Republic of Sudan

Federal Ministry of Health

Primary Health Care Directorate

National Nutrition Program

NATIONAL INFANT AND YOUNG CHILD FEEDING STRATEGY

2015-2024

MARCH, 2015

FEDERAL MINISTRY OF HEALTH

Acknowledgement

The National Strategy for Infant and Young Child Feeding built on continuing joint efforts between the national nutrition program and members representing different UN and governmental partners. The national IYCF strategy reflects the roles of the critical partners - government, international organizations, non-government organizations and other concerned parties to ensure that collective action contributes to the full attainment of the National IYCF Strategy's goal and objectives.

Special recognition to Federal Ministry of Health departments:- Reproductive Health , Integrated Management of Child Illnesses, Health promotion, Food Quality and Control, Health Planning unit, HIV program and governmental institutes, Sudanese Standards Metrology Organization, with a wide variety of inputs from UN partners mainly UNICEF (HQ and country office), WFP and WHO, together with individual bodies e.g. pediatricians and consultants who's provided technical inputs and oversight during the review process. The strategy supervised by MCH directorate and reviewed, edited by the planning unit.

Authors:-

Mrs. Afaf Abdelfadil Agab, Nutrition Specialist, National Nutrition Program, FMOH
Dr. Elham Balla Mohammed, Registrar, Community Medicine, National Nutrition Program
Ms. Eman H. Mahmoud, IYCF officer, UNICEF County Office – Khartoum.
Mr.Talal F. Mahgoub, Nutrition Specialist, UNICEF County Office – Khartoum
Mrs. Salwa A. Sorkti, Director of Nutrition Program, FMOH.
Mrs. Fatima A. Elaziz, Nutrition Specialist, National Nutrition Program, FMOH.

Co-authors:-

Dr. Nada Gaafar, Registrar Community Medicine, Director of MCH Directorate, FMOH.
Dr. Elamin Osman, Pediatricians, IYCF specialist (Internal and External).
Dr. Amal Abdallah, Nutrition Program Officer, WFP County Office – Khartoum.
Mrs. Amira Mohamed Almunier, Nutrition Program Officer, WHO County Office – Khartoum.

Special thanks to:-

Dr. Manal Hassan Taha, Community Medicine Specialist, Director of IMCI program.
Ms. Durria Mohammed Osman, Nutrition Specialist National Nutrition Program, FMOH.
Dr. Fatima Hag Idris, Registrar of Community Medicine National AIDS Program.
Mrs. Thourayia Nageeb Okasha, SSMO
Dr. Siham Elamin Habeeb Allah, Director of Reproductive Health, FMOH.
Dr. Azhari Ali Awad Alkarim, Food Hygiene Experts.
Mr. Ismail Ahmed Ellkamish, Head of Food Safety Section

Revised and Edited by:-

Dr. Hatim Abdelfadil Agab, MD Community Medicine (Specialist), General Directorate for Planning and International Relations, FMOH.
Dr. Abda Hakim, General Directorate for Planning and International Relations, FMOH.

Abbreviation:

AFASS Acceptable, Feasible, Affordable, Sustainable and Safe
HIV/AIDS Human Immunodeficiency Virus Acquired Immune Deficiency Syndrome
BFHI Baby-Friendly Hospital Initiative
BMS Breast Milk Substitutes
CBO Community Based Organization
CF Complementary Feeding
C-IMCI Community-Integrated Management of Childhood Illnesses
EPI Expanded Program of Immunization
FMOH Federal Ministry of Health
GAM Global Acute Malnutrition
HP Health Promotion
IFE Infant and young child Feeding in Emergency
ILO International Labour Organization
INGO International None Governmental Organization
IYCF Infant and Young Child Feeding
KAP Knowledge, Attitude and Practice
LBW Low Birth Weight
MDGs Millennium Development Goals
M&E Monitoring and Evaluation
MCH Mother and Child Health
MI Micronutrient Initiative
MNP Micronutrients Powders
MOH Ministry of Health
MoRES Monitoring Results for Equity System
NCCW National Council for Child Welfare
NGOs Non-Governmental Organizations
NND National Nutrition Directorate
NNP National Nutrition Program
PHC Primary Health Care
PMTCT Prevention of Mother to- Child Transmission
PTCT Parent to Child Transmission
RH Reproductive Health
SAM Severe Acute Malnutrition
SBA Skilled Birth Attendant
SBCC Social and Behavior Change Communication
SHHS Sudan Household Health Survey
SMOH State Ministry of Health
SSMO Sudanese Standard and Metrology Organization
TORs Term of References
UN United Nation
UNAIDS United Nations Program on Acquired Immune Deficiency Syndrome
UNFPA United Nation Population Fund
UNICEF United Nations Children's Fund
U5MR Under 5 year mortality Rate
VCT Voluntary Counseling and Testing
VGD Vulnerable Group Development
WHA World Health Assembly
WHO World Health Organization.

Table of Contents

Acknowledgement 2

Authors:- 3

Abbreviation: 4

Abstract 7

Section One: Background 9

1.0 General Overview: 9

1.1 Optimal IYCF practices: Exclusive breastfeeding and complementary feeding 10

1.2 Importance of optimum IYCF practices “child prospective”:- 11

1.3 Importance of IYCF practices “mother and country prospective”:- 12

1.4 IYCF milestones, values and Principles : 15

1.5 Goal: 16

1.6 Specific objectives: 16

1.7 IYCF strategic targets for 2024: 17

1.8 Formulation of the Strategy: 17

Section Two: Country Context 19

2.0 Sudanese Context: 20

2.1 Impact of current Sudanese context:- 20

2.2 Current nutrition situation in Sudan:- 21

2.3 National Nutrition Program in Sudan:- 22

Section Three: Situation analysis: IYCF services 24

3.0 Situation of IYCF indicators:- 25

3.1 National Program achievements in IYCF: 26

3.2 Situation of IYCF policies and legislations:- 26

3.3 Situation of BFHI:- 27

3.4 Situation of breast milk substitute:- 27
3.5 Situation of maternity protection:- 28
3.6 Codex Alimentarius for complementary feeding:- 28
3.7 Knowledge and skills of health providers and community-based support:- 29
3.8 Situation of IYCF in exceptionally difficult circumstances:- 29
3.9 Challenges in IYCF programming in Sudan:- 32
3.10 Justification for the National IYCF Strategy:- 32
Section Four: IYCF Strategies 33
4.1 Strategy 1: National policies and plans: 34
4.2 Strategy 2: Code of marketing of breast-milk substitutes: 34
4.3 Strategy 3: Maternity protection in the workplace: 35
4.4 Strategy 4: Codex Alimentarius for IYCF products: 35
4.5 Strategy 5: Baby-Friendly Hospital Initiative 36
4.6 Strategy 6: Knowledge and skills of health service providers 36
4.7 Strategy 7: Community-based support: 37
4.8 Strategy 8: IYCF in exceptionally difficult circumstances: 38
4.9 Advocacy and behavior change communication: 39
Section Five: Roles and Responsibilities 41
5.0 Governmental stakeholders: 42
5.1 Other concerned parties: 42
5.2 A summary of the roles and responsibilities of the MOH and other partners: 43
5.3 Federal to State collaboration and responsibility 47
Section Six: Monitoring, Evaluation and Action Plan 48
6.1 Monitoring and Evaluation frame work:- 51
6.2 Strategic plan of action:- 53

Annexes 68
Annex (1)-Contribution of IYCF to the achievement of Millennium Development Goals:- 68
Annex (2)-Sustainable development Goals 2030:- 70
Annex(3)-10 steps for breastfeeding 73
References:- 74

Abstract

Malnutrition undermines individual wellbeing, reduces national productivity, and is the result of direct and underlying causes in a variety of sectors, which are in turn dependent on wider economic, social and political factors. Infant and young child feeding (IYCF) programming is an intervention which can have a significant impact on reducing mortality and morbidity in young children of under nutrition and other related diseases. In fact, broad coverage of breastfeeding and complementary feeding interventions can reduce about 20% of deaths in young children. After focusing predominately on the management of acute malnutrition the nutrition strategies and plans highlighted the necessity and value of shifting the focus and/or parallel focus to more preventative programming and especially to IYCF. The IYCF strategy provides a framework through which the government will influence in comprehensive and accelerated manner, actions to improve IYCF practices and services in Sudan. The overall goal of the strategy is to improve through optimal feeding; the nutritional status, growth and development, health, and thus the survival of infants and young children. The specific objectives are 1) To create a supportive environment including political commitment, multi-sectorail coordination among government, international organizations and other concerned parties toward optimal feeding practices for infants and young children. 2) To build capacity, increase knowledge and skills of health workers to provide pregnant women and lactating mothers with support to improve optimal IYCF practices as part of the basic health package. 3) To equip communities, households with knowledge, capacity and skills to support pregnant women and lactating mothers to practice optimal IYCF practices among their communities and household. The national IYCF Strategy and Action Plan was developed through a consultative process started with an analysis of the situation in Sudan, in terms of nutrition, health infant and young child' services and practices highlighted the various areas and levels at which action is required. The IYCF strategy presented eight strategies (National policies and plans, Code of marketing of breast-milk substitutes, Maternity protection in the workplace, Codex standards, Baby-friendly Hospital Initiative, Knowledge and skills of health service providers, Community-based support for IYCF and IYCF in exceptionally difficult circumstances) 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 2015 and beyond. The strategy also reflects the obligations and responsibilities for the stakeholders of IYCF services. Therefore it gives detailed roles and accountability of different partners (partners within the FMOH, other governmental bodies, UN, other international bodies, NGOs as well as the community level partners. Monitoring and evaluation of the IYCF strategy is continuous and aims to provide the management and other IYCF field stakeholders with early indications of progress (or lack of) in the achievement of results and objectives. The IYCF strategy concluded with action plan to support the IYCF strategy to test and assess program effectiveness, justify the continuation or modification of program interventions and provide feedback at all levels.

Section One: Background

1.0 General Overview:

The national Infant and Young Child Feeding Strategy (2015-2024) has been developed as part of National Nutrition Program Strategy (2014-2018). 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 all necessary action is taken. Nevertheless the IYCF Strategy components guided by:-

- The National Health Policy (2006).
- The National Child Health Policy (2006).
- The National Reproductive Health Policy (2006).
- The Rural Development, Food Security and Poverty Alleviation Act (2005).
- The Sudan New Nutrition Policy and Plan of Action 2004-2010 (2004).
- 25 Years Strategic Plan for the Health Sector (2005).
- The National Policy on HIV/AIDS (2004).
- 10 Year Strategic Plan for Human Resource.
- National Nutrition Strategy (2014).
- Nutrition Policy Brief (2013).
- MCH Acceleration Plan (2014).

1.1 Optimal IYCF practices: Exclusive breastfeeding and complementary feeding

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 group) 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 less than 6 months for water in addition to breast milk.
2. Perceived lack of enough breast milk.
3. Belief of stop breast milk in case of baby and/or mother sickness.

This reflects that 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 breast milk substitutes should be discussed with mothers, and their families.

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

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

1.2 Importance of optimum IYCF practices "child prospective":-

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.

1.2.1 Breastfeeding for the first six months of age:

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 to 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 behavior 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.

1.2.2 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.

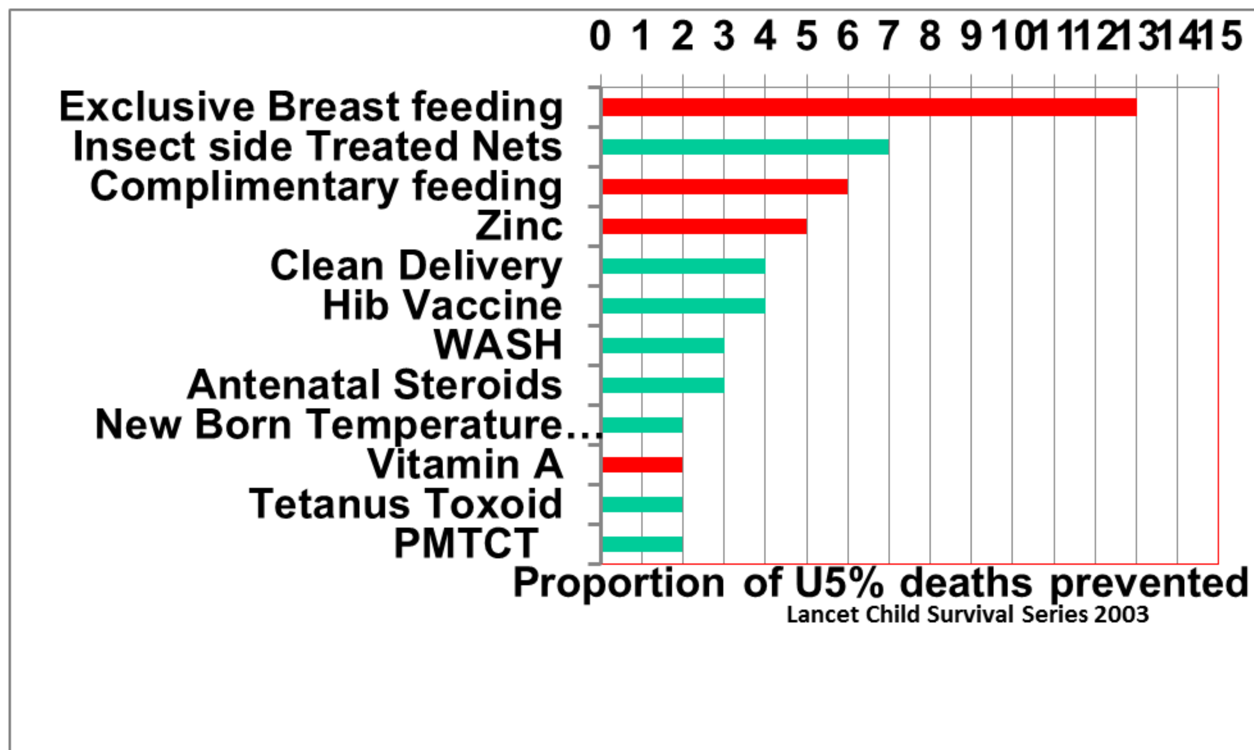
Safe – meaning that they are hygienically stored and prepared and fed with clean hands using clean utensils and not bottles and teats;

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.

1.3 Importance of IYCF practices "mother and country prospective":-

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 recover 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. 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. 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.

1.3.1 Importance of IYCF in child survival:-



Exclusive breastfeeding up to 6 months and starting complementary feeding after 6 months with continued breastfeeding up to 24 months can prevent Child Survival with the following facts:-

- The under-five mortality can be reduced by 13% with optimal breastfeeding and a further 6% with optimal complementary feeding (The 2003 landmark Lancet Child Survival Series).
- 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.
- 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 diarrhea.
- 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

All the above mentioned factors contributed on the achievement of all MDGs (Annex No.1) as well as for achieving (in the long run) contributing to the 10 out of 17 goals of the Sustainable Development Goals for 2030 as noted below:- (Annex No. 2)

Table (2): Contribution of IYCF to the achievement of Sustainable Development Goals- 2030

GOAL 1 End poverty in all its forms everywhere	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 End hunger, achieve food security and improved nutrition and promote sustainable agriculture	Breast milk is a low cost, high quality, readily available food for the infant and as such, breastfeeding significantly reduces early childhood feeding costs.
GOAL 3 Ensure healthy lives and promote well-being for all at all ages	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. Breastfeeding promotes return of the mother's body to pre-pregnancy status, including more rapid involution of the uterus and postpartum weight loss. (Obesity prevention).
GOAL 4 Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all	Breastfeeding and adequate complementary feeding contribute significantly to mental, physical and cognitive development and are prerequisites for readiness to learn
GOAL 5 Achieve gender equality and empower all women and girls	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.

<table>
<tr><td>GOAL 9 Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation</td><td rowspan="3">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.</td></tr>
<tr><td>GOAL 11 Make cities and human settlements inclusive, safe, resilient and sustainable</td></tr>
<tr><td>GOAL 12 Ensure sustainable consumption and production patterns</td></tr>
<tr><td>GOAL 15 Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss</td><td>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.</td></tr>
<tr><td>GOAL 17 Strengthen the means of implementation and revitalize the global partnership for sustainable development</td><td>The IYCF Strategy strength the use of traditional as well as other innovative entry points to expand to wider multi-sectorial collaboration for the promotion, protection and support of breastfeeding and complementary feeding interventions.</td></tr>
</table>

1.4 IYCF milestones, values and Principles :

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. The historical recognition of importance of IYCF on child survival started as follows:-

1981:- - Joint WHO/UNICEF Meeting on Infant and Young Child Feeding, Geneva.

- Adoption of the International Code of Marketing of Breast-Milk Substitutes were marketing, practices related, quality and availability, and information concerning the use of breast-milk substitutes, including infant formula, other milk products, foods and beverages, including bottle-fed complementary foods, when intended for use as a partial or total replacement of breast milk and finally feeding bottles and teats.

1989:- - Protecting, promoting and supporting breast-feeding.

- The special role of maternity services. A Joint WHO/UNICEF Statement.
- Convention on the Rights of the Child: The Convention on the Rights of the Child (Rome, 1992 - resolutionWHA46.7) 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.

1990:- - Innocenti Declaration on the Protection, Promotion and Support of Breastfeeding

- World Summit for Children: adopted a Declaration on the Survival, Protection and Development of Children and a Plan of Action for implementing the Declaration. The largest gathering of world leaders in history assembled at the United Nations to attend the World Summit for Children. Led by 71 heads of State and Government and 88 other senior officials, mostly at the ministerial level,

1991:- - Launching of Baby-friendly Hospital Initiative: Hospitals and maternity units set a powerful example for new mothers. BFHI is an effort by UNICEF and the World Health Organization to ensure that all maternities whether free standing or in a hospital, become centers of breastfeeding support.

2000:- WHO Expert Consultation on HIV and Infant Feeding

2001:- WHO Consultation on the optimal duration of exclusive breastfeeding

2002:- Endorsement of the Global Strategy for Infant and Young Child Feeding by the WHA as joint WHO and UNICEF statement; the aim was to improve – through optimal feeding – the nutritional status, growth and development, health, and thus the survival of infants and young children.

2005:- Innocenti Declaration 1990–2005 celebrates the Innocenti declaration on the Protection, Promotion and Support of Breastfeeding: Past Achievements, Present Challenges and Priority Actions for Infant and Young Child Feeding.

2006:- Revision of BFHI documents.

1.5 Goal:

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

1.6 Specific objectives:

- To create a supportive environment including political commitment, multi-sectorail coordination among government, international organizations and other concerned parties toward optimal feeding practices for infants and young children.
- To build capacity, increase knowledge and skills of health workers to provide pregnant women and lactating mothers with support to improve optimal IYCF practices as part of the basic health package.

- To equip communities, households with knowledge, capacity and skills to support pregnant women and lactating mothers to practice optimal IYCF practices among their communities and household.

The above IYCF strategic objectives are 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 and Objective 2: Strategy (2b) Improve infant and young child nutrition status."*

1.7 IYCF strategic targets for 2024:

The following targets are in line with the National Nutrition Strategy targets the baseline of each target will be detailed in section 6.1:-

1. Enact imaginative legislations protecting breast feeding as well as working women rights on breastfeeding and establish means for its enforcement.
2. Increase exclusive breastfeeding rates in the first 6 months up to at least 70%.
3. Increase introduction of good complementary food rates for children between 6 months and 24 months of age up to at least 70%.
4. 70% of health services facilities provide IYCF services.
5. 80% of pregnant women and lactating mothers participate in IYCF counselling forums.
6. 4% reduction of stunting among children under five years.
7. 20% reduction of low birth weight
8. Reducing and maintaining childhood wasting to less than 10%

1.8 Formulation of the Strategy:

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. In addition to results of several pieces of research, such as the KAP study from 2011 and Simple Spatial Survey method (S3M in 2013) have demonstrated to concerned parties the need for a concerted and comprehensive approach to IYCF in Sudan. Development of the strategy was planned for 2011 and 2012 and delayed awaiting for the national nutrition policy and strategy. The recent process was initiated in the second quarter of 2014 with a committee headed by the national nutrition program and members representing different UN partners supervised by MCH directorate. Several rounds of consultative meetings as well as individual meetings with key partners and the IYCF technical committee were held in Federal Ministry of Health departments; (Reproductive Health , Integrated Management of Child Illnesses, Health promotion, Food Quality and Control, Health Planning unit, HIV program etc.) with a wide variety of governmental institutes e.g. Sudanese Standards Metrology Organization, UN partners (WHO, UNICEF, WFP) together with individual bodies e.g. pediatricians and consultants.

The strategy takes into account the Global IYCF Strategy and also borrows from the IYCF strategies and action plans which have been adopted in other countries. Several drafts of the

strategy presented for the MCH directorate then after with policy and planning directorate, accordingly major changes taken into account.
The strategy as well take into account the needs of communities, the capacities of service providers as well as the considerable challenges that programming in Sudan entails. Partners have made stringent efforts to be realistic, needs-based, and to take into account best practices and known cost-effective interventions therefore the strategy calls for ten years accountability. Accordingly it is expected that the IYCF strategy and action plan will ensure a more strategic and collaborative approach to IYCF programming with the timeframe and through agreed evaluation milestones it will work towards achieving sustained behavioral changes this will improve under five nutrition status and reduce morbidity and mortality rates.

Section Two: Country Context

2.0 Sudanese Context:

Sudan's area covers over 1.8 million square kilometres of land, including desert, semi-arid, tropical and urban areas, with a population estimated at approximately 38,435,252 million people (Central Statistics Baeru, projection for 2015). Sudan is a country of farmers, agro-pastoralists and pastoralists, the majority of whom rely on rain for both cultivation and pasture / grazing. As part of the Sahel belt, Sudan suffers from years of recurring droughts and poor harvests. The rainfall in 2011 was sub optimal in terms of timing and quantity, resulting in a 50 per cent of average harvest at the end of 2011 (FAO, 2012). However, in 2012 the rains were very good, resulting in an above average harvest and improved food security in conflict-free parts of the country. There is on-going insecurity affecting some states, which negatively impacts livelihoods and coping strategies. In South Kordofan, Blue Nile and Darfur regions, improvements in food security are predicted to be minimal due to on-going conflict and displacement (Sudan Food Security Outlook, 2012).

The succession of South Sudan from the Republic of Sudan in 2011 resulted in a reduction of 30 per cent of the government budget due to the loss of oil revenue (World Bank, 2011). Instability of the economy has seen double digit inflation, affecting prices of all basic commodities and causing a devaluation of the currency. This means that more families are falling into poverty and have decreased peoples' purchasing power - which resulted in a decline in household food purchase. Currently Sudan comprises of 18 states each divided into localities, making up a total of 184 localities. Sudan with its multipart system is federated republic with powers devolved to state under federal system act 1999. Accordingly legislative and organizational arrangement may vary from state to state.

It is estimated that the overall coverage of basic health services to the population is between 45-60%. There are substantial inequalities, both geographic and socio-economic, in terms of access to health services. Coverage of services is biased to urban environments, leaving rural populations underserved and with existing services skewed towards hospital and tertiary services, as opposed to preventive public health services.

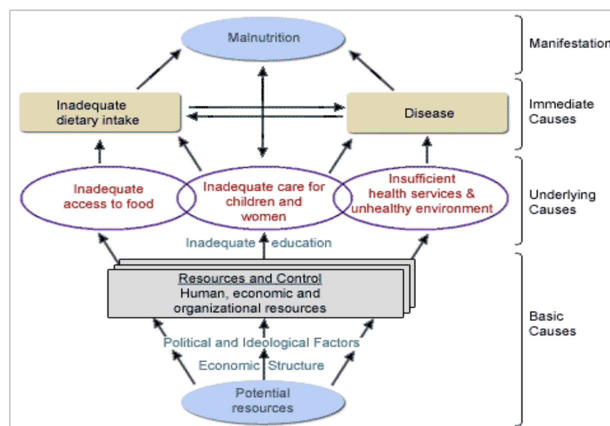
2.1 Impact of current Sudanese context:-

The above factors directly or indirectly undermine the population's well-being and their resilience to shock due to serious nutrition situation exists in Sudan. The country indicators show nutrition poor situation; the under-five mortality in Sudan stand at 78/1000 (2010 SHHS) while the maternal mortality rates are at 216/1000 and there is poor antenatal care practice. Only less than 30% of Sudan population use sanitation facilities while only 60.5% are drinking appropriately treated water. This increases the risk for diarrhoea. The measles vaccination coverage was about two third of the target group and 39% of the children had received the full immunization doses as per the 2010 SHHS. Given that malnutrition is estimated to underpin a third of all the under-five mortality (Lancet, 2008), the risk for high child mortality in Sudan

persists if the nutrition situation and the aggravating factors are not addressed (Sudan policy Brief, 2013).

Factors influencing nutrition status in Sudan have been identified by the UNICEF Conceptual Framework for Malnutrition. The framework identifies the various inter-related factors that determine the population's nutrition wellbeing to be broadly categorized as immediate, underlying and basic causes.

Figure (1): Conceptual framework of causes of malnutrition



2.2 Current nutrition situation in Sudan:-

Sudan has high level of acute and chronic malnutrition indicators. Acute malnutrition measured as global acute malnutrition GAM is 16.4%, which is above the international 'emergency' thresholds of 15%. Severe Acute Malnutrition (SAM) rates are also worryingly high at 5.3% which translates into half a million children suffering from SAM i.e. 1 in 20 Sudanese children are severely malnourished, with a greatly increased risk of death while close to 2 million children are stunted annually (SHHS, 2010). About 35% of children under-fives were moderately or severely stunted (too short for their age). The proportion of children who are stunted is higher in rural areas (38.7 %) than in urban areas (25.3 %). Some difference exists among boys (37.4%) and girls (32.6%). In this regard, stunting is currently the most challenging nutrition problem in Sudan. It has permanent negative effect that hampers child's growth, wellbeing and eventually nation productivity. Stunting and other forms of under nutrition reduce a child's chance of survival, while also hindering optimal health and growth (National Nutrition Strategy 2014 – Nutrition Policy Brief 2013). On the other hand the underling factors and indicators for child morbidity and mortality based on SHHS2010 were: - under five with diarrhea in the last two weeks preceding the survey 25%, use of oral rehydration solution 22%, use of Zinc for under five with diarrhea 0.7%, under-fives with suspected pneumonia in the last two weeks preceding the survey 18%, Knowledge of the two danger signs of pneumonia 4.5 % antibiotic treatment of suspected pneumonia 66.1%.

2.3 National Nutrition Program in Sudan:-

In Sudan; the National Nutrition directorate (NND) was launched in 1967 as a department at the Ministry of health. The mission and vision of the NDD was and still to "Maintain, Promote, nutrition status of Sudanese population with focus on vulnerable groups, contribute to reduction of overall morbidity, and mortality and contribute to overall country development" and "Commitment to promoting nutritional well-being for all our people becomes an integral part of all humanitarian and development policies, plans and programs in Sudan" respectively.

Currently the National Nutrition Program (NNP) is under the Primary Health Care General Directorate together with Integrated Management of Child Illness (IMCI), Reproductive Health (RH), Expanded Program of Immunization (EPI), Health Promotion (HP), Food Quality and Control etc. The NNP mandate is to address nutrition issues, through providing overall leadership to nutrition and nutrition related interventions (IYCF, Micronutrients, Community Management of Acute Malnutrition (CMAM), Nutrition Surveillance System and Growth Monitoring) that ensures the provision of high quality nutrition interventions, by defining technical standards for health and nutrition work, facilitating inter-sectoral coordination, as well as monitoring the overall quality of nutrition services.

The literature provided evidence based that improving the infants and young child feeding services will contributes to productivity, economic, growth and development, by improving physical work capacity, cognitive development, school performance, and health by reducing morbidity and mortality. In addition the latest National Nutrition Strategy endorsed in 2014 stated five strategic objectives; the third objective mainly states "To promote prevention of malnutrition through improving infant and young child feeding practices and services and increase micronutrient uptake" and consequently the need of infant and young child feeding strategy raised.

The global Strategy was based on the evidence of nutrition's significance in the early months and years of life, and of the crucial role that appropriate feeding practices play in achieving optimal health outcomes. Lacks of breastfeeding – and especially lack of exclusive breastfeeding during the first half-year of life – are important risk factors for infant and childhood morbidity and mortality that are only compounded by inappropriate complementary feeding. The life-long impact includes poor school performance, reduced productivity, and impaired intellectual and social development. This exercise provided an exceptional opportunity to re-examine critically, in the light of the latest scientific and epidemiological evidence, the fundamental factors affecting feeding practices for infants and young children. At the same time, it renewed commitment to continuing joint action consistent with the Baby-friendly Hospital Initiative, the International Code of Marketing of Breast-milk Substitutes, and the Innocenti Declaration on the Protection, Promotion and Support of Breastfeeding. All Governments including Sudan has agreed and ratified the recommendation of the declaration.

Section Three: Situation analvsis:

3.0 Situation of IYCF indicators:-

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. As mentioned in section one; the lack of breast feeding and optimal complimentary feeding contribute to the high rates of malnutrition in Sudan.

The latest national IYCF KAP survey in 2011 which covered four states, indicated that the main source of information for mothers on breastfeeding was midwives, doctors, health visitors and nutritionists i.e. the health care providers. Therefore, 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 the main findings of KAP survey were:-

- Beliefs and local traditions were major influencers for mothers to introduce water, foods or breast milk substitutes before 6 months of age.
- Aside from beliefs and traditions, Grandmothers were reported to be the major influencers for decisions on breastfeeding
- Other relatives were an important source of information for complementary feeding
- In general mothers support network for information on complementary feeding was poor, with almost a third of mothers relying on their own knowledge and only one in ten mothers getting information from health staff
- Health personnel, primarily midwives, were a major source of information for women regarding all aspects of breast feeding, and the preferred contact point for the majority of mothers was health centers.
- Significantly, family members are an important source of information for approximately 1 in 5 women regarding breast feeding, and for almost 1 in 3 women regarding complementary feeding therefore this reflects less clinic contact.
- The main reasons for discontinuing breast feeding were: A new pregnancy, lack of milk and sickness of either the mother or the baby.
- The main reason for non-exclusive breast feeding was giving water, and the main reason for giving water was the hot weather in Sudan.

3.1 National Program achievements in IYCF:

There are many policies and strategies that have been adopted or actions have been done to be adopted in Sudan to improve breast feeding and IYCF generally. The following are the most important:

1. The IYCF training, which targeting:
   - All health cadres in health facilities that provide maternity and child services (obstetric and gynecological consultants, registrar of midwives, sisters and obstetric and gynecological registrars, nutritional educators,…. ect)
   - University students of medical and health colleges
   - Community leaders and National NGOs members to support mothers.
2. National Code of marketing to ensuring appropriate marketing and distribution of breast-milk substitutes and to prohibit their promotion.
3. Develop and train mother support group to counsel lactating women.
4. Maternity protection: the government of Sudan took action for maternity protection in the workplace through the Maternity Leave Law of 2001.
5. Codex Alimentarius: Government of Sudan endorses Provisional Decree No. (13) for the year 1992 (the law of the Sudanese Standards and Metrology to ensure that processed infant and complementary foods are safe and nutritionally adequate, in accordance with the relevant Codex Alimentarius standards.
6. 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.
7. 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
8. Community-based support: The National Strategy calls for much greater attention to community-based support of IYCF in Sudan.
9. IYCF in exceptionally difficult circumstances: Develop capacity among the health system, community and family to provide adequate support to families and communities.

3.2 Situation of IYCF policies and legislations:-

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.

3.3 Situation of BFHI:-

As mentioned in section (1) 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" (Annex 3).

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.

Today in Sudan, after nearly two decades of work in support of optimal infant and young child feeding, government of Sudan, assessed hospitals and designated 30 facilities as “Baby-friendly.” 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. Government of Sudan had dedicated committees at national and state level to oversee and regulate infant feeding standards but the coordination and supporting environment is still lacking behind.

3.4 Situation of breast milk substitute:-

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.

However formula manufacturers have nonetheless advertised and marketed the breast milk substitutes which are an expensive, inferior and often dangerous substitute for breast milk. Regional research (including Sudan) has provided evidence that clearly shows breast-milk substitute marketing practices influence health workers’ and mothers’ behaviors 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. 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 and still anticipating the presidential signature.

3.5 Situation of maternity protection:-

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, 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 up to now 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.

3.6 Codex Alimentarius for complementary feeding:-

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. 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. 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.

In1992-01-01 Government of Sudan endorses Provisional Decree No. (13) for the year 1992 (the law of the Sudanese Standards and Metrology Organization -SSMO) 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 including infant children 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. Nevertheless; monitoring plan and nationalized/ adapted tools needed for effective quality of infant formula and complementary feedings.

3.7 Knowledge and skills of health providers and community-based support:-

Hospitals set a powerful example for mothers, and they all have an important role as centers of breastfeeding support. Several cadre trained on different IYCF packages such as nutritionists, doctors, nutrition educators, volunteers and other cadre (midwives, medical assistants, nurses, health promotors in the past years. Currently and based on the first quarter of 2015 the number of trained cadre on IYCF counselling integrated course and BFHI packages by the national nutrition program for all 18 states is not equivalent to the needs. Nevertheless, the number of cadre trained on IYCF during emergency package course is scattered mainly due to the fact that the implementation done by I/NGOs or other partners.

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. In Sudan 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.

3.8 Situation of 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. Currently in Sudan the situation worsens by the return of the returnees that recently accumulated in some borders states such as White Nile and the new conflict states such as Blue Nile, West and South Kordofan.

3.8.1 Situation of HIV/AIDS and IYCF:

The prevalence of HIV in Sudan is still low; HIV epidemic is a concentrated/ low level epidemic while the HIV prevalence among general population is 0.42% *(SNAP 2013 Estimates)*, and the opportunity exists to prevent the infection from expanding beyond the current low level. The overall objective of HIV and infant feeding actions is to improve child survival by promoting

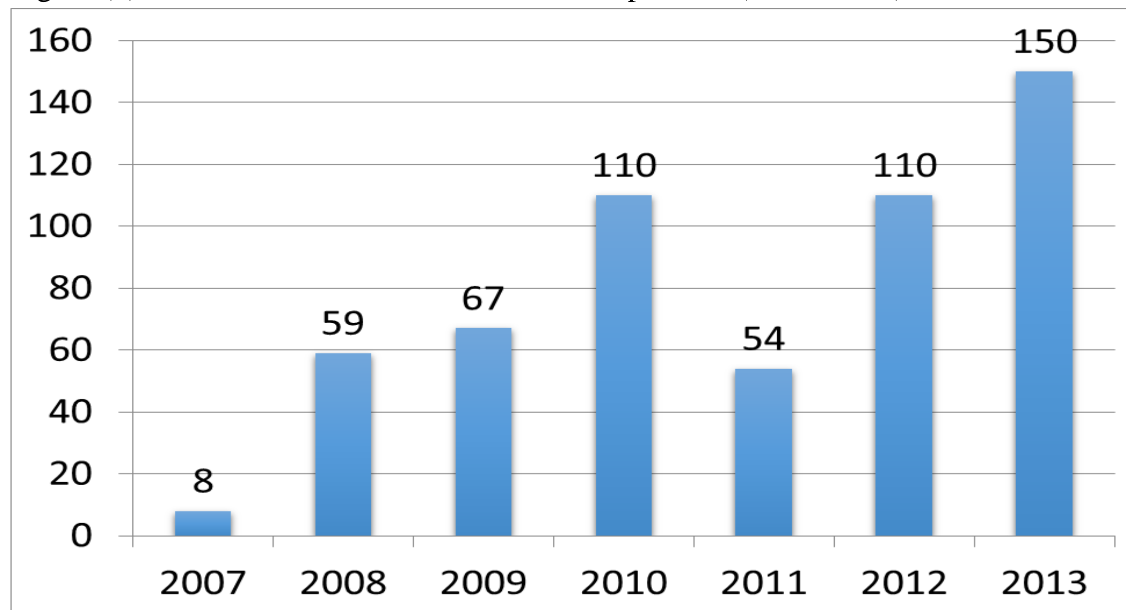
appropriate feeding practices, while working to minimize the risk of HIV transmission through breastfeeding.

Based on the informed choice policy of WHO, UNICEF, UNAIDS, and UNFPA on HIV and infant feeding (WHO, 2003); it is recommended that only when replacement feeding is Acceptable, Feasible, Affordable, Sustainable and Safe (AFASS), avoidance of all breastfeeding by HIV infected mothers is recommended. Otherwise, exclusive breastfeeding is recommended during the first six months of life and should then be discontinued as soon as it is feasible. Therefore recommending breast milk substitutes should never be done without careful consideration for this reason the AFASS conditions are expressed forthrightly.

For women who test negative for HIV, or who are untested, exclusive breastfeeding is the only recommended feeding option. While women at higher risk of HIV (Figure No. 2) and their husbands need access to VCT services those who test HIV positive and their husbands should receive counselling on several issues including family planning, their own nutritional requirements, the risk of HIV infection compared with the risks of not breastfeeding and how to determine which of available feeding options is AFASS. This guidance will allow the mothers, fathers and other caregivers to make an informed choice on the safest feeding option for their situation. Through this approach, will make it possible to achieve the ultimate goal of increasing overall child survival, while reducing HIV infection in infants and young children.

The evidence base for HIV and infant feeding is still growing and many questions will not be answered for months or years. As new information is released on HIV and infant feeding, the benefits and risks associated with the different feeding options will need to be re-assessed and clearly communicated to maintain policy consensus.

Figure (2): Number of women tested HIVAIDS positive (2007 -2013)



3.8.2 Situation of IYCF during 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.

3.8.3 Situation of IYCF and malnourished 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 reoccurrence 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 where 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.

3.9 Challenges in IYCF programming in Sudan:-

Inappropriate IYCF practices are among the most serious obstacles maintaining adequate nutritional status, and contribute to malnutrition in Sudan. Illnesses contribute to malnutrition as children need more nutritious food when they are sick but often eat less and absorb fewer nutrients. 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.

As noted above, IYCF practices in Sudan are significantly sub-optimal. However, almost every mother has the ability to breastfeed exclusively if she is given the time and support to do so. In 2011 KAP survey on beliefs, attitudes and the social and policy environment have highlighted at the beginning of this sections at household and community level. In addition at national level the following gaps identified:-

- Formal and informal employment situations are not conducive to practice optimal behaviours, often forcing mothers to be separated from infants and young children
- Health facilities and many NGOs do not have IYCF specific or IYCF sensitive policies
- No implementation of the Code for the Marketing of Breast milk Substitutes means that formula and other products are readily available and are distributed in emergencies.
- Lack of supportive partnerships and networks, especially community-based ones to support optimal practices.
- Limited supportive supervision of available service providers

3.10 Justification for the National IYCF Strategy:-

The presented situation analysis and IYCF challenges demonstrate the need to drastically and comprehensively scale up IYCF programming in order to support a reduction in neonatal and young child mortality as well as promote optimal infant and young child development. Many programs are now focusing on what has been termed “critical window of opportunity” which encompasses the gestation period up to 24 months of age. This time period represents a key time for prevention of growth faltering and to promote optimal brain development. This 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.

Section Four: IYCF strategies

Based on the literature provided in different sections along this document in addition to the IYCF situation analysis and 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 IYCF actions in 2015 and beyond; accordingly following strategies are proposed:-

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 for IYCF products
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

4.1 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 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 programs 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.

4.2 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: Enforcement of the national legislation on the marketing of BMS. As well as 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.

4.3 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 4-6 months.

The National Strategy calls for: Development and enforcement of national legislation on maternity protection 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.

4.4 Strategy 4: Codex Alimentarius for IYCF products:

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 the relevant to this strategy is 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. Nevertheless the strategy calls for:-

1. Improving the quality of complementary foods through locally available ingredients.

2. Measures to improve the availability and use of local foods through increasing agricultural production of high quality local foods (e.g. homestead production, animal husbandry, linking with agricultural extension).
3. Provision of nutrition supplements and foods for complementary feeding (MNPs, LNS, fortified complementary foods, etc.) in food-insecure populations and social & commercial marketing of nutrition supplements and foods for complementary feeding in general population.
4. Social protection schemes with nutrition component - complementary feeding. (e.g. in kind complementary foods, vouchers, cash transfers).

4.5 Strategy 5: Baby-Friendly Hospital Initiative

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

BFHI certification is conducted by the National Nutrition Directorate and directorate of reproductive health. Certification 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.

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.

4.6 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:

5. Development/updating of IYCF integrated curriculum for health provider pre-service and in-service education.
6. Establishment of IYCF counselling and other support services in health facilities at relevant MCH contacts in primary health care services.
7. Capacity development on IYCF and maternal nutrition during pregnancy and lactation for health providers and lactation counsellors.
8. Institutionalization of the Ten Steps to Successful Breastfeeding in all maternities (BFHI)

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. A detailed plan of action is needed for roll-out of in-service training at all appropriate levels.

4.7 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, fathers and other caregivers should have access to objective, consistent and complete information about appropriate feeding practices, free from commercial influence.

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 simple information 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.

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 through a) Establishment of community based integrated IYCF counselling services at community level and capacity development of community workers b) Creation of mother support groups for IYCF in the community. Behavior 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.

4.8 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.

4.8.1 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.

4.8.2 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.
In the event of an emergency, IYCF activities should be coordinated and monitored through the inter-agency coordination group responsible for nutrition in emergencies either by establishing a national IFE core group -Infant and young child Feeding in Emergency- (which is an interagency collaboration concerned with the protection, promotion and Support of the Optimal Infant and Young Child Feeding with Integrated Multi-Sectoral Interventions) or through the Nutrition Emergency Cluster.
Updated guidelines such as Operational Guidance on IYCF in Emergencies are needed to be trained on during emergency, followed by framework for actions in addition to 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 'National Preparedness Plan'. The National Preparedness Plan should be in line with the national IYCF strategy (e.g. Code monitoring is undertaken during emergencies) and to cover the preparedness, response and recovery activities of IYCF

4.8.3 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.

4.9 Advocacy and behavior change communication:

Infant and young child feeding requires both advocacy and behavior change. Advocacy is needed to keep infant and young child feeding high on the public health agenda and obtain proactive support for infant and young child feeding 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.

Due attention must be given to interpersonal communication, particularly behavior change counselling, to effectively changing infant and young child feeding practices. Every mother faces individual problems in feeding her infant and young child, and needs individually-tailored counselling and problem-solving to address these issues. Several evidence based research indicates that around two thirds of women in the first few days after delivery have some problems with breastfeeding that can be resolved with counselling from a woman experienced in breastfeeding and trained in counselling. Health service providers, community based workers or volunteer workers must be carefully selected for counselling services to ensure that they have the contact, experience, motivation and skills to counsel mothers. Accordingly this strategy call for Social and Behavior Change Communication (SBCC) strategy for IYCF; therefore the communication strategy much address not only the individual behavior change of the mother, but also the beliefs of those who influence her at all levels, particularly husbands, mothers-in-law and other family members, elders, and community members.

Section Five: Roles and Responsibilities

This section will illustrated the obligations and responsibilities for the stakeholders of IYCF services. Therefore it gives detailed roles and accountability of different partners (partners within the FMOH, other governmental bodies, UN, other international bodies, NGOs as well as the community level partners.

5.0 Governmental stakeholders:

The primary obligation of governments 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 government agencies, international organizations and other concerned parties. This implies continual collection and evaluation of relevant information on feeding policies and practices. State and local governments also have an important role to play in implementing this strategy.

A detailed action plan (section 6) should accompany the comprehensive strategy, 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.

Adequate resources – human, financial and organizational – will have to be identified and allocated to ensure the plan's timely successful implementation (e.g. MCH acceleration plan and strategic plan of action in section "7"). 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.

5.1 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. National and international groups (such as Women Unions, NCCW, UN agencies, INGOs, NGOs and CBOs) 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" 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.

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

5.2.1 Areas of collaboration IYCF and other nutrition units

Unit	Activities	Area of Collaboration
CMAM	Increased identification and referral of acute malnutrition	IYCF counselling and referrals
	Treatment of moderate acute malnutrition	Targeting mothers for IYCF counselling at SFC
	Outpatient treatment of Severe acute malnutrition	IYCF counselling at OTP
	In-patient treatment of Severe acute malnutrition	IYCF counselling at SC
Prevention of chronic malnutrition	Multi-sectoral planning for prevention of stunting	Inclusion of IYCF as priority area for prevention package at strategic level
	Advocacy for national policy and programs	Inclusion of IYCF as priority area for prevention package at strategic level
	Food fortification/home fortifications	Consideration of complementary feeding

	Social mobilization on good quality, nutritious food at community and household levels and other preventative nutrition messages.	IYCF to be as an integral part of any social mobilization activities
	Enable households to produce and access quality nutritious food	Consideration of complementary feeding
	Social safety nets	C-IYCF
M&E	Anthropometric and micronutrient assessments at national and state levels	KAP surveys on IYCF
	Nutrition surveillance including community nutrition surveillance and routine monitoring data bases	Routine F-IYCF and C-IYCF data management
	Emergency food security assessments	Emergency IYCF assessments
	Emergency nutrition rapid assessments	Emergency IYCF assessments

5.2.2 Areas of collaboration between IYCF sections within the FMOH

Ministry of Health	
Institution	Areas of collaboration
IMCI Directorate	• 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	• Vitamin A supplementation • Social mobilization • Research

	• Advocacy
Reproductive Health Directorate	• IYCF counseling and education at facility and community level • Ante-natal and post natal care (iron/foliate supplementation) • Postpartum vitamin A supplementation • BFHI
Curative Department	• Procurement of quality materials for prevention and treatment of acute malnutrition • Food quality monitoring systems
Communication Department	• Nutrition education • Social mobilization
Training Department	• Capacity development of staff pre-service and in-service
Sudan National AIDS Program	• IYCF support in the case of people living with HIV/AIDS specially (PMTCT). • Community IYCF education in the context of PMTCT
food control & lab testing	• Infant formula safety • Food quality monitoring systems
International Health	• Procurement of quality materials for prevention and treatment of acute malnutrition • Emergency nutrition response/preparedness • IYCF information systems for planning/M&E
General Planning	• IYCF strategy • Coordinating IYCF measures • Planning, monitoring & evaluation of IYCF activities

5.2.3Areas of collaboration between IYCF section and other ministries

Other ministries	
Institution	Areas of collaboration
Ministry of Social Welfare and Women and Children Affairs	• Maternity support • Income generation activities • Support nutrition programmes related to maternal & child nutrition
Ministry of Industry	• Code for the Marketing of Breast Milk Substitutes. • Fortified complementary and stable foods.

	• Food control and standard.
Ministry of Agriculture and Forestry	• Training of agricultural extension staff. • Research • Food production • Early warning system • Infant formula safety
Ministry of Justice	• Legislation for all fortified foods • Code for the Marketing of Breast Milk Substitutes
Ministry of Education	• Incorporation of IYCF education in curriculum for primary, secondary schools • Teacher training in IYCF
Ministry of Higher Education and Scientific Research	• 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	• Emergency nutrition response/preparedness • Nutrition information systems for planning/M&E
Ministry of Environment and Physical Development	• Food safety, e.g. genetically modified foods
HAC	• Nutrition information systems for planning/M&E • Coordination of the NGOs working in the area of nutrition (according to the National polices & guidelines)
SSMO	• Infant formula quality monitoring systems • Code for the Marketing of Breast Milk Substitute
Ministry of Finance	• Poverty reduction • Support IYCF activities
Ministry of trade	• Control of imported Infant formula,
Ministry of Information & Culture.	• IYCF awareness through mass media
Ministry of Labour	• Support maternity leave

5.2.3 Areas of collaboration between IYCF and International organizations

International organizations	
Institution	Areas of collaboration

WHO	• 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	• BFHI and health sector intervention beyond BFHI. • Community IYCF education • IYCF information systems for planning/M&E • Emergency nutrition response/preparedness and coordination • Capacity building at health facility and community level. • Research • Community based IYCF counselling. • Social and behavior change communication. • Salt Iodization. • Vitamin A supplementation.
WFP	• IYCF information systems for planning/M&E • Emergency nutrition response/preparedness • Food fortification • Micronutrient powders (MNP)
FAO	• Food based strategies to prevent malnutrition • Curriculum for IYCF • Research • IYCF information systems for planning/M&E • Food safety
NGOs	• Community IYCF education • Emergency nutrition response/preparedness • IYCF information systems for planning/M&E

5.3 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

5.3.1Areas of collaboration between MOH and community level actors

Institution	**Areas of collaboration**
Religious leaders	• Community nutrition education
Community leaders	• Community nutrition education • Improved access to services (including water, sanitation, shelter) • Emergency nutrition response/preparedness • Nutrition information systems for planning/M&E
Local administration	• Improved access to services (including water, sanitation, shelter) • Emergency nutrition response/preparedness • Nutrition information systems for planning/M&E

Section Six: Monitoring and Evaluation

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 the IYCF strategy is continuous and aims to provide the management and other IYCF field 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 IYCF objectives and targets. 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.

The below monitoring and evaluation component (1.1.2) 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. Research also can include the Monitoring Results for Equity System (MoRES) which was developed by UNICEF as a key approach intended to accelerate progress in reaching the most deprived children. In addition the analysis of MoRES will be undertaken at three levels: (1) the conceptual level; (2) the introduction and management of the approach; and (3) lessons learnt at the national level from the MoRES implementation experience.

1. Enact imaginative legislations protecting breast feeding as well as working women rights on breastfeeding and establish means for its enforcement.
2. Increase exclusive breastfeeding rates in the first 6 months up to at least 70%.
3. Increase timely introduction of good complementary food rates for children between 6 months and 24 months of age up to at least 70%.
4. 70% of health services facilities provide IYCF services within the integrated PHC services.
5. 80% of pregnant women and lactating mothers participate in IYCF counselling forums.

6.1 Monitoring and Evaluation frame work:-

S.N	Indicator	Definition	Measure		Data Source
			Baseline	Target	
1	Number of strategies, laws and articles supporting IYCF.	Number of developed policies, and laws out of the planed one	1	3	Nutrition program
2	% of increase in government budget for IYCF	Percentage of increase in government contribution to IYCF out of existing	To be calculated	N/A	MOF records, Health economics records
3	Number of sectors/partners engaged in nutrition prevention especially IYCF.	Number of sectors/partners join actively and regularly nutrition prevention out of the targeted ones	One technical working group	One national nutrition committee and 18 state committees	MOH and Sectors' records
4	Number of conducted IYCF related studies out of priority ones.	Number of implemented IYCF related studies out of the list of research priorities	2	N/A	
5	Progress in incorporation of IYCF indicators in the nutrition information system	Proxy qualitative indicator out of the progress in improvement of core information system functions	-	-	
6	Number of PHC facilities providing IYCF services	Number of PHC facilities providing IYCF services.	27%	70%	
7	Number of Hospitals certified as baby friendly hospitals.	Number of certified BFH s delivering services meeting the international standards of performance.			
9	% of mother start breast feeding in the 1st hour from delivery	% of mother breast fed in the 1st hour from delivery out of delivered mothers	71%	95%	Sudan household survey
10	% of women introduce good complementary food after 6 month	Infants age 6-8 months who received solid, semi-solid or soft foods during the previous day	51.1%	80%	

11	% of women exclusively breast feed up to 6 month	women exclusively breast feed up to 6 month	41%	80%	
12	% of women continue breast feeding up to 2 year	women continue breast feeding up to 2 year	40.1%	75%	
17	% of health facilities that provide IYCF as part of the complete nutrition services package	Number of health facilities that provide IYCF as part of the complete nutrition services package per state and national	MOH	100%	
18	% of health facilities that provide E-IYCF as part of the complete nutrition services package in emergency settings	Number of health facilities that provide E-IYCF as part of the complete nutrition services package in emergency settings	To be calculated	To agree upon it and matched with EHA plans	MOH/EHA records and state level reports.
19	% of health workers who are trained on IYCF including E-IYCF	Number of health workers who are trained on integrated package of on IYCF including E-IYCF out of targeted ones			
20	% of population covered by emergency IYCF services	Number of population covered by emergency IYCF services out of targeted ones			
21	% of state develop its annual plan according to National IYCF strategy	Number of state develop its annual plan according to National IYCF strategy out of the total	N/A	100%	nutrition program records at national and state level SHHS or S3M
22	% 0f villages covered with nutrition behavioral change practices	Number of villages covered with nutrition behavioral change practices activities out of targeted	NA	-	
25	% of villages who has adequate mother support groups	Number of villages who has adequate mother support groups	-	-	
26	No of sector/communities actively supporting nutrition sensitive	Number of sectors/partners put nutrition related activities in their annual	NA	-	Strategy review and evaluation

	interventions	plans/activities			

6.2 Strategic plan of action:-

Outcome 1.2	**A national article of marketing Breast Milk Substitutes is enacted into Sudanese 2010 child law in 2015**							
Expected results 1.2.1	*Strengthen the implementation, monitoring and enforcement of the Breast milk Substitutes (Regulation of Marketing) Ordinance and amendments.*							
	Activities	**Responsible**	**Implementation years**					**Budget in USD**
		MOH, Line ministries, UN agencies, trade unions, private sector, NGO (international & national), Professional associations, women, youth, religious groups	Y 2	Y 4	Y 6	Y 8	Y 10	
1.2.1.1	Advocate for the enactment of the national law of marketing BMS into a law through public mass media sensitization at all levels.		x					
1.2.1.2	Increased awareness and sustain advocacy of the National law of the BMS to senior health management, policy makers, health providers, and pharmacists, private sector, wholesalers/food manufacturers etc.		x					
1.2.1.3	TORs for the task force members identified and validated for implementation of the National law of Marketing of BMS.		x					
1.2.1.4	English and Arabic copies of the National law are available		x					
1.2.1.5	Dissemination of the National law officially to government ministries, health service providers and IYCF implementing partners at all levels, private sector and community based structures.			x				
1.2.1.6	Enhance sensitization of the health service providers and other stakeholders on their responsibilities under the National law during emergencies particularly.			x				
Total Budget								100,000

<table>
<tr><td>Outcome 1.3</td><td colspan="8">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).</td></tr>
<tr><td>Expected results 1.3.1</td><td colspan="8">A conducing environment for the protection of breastfeeding is created to support ALL women to breastfeed optimally.</td></tr>
<tr><td rowspan="2"></td><td rowspan="2">Activities</td><td>Responsible</td><td colspan="5">Implementation years</td><td rowspan="2">Budget in USD</td></tr>
<tr><td rowspan="4">MOH, Line ministries, UN agencies, trade unions, private sector, NGO (international & national), Professional associations, groups, Academic Institutions</td><td>Y 2</td><td>Y 4</td><td>Y 6</td><td>Y 8</td><td>Y 10</td></tr>
<tr><td>1.3.1.1</td><td>Advocate with employers/government to create better opportunities to breastfeed in the workplace.</td><td>x</td><td>x</td><td>x</td><td>x</td><td>x</td><td rowspan="3"></td></tr>
<tr><td>1.3.1.1</td><td>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.</td><td>x</td><td>x</td><td>x</td><td>x</td><td>x</td></tr>
<tr><td>1.3.1.1</td><td>Enhance implementation of the recommendations from the formative research in support of breastfeeding mothers in the informal sector.</td><td>x</td><td>x</td><td>x</td><td>x</td><td>x</td></tr>
<tr><td>Total Budget</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>700,000</td></tr>
</table>

Outcome 1.4	*Ensure that processed infant and complementary foods are safe and nutritionally adequate, in accordance with the relevant Codex Alimentarius standards.*							
Expected results 1.4.1	Processed infant and CF are safe, nutritionally adequate and appropriately labled in accordance with relevant Codex standards.							
	Activities	**Responsible**	**Implementation years**					**Budget in USD**
			Y 2	Y 4	Y 6	Y 8	Y 10	
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				
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			
Total Budget								200,000

Outcome 1.5	*Ensure that every health facility successfully and sustainably practices all the "Ten steps to successful breastfeeding"*							
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 years**					**Budget in USD**
		Gov. ministries: health, education,	Y 2	Y 4	Y 6	Y 8	Y 10	

1.5.1.1	Train all health cadre teams at National and regional levels on the BFHI.	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	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	X	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

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 years**	**Budget in USD**

		MOH, Line ministries, UN agencies, trade unions, private sector, NGO (international & national), Professional associations, women, youth& religious groups, Academic institutions	Y 2	Y 4	Y 6	Y 8	Y 10	
2.3.1.1	Develop an advocacy and communication strategy, based on the formative research, to support IYCF interventions		x	x				
2.3.1.2	Develop advocacy and communication materials for all audiences & stakeholders to support the strategy.		x	x				
Total Budget								200,000

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	**HIV and IYCF:** *Develop capacity among the health system, community and family to provide adequate support to HIV-positive*

results 3.1.1	*women to enable them to select the best feeding option for themselves and their infants, and to successfully carry out their infant feeding decisions.*							
	Activities	**Responsible**	**Implementation years**					**Budget in USD**
		MOH, Line ministries, UN agencies, trade unions, private sector, NGO (international & national), Professional associations, women, youth& religious groups, Academic institutions	Y 2	Y 4	Y 6	Y 8	Y 10	
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.		x		x		x	
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		x					
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.		x		x		x	
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: -** Develop capacity among the health system, community and family to ensure appropriate feeding and care for infants and young children in emergencies.			
	Activities	**Responsible**	**Implementation years**	**Budget in USD**

		MOH, Line ministries, UN agencies, trade unions, private sector, NGO (international & national), Professional associations, women, youth& religious groups, Academic institutions	Y 2	Y 4	Y 6	Y 8	Y 10	
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				x		x	
3.1.2.3	Disseminate all guidelines, and any revisions, to public, private and NGO health facilities and service providers.		x					
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.		x	x	x	x	x	
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	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.		x		x		x	
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.		x	x	x	x	X	
Total Budget								580,000
Expected results 3.1.3	**Malnutrition and IYCF:** Develop the capacity among the health system (both facility and community based), community and family to manage malnutrition, including severe wasting.							
	Activities	**Responsible**	**Implementation years**					**Budget in USD**
		MOH, Line ministries,	Y 2	Y 4	Y 6	Y 8	Y 10	

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.	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.			x		x		
3.1.3.3	Disseminate all guidelines, and any revisions, to public, private and NGO health facilities and service providers.		x		x			
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.		x	x				
3.1.3.5	Support local development of an age appropriate fortified supplementary food for children and for pregnant and breastfeeding women.		x	x	x	x	x	
Total Budget								500,000

Annexes

Annex (1)-Contribution of IYCF to the achievement of Millennium Development Goals:-

MDG	Contribution of IYCF
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. Breastfeeding promotes return of the mother's body to pre-pregnancy status, including more rapid involution of the uterus and postpartum weight loss. (Obesity prevention).
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 PTCT.
Goal 7: **Ensure environmental 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 strength the use of traditional as well as other innovative entry points to expand to wider multi-sectorial collaboration for the promotion, protection and support of breastfeeding and complementary feeding interventions.

Annex (2)-Sustainable development Goals 2030:-

GOAL 1	End poverty in all its forms everywhere	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	End hunger, achieve food security and improved nutrition and promote sustainable agriculture	Breast milk is a low cost, high quality, readily available food for the infant and as such, breastfeeding significantly reduces early childhood feeding costs.
GOAL 3	Ensure healthy lives and promote well-being for all at all ages	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. Breastfeeding promotes return of the mother's body to pre-pregnancy status, including more rapid involution of the uterus and postpartum weight loss. (Obesity prevention).
GOAL 4	Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all	Breastfeeding and adequate complementary feeding contribute significantly to mental, physical and cognitive development and are prerequisites for readiness to learn

GOAL 5	Achieve gender equality and empower all women and girls	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 6	Ensure availability and sustainable management of water and sanitation for all	
GOAL 7	Ensure access to affordable, reliable, sustainable and modern energy for all	
GOAL 8	Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all	
GOAL 9	Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation	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 10	Reduce inequality within and among countries	
GOAL 11	Make cities and human settlements inclusive, safe, resilient and sustainable	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 12	Ensure sustainable consumption and production patterns	
GOAL 13	Take urgent action to combat climate change and its impacts*	
GOAL 14	Conserve and sustainably use the oceans, seas and marine resources for sustainable development	
GOAL 15	Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss	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 16	Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels	
GOAL 17	Strengthen the means of implementation and revitalize the global	The IYCF Strategy strength the use of traditional as well as other innovative entry points to expand to wider multi-sectorial collaboration for the promotion, protection and support of

	partnership for sustainable development	breastfeeding and complementary feeding interventions.

Annex(3)-10 steps for 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 breast milk unless medically indicated.
7. Practice rooming-in - allow mothers and infants to remain together - 24 hours a day.
8. Encourage breastfeeding on demand.
9. Give no artificial teats or pacifiers (also called dummies or soothers) to breastfeeding infants.
10. Foster the establishment of breastfeeding support groups and refer mothers to them on discharge from the hospital or clinic.

References:-

1. Baby Friendly Hospital training package (WHO/UNICEF) 2009.
2. Central Statistics Baeru, projection for 2015
3. Child Survival- Lancet 2007
4. Global Infant and Young Child Feeding Strategy (WHO/UNICEF) 2002.
5. Global Health Nutrition Supporting Breastfeeding in Emergencies- World Vision 2012
6. Infant and Young Child Feeding program guide 2011
7. Infant and Young Child Feeding A tool for assessing national practices, policies and programs 2003
8. Intervention for maternal and child undernutrition and survival." *Lancet 2008*.
9. Infant Young Child Feeding Counselling: Integrated Course (WHO/UNICEF) 2006.
10. IYCF Strategy and Action Plan for South Central Somalia 2013-2017
11. Knowledge, Attitudes and Practices Survey 2011.
12. Mother and Child Health (MCH) Acceleration Plan -2014.
13. National Child Health Policy -2006.National Strategy for Infant and Young Child Feeding in Bangladesh 2007
14. National Communication Framework and Plan for Infant and Young Child Feeding in Bangladesh 2010
15. National Health Policy -2006.
16. National Nutrition Strategy-2014
17. National Policy on HIV/AIDS-2004.
18. Nutrition Policy Brief -2013
19. National Reproductive Health Policy-2006.
20. Protecting, promoting and supporting breast-feeding: the special role of maternity services- A Joint WHO/UNICEF Statement 1989
21. Practical Guide to Strategic Planning in Higher Education by Karen E. Hinton 2012
22. Rural Development, Food Security and Poverty Alleviation Act -2005.
23. Sudan Household Health Survey 2010
24. Simple Spatial Survey Methodology(S3M) 2013

25. The New Sudan Nutrition Policy and Plan of Action (2004-2010) -2004.
26. The 25 Years Strategic Plan for the Health Sector-2005.
27. 10 Year Strategic Plan for Human Resource.