforts to improve the nutritional status of the population have been carried out at different times through existing sectoral networks. To date, however, these efforts have failed to bring about substantive and sustainable changes leading to improvement of the nutritional situation of the most vulnerable groups. Some of the challenges experienced in implementing national and local nutrition programs include:

- High prevalence of inappropriate child feeding practices;
- High level of illiteracy among mothers and caretakers which causes many mothers to be unaware of information related to optimal feeding practices;
- Insufficient knowledge on the part of health care providers regarding optimal feeding practices which leads to dissemination of incorrect information;
- The lack of appropriate policies to create an enabling environment for promotion of appropriate infant and young child feeding practices

In December 2002, at the planning meeting for implementation of the global strategy for Infant and Young Child Feeding (IYCF) which was held in Harare, Zimbabwe, (1) Ethiopia, Ghana, Zimbabwe, and Botswana outlined a list of policies, strategies, conventions and national plans of action in health and related issues to be prepared. These are very important documents with guiding principles for national vision. The most important of the policies are those related to Women, Education, Nutrition, Infant and Child Feeding, HIV, IEC and Behavioral Change Communication. This Infant and Young Child Feeding Strategy has been prepared based on the national needs and commitments to improve IYCF practices and follows the WHO Global Strategy for Infant and Young Child Feeding. (2)

Where to Intervene for Nutrition? Data exists in Ethiopia that show the problem of malnutrition beginning early in life, primarily during the first 12 months, when growth faltering takes hold due to sub-optimal infant feeding practices. Once this growth faltering occurs, there is little opportunity for catch-up growth. Stunted infants grow to be stunted children and stunted adults. Thus, it is imperative to address issues of infant and young child feeding during the first year of life, particularly promoting proven optimal breastfeeding practices and complementary feeding practices, both in healthy as well as sick infants. In addition, the nutritional status of women is also a major problem in Ethiopia and contributes to the high levels of child malnutrition through inter-generational relationships. Thus it is imperative that any actions taken to address malnutrition in Ethiopia focus not only on infant feeding during the first year of life but also on nutritional improvements of adolescent girls and women of reproductive age.

How to Intervene for Nutrition? Although the challenges to improve nutrition are significant and may appear overwhelming, there are a number of Essential Nutrition Actions that when taken together can make a difference to the well-being and survival of young children and women of reproductive age.

The Essential Nutrition Actions (ENA) (3), as presented in this strategy document, represent an action-oriented approach that focuses on promoting seven clusters of

nutrition behaviors that have been empirically proven to reduce morbidity and mortality. The main beneficiaries of these actions will be infants and young children under the age of two years as well as women of reproductive age. The seven ENA areas include:

- promoting optimal breastfeeding,
- promoting optimal complementary feeding at 6 months,
- nutritional care of the sick child during and after illness,
- improving women's nutrition,
- controlling anemia,
- controlling vitamin A deficiency, and
- controlling iodine deficiency.

The objective of the ENA approach will be to consolidate the current nutrition activities related to these seven areas into a 'holistic technical package'. This will be done in a way that promotes integration of efforts and broadly extends the coverage of nutritional services beyond traditional points of contact, such as growth monitoring sessions, which tend to only reach children and in limited numbers. Thus, the ENA approach will be promoted at six periods during the lifecycle:

- pregnancy,
- delivery/immediate postpartum,
- postnatal/ family planning,
- immunization,
- growth monitoring/well child, and
- sick child consultations.

It is also important to extend the coverage of these nutrition actions well beyond what is considered the typical 'nutrition domain' by integrating them into family planning, reproductive health, IMCI, and HIV/AIDS programs and activities, to name but a few. In addition, promotion of the ENA approach would be extended far beyond the facility level to reach into communities. Although the ENA approach is anchored solidly within the health sector, there is the need to extend these nutrition actions, as appropriate, into other sectors important for nutrition, such as agriculture, food security, education, micro-enterprise, to name a few.

It needs to be stated that none of these actions are new and to varying degrees already are being promoted in Ethiopia; however, most are now being implemented in an uncoordinated and vertical fashion, with little integration across each area.

In general, this document tries to highlight the situation of IYCF in Ethiopia, the technical guidance of IYCF, how to feed infant and children in emergency situations, different interventions to improve IYCF and roles and responsibilities of partner to improve IYCF practices.

I hope that the document will help us in accelerating actions towards the achievement of the National goal of improving infant and young child feeding practices in Ethiopia

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NATIONAL STRATEGY FOR INFANT AND YOUNG CHILD FEEDING

1. INTRODUCTION

1.1 Background

Ethiopia has an approximate land area of over 1.11 million square kilometers and is bordered by Somalia, Eritrea, Kenya and Sudan. Its topography is a mixture of high, mid and lowland areas and its climate is characterized by wet and dry seasons. Increasingly frequent droughts have led to chronic food insecurity and cyclical famine outbreaks.

In 2003, the population of Ethiopia was estimated at over 69 million and is characterized by rapid population growth (2.7%) as a result of a high fertility rate (5.9). The crude birth rate is 39.9 per 1000 (7). The mortality rates for infants and under-fives are 96.8 per 1000 live births and 140.1 per 1000 children, respectively. The maternal mortality rate is estimated at 871 per 100,000 (EDHS 2000) and in the year 2000, average life expectancy was 43 years, but also appears to be declining over time (8).

Economically, Ethiopia ranks among the least developed countries with a GDP of 106 (2001) and an annual per capita income of US\$130. Data from the recent CSA Welfare Survey estimates that about 45% of the population lives below the poverty line (CSA 2001). Poverty is a fundamental cause of household food insecurity and consequently malnutrition which continues to be one of the major and most pressing health problems affecting children and adults.

According to the Ethiopia Demographic Health Survey 2000 (EDHS), the national literacy rate in Ethiopia (21%) was higher among males (40%) than females (19%). For 15-19 year old females, the literacy rate was 27.1%, but 40.1% for males of the same age. The current primary school gross enrollment rate is 57% (Indicators of the Ethiopian Education system, Ministry of Education - MoE, Dec. 2001) and young girls' enrollment only represents 47% of that. The low literacy rate of females has major implications for the health and nutritional status of Ethiopian mothers and children.

Although Ethiopia suffers from frequent drought-based emergencies, it is important to note that even during a relatively good non-drought year, such as the year 2000 when the national EDHS was conducted, levels of malnutrition in children and women are still extremely high and by no means confined to emergency periods, rather it is chronic year round phenomena. An 'acute nutritional emergency' on top of a 'chronic nutritional problem' inevitably results in many vulnerable individuals falling over the edge of survival as they are unable to cope with further stress of too little food and too much disease.

One in two children under the age of five are stunted (too short for their age) and one in four are severely stunted. These very high levels of malnutrition contribute to the country's high under-five mortality rate, estimated at 140.1/1000 live births. International experts have ranked Ethiopia as the sixth highest country in the world in terms of the number of under-five deaths, with over 472,000 under-fives dying in the year 2000 (9). Analysis show that 58% of all under-five deaths in Ethiopia stem either directly or indirectly from malnutrition, even in its milder forms (10). In order to reduce these high under-five mortality and morbidity rates, concerted efforts are required to improve nutritional status in the early years of life.

Poor nutrition results not only from a lack of food but also from inappropriate feeding practices where the timing, quality and quantity of foods given to infants and young children are often inadequate. Optimal breastfeeding and complementary feeding practices are essential to meet the nutritional needs of children in the first years of life.

The Convention on the Rights of the Child and subsequent World Food and Nutrition Summits have recognized and declared the right of all children to have access to safe and nutritious food to achieve the highest attainable standard of health. Women also have the right to proper nutrition, to make informed decisions about how to feed their children, and to full information and appropriate conditions that will enable them to carry out their decisions. Implementation of this infant and young child feeding strategy will facilitate fulfillment of these rights.

Additionally, the HIV pandemic and the risk of mother-to-child transmission of HIV through breastfeeding pose unique challenges to the promotion of breastfeeding in most urban areas of Ethiopia, even among unaffected families. Moreover, complex emergencies, which are often characterized by population displacement and food insecurity, further compromise the care and feeding of infants and young children.

To address these challenges, the national strategy for infant and young child feeding is based on respect, protection, facilitation and fulfillment of every mother's right to decide how to feed her infant and the right of every child to have access to safe and nutritious food. The strategy also take into account the latest scientific evidence and be based on proven interventions that will promote and sustain positive feeding practices.

1.2 Infant and young child feeding practices in Ethiopia

Nationally representative data on infant and young child feeding practices in Ethiopia were collected as part of the Ethiopia Demographic and Health Survey 2000. Data were collected from a total of 4,624 households with children under three years of age, 85% of which were in rural areas. Approximately 50% of women reported initiating breastfeeding within one hour of delivery and a similar number of women reported giving colostrum to their infants. Forty-seven percent were exclusively breastfeeding infants under six months and more than 80% continued feeding into the child's second and third year. Analysis of the survey also showed delayed introduction of complementary foods and more than 50% of infants aged six to nine months had not received any solid or semi solid foods during the week preceding the survey. Furthermore, the frequency of feeding was low with only 20% of children being fed the recommended number of times on the previous day.

Results from earlier surveys also portrayed high malnutrition levels for children under five. The 1992 National Rural Nutrition Survey revealed that the prevalence of stunting was as high as 64 % (a four percentage point increase from its 1983 level). The rate was among the highest if not the highest for the continent. The survey further depicted that malnutrition was equally highly prevalent or even worse in the food surplus regions (in Gojam and Gamo Goffa regions for example) than the food deficit regions of the time.

A wide range of harmful infant feeding practices were also documented by the same survey. While it encouragingly documented that exclusive breastfeeding by mothers in rural areas was as high as 70 %, the variation among the regions was staggering. The median age for exclusive breastfeeding ranged from an unacceptably low 3.7 months in northern Gamo Goffa to a high of 10 to over 12 months in North and South Gondar, North and South Wello, and in Tigray. Likewise, the median age for introduction of complementary foods varied from a low of 3.7 months in northern Gamo Goffa to 12.1 months in North Gondar and Tigray. Initiation of breastfeeding was fairly late in almost all regions (only 30 % initiated within one hour) and quite late in regions such as North and South Wello, eastern Gojjam and North Shoa. Over 48% of children were given butter immediately after birth. (11)

2. GOAL AND OBJECTIVES OF THE STRATEGY

The overall **goal** of this strategy is **to improve infant and young child feeding practices in Ethiopia.**

The **objectives** include:

1. *To standardize infant and young child feeding (IYCF) practices for improved child health.*
2. *To specify roles and responsibilities of partners in promoting appropriate IYCF practices*
3. *To outline technical directives for interventions.*

3. INFANT AND YOUNG CHILDREN FEEDING: TECHNICAL GUIDANCE

3.1 Breastfeeding - 0 to 6 months

Breastfeeding provides the ideal food for healthy growth and development of infants; it is also an integral part of the reproductive process with important implications for maternal health. As a national public health recommendation, infants should be exclusively breastfed for the first six months of life to achieve optimal growth, development and health. Thereafter, to meet their evolving nutritional requirements, infants should receive nutritionally adequate and safe complementary foods while breastfeeding continues up to two years of age and beyond. Exclusive breastfeeding from birth is possible except for a few medical conditions, and unrestricted exclusive breastfeeding results in ample milk production.

Even though it is a natural act, breastfeeding is also a learned behavior. Virtually all mothers can breastfeed provided they have accurate information and support within their families and communities, and from the health care system. They should also have access to skilled practical help from, for example, trained health workers, and lay and peer counselors, and who can help to build mothers' confidence, improve feeding techniques, and prevent or resolve breastfeeding problems.

Women in paid employment can be helped to continue breastfeeding by being provided with enabling conditions, for example, paid maternity leave, part-time work arrangements, facilities for expressing and storing breastmilk, and breastfeeding breaks.

RECOMMENDATIONS (12)

1. Initiate breastfeeding immediately
 - Breastfeeding should begin within one hour after birth.
2. Give colostrum
 - Feeding of colostrum should be promoted and prelacteal feeds discouraged.
 - Colostrum is three times richer in vitamin A and ten times richer than in beta-carotene than mature milk. Because of its high levels of vitamin A, antibodies, and other protective factors, colostrum is often considered as the baby's first immunization.
3. Practice exclusive breastfeeding from 0-6 months
 - Exclusive breastfeeding means that the child takes only breastmilk and no additional food, water, or other liquids (with the exception of medicine and vitamins, if needed).
 - Breastmilk completely satisfies an infant's nutritional and fluid needs for the first six months. Nutrients such as vitamins A and C, iron, zinc and vitamin D are more easily absorbed from breastmilk than from other milk. Breastmilk contains essential fatty acids needed for the infant's growing brain, eyes, and blood vessels and these are not available in other milks.
 - Infants do not need water or other liquids to maintain good hydration, even in hot climates.
 - Breastfeed on demand, that is, as often as the infant wants, day and night. This will be at least 8 times in 24 hours. The more times a baby breastfeeds, the more milk will be produced as suckling stimulates milk production.
 - Breastmilk protects against infection as the infant shares the mother's ability to fight infection. Exclusively breastfed infants are less likely to become ill with diarrhea, and less likely to die from diarrhea or other infections. They are also less likely to develop pneumonia, meningitis, and ear infections than non-breastfeed infants.
 - Exclusively breastfed children are at a much lower risk of infection from diarrhea and acute respiratory infections than infants who receive other foods. Other foods or liquids, or the feeding bottles or utensils used for them may contain germs and cause infections.
 - Offering foods to infants before six months reduces breastmilk intake and interferes with full absorption of breastmilk nutrients.

- Breastfeeding protects the mother’s health. After delivery, it helps the uterus return to its normal size. This helps reduce bleeding and prevents anemia. Breastfeeding also reduces the mother’s risk of ovarian and breast cancer.
 - Exclusive breastfeeding contributes to a delay in the return of fertility.
 - Breastmilk is particularly important for pre-term infants and the small proportion of term infants with very low birth weight. They are at risk of infections, long-term ill health and death. Most are born at or near term and can breastfeed within the first hour after birth.
4. Ensure lactating mothers eat a sufficient diet and receive adequate care and support (13, 14)
- Efforts to increase the amount of food available to pregnant and lactating mothers can be the most effective way of improving their health and that of their infants.
 - To support lactation and maintain sufficient maternal reserves, most mothers in developing countries will need to eat about 650 additional kilo-calories (the equivalent of one extra meal) every day. However, contrary to popular belief most malnourished women are able to produce adequate amounts of breastmilk. Breastfeeding is compromised only in cases of very severe malnutrition.
 - Mothers should eat a balanced diet (including fruits and vegetables, animal products, and fortified foods, when possible) by consuming a variety of foods.
 - Breastmilk production, however, is directly influenced by the frequency of breastfeeding (e.g. suckling) rather than the mother’s diet.
 - Lactation also increases a mother’s need for water, so it is important that she drink enough to satisfy her thirst.
 - Community and household members should be informed of the importance of making additional food available to women during pregnancy and lactation, as well as helping them reduce their workload and obtain adequate rest.

3.2 Complementary feeding – 6 to 24 months and beyond

Appropriate complementary feeding promotes growth and prevents stunting among children between 6 and 24 months of age. Infants are particularly vulnerable to malnutrition and infection during the transition period when complementary feeding begins.

Optimal complementary feeding depends on accurate information and skilled support from the family, community and health system. Inadequate knowledge about appropriate foods and feeding practices is often a greater determinant of malnutrition than the lack of food. Diversified approaches are also required to ensure access to foods that will adequately meet the energy and nutrient needs of growing children, for example, the use of home and community based technology to enhance nutrient density, bioavailability and the micronutrient content of local foods.

Sound and culturally appropriate nutrition counseling should be given to mothers of young children so that they can make the widest possible use of indigenous, locally available foods which are safely prepared and fed in the home. The agriculture sector has a particularly important role to play in ensuring that suitable foods for use in complementary feeding are produced, readily available and affordable.

RECOMMENDATIONS (17)

1. Maintain breastfeeding up to two years of age
 - Continue frequent, on-demand breastfeeding until 2 years of age or beyond.
 - Breastmilk continues to be an important source of energy, protein and micronutrients providing 35-40% of energy needs. It is also a key source of fat, vitamin A, calcium, and riboflavin.
 - It contributes to delaying maternal return to fertility.
 - Continued breastfeeding along with complementary foods during this period results in a decreased risk of morbidity and mortality especially in populations with high risk of contamination
2. Practice responsive feeding
 - Caretakers or mothers should feed infants directly and assist older children when they feed themselves, being sensitive to their hunger and satiety cues.
 - Feed slowly and patiently, and encourage children to eat, but do not force them.
 - If children refuse some foods, experiment with other food combinations, tastes, textures and methods of encouragement.
 - Minimize distractions during meals if the child loses interest easily.
 - Feeding times should incorporate eye-to-eye contact and be loving moments for learning and bonding with children
3. Complementary foods should be safely prepared and stored
 - Good hygiene and proper food handling practices minimize contamination by diseases or parasites.
 - Wash caregivers' and children's hands before food preparation and eating,
 - Store foods safely and serve food immediately after preparation.
 - Use clean utensils for preparation, serving and feeding children
 - Avoid the use of bottles, which are difficult to keep clean.
4. Amount of food should be adequate for child's age
 - Introduce small amounts of food at 6 months and increase the quantity, as the child gets older, while maintaining frequent breastfeeding.
5. Ensure appropriate food consistency
 - Gradually increase food consistency and variety as the infants gets older, adapting to the infant's requirements and abilities.
 - Infants can eat pureed, mashed and semi-solid foods beginning at six months.
 - By eight months, most infants can also eat "finger foods" - snacks that can be eaten by children alone.
 - By 12 months, most children can eat the same types of foods as consumed by the rest of the family.
 - Avoid foods that may cause choking.
6. Ensure meal frequency and energy density
 - Increase the number of times the child is fed complementary foods as he/she gets older. The appropriate number of feedings depends on the energy density of the local foods and the usual amounts consumed at each feeding.

- For the average, healthy breastfed infant, meals of complementary foods should be provided 2 to 3 times per day at 6 to 8 months of age and 3-4 times per day from 9-11 months and from 12 to 24 months, with additional nutritious snacks offered 1-2 times per day between meals.
 - If energy density is low, or if the child is no longer breastfed, more frequent meals may be required.
 - Some good complementary foods which are energy-rich, nutrient-rich, locally available and affordable, include thick cereals with added oil or milk; fruits, vegetables, pulses, meat, eggs, fish, and milk products. Additional options include mashed potatoes softened with milk, *shiro fitfit*, *merek fitfit*, and porridge made of a mixture of grains and legumes with butter or oil added.
7. Ensure adequate nutrient content of complementary foods
- Feed a variety of foods to ensure that nutrient needs are met. Serve Vitamin A-rich foods with fats to increase absorption. Serve citrus fruits with iron- and protein-rich foods to increase absorption.
 - Meat, poultry, fish or eggs should be eaten daily, or as often as possible.
 - Avoid giving drinks with low nutrient value, such as tea, coffee and sugary drinks such as soda.
8. Vitamin-mineral supplements or fortified products be used by the infant and mother when needed
- Use fortified complementary foods or vitamin-mineral supplements for the infant, as needed.
 - In many populations, breastfeeding (and pregnant) mothers may also need vitamin-mineral supplements or fortified products, both for their own health and to ensure normal concentrations of certain nutrients in their breastmilk.
 - Industrially processed complementary foods provide an option for mothers who have the means to buy them and the knowledge and facilities to prepare and feed them safely.
 - Processed food products for infants and young children should, when sold or otherwise distributed, meet the standards recommended by the *Codex Alimentarius* commission and also the Codex Code of Hygienic Practices for Foods for Infants and Children.
 - Food fortification and universal or targeted nutrient supplementation may also help to ensure that older infants and young children receive adequate amounts of micronutrients.
9. Continue feeding during illness and feed more after illness
- Increase fluid intake during illness, including more frequent breastfeeding and longer feeds both day and night.
 - Encourage the sick child to eat soft, varied, appetizing, foods. The mother or caregiver should also offer the child's favorite foods for his/her age group and help and encourage the child to eat.
 - Encourage the child to eat more food after illness to 'catch-up'.

4. INFANT AND YOUNG CHILD FEEDING IN DIFFICULT CIRCUMSTANCES

Families in difficult situations require special attention and practical support to be able to feed their children adequately. In such cases, the likelihood of not breastfeeding increases, as do the dangers of artificial feeding and inappropriate complementary feeding. Whenever possible, mothers and babies should remain together and be provided the support they need to exercise the most appropriate feeding option under the circumstances. The rights of children and women under such circumstances must also be respected, protected, facilitated and fulfilled.

Children living in special circumstances also require extra attention, for example, orphans and children in foster care, and children born to adolescent mothers, mothers suffering from physical or mental disabilities, drugs or alcohol dependence, or mothers who are imprisoned or part of disadvantaged or otherwise marginalized populations.

4.1 IYCF in Emergencies

Infants and young children who suffer from chronic malnutrition are most often found in environments where improving the quality and quantity of food intake is particularly problematic. To prevent recurrence and to overcome the effects of chronic malnutrition (growth and development retardation, low height for age) these children need extra attention during emergencies and over the longer term. Nutritionally adequate and safe complementary foods may be particularly difficult to obtain and dietary supplements may be required for those children. Continued frequent breastfeeding and, when necessary, relactation are important preventive steps since malnutrition often has its origin in inadequate or disrupted breastfeeding.

Emergency situations can be defined for this document as when natural or man-made calamities cause a community to be detached from its normal livelihood system.

Infants and children are among the most vulnerable victims of natural or human induced emergencies. Famines, epidemics, interrupted breastfeeding and inadequate complementary feeding heighten the risk of acute malnutrition (low weight for height), illness and mortality. Children suffering from acute malnutrition are at high risk of death and need special emergency care. Three steps have to be taken to respond to acute malnutrition:

- 1) active screening of children, pregnant and lactating women for acute malnutrition (Weight/Height percentage of the median),
- 2) supplementary feeding programs (SFP) for the treatment of moderate malnutrition and the prevention of severe malnutrition, and
- 3) therapeutic feeding programs (TFP) for the treatment of severe malnutrition.

Uncontrolled distribution of breastmilk substitutes in refugee settings and resettlement areas, 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 judicious, safe and appropriate complementary feeding. A small number of infants may have to be fed on breastmilk substitutes. In that case,

suitable substitutes, procured, distributed and fed safely as part of the regular inventory of foods and medicines, should be provided.

RECOMMENDATIONS

- Ensure that health workers have accurate and up-to-date information about infant feeding policies and practices, and that they have the specific knowledge and skills required to support caregivers and children in all aspects of infant and young child feeding in difficult circumstances.
- Create conditions that will facilitate exclusive breastfeeding by provision, for example, of appropriate maternity care, extra food rations and drinking water for pregnant and lactating women, and staff who have breastfeeding counseling skills.
- Ensure that health worker have accurate and up-to-date guidelines about acute malnutrition policies and protocols, and that they have the specific knowledge and skills required to support and treat acutely malnourished children.
- Actively screen all children for acute malnutrition at the health facility level, community level and food distribution sites.
- Give adequate care to acutely malnourished children, i.e., therapeutic feeding for severe malnutrition and supplementary feeding for moderate malnutrition.
- Include pregnant women and lactating mothers in the supplementary feeding program.
- Ensure that suitable –preferably locally available- complementary foods are selected and fed, consistent with the age and nutritional needs of older infants and young children.
- Give guidance for identifying infants who need to be fed with breastmilk substitutes, ensuring that a suitable substitute is provided and fed safely for as long as needed by the infants concerned.
- Ensure that health workers with knowledge and experience in all aspects of breastfeeding and replacement feeding are available to counsel HIV positive women.
- Adapt the Baby Friendly Hospital Initiative and other forms of protection and promotion of breastfeeding, and provide support to prevent spillover of artificial feeding for those for whom breastfeeding is the best option.
- Ensure that whenever breastmilk substitutes are required for social medical reasons, for example, for orphans or in the case of HIV-positive mothers, they are provided for as long as the infants concerned need them.

4.2 Infant and Young Child Feeding related to HIV & AIDS

With the rising prevalence rate of HIV/AIDS, over 200 000 children under-five are HIV positive in Ethiopia. The risk of transmission varies with the duration of breastfeeding, but it is estimated to be about 10-20% for those breastfed for two years. Mothers who test positive need to be counseled and to be provided with appropriate information in order to make informed choices that suit their circumstances. As each situation is unique, advice should be tailored to individual needs to balance the risk of replacement feeding with the risk of transmission through breastfeeding. The national guidelines on the prevention of Mother-to-Child Transmission (pMTCT) (19) can be consulted for further information on counseling about available feeding options.

It is important to promote voluntary counseling and testing (VCT) so that all women know their status as this has immense implications, including on their infant feeding options. In addition, all women who are breastfeeding, whether HIV positive or HIV negative, should negotiate with their partner to be faithful and to use condoms to minimize transmission as well as to protect themselves from HIV exposure. There is a 29% rate of transmission if women become infected during breastfeeding.

RECOMMENDATIONS

- Women who are HIV negative or of unknown status should be advised, as per Section 3 above, to exclusively breastfeed for the first six months, introduce complementary foods at six months, and continue frequent, on-demand breastfeeding for two years and beyond.
- Women who are HIV positive should be informed of the various infant feeding options that exist that are most appropriate for their personal circumstances. They should be counseled on both the advantages and disadvantages of each option in order that they can make an informed choice.

Options for Breastfeeding and for Treated Breastmilk

When replacement feeding is not Affordable, Feasible, Acceptable, Sustainable and Safe (AFASS) for an HIV positive woman and her family, then three options exist.

Option of exclusive breastfeeding by HIV positive mother:

HIV positive women opting to breastfeed should practice exclusive breastfeeding and should avoid mixed feeding.

Proper positioning and attachment are important to prevent breastfeeding problems especially those that may be associated with increased HIV transmission such as cracked or bleeding nipples, breast abscesses or mastitis.

If these breast problems appear, the mother should seek immediate treatment. In these circumstances, she should be advised to only breastfeed from the unaffected breast, and to express and discard milk from the affected breast until the problem is resolved.

The mother should be encouraged to seek immediate care for her infant if the child has oral lesions or thrush.

She should also be advised to improve her diet, and eat an extra meal a day.

If possible, the mother should consider transitioning the infant completely off breastfeeding to exclusive replacement feeding at about 6 months of age. However,

this early cessation of breastfeeding at 6 months should only be considered if AFASS conditions can be met.

If the woman develops full-blown AIDS, e.g., prolonged fever, severe cough or diarrhea, or pneumonia, she should be advised to stop breastfeeding completely.

Option of expressing and heating breastmilk of HIV positive mother:

- A mother can manually express, heat-treat and give her breastmilk to her infant from a cup. To destroy the virus, breastmilk needs to be heated for 20-30 minutes at 54-56 degrees Celsius. It should be stored in a cool place and used within an hour of heating.
- Breastmilk is the perfect food for babies, and most nutrients remain in breastmilk after heating.
- This method may be appropriate for breastfeeding mothers with sick and low-birth weight babies being fed in hospitals, mothers with breast infections or cracked nipples, and during the transition from exclusive breastfeeding to replacement feeding.
- Other adult family members can help to feed the baby.
- Expressing and heating breastmilk takes time and it must be done frequently.
- The baby will need to drink from a cup. Babies can learn how to do this even when they are very young, but it takes time.

Option of exclusive breastfeeding by wet-nurse who is HIV negative:

The wet nurse must be tested and confirmed to be HIV-negative.

She must protect herself from HIV the entire time while breastfeeding.

She must be available to breastfeed the baby frequently throughout the day and night, or she must also be able to express milk if she and the baby are separated.

If the baby is infected with HIV, there is a very small chance that he/she could pass the virus to the wet nurse.

People may ask mothers why someone else is breastfeeding her baby.

The HIV-infected mother is at risk of becoming pregnant if sexually active.

Option of Exclusive Replacement Feeding

When replacement feeding is Affordable, Feasible, Acceptable, Sustainable and Safe (AFASS) for an HIV positive woman and her family, then avoidance of all breastfeeding is recommended (see Annex 3 for further explanation of the AFASS criteria). However, it is recommended that *all* the AFASS criteria are fully met before a mother chooses this option, since improper replacement feeding can result in a higher mortality risk if the infant were to get diarrhea as compared to the risk of mother to child transmission.

Replacement feeding must also be exclusive, or in other words, no breastfeeding should take place alongside replacement feeding. This type of mixed feeding is dangerous and should be avoided.

Breastmilk substitutes (BMS) that can be used for replacement feeding include commercial infant formula or home prepared formula made from modified animal milk with micronutrient supplementation.

Commercial breastmilk substitutes need to comply fully with the *Codex Alimentarius* standards and with the Code of Marketing of Breastmilk Substitutes (16).

Home-prepared formula can be made with fresh animal milks, with dried milk powder or with evaporated milk. For infants 0-6 months these milks need to be diluted with

boiled water in precise amounts to reduce solute concentration and sugar must be added to increase energy density. Dilution is not required for infants 6 months and older. Infants fed on home modified animal milk also require additional micronutrient supplements because animal milks are relatively low in iron, zinc, vitamin A, vitamin C and folic acid.

Replacement feeding should be done using a cup, not a baby bottle, as the latter may lead to diarrhea due to the difficulties of keeping bottles clean and hygienic.

Formula, whether commercial or homemade, should be made fresh each time the baby is fed, and not kept for subsequent feedings.

Women who choose to replacement feed will need extra support and education in order to do it properly in order to protect their baby's health. The support and counseling given should include adequate instructions for appropriate preparation of the replacement formula as well as information on the health hazards of inappropriate preparation and use. Infants who are not breastfed, for whatever reasons, should receive special attention from the health and social welfare system since they constitute a risk group.

Preparation and use of breastmilk substitutes should only be demonstrated by health workers or other community workers if necessary, and only to those mothers and family members who need to use it.

5. INTERVENTIONS TO IMPROVE INFANT AND YOUNG CHILD FEEDING

Data in Ethiopia show that the problem of malnutrition begins primarily during the first 12 months of life when growth faltering emerges due to sub-optimal infant feeding practices. Once this growth faltering occurs, there is little opportunity for catch-up growth. Stunted infants grow to be stunted children and stunted adults. Thus it is important to address issues of infant feeding during the first year of life, particularly promoting proven optimal breastfeeding and complementary feeding practices, both in healthy as well as sick infants.

No single intervention or group can succeed in meeting the challenges; implementing the strategy thus calls for increased political will, public investment, awareness among health workers, involvement of families, and collaboration among regions, international organizations and other concerned parties that will ultimately ensure that all necessary actions are taken.

5.1 Supportive law

- Advocate for adoption and application of a policy of maternity entitlements, consistent with the ILO Maternity Protection Convention and Recommendations (ILO Maternity Protection Convention, 2000 No. 183 and Maternity Protection Recommendation, 2000 No. 191), in order to facilitate breastfeeding by women in paid employment.
- Ensure that processed complementary foods are marketed for use at an appropriate age, and that they are safe, culturally acceptable, affordable and

nutritionally adequate, in accordance with relevant *Codex Alimentarius* standards.

- Advocate for establishment of a system has to be put into place to ensure the protection, promotion and support of exclusive breastfeeding for six months with the necessary access to health services for women.
- Ensure a supportive policy environment for the implementation of the International Code of Marketing of Breastmilk Substitutes and other related WHO resolutions.

5.2 Pre service training

- Revise and reform pre-service curricula for all health workers, related fields and allied professionals to provide appropriate information and advice on infant and young child feeding for use by families and those involved in the field of infant and young child nutrition.

5.3 Advocacy

- Ensure that all who are responsible for communicating with the general public, including health professionals, educational and media authorities, provide accurate and complete information about appropriate infant and young child feeding practices, taking into account prevailing social, cultural and environmental circumstances.
- Ensure access for mothers, fathers and other caregivers to objective, consistent and complete information about appropriate feeding practices, free from commercial influences. In particular, they need to know about the recommended period of exclusive and continued breastfeeding; the appropriate time for introduction of complementary foods; what types of food to give, how much and how often; and how to feed these foods safely.
- Increase access to antenatal care and education about breastfeeding, to delivery practices which support breastfeeding, and to follow-up care which helps to ensure continued breastfeeding.
- Ensure that community-based support networks not only are welcome within the health care system but also participate actively in the planning and provision of services.

5.4 Health Facilities

- Ensure that hospital routines and procedures remain fully supportive of the successful initiation and establishment of breastfeeding through implementation of the Baby-Friendly Hospital Initiative, monitoring and reassessing already designated facilities, and expanding the initiative to include clinics, health centers and pediatric hospitals.

- Provide skilled counseling and support for infant and young child feeding, for example, at well baby clinics, during immunization sessions, at in- and out-patient services for sick children, at nutrition services, and at reproductive health and maternity services. Given that in Ethiopia, most mothers do not have access to health facilities, there should be an outreach program and at the community level, skilled counseling should be provided.
- Ensure effective therapeutic feeding of sick and malnourished children, including the provision of skilled breastfeeding support when required.
- Promote good nutrition for pregnant women and lactating mothers.
- Train health workers who care for mothers, children and families with regard to:
 - a) Counseling and assistance skills needed for breastfeeding and complementary feeding,
 - b) Feeding during illness and malnutrition,
 - c) Maternal nutrition,
 - d) Health workers' responsibilities under the International Code of Marketing of Breastmilk Substitutes
- Mothers/caretakers need access to skilled support to help them initiate and sustain appropriate feeding practices as well as to prevent and overcome difficulties. Train health workers should provide this support, as a routine part of regular prenatal, delivery and postnatal care and in well baby and sick child services.
- Monitor growth and development of infants and young children as a routine nutrition intervention, with particular attention to low birth weight and sick infants, and those born to HIV positive mothers; ensure that mothers and families receive appropriate counseling.
- Provide guidance on appropriate complementary feeding with emphasis on the use of suitable, locally available foods which are safely prepared and fed to young children.
- Enable mothers to remain with their hospitalized children to ensure continued breastfeeding and adequate complementary feeding and, where feasible, allow breastfed children to stay with their hospitalized mothers.

5.5 Communities

- Promote development of community-based support networks to help ensure appropriate infant and young child feeding, for example, mother-to-mother support groups and peer or lay counselors, to which hospitals and clinics can refer mothers on discharge.
- Research shows that breastfeeding is enhanced by the support and companionship of fathers in their roles as family providers and caregivers. This should be promoted and encouraged at the community level.

6. MONITORING AND EVALUATION

- Continued clinical and population based research and investigation of behavioral concerns are mechanisms for improving feeding practices. Crucial areas include:
 - completion and application of the international growth standards,
 - prevention and control of micronutrient malnutrition,
 - programmatic approaches and community based interventions for improving breastfeeding and complementary feeding practices,
 - improving maternal nutritional status and pregnancy outcome, and
 - interventions for preventing mother-to-child transmission of HIV in relation to infant feeding

- Indicators to monitor for determining the impact of this strategy would include:
 - Prevalence of pre-lacteal feeding
 - Rate of continued breastfeeding to 24 months
 - Frequency of complementary feeding between 6 and 24 months
 - Variety of foods being fed between 6 and 24 months of age

7. ROLES AND RESPONSIBILITIES

7.1 Government

The primary obligation of the Ethiopian government is to formulate, implement, monitor and evaluate a comprehensive national strategy on infant and young child feeding. In addition to political commitment at the highest level, a successful strategy depends on effective national coordination to ensure full collaboration of all concerned regional governments, international organizations and other concerned parties. The regional governments also have an important role to play in implementing this strategy.

A detailed action plan should accompany the comprehensive strategy, including defined goals and objectives and a timeline for their achievement, allocation of responsibilities for the plan's implementation, and measurable indicators for its monitoring and evaluation. For this purpose the government will seek, when appropriate, the cooperation of appropriate international organizations and other agencies, including global and regional lending institutions.

Human, financial and organizational resources will be identified and allocated to ensure the plan's timely and successful implementation. Constructive dialogue and active collaboration with appropriate groups working for the protection, promotion and support of appropriate feeding practices will be particularly important in this connection. Support for epidemiological and operational research is also a crucial component.

7.2 Health Professionals

Health professional bodies, which include medical faculties, schools of public health, public and private institutions for training of health workers, (i.e., medical doctors, health officers, nurses, environmental technicians, nutritionists, dietitians), and professional associations, should have the following responsibilities towards their students or membership:

- Ensure that basic education and training for all health workers covers lactation physiology, exclusive and continued breastfeeding, complementary feeding, feeding in difficult circumstances, meeting the nutritional needs of infants who have to be fed on breastmilk substitutes, and the International Code of Marketing of Breastmilk Substitutes and the legislation and other measures adopted to put it into effect.
- Training on how to provide skilled support for exclusive and continued breastfeeding, and appropriate complementary feeding in all neonatal, pediatric, reproductive health, nutritional and community health services.
- Promote achievement of “baby friendly” status by maternity hospitals, wards and clinics, consistent with the “*Ten Steps to Successful Breastfeeding*” (**Annex 2**) and the principle of not accepting free or low-cost supplies of breastmilk substitutes, feeding bottles and teats.
- Observe the totality of their responsibilities under the International Code of Marketing of Breastmilk Substitutes (18) and subsequent health policy resolutions, and national measures adopted to give effect to both. (**Annex 1, Summary of Code**)
- Encourage the establishment and recognition of community support groups and refer mothers to them.

7.3 Non-governmental Organizations including International Donors/Agencies and Community Based Support Groups

The aims and objectives of a wide variety of non-governmental organizations operating locally, nationally and internationally include promotion of adequate food and nutrition for young children and families. For example, charitable and religious organizations, consumers’ associations, mother-to-mother support groups, family clubs, and child-care cooperatives all have multiple opportunities to contribute to the implementation of this strategy through:

- Providing their members with accurate, up-to-date information about infant and young child feeding.
- Integrating skilled support for infant and young child feeding in community-based interventions, and ensuring effective linkages with the health system.
- Contributing to the creation of mother- and child-friendly communities and workplaces that routinely support appropriate infant and young child feeding.

- Working for full implementation of the principles and aims of the International Code of Marketing of Breastmilk Substitutes.

International organizations, including global and regional lending institutions, should place infant and young child feeding high on the global public health agenda in recognition of its central significance for realizing the rights of children and women. They should serve as advocates for increased human, financial and institutional resources for the universal implementation of this policy and strategy, and to the extent possible, they should provide additional resources for this purpose.

Specific contributions of international organizations to facilitate the work of governments include:

- a) Develop new indicators, for example concerning adequate complementary feeding,
- b) Promote the consistent use of common global indicators for monitoring and evaluating child-feeding trends,
- c) Revise related pre-service curricula for doctors, nurses, health officers, midwives, nutritionists, dietitians, auxiliary health workers and other groups as necessary,
- d) Help to ensure sufficient resources for this purpose.

7.4 Communities

Parents and other caregivers are most directly responsible for feeding children. Ever keen to ensure that they have accurate information to make appropriate feeding choices, parents nevertheless are limited by their immediate environment. Since they may have only infrequent contact with the health care system during a child's first two years of life, it is not unusual for caregivers to be more influenced by community attitudes than by the advice of health workers.

Additional sources of information and support are found in a variety of formal and informal groups, including breastfeeding support and child care networks, clubs and religious associations. Community-based support, including that provided by other mothers, lay and peer breastfeeding counselors and certified lactation consultants, can effectively enable women to feed their children appropriately. Most communities have self-help traditions that could readily serve as a base for building or expanding support systems to help families in this regard.

7.5 Industries and Enterprises

Manufacturers and distributors of industrially processed foods intended for infants and young children also have a constructive role to play in achieving the aim of the policy. They should ensure that processed food products for infants and children, when sold, meet applicable *Codex Alimentarius* standards and the *Codex Code of Hygiene Practice for Foods for Infants and Children*. In addition, all manufacturers and distributors of products within the scope of the International Code of Marketing of Breastmilk Substitutes, including feeding bottles and teats, are responsible for monitoring their marketing practices according to the principles and aim of the Code. They should ensure that their conduct at every level conforms to the code, subsequent

relevant health policy resolutions, and national measures that have been adopted to give effect to both.

Employers should ensure that the maternity entitlements of all women in paid employment are met. Trade unions have a direct role in negotiating adequate maternity entitlements and security of employment for women of reproductive age.

7.6 Intersectorial Collaboration (Professional Associations, Ministries, Mass Media, Other Groups)

The identification of specific responsibilities within society, as well as crucial complementary and mutually reinforcing roles for protecting, promoting and supporting appropriate feeding practices is very important. Many other components of the society have potentially influential roles in promoting good feeding practices.

These include:

- *Education authorities, which help to shape the attitudes of children and adolescents with regard to infant and young child feeding* Accurate information should be provided through schools and other educational channels to promote greater awareness and positive perceptions
- *Mass media, which influence popular attitudes towards parenting, child care and products within the scope of the International Code of Marketing of Breastmilk Substitutes.* Their information on the subject and, just as important, the way that child care and products are promoted should be accurate, up-to-date, objective, and consistent with the Code's principles and aim.
- *Child-care facilities, which permit working mothers to find care for their infants and young children* These should support and facilitate continued breastfeeding and breastmilk feeding.
- *Groups that have an important role in advocating the rights of women and children and in creating a supportive environment on their behalf* can work singly, together and with government and international organizations to improve and help remove cultural and practical barriers to appropriate infant and young child feeding practices.

Annex 1 SUMMARY OF THE INTERNATIONAL CODE OF MARKETING OF BREASTMILK SUBSTITUTES¹

Scope of the Code

The Code applies to all products that are marketed to replace breastmilk. These include formula, other milks, infant foods, teas or juices. The Code also applies to feeding bottles and teats.

The Code seeks to encourage and protect breastfeeding by restricting aggressive marketing practices used to sell products for artificial feeding.

The Code includes these 10 important provisions:

1. No advertising of the above products to the public.
2. No free samples to mothers.
3. No promotion of products in health care facilities, including no free or low cost formula.
4. No company representatives to contact mothers.
5. No gifts or personal samples to health workers. Health workers should never pass products on to mothers.
6. No words or pictures idealizing artificial feeding, including pictures of infants, on the labels.
7. Information to health workers must be scientific and factual.
8. All information on artificial infant feeding must explain the benefits and superiority of breastfeeding, and the costs and hazards associated with artificial feeding.
9. Unsuitable products such as sweetened condensed milk should not be promoted for babies.
10. Manufacturers and distributors should comply with the Code's provisions even if countries have not acted to implement the Code.

The Code is primarily aimed at governments and companies. Governments are expected to translate the International Code into national legislation or other suitable measures. At the national level, the Code should be implemented in its entirety because adoption and adherence to the Code is a “minimum requirement”. It may be strengthened and modified to fit national situations.

¹ Taken from: Protecting Infant Health, A Health Worker's Guide to the International Code of Marketing of Breastmilk Substitutes, 10th Edition, IBFAN/ICDC, December 2002, pgs. 12,13.

Annex 2 TEN STEPS TO SUCCESSFUL BREASTFEEDING

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

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

Annex 3 AFASS GUIDELINES FOR HIV POSITIVE MOTHERS TO ASSESS APPROPRIATENESS OF REPLACEMENT FEEDING FOR THEIR INFANTS

Will Replacement Feeding be ACCEPTABLE?

- The mother perceives no barrier to choosing the option for social and cultural reasons or for fear of stigma and discrimination.
- The mother has adequate support to cope with family, community and social pressures.
e.g.: *Will a mother who doesn't breastfeed be accepted in the community?*

Will Replacement Feeding be FEASIBLE?

- The mother (and family) have adequate time, knowledge, skills, and other resources to prepare and feed the infant.
e.g.: *Can a mother prepare fresh home formula every three hours, day and night?*

Will Replacement Feeding be AFFORDABLE?

- The mother and family (with available community and/or health system support) can pay the cost for purchase/production, preparation, and use of the feeding option, including all ingredients, equipment, fuel, and clean water.
e.g.: *Can the mother afford to pay 160 Birr the first month to feed the baby (or 240-320 Birr from the second month onwards)?*
e.g.: *Will the purchase of formula compromise the health & nutrition of other family members?*

Will Replacement Feeding be SUSTAINABLE?

- The replacement feeding option must be practiced exclusively, day and night, for six months.
- Supply and distribution of all ingredients is continuous, uninterrupted and dependable for as long as infants need it.
e.g.: *Can the mother/family buy formula (or milk) and equipment for six months and more?*
e.g.: *Can the mother accept, even under family pressure, NEVER to put the baby on the breast?*

Will Replacement Feeding be SAFE?

- Replacement foods are correctly and hygienically stored and prepared in nutritionally adequate quantities.
e.g.: *Does mother have easy access to clean water?*
e.g.: *Does mother have easy access to electricity or other source of energy?*
e.g.: *Does mother have access to a refrigerator?*
e.g.: *Does mother have clean hands and clean utensils for preparation (use a cup)*

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