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Abbreviations

| | |
|------------|---|
| AIDS | Acquired Immune Deficiency Syndrome |
| BMS | Breast milk Substitutes |
| CBO | Community Based Organization |
| C-IMCI | Community-Integrated Management of Childhood Illnesses |
| HIV | Human Immunodeficiency Virus |
| IYCF | Infant and Young Child Feeding |
| LBW | Low Birth Weight |
| MI | Micronutrient Initiative |
| NNP | National Nutrition Program |
| SBA | Skilled Birth Attendant |
| UNICEF | United Nations Children's Fund |
| UNAIDS | United Nations Program on Acquired Immune Deficiency Syndrome |
| UNFPA | United Nation Population Fund |
| VCT | Voluntary Counseling and Testing |
| VGD | Vulnerable Group Development |
| WHO | World Health Organization |
| SHHS | Sudan Household Health Survey |
| MDG | Millennium Development Goals |
| NGOs | Non-Governmental organizations |
| BFHI | Baby-Friendly Hospital Initiative |
| KAP | Knowledge, Attitude and practice |
| CF | Complementary feeding |
| SSMO | Sudanese Standard and Metrology Organization |
| UNAIDS | United Nation program on HIV/AIDS |
| UNFPA | United Nation Population Fund |
| PMTCT | Prevention of Mother to- Child Transmission |
| MOH | Ministry of Health |
| WHA | World Health Assembly |
| ILO | International Labour Organization |
| AFASS | Acceptable, Feasible, Affordable, Sustainable and Safe |
| PHC | Primary Health Care |
| MCH | Mother and Child Health |

1. BACKGROUND

1.1 Introduction

Infant and young child feeding (IYCF) practices refer to the range of practices related to the feeding and care of infants and young children- in particular in relation to initiation of breastfeeding, exclusive breastfeeding, timely and appropriate complementary feeding, and appropriate care of infants and young children during illness. Global Strategy for Infant and Young Child Feeding: WHO and UNICEF jointly developed the Global Strategy for Infant and Young Child Feeding whose aim is to improve – through optimal feeding – the nutritional status, growth and development, health, and thus the survival of infants and young children. It supports exclusive breastfeeding for 6 months, with timely, adequate, safe and appropriate complementary feeding, while continuing breastfeeding for two years and beyond. It also supports maternal nutrition, and social and community support.

The Convention on the Rights of the Child states that access to adequate nutrition with appropriate family support for optimum infant feeding practices is a right for every child which must be supported. Feeding optimally infants and young children requires adequate health and nutrition for the mother and the right support from the family, the community and the health care system. It also requires special attention and measures especially in exceptionally difficult circumstances such as feeding low birth weight babies, malnourished children, infants and young children in emergencies, infants born to HIV-positive mothers, or other vulnerable children living under challenging circumstances.

1.2 Situation Analysis

Research has provided evidence that clearly shows that breast-milk substitute marketing practices influence health workers' and mothers' behaviours related to infant feeding.

Marketing practices prohibited by The International Code of Marketing of Breast-milk

Substitutes (the Code) have been shown to be harmful to infants, increasing the likelihood that they will be given formula and other items under the scope of The Code and decreasing optimal feeding practices. The 1991 UNICEF Executive Board called for the ending of free and low-cost supplies of formula to all hospitals and maternity wards by the end of 1992. Compliance with The Code is required for health facilities to achieve Baby-friendly status.

Breast milk is the best food for an infant's first six months of life. It contains all the nutrients an infant needs and it stimulates the immune system and protects from infectious diseases. Breast milk substitutes are an expensive, inferior and often dangerous substitute for breast milk, but formula manufacturers have nonetheless advertised and marketed them.

Recognizing the need to regulate these practices, the World Health Assembly (WHA) adopted the International Code of Marketing of Breast-milk Substitutes in 1981, and subsequently the Government of Sudan took action to adopt and implement a National Code, the Breast-milk Substitutes (Regulation of Marketing) Ordinance in 1984.

The aim of the National Code is to contribute to the provision of safe and adequate nutrition for infants by ensuring appropriate marketing and distribution of breast-milk substitutes and to prohibit their promotion.

Increasing numbers of women are joining the workforce in both rural and urban areas of Sudan, and their contribution to the economy is considerable. At the same time, their ability to exclusively and continually breastfeed their infants and young children is essential to ensure a healthy, well nourished,

and economically productive future workforce. The two roles of women as workers (economically productive) and mothers (reproductive) should be respected and accommodated by both the government and society.

Women in paid employment can be helped to continue breastfeeding by being provided with minimum enabling conditions, for example paid maternity leave, part-time work arrangements, on-site crèches, facilities for expressing and storing breast milk, and breastfeeding breaks

The International Labour Organization (ILO) Maternity Protection Convention No. 183 was passed in 2001 to protect the maternity and breastfeeding rights of employed women.

The Government of Sudan took action for maternity protection in the workplace through the Maternity Leave Law of 2001, which granted women in government service in Sudan with

56 days of flexible full pay leave, and twelve months of leave with basic salary to be distributed to all births. This maternity leave enables on demand exclusive breastfeeding, bonding between mother and infant, mother's recovery and care seeking for postnatal health services. Unfortunately there is no maternity protection for the increasing numbers of mothers who work in the private and informal sector. These working arrangements prevent working mothers from optimally feeding their infants and young children, and force them to choose between income today and protecting the child's future health and development.

The Codex Alimentarius is the international body that aims to protect the health of consumers. Codex standards cover infant formula, tinned baby food, processed cereal-based foods for infants and children, and follow-up food.

There are also Codex guidelines for formulated supplementary food for older infants and young children with advisory lists of mineral salts and vitamin compounds that may be used in these foods as well as a code of hygienic practices. The Codex standards for infant formula and processed cereal based foods for infants and children define the products and their scope and cover composition, quality factors, food additives, contaminants, hygiene, packaging, labeling and methods of analysis and sampling.

In 1992-01-01 Government of Sudan endorses Provisional Decree No. (13) for the year 1992 (the law of the Sudanese Standards and Metrology) in the tenth month of September and has upheld the law No. (14) for the year 1993 and has been included under Section weights and measures and management General Quality Control Department of Trade and Industry to be a nucleus body. In 2002-01-01 Issued the presidential decree No. (74) on the inclusion of all offices of the state balances in full manpower and assets to the body. SSMO strategic objectives mainly to protect consumers and the national economy by setting up standard specifications for commodities and services and tightening control over exports and imports and strengthening the competitive capacity of national products at local, regional and global markets.

Baby-friendly Hospital Initiative was conceived in the early 1990s in response to the 1990 Innocenti Declaration on the Protection, Promotion and Support of Breastfeeding call for action, government of Sudan had dedicated Committees to oversee and regulate infant feeding standards.

Hospitals set a powerful example for mothers, and they all have an important role as centers of breastfeeding support. The Baby-Friendly Hospital Initiative (BFHI) was introduced in Sudan in 1994 to improve hospital routines and procedures so that they are supportive of the successful initiation and continuation of optimal breastfeeding practices. A hospital is designated as "baby friendly" when it has agreed not to accept free or low-cost breast milk substitutes, feeding bottles or teats, and to implement 10 specific steps to support breastfeeding ("Ten steps to successful breastfeeding").

BFHI certification is conducted by the Sudan National Nutrition Directorate and is not part of routine hospital accreditation (certification) procedures. Some government and private health facilities have

been declared baby friendly, but the quality of implementation is mixed and some facilities have not been able to sustain all components of the initiative.

Optimum breastfeeding and complementary feeding practices not only improves short- and long-term health outcomes but also contribute to a stronger economy by reducing health expenditure, improving educational achievement and productivity among adults. The focus of national development policies and plans on IYCF should be commensurate with these impacts.

Examples of existing policies and plans that would benefit from a stronger focus on IYCF include the Poverty Reduction Strategy Paper (2005), National Food and Nutrition Policy.

Health service providers, nutritionists and allied professionals who care for mothers need up-to-date knowledge on IYCF legislation, policies and guidelines, and skills training for interpersonal communication, counselling and community mobilization.

Today, after nearly 15 years of work in support of optimal infant and young child feeding, government of Sudan, assessed hospitals and designated only three facility “Baby-friendly.” The BFHI has measurable and proven impact, however, it is clear that only a comprehensive, multi-sector, multi-level effort to protect, promote and support optimal infant and young child feeding, including legislative protection, social promotion and health worker and health system support via BFHI and additional approaches, can hope to achieve and sustain the behaviors and practices necessary to enable every mother and family to give every child the best start in life.

The most sustainable way to address the current knowledge and skill gaps is to include essential knowledge and competences in the pre-service curricula. While such efforts progress, there is also need to increase the skills of those who are already in service through action-oriented, training.

Every mother faces unique challenges in meeting her infant and young child's needs for food during the first two years of life. Mothers need access, within their communities, to a reliable and accessible source of information, guidance and counselling to overcome the day-to-day challenges they face in practicing exclusive breastfeeding, continued breastfeeding and appropriate complementary feeding. This requires that support for breastfeeding and complementary feeding be extended from health facilities to the communities where mothers live and work. The need for community base support is particularly high in communities that are remote, where health care is less accessible, poverty and food security is greater problems and misinformation on appropriate IYCF practices is more widespread.

Families in exceptionally difficult circumstances require special attention and practical support to be able to feed their children adequately. These circumstances include HIV infection of the child's mother or father, emergencies and malnutrition. All these circumstances require an enabling environment, where appropriate IYCF practices in the general population are protected, promoted and supported, and where special attention and support is available to address the difficult circumstances.

1.3 Importance of optimum Infant and Young child practices for Child

As indicated earlier, infant and young child feeding practices include:

- Early initiation and exclusive breastfeeding for the first 6 months to achieve optimum growth, development and good health,
- Age appropriate complementary feeding, with safe and nutritionally adequate foods, starting at 6 months while continuing to breastfeed up to 2 years and beyond.
- Appropriate feeding of the sick child

Breastfeeding for the first six months of life:

Breast milk is an ideal food for the healthy growth and development of the infants; it is an integral part of the reproductive process with beneficial implications for the infant and maternal health. As a global public health recommendation, breastfeeding should be initiated within the first 30 minutes to 1 hour following the infant delivery and no prelacteal fluids should be given. Early initiation of breastfeeding is associated with lowering neonatal mortality and successful establishment of the bonding between the mother and her baby.

Infants should be exclusively breastfed up to 6 months, that is, no other fluids or food given, achieve optimal growth, development and health. Children 0-6 months of age should be breastfed on demand, that is, they should be given to suckle whenever they want to, night and day, 8-10 times a day. Exclusive breastfeeding from birth to 6 months is possible except in very few rare medical conditions.

Research shows that early introduction of foods and other liquids, reduces breast milk production by the mother and in consequence, breast milk intake by the child. Breast milk at this age range (0-6 months) is enough for the infant; it contains ideal and balanced nutrients that the infant can digest easily and needs to optimally grow. After that point in time, to meet their evolving nutritional requirements, infants should be fed adequately available local and safe complementary foods while continuing to be breastfed up to two years of age and beyond.

Even though breastfeeding is a natural act, it is a complicated behaviour that needs to be learned. Generally, almost all the mothers can breastfeed their babies provided they learn how to do it and have the support from their husbands, families, communities and from the health care system. They should also have access to skilled practical help from, for example, trained health workers and nutritionists. Also, grandmothers, counsellors etc. can help build mothers' confidence, improve feeding techniques, and prevent or resolve breastfeeding problems provided they are knowledgeable of optimum breastfeeding practices. Optimal infant and young feeding practices by age of the child are illustrated in Figure 1 below.

Advantages of breastfeeding:

- The advantages of a baby having breast milk are that:
 - ✓ It contains exactly the nutrients that a baby needs
 - ✓ It is easily digested and efficiently used by the baby's body
 - ✓ It protects a baby against infection.
- The other advantages of breastfeeding are that:
 - ✓ It costs less than artificial feeding
 - ✓ It helps a mother and baby to bond – that is, to develop a close, loving relationship
 - ✓ It helps a baby's development
 - ✓ It can help to delay a new pregnancy
 - ✓ It protects a mother's health:-
 - It helps the uterus to return to its previous size. This helps to reduce bleeding, and may help to prevent anaemia
 - Breastfeeding also reduces the risk of ovarian cancer, and breast cancer, in the mother.
- Breastfeeding has important psychological benefits for both mothers and babies.
 - ✓ Close contact from immediately after delivery helps the mother and baby to bond and helps the mother to feel emotionally satisfied. Babies tend to cry less if they are breastfed and may be more emotionally secure.

- ✓ Some studies suggest that breastfeeding may help a child to develop intellectually. Low-birth-weight babies fed breast milk in the first weeks of life perform better on intelligence tests in later childhood than children who are artificially fed.

Disadvantages of artificial feeding:

- ✓ Artificial feeding may interfere with bonding. The mother and baby may not develop a close and loving relationship.
- ✓ An artificially fed baby is more likely to become ill with diarrhea, respiratory and other infections. The diarrhea may become persistent.
- ✓ An artificially fed baby may get too little milk and become malnourished because he receives too few feeds or because they are too dilute. He is more likely to suffer from vitamin A deficiency.
- ✓ She/he is more likely to develop allergic conditions such as eczema and possibly asthma.
- ✓ She/he may become intolerant to animal milk, such that the milk may cause him/her diarrhea, rashes and other symptoms.
- ✓ The risk of some chronic diseases in the child, such as diabetes, is increased. The baby may get too much artificial milk, and become obese.
- ✓ He may not develop very well mentally, and thus may score lower on intelligence tests.
- ✓ A mother who does not breastfeed may become pregnant sooner.
- ✓ She is more likely to become anemic after childbirth, and later to develop cancer of the ovary and the breast. So artificial feeding is harmful for children and their mothers.

Complementary feeding:

After six months of age, all babies require other foods to complement breast milk – we call these **Complementary foods**. When complementary foods are introduced breastfeeding should still continue for up to two years of age or beyond.

Complementary foods should be:

Timely – meaning that they are introduced when the need for energy and nutrients exceeds what can be provided through exclusive and frequent breastfeeding

Adequate – meaning that they provide sufficient energy, protein and micronutrients to meet a growing child's nutritional needs

Safe – meaning that they are hygienically stored and prepared and fed with clean hands using clean utensils and not bottles and teats

Properly fed – meaning that they are given consistent with a child's signals of hunger and that meal frequency and feeding methods are suitable for the child's age.

Exclusive breastfeeding up to 6 months and starting complementary feeding after 6 months with continued breastfeeding up to 24 months can prevent Child Survival. Facts on infant and young child feeding:

- It has been estimated that about 2 million child deaths could be averted every year through effective breastfeeding.
- Exclusively breastfed infants have at least 2½ times fewer illness episodes than infants fed breast-milk substitutes.
- Infants are as much as 25 times more likely to die from diarrhoea in the first 6 months of life if not exclusively breastfed.
- Among children under one year, those who are not breastfed are 3 times more likely to die of respiratory infection than those who are exclusively breastfed

- Infants exclusively breastfed for 6 months have half the mean number of acute otitis media episodes of those not breastfed at all.
- In low-income communities, the cost of cow's milk or powdered milk, plus bottles, teats, and fuel for boiling water, can consume 25 to 50% of a family's income.
- Breastfeeding contributes to natural birth spacing, providing 30% more protection against pregnancy than all the organized family planning programmes in the developing world
- The under-five mortality can be reduced by 13% with optimal breastfeeding and a further 6% with optimal Complementary feeding (Jones et al, 2003).
- Malnutrition contributes to about half of under-five mortality & a third of this is due to faulty feeding practices.
- Counselling on breastfeeding and complementary feeding leads to improved feeding practices, improved intakes and growth.
- Counselling on breastfeeding and complementary feeding contributes to lowering the incidence of diarrhoea.

1.4 Importance of IYCF practices for the mother and the country

The benefits of breastfeeding are also enormous for the mother, the family and the country at large. For the mother, breastfeeding is associated with decreased maternal postpartum blood loss, breast cancer, ovarian cancer, and endometrial cancer, and reduced osteoporosis. Breastfeeding also contributes to the duration of birth intervals and thus reducing maternal risks of pregnancies that are too close together and limited time to recuperate from one pregnancy to the next. Breastfeeding promotes the return of the mother's body to pre-pregnancy status, including more rapid involution of the uterus and postpartum weight loss.

Breast milk plays a significant role in the household economy by reducing early childhood feeding cost and as such, contributing to the MDG 1: Eradicating extreme poverty and hunger. Lack of breastfeeding or poor breastfeeding practices are associated with increased child morbidity (infections, diarrhea, pneumonia etc.) resulting in increased financial spending on care seeking treatment. The long term consequences of not breastfeeding are associated with chronic diseases such as diabetes and increased obesity.

Further, when infant illness requires mothers to miss work, households, employers and the economy are all affected. The high cost of breast milk substitutes, feeding and sterilizing equipment, wood, charcoal or gas etc for preparing alternative milk, industry waste, pharmacy waste and plastic and aluminum tin wastage, represents a substantial drain on household resources and on the economy.

Thus, providing appropriate food and feeding practices to the infant and young children reduces incidence and severity of childhood diseases and malnutrition, thus contributing directly to their optimum growth and development and in the long run contributing to the achievement of all the Millennium Development Goals as noted in the Box below.

Contribution of IYCF to the Millennium Development Goals:

| Box 1: Contribution of infant and young child feeding to the Millennium Development Goals | |
|---|---|
| MDG | Contribution of Infant and Young Child feeding |
| Goal 1 Eradicate extreme poverty and hunger | Breast milk is a low cost, high quality, readily available food for the infant and as such, breastfeeding significantly reduces early childhood feeding costs. Exclusive breastfeeding and continued breastfeeding for two years is associated with reduction in underweight and is an excellent and high quality food source. |
| Goal 2: Achieve universal primary education | Breastfeeding and adequate complementary feeding contribute significantly to mental, physical and cognitive development and are prerequisites for readiness to learn |
| Goal 3: Promote gender equality and empower women | Breastfeeding is the great equalizer, giving every child a fair start on life. Most differences in growth between sexes begin as complementary foods are added into the diet, and gender preference begins to act on feeding decisions. Breastfeeding also empowers women: increased birth spacing and potentially helps prevents maternal depletion from short birth intervals. Only women can breastfeed. |
| Goal 4: Reduce child mortality | The 2003 landmark Lancet Child Survival Series ranked the top 15 preventative child survival interventions for their effectiveness in preventing under-five mortality. Exclusive breastfeeding up to six months of age and breastfeeding up to 12 months was ranked number one, with complementary feeding starting at six months along with continued breastfeeding number three. These two interventions alone were estimated to prevent almost one-fifth of under-five mortality in developing countries |
| Goal 5: Improve maternal health | Breastfeeding is associated with decreased maternal postpartum blood loss, breast cancer, ovarian cancer, and endometrial cancer, as well as the probability of decreased bone loss post-menopause. Breastfeeding also contributes to the duration of birth intervals, reducing maternal risks of pregnancy too close together, including lessening risk of maternal nutritional depletion from repeated, closely-spaced pregnancies. |
| Goal 6: Combat HIV/AIDS, malaria, and other diseases | Based on extrapolation from published literature and research pending publication on the impact of exclusive breastfeeding on parent-to-child transmission (PTCT) of HIV, exclusive breastfeeding in a population of untested breastfeeding HIV infected population could be associated with a significant and measurable reduction in PTCT14. |
| Goal 7: Ensure environ-mental sustainability | Breastfeeding is associated with decreased milk industry waste, pharmaceutical waste, plastics and aluminum tin waste, and decreased use of firewood/fossil fuels for alternative feeding preparation. |
| Goal 8: Develop a global partnership for development | The National IYCF Strategy will use traditional as well as other innovative entry points to expand to wider multi-sectroal collaboration for the promotion, protection and support of breastfeeding and complementary feeding interventions. |

1.5 Defining the challenge:

Inappropriate IYCF practices are among the most serious obstacles maintaining adequate nutritional status, and contribute to malnutrition in Sudan.

The SHHS (2010) revealed that 32.2% of children under five are moderately underweight, and 12.6% are severely underweight. While 35 % of children under five are moderately stunting and 15.7% are severely stunting, which indicate the chronicity of the problem in Sudan.

Illnesses contribute to malnutrition as children need more nutritious food when they are sick but often eat less and absorb fewer nutrients:

- Diarrhea is one of the common childhood illnesses in Sudan which represent 11% of out of 27.5 % of under five children visited the health facilities in 2013 and 2.5% of them having malnutrition (IMCI progress report 2013).
- As 63% of under-5 deaths in Sudan occur in the post-neonatal period, focus needs to be strengthened in the post-neonatal period while increasing attention to the neonatal period as under-5 mortality rate (U5MR) declines, in order to further reduce U5MR.
- Anemia affect about 15.6% of pregnant women in Sudan (SHHS 2010), which may affect directly the pregnancy outcome and it is one of the leading causes of maternal death.

Sudan is faced with multiple challenges with regards to ensuring adequate IYCF practices a significant contribution to their survival, growth and development. There are gaps represented in lack of coordination of IYCF implementing partners as well as a lack of national operational targets on IYCF and thus the National IYCF strategy is thought to be the key to a comprehensive, integrated and coordinated approach to IYCF programming. The IYCF strategy provides a framework through which the government will influence in comprehensive and accelerated manner, actions to improve IYCF practices in Sudan

1.6 Justification for a National IYCF Strategy

The National IYCF Strategy is justified as it provides clear guidance of the strategies and broad plan of action designed in a most comprehensive and holistic approach for promoting, protecting and supporting of optimum IYCF practices. The strategy also defines the roles and responsibilities that are expected from the various stakeholders and suggests examples of channels of communication that may be used to equitably reach the communities, particularly, those in the far remote areas. The strategy is also a key document that could be used for resources mobilization where gaps may be experienced in the course of the IYCF strategy implementation.

The key strategic issues addressed in this strategy are derived from a situational analysis through the national assessment on IYCF and views from subsequent consultative meetings held with key IYCF stakeholders. Further, an assessment of infant feeding at selected prevention of mother to- child transmission (PMTCT) sites showed gross violations of the code and limited understanding of IYCF within the context of HIV.

1.7 Formulation of the Strategy

2- MAIN AND SPECIFIC OBJECTIVES OF THE IYCF STRATEGY

The strategy is intended as a guide for action; it is based on accumulated evidence of the significance of the early months and years of life for child growth and development and it identifies interventions with a proven positive impact during this period.

Implementing the strategy thus calls for increased political will, public investment, awareness among health workers, involvement of families and communities, and collaboration between governments, international organizations and other concerned parties that will ultimately ensure that all necessary action is taken.

2.1 Main Objective:

The IYCF Strategy's main objective is to improve through optimal feeding the nutritional status, growth and development, health, and thus the survival of infants and young children.

2.2 Specific objectives:

- To increase the commitment of governments, international organizations and other concerned parties for optimal feeding practices for infants and young children.
- To raise awareness of the main problems affecting infant and young child feeding, identify approaches to their solution, and provide a framework of essential interventions.
- To create an environment that will enable mothers, families and other caregivers in all circumstances (i.e. Emergency, HIV/AIDS and Malnutrition) to make – and implement – informed choices about optimal feeding practices for infants and young children.

2.3 Statement on optimal IYCF practices: Exclusive breastfeeding and complementary feeding

The Sudan Household Health Survey (2010) showed that the rate of exclusive breast feeding at six months was low (41 per cent) and that only (40.1 percent) of mothers continued to breast feed their child between 20- 23 months. The introduction of adequate complimentary feeding is also limited, with only 51.1% of the 6-8 month old children being adequately fed. The lack of breast feeding and optimal complimentary feeding contribute to the high rates of malnutrition in Sudan. The following actions are proposed in order to develop an enabling environment, ensure delivery of services and behavior change communication to community members, and ensure monitoring and evaluation of progress, as well as identify gaps for action in 2014 and beyond. This document is in line with the National Nutrition Policy "*Objective 2: Reduce nutritional risk for individuals throughout their life-cycle through implementation of integrated health, nutrition, and food security interventions. Strategy 2b Improve infant and young child nutrition status.*"

Breast feeding is a natural act, in spite of that it is also a complicated so all mothers should have accurate information, and support from their families and communities and from the health care system. And all women should have access to skilled personnel for help (trained health cadre, peer counselors and mother support) who can help to build mothers' confidence, improve feeding technique, and prevent or solve breastfeeding problems. According to KAP study conducted in 4 states in Sudan 2011 that the key barriers for exclusive breastfeeding are:

1. Belief of the need of infants for water in addition to breast milk.
2. Perceived lack of breast milk.
3. Belief Baby and/or mother sickness.

All mothers need reassurance that they are able to exclusively breastfeed their infants for six months, even if they have suboptimal diets. Also, effort is needed to improve the dietary intake of these mothers. The dangers of bottle feeding and of breast milk substitutes should be discussed with mothers, and their families.

Figure (1): Optimal IYCF practices by age of Child

| Age in month | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |24 | |
|---------------|--|---|---|---|---|---|---|---|---|-------------------------|---------|--|
| Interventions | Initiate breastfeeding within half hour of birth | | | | | | Continue breastfeeding | | | | | |
| | No prelacteal feeds | | | | | | No bottle feeding | | | | | |
| | Give colostrums | | | | | | Feed CF 2-3 times a day | | | Feed CF 3-4 times a day | | |
| | Exclusive breastfeeding | | | | | | | | | | | |
| | No bottle feeding | | | | | | Increase frequency, amount and variety of complementary foods. gradually complete transition to family food | | | | | |
| | No complementary feeding | | | | | | | | | | | |

CF=complementary food

Women in paid employment can be helped to continue breastfeeding by being provided with minimum enabling conditions, for example paid maternity leave of sufficient duration, part-time work arrangements, support from co-workers, facilities for expressing and storing breast milk, and breastfeeding breaks. Women with high household workloads also need similar support from their husbands and other family members to breastfeed and give complementary foods to their young children.

Appropriate complementary feeding depends on accurate information and skilled support from the family, community and health care system. Providing appropriate nutrition counseling to mothers of young children and recommending the widest possible use of locally available foodstuffs will help ensure that local foods are prepared and fed safely at home. Since the mother does not always have the ability to take decisions that affect what and how her child is fed, other family members also need to be targeted with information and counseling, particularly husbands and mothers-in-law. Inadequate knowledge about appropriate foods and feeding practices is often a greater determinant of malnutrition than the lack of food. However knowledge will not help in improving complementary feeding practice unless access to quality food is ensured.

Processed food products for infants and young children must always meet the quality standards issued by the Sudanese Standards Metrology Organization (SSMO) and other related policy documents.

Food fortification and universal or targeted nutrient supplementation will be necessary methods to ensure that older infants and young children receive adequate amounts of micronutrients for proper growth and development. These include vitamin A supplements, iron supplements, iodized salt.

2.4 Feeding in exceptionally difficult circumstances:

Families in difficult situations require special attention and practical support to be able to feed their children adequately. These situations include HIV infection of the parent(s) of a child, emergencies and acute malnutrition. In such cases, the likelihood of not breastfeeding increases, as do the dangers of artificial feeding and inappropriate complementary feeding. In all exceptionally difficult circumstances, mothers and babies should remain together and be given ample support to provide the most appropriate feeding options.

Every effort should be made to provide children who cannot be breastfed by their biological mother with a healthy wet-nurse as the first option. Whenever breast-milk substitutes are required for social or medical reasons, the quantity, distribution and use of these substitutes should be strictly controlled to prevent any "spillover effect" of artificial feeding into the general population. A nutritionally adequate breast-milk substitute should be fed by cup only to those infants who have to be fed on breast-milk substitutes. Those responsible for feeding a breast-milk substitute should be adequately informed and equipped to ensure its safe preparation and use. Feeding a breast-milk substitute to minority of children should not interfere with protecting and promoting breastfeeding for the majority. The use of infant feeding bottles and artificial teats should be actively discouraged at all times. In all exceptionally difficult circumstances it is important to create conditions that will support the mother, for example, by provision of appropriate maternity care, extra food rations and drinking-water for pregnant and lactating women, and staff who have breastfeeding counseling skills.

2.4.1 Human immunodeficiency virus

The national strategy has a clear role in preventing the infection from expanding beyond its level. The overall objective of HIV and infant feeding actions is to improve child survival by promoting appropriate feeding practices, while working to minimize the risk of HIV transmission through breastfeeding.

It is recommended that only when replacement feeding is acceptable feasible, affordable, sustainable and safe, avoidance of all breastfeeding by HIV infected mothers is recommended. Otherwise, exclusive breastfeeding is recommended during the first months of life and should then be discontinued as soon as it is feasible. The recommendation is based on the informed choice policy of WHO, UNICEF, UNAIDS, and UNFPA on HIV and infant feeding (WHO, 2003). Recommending breast milk substitutes should never be done without careful consideration. For this reason the acceptable, feasible, affordable, sustainable and safe conditions are expressed forthrightly. Taking the choice to use replacement feeding could be a dangerous decision in an environment where poverty, stigma, food insecurity, mother and child malnutrition, and high disease rates prevail, as each can easily threaten the health of the non-breastfed infant. A lack of breastfeeding exposes children to increase risk of malnutrition and life-threatening diseases, especially in the first year of life. In fact, not breastfeeding during the first two months of life is associated with a six-fold increase in mortality due to infectious diseases in developing countries (WHO, 2000).

2.4.2 Emergencies

Infants and children are among the most vulnerable victims of natural or manmade disasters, and this vulnerability often lasts long after the immediate crisis has ended. The challenging conditions typically faced by women and families during emergencies can undermine breastfeeding practices and interfere with crucial support for breastfeeding women. The shortage and often unsuitability of food resources during emergencies make essential aspects of feeding and care still more difficult. Interrupted breastfeeding and inappropriate complementary feeding heighten the risk of malnutrition, illness and mortality.

The protection, promotion and support of IYCF practices should be in the first actions taken to address an emergency. Optimal practices for feeding infants and young children during emergencies are essentially the same as those that apply in other more stable conditions. For the vast majority of infants, the emphasis should be on protecting, promoting and supporting breastfeeding and ensuring timely, safe and appropriate complementary feeding. Every effort should be made to keep breastfeeding mothers and children together, to re-establish breastfeeding among mothers who have stopped, and to identify alternative ways to breastfeed infants whose biological mothers are unavailable, including the provision of a healthy wet-nurse. The quantity, distribution of breast-milk substitutes in emergencies should be strictly controlled to prevent unnecessary use. Clear action-orientated messages on appropriate practices should be given at points of contact with affected families in emergencies.

Nutritional status should be continually monitored to identify malnourished children and mothers so that their condition can be assessed and treated, and prevented from deteriorating further.

2.4.3 Malnutrition and low birth weight

Infants and young children who are malnourished are most often found in environments where improving the quality and quantity of food intake is particularly problematic. To prevent a recurrence and to overcome the effects of chronic malnutrition, these children need extra attention both during the early rehabilitation phase and over the longer term. Continued frequent breastfeeding and, when necessary, re-lactation are important to ensure the best possible nutrition for the child. Nutritionally adequate and safe complementary foods may be particularly difficult to obtain and nutritional supplements may be required for these children, as well as treatment of underlying diseases.

Severely wasted children require therapeutic feeding with appropriate supplements. Severely wasted children with complications should be referred to an inpatient facility with trained staff for nutritional rehabilitation and treatment. Severely wasted children with no complications who are alert, have good appetite and are clinically well can be managed at home in the community. Low birth weight infants also need special attention.

Breast milk is particularly important for preterm infants and the small proportion of term infants with very low birth weight who are at increased risk of infection, long term ill-health and death. These children are also born with a higher risk of micronutrient deficiencies compared to normal birth weight children.

2.5 Family and community network support for improving feeding practices:

Mothers, fathers and other caregivers should have access to objective, consistent and complete information about appropriate feeding practices, free from commercial influence. In particular, they need to know about the recommended period of exclusive and continued breastfeeding; the timing of the introduction of complementary foods; what types of food to give, how much and how often; and how to feed these foods safely. The messages on optimal IYCF practices need to be delivered at the appropriate time in the life cycle.

Mothers should have access to skilled support to help them initiate and sustain appropriate feeding practices, to prevent difficulties and manage them when they occur. Trained health workers are well placed to provide this support, which should be a routine part not only of regular antenatal, delivery and postnatal care but also of services provided for the well and sick child.

Community based networks offering mother-to-mother support, and trained breastfeeding counselors working within, or closely with, the health care system, also have an important role to play in this regard. Where fathers are concerned, research shows that breastfeeding is enhanced by the support and companionship they provide as family providers and caregivers. In Sudan, the role of mothers-in-law is also important, and they too need to be targeted with correct information on appropriate IYCF practices.

Health workers and IYCF counsellors have the responsibility to ensure that the influential people have regularly access to clear, objective, simple but consistent and complete information regarding appropriate infant and young feeding practices, free from the influence of advertisement of infant formula. The messages should focus particularly on:

- The benefits and disadvantages of breastfeeding for the child, the mother and the whole family, □ the dangers of bottle feeding,
- The recommended period of exclusive and continued breastfeeding,
- The age at which to introduce complementary feeding to the child and the type of foods to give, how much and how often; and how to feed these foods safely.

3. IYCF STRATEGIES AND PLAN OF ACTION FOR SUDAN

3.1 Strategies:

Strategy 1: National policies and plans

Strategy 2: Code of marketing of breast-milk substitutes

Strategy 3: Maternity protection in the workplace

Strategy 4: Codex standards

Strategy 5: Baby-friendly Hospital Initiative

Strategy 6: Knowledge and skills of health service providers

Strategy 7: Community-based support for IYCF

Strategy 8: IYCF in exceptionally difficult circumstances

Strategy 1: National policies and plans

Incorporate IYCF interventions into national development policies and plans, major health initiatives and other projects to advocate for its importance and mobilize resources.

The IYCF strategy revitalizes the important place infant and young child feeding plays within the broad national development agenda in all relevant sectors, such as agriculture, livestock, education, environment water and sanitation etc. and major health initiatives such as the Global funds for HIV/AIDS, Malaria and Tuberculosis. It is argued above that every opportunity must be utilized to introduce infant and young child feeding interventions in all these sectors, projects and initiatives. In the health sector for instance, these opportunities include the Reproductive health, Malaria, HIV/AIDS, Immunization and outreach programmes and the health management information system.

The National Strategy calls for IYCF to be strongly anchored within the broad development agendas of the government and in all relevant programs. All opportunities should be taken to incorporate IYCF interventions into national policies and plans.

Strategy 2: Code of marketing of breast-milk substitutes

Strengthen the implementation, monitoring and enforcement of the Breast milk Substitutes (Regulation of Marketing) Ordinance and amendments.

The aim for a local Code of Breast-milk Substitutes is to contribute to the provision of safe and adequate nutrition for ONLY those infants for whom breast milk may not be an option by ensuring appropriate marketing and distribution of breast milk substitutes and prohibition of its promotion and advertisement for the general population. Thus, while monitoring the availability and advertisement of breast milk substitutes in the markets, pharmacies etc.

The National Strategy calls for a revision of the National Code to ensure that all provisions of the International Code and subsequent WHA resolutions are incorporated. The scope of the Code should be broadened to ensure that all products intended for consumption by infants and young children are appropriately marketed and distributed. There is need to strengthen the monitoring and enforcement procedures of the National Code so that code violations are more effectively detected and swift legal action is taken. The awareness of policy-makers, infant-food manufacturers, wholesalers/ marketers, health service providers and the general public about the Code needs to be raised.

Strategy 3: Maternity protection in the workplace

Enact adequate legislation protecting the breastfeeding rights of working women in a full range of employment and establish the means for its enforcement. (Working woman, refer to all women working to get money).

Maternity leaves allow the mother to exclusively breastfeed her baby and to establish and maintain a bonding between her and her baby. The IYCF Strategy will seek to support the drafting of adequate legislation to protect the breastfeeding rights of the mothers and propose means to ensure that these rights are upheld in the formal sector. The IYCF technical coordinating team will also support the Ministry of Social Affairs and Labour in its efforts to advocate for maternity leave to be increased to 4 months.

The National Strategy calls for amendments to the current legislation to include all provisions of the ILO Maternity Protection Convention No. 183 for all employed women. The legislation needs to be widely publicized among all stakeholders, especially employers and the public, and a mechanism for its monitoring and enforcement should be established.

Strategy 4: Codex Alimentarius

Ensure that processed infant and complementary foods are safe and nutritionally adequate, in accordance with the relevant Codex Alimentarius standards.

Codex standards generally give the scope, the definition and essential composition and quality factors of the food, food additives, hygiene conditions, the labeling packaging and the methods of analysis and sampling. There are also many Codex guidelines, but relevant to this strategy, we note the codex general guidelines for food hygiene, the code of hygiene practice for powdered formula for infant and young children, the guidelines on nutrition labeling, and the guidelines on formulated supplementary foods for older infant and young children.

The National Strategy calls for action to ensure that processed infant and complementary foods are safe, nutritionally adequate and appropriately labeled in accordance with the relevant Codex Alimentarius standards. There should be compulsory certification of all infant and complementary foods intended for consumption by infants and young children.

Strategy 5: Baby-Friendly Hospital Initiative

Ensure that every health facility successfully and sustainably practices all the "Ten steps to successful breastfeeding"

The National Strategy calls for a revitalization of efforts in BFHI to achieve full coverage of all health facilities in the country, including private and nongovernment facilities; to monitor the quality of implementation to ensure adequate standards of care; to strengthen the reassessment (recertification) of baby-friendly status; and to mainstream BFHI into the health system as an essential component of quality assurance and improvement of care. Ways should also be found to strengthen the establishment of community-based support groups as an important avenue to increase coverage of skilled support.

Strategy 6: Knowledge and skills of health service providers

Improve the knowledge and skills of health service providers at all levels to give adequate support to mothers on IYCF, including skills training on interpersonal communication, behavior change counselling and community mobilization.

Health service providers, nutritionists and allied professionals who care for mothers need up-to-date knowledge on IYCF legislation, policies and guidelines, and skills training for interpersonal communication, counselling and community mobilization.

The most sustainable way to address the current knowledge and skill gaps is to include essential knowledge and competences in the pre-service curricula. While such efforts progress, there is also need to increase the skills of those who are already in service through action-oriented, training.

To ensure sustainable implementation of the training plans it will be important to maintain:

- Updated training and IEC material and communication strategies.
- Roll out plans for scaling up technical capacity of health workers and community health workers, community resources people are strictly followed up. Strict criteria for selecting trainers of trainers and trainees for all levels are adhered to and the quality of the training and follow up actions are monitored.
- Regular monitoring and follow up supervision at all levels are undertaken as planned.
- Monitoring the quality of the services delivered at all levels of the health care system is carried out.

The National Strategy calls for a revision and periodic update of pre-service and in-service curricula and training materials. Conditions to ensure sustainable implementation and training include guidelines on IYCF; teams of experienced trainers for both in-service and pre-service education; strict criteria for selection of trainers and trainees; and monitoring of the quality of training and follow-up. A detailed plan of action is needed for roll-out of in-service training at all appropriate levels.

Strategy 7: Community-based support

Develop community-based networks to help support appropriate IYCF at the community level, e.g. mother-to-mother support groups and peer or lay counsellors

Mothers need support for feeding optimally their infant and young children in the communities where they live. A mother support at family and community level is essential as this has the potential to improve infant and young child feeding practices given her close accessibility to the information and guidance and counseling from the people she trusts and lives with. Individual and group counseling is one of the key interventions at community level and these will be done by a health worker, a counselor, a peer, a family member and an influential person such as a sheikh. Mother support groups, home visits, cooking demonstrations, recipes trials, kitchen gardening etc. are also opportunities considered in the strategy where women can share information, support one another for eventually changing their behavior regarding optimum infant and young child feeding practices.

The National Strategy calls for much greater attention to community-based support of IYCF in Sudan. Community-based support mechanisms have the potential to vastly improve infant and young child practices by increasing access to information, guidance and counselling. Behaviour change counselling is a key intervention and can be delivered by a peer, family member, community health worker or volunteer. Home visits, group meetings, growth monitoring sessions, and cooking sessions are all good opportunities for sharing information and counseling.

Strategy 8: IYCF in exceptionally difficult circumstances

Families in exceptionally difficult circumstances require special attention and practical support to be able to feed their children adequately. These circumstances include HIV infection of the child's mother or father, emergencies and malnutrition. All these circumstances require an enabling environment, where appropriate IYCF practices in the general population are protected, promoted and supported, and where special attention and support is available to address the difficult circumstances.

Strategy 8a: HIV and IYCF

Develop capacity among the health system, community and family to provide adequate support to HIV-positive women to enable them to select the best feeding option for themselves and their infants, and to successfully carry out their infant feeding decisions.

The National Strategy calls for special attention to support IYCF in circumstances where the child's mother or father has HIV.

There is need to develop and update guidelines on HIV and infant feeding; expand access to and demand for HIV testing and counselling; and to build capacity of health service providers and peer support groups of people living with HIV/AIDS to counsel HIV-positive parents on HIV and infant feeding so that they can make informed infant feeding choices (considering AFASS) and are supported in carrying out their choice.

Strategy 8b: Emergencies and IYCF

Develop capacity among the health system, community and family to ensure appropriate feeding and care for infants and young children in emergencies.

The National Strategy calls for inclusion of key interventions to protect promote and support optimal feeding for infants and young children in the emergency response to any emergency that affects women and children.

Updated guidelines are needed for IYCF in emergencies, including a framework for action, and IYCF actions should be incorporated into emergency response plans. Increased awareness and knowledge about the benefits of breastfeeding in the emergency situation is needed among all stakeholders. A pool of expert trainers should be formed to train government and humanitarian agency staff on good practices in IYCF in emergencies and to assist these agencies in developing interventions to improve practices. In the event of an emergency, IYCF activities should be coordinated and monitored through the inter-agency coordination group responsible for nutrition in emergencies “National Preparedness Plan”.

Strategy 8c: Malnutrition and IYCF

Develop the capacity among the health system (both facility and community based), community and family to manage malnutrition, including severe wasting.

The National Strategy calls for special attention to support the feeding of low birth weight and malnourished infants and children and, where necessary, nutritional rehabilitation. Caregivers, community health workers, and health service providers who have contact with infants and young children should be oriented on the dangers of malnutrition and be able to detect low birth weight and recognize the early signs of malnutrition. Community health workers and health service providers should also know how to identify the underlying causes of malnutrition; be able to recognize poor feeding practices and advise caregivers on their improvement; understand the special importance of

exclusively breastfeeding for low birth weight infants and provide adequate support to mothers; and be equipped with appropriate information for referral and follow-up. Community health workers and health service providers with specific responsibilities for managing cases of severe malnutrition at the facility and community level require guidelines, protocols, and training in order to carry out their responsibilities.

3.2 Advocacy and behavior change communication:

IYCF requires both advocacy and behavior change. Advocacy is needed to keep IYCF high on the public health agenda and obtain proactive support for IYCF among leaders at all levels, including local elites, religious leaders, government officials and political leaders. Behavior change will focus on the actions that need to be taken by a mother, her family, her employer, community and many others in support of breastfeeding and complementary feeding practices that will best serve the nutritional needs of infants and young children.

4. MONITORING, EVALUATION AND RESEARCH

Actions in support of IYCF must be monitored and evaluated to test and assess program effectiveness, justify the continuation or modification of program interventions and provide feedback at all levels. Monitoring of an ongoing program is continuous and aims to provide the management and other stakeholders with early indications of progress (or lack of) in the achievement of results and objectives. Evaluation is a periodic exercise that attempts to systematically and objectively assess progress towards and the achievement of a program's objectives or goals. Because progress in IYCF depends so heavily on the achievement of behavioral aims and objectives, monitoring and evaluation of behavioral indicators should be given special attention.

A monitoring and evaluation plan should be developed to provide a standardized framework on how needed information will be collected, processed, analyzed, interpreted, shared and used.

All organizations working in the field of IYCF should follow the same monitoring and evaluation plan to ensure comparability. It is particularly important to ensure the consistent use of indicators for monitoring and evaluating trends in IYCF. Where possible, IYCF indicators should be incorporated into existing health information systems at every contact with a child less than 2 years of age. Outcome and impact indicators can be included in surveys.

Research, including operations research, is needed to determine the factors that contribute to poor IYCF practices at all levels (including the child, mother, family, community, health system and institutions and national policy levels); identify which groups most need and benefit from services; and identify cost-effective approaches to improving IYCF practices for evidence-based advocacy and program implementation. The results for monitoring, evaluation and research should be regularly reviewed and used to revise strategies and interventions for improving IYCF.

5. Obligations and responsibilities

5.1 Governments:

1. The primary obligation of governments is to formulate, implement, monitor and evaluate a comprehensive national policy on infant and young child feeding. In addition to political commitment at the highest level, a successful policy depends on effective national coordination to ensure full collaboration of all concerned government agencies, international organizations and other concerned parties. This implies continual collection and evaluation of relevant information on feeding policies and practices. Regional and local governments also have an important role to play in implementing this strategy.
2. A detailed action plan should accompany the comprehensive policy, including defined goals and objectives, a timeline for their achievement, allocation of responsibilities for the plan's implementation and measurable indicators for its monitoring and evaluation. For this purpose, governments should seek, when appropriate, the cooperation of appropriate international organizations and other agencies, including global and regional lending institutions. The plan should be compatible with, and form an integral part of, all other activities designed to contribute to optimal infant and young child nutrition.
3. Adequate resources – human, financial and organizational – will have to be identified and allocated to ensure the plan's timely 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.

5.2 Other concerned parties:

1. Identifying specific responsibilities within society – crucial complementary and mutually reinforcing roles – for protecting, promoting and supporting appropriate feeding practices is something of a new departure. 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 governments and international organizations to improve the situation by helping to remove both cultural and practical barriers to appropriate infant and young child feeding practices.
2. Health professional bodies, which include medical faculties, schools of public health, public and private institutions for training health workers (including midwives, nurses, nutritionists and dietitians), and professional associations, should have the following main responsibilities towards their students or membership:
 - ensuring that basic education and training for all health workers cover lactation physiology, exclusive and continued breastfeeding, complementary feeding, feeding in difficult circumstances, meeting the nutritional needs of infants who have to be fed on breast milk substitutes, and the International Code of Marketing of Breast-milk Substitutes and the legislation and other measures adopted to give effect to it and to subsequent relevant Health Assembly resolutions;

- training in 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;
- promoting achievement and maintenance of “baby-friendly” status by maternity hospitals, wards and clinics, consistent with the “Ten steps to successful breastfeeding”¹ and the principle of not accepting free or low-cost supplies of breast-milk substitutes, feeding bottles and teats;
- observing, in their entirety, their responsibilities under the International Code of Marketing of Breast-milk Substitutes and subsequent relevant Health Assembly resolutions, and national measures adopted to give effect to both;
- Encouraging the establishment and recognition of community support groups and referring mothers to them.

A summary of the roles and responsibilities of the MOH and other partners:

1. Areas of collaboration between IYCF sections within the FMOH

| Ministry of Health | |
|---------------------------------|---|
| Institution | Areas of collaboration |
| IMCI Directorate | <ul style="list-style-type: none"> • Pilot and scale up of essential actions to address malnutrition • Growth monitoring, promotion and Vitamin A supplementation • Prevention & treatment of major childhood diseases Nutritional counselling and education at facility and community level • Screening, referral and treatment of Acute Malnutrition • Emergency nutrition response/preparedness • IYCF information systems for planning / M&E • Capacity building of health staff in nutrition • Collaboration between health and nutrition staff • Advocacy • Food safety |
| EPI Directorate | <ul style="list-style-type: none"> • Vitamin A supplementation • Social mobilization • Research • Advocacy |
| Reproductive Health Directorate | <ul style="list-style-type: none"> • IYCF counseling and education at facility and community level • Ante-natal and post natal care (iron/folate supplementation) • Postpartum vitamin A supplementation • BFHI |
| Curative Department | <ul style="list-style-type: none"> • Procurement of quality materials for prevention and treatment of acute malnutrition • Food quality monitoring systems |
| Communication Department | <ul style="list-style-type: none"> • Nutrition education • Social mobilization |
| Training Department | <ul style="list-style-type: none"> • Capacity development of staff pre-service and in-service |

| | |
|-----------------------------|---|
| Sudan National AIDS Program | <ul style="list-style-type: none"> • IYCF support in the case of people living with HIV/AIDS • Community IYCF education |
| food control & lab testing | <ul style="list-style-type: none"> • Infant formula safety • Food quality monitoring systems |
| International Health | <ul style="list-style-type: none"> • Procurement of quality materials for prevention and treatment of acute malnutrition • Emergency nutrition response/preparedness • IYCF information systems for planning/M&E |
| General Planning | <ul style="list-style-type: none"> • IYCF strategy • Coordinating IYCF measures • Planning, monitoring & evaluation of IYCF activities |

2. Areas of collaboration between IYCF section and other ministries

| Other ministries | |
|---|---|
| Institution | Areas of collaboration |
| Ministry of Social Welfare and Women and Children Affairs | <ul style="list-style-type: none"> • Maternity support • Income generation activities • Support nutrition programmes related to maternal & child nutrition |
| Ministry of Industry | <ul style="list-style-type: none"> • Code for the Marketing of Breast Milk Substitutes • Fortified complementary foods • Food control & standard |
| Ministry of Agriculture and Forestry | <ul style="list-style-type: none"> • Training of agricultural extension staff. • Research • Food production • Early warning system • Infant formula safety |
| Ministry of Justice | <ul style="list-style-type: none"> • Legislation for all fortified foods • Code for the Marketing of Breast Milk Substitutes |
| Ministry of Education | <ul style="list-style-type: none"> • Incorporation of IYCF education in curriculum for primary, secondary schools • Teacher training in IYCF |
| Ministry of Higher Education and Scientific Research | <ul style="list-style-type: none"> • Incorporation of IYCF education in curriculum for university students • IYCF curriculum for non nutrition (but nutrition related) sectors, e.g. Agriculture and Health |
| Ministry of Irrigation and Water Resources | <ul style="list-style-type: none"> • Emergency nutrition response/preparedness • Nutrition information systems for planning/M&E |
| Ministry of Environment and Physical Development | <ul style="list-style-type: none"> • Food safety, e.g. genetically modified foods |
| HAC | <ul style="list-style-type: none"> • Nutrition information systems for planning/M&E • Coordination of the NGOs working in the area of nutrition (according to the National policies & guidelines) |
| SSMO | <ul style="list-style-type: none"> • Infant formula quality monitoring systems • Code for the Marketing of Breast Milk Substitute |

| | |
|------------------------------------|--|
| Ministry of Finance | <ul style="list-style-type: none"> • Poverty reduction • Support IYCF activities |
| Ministry of trade | <ul style="list-style-type: none"> • Control of imported Infant formula, |
| Ministry of Information & Culture. | <ul style="list-style-type: none"> • IYCF awareness through mass media |
| Ministry of Labour | <ul style="list-style-type: none"> • Support maternity leave |

3. Areas of collaboration between IYCF and International organizations

| International organizations | |
|-----------------------------|--|
| Institution | Areas of collaboration |
| WHO | <ul style="list-style-type: none"> • Development of training manuals & modules • Planning ,Technical support • IYCF information systems for planning/M&E • Emergency nutrition response/preparedness • Capacity building • Research • Food safety |
| UNICEF | <ul style="list-style-type: none"> • BFHI • Community IYCF education • IYCF information systems for planning/M&E • Emergency nutrition response/preparedness • Capacity building • Research |
| WFP | <ul style="list-style-type: none"> • IYCF information systems for planning/M&E • Emergency nutrition response/preparedness |
| FAO | <ul style="list-style-type: none"> • Food based strategies to prevent malnutrition • Curriculum for IYCF • Research • IYCF information systems for planning/M&E • Food safety |
| NGOs | <ul style="list-style-type: none"> • Community IYCF education • Emergency nutrition response/preparedness • IYCF information systems for planning/M&E |

4. Federal to State collaboration and responsibility

National level IYCF section will be expected to advise on, coordinate, monitor and evaluate IYCF and IYCF related efforts at State level under the direction and support of the MCH Director. At State level the Nutrition Director, within the SMOH is the official responsible for overall IYCF activities in the State. Within the context of decentralization and reform, roles and responsibilities of State level Nutrition Directors, will be further defined; as will Federal/State level communication channels.

The state Nutrition Director under the SMOH is also responsible for multi-sector coordination at State level; and establishment of a multi-sector committee /coordination mechanism at State level is encouraged. In addition, nutrition related activities, counselling and IYCF education will be carried out by nutrition and health workers at all levels of health facilities

5. Areas of collaboration between MOH and community level actors

| Institution | Areas of collaboration |
|----------------------|--|
| Religious leaders | <ul style="list-style-type: none"> • Community nutrition education |
| Community leaders | <ul style="list-style-type: none"> • Community nutrition education • Improved access to services (including water, sanitation, shelter) • Emergency nutrition response/preparedness • Nutrition information systems for planning/M&E |
| Local administration | <ul style="list-style-type: none"> • Improved access to services (including water, sanitation, shelter) • Emergency nutrition response/preparedness • Nutrition information systems for planning/M&E |

6. Plans of Action for IYCF 2015-2018

This plan of action presents the objectives, outcomes and outputs, expected results and the activities. It also gives a rough estimation of the budget required to implement this strategy and a suggestion of time frame for their implementation and responsible parties.

| | | | | | | | | |
|------------------------|---|---|---------------------|-----|-----|-----|-----|---------------|
| Objective 1.0 | To increase the commitment of governments, international organizations and other concerned parties for optimal feeding practices for infants and young children. | | | | | | | |
| Outcome 1.1 | IYCF is mainstreamed into national development policies, strategies and initiatives and the coordination mechanisms and monitoring framework of the Strategy are in place. | | | | | | | |
| Expected results 1.1.1 | <i>The National IYCF Strategy is effectively coordinated by a technical coordinating team guided by a National IYCF coordinator</i> | | | | | | | |
| | Activities | Responsible | Implementation year | | | | | Budget in USD |
| | | IYCF Focal points from line ministries, IYCF stakeholders, professional associations, Religious, women and youth groups | Y 1 | Y 2 | Y 3 | Y 4 | Y 5 | |
| 1.1.1.1 | The National IYCF strategy translated into Arabic language | | x | | | | | |
| 1.1.1.2 | Dissemination of the National IYCF strategy at all levels | | x | | | | | |
| 1.1.1.3 | TORs finalized and validated for both multi sectorial National IYCF technical coordinating group and the National IYCF coordinator. | | x | | | | | |
| 1.1.1.4 | IYCF is effectively mainstreamed into policies, plans, strategies, activities, other sectors, and health initiatives & programs. e.g. MCH acceleration plan, integrated cadre, PHC expansion. | | x | x | x | x | x | |
| 1.1.1.5 | Regional coordination meetings quarterly held and minutes shared with national IYCF coordinating structures. | | x | x | x | x | x | |
| Total Budget | | | | | | | | 120,000 |
| | | | | | | | | |

| Expected results 1.1.2 | | <i>IYCF guidelines developed, endorsed and implemented</i> | | | | | | | |
|---|--|--|---------------------|----|----|----|----|---------------|--|
| | Activities | Responsible | Implementation year | | | | | Budget in USD | |
| | | | Y1 | Y2 | Y3 | Y4 | Y5 | | |
| 1.1.2.1 | Development, endorsement and implementation of national IYCF guidelines. | MOH, Line ministries, UN agencies, trade unions, private sector, NGO (international & national), Professional associations, women, youth, religious groups | x | x | | | | | |
| 1.1.2.2 | Development, endorsement and implementation of national complementary feeding guidelines | | x | x | | | | | |
| 1.1.2.3 | Development, endorsement and implementation of national IYCF guidelines during exceptionally difficult circumstances (emergency, HIV/AIDS and Malnutrition) | | x | x | | | | | |
| Total Budget | | | | | | | | 450,000 | |

| Outcome 1.2 | A national Code of marketing Breast Milk Substitutes is enacted into a law in 2015 | | | | | | | | | |
|---------------------------|--|--|---------------------|--------|--------|--------|--------|---------------|--|--|
| Expected results 1.2.1 | <i>Strengthen the implementation, monitoring and enforcement of the Breast milk Substitutes (Regulation of Marketing) Ordinance and amendments.</i> | | | | | | | | | |
| | Activities | Responsible | Implementation year | | | | | Budget in USD | | |
| | | MOH, Line ministries, UN agencies, trade unions, private sector, NGO (international & national), Professional associations, women, youth, religious groups | Y 1 | Y 2 | Y 3 | Y 4 | Y 5 | | | |
| 1.2.1.1 | TORs for the task force members identified and validated for implementation of the Code of Marketing of BMS | | x | | | | | | | |
| 1.2.1.2 | English and Arabic copies of the Code are available | | x | | | | | | | |
| 1.2.1.3 | Dissemination of the Code officially to government ministries, health service providers and IYCF implementing partners at all levels, private sector and community based structures. | | x | x | | | | | | |
| 1.2.1.4 | Advocate for the enactment of the Code of Marketing BMS into a law through public mass media sensitization at all levels. | | | x | x | | | | | |
| 1.2.1.5 | Increased awareness and sustain advocacy of the code of the BMS to senior health management, policy makers, health providers, and pharmacists, private sector, wholesalers/food manufacturers etc. | | | x | x | | | | | |
| 1.2.1.6 | Enhance sensitization of the health service providers and other stakeholders on their responsibilities under the Code during emergencies particularly. | | | x | x | x | x | | | |
| Total Budget | | | | | | | | 500,000 | | |

| | | | | | | |
|-------------------------------|--|---|----------------------------|------------|------------|----------------------|
| Outcome 1.3 | <i>Enact adequate legislation protecting the breastfeeding rights of working women in a full range of employment and establish the means for its enforcement. (Working woman, refer to all women working to get money).</i> | | | | | |
| Expected results 1.3.1 | A conducive environment for the protection of breastfeeding is created to support ALL women to breastfeed optimally. | | | | | |
| | Activities | Responsible | Implementation year | | | Budget in USD |
| | | | Y 1 | Y 2 | Y 3 | Y 4 |
| 1.3.1.1 | Advocate with employers/government to create better opportunities to breastfeed in the workplace. | MOH, Line ministries, UN agencies, trade unions, private sector, NGO (international & national), Professional associations, groups, Academic Institutions | x | x | x | x |
| 1.3.1.1 | Ensure support to the Ministry of Social Affairs and Labor for the legislation on the maternal protection to breastfeed in the workforce is provided by all IYCF stakeholders, private sector and trade unions. | | x | x | | x |
| 1.3.1.1 | Enhance implementation of the recommendations from the formative research in support of breastfeeding mothers in the informal sector. | | x | x | x | x |
| Total Budget | | | | | | 375,000 |

| Expected results 1.3.2 | A formative research is conducted; advocacy and partnership to support breastfeeding for ALL mothers undertaken. | | | | | | | |
|---------------------------|--|--|----|----|----|----|---------------|--|
| Activities | Responsible | Implementation year | | | | | Budget in USD | |
| | | Y1 | Y2 | Y3 | Y4 | Y5 | | |
| 1.3.2.2 | Conduct formative research to assess factors enabling and barriers to optimum breastfeeding practices for women in paid employment and in informal sector. Disseminate results and recommendations to all stakeholders including, the private sector & community based structures. | MOH, Line ministries, UN agencies, trade unions, private sector, NGO (international & national), Professional associations, women, youth, religious groups, trade unions | | x | | | | |
| 1.3.2.2 | Increase public awareness of the benefits of combining work and breastfeeding, and publicize legislation in support for women in paid employment and recommendations in support of breastfeeding women in informal sector. | | x | x | x | | | |
| 1.3.2.3 | Engage partnership with local NGO, trade unions, associations and women, youth and religious groups to improve their advocacy and support to breastfeeding mothers in formal and informal sectors. | | x | | | | | |
| 1.3.2.4 | Develop key messages aimed at various audiences for the promotion and support to breastfeeding by mothers in paid employment and inform sector and dissemination through appropriate channels. | | x | | | | | |
| Total Budget | | | | | | | 250,000 | |

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|-------------------------------|---|--------------------|----------------------------|--------|--------|--------|--------|----------------------|
| Outcome 1.4 | <i>Ensure that processed infant and complementary foods are safe and nutritionally adequate, in accordance with the relevant Codex Alimentarius standards.</i> | | | | | | | |
| Expected results 1.4.1 | | | | | | | | |
| | Activities | Responsible | Implementation year | | | | | Budget in USD |
| | | | Y 1 | Y 2 | Y 3 | Y 4 | Y 5 | |
| 1.4.1.1 | Conduct a review of the use of the Codex Alimentarius in Sudan and compliance with its standards on available products for infants and young children. | | x | x | x | x | x | |
| 1.4.1.2 | Develop standards for nutrient content, safety, and appropriate labeling of processed complementary foods intended for infants and young children “compulsory certification”. | | x | x | | x | x | |
| Total Budget | | | | | | | 50,000 | |

| Outcome 1.5 | | <i>Ensure that every health facility successfully and sustainably practices all the "Ten steps to successful breastfeeding"</i> | | | | | | |
|-------------------------------|--|---|---------------------|-----|-----|-----|-----|---------------|
| Expected results 1.5.1 | | All Hospitals and at least 50% of the MCH implement at least 7 out of 10 BFHI steps to successful breastfeeding. | | | | | | |
| | Activities | Responsible | Implementation year | | | | | Budget in USD |
| | | Gov. ministries: health, education, agriculture, etc at national level, MOH departments at national level & MOH at Regional and district levels, UNICEF and other UN Agencies, INGO & National & local NGO, Community leaders, University, nursing/midwifery colleges | Y 1 | Y 2 | Y 3 | Y 4 | Y 5 | |
| 1.5.1.1 | Train all health cadre teams at National and regional levels on the BFHI. | | x | x | x | x | x | |
| 1.5.1.2 | Expand the BFHI to all health facilities providing mother and child services in the country, including private and non-government facilities by certification. | | x | | x | | x | |
| 1.5.1.3 | Determine the monitoring system and implement ways to sustain the "baby-friendly" status of health facilities, such as Breastfeeding Management Centres through periodically recertification and revitalization. | | x | x | x | x | x | |
| 1.5.1.4 | Link baby-friendly health facilities with "baby-friendly" communities with the help of community support groups available at the community level. | | x | | x | | | |
| 1.5.1.5 | Incorporate BFHI into the standard operating procedures of health facilities, including the facility's quality control, monitoring and evaluation system. | | x | x | x | x | x | |
| Total Budget | | | | | | | | 500,000 |

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| Objective 2.0 | To raise awareness of the main problems affecting infant and young child feeding, identify approaches to their solution, and provide a framework of essential interventions. | | | | | | | |
| Outcome 2.1 | <i>Improve the knowledge and skills of health service providers at all levels to give adequate support to mothers on IYCF, including skills training on interpersonal communication, behavior change counselling and community mobilization.</i> | | | | | | | |
| Expected results 2.1.1 | All health service providers ready to support mothers on IYCF services at all levels | | | | | | | |
| | Activities | Responsible | Implementation year | | | | | Budget in USD |
| | | MOH, Line ministries, UN agencies, trade unions, private sector, NGO (international & national), professional associations, groups, Academic Institutions | Y 1 | Y 2 | Y 3 | Y 4 | Y 5 | |
| 2.1.1.1 | Assess levels of skills and knowledge, needs for improvement, and training needs of health service providers. | | x | x | x | x | x | |
| 2.1.1.2 | Revise the curricula for pre-service and in-service training of health service providers at all levels to include appropriate content on IYCF. | | x | x | | x | x | |
| 2.1.1.3 | Develop guidelines and standard training materials on IYCF for health service providers at all levels | | x | x | | | | |
| 2.1.1.4 | Develop quality job aids in IYCF for health service providers | | x | | x | | | |
| 2.1.1.5 | Develop a pool of core trainers in IYCF for training of health service providers. | | | | | | | |
| 2.1.1.6 | Develop and implement a plan of action for in-service training of health service providers at all levels. | | | | | | | |
| 2.1.1.7 | Improve follow-up and supportive supervision of health workers to sustain their knowledge and skills and the quality of counseling. | | x | x | x | x | x | |
| Total Budget | | | | | | | | 750,000 |

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|-------------------------------|---|---|----------------------------|--------|--------|--------|--------|----------------------|
| Outcome 2.2 | <i>Develop community-based networks to help support appropriate IYCF at the community level, e.g. mother-to-mother support groups and peer or lay counsellors</i> | | | | | | | |
| Expected results 2.2.1 | Community based networks developed and qualified to support mothers at community levels | | | | | | | |
| | Activities | Responsible | Implementation year | | | | | Budget in USD |
| | | MOH, Line ministries, UN agencies, trade unions, private sector, NGO (international & national), professional associations, groups, Academic Institutions | Y 1 | Y 2 | Y 3 | Y 4 | Y 5 | |
| 2.2.1.1 | Identify peer counselors and mother-support groups to provide counseling and guidance to mothers in their communities. | | x | x | x | x | x | |
| 2.2.1.2 | Develop a training package to improve knowledge and skills of peer counselors and mother-support groups in IYCF, interpersonal communication, problem solving, counseling and group facilitation. | | x | x | | x | x | |
| 2.2.1.3 | Develop core team of trainers for peer counselors and community based support groups. | | x | x | | | | |
| 2.2.1.4 | Establish support groups and peer counselors, with supportive supervision from health system or NGO. | | x | | x | | | |
| 2.2.1.5 | Train peer counselors, mother- support groups and their supervisors in IYCF promotion and support, and skills in interpersonal communication, counseling and group mobilization. | | x | x | x | x | | |
| 2.2.1.6 | Monitor and supervise activities by mother-support groups and peer counselors. | | x | x | x | x | | |
| Total Budget | | | | | | | | 350,000 |

| Outcome 2.3 | Improved capacity and means of delivering IYCF interventions | | | | | | | |
|-------------------------------|---|---|---------------------|--------|--------|--------|--------|---------------|
| Expected results 2.3.1 | A communication strategy and a plan of action to promote optimum infant and young child feeding practices are endorsed by all partners. | | | | | | | |
| | Activities | Responsible | Implementation year | | | | | Budget in USD |
| 2.3.1.1 | Develop an advocacy and communication strategy, based on the formative research, to support IYCF interventions | MOH, Line ministries, UN agencies, trade unions, private sector, NGO | Y 1 | Y 2 | Y 3 | Y 4 | Y 5 | |
| 2.3.1.2 | Develop advocacy and communication materials for all audiences & stakeholders to support the strategy. | (international & national), Professional associations, women, youth & religious groups, Academic institutions | | x | | | | |
| Total Budget | | | | | | | | 200,000 |

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|-------------------------------|--|---|----------------------------|--------|--------|--------|--------|----------------------|
| Objective 3.0 | To create an environment that will enable mothers, families and other caregivers in all circumstances (i.e. Emergency, HIV/AIDS and Malnutrition) to make – and implement – informed choices about optimal feeding practices for infants and young children. | | | | | | | |
| Outcome 3.1 | Families in exceptionally difficult circumstances require special attention and practical support to be able to feed their children adequately. These circumstances include HIV infection of the child's mother or father, emergencies and malnutrition. All these circumstances require an enabling environment, where appropriate IYCF practices in the general population are protected, promoted and supported, and where special attention and support is available to address the difficult circumstances. | | | | | | | |
| Expected results 3.1.1 | HIV and IYCF | | | | | | | |
| | Activities | Responsible | Implementation year | | | | | Budget in USD |
| | | MOH, Line ministries, UN agencies, trade unions, private sector, NGO (international & national), Professional associations, women, youth & religious groups, Academic institutions | Y 1 | Y 2 | Y 3 | Y 4 | Y 5 | |
| 3.1.1.1 | Review and adapt guidelines on HIV and infant feeding, following UN guidelines. | | | x | | | | |
| 3.1.1.2 | Periodically update the guidelines on HIV and infant feeding, as required, in light of new research findings and/or international recommendations. | | | | | | | |
| 3.1.1.3 | Disseminate all/ guidelines, and any revisions, to public, private and NGO health facilities and service providers. Establish mother support groups and peer counsellors , with supportive supervision from health system or NGOs | | | | | | | |
| 3.1.1.4 | Develop the capacity of health service providers and peer support groups dealing with people living with HIV/AIDS to effectively counsel HIV-positive parents and other household members so that they can make informed infant feeding choices and are supported in carrying out their choice. | | | | | | | |
| 3.1.1.5 | Adapt the BFHI to make provision for expansion of activities to prevent HIV transmission to infants and young children. | | | x | | | | |
| Total Budget | | | | | | | | 200,000 |

| Expected results 3.1.2 | Emergencies and IYCF | | | | | | |
|---------------------------|---|--|---------------------|-----|-----|-----|---------|
| | Activities | Responsible | Implementation year | | | | |
| | | MOH, Line ministries, UN agencies, trade unions, private sector, NGO (international & national), Professional associations, women, youth & religious groups, Academic institutions | Y 1 | Y 2 | Y 3 | Y 4 | Y 5 |
| 3.1.2.1 | Review and adapt guidelines on IYCF in emergencies and a framework for action, in particular, the support for exclusive breastfeeding and complementary feeding, and regulation of breast-milk substitutes. | | | x | | | |
| 3.1.2.2 | Periodically update the guidelines, as required, in light of new research findings and/or international recommendations | | | | | | |
| 3.1.2.3 | Disseminate all guidelines, and any revisions, to public, private and NGO health facilities and service providers. | | | | | | |
| 3.1.2.4 | Collaborate with NGOs and all other stakeholders working in disaster preparedness and response to ensure that IYCF is adequately reflected in emergency response plans. | | | | | | |
| 3.1.2.5 | Develop a communication package on IYCF in emergencies that can be rapidly produced, replicated and disseminated in the event of an emergency. | | | x | | | |
| 3.1.2.6 | Form a pool of expert trainers to train humanitarian staff responsible for emergency preparedness and response on IYCF in emergencies. | | | | | | |
| 3.1.2.7 | Ensure that IYCF activities are coordinated in the event of an emergency through the interagency coordination group responsible for nutrition in emergencies. | | | | | | |
| Total Budget | | | | | | | 290,000 |

| Expected results 3.1.3 | Malnutrition and IYCF | | | | | | | | | |
|---------------------------|---|--|---------------------|--------|--------|--------|--------|---------------|--|--|
| | Activities | Responsible | Implementation year | | | | | Budget in USD | | |
| | | | Y 1 | Y 2 | Y 3 | Y 4 | Y 5 | | | |
| 3.1.3.1 | Develop guidelines on the management of severe malnutrition at facility and community levels, and on the management of low birth weight infants. | MOH, Line ministries, UN agencies, trade unions, private sector, NGO (international & national), Professional associations, women, youth & religious groups, Academic institutions | | x | | | | | | |
| 3.1.3.2 | Periodically update the guidelines, as required, in light of new research findings and/or international recommendations. | | | | | | | | | |
| 3.1.3.3 | Disseminate all guidelines, and any revisions, to public, private and NGO health facilities and service providers. | | | | | | | | | |
| 3.1.3.4 | Develop and implement a training plan for health service providers on management of severe malnutrition and management of low birth weight infants. | | | | | | | | | |
| 3.1.3.5 | Support local development of an age appropriate fortified supplementary food for children and for pregnant and breastfeeding women. | | | x | | | | | | |
| Total Budget | | | | | | | | 250,000 | | |