

Programming Guide



Infant and Young Child Feeding



May 2011

Nutrition Section, Programmes, UNICEF New York

unite for children



Cover photos (clockwise from top left):

Zambia: © UNICEF/NYHQ2010-0847/Christine Nesbitt

Cuba: © Edin Pop

Laos: © UNICEF/LaoPDR00284/Jim Holmes

Bangladesh: © UNICEF/NYHQ2006-2693/Shehzad Noorani

Mali © UNICEF/NYHQ2009-1913/Giacomo Pirozzi

Sudan: © UNICEF/NYHQ2009-1476/Kate Holt

Turkey: © UNICEF/NYHQ2005-1222/Roger LeMoyné

© United Nations Children's Fund (UNICEF)
May 2011

Permission to reproduce or extract any part of this document is required.

This is a working document. Any comments or corrigenda to this version and requests to reproduce may be sent to: the IYCF Unit, Nutrition Section, UNICEF New York, at: iycn@unicef.org

Acknowledgements

This programming guide was prepared by Nune Mangasaryan, Senior Nutrition Advisor (Infant and Young Child Nutrition), Christiane Rudert, Nutrition Specialist (Infant Feeding) Mandana Arabi, Nutrition Specialist (Complementary Feeding) and David Clark, Nutrition Specialist (Legal), from the Infant and Young Child Feeding Unit, Nutrition Section, Programmes, UNICEF New York, with the support of Werner Schultink, Chief of Nutrition Section.

The inputs provided by the following people are acknowledged: Paula Claycomb, Communication for Development, France Begin, Regional Nutrition Advisor APSCC, Maaïke Arts, Nutrition Specialist in Mozambique, Anirban Chatterjee, former Nutrition Specialist HIV Care and Support UNICEF New York. Editing support was provided by Linda Sanei and Crystal Karakochuk, NETI Programme Nutrition Specialist.

As a working document, the *Programme Guidance* will periodically undergo revisions to improve its programmatic utility. Comments and suggestions are welcome from UNICEF staff and partners.

For questions arising from this document or general questions on IYCF programming, contact the IYCN Unit: iycn@unicef.org. For specific questions regarding breastfeeding programming and HIV and infant feeding please contact Christiane Rudert (crudert@unicef.org). For questions regarding complementary feeding programming, please contact Mandana Arabi (marabi@unicef.org). For questions regarding the Code and other legal aspects of IYCF programming, please contact David Clark (dclark@unicef.org). For questions on communication to promote behaviour and social change, please contact Paula Claycomb (pclaycomb@unicef.org). For general comments or questions on IYCF programming or any other topics not mentioned above, please contact Nune Mangasaryan, nmangasaryan@unicef.org.

This document can be downloaded from the UNICEF Intranet website.

Preamble

This *Programme Guidance* contains detailed programming information on IYCF, including breastfeeding, complementary feeding and infant feeding in general and in especially difficult circumstances including in the context of HIV and in emergencies. It also briefly addresses maternal nutrition. The “key action areas” for these components are detailed at the different levels, including national policy/strategy level, health services, and community. The document provides strategic programme recommendations for priority IYCF actions and their operationalization that will support achievement of MDGs 1 and 4, among others, as well as UNICEF *Medium Term Strategic Plan* (MTSP) Focus Area 1 on Young Child Survival, Growth and Development. The document emphasizes that breastfeeding and complementary feeding both play a significant role in the reduction of undernutrition (both stunting and wasting) which is a key strategic area of UNICEF’s equity focus. The document briefly summarizes UNICEF’s role in IYCF programming, but the document is not focused on UNICEF actions alone – it may be used by a broad range of partners involved in IYCF programming.

The *Programme Guidance* serves as a single reference on IYCF programming – updating existing guidance where necessary (e.g. HIV and infant feeding¹ and the Code²) and adding new or more detailed guidance where little existed previously (e.g. complementary feeding, community-based programming and communication). It draws upon and builds on existing tools such as the 2007 WHO/UNICEF *Planning Guide for National Implementation of the Global Strategy for IYCF*, with additional detailed and practical guidance on the “how” – the design and implementation of the recommended key IYCF action areas at scale in a comprehensive manner. For each component, the document describes the best practices, based on lessons learned, case studies, reviews and evidence of impact. It suggests options to implement proven effective interventions, such as institutionalizing the BFHI, building skills of community health workers to counsel and support mothers on IYCF and describing improved approaches to communication for behaviour and social change. The guidance highlights that communication alone is not sufficient for improving breastfeeding and complementary feeding practices, and needs to be complemented by counselling and support by skilled workers at community and health system levels.

The new guidance on complementary feeding programming includes the process and tools for assessment of various parameters to understand the local complementary feeding situation, a decision tree on selecting appropriate programmatic options depending on the local situation and the use of different types of products within complementary feeding programmes.

Annex 1: Resources, tools & useful websites contains a listing with active web links of major reference materials, tools and resources on IYCF to facilitate the planning and implementation process.

The Programming Guide aims to be comprehensive. However, users may elect to use only those chapters, resources and tools that provide the direction they are seeking on a specific topic. The potential for modular use of the guidance is the reason why there is a certain amount of repetition in the document.

This document may be used to help design and implement comprehensive IYCF programmes, but also to assess the extent to which existing programmes are congruent with the recommended key action areas. The associated *IYCF Assessment Matrix* (Resources Annex 1-1) is to be used to provide a detailed overview of the scope and scale of all of the action areas in each country. This overview will serve as a baseline, and after a certain number of years the matrix can be updated to assess the progress in each country with the various programme components.

Finally, UNICEF has also recently developed a number of new tools for IYCF: a complete generic *training package and planning/adaptation guide for community based IYCF counselling*; a set of *training slides and resource module on communication on exclusive breastfeeding* (currently being conveyed through webinars but can be used in the field too) and an *e-learning course* for programme managers and technical staff on IYCF, currently under development in collaboration with Cornell University. A *slide set* on the programme guidance can be used to promote and advocate for increased attention to IYCF or to orient stakeholders on the key IYCF action areas.

¹ UNICEF, CF/PD/PRO/2002-03: Infant Feeding and Mother to Child Transmission of HIV

² UNICEF, CF/PD/PRO/2000-03: Implementation of the International Code of Marketing of Breast Milk Substitutes

Table of Contents

ACKNOWLEDGEMENTS.....	III
PREAMBLE.....	IV
LIST OF ABBREVIATIONS.....	VII
EXECUTIVE SUMMARY: KEY POINTS	1
1. BACKGROUND.....	2
1.1 INTRODUCTION	2
1.2 IYCF AND ITS ROLE IN CHILD SURVIVAL, GROWTH AND DEVELOPMENT.....	3
1.3 SUMMARY OF GLOBAL SITUATION.....	10
1.4 THE POLICY BASES FOR IYCF	14
1.5 SUMMARY OF THE EVIDENCE ON EFFECTIVE OF INTERVENTIONS	15
2. NATIONAL LEVEL STRATEGIC PLANNING FOR IYCF	17
2.1. ADVOCACY, PARTNERSHIPS AND COORDINATION	18
2.1.1 <i>Advocacy and partnerships</i>	18
2.1.2 <i>Coordination</i>	19
2.2. SITUATION ASSESSMENT.....	21
2.2.1 <i>Completing assessment matrix</i>	21
2.2.2 <i>Obtaining baseline of practices using the updated IYCF indicators</i>	22
2.2.3 <i>Reviewing the area graphs for the country</i>	24
2.2.4 <i>Collecting additional quantitative & qualitative data</i>	25
2.3 DEVELOPING NATIONAL IYCF POLICY.....	27
2.3.1 <i>National IYCF Policy</i>	27
2.3.2 <i>Policies for strengthening IYCF within health systems</i>	28
2.3.3 <i>Policies to strengthen IYCF within community-based services</i>	29
2.4 DEVELOPING A COMPREHENSIVE IYCF STRATEGY & PRIORITIZING INTERVENTIONS	30
2.4.1 <i>Goals, objectives and targets of the national IYCF strategy</i>	31
2.4.2 <i>Costing of the strategy</i>	32
2.4.3 <i>Key components and interventions of IYCF strategy</i>	32
Strategy component: Legislation.....	33
Strategy component: Interventions in the health system.....	35
Strategy component: Community based IYCF interventions	37
Strategy component: Communication for behaviour and social change	38
Strategy component: Additional complementary feeding interventions/components	39
Strategy component: IYCF in exceptionally difficult circumstances.....	43
2.4.4 <i>Prioritizing interventions</i>	45
Prioritizing interventions to protect, promote, and support breastfeeding	45
Prioritizing and selecting interventions to improve complementary feeding: Decision Tree.....	46
2.5 USING ADDITIONAL OPPORTUNITIES FOR INTEGRATION OF IYCF.....	51
2.6 DEVELOPING NATIONAL & SUB-NATIONAL IYCF PLANS OF ACTION AND MOBILIZING RESOURCES	53
2.6.1 <i>Developing national & sub-national plans</i>	53
2.6.2 <i>Mobilizing resources and partners</i>	56
2.7 IMPLEMENTING, MONITORING, REVIEWING AND EVALUATING	57
3. ACTION AREAS FOR IYCF IMPLEMENTATION	63
3.1 REGULATORY ACTIONS	63
3.1.1 <i>Implementation of national legislation on marketing of BMS (Code)</i>	63
3.1.2 <i>Implementation of maternity protection and workplace BF policies</i>	64
3.2. HEALTH SERVICE LEVEL ACTIONS	65
3.2.1 <i>IYCF counselling and support skills in pre-service and in-service training curricula</i>	65
3.2.2 <i>Capacity building of health providers in IYCF counselling</i>	66
3.2.3 <i>Infant feeding counselling and support in health services</i>	68
3.2.4 <i>Institutionalization of the 10 Steps to Successful Breastfeeding</i>	71
3.2.5 <i>Group education & communication in the health services</i>	73

3.2.6 Strengthening complementary feeding: supplementation in the health system	74
3.2.7 Counselling and support in the health system on maternal nutrition during pregnancy and lactation	75
3.3 COMMUNITY LEVEL ACTIONS.....	76
3.3.1 Assessment, design & planning of community-based IYCF	77
3.3.2 Building capacity for and implementing community IYCF counselling.....	82
3.3.3 Mother-to-mother support.....	85
3.3.4 Supportive supervision, monitoring and evaluation.....	88
3.4 COMMUNICATION	90
3.4.1 Establishment of national communication coordination mechanism.....	91
3.4.2 Undertaking a communication situation assessment and analysis	91
3.4.3 Development of a communication strategy and operational plan	94
3.4.4. Design of messages and materials and selection of channels	99
3.4.5 Implementation of the communication strategy	102
3.4.6 Monitoring and evaluation of the effect of communication on behaviour	103
3.5 IYCF IN EXCEPTIONALLY DIFFICULT CIRCUMSTANCES	107
3.5.1 HIV AND INFANT FEEDING.....	107
3.5.1.1 Summary of updated evidence and recommendations and implications	107
3.5.1.2 Development of guidelines on HIV and infant feeding.....	111
3.5.1.3 Specific programming issues related to HIV and infant feeding	112
3.5.2 INFANT AND YOUNG CHILD FEEDING IN EMERGENCIES.....	118
3.5.2.1 Importance of optimal IYCF in emergencies.....	118
3.5.2.2 Priority actions.....	120
ANNEX 1: RESOURCES, TOOLS & USEFUL WEBSITES.....	126
Resources Annex 1-1: Policy & Planning.....	126
Resources Annex 1-2: Technical	127
Resources Annex 1-3: Tools for formative research & other situation assessment tools.....	128
Resources Annex 1-4: Monitoring and evaluation	130
Resources Annex 1-5: Code.....	130
Resources Annex 1-6: Maternity Protection.....	131
Resources Annex 1-7: Health service IYCF actions.....	131
Resources Annex 1-8: Community based IYCF.....	133
Resources Annex 1-9: Communication	134
Resources Annex 1-10: HIV and Infant Feeding.....	135
Resources Annex 1-11: IYCF in emergencies.....	135
Resources Annex 1-12: Useful websites	137
ANNEX 2. SAMPLE MONITORING SHEET FOR IYCF COUNSELLING	140
ANNEX 3: SAMPLE PLANNING MATRIX FOR COMMUNICATION STRATEGY	141
ANNEX 3: GLOSSARY	147
REFERENCES	154

List of Abbreviations

ACSD	accelerated child survival and development
AED	Academy for Educational Development
AFASS	affordable, feasible, acceptable, sustainable and safe
AIDS	acquired immune deficiency syndrome
ANC	ante-natal care
APSCC	Asia–Pacific Support Service Centre (UNICEF combined regional support office for East Asia/Pacific and South Asia)
ART	anti-retroviral therapy
ARVs	anti-retrovirals
ASF	animal source food
BCC	behaviour change communication
BFC	baby-friendly community
BFHI	Baby-Friendly Hospital Initiative
BMS	breastmilk substitutes
CAR	Central African Republic
C4D	communication for development
CBO	community-based organization
CCM	community case management
CEE/CIS	Central and Eastern Europe/Commonwealth of Independent States (UNICEF region)
CF	complementary feeding
CHW	community health worker
CMAM	community-based management of acute malnutrition
Code	International Code of Marketing of Breastmilk Substitutes and subsequent relevant World Health Assembly Resolutions
CSB	corn soy blend
CSGD	child survival, growth and development
CW	community worker
DALY	disability adjusted life years
DHS	Demographic and Health Survey
EBF	exclusive breastfeeding
EFNEP	Expanded Food and Nutrition Education Program
EID	early infant diagnosis (of HIV)
ENA	essential nutrition actions
ENN	Emergency Nutrition Network
EPI	expanded programme on immunization
FAO	Food and Agriculture Organization
FBFs	fortified blended foods
HFP	homestead food production
HIV	human immunodeficiency virus
HMIS	health management information system
HSS	health systems strengthening
HW	health worker
GAIN	Global Alliance for Improved Nutrition
GMP	growth monitoring and promotion
GSYCF	Global Strategy for Infant and Young Child Feeding
IATT	Inter-Agency Task Team
IBFAN	International Baby Food Action Network
ICDC	International Code Documentation Centre
IEC	information, education and communication
IFA	iron and folic acid
IFE	infant feeding in emergencies

ILO	International Labour Organization
IMCI	integrated management of childhood illness
IYCF	infant and young child feeding
IYCN	infant and young child nutrition
KAP	knowledge, attitudes and practices
LAM	lactation amenorrhoea method
LBW	low birth weight
LNS	lipid nutrient supplements
LQAS	lot quality assurance system
LSHTM	London School of Hygiene and Tropical Medicine
MAM	moderate acute malnutrition
MBB	Marginal Budgeting for Bottlenecks
MICS	multiple indicator cluster survey
MDGs	Millennium Development Goals
M&E	monitoring and evaluation
MMR	maternal mortality ratio
MNs	micronutrients
MTCT	mother to child transmission of HIV
MTSP	medium term strategic plan
MUAC	mid-upper arm circumference
OR	operations research
ORS	oral rehydration solution
OVC	orphaned and vulnerable children
NETI	New and Emerging Talent Initiative (UNICEF)
PAHO	Pan American Health Organization
PLWH	people living with HIV
PMTCT	prevention of mother to child transmission
PRSP	poverty reduction strategy paper
RED	Reaching Every District
QA	quality assurance
RUF	ready to use foods
RUIF	ready to use infant formula
SAM	severe acute malnutrition
SBA	skilled birth attendant
SF	supplementary feeding
SIDS	sudden infant death syndrome
SMART	specific, measureable, achievable, realistic, time-bound (re. objectives)
SOWC	State of the World's Children
SQUEAC	Semi- Quantitative Evaluation of Access and Coverage
SWAp	sector-wide approach to planning or programming
TBA	traditional birth attendant
TIPS	trials of improved practices
UNFPA	United Nations Population Fund
UNICEF	United Nations Children's Fund
U5MR	under-five mortality rate
WFP	World Food Programme
WHA	World Health Assembly
WHO	World Health Organization

EXECUTIVE SUMMARY: KEY POINTS

Strategies to improve Infant and Young Child Feeding (IYCF) are a key component of the child survival and development programs of many nations, supported by UNICEF and WHO. The scientific rationale for this decision is clear, with steadily growing evidence underscoring the essential role breastfeeding and complementary feeding as major factors in child survival, growth and development. The importance of breastfeeding as the preventive intervention with potentially the single largest impact on reducing child mortality has been highlighted. In addition, of the available nutrition interventions, improvement of complementary feeding have been shown to be most effective to improve child growth, and thereby, together with maternal nutrition interventions, to contribute to reducing stunting.

A number of recent programmatic reviews have highlighted factors for success and important lessons learned in large-scale programmes. A total of 20 countries worldwide have recorded gains of more than 20 percentage points in rates of exclusive breastfeeding of infants at 0-6- months of age in a period of approximately ten years. Factors for success, in general, are the large-scale implementation of comprehensive, multi-level programmes to protect, promote, and support breastfeeding, with strong Government leadership and broad partnerships. Despite the achievements, there is still significant room for improvement and acceleration in programming to improve infant and young child nutrition. This includes both increasing and sustaining good breastfeeding practices as well as interventions to improve complementary feeding.

A comprehensive approach to IYCF involves large-scale action at national level, health system and community levels, including various cross-cutting strategies such as communication and context-specific actions on infant feeding in the context of emergencies and HIV. National-level actions include advocacy to generate increased commitment to IYCF and the development of policies, legislation, strategies and plans to implement the main operational targets of the WHO-UNICEF Global Strategy for Infant and Young Child Feeding (GSIYCF) [1]. The planning process includes conducting a detailed situation assessment, with emphasis on formative research on areas where information is often limited, like complementary feeding practices and the diets of children aged 6-23 months, as well as knowledge, attitudes, practices and social norms related to infant and young child feeding. Also highlighted is the process of selecting, prioritizing and designing context-specific interventions to improve breastfeeding and complementary feeding practices, for which various criteria must be considered.

Building capacities and conducting supportive supervision for health workers and community workers to implement integrated infant and young child feeding counselling and support (addressing both breastfeeding and complementary feeding) at key maternal and child health contacts is a must in all settings. Further, actions include ensuring adequate IYCF content in the national pre- and in-service curricula for various cadres of health providers, as well as improving breastfeeding practices in maternity facilities through institutionalization of the 10 Steps to Successful Breastfeeding or the Baby Friendly Hospital Initiative (BFHI). Mother to mother support groups in the community are another possible component, and finally, actions involve effective and targeted communication strategies to promote recommended infant/child feeding practices, using multiple channels and messages tailored to the local context and the specific barriers. Crucial to all these actions is focused monitoring and evaluation, with effective use of the data generated.

For complementary feeding, education and counselling on improved use of locally available foods is the cornerstone of interventions in all contexts. Where the main nutritional problems are micronutrient deficiencies and locally available foods cannot provide sufficient micronutrients (which is most often the case for iron), supplementation with multiple micronutrients may be recommended in addition to optimizing use of locally available foods. In food-insecure populations with significant nutrient deficiencies and where locally available foods are inadequate in macro- and micronutrients, additional components such as fortified complementary foods and/or lipid-based nutrient supplements may be needed to fill nutrient gaps.

1. BACKGROUND

1.1 Introduction

Optimal Infant and Young Child Feeding (IYCF) is presented in the *WHO/UNICEF Global Strategy for Infant and Young Child Feeding (2003)* ([Resources Annex 1-1](#)) as follows:

*As a global public health recommendation, infants should be **exclusively breastfed for the first six months of life** to achieve optimal growth, development and health. Thereafter, to meet their evolving nutritional needs, infants should receive **safe and nutritionally adequate complementary foods** while **breastfeeding continues for up to two years of age or beyond**. Exclusive breastfeeding from birth is possible except for a few rare medical conditions as specified by WHO and UNICEF [2], and virtually every mother can breastfeed.*

In addition, a growing body of recent evidence underscores the important global recommendation that breastfeeding be **initiated within the first hour of birth**.¹

IYCF actions are often implemented as part of the priority child survival and development programs of UNICEF and WHO, as well as the plans of many nations. The scientific rationale for this decision is clear, with several decades of scientific documentation on this topic including the several Lancet Series on Child Survival 2003 [3], Nutrition 2008 [4], Newborn Health 2005 [5], Childhood Development 2007 [6] reconfirming the essential role of infant and young child feeding as major factor in child survival, growth and development.

Important new information is now available on what works to improve infant and young child feeding. Results from efficacy and effectiveness trials have demonstrated the effects of community-based approaches to improve breastfeeding and complementary feeding practices. New food technologies to improve the diet of children 6-23 months of age have been developed and tested.

Policy and strategy documents produced by WHO and UNICEF over the last 25 years provide a sound basis for action. This has resulted in the prioritization of IYCF in programmes in many countries, leading to improvements in breastfeeding practices in those countries today compared to the late 1980s and early 1990s, as well as achievements in reducing stunting in countries that moved towards more comprehensive approaches to IYCF. Despite the achievements, there is still significant room for improvement in programming to improve infant and young child feeding practices. This includes both increasing and sustaining good breastfeeding practices as well as interventions to improve complementary feeding.

Why, then, the concern now? With competing priorities, disease-specific interventions, and an interest in technologies, campaigns and products, the health and nutrition impact provided by good infant and young child feeding is often underestimated. Interventions to improve infant and young child feeding need increased attention and commitment if sustainable achievements in child survival, growth and development are to be attained. Successful IYCF interventions rely on behaviour and social change implemented at scale, which can only be reached through political commitment, adequate resource allocation, capacity development and effective communication. Current investments in nutrition in general and IYCF in particular, are very small given the magnitude of the problem and the potential impact.

This document summarizes the current understanding of optimal infant and young child feeding and presents the scientific rationale (see Resources Annex 1-1) and policy and strategy bases. The recommendations for national strategies and actions are based on evidence of efficacy and effectiveness, country experiences and lessons learned. The conclusion is clear: success in increasing optimal infant and young child feeding practices is based on commitment for implementing comprehensive, evidence based, at scale programming tailored to the local context.

¹ The recommendation on early initiation was not mentioned in the GSIYCF, but is supported by evidence, is one of the Ten Steps to Successful Breastfeeding and is one of the core indicators for infant and young child feeding (2008 edition)

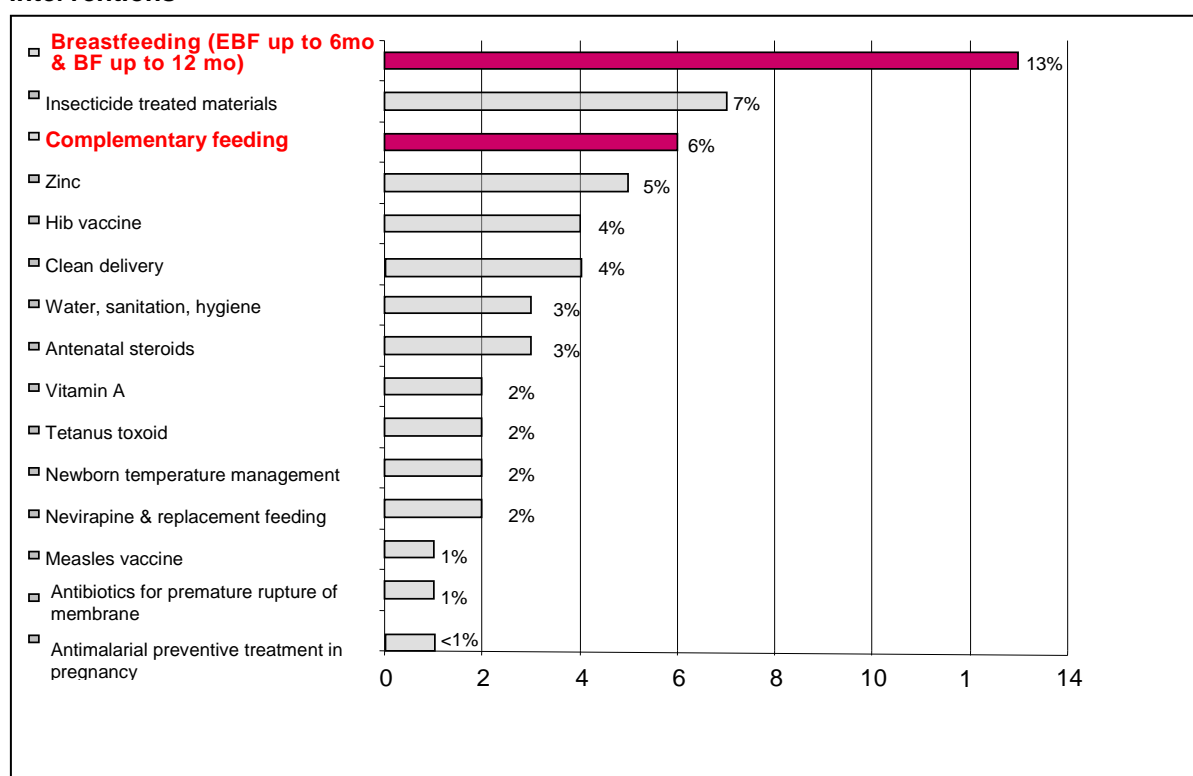
1.2 IYCF and its role in Child Survival, Growth and Development

IYCF and child survival

Of all proven preventive health and nutrition interventions, IYCF has the single greatest potential impact on child survival. Therefore, reduction of child mortality can be reached only when nutrition in early childhood and IYCF specifically are highly prioritized in national policies and strategies.

The 2003 landmark Lancet Child Survival Series [3] 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 number three. These two interventions alone were estimated to prevent almost one-fifth of under-five mortality in developing countries (Figure 1).

Figure 1: Per cent of child deaths that could be prevented with 99% coverage of preventive interventions



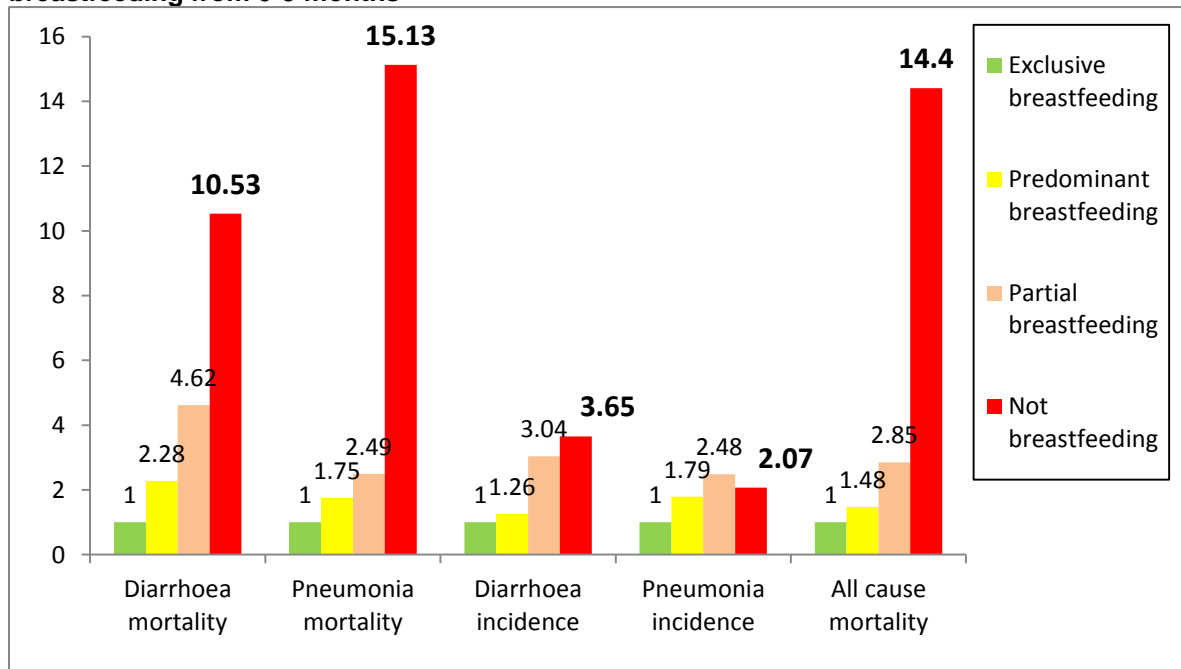
Source: Lancet Child Survival Series 2003 [2]

The 2008 Lancet *Nutrition Series* [4] also reinforced the significance of optimal IYCF on child survival. Optimal IYCF, especially exclusive breastfeeding, was estimated to prevent potentially 1.4 million deaths every year among children under five (out of the approximately 10 million annual deaths). According to the *Nutrition Series*, over one third of under-five mortality is caused by undernutrition, in which poor breastfeeding practices and inadequate complementary feeding play a major role. (See [Resources Annex 1-1](#) for a references and resources supporting the evidence for IYCF's impact on reducing under-five mortality).

Growing evidence points to the impact of **early initiation of breastfeeding** on neonatal mortality. A 2006 study in rural Ghana [7] showed that early initiation within the first hours of birth could prevent 22% of neonatal deaths, and initiation within the first day, 16% of deaths, while a study in Nepal [8] found that approximately 19.1% and 7.7% of all neo-natal deaths could be avoided with universal initiation of breastfeeding within the first hour and first day of life respectively.

Breastfeeding, especially **six months of exclusive breastfeeding**, has a significant effect in the reduction of mortality from the two biggest contributors to infant deaths: diarrhoea and pneumonia (Figure 2), as well as on all-cause mortality [4].

Figure 2: Relative risk of not breastfeeding for infections and mortality compared to exclusive breastfeeding from 0-5 months



Source: Lancet 2008 [3].

In addition, evidence for the specific survival benefits of **continued breastfeeding** from 6 to 23 months points to continued protection against illness such as diarrhea and respiratory infection, with similar levels observed for both [9].

Box 1 summarizes all the main evidence-based benefits for survival and health of the infant¹. The long-term benefits are summarized in a later section of the document.

¹ A review of the benefits of breastfeeding is contained "Quantifying the benefits of breastfeeding" Leon-Cava et al 2002 (see Resources Annex 1-1), although more recent studies are not included.

Box 1: Summary of the scientific rationale of the benefits of breastfeeding

Breastmilk cannot be duplicated by any artificial means [10]. Unique in its composition and function, breastmilk:

- Contains an ideal balance of nutrients that the infant can easily digest, along with digestive enzymes.
- Changes over time, and even over the course of a day, to meet the changing needs of the growing child [11].
- Contains substances essential for optimal development of the infant's brain, with effects on both cognitive and visual function [12].
- Supplies growth factors that combine to mature the infant gut [13].
- Provides the infant with immune factors manufactured to fight illnesses specific to the mother's and infant's environment [14].
- Contains components which are being discovered regularly, such as oligosaccharides (sugars) in which normal intestinal microflora thrive, coating the lining of the baby's digestive system and protecting it [15].
- Is especially beneficial for the preterm infant [16], [17]; preterm human milk contains higher concentrations of immunoglobulins, other anti-infective factors such as lysozyme, lactoferrin and interferon, and more anti-inflammatory and immunomodulating components [18], thus providing some protection from infection to these vulnerable infants. Both fresh and pasteurized human milk help lower rates of infections [19].

Studies consistently demonstrate that public health interventions for improved breastfeeding are essential for child survival [20]:

- A 2006 study in rural Ghana [21] showed that early initiation within the first hours of birth could prevent 22% of neonatal deaths, and initiation within the first day, 16% of deaths, while a study in Nepal [22] found that approximately 19.1% and 7.7% of all neo-natal deaths could be avoided with universal initiation of breastfeeding within the first hour and first day of life respectively
- A study in India showed that neonatal and postneonatal deaths were around 5-6 times lower in infants fed colostrum than among those not fed colostrum [23].
- Exclusive breastfeeding up to six months of age and breastfeeding up to 12 months has the single largest potential impact on reducing child mortality according to the Lancet Child Survival Series [3], while complementary feeding starting at six months along with continued breastfeeding were ranked # 3. These two interventions alone were estimated to prevent almost one-fifth of under-five mortality in developing countries. The 2008 Lancet *Nutrition Series* [4] also reinforced the significance of optimal IYCF on child survival
- The biggest impact is seen in terms of reduction of morbidity and mortality from diarrhea [24], [25] and pneumonia [26], [27]. Breastfeeding has a protective effect on *Haemophilus B*, one of the causative agents of respiratory infections [28], [29].
- Breastmilk-fed infants have a reduced incidence of necrotizing enterocolitis, [30] urinary tract infections [31], sepsis [32] asthma [33] and meningitis [34].
- Non-breastfed children have a 250% higher risk of being hospitalized for pneumonia or asthma [12].
- Breastmilk provides protection against ear infections [35]. Non-breastfed children have a 60% higher risk of recurrent ear infections [36].
- Breastfed children have a lower risk of the two most common inflammatory bowel diseases (Crohn's disease, ulcerative colitis [37], as well as coeliac disease [38])
- Breastfeeding facilitates proper jaw and dental [39] and speech [40] development and breastfed children have been shown to have less tooth decay [41].
- Benefits of continued breastfeeding from 12-23 months include continued protection from infection, especially diarrhea and respiratory infection [42].
- Breastfeeding helps prevent growth faltering and stunting, particularly as it reduces the risk of illnesses [43], [44], [45], [46].
- Exclusive breastfeeding at 0-6 months has additional benefits, and is associated with decreased morbidity: Infectious illness is reduced by exclusive breastfeeding, beyond the impact of breastfeeding alone [9].
- Exclusively breastfed infants are 3-4 times less likely to acquire HIV infection through breastmilk of an HIV-positive mother than mixed-fed HIV-exposed infants in the first 6 months [47].

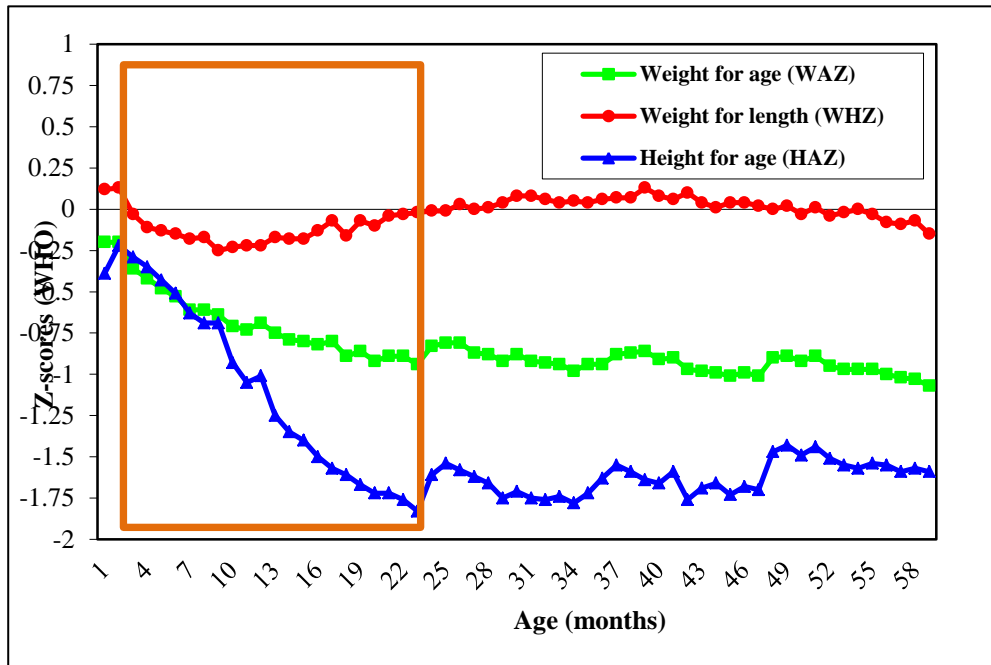
Breastfed children are healthier than non-breastfed children in all contexts – including in industrialized countries:

- A large volume on the evidence for the many benefits of breastfeeding in industrialized countries has been compiled [48]. It shows, for example, a 72% lowered risk for lower respiratory tract infections, 64% for gastrointestinal tract infections, 50% for otitis media, 42% for asthma, 39% for type II diabetes and 19-27% for type I, and 27% less risk for obesity.
- A study of post-neonatal mortality in the United States found a 21% decreased risk of mortality among breastfed infants [49].
- Studies in industrialized countries confirm the life saving benefits of breastfeeding in preventing sudden infant death syndrome (SIDS) deaths [50], [51], [52].
- Breastfeeding decreases the chance of developing certain childhood cancers, such as leukaemia, with a 30% lower risk if breastfed for 6 months, [53] and lymphomas [54].

IYCF and child growth

Optimal IYCF is essential for child growth. The period during pregnancy and a child's first two years of life are considered a “**critical window of opportunity**” for prevention of growth faltering. Recent anthropometric data from low-income countries confirms that the levels of undernutrition increase markedly from 3 to 18-24 months of age (Figure 3).

Figure 3: The “critical window of opportunity” to prevent undernutrition



Source: Victora *et al*, *Pediatrics* 2010: showing mean anthropometric Z-scores for weight for age, weight for length and height for age for 54 low and middle income countries, 1994-2007, using WHO standards [9].

The declining trajectory of the curve is particularly steep for the stunting indicator (as indicated by low height for age). At the same time, vulnerability to wasting (manifestation of acute malnutrition indicated by low weight for height) also occurs during the same period¹. Acute malnutrition in children is usually most prevalent among the age group 6-23 months, with 16% of cases occurring in infants less than 6 months old [55], which is consistent with the new analysis of growth patterns among children shown in Figure 3. Also significant in its declining trajectory is the curve for underweight (as indicated by low weight for age), which reflects both stunting and wasting, either separately or in combination.

Low birth weight and low height (length) at birth are some of the factors determining growth of the child later on. Intra-uterine growth of a child is determined by the mother's health and nutritional status before and during pregnancy. A woman's poor nutrition status during pregnancy (especially low BMI and anaemia [4]) are among the contributing factors to intrauterine growth restriction (IUGR), along with pre-term delivery, as well as other maternal health complications [4]. Hence tackling the causes of IUGR will go certain way to reducing young child undernutrition.

After birth, a child's ability to achieve the standards in growth is determined by the **adequacy of dietary intake** (which depends on infant and young child feeding and care practices and food security), **as well as exposure to disease** [56]. Undernutrition and infection are intertwined in a synergistic vicious cycle. Therefore, support to quality child feeding practices (breastfeeding and complementary feeding) and improvement of household food security, together with disease prevention and control programmes, are the most effective interventions that can significantly reduce stunting and acute malnutrition during the first two years of life.

¹ During this period, vulnerability to oedematous malnutrition is also high, as measured by the presence of bilateral pitting oedema. It is also called *kwashiorkor*, which means “the deposed child”.

This “window of opportunity” to prevent undernutrition is the same period when the recommended infant and young child feeding practices are applied: exclusive breastfeeding for the first 6 months, continued breastfeeding to 2 years or beyond together with adequate, safe, and appropriate complementary feeding from 6 to 23 months. Therefore, sub-optimal breastfeeding and complementary feeding practices put children in developing countries at high risk for undernutrition and its associated outcomes which are far-reaching and difficult to reverse later in life. Many studies have also shown that the greatest impact for interventions can be seen among children less than two years of age [57]. Taking full advantage of this “window of opportunity”, optimal breastfeeding and complementary feeding practices together can allow children to reach their full growth potential and prevent irreversible stunting, as well as acute undernutrition.

Breastfeeding impacts growth in several ways, such as through reduction of morbidity due to infections, stronger immunological response to disease due to transfer of maternal antibodies and provision of the optimum balance of nutrients, growth factors, enzymes, hormones and other bioactive factors. For example, reviews of evidence on the effects on child health and growth of exclusive breastfeeding for six months have presented lower morbidity from gastrointestinal and allergic diseases, which in turn can prevent growth faltering due to such illnesses [58].

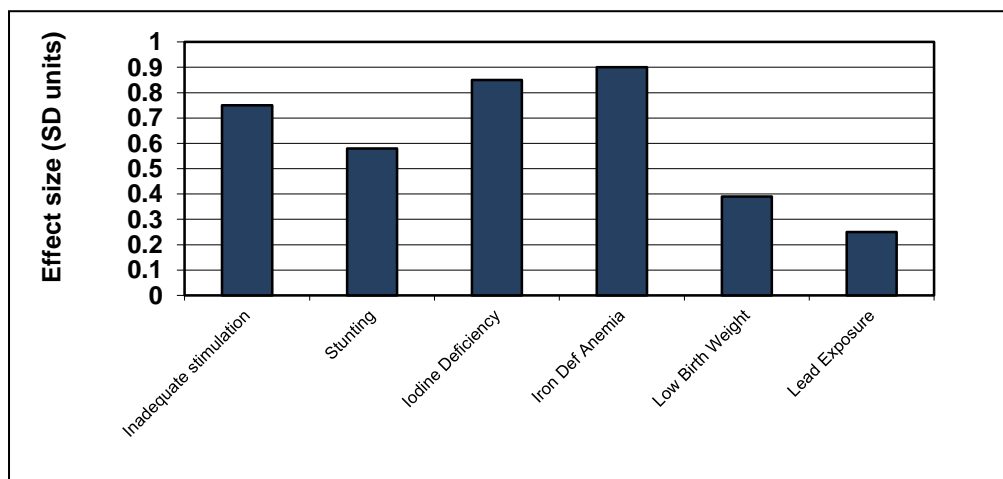
Breastmilk alone is enough to meet all the nutritional needs of infants for the first six months of life. After six months of age, to meet all of a child’s nutritional requirements breastmilk needs to be complemented by other foods, although it continues to be an important source of nutrients as well as impacting disease morbidity and mortality [3]. At this age children have high nutritional needs for rapid growth, and **appropriate complementary feeding** provides key nutrients (e.g. iron and other micronutrients, essential fatty acids, protein, energy, etc.). Inadequate complementary feeding lacking in quality and quantity can restrict growth and jeopardize child survival and development.

IYCF and child development

The period from birth to about 36 months is a critical period in early childhood development for stimulating positive cognitive development, particularly in settings where ill health and undernutrition are common [59]. Furthermore, a recent *Lancet* series on Child Development [60] recognized tackling stunting and iron deficiency as two of the four most effective early childhood development interventions, along with addressing iodine deficiency and cognitive stimulation (Figure 4). Thus, by reducing stunting and iron deficiency, optimal infant and young child feeding can have a significant effect on child development.

In addition, breastfeeding and responsive feeding provide constant positive interactions between mother and child which can contribute to emotional and psychological development of infants. There is also strong evidence of higher performance in intelligence tests among those subjects who had been breastfed as infants¹ [61].

Figure 4: Developmental risk factors with sufficient evidence to recommend intervention



Source: Based on *Lancet* Child Development Series 2007 [5].

¹ The mean difference in intelligence scores is 4.9; (95% CI: 2.97–6.92)

Long-term benefits of optimal IYCF for the child

Optimal IYCF ensures a child is protected from both under- and over-nutrition and their consequences later in life. An analysis of several studies has shown that breastfeeding may have a protective effect on the prevalence of obesity and is a cost-effective obesity intervention [62], [63].

In addition to protecting against obesity, breastfed infants have a lowered risk of several chronic conditions later in life compared to artificially-fed infants, including asthma, diabetes [64], heart disease [65], [66] and cardiac risk factors such as hypertension [67] and high cholesterol levels [68], as well as cancers such as childhood leukaemia [69] and breast cancer later in life [70].

The strong relationship between quality of diet and obesity indicates that appropriate complementary feeding with diverse, nutrient rich foods¹, can be protective against overweight and obesity. For countries undergoing **nutrition transition**¹ and facing double burden of malnutrition (both under and over-nutrition), optimal IYCF and early intervention are even more critical to ensure that investments are targeting children under two years to avoid risk of becoming both “stunted and obese”.

For infants who already have inadequate growth, rapid catch-up weight gain in the first two years is important for preventing long-term undernutrition and achieving decreases in morbidity and mortality. If a child does not get the opportunity to catch up before the age of two, rapid weight gain in later stages of childhood is not desirable as it significantly increases the risk of chronic disease. For chronic diseases such as cardiovascular and metabolic diseases, “a worst-case scenario is a baby of low birth weight, who is stunted and underweight in infancy and gains weight rapidly in childhood and adult life, becoming overweight” [71].

Benefits of breastfeeding for the mother

Breastfeeding also has a number of benefits for maternal health. Initiation of breastfeeding immediately after delivery helps to contract the uterus, expel the placenta, and reduce bleeding. Breastfeeding may also lead to a more rapid return to pre-pregnancy weight. Exclusive breastfeeding may delay the return of fertility, thus reducing exposure to the risks associated with short birth intervals. In the longer term, mothers who breastfeed, especially for a longer duration, tend to be at lower risk of pre-menopausal breast cancer and ovarian cancer.

Box 2: Benefits of breastfeeding for mothers

- Women who have breastfed are less likely to develop ovarian and premenopausal breast cancers [72], [73], [74]. The increased risk of not breastfeeding is 39% for maternal breast cancer and 26% for ovarian cancer. The more months a woman has spent breastfeeding, the greater the beneficial effect.
- Breastfeeding reduces osteoporosis [75], [76].
- Breastfeeding mothers enjoy a quicker recovery after childbirth, with quicker expelling of the placenta and reduced risk of postpartum bleeding [77].
- Breastfeeding helps decrease insulin requirements in diabetic mothers, and breastfeeding mothers have a 14% lower risk of maternal type 2 diabetes [78].
- Mothers who breastfeed are more likely to return to their pre-pregnancy weight than mothers who formula feed [79].
- Exclusive breastfeeding for the first 6 months postpartum, in the absence of menses, is 98 per cent effective in preventing pregnancy. The delayed return of the menstrual cycle for 20 to 30 weeks may also reduce the risk of anaemia [77].
- Breastfeeding mothers are reported to be more confident, calm and less anxious than bottle-feeding mothers [80]. Breastfeeding contributes to feelings of attachment between a mother and her child.

Economic benefits

Sub-optimum infant feeding is a determinant of stunting. At the same time, stunting is not only a significant contributor to child mortality and development, but also to **future productivity and economic development**. Prevention of stunting can prevent future productivity losses [81]. It has

¹ “Nutrition transition” is an epidemiological phenomenon related to increased prevalence of overweight in middle-to-low-income countries, due to the changes in traditional diets, with increased consumption of foods high in sugars, calories, and fats and increased use of processed foods.

been shown that body size at two years of age is clearly associated with future enhanced human capital [82]. The importance of improving the quality of diets of children for future economic development and productivity of a nation has been recognized to be as high as broader economic policy approaches such as trade liberalization [83]. For example, improved complementary feeding interventions can go as far as having a significant effect on adult wages – one programme for example had a 46% increase in average wages as adults (although only significant for men, probably due to lack of women’s engagement in paid jobs in the context of that study) [84].

The economic benefits of breastfeeding are also important to highlight. A lack of breastfeeding or poor breastfeeding practices lead to high health care costs for the household and the health services due to increased child morbidity, as well as the health care costs to deal with consequences of not breastfeeding, including long term consequences related to obesity and chronic diseases. The much higher mortality associated with not breastfeeding also represents a drain on country’s economies. When infant illness due to lack of breastfeeding requires mothers to miss work, households, employers and the economy are all affected. A lack of breastfeeding also impacts human capital development. In addition, artificial feeding leads to additional expenditure and workload for households.

The following graphics are used to summarize the benefits of optimal infant feeding and the risks of artificial feeding during training sessions on infant feeding counselling.

Figure 5: Benefits of breastfeeding – an example from a training slide¹


Benefits of breastfeeding

FOR THE BABY:

- Less likely to die
- Less diarrhoea and respiratory infections
- Less ear infections, GI disorders, skin conditions and SIDS

FOR THE MOTHER:

- Mother less likely to become pregnant in early months
- Lower risk of maternal cancers (ovarian and breast cancer)



- Improved growth and nutrition status
- Increased bonding
- Lower risk of chronic diseases (diabetes, heart disease, asthma, some cancers)
- Lower risk of overweight/obesity
- Improved cognitive and motor development
- Faster maternal recovery and weight loss post partum
- Less post-partum depression

Figure 6: Risks of artificial feeding – an example from a training slide


Risks of artificial feeding

FOR THE BABY:

- More likely to die
- More diarrhoea and respiratory infections
- Increased ear infections, GI disorders, skin conditions and SIDS
- Interferes with bonding

FOR THE MOTHER:

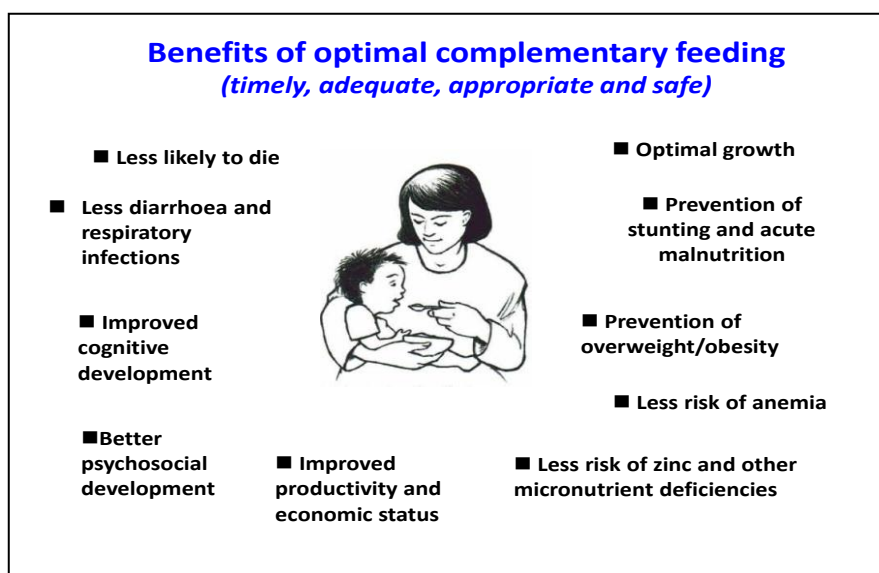
- Mother may become pregnant sooner in early months
- Increased risk of maternal cancers (ovarian and breast cancer)



- Poorer growth and nutrition status
- Increased risk of chronic diseases (diabetes, heart disease, asthma, some cancers)
- Overweight/obesity
- Lower scores on intelligence tests
- Slower maternal recovery and less weight loss post partum
- More post-partum depression

¹ Adapted from: WHO/UNICEF Integrated IYCF counseling course, 2007.

Figure 7: Benefits of complementary feeding – a suggested example for a training slide



1.3 Summary of global situation

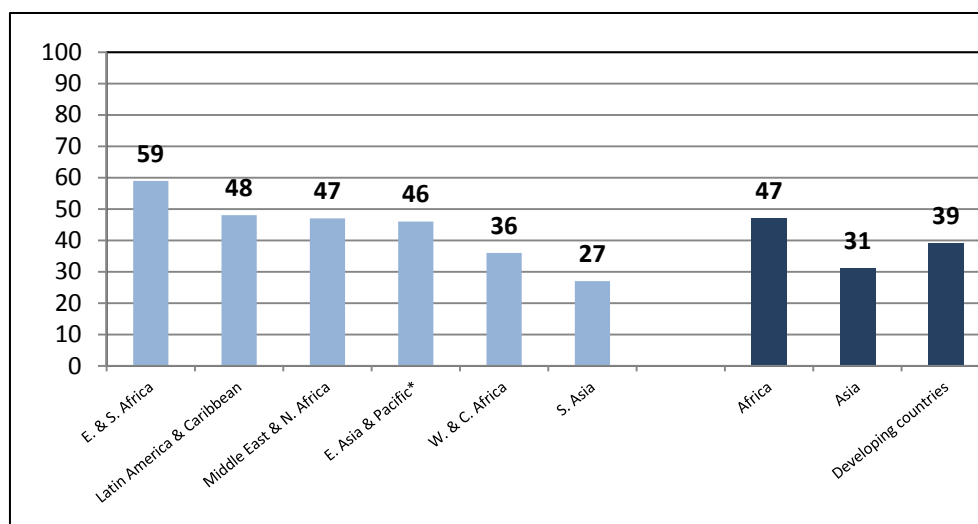
Over the past two decades significant progress has been achieved in IYCF policies, practices and programmes. The following summary highlights these achievements as well as the areas in which little progress has been made.

Global progress on breastfeeding

Key breastfeeding indicators which are important to monitor include early initiation of breastfeeding (within the first hour), exclusive breastfeeding among children less than six months and continued breastfeeding after six months (at 12-15 months and 20-23 months).

The global rate of early initiation of breastfeeding remains below 40 per cent (Figure 8).

Figure 8: Percentage of infants benefited from early initiation of breastfeeding

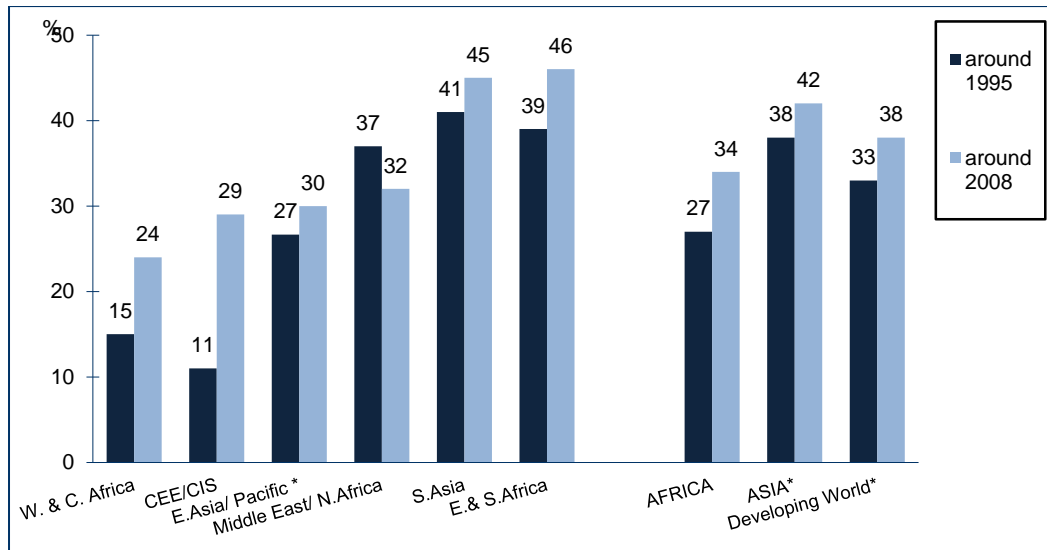


Source: UNICEF database 2010.

Between around 1996 and 2008, the rates of exclusive breastfeeding during the first six months of life in 86 developing countries with available trend data have increased only slightly, from 33 to 38 per

cent (Figure 9). However, this trend data also shows that breastfeeding is increasing in two-thirds of these nations.

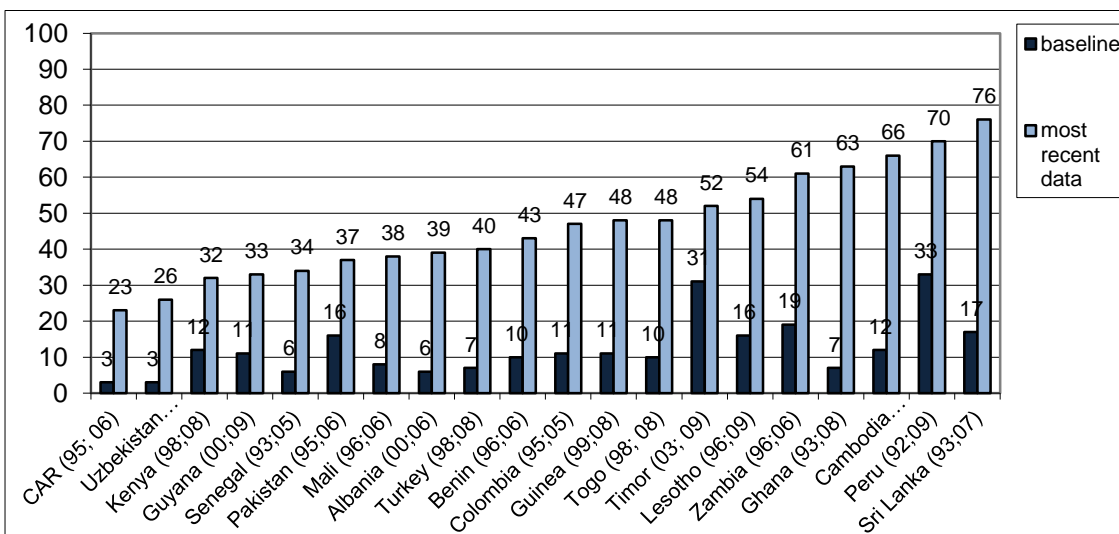
Figure 9: Infants less than six months exclusively breastfed (%)



Source: UNICEF database 2011. * Excludes China.

While global data indicate very slow progress in improving the overall exclusive breastfeeding situation, countries that have shown strong commitment and invested heavily in IYCF show significant progress (Figure 10). Since around 1996, exclusive breastfeeding rates increased more than 20 percentage points on average in these 20 countries, with several countries exhibiting remarkable increases of almost 60 percentage points. These countries have demonstrated unequivocally that it is possible to change infant feeding practices. This is an important advocacy point, particularly to counter the common perception that feeding practices are cultural and cannot be modified.

Figure 10: 20 countries with increases in exclusive breastfeeding > 20 percentage points



Source: UNICEF database 2011. The baseline is considered to be between 1993-2000, except for East Timor, where the baseline is 2003 and Peru, where it is 1992.

Factors for success include the large-scale implementation of comprehensive programmes to promote, support and protect breastfeeding with strong government leadership and broad partnerships. Such programmes involve action at national level, including national policies, strategies and plans to implement the main operational targets of the *WHO/UNICEF Global Strategy for Infant and Young*

Child Feeding (2003) ([Resources Annex 1-1](#)) including the adoption of national legislation on the marketing of breastmilk substitutes¹ and maternity protection for mothers who work outside of the home, ensuring that maternity facilities are baby-friendly², providing skilled support by health providers and community workers, and supporting mother support groups in the community. The actions also involved effective and targeted communication strategies to promote breastfeeding, using multiple channels and messages tailored to the local context and the specific barriers to breastfeeding.

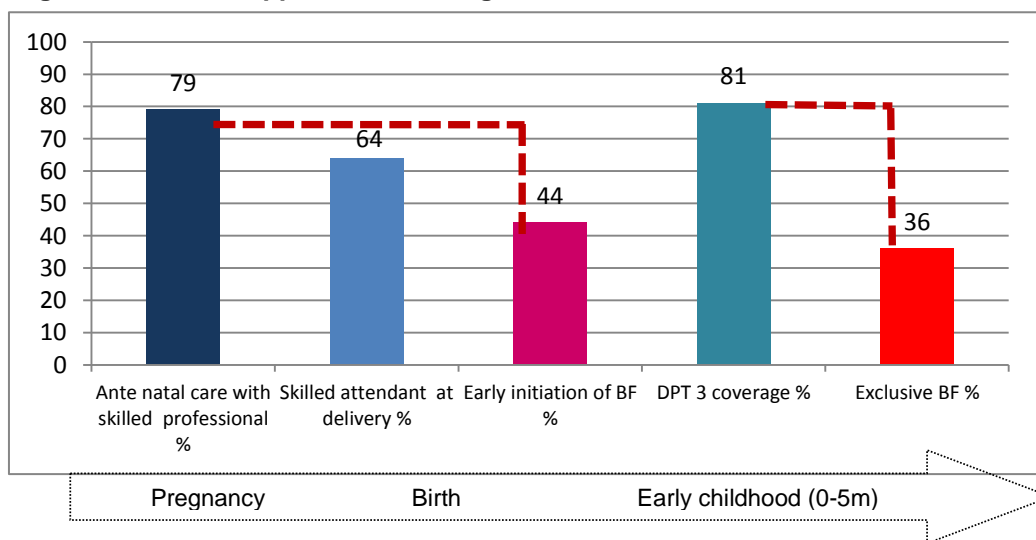
Box 3: Reviews have shown that success on breastfeeding can be achieved by:

- **Implementing a complete package of interventions** (*comprehensive, relevant, evidence-based package, based on assessment of needs and situation*)
- **Designing effective strategies and ensuring quality implementation** (*applying best practices, using appropriate strategies, providing appropriate training & supervision*)
- **Working at all levels** (*national, health system, community, communication*)
- **Achieving universal coverage** (*vision and planning for national scale and ensuring equity*)
- **Ensuring continuity** (*sustained, ongoing implementation, fully institutionalized*)

Some encouraging facts are the percentages of children still breastfeeding at 12-15 months in developing countries (73 per cent) and at 20-23 months (56 per cent). This rises to 90 per cent and 68 per cent respectively in least developed countries³, where infants and young children face the greatest threats to survival.

On the other hand, it is important to highlight the missed opportunities along the continuum of care (Figure 11), where it can be observed that provided health care did not necessarily support relevant feeding practices: while the coverage of ante-natal care in developing countries is 79 per cent and the coverage of deliveries assisted by a skilled attendant is 64 per cent, a dramatic difference is seen in terms of early initiation of breastfeeding, where coverage is only 44 per cent. Similarly, while the coverage with three doses of DPT immunization, which is usually attained around 3-5 months, is 81 per cent, exclusive breastfeeding among children less than six months is only 36 per cent.

Figure 11: Missed opportunities along the continuum of care



Source: SOWC 2011

Global progress on complementary feeding and stunting

The picture for the global progress on complementary feeding is less clear. New set of indicators⁸⁵ for

¹ As of April 2011, 84 countries have enacted legislation implementing all or many of the provisions of the Code and subsequent relevant World Health Assembly resolutions, 19 countries have incorporated at least some of the provisions of the Code into their national legal systems, and 14 countries have draft laws awaiting adoption.

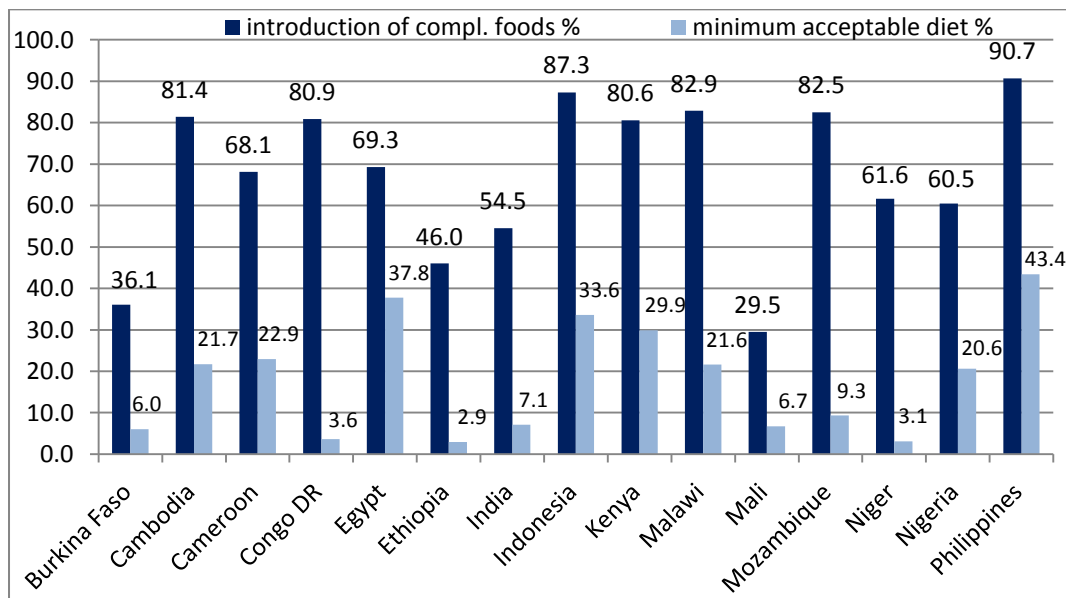
² In 2010, over 21,000 maternity facilities worldwide had been designated baby-friendly (M.Labbok/WABA) however this data is incomplete and not updated for all countries.

³ UNICEF database 2010.

global assessment and trend analysis of the 10 guiding principles of complementary feeding [86] have only recently been finalized by WHO, UNICEF and counterparts, and need to be operationalized by countries. However, available data on the global situation of complementary feeding [87] provide some insight to the extent of the problem. According to the State of the World's Children 2010, only 58 per cent of breastfed children between the ages of six and nine months in developing countries had received *any* complementary foods in the past 24 hours.

Following the release of the new indicators, several countries have started reporting on a full set of indicators on complementary feeding, including the new indicator: dietary diversity and the composite indicator “minimum acceptable diet” (see [Chapter 2.2](#) more explanation on the indicators). Recent country surveys show that complementary feeding practices are far from acceptable (Figure 12). While timely introduction of complementary foods (at 6-8 months) is a common practice in many countries, the quality of the diet is poor. In India, country with the highest number of stunted children, only 54.5 per cent of children between the ages of six and eight months¹ had received *any* complementary foods in the previous day, and only 7 per cent of breastfed children between ages of 6-23 months met the “minimum acceptable diet” criteria. In Nigeria, a country with the third highest burden of stunting, only 21 per cent of breastfed children receive the minimum acceptable complementary feeding diet. Similarly, Ethiopia’s 2005 Demographic and Health Survey (DHS) data show that only 2.9 per cent of children 6-23 months of age have a minimum acceptable diet. These outcomes strongly support the need for improvement on complementary feeding practices.

Figure 12: Status of complementary feeding in selected countries with data on “minimum acceptable diet” (breastfed children 6-23 m), & “introduction of complementary foods” (6-8m old, BF & non BF children)



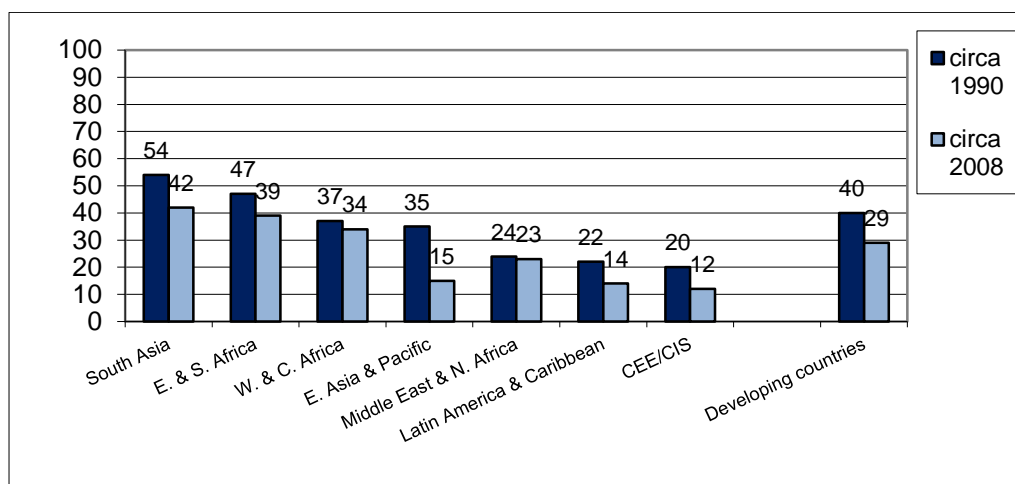
Source: DHS, most recent survey for each country, from 2002-2008

In addition to the data on feeding practices, analysis of trends in stunting can further inform us about the quality of feeding practices in infants and young children. In the developing world, stunting rates have declined slowly, from 40 per cent to 29 per cent between 1990 and 2008, but in some regions and countries there has not been significant progress. Figure 13 shows that despite progress in some regions (e.g. CEE/CIS, East Asia and Pacific), the statistics are alarming. Sub-Saharan Africa has made almost no progress in the 10 year period between 1996 and 2008, and the progress has been slow in some other regions. Vital opportunities to save millions of lives are being lost, and many more children are not growing and thriving the way they should.

In 2009, 195 million children under five years of age in developing countries were estimated to be stunted. Most of these children live in just 24 high-burden countries. On the other hand, 129 million children are underweight and an estimated 26 million are severely wasted [88].

¹ The new indicator for “introduction of complementary foods” includes the age group of 6-8 months and breastfed and non-breastfed children, as compared to the old indicator which included 6-9 months and only breastfed children,

Figure 13: Percentage of stunted children under the age of 5 yrs, by region



Source: UNICEF Global database (2010)

1.4 The policy bases for IYCF

Global IYCF targets, as well as policies and strategies have informed the emphasis that is accorded to IYCF in UNICEF's and other development partner strategies and programs. These include:

- 1990 **Innocenti Declaration on the Protection, Promotion and Support of Breastfeeding** [89].
- 1990 **Convention on the Rights of the Child** [90] (Article 24) which states that governments must combat disease and malnutrition, through, inter alia, the provision of adequate nutritious foods and ensure that all sectors of society are informed, have access to education and are supported in the use of basic knowledge of child health and nutrition, including the advantages of breastfeeding :

CRC Article 24 (e):

"To ensure that all segments of society, in particular parents and children, are informed, have access to education and are supported in the use of basic knowledge of child health and nutrition, the advantages of breastfeeding, hygiene and environmental sanitation and the prevention of accidents";

- 2000 Millennium Declaration [91] establishing health and development goals and targets (**Millennium Development Goals**) for 2015.
- 2002 **World Fit for Children** [92] which clearly states *"to reduce child under-nutrition among children less than five years of age by at least one third, with special attention to children under two years of age"* and *"to protect, promote and support exclusive breastfeeding for six months and continued breastfeeding with safe, appropriate and adequate complementary feeding up to two years of age and beyond"*.
- **WHO/UNICEF Global Strategy for Infant and Young Child Feeding** (2003), adopted by UNICEF's Executive Board and the World Health Assembly [1].
- 2005 **Innocenti Declaration on Infant and Young Child Feeding** [93] which celebrates the 15th Anniversary of the 1990 Declaration [94], commits urgent actions, and sets concrete targets.

1.5 Summary of the evidence on effective of interventions

Scientific evidence has been gathered on the effectiveness of a number of interventions to improve breastfeeding and complementary feeding practices. These include:

Interventions to improve breastfeeding practices and to promote breastfeeding:

- **Maternity care practices:** Institutional changes in maternity care practices have been shown to effectively increase breastfeeding initiation and duration rates [95,96,97].
- **Professional support:** professional counselors shown to be most effective in extending the duration of any breastfeeding [98].
- **Lay and peer support:** Lay counselors shown to be most effective in increasing the initiation and duration of exclusive breastfeeding [99].
- **Community-based breastfeeding promotion and support:** Various types of community-based breastfeeding promotion and support can improve breastfeeding practices in developing countries, according to studies in developing countries [100].
- **Media and social marketing:** Media campaigns have been shown to improve attitudes towards breastfeeding and increase initiation rates [101]. Social marketing has been established as an effective behavioural change model for a wide variety of public health issues, including breastfeeding [102].
- **Support for breastfeeding in the workplace:** Evidence from industrialized countries has shown how workplace support programmes increase the duration of breastfeeding [103].

Interventions to improve complementary feeding of young children

A systematic review identified a number of effective interventions to improve complementary feeding practices [104]. The interventions of note include the following:

- **Nutrition education improves caregiver practices** through the following strategies [105,106]:
 - Provision of information about local foods, industrially-processed complementary foods, and in-home fortification of foods to caregivers.
 - Promotion of appropriate feeding behaviours (see *Guiding Principles for Complementary Feeding of the Breastfed Child (PAHO/WHO 2003)* ([Resources Annex 1-2](#)).
 - Use of multiple channels to educate and counsel caregivers (from communication through mass media to individual counselling).
- **Use of high-quality locally-available foods improves complementary feeding through:**
 - Combining locally available low-cost foods to create adequate complementary foods (for example by using linear-programming) [107].
 - Employing traditional processes to improve the adequacy of plant-based complementary foods (i.e. germination, soaking, fermentation) or to increase energy density (e.g. adding amylase to foods) [108].
 - Including animal source foods (ASF) to improve the quality of the diet [109].
 - Promoting home gardening, animal husbandry, and poultry production to increase the availability of high-quality foods at the household level.
- **Use of supplements** (such as vitamin-mineral powders, and lipid-based nutrient supplements) **improves nutrient quality of complementary foods** [110,111].
- **Use of fortified complementary foods** improves complementary feeding through ensuring availability of quality complementary foods, locally or industrially processed, and promoting consumption [112].

- **Use of a blended complementary food together with multi-micronutrient powders and counselling on complementary feeding practices** improved growth more than provision of the food alone [113].
- **Special support to food insecure populations improves diets of young children** [114] through:
 - Social schemes, economic models to ensure access to complementary foods.
 - Distribution of micronutrients and other micronutrient-rich products.
 - Distribution of fortified complementary foods to families in need¹.
 - Social protection schemes which link provision of counselling and education with in-kind supplements or vouchers for specific products. These schemes have been implemented in a number of Latin American countries, mostly with positive outcomes in terms of reducing rates of stunting [115], [116].

¹ Aid can be targeted to children with poor nutritional status, to the poorest families in a community, or to all families within the poorest communities

2. NATIONAL LEVEL STRATEGIC PLANNING FOR IYCF

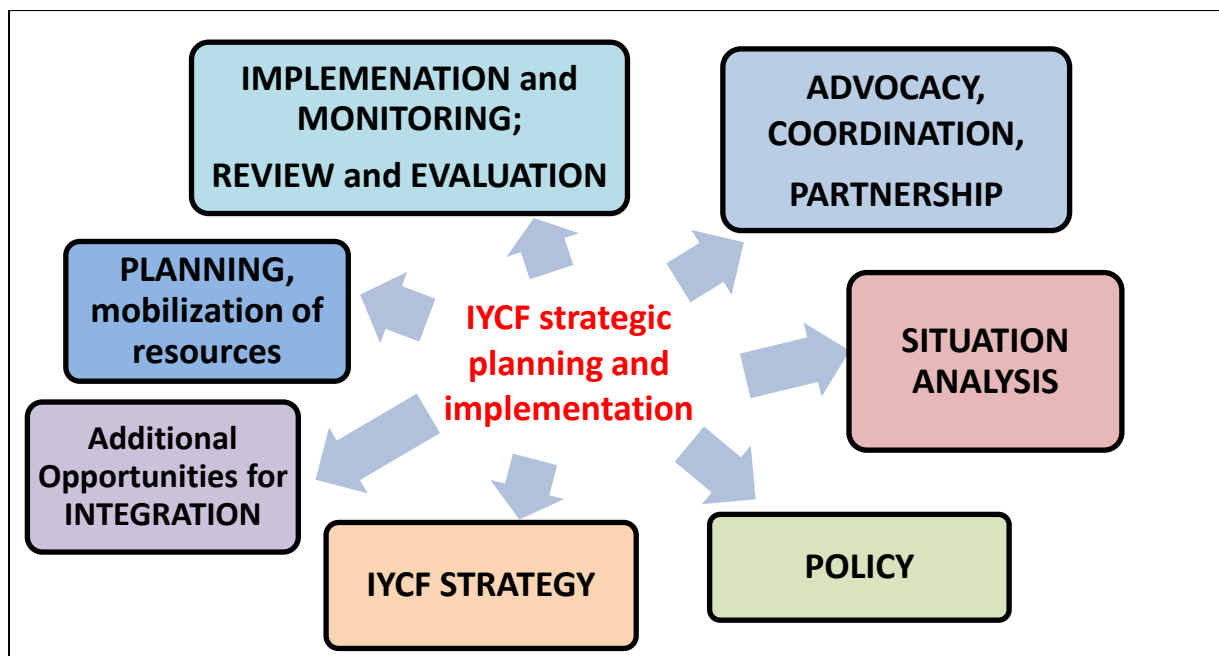
National planning for IYCF is organized around seven *core processes for development, planning and implementation of a comprehensive national IYCF strategy*, as shown below and in Figure 14.

Development, planning and implementation of national IYCF strategy

- 2.1 Advocacy, partnership and coordination
- 2.2 Situation assessment
- 2.3 Developing national IYCF policy
- 2.4 Developing a comprehensive IYCF strategy; identifying and prioritizing IYCF interventions
- 2.5 Using additional opportunities for integration
- 2.6 Developing national and sub-national plans of action and mobilizing resources
- 2.7 Implementing, monitoring, reviewing and evaluating

National level strategic planning includes the process of situation analysis, development of policies, systems, strategies and plans and their monitoring, review and evaluation, with relevant oversight and coordination. Figure 14 depicts the strategic planning process in a graphic manner:

Figure 14: Core processes in development, planning and implementation of a comprehensive approach to improving IYCF



Countries have different starting points and are at different stages in the evolution of their IYCF programmes. For example, much of the required information for the situation analysis may already exist, a policy may be in place or a strategy has been developed, and these existing documents may merely need to be reviewed and updated and gaps filled. On the other hand, a country should not wait until the updated policy is endorsed or all the research is completed before initiating development of action plans.

Thus these processes are not necessarily followed in a rigid and sequential step-wise manner in all contexts; this will depend on the results of the situation assessment, whether comprehensive policies, strategies and plans exist, the maturity of programmes, the experiences and results of implementation, etc.

2.1. Advocacy, partnerships and coordination

Development, planning and implementation of national IYCF strategy

2.1 Advocacy, partnerships and coordination

2.2 Situation assessment

2.3 Developing national IYCF policy

2.4 Developing a comprehensive IYCF strategy; identifying and prioritizing IYCF interventions

2.5 Using additional opportunities for integration

2.6 Developing national and sub-national plans of action and mobilizing resources

2.7 Implementing, monitoring, reviewing and evaluating

2.1.1 Advocacy and partnerships

Policy-makers and influential partners in IYCF will be identified as part of the process to translate the *Global Strategy for Infant and Young Child Feeding (2003)* ([Resources Annex 1-1](#)) into a national strategy and action plan. Obviously in many countries IYCF is not a new programme, but in many cases its scope and scale are not commensurate with the needs and its potential for impact. The advocacy will need to address the particular gaps, bottlenecks and issues. Thus the policy makers and other key stakeholders will need tailored evidence-based information about the role of IYCF in child survival and growth, effective IYCF interventions including new components.

Optimal maternal nutrition and infant and young child feeding is a cross-cutting area that reaches beyond health and nutrition alone, involving a wide range of sectors such as agriculture & food security, legislative bodies, consumer protection, education, gender and women's affairs. Therefore, the awareness and knowledge of policy makers and key stakeholders should be increased to effectively integrate the comprehensive national IYCF plan into the health, nutrition sector, social protection and other relevant sectors according to the situation. Advocacy also aims to motivate them to take action and commit resources, and should therefore have clear action objectives, using relevant tools according to the situation.

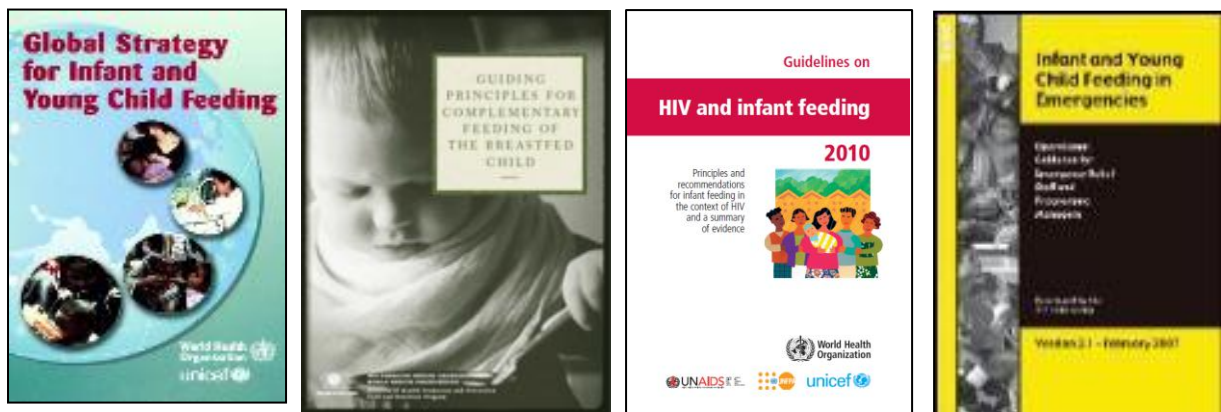
Advocacy is not a one-time action: it needs to be ongoing, and at multiple levels. Suggested actions include:

- **Planning the advocacy component:** Planning for advocacy needs to consider which objectives are targeted, who the audience will be and which approaches and methods will be most appropriate to apply. The advocacy should address major bottlenecks or required shifts in existing policies and programme components as well as the introduction of new components.
- **Choosing advocacy targets or spokespersons:** a review of key stakeholders who have a role to play in the IYCF programme and who might be influenced by advocacy - e.g. health, social welfare and agriculture systems to develop and implement respective components of the IYCF strategy, the Attorney General's office to review and change laws and regulations on the marketing of breastmilk substitutes and maternity protection, legislators of labour policies and practices and employers to ensure mother-baby friendly workplaces, training department and medical/nursing school officials to incorporate or update the IYCF curriculum, local hospital administrators to implement the Ten Steps, local government officials for resource allocation, etc. Other stakeholders may also be chosen to become spokespersons and deliver advocacy messages.
- **Orientation or sensitization** events to ensure that policy-makers recognize the importance of nutrition and clearly understand the principles of appropriate infant and young child feeding.
- **Dissemination of latest evidence** on importance of focus on IYCF in order to improve child survival, growth and development, on the importance of early interventions during the "window of opportunity"¹. The advocacy should address the need to intervene both on breastfeeding and

¹ For example, the recent Lancet series on maternal and child undernutrition (January 2008), Lancet series on child development (January 2007)

complementary feeding, the latter having generally received much less attention. The evidence, including the most recent Lancet series on child survival, nutrition, and others (see chapter 1), are a rich source of advocacy materials. The science on the potential impact of IYCF interventions needs to be complemented by evidence on what works to achieve this impact – i.e. intervention research such as the studies referenced in section 1.5, as well as lessons learned from programme reviews and evaluations.

- **Dissemination of key IYCF policy and technical documents** (e.g. amongst others, the national IYCF policy, *Global Strategy for Infant and Young Child Feeding (2003)*, *Guiding Principles for Complementary Feeding of the Breastfed Child (2003)*, *Guidelines on HIV and Infant Feeding (2010)*, *Operational Guidance on Infant Feeding in Emergencies (2007)*, as well as the principle scientific references which provide the evidence base for IYCF impact and interventions) among the appropriate government representatives, international organizations, NGOs, and other potential in-country partners (i.e. private industry, civic groups etc.) working in the health and nutrition sector and other related sectors (e.g. agriculture, social protection).



Strategic partnerships should be pursued between not only within different sectors of national governments, but also with UN agencies, national and international non-government organizations (NGOs), donors and private sector partners taking into account their different mandates and agendas. Their common aim would be to increase synergy to protect, promote and support IYCF as an essential contributor to young child survival, growth, and development goals. The advocacy plan should include reaching all relevant partners to gain the commitment for IYCF and ensure it receives greater attention.

2.1.2 Coordination

It is important that IYCF is effectively managed and coordinated and is featured prominently on the agenda of the Government and partners at all levels. A country may decide to have a dedicated national coordination forum for IYCF, or include IYCF in the broader nutrition coordination mechanism.

Whether IYCF is coordinated through a dedicated body, a sub-group of health or nutrition coordination mechanism or as a major area of work within a single health or nutrition coordinating body, the national coordination structure plays a triple role to: 1) strategize and plan, 2) oversee implementation, and 3) monitor and evaluate. It has the authority and responsibility to ensure achievement of stated IYCF goals, by setting targets for the key IYCF outcomes based on international standards but tailored to the local situation. The national coordinating structure also maximizes synergies between partners to avoid duplication of services, ensure harmonized messages, curricula and materials, gains buy-in and commitments from all key stakeholders to the objectives of the IYCF action plan, ensures maximum coverage among partners and programmes, and supports and encourages cooperation and collaboration.

Specifically, the national coordination structure will:

- Ensure that the national IYCF policy, programme/strategy and plan of actions are developed,

agreed upon and disseminated to all relevant stakeholders and that there is wide adoption and application of the strategy.

- Oversee legislation to protect optimal infant feeding, such as the on the marketing of breastmilk substitutes and maternity protection
- Oversee standards for health worker education and training, such as infant feeding curricula for in service and pre-service training
- Ensure that actions to improve breastfeeding practices in maternity facilities, including the BFHI, are fully institutionalized within the national health system, including in private hospitals, and will advocate for the implementation and monitoring of the Ten Steps to Successful Breastfeeding to become a mandatory part of the standard operating and supervision procedures for hospitals and integral to the accreditation of facilities, including private ones.
- Provide oversight and coordination of community-based IYCF activities, to ensure high coverage, a harmonized approach and effective monitoring
- Oversee the implementation of the national communication strategy and plan
- Ensure the integration of relevant IYCF actions such as IYCF counselling and support and training into related health (e.g. maternal and newborn care, PMTCT, CCM, C-IMCI, CMAM) or social programmes (e.g. Early Child Development, cash transfer or other social protection schemes, food security programmes, etc.)
- Ensure effective routine monitoring of IYCF activities at all levels, analysis of programmatic data on breastfeeding and complementary feeding and appropriate evaluation activities.

Within the national body, there will be a need for smaller **sub-groups to work on specific issues**, for example for a communication sub-group and a complementary feeding sub-group. Both of these areas will require the participation of technical specialists in the respective fields and may involve participation from several other sectors.

The national body will develop a multi-year plan of action and will meet regularly to assess progress against each goal, as well as to assess progress on agreed objectives. To perform its functions, the national body should be an integral part of the government system, with funding provided and mandate approved by the national government. The national body should be independent and free from commercial influence of commercial enterprises or industry NGOs and foundations, as there is a potential conflict of interest.

It is also important to assure effective coordination at **sub-national level**, especially in large countries. Appropriate existing nutrition/health coordination fora at sub-national level need to be identified to reflect IYCF prominently on their agendas, or a dedicated IYCF coordination forum could be established.

To adopt a comprehensive approach to IYCF, the group may need to be broadened from the traditional partners supporting breastfeeding programmes. The Government can work through the health and social protection systems promoting use of high-quality complementary foods, advocating appropriate feeding practices, and providing aid to families in need, while international organizations and NGOs can help fill in the gaps left by government services. At the same time, private industry will be particularly important in bringing high-quality inexpensive fortified complementary foods and food supplement products to the market.

2.2. Situation assessment

Development, planning and implementation of national IYCF strategy

- 2.1 Advocacy, partnerships and coordination
- 2.2 [Situation assessment](#)**
- 2.3 Developing national IYCF policy
- 2.4 Developing a comprehensive IYCF strategy; identifying and prioritizing IYCF interventions
- 2.5 Using additional opportunities for integration
- 2.6 Developing national and sub-national plans of action and mobilizing resources
- 2.7 Implementing, monitoring, reviewing, and evaluating

Introduction

Different stages of IYCF programming may be found in different countries, with some already having a comprehensive policy basis and programme and others with minimal progress. A policy and strategy basis for breastfeeding and actions at various levels is already underway in many cases, but very few countries have conducted a comprehensive situation assessment of complementary feeding or have relevant policies and strategies. In some cases formative research is needed. Further, there may be detailed information available on health service activities, but limited information on community-based activities or barriers to IYCF, and on the communication environment at different levels. Therefore, it is important to complete a situation assessment tailored to the local context and fill in the country-specific information gaps.

The situation assessment should include primary IYCF data (feeding practice indicators) and the implementation status of IYCF programmes with relevant outcomes, as well as document successful interventions and failures, to ensure that all lessons learned are taken into consideration for the development of new strategies and action plans. It should include participatory assessments with communities if possible (see Section 2.3 Community-based IYCF actions) and formative research on knowledge, attitudes and practices.

The situation assessment should also take account of gender issues. Addressing gender inequalities should make nutrition programmes more effective overall and thus improve the nutrition prospects for both girls and boys. (See also [Operational Guidance \(Resources Annex 1-1\)](#) on gender analysis and programming with specific details on infant and young child feeding issues). Globally, there are no gender differences in stunting and underweight rates and no differences in breastfeeding rates [117]. However, in some areas there are gender differences in stunting rates [118,119]. Various barriers to optimal infant and young child feeding may also have gender dimensions that need to be analyzed and addressed. For example, the low social status of women is considered to be one of the primary determinants of undernutrition across the life cycle [120]. In addition, an analysis of survey data from 17 developing countries confirms a positive association between maternal education and nutritional status in children 3–23 months old, although a large part of these associations is the result of education's strong link to household economics [121]. These aspects need to be included in the situation assessment for a comprehensive picture.

2.2.1 Completing assessment matrix



Completing the **Assessment Matrix**¹ ([Resources Annex 1-1](#)) will provide a comprehensive overview of the scope and scale of IYCF programming and implementation status in the country. The most useful outcome of this exercise is to identify gaps in information, policies and programmes to inform further development of the IYCF strategy and national plan. It will also assist in summarizing major activities that have already taken place in the country and planning their scale-up, as well as enable leveraging of resources for those districts that have been poorly supported. The matrix can also be used for periodic updates of progress.

¹ The assessment matrix was developed by UNICEF/HQ in 2008-2009 to obtain a comprehensive picture of the scope and scale of IYCF programmes. Some 65 countries have completed it as of May 2011.

2.2.2. Obtaining baseline of practices using the updated IYCF indicators

It is recommended to use the recently revised *Indicators for Assessing Infant and Young Child Feeding Practices (2008)* ([Resources Annex 1-4](#)) for measuring feeding of children at 0-24 months¹. These indicators include core and optional indicators which allow assessment of the situation regarding both breastfeeding and complementary feeding problems (see Figure 15).

Figure 15: Updated IYCF indicators (2008)

<p>8 Core Indicators:</p> <ol style="list-style-type: none">1. Early initiation of breastfeeding2. Exclusive breastfeeding for 6 months3. Continued breastfeeding at 1 year4. Introduction of solid, semi-solid or soft foods5. Minimum dietary diversity6. Minimum meal frequency7. Minimum acceptable diet8. Consumption of iron-rich or iron-fortified foods <p>7 Optional Indicators:</p> <ol style="list-style-type: none">1. Children ever breastfed2. Continued breastfeeding at 2 years3. Age-appropriate breastfeeding4. Predominant breastfeeding under 6 months5. Duration of breastfeeding6. Bottle-feeding7. Milk feeding frequency for non-breastfed children		
--	--	--

Definitions of core indicators²

It should be noted that the full set of these indicators should be taken into account for programmatic purpose. Looking at one without the others can provide an incomplete and at times misleading picture. For example, in a country one may see a very high rate of timely introduction and adequate frequency of feeding, but diversity of foods is quite limited (children are receiving monotonous, mainly staple with low content of vitamins, minerals, and other important nutrients).

Breastfeeding

1. **“Early initiation of breastfeeding”:** *Proportion of children born in the last 24 months who were put to the breast within one hour of birth.*

This indicator was not a core indicator in the previous set IYCF core indicators (1991) [122]. Its importance is emphasized by including it in the set of core indicators, especially given the recent evidence regarding its impact on neo-natal mortality. This indicator is based on historic recall for all children (living and deceased) born in the previous 24 months.

¹ Part I of the IYCF Indicators series gives the definitions of the indicators, while Part II Provides tools for collection and calculation of the indicators, primarily for use by large-scale surveys. It covers topics specific to data collection such as: a) An example questionnaire; b) Example interviewer instructions; c) Suggestions for adapting the questionnaire to the survey context; d) Instructions for calculating indicator values

² The core IYCF indicators, with the exception of early initiation of breastfeeding, are based on feeding recall of the previous day for children in the specified age group.

2. “Exclusive breastfeeding”: *Proportion of infants aged 0-5 months who are fed exclusively with breastmilk.*

It is reiterated that the **exclusive breastfeeding (EBF) indicator** is a “current status indicator” derived from 24-hour recall of how the child was fed. The data collected represents a cross-section of children in the age-range 0-5 months. It does not represent the proportion of infants who are exclusively breastfed throughout the period from birth to just under 6 months, nor does it represent the proportion of infants aged exactly 6 months who were exclusively breastfed during the previous day. The criteria for the indicator allow for the child to receive ORS, which was not the case in previous definitions.

In developing the revised set of indicators, it was agreed globally that the current status indicator represents the best option for capturing EBF. Recall based on any other period or other questions is not valid and cannot be included as a data point in survey reports. However, some national surveys still ask about EBF in a non-standard way, which invalidates the results. Non-standard questions about exclusive breastfeeding in surveys include for example:

- asking a mother if she exclusively breastfed her child
- how long did she exclusively breastfeed

3. “Continued breastfeeding”: *proportion of infants aged 12-15 months who are fed breastmilk.*

The importance of this indicator is emphasized by its inclusion in the list of core indicators, and is linked to evidence on the impact of continued breastfeeding at least to one year, for example in the Lancet *Child Survival* series. Previously, “continued breastfeeding” was commonly reflected using the optional indicator “continued breastfeeding at 2 years”.

Complementary feeding

In the previous version of the IYCF Indicators (WHO 1991) [123], there was only one indicator reflecting complementary feeding – “timely complementary feeding” (“*proportion of children aged 6-9 months who received breastmilk and complementary foods*”). This indicator provided information about whether complementary foods were consumed during the past 24 hours in the 6-9 months age group, and covered only breastfed children. The wide age range and lack of information on non-breastfed children made the applications of this indicator quite limited. In addition, lack of information on other important aspects of feeding such as the quality of the diet as dietary diversity created a major programmatic obstacle.

In the 2008 new set of IYCF Indicators, the indicator has been revised to reflect the age range of 6-8 months and to include both breastfed and non-breastfed children, to be better reflective of the overall situation of introduction of complementary foods in a population:

4. “Introduction of complementary foods”: *proportion of infants aged 6-8 months who receive solid, semi-solid or soft foods.*

In addition, three new globally agreed indicators for complementary feeding are now available. These indicators better reflect the quality and quantity of food given to children aged 6-23 months, and include the following indicators:

5. “Minimum dietary diversity”: *Proportion of children 6-23 months of age who receive foods from 4 or more food groups*.*

*The 7 food groups include the following:

1. Grains, roots and tubers
2. Legumes and nuts
3. Dairy products (milk, yoghurt, cheese)
4. Flesh foods (meat, fish, poultry, and liver/organ meats)
5. Eggs
6. Vitamin A rich fruits and vegetables
7. Other fruits and vegetables

The 7 food groups have been identified based on research showing the critical importance of each in the complementary feeding diet, and they may be different from the food groups historically used in countries or in surveys. For example, eggs count as a separate food group rather than being categorized together with the other animal-source foods.

The information for the “diversity” indicator is collected using a 17-item question (see [Measurement Guide](#), p. 9) [123], which is then combined into the 7 main food groups.

The new set of adopted indicators contains a new composite indicator on measuring the quality and quantity of complementary feeding, called the “**minimum acceptable diet**”. This indicator is a composite based on the indicators on **minimum meal frequency** and **minimum dietary diversity** (below).

6. “Minimum meal frequency” : Proportion of breastfed and non-breastfed children 6-23 months of age who receive solid, semi-solid, or soft foods (but also including milk feeds for non-breastfed children) the minimum number of times or more: 2 for 6-8 mo., 3 for 9-23 mo., 4 for 6-23 mo. (if not BF).

Previously, household surveys such as the DHS and MICS measured complementary feeding frequency, but limited to breastfed children aged 6-23 months. The new indicator allows measuring it for all children, and assessing the frequency based on recommended levels at different age groups.

7. The new “minimum acceptable diet”: Proportion of children 6-23 months of age who had both minimum meal frequency and dietary diversity (in both BF and non-BF children).

This is a composite indicator which reflects both quality of diet and frequency of complementary feeding. While information on feeding frequency and diversity was already being collected through certain household surveys such as the DHS, these indicators have not been reported universally as a standard set of indicators. The DHS collected food group information that reflected different food grouping that are not fully compatible with the 7 food groups listed above and would need to be re-analyzed. In addition, feeding frequency data both from DHS and MICS was also only collected from breastfed children. Therefore any re-analysis of DHS data to obtain the “minimum acceptable diet” can only reflect the indicator for breastfed children (as for the data shown in Figure 12 above). Other surveys such as MICS do not currently have the full set of indicators due to difficulty in ensuring the quality of dietary data. Therefore, **it is very important to explore opportunities such as national nutrition surveys or even specific surveys with focus on IYCF for inclusion of the full set of indicators.**

8. “Consumption of iron-rich or iron-fortified foods”: Proportion of children 6-23 months of age who receive an iron-rich food or iron-fortified food that is especially designed for infants and young children or that is fortified in the home.

This indicator can provide information on use of multiple micronutrient powders or lipid-based nutrient supplements, commercially fortified complementary foods or similar iron-fortified products. However, guidance on how to operationalize the data collection is difficult to standardize and significant in-country adaptation is needed to ensure that local names for foods and products are used and that they contain an adequate or appropriate amount of iron.

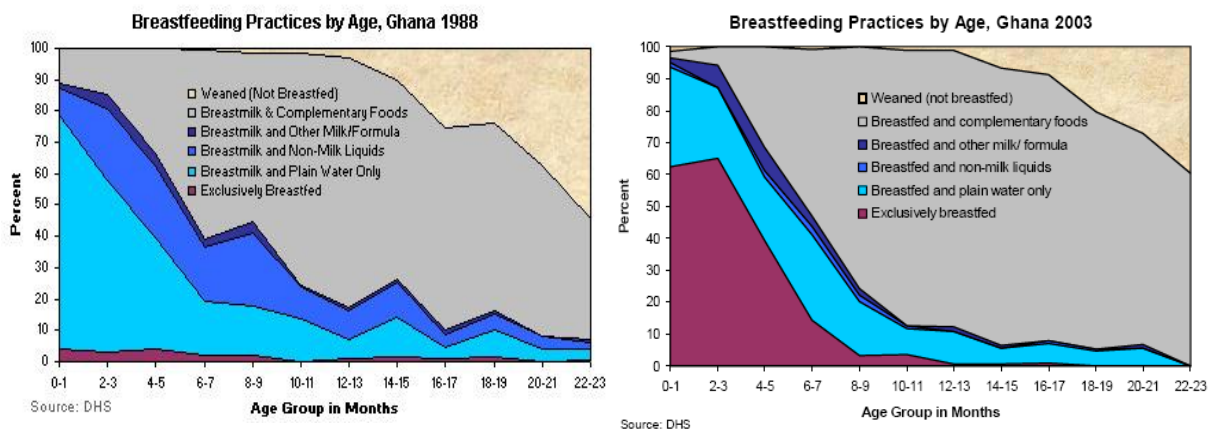
2.2.3 Reviewing the area graphs for the country

An area graph offers a visual snapshot of data on infant feeding practices as captured by the DHS, MICS or other surveys. Graphs highlight the status of infant feeding in a country and major existing problems¹. The graphs can be used for advocacy purposes, for identification of programmatic priorities, and for addressing some of the major barriers to optimal feeding. Area graphs may also

¹ The document [“Introduction to Interpreting Infant and Young Child Feeding Area Graphs”](#) issued by UNICEF provides details on interpreting the area graphs. Area graphs for many countries are also available and updated periodically at: [ChildInfo website](#)

provide additional insights for monitoring progress. The example below shows how the country has progressed from almost no exclusive breastfeeding to a much better status (54% EBF).

Figure 16: Area graphs for Ghana, 1988 and 2003



2.2.4 Collecting additional quantitative & qualitative data

Based on the information gaps identified in the *Assessment Matrix* and the review of existing data, a plan for further information gathering and analysis should be developed and implemented accordingly. It is important to create a map of the most vulnerable groups of population and areas where special attention or additional interventions may be needed. Special needs groups (i.e. children who are HIV positive, malnourished, living under emergency conditions, etc.) should also be identified.

Key information that should be collected includes:

- **Quantitative data on IYCF practices:** Primary data includes at least an information on core indicators of IYCF (the rates of initiation of breastfeeding, exclusive breastfeeding among children less than six months, and continued breastfeeding among children aged 12-15 months, data on complementary feeding (timely introduction, frequency, and diversity). Primary data collection should be undertaken by using standard survey methodology (e.g. MICS or DHS) or tools such as ProPAN (see [Resources Annex 1-3](#)), to feed into the situation analysis. In the case of sub-national programmes, focus should at a minimum be on districts where the programme is being planned
- **Qualitative data on behaviours and practices, barriers, social norms etc.** It is also necessary to gather information on traditional practices related to IYCF as well as other data that will input into the design of the communication strategy and feed into the local adaptation of counselling tools (see [Resources Annex 1-9](#) for more information on communication development strategy and tools). This data can be collected through various approaches including formative research and KAP studies to have full information about socio-cultural norms, factors influencing particular behaviours, as well as knowledge level, attitudes, practices, and beliefs.
- **Secondary data relevant to IYCF** may include household expenditure surveys, living standards measurement surveys (LSMS), market assessments, food and crop assessments, food security surveys, vulnerability assessments.
- **National IYCF policies and targets:** this part of the assessment focuses on the key actions and targets identified in the Innocenti Declarations and Global Strategy for IYCF¹.
- **National IYCF programmes:** information to collect on all aspects of a comprehensive IYCF programme including legislation, health worker education, institutional service delivery, community-based activities, communication, and IYCF programmes in difficult circumstances.

¹ The WHO-Linkages 2003 manual entitled "[Infant and Young Child Feeding: A Tool for assessing national practices, policies and programmes](#)" is a useful tool for conducting an assessment of national level documents

Formative research/KAP studies

Formative research allows programmers to gain better insight into less tangible determinants of nutritional outcomes, and design interventions that promote behaviour and social change. Formative research on the knowledge, attitudes and practices related to infant feeding adds crucial qualitative information on the reasons behind feeding patterns shown in the Area Graphs. The information obtained through formative research is crucial in the design of the communication strategy, in developing messages and counselling materials, and in applying appropriate delivery approaches for interventions in the health system and at community level.

Action-oriented and participatory formative research methods such as community mapping, focus group discussions, social network analysis, counseling observations, key informant interviews, facility-level assessments, and community and market visits are used to better understand barriers and readiness to change behaviours. For example, focus group discussions have proven useful to examine barriers and disincentives regarding infant feeding in detail, while at the same time providing a venue to educate participating women and service providers. The formative research should be done *with* the full participation of communities.

Caregiver practices and behaviours may be influenced by numerous factors, including maternal time allocation, knowledge, perceptions, attitudes, cultural beliefs, social practices or norms, skills; the health of the caregiver and family members; and social pressures and support [124, 125].

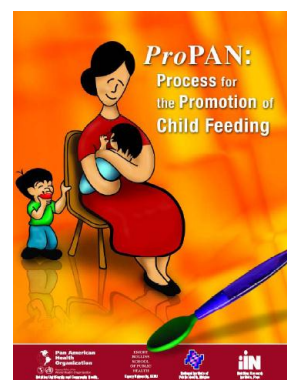
Formative research for the development of the communication strategy requires additional elements (see [Chapter 3.4 on communication](#)).

Formative research for complementary feeding programming is not only needed regarding the situation of caregivers and their practices and beliefs, but also on the market prices, availability and affordability of high quality local foods and possibility of additional supplementation. An analysis of locally available foods appropriate for consumption by infants should be made among different geographical, ethnic, and socioeconomic status sub-groups

Various tools are available for conducting formative research (See [Resources Annex 1-3](#)). Recommended tools include *Designing by Dialogue* and the *BEHAVE Framework*.

The ProPAN Manual is also a comprehensive tool for programming for infant feeding, which includes a module for qualitative and quantitative data collection related to IYCF practices and has been used for formative research in various contexts (see [Resources Annex 1-3](#)).

Assessment of complementary foods and feeding practices should **aim to collect information on the various aspects of the “Ten Guiding Principles of Complementary Feeding”**. Data on **complementary feeding** including current food practices and beliefs should be collected from different sub-populations, i.e. urban vs. rural, different socioeconomic groups, regional groups, etc. (see below). Well-designed focus groups can provide useful information. Areas needing improvement should be identified in this process.



A detailed explanation is given in [Chapter 2.4.4](#), of the information that needs to be collected on three main topics: the **food security situation, availability and affordability of quality foods and feeding practices** for children aged 6-23 months.

It should be noted that while nationally representative data is required for nutrition status indicators such as prevalence of stunting or underweight, or for core IYCF indicators, additional situation assessment for complementary feeding practices can be done through smaller studies of the target population with qualitative and quantitative components. Such studies require much less resources (as compared to a MICS survey), but can still guide the programming process extensively. Also, other sources of information (for example data on food security, food prices, market, etc.) can be available through various other surveys already performed in a country.

Two key tools recommended for use in the situation assessment, design, planning and M&E for complementary feeding include **Linear Programming** and **ProPAN**.

Once all data has been collected or compiled, it should be analysed and the implications determined in terms of type or design of interventions that may be required.

2.3 Developing national IYCF policy

Development, planning and implementation of national IYCF strategy

- 2.1 Advocacy, partnerships and coordination
- 2.2 Situation assessment
- 2.3 Developing national IYCF policy**
- 2.4 Developing a comprehensive IYCF strategy; identifying and prioritizing IYCF interventions
- 2.5 Using additional opportunities for integration
- 2.6 Developing national and sub-national plans of action and mobilizing resources
- 2.7 Implementing, monitoring, reviewing and evaluating

2.3.1 National IYCF Policy

A national IYCF policy¹ is important pre-requisite to successful strategic planning. A comprehensive policy can ensure optimal attention to and action on infant and young child nutrition at various levels: in the health system, at the community level, and in other sectors. The IYCF policy can be adopted as a stand-alone policy or included within national nutrition, child survival, and development policies as applicable, but ensuring that it is comprehensively addressed. In any case, it should be assured that context-specific and evidence-based areas of IYCF interventions are included in and supported by the national policy.

Box 4: Definitions of terms used in this guidance: IYCF policy

An IYCF **policy** is usually a formal document setting out the Government's position on the recommended IYCF practices and the principles of action to achieve national goals for the practices, such as the legislative and systems frameworks, main areas of intervention and accountabilities. A policy may be developed and finalized over a longer time period while it is reviewed and cleared by relevant bodies.

From: Planning Guide for national Implementation of the GSIYCF. WHO/UNICEF. 2007.

Policy landscape: If an IYCF policy and/or programme/strategy already exists, whether stand-alone or integrated within national nutrition or health policies, an assessment and review should be undertaken. The policy should incorporate the latest guidance on the various aspects of IYCF, such as the 2002 Global Strategy for IYCF, the International Code of Marketing of Breastmilk Substitutes (1981) and subsequent WHA Resolutions, the Innocenti Declarations on the Protection, Promotion and Support of Breastfeeding (1990 and 2005), the 2003 and 2005 guiding principles of complementary feeding, the 2007 operational guidance on infant feeding in emergencies and addenda, and the 2010 WHO Guidelines on HIV and infant feeding [126].

Emphasis on need for a comprehensive IYCF policy: national policies on infant and young child feeding should be comprehensive to ensure that all relevant health and community services protect, promote and support breastfeeding, ensure timely, safe, appropriate, and age-adequate complementary feeding at 6-24 months, as well as include guidelines on ensuring appropriate feeding of infants and young children in exceptionally difficult circumstances. In ensuring the protection of breastfeeding, the policy should require that legislation pursuant to the Code and maternity protection be enacted and enforced. The policy also needs to require appropriate norms and standards for maternity practices, health services, community-based actions and communication.

If the country has a Sector-wide Approach (SWAp), a Poverty Reduction Strategy Paper (PRSP), or other similar strategies and initiatives, advocacy needs to ensure that IYCF is recognized as an important contributor to achieving national goals and thus receives adequate attention. All relevant

¹ In this document, the terms "policy", "strategy", "programme" and "intervention" have been used with distinct and specific definitions. See the various boxes for definitions of these terms as they have been used in this document. See also Glossary for definitions of "policies" and "strategies", and "norms".

policy, strategy and planning documents and monitoring and evaluation frameworks should have IYCF sufficiently on the agenda.

2.3.2 Policies for strengthening IYCF within health systems

Health professionals are often influential figures in a society, and the messages, counselling and advice they provide play a crucial role in ensuring optimal infant and young child feeding practices. The experiences of mothers and infants in the health care services exert a strong influence on breastfeeding initiation and later infant feeding behaviour. On the other hand, the actions and advice of health providers may also reflect a lack of knowledge about correct feeding advice and practices or a bias towards sub-optimal infant feeding. In many settings where proactive and correct feeding advice and support is absent in the health system, the opportunity for influencing mothers towards optimal practices is lost.

Health service interventions for IYCF are one of the key pillars of the overall IYCF policy and strategy, and are crucial even if service coverage and utilization are not high for all of the maternal and child health services. Even if the health system is weak or access is poor, IYCF actions should be an important part of it. In most countries there is at least one health system contact – often ante-natal care or immunization or child health days – which could provide the entry point for IYCF services.

To be incorporated into the primary health care system, IYCF has to be included as one of the major preventive interventions in the national and subnational health policies and strategies, as well as monitored and evaluated on a regular basis, preferably with indicators included in the health management information systems (HMIS). Today, many countries are making efforts in strengthening their national health systems, with special focus on district level health planning, district health system performance assessments and evaluations, as well as strengthening of the organization, management and operationalization of district health systems and services. The role of national and district level managers in systematically addressing infant and young child nutrition problems is crucial to ensure the inclusion and large-scale implementation of IYCF interventions.

In countries where **health system strengthening (HSS) initiatives are of high priority**, advocacy and technical inputs can be provided to ensure that nutrition - and specifically IYCF - is well-addressed within the various components of the health systems strengthening platforms, including those examples shown in Figure 17:

Figure 17: HSS platforms & IYCF

Leadership, policy and governance	<ul style="list-style-type: none"> • IYCF policy, legislation, strategy, annual plans, coordination mechanism, links with other sectors, norms & standards
Development of standard minimum packages of services	<ul style="list-style-type: none"> • IYCF key interventions properly reflected in minimum package of services for health facilities & community health care
Increasing skills and knowledge of human resources	<ul style="list-style-type: none"> • Pre-service curricula, in-service training for all relevant HW & CW, job descriptions/tasks reflecting IYCF, work structures modified to include IYCF, mentoring & supportive supervision
Strengthening the delivery of health services	<ul style="list-style-type: none"> • IYCF services fully institutionalized in all maternities, PHC (MCH) & community health care; supervision includes IYCF & conducted regularly
Supply management	<ul style="list-style-type: none"> • Food supplements, also HW/CW job aids & communication materials)
Financing/budgets	<ul style="list-style-type: none"> • Funded budget lines for IYCF at national & sub-national levels
Health management information systems	<ul style="list-style-type: none"> • IYCF key indicators and process benchmarks fully integrated in HMIS & linked to standard operating procedures & quality assurance mechanisms

2.3.3 Policies to strengthen IYCF within community-based services

In many community settings **access and utilization of health facilities are poor**, and the available services are often overstretched. In such contexts, quality at-scale community-based IYCF actions are particularly important to ensure that mothers and infants are reached with IYCF counselling and support services. Even with relatively good health service IYCF actions, community-based promotion and support is essential to achieving high coverage and impact. Community based IYCF services are also crucial to **achieving equitable access** for all children under two, since they aim to reach the most underserved and disadvantaged communities.

Therefore the IYCF policy needs to ensure that IYCF interventions are well addressed within community based health and nutrition structures and services. In addition, **policies and systems** need to be in place to support and facilitate the community-based programme, whether it is an integrated community-based health and nutrition programme or a stand-alone IYCF community programme. Very often stand-alone activities like training are conducted for community workers in selected project areas, in the absence of a solid supporting policy and system to retain and motivate the community workers and ensure their supervision and monitoring. If these are not addressed from the outset of the programme, the likelihood of success is substantially reduced.

A Government's and stakeholders' **standardized approach**, applying best practices and sound systems and design, should be pursued for the whole country or the entire target. To be avoided are fragmented, uncoordinated, small-scale efforts to train community workers without systems in place for sustained support for functioning of the activities and supervision of the workers. In cases where there is no official Government policy on community programmes or remuneration of community workers (these can take a long time to be formally endorsed), it is still possible to pursue implementation of a community based IYCF programme at scale so long as all stakeholders agree to and ensure the application of the supportive systems.

Key policy and system elements that need to be addressed include the following:

- The community worker needs to have official recognition by Government authorities as well as by the community; the worker's authority to provide services and products, to refer patients and to give advice needs to be endorsed and supported by Government policies.
- The community programme needs to be well-linked to the health system and consistent with its policies.
- The policy should indicate the need to develop capacity for and implement IYCF counselling and support services at community level, as well as IYCF promotion (BCC).
- The counselling, training, communication, tools provided for the community workers need to be consistent with those provided to health workers.
- The community worker needs to have a clear profile and role.
- The community worker needs to receive appropriate incentives or remuneration on a regular basis.
- The supply and logistics system needs to function well.
- A system for regular monitoring and supportive supervision needs to be established and implementation assured (see section on [Capacity development for community IYCF counselling](#) for more details).

2.4 Developing a comprehensive IYCF strategy & prioritizing interventions

Development, planning and implementation of national IYCF strategy

- 2.1 Advocacy, partnerships and coordination
- 2.2 Situation assessment
- 2.3 Developing national IYCF policy
- 2.4 [***Developing a comprehensive IYCF strategy; identifying and prioritizing IYCF interventions***](#)
- 2.5 Using additional opportunities for integration
- 2.6 Developing national and sub-national plans of action and mobilizing resources
- 2.7 Implementing, monitoring, reviewing and evaluating

Introduction

Developing a comprehensive IYCF strategy is a key in achieving the objectives and goals for IYCF in a country. The development of a national strategy on IYCF will **help unify, focus, and guide** all in-country interventions and programmes¹ related to breastfeeding and complementary feeding by the government, NGOs and other partners in the health, nutrition, social protection and other sectors. It should be fully integrated within established Government systems and implementation platforms and Government and donor budgets.

In many countries the development of annual plans is decentralized to lower levels of Government structures, for example regions, provinces and states. Therefore, it is essential that the national IYCF strategy is disseminated to these lower levels and there is a process of national-level review of the local plans.

A comprehensive IYCF strategy needs to include context-specific package of interventions and actions (see Box 5) at different levels that need to be implemented together. It comprises action at three main levels including:

- National level processes and actions ([Chapter 2](#))
- Health services level actions ([Chapter 3.2](#))
- Community level actions ([Chapter 3.3](#))

It also includes approaches which involve all levels and address:

- Regulatory actions ([Chapter 3.1](#))
- Communication for behaviour and social change ([Chapter 3.4](#))
- IYCF in exceptionally difficult circumstances, including HIV/AIDS and emergencies ([Chapter 3.5](#))

Additional cross-sectoral approaches may also be developed and implemented in countries depending on the circumstances and existing structures, for example social protection schemes with a child nutrition component, distribution or marketing of complementary foods, agricultural and food security

Box 5: Definitions of terms used in this guidance: IYCF strategy and interventions

An IYCF **strategy** involves high-level national strategic thinking that defines why the issue of IYCF is being addressed, what the overarching goal and specific objectives are, what key principles will be observed, what should be done to achieve the objectives and by whom. The IYCF strategy should be based on the results and analysis of the formative research and guided by the policy. However, it may also serve as a basis for accelerated action on key evidence-based interventions while the broader policy document is being developed or awaiting formal endorsement.

The strategy document is a broad outline considering and choosing between possible choices of IYCF interventions and actions, focusing on the most critical needs, particular opportunities, and discarding less promising options. It provides an overview with guidance on both of the “mix and balance” of the interventions to be supported and actions to be taken, and of their inter-linkages and sequencing over time.

An **intervention** is a specific action area based on scientific evidence of efficacy and effectiveness and designed to have an impact on identified IYCF practices. Examples of interventions include counselling, communication, food or micronutrient supplementation, cash transfers, etc.

¹ In this document, the terms “policy”, “strategy”, “programme” and “intervention” have been used with distinct and specific definitions. See the various boxes for definitions of these terms as they have been used in this document.

interventions focusing on child nutrition and homestead gardening and small animal husbandry ([see Chapter 2.4.3](#)). More large-scale experience and evidence needs to be gathered/generated before programming recommendations and detailed guidance can be provided.

The national IYCF strategy in a country should address **all key components and interventions that are relevant to the country and sub-national situation** (See [Chapter 2.4.4](#) on prioritizing interventions) and include both breastfeeding and complementary feeding. Overall, optimal breastfeeding practices have been more clearly defined and are supported in many countries through integration of breastfeeding strategies into national health policy and action plans. At the same time, in many cases the package of breastfeeding interventions has not been sufficiently comprehensive – for example, focusing only on the BFHI and Code with no interventions at PHC or community level and no communication strategy, or only covering communication but with no action at health system or community level. On the other hand, integration of strategies to improve complementary feeding has not generally occurred, even though it is also crucial to the survival, growth and development of children.

The national IYCF strategy will include the most appropriate components based on assessment of the situation, the policy framework and the prioritization exercise for the interventions. The purpose of the national strategy is to define how and by whom the interventions and the activities under each main component will be delivered. In cases of an existing IYCF strategy, a review of the existing components should be undertaken to assess their appropriateness and determine which necessary components are missing or which are inadequate in terms of scope, implementation approach and scale.

The **strategy document** could include¹:

- i. Background and rationale, including summary of the most recent situation analysis
- ii. Goals, objectives and targets.
- iii. Summary of policy statements on recommended infant and young child feeding practices, legislative aspects and main components of national programme strategy.
- iv. Principle areas of intervention & opportunities for integration.
- v. Implementation: summary of actions; actors in different sectors; vision for achieving scale.
- vi. Monitoring, review and evaluation.
- vii. Resource implications.

2.4.1 Goals, objectives and targets of the national IYCF strategy

The strategy should include the overall **goals and objectives** for IYCF, ensuring that they are **SMART**² ([Resources Annex 1-4](#)). It should also be emphasized that IYCF data needs to be disaggregated by various parameters such as region and socio-economic group, so that targets can be set at appropriate levels for populations with very different starting points. This is very important for the equity agenda, allowing programmes to focus on achieving progress for the most disadvantaged.

The IYCF strategy should reflect not only overall outcome objectives measured by core and optional **IYCF indicators**, but also broad **output objectives** that will be achieved during the defined timeframe. Examples are given in Table 1 in [Chapter 2.7](#).

A vision of scale should be the starting point for the strategy and related action plans. Achieving scale is likely to involve a phased approach. This will involve each region and district translating the national strategy and plan into local plans and identifying the resources needed to implement the plans. Valuable models that can be adapted for local and national level IYCF planning including micro-planning processes undertaken for child health days or immunization services.

¹ Based on WHO IYCF Planning Guide (2007)

² SMART objectives are described as: 1. Specific: objectives should specify what they want to achieve. 2. Measurable: able to quantify the targets and benefits;. 3. Achievable: able to attain the objectives (knowing the resources and capacities). 4. Relevant: relevance of the objectives to the goal; can also mean realistic. 5. Time-bound: stating the time period in which they will each be accomplished. An example of a SMART objective would be: "To increase exclusive breastfeeding rates in children under six months nationally from 30% in 2006 to 45% by 2011 and 60% by 2015".

Model projects to assess feasibility, efficacy and effectiveness of new interventions or innovative ways of implementing interventions may be conducted before replicating different models to a large scale, but the focus of the national strategy should be on implementation of proven interventions at scale as there is sufficient evidence of the impact of the main, proven interventions without a lengthy process of modelling.

2.4.2 Costing of the strategy

The vision for scope and scale and clear strategies to deliver effective interventions should guide the resource mobilization strategy. A **costing exercise** for implementing the strategy is useful to define the resource envelope that will be needed to reach high levels of coverage over a defined period of time in a country. A well-budgeted plan is essential for leveraging funding and ensuring that IYCF scale-up is fully reflected in the Government budgets, including planning and budgeting documents such as Medium Term Expenditure Frameworks (MTEFs). Various tools for costing exist, including the **Marginal Budgeting for Bottlenecks (MBB) tool** ([Resources Annex 1-1](#)) which UNICEF is using in a number of countries. The World Bank has also published a costing model for scaling up nutrition, including IYCF interventions [127]. The costing of the strategy will also assist in the development of realistic annual budgets.

2.4.3 Key components and interventions of IYCF strategy

A comprehensive IYCF strategy needs to include a number of important components necessary to reach significant and sustainable results and improvement of feeding practices at scale. Their importance and prioritization, however, need to be adapted to the local situation and context. Box 6 lists components and interventions that can be considered for inclusion in a comprehensive IYCF strategy

Box 6: Components and interventions for a comprehensive IYCF strategy

Legislation:

1. Development & enforcement of national **legislation on the marketing of BMS**.
2. Development & enforcement of national **legislation on maternity protection**.

IYCF interventions for skilled support by the health system:

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

IYCF interventions for community-based counselling and support:

7. Establishment of **community based integrated IYCF counselling services at community level** and **capacity development** of community workers.
8. Creation of **mother support groups** for IYCF in the community.

Communication:

9. Implementation of **communication** for behaviour and social change through multiple channels.

Additional complementary feeding components:

10. **Improving the quality of complementary foods through locally available ingredients**.
11. 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).
12. 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.
13. **Social protection** schemes with nutrition component - complementary feeding. (e.g. in kind complementary foods, vouchers, cash transfers).

IYCF in difficult circumstances:

14. **HIV and infant feeding**.
15. **IYCF in emergencies**.

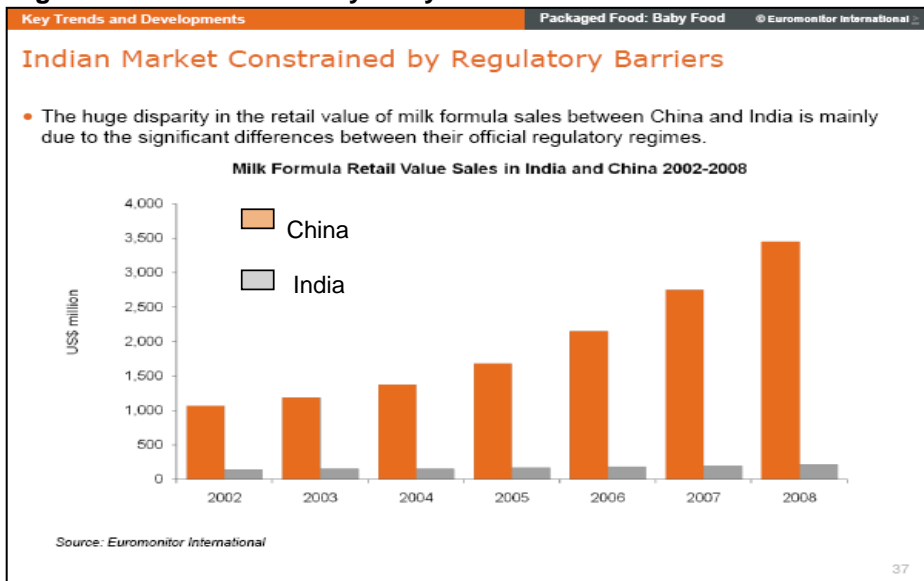
Strategy component: Legislation

1. Development & enforcement of legislation on marketing of BMS

The International Code of Marketing of Breastmilk Substitutes and subsequent World Health Assembly Resolutions need to be translated into national legislation and regulations, integrated into legislative and regulatory frameworks of the country.

There is no doubt that the breastmilk substitutes (BMS) industry spends significant funds to persuade mothers to use formula which seriously jeopardizes breastfeeding. For example, in the five-year period from 1999 to 2004, the formula industry spent a total of almost \$223 million on formula advertising [128]. Recent studies demonstrate the impact of promotional activities on the decision of women to breastfeed their babies. For example, the percentage change in breastfeeding rates tended to decrease when frequency of advertisements for artificial feeding increased [129], and free formula samples to mothers at hospital discharge led to lower breastfeeding rates [129]. There is also evidence that the adoption of legislation or regulations to implement the International Code leads to a reduction in the amount of breastmilk substitutes that are purchased. The figure below¹ shows the disparity in the retail value of milk formula sales between China, which has no regulations in place, and India, which is often regarded as one of the countries with the most effective Code legislation in place.

Figure 18: Formula industry analysis of formula sales in India vs. China



Source: Euromonitor International

The International Code of Marketing of Breastmilk Substitutes was adopted by the World Health Assembly in 1981 to address this problem. The Code recommends that Governments enact legislation that will prohibit the advertising and all other forms of promotion of breastmilk substitutes, feeding bottles and teats. The World Health Assembly regularly revisits the issue of IYCF and has adopted subsequent resolutions intended to address ambiguities in the Code and deal with new and innovative ways in which companies market products to circumvent the Code. In this document, all references to “the Code” include the subsequent WHA Resolutions.

The most recent document was adopted in May 2010, when the sixty-third World Health Assembly again called on Member States to implement the International Code of Marketing of Breastmilk Substitutes and all Subsequent World Health Assembly Resolutions (The Code). In doing so, the WHA made the following observations:

¹ Euromonitor. *Global Packaged Food: Market Opportunities for Baby Food to 2013*. 2009. Euromonitor is an industry intelligence agency.

“Recognizing that the promotion of breast-milk substitutes and some commercial foods for infants and young children undermines progress in optimal infant and young child feeding;

Expressing deep concern over persistent reports of violations of the International Code of Marketing of Breast-milk Substitutes by some infant food manufacturers and distributors with regard to promotion targeting mothers and health-care workers;

Expressing further concern over reports of the ineffectiveness of measures, particularly voluntary measures, to ensure compliance with the International Code of Marketing of Breast-milk Substitutes in some countries;”

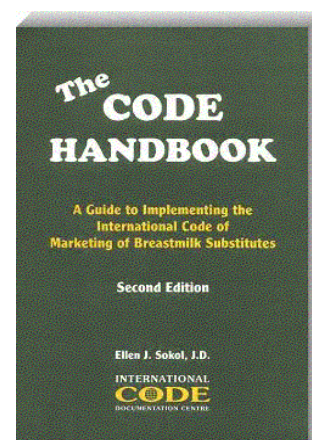
then called on governments:

“(2) to strengthen and expedite the sustainable implementation of the global strategy for infant and young child feeding including emphasis on giving effect to the aim and principles of the International Code of Marketing of Breast-milk Substitutes ...;

(3) to develop and/or strengthen legislative, regulatory and/or other effective measures to control the marketing of breastmilk substitutes in order to give effect to the International Code of Marketing of Breastmilk Substitutes and relevant resolution adopted by the World Health Assembly”

Key elements for successful Code implementation include:

- Creation of a critical mass of Code advocates through Code awareness training, media campaigns and other means of communication. These advocates and allies are necessary to keep the Code implementation high on the political and legislative agenda.
- In-depth training for policy makers and lawyers is vital to ensuring that the national legislation will be properly drafted.
- Clearly drafted Code regulations that incorporate all provisions of the Code and any subsequent WHA resolutions as a minimum standard, and include the necessary implementation and enforcement provisions by identifying an independent body responsible for monitoring. This body, to which violations are reported, acts as a forum for adjudication and can affect sanctions and regulatory processes as a deterrent to code violations. Without clearly drafted regulations and an effective system for implementation and enforcement, violations will continue, further undermining breastfeeding.
- Regular, independent monitoring, free from commercial interests, using standard protocols to document violations. Regular monitoring reports from all involved in Code monitoring (could include the health system, NGOs, consumer groups, etc.) helps ensure that the Code is being implemented in all relevant areas (hospitals, media, public places, etc.).



2. Development & enforcement of national legislation on maternity protection

In many countries, very little has been done by Governments or partners to encourage the adoption of appropriate maternity protection. As a result, “returning to work” is often cited as one of the main reasons for stopping breastfeeding.

The **Global Strategy for Infant and Young Child Feeding (2003)** ([Resources Annex 1-1](#)) re-emphasizes the importance of maternity protection:

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

“Mothers should also be able to continue breastfeeding and caring for their children after they return to paid employment. This can be accomplished by implementing maternity protection legislation and related measures consistent with ILO Maternity Protection Convention, 2000 No. 183 and Maternity

Protection Recommendation, 2000 No. 191. Maternity leave, day-care facilities and paid breastfeeding breaks should be available for all women employed outside the home”.

ILO Maternity Protection Conventions

The International Labour Organization (ILO) formulates international labour standards, including those for the workload adjustments for women in the formal workplace. Nations that ratify ILO Conventions fall under a legal obligation to implement the provisions of the Convention through appropriate legislation.

To date, three Maternity Protection Conventions (No. 3, 1919; No. 103, 1952; and No. 183, 2000) [130] and two Maternity Protection Recommendations (No. 95, 1952 and No. 191, 2000) [131] have been adopted by the International Labour Conference. Convention 183 came into force on 7 February 2002 (see box 7). As of March 2009, 17 governments ratified C-183¹.

Although maternity protection has been a concern at ILO since 1919, progress towards meeting the ILO standards has been slow. Only 77 nations ratified at least one of the three conventions since 1919. Most countries in the world, however, have developed national legislation that ensures that women workers are granted some form of paid maternity leave before and/or after birth. **The present national legislation should be examined and compared to Convention 183.**

Maternity protection legislation does not protect women who are engaged in non-paid activities, such as working in the family field or market stall, or paid activities in the informal sector. These women also need support and encouragement to provide the best start for their infants' life. Programmes and messages should encourage other family or community members to ensure that the lactating mother's workload is lessened.

Box 7 Maternity Protection Convention, C-183 (2000)

The main provisions of the 2000 Convention can be summarised as follows:

- Applies to all employed women, “including those in atypical forms of dependent work”.
- Provides for **14 weeks maternity leave** (12 weeks in the previous 1954 Convention).
- Maternity leave shall include a period of six weeks compulsory leave after childbirth.
- Where cash benefits are paid with respect to leave based on previous earnings, this must be at least 2/3 previous earnings.
- Includes the right to return to the same position or an equivalent position at the same rate at the end of maternity leave.
- Includes the right to one or more daily breaks or a daily reduction of hours of work to breastfeed her child.
- These breaks or the reduction of daily hours of work shall be counted as working time and remunerated accordingly.

Strategy component: Interventions in the health system

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

The influence of health providers extends beyond the facilities where they work and the caregivers they come into contact with. The senior health managers and providers working in the national Ministry of Health, large facilities and hospitals, district and provincial health offices, and in training institutes are often in charge of conducting supervision, capacity building, and providing advice on policies and protocols. It is crucial that they are fully capacitated on the most effective ways of IYCF programming. In cases where capacity and understanding of IYCF is limited, commitment and performance for IYCF

¹ Albania, Austria, Belarus, Belize, Bulgaria, Cuba, Cyprus, Hungary, Italy, Latvia, Lithuania, Luxembourg, Mali, Republic of Moldova, the Netherlands, Romania and Slovakia

is significantly jeopardised. In many instances a strong advocacy is needed to convince this group of professionals on the importance of IYCF and the actions needed.

A key component of the strategy therefore is the capacity development of health staff. Whether for **in-service training or pre-service education**, the need to build up teams of experienced trainers is critical. There are excellent examples of countries that have been able to implement breastfeeding counselling training nationwide by systematically building the capacity of district managers and senior clinicians to plan for and conduct in-service training. The same success needs to be replicated for more integrated infant and young child nutrition training at scale which would include both breastfeeding and complementary feeding. It is also critical to ensure that the training of health providers is not the first and last step in the process of capacity building. Training sessions on their own do not produce capacity and sustained implementation of services and achievement of results. The appropriate systems and structures to implement the IYCF counselling services need to be developed, and supervision and performance monitoring mechanisms need to be in place to ensure sustained implementation. This is especially important in contexts where human resources are constrained or health systems are weak. For **development or updating of pre-service and in-service curricula** to ensure they adequately address IYCF the [WHO Model Chapter on IYCF](#) can be used as the standard.

Improving infant feeding practices in maternity facilities through applying the Ten Steps to Successful Breastfeeding in all facilities should be an important part of the national strategy. The IYCF strategy needs to set out the vision for fully integrating the principles of the Ten Steps to Successful Breastfeeding within the standard operating procedures for maternity services, including required capacities and training of staff and monitoring systems. All IYCF interventions in the health system must be properly institutionalized within the national health system in order to ensure continuity and sustainability. Implementation of parallel, vertical project-type IYCF activities should be avoided.

It is also important to implement IYCF actions in the health system beyond maternity services: especially at the primary health care level. Even in countries where institutional delivery coverage is high, continued IYCF **counselling and support** is needed after discharge which is not feasible to organize by the maternities. This support is best delivered at multiple maternal and child health contacts with the primary health care system to maximize the opportunities to deliver age-appropriate advice by capable staff. The task of conducting IYCF counselling should be integrated into the standard tasks and job descriptions of MCH staff, as well as in the performance monitoring systems and within the child and maternal health cards. The IYCF support and counselling by the primary health care services should be complemented by community-based activities where no health provider exists.

HIV and infant feeding recommendations, based on the latest (2010) guidelines, need to be fully integrated within all the IYCF guidelines, materials, training sessions and counselling contacts in the health services. (Specific HIV and infant feeding issues in the health services are addressed in the separate HIV and infant feeding chapter in this guidance document.)

The **monitoring of IYCF services in the health system** also needs to be carefully designed to ensure it captures relevant information on priority indicators, including counselling sessions held with each caregiver and reported feeding practices. Tools can include simple tally sheets summarized onto graphs or charts at the health facility and aggregated for reporting at each subsequent level of the health system. Other tools for monitoring are the child and maternal health cards, which can be modified to reflect counselling contacts and reported feeding practices; these cards can also record problems with feeding. Health professionals, particularly those at the primary health care services level, also have a role in supervising community cadres, and they need to have the appropriate capacity perform this task.

The health system may also have a role in **distributing supplements for complementary feeding** (e.g. lipid nutrient supplements or multiple micronutrient supplements, or vouchers for fortified complementary foods for children aged 6-23 months among vulnerable, food insecure groups, linked to IYCF counselling and MCH services (see [Chapter 3.2.6](#)). The systems for targeting, delivery and monitoring of these products, as well as the supply forecasting, requisition and management in the health services, need to be clearly defined. The linkage to the IYCF counselling services also needs to be clearly articulated and monitored. The distribution of products to these groups can effectively serve

as an incentive to attend health facilities more frequently and thus provide an opportunity to deliver IYCF counselling services [132].

Maternal nutrition, especially during pregnancy and lactation, is crucial to good maternal health, healthy pregnancy outcomes, and infant health and nutrition. The health services should deliver a package of interventions during pregnancy and lactation aiming to ensure that women consume an adequate balanced diet, including supplements and fortified foods where available, and achieve and maintain a desirable weight. The interventions include regular assessment of nutrition status, counselling on diet and care, micronutrient supplementation, provision or referral for supplementary feeding in case of undernutrition and related health interventions.

Strategy component: Community based IYCF interventions

7. Establishment of **community based IYCF counselling services** at community level and capacity development of community workers.
8. Establishment of **mother support groups** for IYCF in the community.

Families and communities are not only recipients but also indispensable resources in the promotion and support of appropriate infant and young child feeding. **Evidence** has shown that community-based breastfeeding and complementary feeding promotion and support can be effective in increasing optimal infant and young child feeding and improving infant health. Evaluations have shown that breastfeeding practices can change over a relatively short period, but need continued reinforcement to be sustained [133].

Ideally, **community-based IYCF programmes and activities should build upon existing health and nutrition programmes** to the extent possible, rather than creating new and separate or parallel structures. Multiple program frameworks can offer opportunities for community-based IYCF promotion and support – existing programmes afford useful entry points for IYCF in some countries, while in other settings new programme frameworks tailored to the local context may need to be designed and introduced. In all cases, the programme needs to be designed and implemented in such a way that the IYCF component does not get lost or diluted among many other activities and is addressed in a thorough and quality manner, rather than superficially.

In many programmes, the role of community cadres in IYCF is primarily promotional, which in itself is important. However, community workers can, if properly trained and supported, also serve as indispensable resources for **counselling and practical support** to mothers on breastfeeding and complementary feeding, and can assist in solving common problems. These skills require a more detailed, hands-on training than is typically provided. In addition, already trained community workers need continued mentoring and encouragement. It also needs to be clear from the outset that effective IYCF counselling skills must be distinguished from providing basic information about desirable IYCF practices through communication for behaviour change. Community workers need additional practical skills to support mothers to breastfeed and solve problems, skills in counselling and negotiating with caregivers and skills in facilitating interactive group sessions and other communication activities. Therefore, **communications for behaviour change activities have to be complemented with counselling and support by skilled community workers.**

Caregivers must be given information and support on both breastfeeding and complementary feeding, including information about locally available foods and additional options for improving both the quality of the available foods and the feeding practices themselves. (See *Guiding Principles for Complementary Feeding of the Breastfed Child and Feeding Non-breastfed Children 6-24 Months of Age* in [Resources Annex 1-2](#)). Community workers need to be able to provide counselling services on appropriate complementary feeding, the best use of locally available and acceptable foods, desired feeding practices and solving of problems, and strengthening of such skills needs to be part of pre-and in-service training. Development of messages needs careful assessment of most prominent feeding issues and using of simple concepts that are understandable to mothers in the local context. For example, it has been shown that interventions that include a strong emphasis on feeding nutrient-rich foods may be more likely to show an effect on child growth than interventions with more general messages about complementary feeding [134] (e.g. it is much more effective to focus on

encouraging mothers to “give the child an egg three times a week” than to just tell them “feed more animal source foods”, or “provide children with a more diverse diet”).

IYCF is often addressed over a few hours as part of an integrated preventive training module for community workers, but this type of training cannot build counselling, communication and problem-solving skills and is superficial to build a good understanding of the technical aspects of good IYCF practices and the risks of poor practices.

Reviews have shown that many community-based programmes have failed to achieve scale. Therefore, a **national strategy needs to have a vision for scale**. Inclusion of the community IYCF actions in all districts needs to be pursued in a phased manner and progressively integrated within the national and district health plans and budgets. District health authority leadership, ownership and management and partner support are important issues to emphasize in this process.

Box 8: The generic UNICEF Community IYCF Counselling Package

Until recently, no global generic training package for community cadres existed. To fill this gap, in 2009-2010 UNICEF developed and field-tested a generic **Community IYCF Counselling Package** ([Resources Annex 1-8](#) and see [community chapter](#), for details) providing a fully integrated set of materials for use at the community level. The package includes nine components, including tools to support planning and adaptation at the country level, counselling and behaviour change, supervision, mentoring and monitoring. The package is based on an adaptation of the WHO/UNICEF 2006 Integrated IYCF Counselling Course, tailored to low-literacy workers. It addresses breastfeeding, complementary feeding, maternal nutrition, the latest guidelines on HIV and infant feeding, IYCF in emergencies and IYCF in the context of SAM.

Strategy component: Communication for behaviour and social change

Communication for IYCF, an essential contributor to large-scale behavioural and social change, should be an intrinsic element of any national Child Survival/Health and Nutrition programme. An effective IYCF communication strategy is evidence and results-based. Communication should be viewed broadly: not as only a community-based action, or only a mass-media campaign, but as a comprehensive national strategy and set of actions with a broad stakeholder base and participation, and the use of multiple communication channels. An effective communication strategy can be developed by using participatory processes with stakeholders and beneficiaries and by analysing formative research data and other evidence on IYCF to tailor the optimal set of objectives, approaches, activities, communication tools, channels, and messages. Communication broadly encompasses **advocacy, social mobilization, social marketing, and behaviour and social communication**. (See [Annex 2: Glossary](#) for the definitions of these above noted terms).

It is critical to learn from experiences with different approaches to communication on IYCF: a programme should not expect that **repeating the same messages and approaches that were used in the past with limited impact will produce different results**. Successful programmes have demonstrated that investment in the process required to design and implement an evidence-based, participatory communication strategy using multiple appropriate channels will produce results. To achieve behaviour and social change, findings support a shift in approach toward a process that:

- Is systematic, strategic, evidence-based, participatory and at scale.
- Has measurable behavioural and process objectives.
- Reflects values, local and larger contexts and potential for family members, including children, and many other participant groups to be agents of change.
- Focuses on social transformation for sustainable results.
- Is based on human rights principles of inclusivity, equity and universality.

Six key steps are suggested for the design and development of a communication strategy and implementation plan:

1. Establishment of a national coordination mechanism for communication aspects of the national IYCF strategy.
2. Undertaking and analysing a communication situation assessment and formative research.
3. Development of a communication strategy and operational plan.

4. Design of messages and materials and selection of channels.
5. Implementation of the communication plan.
6. Monitoring interim communication outcomes and evaluating impact on behaviours.

Strategy component: Additional complementary feeding interventions/components

9. **Improving the quality of complementary foods through locally available ingredients.**
10. 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).
11. Provision of **nutrition supplements and foods** for complementary feeding (MNPs, LNS, fortified complementary foods) in food-insecure populations and **social & commercial marketing** of nutrition supplements and foods for complementary feeding in general population, including stimulating quality local production.
12. **Social protection** schemes with nutrition component.

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

Locally available and acceptable foods should be used for complementary feeding whenever possible. Identification of such foods should be prioritized so that key findings can be incorporated into nutrition education and counselling. Traditional household techniques that improve nutritional content of commonly consumed plant-based foods, as well as availability and consumption of animal source foods should be assessed and exploited. In addition, analyses of typical diets need to take into consideration the presence of anti-nutrients and inhibitors of absorption when assessing adequacy of nutrient intake. Analysis of diets will allow the identification of the main nutrient gaps and the so-called “problem nutrients” most prevalent in a particular setting. In many developing countries, iron, iodine, zinc, vitamin A and vitamin D are problem nutrients, among others. Iron, iodine, zinc and vitamin D requirements are very difficult to be met with plant-based diets, and therefore are problematic in many contexts where animal-source foods and fortified foods are scarce. In addition to micronutrients, diets in developing countries are often deficient in essential fatty acids. There is increasing evidence that essential fatty acids affect growth in infants and young children [135].

Tools which can be used to identify and optimize use of locally available foods and design complementary feeding programmes include **ProPAN**, a tool which addresses essential elements necessary to design and evaluate interventions to improve IYCF through:

- identification of specific nutritional and dietary problems,
- understanding of the context in which these problems occur,
- presenting a method for identifying, ranking and selecting practices to promote that are practical, feasible and accepted by the community and potentially effective if adopted.

Linear Programming ([Resources Annex 1-3](#)) is a tool to analyze the nutritional value of locally available foods and recommend the best combinations to meet the infant/child needs. It can also be used to develop least-cost complementary feeding diets. This process requires information on the types of foods locally available, their costs, and an estimation of the maximum amount of each food type infants and young children should consume.

Improving bio-availability of nutrients in local foods is another important method for improving the quality of the local diet. Traditional processing methods, such as fermentation, germination, and roasting, are simple and inexpensive and have been practiced for generations in many countries. Traditional processing may produce foods with many positive attributes, such as favourable texture, good organoleptic quality, reduced bulk, enhanced shelf life, partial or complete elimination of anti-nutritional factors, reduced cooking time, and improved nutritional value. These methods have often been used separately or in combination with one another for preparation of infant complementary foods, and the nutritional profile of these foods has been reported [136]. It is therefore recommended to review the available and accepted techniques at the local level and encourage their utilization for enhancing absorption of nutrients from traditional diets.

11. Measures to increase agricultural production of high quality local foods

As the importance of animal source foods has been specifically demonstrated in improving the diet quality in the complementary feeding period, development of practical guidelines and best practices for design of livestock interventions (with collaboration among sectors) can be an important contributor to nutrition as well as food security and poverty reduction [137]. Livestock development interventions in lower-income countries typically have as their primary objective generating income for livestock-keeping households. Nevertheless, livestock can also be used to deliver critical nutrients needed to enhance the nutritional status of household members and secure their most fundamental livelihood asset, their human capital, and in turn help to alleviate the inter-generational poverty. Therefore, improving complementary feeding can become an important element of comprehensive livestock interventions.

Homestead Food Production (HFP) is a possible approach to increasing availability of local foods. A holistic, integrated package of home gardening, small livestock production and nutrition education has been shown to improve household food production and diet quality; also empowering women, households, and communities through economic and social development [138].

Delivery strategies for HFP need to be better designed to target 6-24 months age group and their caregivers. The programs can be used to improve diet quality and diversity of complementary foods for young children, for example, by focusing on home production of animal source foods (e.g. eggs). Agricultural initiatives for increasing the production of green leafy vegetables have also proven to be a way not only to increase income of households but also to provide better dietary diversity [139].

In addition to having an impact on nutrition from the production perspective, agricultural extension programmes can also provide an opportunity for providing nutrition information, counseling and problem-solving at the community and household level to improve practices. These programs may originally be designed through the agriculture ministries and focused more on addressing agriculture production. However, they can also

provide access to household on a regular basis for providing nutrition information, especially around preparation and consumption of good quality foods. Various studies have shown high cost-benefits for such programs, and impacts on improving the quality of diets of household and healthy behaviors [140], [141] showing that agricultural extensions can be used for addressing care-giver feeding practices and can play a significant role in providing nutrition services at the community level [142].

Box 9. Bangladesh homestead food production project

In Bangladesh, Homestead Food Production (HFP) has improved food security for nearly 5 million vulnerable people. In Cambodia, Nepal, and the Philippines, HFP has improved the food security and livelihoods of over 1 million households. HFP programming has begun to take hold in Sub-Saharan Africa (Burkina Faso, Mozambique, Niger, Senegal, and Tanzania), mostly at smaller scale, ranging from school gardens in Burkina Faso to the promotion of bio-fortified orange-flesh sweet potatoes in Mozambique, and less focus on animal production.

12. Nutrition supplements and foods for complementary feeding

Use of micronutrient supplementation or fortification at point of use (home fortification):

In cases where the analysis of available foods shows that while the energy and protein density of the foods is adequate or can be enhanced through better use of locally available foods, but the requirements for certain micronutrients is not possible to meet with locally available foods, supplementation (in-home fortification) among different populations should be considered.

Use of micronutrient powders with complementary foods can be an option to improve the micronutrient quality of complementary foods at a low cost. Widespread use of such products will require additional in-kind distribution and education to poorest families, and social marketing for demand increase by those you can afford these products. These products may be especially useful in areas where the problems are mainly related to micronutrient deficiencies and access/affordability of industrially-processed fortified complementary foods is limited.

Micronutrient deficiencies are often part of an overall inadequate diet with low diversity. It should therefore be noted that if in a population both growth and micronutrient deficiencies are problematic, additional interventions will be needed to improve growth [143,144]. To improve overall complementary feeding of infants and young children, provision of micronutrient supplements could also provide an additional incentive to caregivers to follow up the recommendations and return for visits. Using the supplements in this manner, together with improved quality of counselling and access to foods and supportive supervision, can have a significant impact on growth (e.g. reduce stunting) as well [145].

Use of lipid based nutrient supplements and other types of food assistance in food insecure environments or socio-economic deprivation (non-emergency situations).

Under certain conditions, provision of lipid-based nutrient supplements and other types of food assistance may be needed to ensure appropriate complementary feeding for selected food-insecure sub-populations. These populations may experience significant nutrient gaps in both macro and micronutrients. The supplement distribution may have different inclusion criteria, e.g., households with children who have poor nutritional status, the poorest families in a community or to all families in the poorest communities in a target area, or blanket distribution in an area during the hunger season.

Large-scale approaches may include the provision of complementary food supplements such as **lipid based nutrient supplements (LNS)** containing both micronutrients and macronutrients to selected target groups (see [Resources Annex 1-2, *Description of available complementary foods and supplements*](#) for details of various products). These groups may include the most socio-economically deprived families, communities or larger geographical areas with high levels of food insecurity. The selection of the product should be context-specific, based on the degree of food insecurity and the quality of locally available foods, and evidence of high potential for impact. There may be a need for longer-term provision of the product in some cases, or shorter-term provision during a lean season or a post-emergency recovery period, for example.

Current evidence shows that in order to show an impact on growth, the supplements in the context of IYCF counselling has to be provided for at least six months, with the greatest impact shown after six months of provision in a highly controlled, small study setting [111]. However, the decision to include these supplements within the national IYCF program calls for further national-level consultation to assess needs, evidence of impact and potential for benefits in the children 6-23 months. It should be noted that the evidence is gradually building in this area; therefore there is a need to use the most recent information for making programmatic decision.

Although in some contexts there is a need for provision of supplements to address nutritional gaps in the diet, the focus should not be solely on the products. It is not recommended to develop a programme related to a product per se, rather, there needs to be a comprehensive IYCF programme, into which this additional provision of products can be integrated as necessary.

It should be noted that appropriate complementary feeding provides a solid basis for prevention of growth faltering, as well as for stopping the progression of growth faltering towards moderate and severe undernutrition.

The overall IYCF programming framework provides a baseline for ensuring best practices for prevention of undernutrition in all situations, including the non-emergency context as well as "acceptable situations" in accordance with relevant guidelines [146]. In such circumstances where no specific blanket supplementary food rations are provided, IYCF counselling and support ensures that caregivers of children who do not have adequate growth or are faltering, can address problems and improve feeding practices. Therefore, the complementary feeding [decision tree](#) could be applied to interventions for prevention of any type of undernutrition.

There may be different scenarios of transition between complementary feeding and blanket supplementary feeding interventions. For example, an emergency blanket feeding programme for all children 6-59 months may transition to a more focused programme providing complementary feeding supplements to children 6-18 months during the recovery phase, or a complementary feeding intervention for children 6-18 months in a chronically food insecure area or a seasonal intervention during the annual "lean" season may transition to a broader blanket supplementary feeding programme if the situation deteriorates. Interventions implemented as part of an emergency response

programme may serve as a catalyst for longer-term programming to improve complementary feeding, especially in situations where there was no prior complementary feeding programming.

Possible use of quality industrially-processed fortified complementary foods

It is important to assess availability of industrially-processed fortified complementary foods marketed for young children especially in a context of increased urbanisation where access is high. The capacities of the local industry in producing high quality complementary foods, and viability of this option for improving the quality of complementary foods for poor children could be assessed and supported as well. Other potential private partners can be identified for development of adequate industrially-processed fortified complementary foods or products for home fortification.

This option may be particularly important for groups of population that can afford it. Industrially-processed complementary foods need to be affordable, commercially available, and promoted to generate market demand. Production and marketing by the private sector must follow ethical guidelines and appropriate messages on breastfeeding and complementary feeding (in accordance with the Guiding Principles). In addition, these foods may also be provided free through voucher schemes to those who cannot afford to purchase them even at subsidized prices. In certain situations, for example among the urban working poor in Latin America, low cost or subsidized industrially-processed fortified complementary foods have been successfully used as effective interventions in improving IYCF.

Complementary foods must meet nutrient requirements of children aged 6-23months through an appropriate portion size. Factors such as time to cook, organoleptic properties, storage, and packaging should be considered. Currently, information is available regarding labelling, hygiene practices, standards for processed cereal-based foods for infants and young children and the guidelines on formulated supplementary foods for older infants and young children (through the Codex Alimentarius [147]). Ideal composition of industrially-processed complementary foods and recommendations for production has also been proposed [148].

In addition, other modalities for local production and marketing of fortified complementary foods need to be explored. These could include new approaches and models that improve both family income and availability of high-quality foods. An example of this is a women's cooperative that produces complementary foods for sale. This type of approach not only provides financial support to mothers working in the cooperative, but at the same time, ensures availability of high-quality complementary foods, and opportunities for peer-to-peer education. This and other similar approaches need to be implemented to ensure greater access to high-quality complementary foods in communities. It should be noted that such strategies have not been implemented at scale and may not reach the most vulnerable who cannot purchase the products.

13. Social protection schemes with nutrition component

Social protection schemes which link provision of counselling and education with in-kind supplements, vouchers for specific products or conditional cash transfers [149] are among the important approaches to improving complementary feeding. These schemes have been implemented in a number of Latin American countries, mostly with positive outcomes in terms of reducing rates of stunting [150], [151]. Examples with positive impact include Peru and Guatemala, Mexico, and others (see [Chapter 1.5](#) on the evidence of impact of these programmes).

Today, many social protection programmes increasingly include a strong nutrition component to achieve their goals of reducing extreme poverty and hunger and developing opportunities to the poor. Programmes that have provided nutrition education, communication and counselling as well as targeted supplementation have been able to report adequate food consumption and more diverse diets (with more animal source foods) and even reductions in the probability of stunting in young children [152]. It is of crucial importance to include IYCF from the early stages of planning for such high scale programmes to ensure that target groups, food and other benefits packages include children under two years and linkages are established with relevant counselling services.

Strategy component: IYCF in exceptionally difficult circumstances

14. HIV and infant feeding

Infant and young child feeding in the context of HIV and AIDS poses significant challenges due to the risk of transmission of the virus via breastfeeding. Prior to the latest guidelines on HIV and infant feeding, which are based on the evidence of positive outcomes for HIV-free survival through provision of ARVs to breastfed HIV-exposed infants, avoidance or early cessation of breastfeeding seemed logical and appropriate. However, the repercussions for the health and survival of the infants were serious, with studies showing much higher mortality rates due to diarrhoea, malnutrition and other diseases in non-breastfed children. Thus the focus is now on ensuring **HIV-free survival**, not just on preventing transmission. The new (2010) *guidelines on HIV and infant feeding* [126] provide a much clearer pathway towards this goal.

The evidence shows that administering anti-retroviral treatment (ART) to all HIV+ mothers with CD-4 counts <350 throughout the breastfeeding period [153] or providing extended anti-retroviral prophylaxis to infants born to HIV-positive women with CD-4 counts >350, along with prophylaxis for the mother, can significantly reduce post-natal transmission [154]. With provision of ARVs, **breastfeeding is made dramatically safer** and the “balance of risks” between breastfeeding and replacement feeding is fundamentally changed. The mother’s own health is also protected. This new evidence fundamentally transforms the landscape in which decisions on infant feeding practices are made by individual mothers, national health authorities and international development partners.

The 2010 guidelines contains nine key principles, and seven recommendations, which need to be reflected in the national IYCF policy and strategy, as well as updated versions of all relevant national guidelines, planning and supply management frameworks, training and counselling materials and communication strategies.

National infant feeding recommendations: National or sub-national health authorities should select and make a decision on which one of two feeding options should be supported by the health system as the strategy that will most likely give infants the greatest chance of **HIV-free survival**:

- either breastfeed and receive ARV interventions or
- avoid all breastfeeding,

Following this policy decision, the health services should counsel and support **all** mothers known to be HIV-infected on the country’s selected recommendation, as opposed to the previous approach of counselling each mother on choice of options: to breastfeed or artificially feed her infant.

This decision should be based on international recommendations and consideration of the socio-economic and cultural contexts of the populations served by maternal and child health services, the availability and quality of health services, the local epidemiology including HIV prevalence among pregnant women and main causes of infant and child mortality and maternal and child under-nutrition. Countries with high infant mortality rates are also likely to have a high risk of death due to lack of breastfeeding and therefore should carefully consider this balance of risks versus HIV transmission through safer breastfeeding with ARVs.

Interventions and actions to address infant feeding in the context of HIV include:

- i. Achieving national consensus, developing/updating policies reflecting the 2010 WHO guidelines, as well as guidelines and materials on HIV and infant feeding, and disseminating widely.
- ii. Intensification of efforts to implement and enforce the Code.
- iii. Implementation of actions related to HIV and infant feeding in the health system, including ensuring implementation of IYCF counselling as part of the PMTCT services and capacity development of health providers on the new WHO guidelines.
- iv. Implementation of IYCF counselling in communities using counselling tools which include the 2010 HIV and infant feeding guidelines, and provision of support for follow up of HIV-infected

mothers and exposed and exposed infants and ensuring adherence to ARV regimes and infant feeding recommendations.

- v. Communication on HIV and infant feeding as part of the overall communication strategy, with carefully-tailored messages on the safety and importance of breastfeeding in the context of ensuring HIV-free survival, the importance of adherence to the ARV regimens, and messages on the importance of exclusive breastfeeding even in the absence of ARVs.
- vi. Monitoring and evaluation considerations for HIV and infant feeding, including routine monitoring of feeding practices, review of the impact of HIV and PMTCT programmes on breastfeeding rates and other aspects of infant feeding and operations research.

15. IYCF in emergencies

The national IYCF strategies need to specifically address IYCF programming in emergencies for the following reasons:

- Breastfeeding is safe, free and a crucial life-saving intervention for vulnerable children whose risks of death increase markedly in emergencies.
- Emergency situations exacerbate risks for non-breastfed children and those who are on mixed feeding.
- Both exclusive breastfeeding up to 6 months and continued breastfeeding after 6 months are crucial in reducing the risk of diarrhoea and other illnesses in older children, which is heightened in emergencies.
- Donations of BMS undermine breastfeeding and cause illness and death.
- IYCF is central to reducing the high risk of undernutrition during emergencies.
- Safe, adequate, and appropriate complementary feeding, which significantly contributes to prevention of undernutrition and mortality in children after 6 months, is often jeopardized during emergencies and needs particular attention.

The ***Operational Guidance on Infant and Young Child Feeding in Emergencies*** (see [Resources Annex 1-11](#)) contains 6 “practical steps” for IYCF actions in emergencies which should be planned as a part of national IYCF strategy and emergency preparedness:

1. Endorse or develop policies.
2. Train staff.
3. Co-ordinate operations.
4. Assess and monitor.
5. Protect, promote and support optimal infant and young child feeding.
6. Minimize the risks of artificial feeding.

The major priority actions in emergencies are highlighted in the [Chapter 3.5.2](#) of this programme guidance and include the following areas:

- i. **Emergency preparedness and planning.**
- ii. Protecting, restoring and supporting breastfeeding.
- iii. Preventing and handling donations of BMS and powdered milks.
- iv. Ensuring appropriate feeding for children with no possibility to be breastfed.
- v. **Ensuring availability and use of age appropriate complementary foods and supplements.**
- vi. **Ensuring the integration of IYCF counselling with emergency programmes for management of SAM ⁽¹⁾.**

¹ The three items in bold have been added or addressed in more detail in this document as compared with the Operational Guidance. The Operational Guidance is due to be updated in 2011.

2.4.4 Prioritizing interventions

The situation analysis and policy framework form the basis for determining which components and interventions the strategy should include. Interventions should be prioritized based on their ability to reach the most vulnerable populations and/or have the greatest coverage. The package of interventions should be comprehensive, including both breastfeeding and complementary feeding interventions and be tailored to the country situation and context.

Prioritizing interventions to protect, promote, and support breastfeeding

The IYCF strategy needs to comprehensively address the protection, promotion and support of breastfeeding in all countries. There is no single universal 'best' package of breastfeeding interventions because of variations in the situation in different countries and settings. There are, however, proven interventions in improving breastfeeding practices ([see Chapter 1.5](#)), and ways to use specific country data, based on the situational assessment, to further inform the decision-making process for selecting interventions that can make a difference.

In situations where formula manufacturers aggressively promote their products and **legislation on the marketing of breastmilk substitutes is absent or not enforced**, interventions to address legal frameworks for this legislation and strengthen its monitoring should be of highest priority. Communication, community and health service interventions should counter the formula marketing with strong protection of breastfeeding.

In contexts with a significant female workforce in the formal sector, there is a need to prioritize interventions to improve **workplace policies and practices related to breastfeeding**, and to implement practical counselling and support activities to help working mothers continue to breastfeed.

Improving maternity breastfeeding practices is important both for initiation of breastfeeding and for establishment of correct infant feeding practices in general. However, improving maternity practices through the BFHI process on a hospital-by-hospital implementation basis has generally been slow. In the section on health system actions, concrete suggestions are made to accelerate and institutionalize and accelerate this process. In countries where **institutional delivery rates are high**, interventions in maternity facilities such as the BFHI may impact significantly the rates of early initiation of breastfeeding and establish optimal feeding practices; therefore, they need to be highly prioritized. Since maternities may only have limited impact on exclusive and continued breastfeeding after discharge even in these countries, sustained support through primary health care (PHC) and community-based services is required to ensure exclusive and continued breastfeeding. On the other hand, in countries where **institutional delivery rates are very low**, community-based IYCF interventions including strengthening of community-based newborn care and counselling on infant feeding should be highly prioritized, although health system capacity development should still be addressed as it sets an example of highly professional and quality services.

In settings with **very weak health systems** and low access and utilization of health services, in parallel to strengthening health systems capacity for IYCF support and counselling, community level actions and communication should be prioritized, particularly for ensuring equitable access. However, even in such contexts with very weak health systems, IYCF actions in health facilities should still be pursued, as health providers are often influential figures and the messages they provide should be consistent with those disseminated at community level and through the communication strategy. In addition, since the health providers are often the trainers and supervisors of community cadres, it is important that their relevant capacities are developed.

In settings with strong health systems with high coverage the IYCF counselling and support interventions in the health system should be prioritized at scale. IYCF services should be fully integrated within the various platforms of health systems strengthening initiatives. Such countries or settings within a country (e.g. urban areas) may not have community based structures and their creation may not be warranted.

If formative research identifies **major knowledge gaps or barriers** that may have a big impact on breastfeeding or complementary feeding practices, the priority interventions should include appropriate **communication and counselling** to address these, and should be based on formative research

rather than generic messages about the benefits of optimal feeding practices. Channels and techniques for communication and counselling should be selected based on their potential effectiveness in reaching the target groups.

Prioritizing and selecting interventions to improve complementary feeding: Decision Tree

Multiple interventions will be required for improving complementary feeding of children age 6-23 months. The impact of many interventions is context-specific, and depends on factors such as the food security situation, complementary feeding practices, and the availability and affordability of quality local foods.

As in breastfeeding, there is no single universal 'best' package of complementary feeding interventions because of country and contextual variations. In all contexts – both food secure and food insecure situations - three core action areas are suggested. These include:

1. IYCF counselling and communication on optimal feeding and care practices
2. Optimal use of locally available foods
3. Strategies to improve availability and affordability of quality foods.

In addition, “additional” components should be chosen for the programme, both in contexts where there is generalized food insecurity and where adequate local foods are available but supplementation may be needed to fill in nutritional gaps of local diets in certain groups or areas. Improved complementary feeding should be identified and prioritized based on the situational assessment and as part of the process of translating the *Global Strategy for Infant and Young Child Feeding (2003)* ([Resources Annex 1-1](#)) into a national IYCF strategy.

An example of a **decision tree** to guide selection of interventions at household level and supplements for complementary feeding is shown in Figure 19. **It should be noted that for each step of the decision tree, prior assessments are needed.** Additional factors may need to be considered according to the local context.

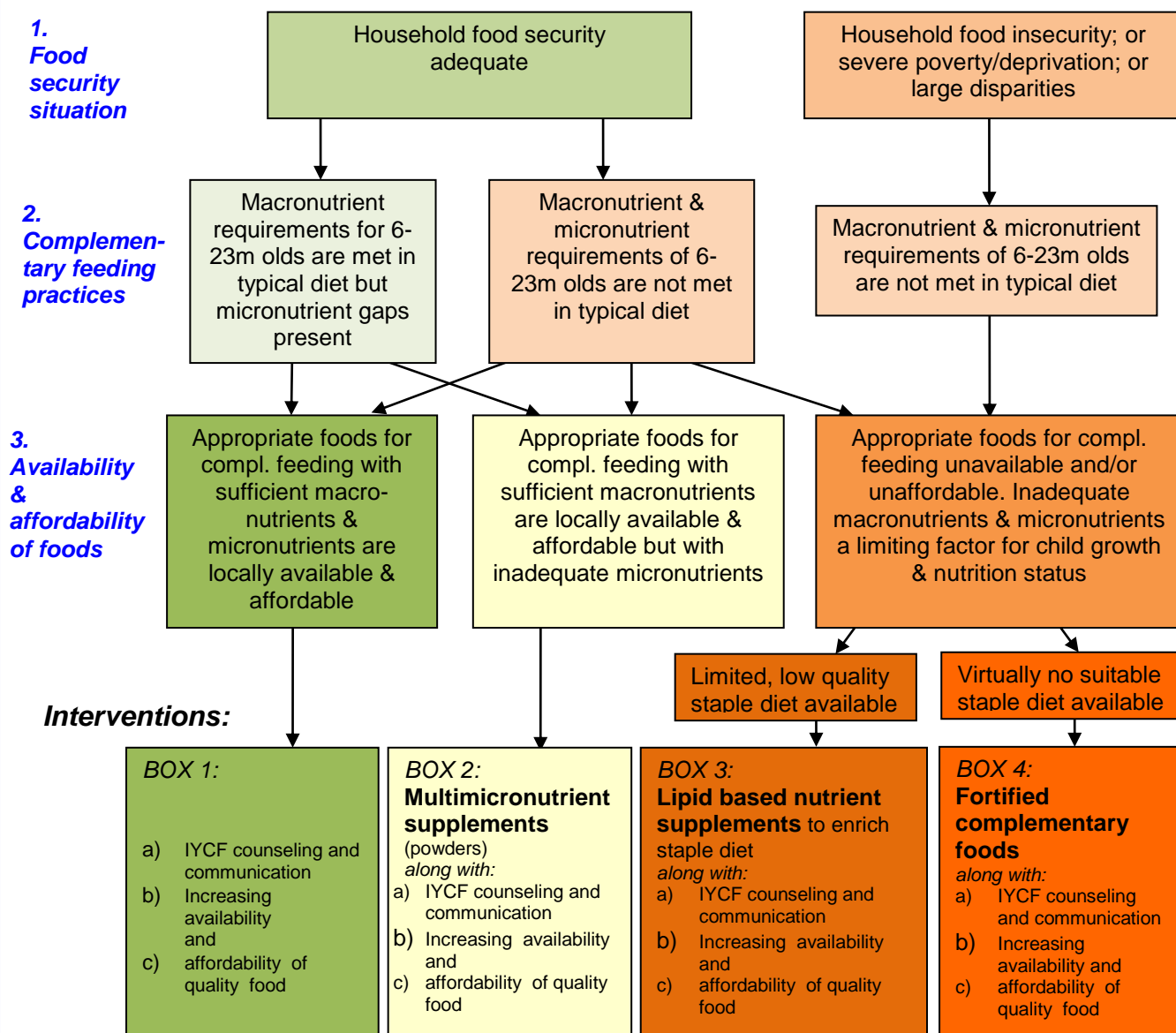
Such a decision tree allows for prioritization of strategies and selection of interventions appropriate for each local context. Since both food-secure and food-insecure populations may be present in a country or within a certain region, programme strategies may also be different at sub-national level. For example, a country may have universal coverage with IYCF counselling and then provide supplementation in areas with dietary gaps that cannot be met with locally available foods. Different strategies may be required for different populations in order to improve the quality of complementary foods and improve feeding practices; however among all groups locally-available foods should be exploited whenever possible and their use optimized through counseling and demonstration of improved recipes.

The explanation in the following section provides a detailed overview of the process of analysis and prioritization shown in the decision tree. (See also Chapter 2.2 on [situation assessment](#) and [Chapter 2.4](#) on the counselling interventions in the health system and community and the complementary feeding components of the IYCF strategy).

Figure 19: Example of a decision tree for population-based programmatic options for improving nutrient quality of complementary foods and feeding practices in non-emergency situations

This is a decision tree for population based public health approaches, not based on individual level screening. For all contexts, counselling and education of mothers about optimal feeding and care practices and use of locally available foods are essential, as well as strategies to improve availability and affordability of quality local foods (* see notes below for more details). The decision tree would help with choosing "additional" components for the program, both in contexts where adequate local foods are available but supplementation may be needed to fill in nutritional gaps of local diets in certain groups or areas, or where there is generalized food insecurity. The examples of strategies and supplements are not exhaustive.

Situation analysis (1-3):



Notes on core interventions for all situations:

- IYCF counselling** related to complementary feeding addresses optimizing use of local foods according to the context and specific nutrient gaps (use Linear Programming), e.g. adding amylase, emphasizing use of animal source foods, micronutrient rich foods, developing and teaching improved recipes for complementary foods; problem-solving, feeding, care & hygiene practices. **Communication** for behaviour & social change is based on evidence of barriers to optimal complementary feeding and uses multiple channels.
- Strategies for increasing availability of quality foods:** improving production, commercial and social marketing of high-quality local foods, homestead production, animal husbandry, links with agriculture extension.
- Strategies for increasing affordability of high quality foods:** vouchers/coupons, conditional cash transfers or other social safety nets, or through free distribution.

Suggested decision making process using an example of the decision tree

Situation analysis

In order to be able to make evidence-based decisions regarding selection of best additional interventions for improving complementary feeding, it is important to collect some information to assess the prevailing situation with regard to feeding of children aged 6-23 months and complete situation analysis. Some of required this information may already be available through ongoing data collection mechanisms such as national surveillance systems and surveys. The completion of the situation analysis requires **three steps**:

1. *Food security situation*
2. *Complementary feeding practices*
3. *Assessment of availability and affordability of foods*

1. Food security situation

This step will allow for classifying the population either as food secure or as food insecure. There will be a need for assessment of food security situation, as well as acquire additional information for further programming purposes. If possible, the food security situation in the population should be assessed through first-hand data collection on various aspects of food security using evidence-based methodologies. Most countries facing chronic food insecurity often already have national tools to assess food insecurity which also can be used¹. In addition, often times data is available on proxy measures of overall household income and multiple dimensions of deprivation which can be used to assess the availability, accessibility and affordability of foods² (e.g. through household expenditure surveys) [155]. Understanding the food-security situation in sub-groups of a population can also allow for better targeting of programs based on factors such as socio-economic situation, % urban, % mothers employed outside home, patterns of inequity (gender, income, geography, ethnicity), seasonal hunger patterns, status of livelihoods in different groups, presence of post-emergency situations, etc.

As a result of the analysis, the target population or subgroups will be classified either as food secure or as food insecure in the decision tree.

2. Complementary feeding practices

The second step (step 2), is based on information on an array of complementary feeding practices in the target population, assess the typical diet and feeding practices, and allow for understanding the micro- and macro-nutrient gaps in typical diets of children at 6-23 months. This could be acquired by looking at an array of complementary feeding practices at population level, and also, conducting small-scale assessment of typical complementary feeding diets using available tools³. In addition, it is helpful to assess complementary foods which are fed to children age 6-24 months among different sub-populations (i.e. urban, rural, extremely poor, regional etc., as well as vitamin-mineral supplements or industrially-processed fortified complementary foods used. This information will be useful at later stages for assessing which interventions have the highest potential for success.

As a result of the analysis, the typical diets of children aged 6-23 months will be classified and reflected in the decision tree as either meeting the macronutrient requirements but with micronutrient gaps (in food secure situations), or as neither meeting macro nor micronutrient requirements (in both food secure and food insecure situations).

¹ Some useful guidance on measurement of food security can be found at <http://www.ers.usda.gov/Publications/EFAN02013/>. Other tools include FEWSNET, WFP's Vulnerability Analysis Mapping (VAM), FAO's Food and Crop Assessment, new questions on food security in the DHS (pioneered in Latin America and applied in Brazil) and national systems, such as the Vulnerability Assessment Committees in Southern Africa. See Resources Annex 1-3.

² It should be noted that measurement of food insecurity is challenging, and different methods for assessments and cut-offs can be used that will make a significant difference in the number and composition of the target population. Note that this decision tree attempts to distinguish population level categories of food-secure versus food-insecure, a decision which may not necessarily call for individual level screening of food security or nutrition status. Therefore, using overall measures of poverty/deprivation for which data is available at country level can still serve the purpose.

³ For more information, go to Chapter 2.2.4. (ProPAN)

3. Availability and affordability of local foods

The third step (step 3) suggests assessment of availability and affordability of local foods. At this stage, it is important to look at data regarding available foods in the community, their nutritional content, and their acceptability as infant foods. In many instances, there are foods of good quality that are available locally but not given to young children for various reasons. This level of the decision tree attempts to identify the potential of local foods to improve quality of diet of children at 6-24 months. Particular foods groups that need to be assessed for their availability and affordability (including subsistence agriculture and market) include basic staples, micronutrient-dense or fortified foods, fruits and vegetables, animal source foods, protein and fat sources.

In the decision tree, the local foods will be classified as:

- ***Available and affordable to meet both macro and micronutrient needs.***
- ***Available and affordable to meet macronutrient, but not micronutrient needs.***
- ***Not available and/or affordable for both macro and micronutrients.***

Following all three steps of the situation analysis, and based on results of categorization, various options for **interventions (Boxes 1-4)** are suggested ***in the decision tree.***

Interventions

It is important to emphasize that even though there will be different options in the decision tree (Boxes 1-4) for necessity of additional foods to supplement local diets, there are two major interventions (a, b, c) that need to be prioritized in all cases. Therefore all three interventions appear in all boxes along with context-specific additional solutions.

a) IYCF counselling and communication

An important element in all intervention options is counselling on best practices and problem-solving for care-givers for improving complementary feeding practices. Evidence shows that mothers are willing to prepare complementary foods if they are culturally acceptable, and that improving maternal knowledge and feeding practices can lead to increased dietary intake and growth of infants. The *Guiding Principles for Complementary Feeding of the Breastfed Child* (2003) [156] were developed in order to unify messages given to caregivers regarding appropriate complementary feeding practices, worldwide. Ten guiding principles address preparation, content, and adequate storage of complementary foods, as well as behavioural aspects of feeding (such as responsive feeding). Counselling to improve feeding practices of caregivers should be guided by these principles, as well as the *Guiding Principles for Feeding of Non-Breastfed Children* [157] *Global Strategy for Infant and Young Child Feeding*, and other relevant documents. These principles need to be translated into appropriate messages and counselling tools in order to result in behaviour change. It has been shown that general, generic messages such as “give your child a variety of foods” may not have a significant impact on child feeding practices, whereas a more specific message “e.g. give your child eggs three times a week) can have a much higher impact.

Educational messages can be improved by integrating viewpoints and suggestions of mothers and caretakers into the decision-making process. Increasing counselling opportunities (through multiple channels and at regular intervals, especially in critical times such as around the 6th month of age when the introduction of complementary feeding can pose many challenges) can also lead to further improvements in knowledge and practices.

b) Strategies for increasing availability of quality foods

Another aspect of improving complementary feeding is related to the overall access of the household to quality foods for children. Inadequate nutrient content of complementary foods may be related to the fact that local complementary foods are predominantly plant-based and thus often both low in both macro and micronutrients and high in anti-nutritive factors. Including small amounts of animal source foods (ASF) can help increase absorption of zinc and iron in addition to improving the overall quality of

the diet. Assistance for home gardening, raising poultry, and animal husbandry can increase availability of high-quality ingredients for complementary feeding among the rural poor.

Linear programming is one tool that can be used for development of least-cost complementary foods. Linear programming requires the input of accurate nutrient content estimates of foods and adjustment for factors such as bioavailability, and absorption rate of nutrients.

Linkage to agriculture can prove to be effective in improving the access of these households to better food options. Traditional techniques at the household level such as dehulling, peeling, soaking, germination, fermentation and drying can improve nutritional content of local foods, though these techniques by themselves may still not result in sufficient amounts of bioavailable iron.

When local foods are not adequate to meet the micro and macronutrient requirements of children, the role of industry in producing high quality complementary foods should be assessed. Availability of industrially-processed fortified complementary foods marketed to young children should be evaluated. A list of these foods and their nutrient content assessed for adequacy as foods for children 6-23 months can be made. Accessibility of these foods among different sub-populations (including urban, rural, and extremely poor populations) should be assessed.

c) Strategies for increasing affordability of quality foods

Inability to afford adequate quality foods suitable for children 6-23 months is a major limiting factor in the diets of children in many communities, particularly the lowest income quintiles and the most disadvantaged and deprived groups. These groups are found in both rural and urban settings. The urban poor may have specific vulnerabilities since they generally have a greater dependence on cash income for purchases, greater participation of women in the work force, and a greater number of women heading households as compared to the rural poor. This often poses greater time constraints for caregivers and increases tendency to use processed foods. However many of these foods are of low quality. As discussed above, strategies to improve access of these households to better food options need to be addressed, such as vouchers, coupons, and linking with social protection programmes.

Improving complementary feeding where households are food secure (Boxes 1 & 2 in Decision Tree)

Even when households are not facing challenges of food insecurity, there are many challenges in providing optimal complementary feeding to children, therefore, one should not assume that even if the food is available, appropriate complementary feeding would happen automatically.

In food-secure settings where local foods appropriate for complementary feeding with sufficient macro and micronutrients are available and affordable but not necessarily given to children, the focus should be on improving complementary feeding practices. The main strategy should be to improve practices by optimizing approaches to use locally available and acceptable foods. Identification of such foods should be prioritized so that key findings can be incorporated into nutrition education and counseling. The three main interventions described above – **a) counseling & communication, b) improving availability of local foods and c) improving affordability** – should be applied but no additional intervention is needed, as shown in **Box 1 in the Decision Tree**.

In food-secure settings where local foods appropriate for complementary feeding with sufficient macronutrients are available and affordable but lack micronutrients, the focus should be on improving complementary feeding with additional micronutrient supplementation. The role of in-home supplementation of complementary foods among different populations (i.e. rural vs. urban) with multiple micronutrient powders should be explored. Selection of best additional options needs to be based on assessment of local situation and gaps, as explained later here. Use of supplements, such as vitamin-mineral powders or tablets, can improve the nutritional quality of local CF at a low cost. Widespread use of supplements will require social marketing and/or distribution to families in need. These products may be especially useful in rural areas where access to industrially-processed fortified complementary foods is limited. The three main interventions described above – **a) counseling/communication, b) improving availability of local foods and c) improving affordability** – should be applied together with **multiple micronutrient supplementation**, as shown in **Box 2 in the Decision Tree**.

Complementary feeding in the face of household food insecurity (Boxes 3 & 4 in Decision Tree)

The availability, accessibility and affordability of high quality foods for children are key factors in determining the capacity of caregivers to provide optimal complementary feeding to children. Therefore, in food-insecure situation, the typical diet is usually not able to meet the nutritional needs of children. The inability to meet the dietary requirements may be transient, e.g. during normal or abnormal seasonal hunger patterns, during the recovery phase following an emergency or as a result of sudden food price increases. In such situations provision of supplements may be considered as a short-term temporary measure.

In food insecure settings where local foods appropriate for complementary feeding with sufficient macro and micronutrients are unavailable and unaffordable, but a limited, low quality staple diet is available, the focus could be on improving complementary feeding with additional provision of quality foods such as lipid-based nutrient supplements (LNS) and similar products. Widespread use of supplements will require social marketing and/or distribution to families in need. These products may be especially useful in rural areas where access to industrially-processed fortified complementary food is limited, or under special circumstances such as during hunger season, in refugee settings or in HIV context. The three main interventions described above – **counselling/communication, improving availability of local foods and improving affordability** – should be applied along with the supplements, as shown in **Box 3 in the Decision Tree**.

In food insecure settings where local foods appropriate for complementary feeding with sufficient macro and micronutrients are unavailable and unaffordable, and staple diet is scarce and of low nutritional quality, the focus could be on improving complementary feeding with additional provision of industrially-processed fortified complementary foods. Such foods have been developed for improved complementary feeding in many countries [158]. In addition, fortified blended or ready to use foods have been typically used in food assistance programmes in emergencies and situations of acute food insecurity. The three main interventions described above – **a) counselling/communication, b) improving availability of local foods and c) improving affordability** – should be applied together with provision of industrially processed fortified complementary foods as shown in **Box 4 in the Decision Tree**.

2.5 Using additional opportunities for integration of IYCF

Development, planning and implementation of national IYCF strategy

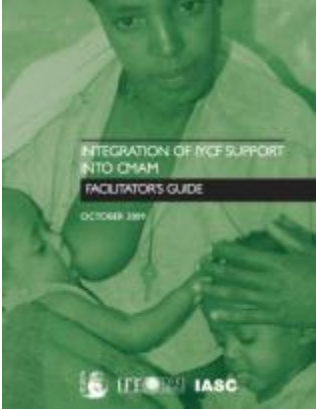
- 2.1 Advocacy, partnerships and coordination
- 2.2 Situation assessment
- 2.3 Developing national IYCF policy
- 2.4 Developing a comprehensive IYCF strategy; identifying and prioritizing IYCF interventions
- 2.5 **Using additional opportunities for integration**
- 2.6 Developing national and sub-national plans of action and mobilizing resources
- 2.7 Implementing, monitoring, reviewing and evaluating

In addition to developing IYCF strategy and designing relevant interventions, other programmes targeting women and young children should be used as entry points to incorporate key elements of IYCF, and the use of existing contacts should be maximized to implement IYCF actions. This will help in achieving high coverage of interventions, multiplying resources and avoiding duplication, thus saving time and resources and enabling more people to be reached. At the same time, IYCF should not be implemented only through integration leaving out components which have to be implemented separately, as has been observed in some cases.

Examples of **interventions and entry points for integration within the health system include:**

- **Maternal and neo-natal health programmes:** the contacts of ante-natal care, maternity care, postnatal/newborn care and family planning all provide opportunities to counsel and support women on IYCF. All relevant trainings should include infant feeding counselling as one of the mandatory training modules. Staff with training on lactation management/breastfeeding

counselling should be one of the core requirements for quality maternity services, along with compliance with the Ten Steps.

- **Child health programmes in the health system:** the contact points of routine immunization, IMCI or other facility-based child illness treatment programmes, growth monitoring and promotion (GMP) and child health days are all entry points for IYCF. A structure needs to be institutionalized that both requires and enables health workers to conduct IYCF assessment and counselling activities as a standard, routine part of their daily work (see page 47 for a detailed table of the health system contacts relevant to IYCF and suggested services at each contact).
 - **Inpatient and outpatient/community-based management of severe acute malnutrition (CMAM).** In many countries CMAM is leading the way in terms of scaling up nutrition activities, and represents a very important entry point for IYCF actions. IYCF and CMAM should be conceptualized and planned as two integral parts of a single programme to prevent and treat undernutrition, not as two completely separate programmes, as is still the case in some countries. In other countries, CMAM is operating while community IYCF interventions have not even been initiated. This means that the programmes will continuously deal with costly interventions to address the serious consequences of inadequate infant feeding practices while they could significantly reduce undernutrition if infant feeding at community level was highly prioritized. Thus, the design, planning, training, community mobilization, health worker and community worker activities and supervision structures should address both CMAM and IYCF in one single package. Specific resources are available for integrating IYCF into CMAM, such as the IASC/ENN module (see [Resources Annex 1-11](#)), but national tools and materials, including national adaptations of the UNICEF C-IYCF Counselling Package ([Resources Annex 1-8](#)) can also be used: the important principle is to ensure that IYCF and CMAM are considered two related aspects of the same strategy for preventing and managing undernutrition.
- 
- **Community-based health and/or nutrition programmes:** A myriad of community health and/or nutrition programmes exist in many countries. In some cases there are no standardized tools and approaches, while in others a national cadre of community workers exists. These programmes represent important entry points for IYCF counselling, communication and mother support groups.
 - **Community case management (CCM)** of common childhood illnesses: CCM is being pursued to address malaria, diarrhoea and pneumonia in many countries. Optimal breastfeeding practices are essential to the reduction of diarrhoea and pneumonia, and CCM programmes have much to gain from appropriate attention to IYCF activities. IYCF counselling training could be implemented as an integral element of CCM programmes.
 - **PMTCT and paediatric AIDS treatment:** PMTCT is intimately related to infant feeding, and PMTCT programmes represent an important entry point for IYCF. Several countries have made significant progress in scaling up IYCF (e.g. Zambia, Kenya) through PMTCT programmes, and have shown significant results in terms of increased exclusive breastfeeding rates. The infant feeding component has often proven to be a challenging area within PMTCT programmes, sometimes not very well addressed, but there are important lessons learnt that can be used to overcome some of the constraints and design and plan the IYCF component within PMTCT more effectively.
 - **Early childhood development** programs provide an excellent opportunity for integration of interventions for infant and young child nutrition. ECD and IYCF interventions both emphasize the importance of early interventions, behaviour changes and education and counselling of mothers and caregivers for optimal practices. Parenting education classes can combine ECD and IYCF message for higher impact both on nutrition and care practices. At the community level, the same workers counselling mothers on nutrition issues can ensure adequate emphasis on care and psychosocial development. The **“Care for Development Module”** ([Resources Annex 1-7](#)) developed by UNICEF and WHO is a recommended tool for such programming. It has a parallel nutrition module which can be operationalized together with the care module as part of the same programme.

- A potential entry point is the **Community Led Total Sanitation (CLTS)** initiative implemented by the WASH programme, which uses participatory approaches to generate understanding on pathways to contamination of food and water and mobilizes communities to improve handwashing practices and use of latrines. It uses motivators of shame and disgust as well as pride in adopting new practices. This could potentially be a powerful incentive to move away from the practice of giving water and food to babies less than six months old, highlight vulnerability of small babies to contamination, and promote safe preparation of complementary foods.
- **Social protection programmes** can provide an entry point to reach mothers and caregivers in vulnerable households, increase the availability of affordable and high quality foods and influence their feeding and care practices. Various interventions, including provision of micro-credit, food supplementation, food vouchers, subsidies, conditional cash transfers etc. can be assessed within the context of each country and integrated with IYCF services for specific target groups. Effective mechanisms are needed to link IYCF counselling to the receipt of these social benefits.
- **Programmes for improved access to local food** can also provide an entry point to reach mothers and caregivers in vulnerable households and influence their feeding and care practices. Delivery gaps for high impact nutrition interventions for children under-two may be best filled by cross-sectoral approaches that integrate IYCF, nutrition and public health with agriculture programmes, including animal husbandry, home gardening, agricultural extension etc.

2.6 Developing national & sub-national IYCF plans of action and mobilizing resources

Development, planning and implementation of national IYCF strategy

- 2.1 Advocacy, partnerships and coordination
- 2.2 Situation assessment
- 2.3 Developing national IYCF policy
- 2.4 Developing a comprehensive IYCF strategy; identifying and prioritizing IYCF interventions
- 2.5 Using additional opportunities for integration
- 2.6 [Developing national and sub-national plans of action and mobilizing resources](#)
- 2.7 Implementing, monitoring, reviewing and evaluating

2.6.1 Developing national & sub-national plans

Based on the national IYCF strategy, a national plan with projected costing over a defined period should be developed. The plan should encompass all the interventions necessary to achieve results for both optimal breastfeeding and complementary feeding of children under two years. The plan should also adequately reflect supervision and monitoring activities at all levels.

As with the development of the national strategy, development of a national, multi-year plan for IYCF will help to focus and guide the actors who are accountable for the implementation of the plan at the local level. This will also include a provincial or district level planning, possibly using templates with the types of activities for inclusion in integrated district plan, which can then be tailored to the local situation. Similarly, the health facility and community plans can be derived from the district plans.

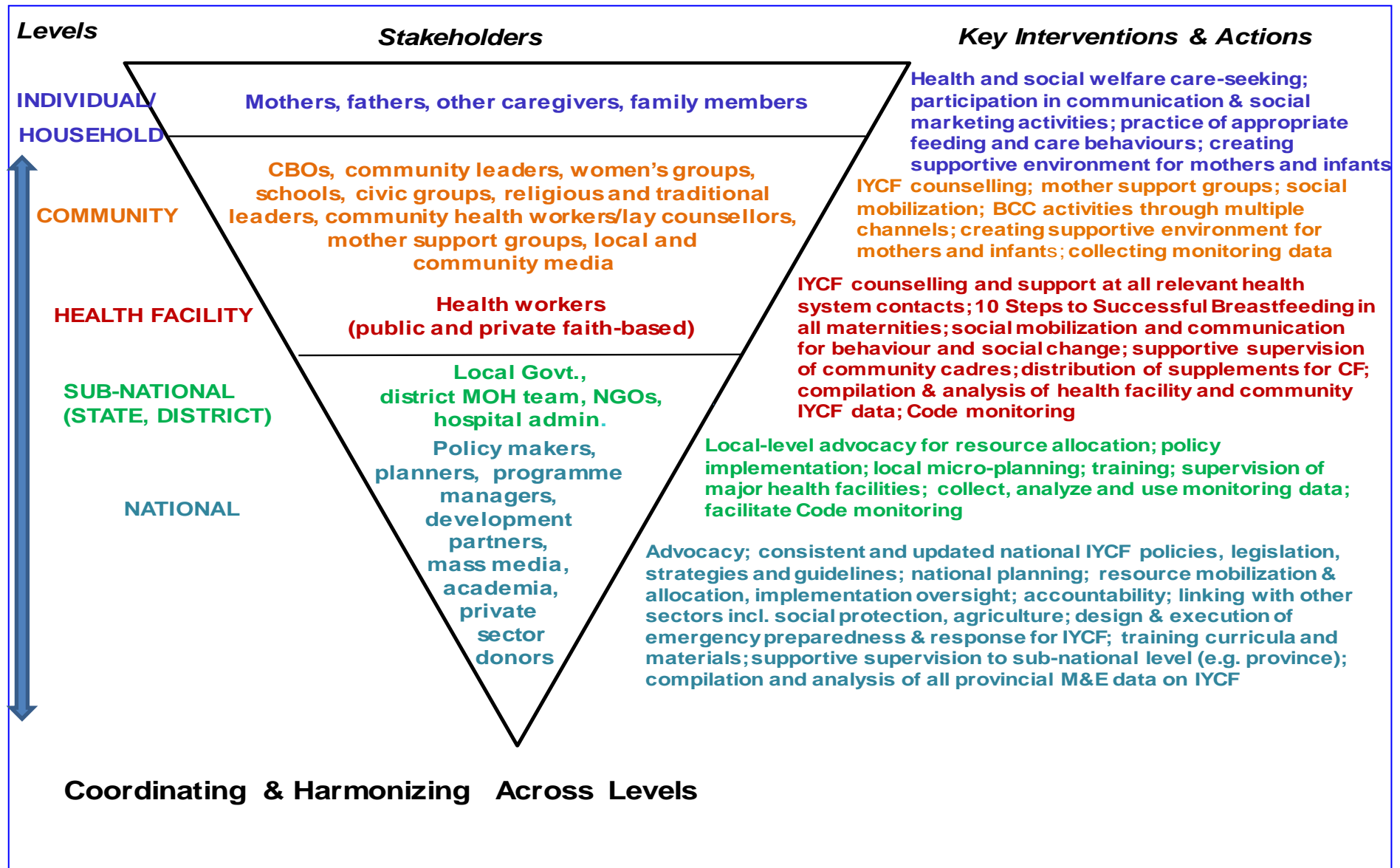
While a national IYCF-specific plan is helpful, it is very important to ensure that all IYCF activities are fully integrated in the plans and budgets for relevant systems and sectors at national and sub-national levels, including the plans for health, education, social protection, agriculture, and other relevant sectors as applicable. This will help in creating greater institutionalization of IYCF within the health system and other sectors.

Box 10: Definitions of terms used in this guidance: national IYCF plans

The IYCF national **plan** operationalizes the strategy and may be a multi-year plan. It helps to guide and focus annual IYCF planning, in which the IYCF activities are usually integrated within national and sub-national sectoral plans. A strategy may be more narrative while a plan is often finalized in matrix format indicating targets, actions, responsible party, budget and in many cases the source of funding. A **microplan** helps to detail the activities and inputs at the lowest administrative level.

Ensuring strong links across all levels, as well as adopting harmonized curricula, materials and messages are crucial. Figure 20 represents graphically the different levels, stakeholders and components of a comprehensive IYCF strategy, with key actions at each level and the importance of strong links and harmonization across all levels.

Figure 20: IYCF stakeholders, components and actions with strong links across all levels



The **microplanning** model of the EPI programme is an example of the useful tool for developing local IYCF plans and should be adapted and tailored to IYCF. As with EPI, multiple contacts are required to deliver tailored IYCF counselling topics through the life-cycle to a pre-determined group of pregnant women and caregivers of children under 2, along with various training activities and regular supervision. Therefore, the EPI and similar types of tools can be used to reflect, by the lowest applicable administrative level (e.g. the district health authority), activities such as training of health providers and community workers, creation of mother support groups, communication, supervision and monitoring, the supplies required etc. The health facility and community levels could also develop their own micro-plans, using the model for immunization services. Planning of supplies will be applicable if supplements for complementary feeding are provided. The EPI budget tools can also be adapted to local-level budgeting for IYCF. (See [Resources Annex 1-1](#) for a sample of micro-planning format for the Reaching Every District (RED) strategy for immunization).

2.6.2 Mobilizing resources and partners

The main challenge in IYCF programme design is to take interventions to scale. In particular, as a part of overall national strategy, community-based programmes need to be taken out of piloting mode and small projects into mainstream public and primary health service provision. Country-level partnerships need to ensure that the supported elements of country programmes are interlinked and synergistic, including assessment, national institutional and human capacity building, community level support, communication, supporting supervision, and other components, to allow reaching national objectives and goals.

The costing for the multi-year and annual plans will be an important step to ensure that adequate commitments from the Government and partners are identified, and relevant resources mobilized.

It is often stated or observed that mobilization of resources for IYCF is a difficult task. This may possibly be due to IYCF focus on interventions such as counselling and behaviour change which require a longer-term process and comprehensive efforts, as opposed to a single, vertical, more visible service or product-driven approach. Another possible reason is that in some cases years of implementation of ineffective and poorly designed and targeted interventions has not produced results, which may have discouraged investment in IYCF. Therefore, **concerted advocacy efforts**, highlighting the evidence on the proven efficacy and cost-effectiveness of the interventions, along with **well-designed and planned IYCF programmes** by the Government and partners should be of high priority. Further, there is a need to ensure that IYCF is included as an essential component of existing programmes - e.g. management of SAM, HIV and AIDS, maternal and child health, community case management (CCM) of childhood illnesses programmes, social protection schemes, etc., as well as nutrition and achievement of MDG goals in general.

Given the fact that food insecurity in many countries impacts even the best efforts to improve complementary feeding, additional attention should be given to mobilizing resources and partners who work in the area of **food security**. In areas with high prevalence of food insecurity, complementary feeding interventions that include provision of additional foods or supplements, or strategies to increase households' own production, not only support for improved practices, have a much higher potential to be effective.

Nutrition planners may have to work closely with the government in designing **social security or social protection schemes**, and find private sector partners who are willing to make high quality products more accessible and affordable. Especially in countries with higher levels of inequality, improving complementary feeding for different sub-populations (i.e. rural, urban, very poor, specific underprivileged regions, etc.) at times additional or different interventions are required, and partners should determine their responsibilities among these groups based on their organizational objectives, geographical coverage and skill set.

There are many partners able to play a meaningful role in IYCF. These include government ministries, multilateral agencies, international and national NGOs, community networks (religious authorities, community leaders, and women's groups), donors, private health care providers and

academic institutions. NGOs play a key role in supporting district community-based actions as part of this national plan.

The mapping of all potential partners may precede the setting up of programmes for IYCF or take place when trying to move from small-scale or initial implementation to a Government-managed, more widespread approach. In both cases it is important to take into account that involvement of partners in implementing a comprehensive IYCF strategy should not be a top-down, one-size-fits-all approach though the basic policies and strategies are fixed. The way the approach is implemented and managed must be fitted to the context and the managing body (e.g. MOH or NGOs).

A **review of existing capacities for IYCF** both within the health system, NGO and other partners should be undertaken in order to position and design a comprehensive approach to IYCF in the country while providing appropriate support, including health systems strengthening. Capacity mapping allows the identification of gaps and system weaknesses that will need to be addressed to ensure success by both national and international partners. Capacity gap analysis includes assessing institutional and human resources capacities, identifying capacity deficits and leads to the development of a strategy to address them.

2.7 Implementing, monitoring, reviewing and evaluating

Development, planning and implementation of national IYCF strategy

- 2.1 Advocacy, partnerships and coordination
- 2.2 Situation assessment
- 2.3 Developing national IYCF policy
- 2.4 Developing a comprehensive IYCF strategy; identifying and prioritizing IYCF interventions
- 2.5 Using additional opportunities for integration
- 2.6 Developing national and sub-national plans of action and mobilizing resources
- 2.7 [Implementing, monitoring, reviewing and evaluating](#)

Implementing and monitoring

Well-coordinated implementation of the plans, with resources made available in a timely manner, and quality control of the overall implementation process are key to achieving the objectives of the strategy. In many scenarios, well-designed programmes or plans do not eventually reach the expected results due to difficulties related to implementation capacities, lack of sustained and consistent resources or poor local management, organization, and quality control of activities. The quality and end-result of each activity are important issues in ensuring that interventions achieve their full potential of improving IYCF situation.

Quality monitoring alerts managers to actual and potential weaknesses, problems and shortcomings so that timely adjustments and corrective actions can be made to improve the programme design, work plan and IYCF implementation strategy and action plan. It will also determine whether various components of the IYCF strategy have been successfully integrated into national IYCF policy, planning, and action, as well as increase accountability of stakeholders and partners. To facilitate measuring implementation progress, a monitoring

Box 11: Definitions of terms used in this guidance: IYCF programme

An IYCF **programme** is a sum of time-bound activities, budgets and other resources aiming to produce specific outputs towards reaching the goals defined in an overarching strategy. In some countries there may be a national IYCF programme under the leadership and ownership of the Government. However, a Government may not refer to vertical programmes but rather sector-wide approaches in which IYCF actions are integrated; or the Government may not have conceptualized and developed a specific IYCF programme at all, and there may only be small projects or implementation of selected components. At the same time individual partners may also refer to their respective IYCF programmes, which support and contribute to the national effort.

plan should be developed with clear and measurable targets and indicators (see examples of process indicators in Table 1).

At each service delivery level (community worker/health post, health facility, hospital), the lowest administrative level (e.g. district health authority), the provincial/regional/state level and the national level, simple tools can be used to facilitate and monitor implementation against annual targets for the numbers of caregivers and children reached, similar to the approach for monitoring progress for immunization or ante-natal care.

Graphic representation can be used at different levels, for example adapted from the “monitoring chart” for health facility monitoring of immunization (see Annex 2 for a possible layout for tracking IYCF counselling adapted from the immunization chart, and see also Step 7/pages 30-31 of the Reaching Every District (RED) microplanning guide, [Resources Annex 1-1](#)) or using a simple bar graph to record cumulative numbers of children and caregivers reached with counselling. While planning for IYCF counselling integrated in MCH services, it will be important to have the same target numbers of women for IYCF counselling as for ante-natal care and the same target numbers of children under one year old as for immunization. This will help to ensure that the provision of IYCF counselling is well integrated and “ingrained” in the day to day monitoring of activities of a health facility. This should be the minimum target of contacts for IYCF, and there may of course be more counselling and monitoring opportunities at other contacts, e.g. regular growth monitoring sessions, MUAC screening or contacts for treatment of illnesses, all of which should be tallied and reflected on the monitoring chart.

The use of simple **tally sheets** can also be adapted for IYCF counselling activities at the health facility and community levels, on which each counselling session, regardless of which contact it is delivered through, can be recorded and the tallies aggregated on a monthly reporting form or electronic system. Innovative tools such as RapidSMS using cellphone technology might also be applied to monitoring of IYCF services. The attendance at group communication sessions can also be tallied.

Antenatal care cards and child health cards should be adapted to include IYCF counselling contacts, which will help to ensure counselling becomes one of the activities not only routinely conducted and recorded, but also monitored, and also helps to verify information during surveys. The minimum number of counselling sessions to be monitored should be linked to attendance at ANC, EPI and vitamin A supplementation, but there could also room to undertake and monitor additional contacts and counselling sessions, for example if the child came for IMCI, CMAM, ART or other services and received IYCF counselling.

In addition, the execution of training plans need to be closely monitored to ensure the planned number of training sessions took place, follow up visits were undertaken and target supportive supervision was implemented.

Tools for the monitoring of IYCF activities and performance should be incorporated in the standard monitoring frameworks for health facilities and services. Countries may create their own, tailored tools, or may adapt existing tools. For example, supervision tools contained in the UNICEF generic community IYCF counselling package ([see Chapter 3.3](#)) could be adapted to become an integral part of monitoring checklists and guides for different levels of the health system¹.

While tools are available, there are routinely large gaps in routine monitoring and supervision that need to be addressed at the planning stage. Therefore, effective monitoring needs adequate planning, baseline data, indicators of performance, and results as well as practical implementation mechanisms that include field visits, stakeholder meetings, documentation of project activities, regular reporting, formal reviews, effective feedback and follow up.

It is also important to integrate key IYCF programme indicators within the existing Health Management and Information System (HMIS) and ensure quality data collection and analysis at all levels.

¹ Note that the WHO/UNICEF IYCF counselling course for health providers does not contain supervision tools

Development of the monitoring plans should be done at the time of designing and planning interventions, along with programme review and evaluation plans, and adopted as an **MEP (Monitoring and Evaluation Plan)** before implementation starts. The multi-year and annual MEPs should include at minimum:

- a. Routine monitoring of programme inputs and outputs (including process indicators) through a monitoring and information system, focusing on a few key indicators which are feasible to collect and will be useful to the programme;
- b. Programme review and evaluation, including outcome indicators such as the standard IYCF indicators, as well as behavioural indicators related to communication and counselling messages (see the chapter on Communication ([Chapter 3.4](#)) for more details on monitoring of behavioural and social indicators).

Box 12: Definition of monitoring used in this guidance

Monitoring, review and evaluation are frequently used interchangeably; however, they represent different stages of the planning cycle. Monitoring, review and evaluation are critical in public health programmes, but they have different purposes and procedures.

Programme monitoring measures progress in achieving specific results in relation to an implementation plan, whether for programmes, strategies, or activities. It is core accountability for effective work planning and review.

Monitoring is an on-going programmed activity which helps to orient required adjustments at any stage of the cycle; thus, it is a managerial tool.

From UNICEF Programme, Policy and Procedures (PPP) manual

Periodic review of progress against the micro-plans at the local level and against the national level plans (aggregate of the local progress) is important to ensure that implementation is on track, and to target coordinated support for programme components or districts/provinces which face bottlenecks and are not on track. This periodic review can be one of the agenda items of the IYCF coordination structures' meetings at the different levels.

Regular review meetings between at the national and sub-national level are required to assess the progress made in implementation and adjust the plan of action as required.

Assessment of programme outcomes and impact

Assessment of the outcomes (see examples in Table 1) and the impact of the national programme for improved IYCF will provide data on feeding practices and nutrition status that can be used to determine progress towards the national objectives and targets and to revise and improve the IYCF action plan. Large household surveys such as DHS and MICS provide an opportunity for data on IYCF using the updated IYCF indicators. Additionally, national and sub-national nutrition and other relevant surveys need to be used for acquiring a comprehensive data. Many countries conduct **SMART** surveys ([Resources Annex 1-4](#)), where at minimum the exclusive breastfeeding indicator can be added to these surveys.

Lot quality assurance sampling (LQAS) can be used to monitor outcomes in terms of some of the key IYCF practices. This methodology involves a short questionnaire that can be administered to caregivers during supervisory visits, and is simple, easy to use and less costly than household surveys (see the manual developed by Linkages in [Resources Annex 1-4](#)).

It is recommended to use the recently revised **Indicators for Assessing Infant and Young Child Feeding Practices (2008)** ([Resources Annex 1-4](#)) for measuring the progress related to recommended practices. Additional analysis of existing data may be conducted to understand the determinants of disparities in practices (for example maternal education, socio-economic status, geographic and ethnic factors, etc.) and feeding practices in particular contexts.

Programme review and evaluation

IYCF strategy implementation should be reviewed on an **annual basis** to assess whether the annual plans have been implemented as per the targets set for the year. This can be part of the integrated annual programme reviews of the health sector and other sectors as applicable, ensuring that the IYCF activities are adequately reflected. The IYCF assessment matrix can be

used as a tool to periodically update the situation regarding the scope and scale of IYCF programs in the country.

It is also recommended to undertake more in-depth **periodic reviews and/or evaluations (both internal and external)**, depending on the context, to assess whether implementation of the components and interventions is on track as per the benchmarks for quality and quantitative progress defined at the start of the programme. This will allow building new and re-visiting strategies and on-going interventions and actions based on lessons learned. Each country will need to determine its own periodicity for programme reviews; however, the maximum recommended is five years.

As an important aspect of programme reviews/evaluations, it is important to document the **best practices and approaches in programming**, [159] for example for situation assessment, programme design and implementation.¹

An example of a recent in-depth IYCF programme review is the *Infant and Young Child Feeding Programme Review: Consolidated Report of Six-Country Review of Breastfeeding Programmes* commissioned by UNICEF in 2008 and conducted in Bangladesh, Benin, the Philippines, Sri Lanka, Uganda and Uzbekistan [160]. The report contains a series of questions which were used to guide this review. The document [*Infant and Young Child Feeding: A tool for assessing national practices, policies and programmes \(Resources Annex 1-1\)*](#) also contains some checklists for assessing the status of programmes, which can be adapted to the country situation.

Indicators for monitoring and evaluation

Examples of different indicator levels: output or process indicators, outcome indicators and impact indicators, for monitoring, review and evaluation, are shown in Table 1 (see also the suggested indicators for communication on IYCF, [Chapter 3.4.6](#))

Box 13: Definition of programme review and evaluation used in this guidance

A programme review is defined as the periodic or *ad hoc* often rapid assessment of the performance of an undertaking that does not apply the more in-depth process of evaluation. Reviews tend to emphasize operational issues.

Programme Evaluation is an exercise that attempts to determine as systematically and objectively as possible the worth or significance of an IYCF intervention, strategy or policy. It requires a careful prior and specific design, is usually done after an initial period, at the end of the activities or after certain period of implementation. It is an important source of evidence of the performance/quality and effectiveness of a policy, strategy, programme, intervention project, activity, topic, theme, sector, operational area, institution etc.; of whether results have been achieved, either according to their outcomes (programme results) or impacts (health and nutrition results). It has to be credible and synthesize the perspectives of all IYCF stakeholders

From UNICEF Programme, Policy and Procedures (PPP) manual

¹ At minimum a best practice must: 1) demonstrate evidence of success; 2) affect something important and, 3) have the potential to be replicated or adopted to other settings. Given the shifting definition of what is “best”, there is an increasing preference to talk about “good practices” or “promising practices” or “lessons learned” as well as “success stories”

Table 1: Examples of different indicator levels used in IYCF programming

Output (process) Indicators
<p><i>National Level:</i></p> <ul style="list-style-type: none"> ▪ Full-provision law on Code endorsed, enforced, and monitoring activities implemented ▪ Maternity protection legislation in place ▪ Comprehensive, up to date IYCF policy endorsed ▪ Comprehensive, multi-sectoral IYCF strategy in place ▪ IYCF multi-sectoral national action plan in place, with relevant costs and responsibilities of stakeholders ▪ National adaptation of 2010 WHO HIV and IF policy endorsed ▪ Pre-service curricula (medical, nursing, etc.) includes updated, comprehensive IYCF content ▪ In-service curricula reflects integrated IYCF counselling and the updated HIV and IF policy ▪ IYCF reflected in emergency preparedness and response plan ▪ CHW policy and curricula include IYCF counselling
<p><i>Cross-sectoral:</i></p> <p><u>Policy</u></p> <ul style="list-style-type: none"> ▪ National multi-sectoral infant and young child feeding committee is present ▪ National IYCF committee includes members from the M. Agriculture, Finance, social services, education, and other relevant sectors ▪ PRSPs include nutrition ▪ Food security policy includes nutrition interventions for families 0-24 months children ▪ % government budget for nutrition out of the total health budget and total government budget ▪ Social protection programs include child nutrition component/conditions ▪ Agriculture extension programs include nutrition education component ▪ Agriculture extension programs include homestead food production component ▪ Agriculture extension programs include support of animal source production <p><u>Implementation</u></p> <ul style="list-style-type: none"> ▪ # and % of children under 2 reached with social protection scheme (incl. cash transfers) with child nutrition component ▪ % of districts/lowest local administrative area with homestead gardening programmes focused on production of a variety of vegetables and fruits ▪ % of districts/lowest local administrative area with small animal/fowl husbandry programmes ▪ % of districts/lowest local administrative area with agriculture/food security programmes focused on production of high quality foods with a child nutrition focus or education component ▪ % of schools with child nutrition in curriculum ▪ % of planned Code monitoring activities implemented
<p><i>Health System Level:</i></p> <p><u>Routine monitoring:</u></p> <ul style="list-style-type: none"> ▪ % of districts with multi-sectoral micro-plans for IYCF activities ▪ # and % of hospitals that are certified baby-friendly within last 5 years ▪ # and % of hospitals implementing the 6 priority steps for successful breastfeeding (1,3, and 6-9) ▪ # and % of health workers trained on integrated IYCF counselling ▪ # and % of health facilities with at least one HW trained on IYCF counselling ▪ % of planned monitoring/supportive supervision visits for IYCF trained health workers undertaken ▪ # and % of mothers who received IYCF counselling during ANC at least once ▪ % of total target number of children <2 who received IYCF counselling, including: <ul style="list-style-type: none"> ○ # and % who received infant feeding counselling during the ante-natal period ○ # and % who received breastfeeding counselling and support during the neo-natal period ○ # and % of children < 6m who received IYCF counselling ○ # and % of children 6-23m who received IYCF counselling <p><u>Health facility or other survey, exit interviews:</u></p> <ul style="list-style-type: none"> ▪ % of health facilities with workers trained on IYCF who report conducting IYCF counselling ▪ % of health workers trained on IYCF who used at least 4 out of 6 counselling skills during individual counselling ▪ % of trained health workers who used at least 3 out of 4 communication skills during group sessions ▪ % of caregivers of children <2 who reported receiving at least one individual IYCF counselling session in the last xx months. ▪ % of caregivers of children <2 who reported receiving at least one group education session on IYCF

<p>in the last xx months</p> <ul style="list-style-type: none"> ▪ % of caregivers of children <2 who were able to correctly state at least 3 essential breastfeeding practices ▪ % of caregivers of children <2 who were able to correctly state at least 3 essential CF practices ▪ % health facilities with IYCF indicators reported as part of routine monitoring mechanisms (HMIS, PMTCT< etc.)
<p>Community level:</p> <p>Routine monitoring:</p> <ul style="list-style-type: none"> ▪ # and % of community workers (CWs) trained on IYCF counselling and support ▪ % of planned supportive supervision visits for IYCF trained CWs undertaken ▪ # and % of local administration areas (sub-district) with trained CWs conducting planned activities ▪ # and % of local administration areas (sub-district) with mother support groups meeting/conducting activities at least once per month <p>HH surveys/rapid surveys/SQUEAC¹</p> <ul style="list-style-type: none"> ▪ % of local administration areas (sub-district) with active community worker providing IYCF counselling ▪ % of local administration areas (sub-district) with mother support groups meeting/conducting activities at least once per month ▪ % of CWs who reported receiving at least one supervisory visit in the last xx months ▪ % of caregivers of children <2 who reported receiving at least one individual IYCF counselling session in the last xx months ▪ % of caregivers of children <2 who reported receiving at least one group education session on IYCF in the last xx months ▪ % of caregivers of children <2 who were able to correctly state at least 3 essential breastfeeding practices ▪ % of caregivers of children <2 who were able to correctly state at least 3 essential CF practices ▪ % of caregivers of children 6-23m who report receiving [the type of supplement provided in the country] (as applicable) ▪ % of caregivers of children 6-23m who report giving iron-fortified foods or supplements in the past 24 hours
<p>Outcome Indicators</p>
<ul style="list-style-type: none"> ▪ % of infants initiated to breastfeeding within 1 hour of birth ▪ % of infants under 6 months of age exclusively breastfed ▪ % of infants between 6-8 of age with complementary foods introduced ▪ % of children still breastfeeding at 12-15 months ▪ % of young children still breastfeeding between 20-23 months of age ▪ % of infants who had the minimum dietary diversity ▪ % of infants who had the minimum meal frequency ▪ % of infants and young children 6-23 months of age who received a minimum acceptable diet ▪ % of infants 6-23 months who received an MNP, LNS or fortified complementary food in target areas
<p>Impact Indicators</p>
<ul style="list-style-type: none"> ▪ % of stunted children under 5 years of age (HAZ < - 2), ▪ % of underweight children under 5 years of age (WAZ < - 2), ▪ % of wasted children under 5 years of age (WHZ < - 2) ▪ % of overweight children <5 years of age

NB Suggested indicators for intermediate behavioural outcomes reflecting a combination of Knowledge, Attitudes, and Practices (KAP) related to infant and young child feeding are shown in the [Chapter 3.4.6 on M&E of communication](#), along with other indicators for the communication strategy.

¹ SQUEAC = Semi- Quantitative Evaluation of Access and Coverage. The methodology may be used to obtain data on sustained coverage of the IYCF counselling services <http://www.brixtonhealth.com/squeaclq.html>

3. ACTION AREAS FOR IYCF IMPLEMENTATION

3.1 Regulatory actions

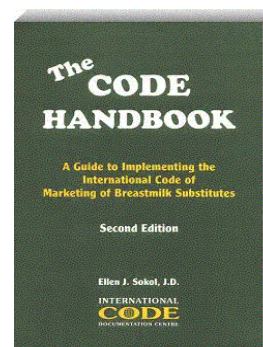
Overview of section for regulatory actions:

- 3.1.1 Implementation of national legislation on marketing of BMS (Code)
- 3.1.2 Implementation of national legislation on maternity protection & workplace policies

3.1.1 Implementation of national legislation on marketing of BMS (Code)

It is important to ensure national oversight of the overall process of implementing the Code, including advocacy and communication, capacity development, drafting of Code legislation, and ensuring its adoption, monitoring and enforcement. [Resources Annex 1-5](#) provides links to further information and tools on Code implementation. Specific activities include:

- i. **Checking the status of Code legislation.** The Code is a minimum standard, and only those countries in category 1 which incorporate all provisions of the international Code and subsequent WHA Resolutions are actually complying with this minimum standard. If a country has not reached this minimum standard, then the available legislation in the country, if any, should be assessed for gaps and revised to include the requirements necessary to comply with the standard of a full provision law.
- ii. **Encouraging the Ministry of Health to adopt an interim policy applying the Code to all health facilities with immediate effect.** The adoption of legislation to implement the Code may involve a lengthy process, whereas the Ministry of Health may be able to adopt a policy or circular relatively quickly to apply the provisions of the Code and subsequent WHA Resolutions to the health care system. Although this approach does not afford full protection from unethical and inappropriate marketing by manufacturers of breastmilk substitutes, feeding bottles and teats, it will prevent them at least from promoting their products in health care facilities.
- iii. **Drafting or updating Code legislation**, as applicable, and ensure adoption by the relevant national authority according to the legislative structures of the country. The **Code Handbook** is a Code drafter's manual containing chapters on each Code provision; a Model Law; 6 national laws; the Code in full; all resolutions and a very useful index (available from IBFAN).
- iv. **Ensuring that the legislation contains effective enforcement mechanisms and sanctions, by appointing an independent body, as mentioned above.**
- v. **Monitor Code compliance.** If there is legislation in place, monitoring will reveal if it is adequate and/or is effectively being implemented and enforced. In the absence of legislation, monitoring will provide the evidence needed to persuade policy-makers that Code implementation is necessary. Generic monitoring protocols are available at the global level. A good resource is the **Code Monitoring Kit**, containing a full set of guidelines and forms for Code monitoring (available from IBFAN).
- vi. **Ensuring that the HIV pandemic and emergencies are not being used to reintroduce commercial donations of BMS to the health care system.** Where the government decides to make free or subsidized BMS available to



HIV positive mothers or eligible mothers affected by emergencies, purchasing through normal procurement channels should be ensured (see the chapters on HIV and infant feeding and in emergencies below).

- vii. **Ensuring that BMS provided through social protection schemes or hospitals do not spill over** to children who do not need them, and do not violate any provisions of the national Codes. As in emergencies, strict criteria should be applied in social protection schemes which provide free BMS to identify and enrol only those infants who have no possibility to be breastfed (e.g. whose mothers are deceased or who are separated from the mothers, or when one of the reasons listed in the “*Acceptable medical reasons for use of breastmilk substitutes*” applies).

In the context of PMTCT, UNICEF offices may provide support in ensuring Code-compliant procurement and distribution of BMS, but should not procure or supply BMS (see chapter on IYCF in the context of HIV)¹.

Additional Resources for Code development and implementation include the **Code Essentials 1, 2 and 3**, which give breastfeeding advocates the essentials about the need to regulate the marketing of baby foods (including formula), feeding bottles and teats. They will help legislators, policy makers and health educators understand how commercial promotion undermines breastfeeding, and offer practical advice on Code implementation and monitoring (available from IBFAN).



3.1.2 Implementation of maternity protection and workplace BF policies

There are several actions that can be taken to raise awareness and support implementation of appropriate maternity protection legislation and dispel the misconception that mothers in employment cannot breastfeed:

- i. Implement communication activities targeting working mothers to support the continuation of breastfeeding, for example through expression, safe storage and cup feeding of expressed breastmilk.
- ii. Develop culturally appropriate advocacy messages and materials about how maternity protection benefits all of society: women and men, employees, employers, governments, and most of all babies. Emphasize that all mothers work, and that breastfeeding mothers need support and time to nurse their babies.
- iii. Develop “Baby-Friendly Workplace Initiative” advocacy materials for industries and factories, focusing on the benefits to the employer of offering 14 weeks maternity leave, crèches and nursing breaks (improved morale, reduced absenteeism, improved productivity and image booster for the company).

¹ See: UNICEF: “Infant feeding and mother to child transmission of HIV: operational guidance note” CF/PD/PRO/2002-003 (ref. 132)

3.2. Health service level actions

Overview of chapter on health service level actions:

- 3.2.1 IYCF counselling and support in pre-service and in-service training **curricula**
- 3.2.2 **Capacity building** of health workers in IYCF counselling through pre-service and in-service training, mentorship and follow-up
- 3.2.3 Infant feeding **counselling and support in health services**: age-appropriate one-to-one infant feeding counselling and support for the mother and child in all health system contacts
- 3.2.4 Full institutionalization of the **Ten Steps to Successful Breastfeeding**
- 3.2.5 **Group counselling/communication** in the health services
- 3.2.6 Strengthening quality **complementary feeding** through food-based recommendations and supplementation in selected situations
- 3.2.7 Counselling and support on **maternal nutrition** during pregnancy and lactation, and supplementation

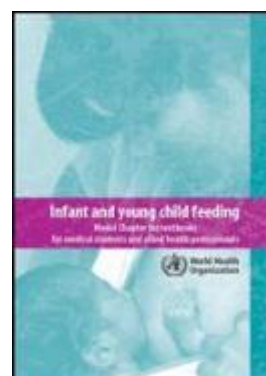
Introduction

Health professionals are often influential figures in a society, and the messages, counselling and advice they provide play a crucial role in ensuring optimal infant and young child feeding practices. They include not only doctors and nurses in general practice, but also paediatricians, obstetricians/gynaecologists, neonatologists and general doctors. The experiences of mothers and infants in the health care services exert a strong influence on breastfeeding initiation and later infant feeding behaviour. On the other hand, the functions of health providers may also reflect a lack of knowledge about correct feeding advice and practices or a bias towards sub-optimal infant feeding, for example they may encourage the use of formula or sanction giving water along with breastmilk. In many settings where proactive feeding advice and support is absent in the health system (and often in the community as well), the opportunity for influencing mothers towards optimal practices is lost and mothers are left to be influenced by wrong advice, for example by health providers who have incorrect knowledge and biased views or by formula companies inappropriately marketing breastmilk substitutes.

The influence of health providers extends beyond the facilities where they work and the caregivers they come into contact with. The senior health providers and managers working in larger facilities and hospitals, district and provincial health offices, the national Ministry of Health and in training institutes are often the people who train others, conduct supervision and who advise on policies and protocols. It is crucial that they are fully capacitated on the most effective ways of IYCF programming. In cases where their capacity and understanding of IYCF is limited, their commitment and performance for IYCF is significantly jeopardised. In many instances a strong advocacy is needed to convince this group of professionals on the importance of IYCF and the actions needed.

3.2.1 IYCF counselling and support skills in pre-service and in-service training curricula

Infant and young child feeding is generally a neglected area in the pre-service and in-service training of health professionals worldwide and requires high prioritization. Including IYCF topics in the basic curriculum of medical and para-medical professionals is also likely to be the most feasible and sustainable way to address the current knowledge gaps. The standard for pre-service curricula should be based on the recent ***Infant and Young Child Feeding: Model Chapter for textbooks for medical students and allied health professionals (WHO 2009)*** ([Resources Annex 1-7](#)).

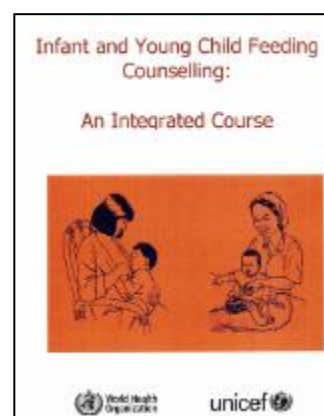


It is critical to avoid having parallel and often contradictory systems of training, a scenario common in many countries. The most appropriate support is to ensure that the various pre-service curricula – for doctors, health officers, nutritionists, midwives, nurses, nurses’ assistants, etc. – contain appropriate IYCF content and that pre-service and in-service training curricula are harmonized.

Involving academics and teaching staff from the outset when new curricula and courses are introduced and in training of trainers has proven to be an effective approach. In addition, investing in quality IYCF content in the basic training packages and ensuring regular updates can also contribute to development of a well-trained cadre of IYCF advocates in academia, an important resource for an IYCF programme. High level and influential academics may in turn become key champions for IYCF in a country.

Pre-service and in-service curricula therefore need to devote sufficient attention to building professional support and counselling skills on IYCF, including through practical residency and other on-the-job programmes where skills can be practised. In many countries IYCF features as a module within a broader nutrition training programme. This is a good start that helps in the general promotion of appropriate infant feeding, but needs further IYCF-focused capacity building to adequately counsel mothers, negotiate with them, solve problems and provide practical support.

The five-day **Integrated IYCF Counselling Course (WHO/UNICEF 2006)** which contains modules on breastfeeding, complementary feeding, and HIV and infant feeding, is a good model that provides sufficient depth but at the same time is feasible to implement at scale. It can be adapted to the local context and can be used for in-service curricula. It does not, however, have counselling cards or other job aids. The counselling cards developed by UNICEF for community cadres may also be utilized for primary health care staff. In addition, the HIV aspect of the IYCF training courses needs to be updated based on the 2010 WHO guidelines on HIV and infant feeding **Guidelines on HIV and Infant Feeding - Principles and recommendations and a summary of the evidence (WHO 2010)**



Specialized training on lactation management of selected health staff can use the **40-hour Breastfeeding Counselling Training Course (WHO/UNICEF 1993)**¹. In addition, there

3.2.2 Capacity building of health providers in IYCF counselling

Whether for in-service training or pre-service education, the need to build up teams of experienced trainers is critical. There are excellent examples of countries that have been able to implement breastfeeding counselling training nationwide by systematically building the capacity of district managers and senior clinicians to plan for and conduct in-service training. The same success needs to be replicated for more integrated infant and young child nutrition training at scale which would include both breastfeeding and complementary feeding. In addition, while many countries have given greater priority to in-service training, it is necessary to focus on pre-service education system to ensure relevant capacities of all new cohorts of staff and avoid the need for continual in-service training. Involving the staff of academic and training institutions, as well as functioning of teams of trainers

Box 14: Key counselling skills:

1. Accept what a mother thinks and feels
2. Recognize and praise what a mother and baby are doing right
3. Give practical help
4. Give a little, relevant information
5. Use simple language
6. Make one or two suggestions, not commands

¹ WHO/UNICEF 1993 Breastfeeding Counselling Course is currently under revision (2011).

within the teaching institutions will also avoid creating parallel systems with different approaches and contents and will lead to continuity and sustainability.

It is important to define precise quality criteria for training, including ensuring that there are adequate clinical and field practice sessions, and continuously monitor it. There are numerous experiences of using a number of training packages on IYCF – for example, the IYCF integrated course or a local adaptation, breastfeeding counselling, the BFHI 20-hour course, or training packages which contain elements of IYCF – such as IMCI, CMAM, ENA, a PMTCT course, an HIV and nutrition course, and a pre-service nutrition technician course. The ultimate decision on the content should be based on consideration of objectives and relevance to functions of the trainee.

It is critical to ensure the IYCF content of all the different courses in the health system is harmonized. All health workers are then trained on the same material, which can be useful in a context with a high degree of staff rotation and turnover. Materials for health provider training also need to be harmonized with the materials for training of community cadres. Harmonization is essential to ensure that all those who provide IYCF counselling disseminate the same messages and apply best practices to counsel caregivers.

It is also critical to ensure that the training of health providers is not the first and last step in the process of capacity building. Training sessions on their own do not produce capacity and sustained implementation of services and achievement of results. The appropriate systems and structures to implement the IYCF counselling services need to be developed, and supervision and performance monitoring mechanisms need to be in place to ensure sustained implementation. This is especially important in contexts where human resources are constrained or health systems are weak.

When IYCF counselling training is provided, **follow up after training**, mentoring and supportive supervision need to be undertaken to ensure that theoretical skills are put into practice effectively. At least one follow up visit should be conducted within 4-6 weeks of the IYCF training. *The Integrated IYCF Counselling Course* has [guidelines on follow up after training](#) which can be used to guide this aspect of the capacity development process. The IMCI approach to follow up and ongoing mentoring and refresher training can be applied to IYCF capacity building.

Monitoring of performance

Following the initial follow up visit after training, regular, sustained monitoring of performance of the health providers on IYCF needs to be conducted, and should be an integral part of the IYCF activity and local and national plans. The scope will be dependent on existing systems of performance monitoring, achievement of targets, service provision etc. in the country's health system. The monitoring system needs to take realistic account of the way the health services are structured and organized and who within the structures is best placed to conduct the supervision. It should be integrated within the existing internal system of supervision, or performance monitoring in the hierarchy of the health services.

Therefore the routine performance monitoring system for IYCF services is most likely to be tailored around ensuring that:

- Health providers trained on IYCF are implementing the specified IYCF counselling services.
- IYCF counselling is actually taking place routinely within the designated MCH service
- Targets for the numbers of pregnant and lactating women are being achieved.
- Data on IYCF counselling is being collected (e.g. monitoring of percentage facilities reporting on IYCF).

Tools for the monitoring of IYCF activities and performance should be incorporated in the standard monitoring frameworks for health facilities and services. Countries may create their own, tailored tools, or may adapt existing tools. For example, supervision tools contained in the UNICEF generic community IYCF counselling package ([see Chapter 3.3](#)) could be adapted to

become an integral part of monitoring checklists and guides for different levels of the health system¹.

Note that this type of routine performance monitoring does not address in depth the quality of the counselling service. In many health care settings in developing countries it may not be feasible or realistic to assess and supervise the quality of IYCF counselling or mentor health providers. Routine supervisory visits may not be standard practice, nor may their scope be suitable for assessing quality of counselling and mentoring staff on their performance and skills in counselling. Therefore periodic health facility surveys similar to the [health facility surveys](#) of IMCI, with random sampling, may be utilized to conduct this aspect of monitoring and evaluation of IYCF counselling services.

However, if there is a system of regular, more in depth supervision of health providers already in place in a country, assessment of the IYCF counselling and mentoring could be integrated within this system, especially in cases of particular concern or need. The supervisors need to have capacities for supervision and mentoring on IYCF, which may need to be developed. It should be emphasized that that this type of supervision is not regulatory or punitive, but rather an interactive process of support and mentoring, problem solving and feedback. Health provider concerns and problems can also be addressed during supervisory visits.

Tracking of trained health providers

Tracking of health providers who have been trained on different IYCF-related courses needs to occur in a systematic manner and at central level an updated and complete overview should be available. The exercise of mapping coverage of health workers trained on IYCF (see format in the **Assessment Matrix** ([Resources Annex 1-1](#))) will help to obtain such an overview and will facilitate the development of a national in-service training plan to strengthen IYCF counselling and support skills for different cadres of health workers based on gaps identified by the mapping exercise.

The retrospective mapping of health providers trained on IYCF should be followed by the introduction of a systematic approach to tracking of all health providers subsequently trained. The reporting flow starting from the district up to the national level can then be compiled and mapped centrally.

Supportive supervision of community cadres

Health professionals, particularly those at the primary health care services level, also have a **role in supervising community cadres**, and they need to have the appropriate capacity perform this task. This role may be supported by NGOs, depending on the context. Tools and checklists for supervision of community cadres may be found in the UNICEF generic IYCF counselling package. It needs to be emphasized that this task of supervision needs to be integrated in the structures and workplans of the health system.

3.2.3 Infant feeding counselling and support in health services

IYCF counselling is particularly important for initiation and **establishment of good breastfeeding practices**, and to solve problems early on. Counselling can be a specialized primary activity and contact, especially for mothers or caretakers of newborns. Specialized lactation management or IYCF counselling contacts, especially in the early phase of the infant's life, should be considered, depending on the availability of staff, the structure of the health services and their access and utilization. Home visits may be an appropriate option if there is sufficient staff.

¹ Note that the WHO/UNICEF IYCF counselling course for health providers does not contain supervision tools

Counselling is also an effective way of **improving complementary feeding practices**. In many cases poor feeding practices are not necessarily due to lack of high quality foods at the household, but because caregivers do not have knowledge and skills for appropriate feeding practices. Health providers can counsel caregivers for optimal use of locally available foods for complementary feeding at various contacts with caregivers of children 6-23 months old. This counselling should be based on results of the formative research, Trials of Improved Practices and similar methodologies to understand the local context, available foods and barriers to optimal practices.

IYCF counselling at different stages of the lifecycle and continuum of care should be an integral part of health care services, and the opportunities for implementing appropriate IYCF counselling at the various health system contacts for women and children must be maximized. The coverage of the various services, as well as the structure of the services, should be assessed to determine which contacts would be the most effective in terms of achieving high coverage and good quality IYCF counselling.

It is important to create a **referral network of staff with specialized skills on lactation management**. An effective referral mechanism needs to be created and managed to ensure access for women who need more specialized support to solve problems.

The following gives some suggestions on IYCF elements that could be integrated in different contacts or programmes.

Table 2: Health system contacts and suggested IYCF actions (including maternal nutrition)

Life Cycle Stage	Programme or Contact	Age appropriate IYCF Activities
Pregnancy	Ante-natal care (including PMTCT)	Weighing and MUAC screening of the mother and counselling on nutrition during pregnancy Distribution of micronutrient supplements (iron-folic acid and multi-micronutrients if appropriate) and protein-energy supplements for undernourished mothers PMTCT services, including counselling on infant feeding options in context of HIV Counselling on breastfeeding, esp. early initiation, colostrum feeding, exclusive breastfeeding Group counselling/communication on maternal nutrition and infant feeding
Delivery	Maternity care (health facility or home)	Support for early initiation of breastfeeding, colostrum feeding, and establishment of exclusive breastfeeding
Neo-natal period	Postnatal/newborn care incl. community-based newborn care	Monitoring of lactation and support to resolve any problems; Counselling on exclusive breastfeeding Counselling on maternal nutrition during lactation Vitamin A supplementation of the mother (birth to 8 weeks)
	Lactation management ** Possible new contact	Monitoring of lactation and support to resolve any problems Counselling on establishing and maintaining exclusive breastfeeding
0-12 months	EPI	Review of feeding practices and counselling on exclusive breastfeeding and continued breastfeeding plus counselling on timely, safe, appropriate and adequate complementary feeding after 6 months. Each EPI contact in the immunization schedule should include IYCF, and services should be re-organized and re-s BMI screening of the mother, counselling on nutrition during lactation, referral for provision of food supplements if undernourished Demonstration of food preparation and sharing of recipes for optimal use of locally available foods for children >6 months Distribution of multi-micronutrients or other supplements/vouchers for complementary foods after 6 months – if applicable Group counselling/communication on IYCF

Life Cycle Stage	Programme or Contact	Age appropriate IYCF Activities
0-23 months	Growth monitoring and promotion	Review of feeding practices and counselling on exclusive breastfeeding and continued breastfeeding plus counselling on timely, safe, appropriate and adequate complementary feeding after 6 months BMI screening of the lactating mother, counselling on nutrition during lactation, referral for provision of food supplements if undernourished Demonstration of food preparation and sharing of recipes for optimal use of locally available foods for children 6-23 months Distribution of multi-micronutrients or other supplements if applicable. Individual counselling/group or individual communication on IYCF
	PMTCT	Review of feeding practices and counselling and support on feeding options; Nutritional screening of mother and infant Active follow up in the community Distribution of multi-micronutrients or other supplements - if applicable Communication for behaviour and social change
	Paediatric ARV treatment	Review of feeding practices and counselling and support on feeding options Nutritional screening of the infant/young child Distribution of multi-micronutrients or other supplements - if applicable
	IMCI/sick child consultation	Review of feeding practices and counselling on exclusive breastfeeding, continued breastfeeding plus counselling on timely, safe, appropriate and adequate complementary feeding after 6 months of age Counselling on continuing to feed the sick child during illness and feeding more frequently after recovery to support rapid regaining of any weight lost during the illness and prevent the child from becoming underweight or wasted Distribution of multi-micronutrients or other supplements - if applicable
	Family planning	As applicable, review of feeding practices and counselling on maternal nutrition, exclusive breastfeeding and continued breastfeeding, counselling on timely, safe, appropriate and adequate complementary feeding after 6 months of age
	Community-based health and/or nutrition programmes (including CHWs, lay counsellors, mother support groups)	Review of feeding practices and counselling on exclusive breastfeeding or continued breastfeeding counselling on timely, safe, appropriate and adequate complementary feeding (after 6 months of age) Demonstration of food preparation and sharing of recipes for optimal use of locally available foods for children 6-23 months Communication for behaviour and social change
	Child Health Days	Distribution of multi-micronutrients if applicable together with key messages on appropriate IYCF Vitamin A supplementation (children > 6 months) Deworming (children >12 months) Communication messages on IYCF MUAC screening and referral of malnourished children (children > 6 months) Distribution of zinc supplements for management of diarrhoea
	Integrated management of severe acute malnutrition (inpatient, outpatient and community-based)	Communication/counselling on optimal feeding practices during nutritional screening Before discharge, review of feeding practices of the malnourished child and counselling on exclusive breastfeeding or continued breastfeeding plus counselling on timely, safe, appropriate and adequate complementary feeding after 6 months of age to prevent further acute malnutrition Demonstration of food preparation and sharing of recipes for optimal use of locally available foods for children 6-23 months Distribution of multi-micronutrients or other supplements if applicable upon discharge

3.2.4 Institutionalization of the 10 Steps to Successful Breastfeeding

Background

The Baby-friendly Hospital Initiative (BFHI) was launched by UNICEF and WHO in 1992 with the development of the guidelines for country and hospital level implementation, global criteria, a lactation management course and assessment tools. The BFHI promotes the implementation of “**Ten Steps to Successful Breastfeeding**” (Box 15).

The maternity care experience exerts a unique influence on both breastfeeding initiation and later infant feeding behaviour. Even though the hospital stay is typically very short, events during this time have a lasting meaning. Correspondingly, the hospital stay is known to be a critical period for the establishment of breastfeeding. Institutional changes in maternity care practices have been shown to effectively increase breastfeeding initiation and duration rates [161].

In addition, a study found a relationship between the number of the Ten Steps to Successful Breastfeeding in place at a birth facility and a mother’s breastfeeding success [162]. It was found that mothers experiencing none of the Ten Steps to Successful Breastfeeding required for BFHI designation during their stay were eight times as likely to stop breastfeeding before six weeks as those experiencing five steps. This finding emphasizes the value of implementing incremental change within the hospital setting.

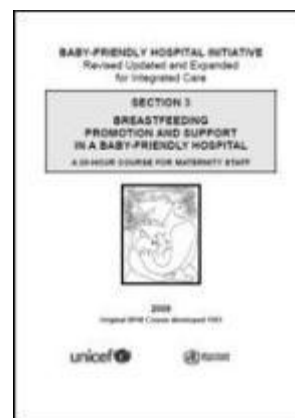
The BFHI has been traditionally organized around a facility by facility process of self-assessment, training, external assessment and certification of the facility as “baby friendly”. “Baby friendly” status of a facility is supposed to be re-assessed by the team of external assessors and the facility re-certified every 5 years or so. The **BFHI materials** (WHO 2009) which support this process, available on the UNICEF and WHO websites, contain 5 sections:

- **Section 1: Background and Implementation**
- **Section 2: Strengthening and sustaining the Baby-friendly Hospital Initiative: A course for decision-makers**
- **Section 3: Breastfeeding Promotion and Support in a Baby-Friendly Hospital, a 20-hour course for maternity staff**
- **Section 4: Hospital Self-Appraisal and Monitoring**
- **Section 5: External Assessment and Reassessment** (limited distribution, available from UNICEF or WHO upon request).

The original 18-hour **training course on lactation management** for hospital personnel was developed in support of the BFHI in 1993¹. In light of experience with implementing the BFHI, the guidance provided by the new Global Strategy for Infant and Young Child Feeding in 2002 and the challenges posed by the HIV pandemic, there was growing interest and imperative to update the BFHI guidance and modules. The importance of addressing “mother-friendly care” within the Initiative and expanding and integrating mother and baby-friendly

Box 15: Ten Steps to Successful Breastfeeding (in maternity services)

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.



¹ The updated course (2006; 2009) is now 20 hours.

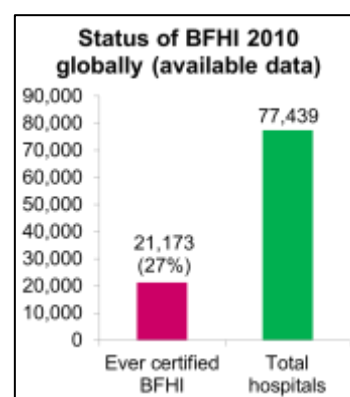
principles in health care settings beyond hospitals was raised by a number of groups as well. The process of updating the BFHI materials began in 2004 and the modules have all been updated and revised based on a decade of accumulated knowledge and experience and the new developments. A final updated version for BFHI materials was issued in 2009. However, the section on HIV needs to be updated in light of the recommendation of the 2010 WHO Guidelines on HIV and infant feeding [126].

The updated version places greater emphasis on sustainability and options for expansion and integration of the BFHI into the health care system. In addition, significant changes have been made to the training materials. For example, they contain guidance for implementing BFHI in settings of high HIV prevalence, updated technical information and additional clinical practice sessions. The hospital self-appraisal and monitoring tools include revised global criteria, a strengthened self-appraisal tool and a range of monitoring tools for consideration, while the external assessment and reassessment tools have revised data gathering tools, slides for training assessors and an updated computer tool for calculating and presenting results, and new modules focused on the Code, HIV, and “mother-friendly” labour and birth. Countries implementing the BFHI are encouraged to use the updated modules as part of their national pre-service and in-service training curricula and training programmes for maternity staff.

Global status of the BFHI

By 2010, more than 21,000 hospitals have been designated in 154 countries around the world. This represents just over 25 per cent of the total of over 77,000 hospitals/maternity facilities reported to exist in these countries. This figure reflects the status of “ever-designated”, as many facilities were never re-certified or updated data has not been possible to obtain.

The UNICEF **Assessment Matrix** on IYCF programming contains a section to reflect the current status of hospitals implementing the 10 Steps and/or certified within the past 4-5 years as baby friendly. This tool will allow further data collection on the BFHI in developing countries.



Suggested new approach to institutionalize the BFHI

The complexity and facility-by-facility implementation approach of the BFHI process is one of the major factors impeding rapid and wide expansion of the initiative and jeopardizing its sustainability. In many cases, the BFHI has remained donor-dependent, often perceived as a project, and has not been properly institutionalized.

Support to the BFHI needs to focus on integrating the **Ten Steps for Successful Breastfeeding** within the standard operating procedures for hospital functioning and accreditation rather than ongoing external support to BFHI initiation, training and certification as a vertical project, which in the past has not led to sustained functioning of baby-friendly facilities and has meant that in most countries only a small proportion of facilities were ever certified.

As a new approach to improving breastfeeding practices in maternity settings nationwide, it is therefore suggested that the improvement of maternity practices can in the long term be part of a comprehensive set of changes to **fully institutionalize** the principles of the BFHI, i.e. the Ten Steps. The process to institutionalize all Ten Steps as part of the standard operating procedures of maternity care would involve integrating an adapted version of the checklists and tools contained in the BFHI materials within health authorities' routine supervision protocols, quality control, accreditation requirements and evaluation systems (see also [Chapter 2.3.2](#) above on *health systems strengthening* and [Chapter 2.4.4](#) on *prioritizing interventions*).

In the short term, there could be an **incremental approach**, with initial nationwide, mandatory implementation of selected priority steps. These can include nationwide obligatory implementation of some steps such as rooming-in of mothers and babies, encouraging early skin to skin contact and feeding on demand, and discontinuing harmful practices (e.g. pre-lacteal

feeds, giving water and BMS, etc.). This approach can be implemented rapidly and at scale while working on broader institutional improvements.

In order to achieve a much wider scale of implementation of actions to improve breastfeeding practices in maternity facilities, it is proposed that up to seven of the Ten Steps may be prioritized for rapid and at-scale implementation (**Steps 1, 3, 4, 6, 7, 8 and 9** indicated in bold in Box 14).

These seven steps specifically relate to national policies and requirements for hospital functions, are feasible to implement without special staff training and can be immediately introduced into all hospitals for quick, visible and positive results on breastfeeding practices. An instruction issued by the Ministry of Health or other relevant authorities to all maternity facilities to implement these seven steps could be a feasible and effective action to making all facilities baby-friendly.

While these steps are being scaled up nationwide, a plan needs to be developed to fully institutionalize the BFHI principles as part of the standard operating procedures for maternity services, including making the 20-hour course (Step 2) an integral part of the strengthening of maternity care (e.g. as a standard module for pre-service and in-service training all staff, alongside newborn and emergency obstetric care). To ensure stronger institutionalization and high coverage with trained health providers, the Ministry of Health could issue a requirement that all staff graduating from training institutions should be required to undergo the 20-hour BFHI course, the 5-day Integrated IYCF counselling course or the Model Chapter before they can start working in a maternity facility. Breastfeeding counselling/lactation management should be considered as one of the essential training modules that staff working in maternity facilities must be trained on. In addition, a training plan needs to be developed to systematically include existing maternity staff in either of the above courses. This will enable staff to implement Steps 4 and 5 with good quality. Planning and implementation for breastfeeding support after discharge from hospital should be integrated within the primary and community-based health services (Step 10). Step 10 is not directly within the mandate of the maternity facility.

Box 16: Selected priority steps for rapid implementation

1. Have a written breastfeeding policy that is routinely communicated to all health care staff.
3. Inform all pregnant women about the benefits and management of breastfeeding.
4. Help mothers initiate breastfeeding within a half-hour of birth.
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.

Sustainability of the BFHI principles and ownership at the facility will also require continuous efforts and on-the-site capacity building of the new staff in the hospital. Therefore, a breastfeeding focal point for the maternity facility should be identified to follow up on implementation and ensure compliance, as well as serve as a designated trainer for the hospital to provide in-service training on breastfeeding (using the 20-hour course of the BFHI if possible), mentoring and periodic refresher training.

The national monitoring system needs to track the proportion of maternity facilities complying with all of the 9 steps, and this information needs to be compiled in a national database.

3.2.5 Group education & communication in the health services

Group education sessions on various topics around infant and young child feeding may be offered to mothers and caretakers at health centres. In some countries, these sessions are often offered before the well child clinics or immunization sessions commence. The sessions are a good opportunity for communication on IYCF. The context-specific messages on infant feeding identified through the process of developing the communication strategy (See chapter on

[Communication on IYCF](#)) should be made available to the health workers, as well as job aids and communication materials¹.

It is essential that the staff who conduct these sessions at health facilities be **trained on interpersonal communication skills and participatory approaches to group facilitation**, in addition to the key technical information. Interactive communication using effective techniques and appropriate skills is essential to help bring about sustainable behaviour change, in contrast to the traditional form of delivering health education messages, which is often in a one-way, didactic manner. The training on effective communication techniques could cover topics such as barriers and motivators to behaviour and social change, stages of behaviour change, negotiation in behaviour change, participatory communication techniques, use of role play and interactive drama, problem solving and action-oriented group work (refer to resources on communication skills training in [Annex 1-9](#)).

3.2.6 Strengthening complementary feeding: supplementation in the health system

Various models for targeting and distribution of the different products for improving the quality of complementary feeding exist, including through the health system, but need to be tailored to the local context and tested before scale-up, with the introductory phase thoroughly documented. Distribution of products for complementary feeding need to be fully integrated within the health system, including the supply management system and monitoring systems. Various approaches for distribution have been tested.

Once the targeting method has been determined, approaches for distribution, forecasting and ordering/management of the stocks of the product(s) need to be established.

Some of the possible models of distribution in the health system include:

- Complementary feeding products can be provided to eligible poorest/most vulnerable families, either in kind to those participating in or attending health services, or through voucher schemes.
- Certain compact supplements such as multiple micronutrient powders, lipid based nutrient supplements and similar products can be distributed in regular and carefully supervised manner through the **routine health services**, such as during monthly growth monitoring or well-child care visits. Bulkier products may not be possible to distribute through the health services, as their logistics and warehousing may not be amenable to integration within the pharmacy/medical supplies systems. The supplements may be given out monthly, or every two months, or as the child gets older, the frequency of contacts may be reduced further.
- Multiple micronutrient powders (e.g. *Sprinkles*) can also be distributed to parents twice yearly during **child health days or similar national or sub-national events** [163].
- The health services may also **refer eligible families to the social welfare system**, social protection programmes or to other organizations to collect other products such as fortified complementary foods, including blended flours, or to collect vouchers.

Within health system interventions, counselling and communication on optimal use of locally available foods should always be the starting point and should always complement any distribution of a product (see [Chapter 2.4.4](#) on identifying and prioritizing interventions for complementary feeding).

¹ Examples of training packages on behaviour change communication include [Behaviour Change Communication for Improved Infant Feeding Training of Trainers \(AED/Linkages 2004\)](#).

3.2.7 Counselling and support in the health system on maternal nutrition during pregnancy and lactation

Addressing maternal nutrition during pregnancy and lactation is crucial to maternal health, pregnancy outcomes and infant nutrition. There are feasible and cost-effective interventions to improve the nutritional status of women during pregnancy and lactation¹, focusing on ensuring adequate nutrient intake. Monitoring of weight gain during pregnancy is an important activity in the health services.

Pregnancy: During pregnancy, it is important to ensure that there is adequate weight gain, intake of appropriate nutrients (macro and micronutrients) and reduced workload to ensure adequate intrauterine growth of the fetus and prevent maternal undernutrition. Actions to address this include the following:

- **Counselling on appropriate maternal nutrition and care during pregnancy.** In addition to counseling on general care and health during pregnancy, women should be advised how to maximize use of locally available foods to ensure an appropriate and adequate diet. The provision of one-on-one counselling for pregnant (and lactating) women, tailored to the stage in the lifecycle, should be integrated within antenatal care and healthy child consultations and other contacts with pregnant and lactating mothers. Group counselling/communication sessions on maternal nutrition by health providers can also be planned at the health facility and during outreach. Dietary diversification should be promoted, coupled with food production or income-generation activities, to make more diverse foods available at the family level. Fortified foods should be promoted where available and affordable.
- **Regular weighing to monitor weight gain** and also **mid-upper arm circumference (MUAC)** screening for undernutrition.
- **Appropriate measures for meeting nutrient requirements** during pregnancy and lactation include for example provision or referral for food supplements in poor socio-economic circumstances or for women who are not gaining sufficient weight, or in situations of food insecurity and emergencies. Therapeutic and supplementary feeding for undernourished women as per the national protocols for management of acute malnutrition should be provided if available². Cash transfers as part of social protection schemes could also be considered, linked to attendance at ante-natal care and well child clinics.
- Provision of daily **iron/folic acid** supplements through ante-natal care, as per the WHO recommendations [164] and national protocols. A minimum of 90 days' supplementation is recommended.
- During emergencies only, as per the Joint Statement on use of multiple micronutrients for pregnant and lactating women [165], this group of women may be provided with **multi-micronutrient supplements**, which contain 15 essential vitamins and minerals³.

Lactation: Maternal nutrition during lactation needs to be addressed as part of a comprehensive IYCF programme. The importance of increased intake of quality foods for lactating women, consumption of nutrient-rich foods or micronutrient supplements, and reduction of workload need to be addressed in order to ensure adequate maternal nutritional status. **Counselling** of

¹The focus is on weight and micronutrient status during pregnancy and lactation, as increases in height cannot be achieved once an adolescent girl reaches her adult height. Improvements in maternal height therefore require a life cycle approach by increasing birth weight, enhancing growth in children less than two years of age and improving adolescent nutrition and growth.

² For women, MUAC <210 mm is considered the cutoff for severe malnutrition. Using body mass index (BMI), severe acute undernutrition is classified as BMI <16 and mild and moderate undernutrition is classified by BMI between 16 and 18.5. BMI cannot be used to classify undernutrition in pregnant women and lactating women during the first six months of the baby's life.

³ Multi-micronutrients for women are available in capsule, tablet or powder form. The powder has been shown to improve compliance due to fewer side effects. If conventional Iron and Folic Acid (IFA) supplementation has very low compliance in a country, these alternatives may be considered. Currently, guidance on multi-micronutrients during pregnancy and lactation is provided only by the joint statement on micronutrient supplementation in emergencies [ref. 164].

breastfeeding women on consuming an adequate quantity and quality of food to meet their energy requirements and micronutrient needs during lactation (i.e., iron, iodine and vitamin A). This needs to be done along with reinforcing the message that only in exceptional cases (such as severe undernutrition¹) are women unable to breastfeed. Actions include:

- Regularly weighing and MUAC screening for undernutrition, and provision of appropriate food **supplements or therapeutic food** if found moderately or severely malnourished [166] respectively.
- Provision of a high-dose **vitamin A supplement** within the first six weeks after the delivery in high deficiency areas.
- Iron-folic acid supplementation up to three months post-partum should be provided in situations where the prevalence of anaemia in pregnancy is high (>40%).
- Provision of **multi-micronutrient supplements** as required during emergencies.

3.3 Community level actions

Overview of chapter on community IYCF actions:

- 3.3.1 Assessment, design and planning for community-based IYCF
- 3.3.2 Capacity development for and implementation of IYCF counselling
- 3.3.3 Creation of mother support groups
- 3.3.4 Supportive supervision, monitoring and evaluation

Introduction

The systems and policy aspects of community based IYCF are addressed in [Chapter 2.3.3](#). To summarize, key IYCF actions at the community level may include facilitating establishment of community structures and participation, counselling and support by trained community workers, distribution of supplements according to government policy, and behaviour change communication (BCC). For optimal impact, it is suggested that community-based IYCF activities should include - at minimum - IYCF promotion and counselling, either through a trained, dedicated lay IYCF counsellor or through an existing community cadre trained on IYCF counselling (e.g. community health workers, extension workers and lay counsellors) and relevant form of mother support group.

It is crucial to first conduct an assessment to understand the existing community based programmes, systems and structures, identify suitable entry points and understand local feeding practices and barriers (see also section on situation assessment below); to mobilize and engage communities and support systems to commit to the programme and participate in its design and planning, and then to conduct capacity building activities, which include ongoing mentoring and regular supportive supervision. Training sessions are relatively easy to plan and implement, but strong programme design and systems for functioning are crucial for producing results on a sustained basis. Too many community-based programmes have focused only on training of community cadres but not paid adequate attention to the systems for ongoing implementation of the activities and ensuring supervision. This often resulted in poor sustainability of programmes, low motivation, poor quality and wasted resources with minimal outcomes.

¹ The energy and protein content of breastmilk are barely affected by the nutritional status of the breastfeeding mother, unless the undernutrition is severe [4]. Mildly and moderately malnourished mothers can therefore breastfeed successfully, although their own body reserves of all nutrients will be depleted. The concentration of some nutrients in breastmilk, including Vitamin A, iodine and Vitamins of group B, as well as essential fatty acids, is dependent on maternal status and intake, and so infant depletion is increased by maternal deficiency.

3.3.1 Assessment, design & planning of community-based IYCF

The design of the IYCF component of a community-based health and nutrition programme should be conducted with the active participation of communities. A case study that can prove useful in designing community-based interventions include: *Learning from Large-Scale Community-based Programmes to Improve Breastfeeding Practices: Report of ten-country case study (2008)* [167]. Other resources include WHO's *Community-based Strategies for Breastfeeding Promotion and Support in Developing Countries* [168].



The Planning and Adaptation Guide from the UNICEF generic community IYCF counselling package ([Resources Annex 1-8](#)) which includes within it 5 proposed essential steps in designing a new community-based intervention:

- i. Conduct or update a situation assessment of existing community-based services & KAP.
- ii. Develop or update policies and systems to support community IYCF.
- iii. Identify, sensitize and involve community-based stakeholders.
- iv. Strengthen existing or create new community cadres to conduct IYCF activities.
- v. Design & plan the community IYCF programme (training; counselling and behaviour change; supervision and mentoring; monitoring and evaluation).

The following discussion summarizes in brief the suggested steps.

Situation assessment and formative research on KAP

Before embarking on community-based IYCF activities, it is important to conduct a situation assessment of the target communities in order to obtain a good understanding of the existing community-based programmes and structures for community participation in health and nutrition, and the current practices and behaviours in those communities related to IYCF. This information is important to ensure that the IYCF programme can effectively integrate with and build on existing programmes and that community-level counselling tools, promotional messages, training materials and communication strategies are appropriately tailored to address the barriers to optimal IYCF practices. The assessment should include formative research including Knowledge, Attitudes, and Practices (KAP) studies, mapping of the existing community-based health and nutrition activities, available groups and structures who could be involved in the community IYCF activities and compilation and review of any evaluations of community-based IYCF programmes. The assessments should be conducted in different geographic areas and among different population groups, as current community programming and existing IYCF practices and barriers may vary significantly in different settings and among different groups.

Quantitative and qualitative data on IYCF, including KAP studies and formative research, may have already been collected as part of the overall situation assessment. If not, KAP studies to determine barriers to optimal IYCF should be conducted. See section on [Chapter 2.2](#) for information on conducting a situation assessment, and [Resources Annex 1-3](#) for information on formative research and KAP studies.

Separate formative research/KAP studies for the community and communication components of the overall IYCF programme are not necessary: it is a single process, and the resulting counselling tools used by community cadres and the communication messages and materials should be harmonized.

Existing community health and nutrition programmes should be mapped to determine the coverage of programmes and scope of activities, the type of community cadres and the incentives and support they receive. The **Assessment Matrix** ([Resources Annex 1-1](#)) can be used to facilitate this mapping. Existing community-based IYCF projects should be reviewed if they exist, to determine which models achieve the desired results and would be feasible for scaling up.

Policies and systems

Policies and systems need to be in place to support and facilitate the community-based programme, whether it is an integrated community-based health and nutrition programme or a stand-alone IYCF community programme. To ensure sustained functioning of the programme, it is important to address these issues before embarking on training of community cadres.

Challenges to sustainability

Some of the challenges to sustainability of community IYCF interventions (both community IYCF counselling and mother support groups) are the lack of support and supervision, drop-out of community workers or support group members and lack of motivation to continue activities, as well as financial constraints from Government and partners to train enough community workers or groups and supervise them regularly. Turn-over is often the result of family responsibilities and a lack of recognition and acceptance of the volunteers by health care providers. These challenges have been addressed by focusing on one or two activities, matching tasks to available time, and providing incentives. Some programmes have addressed financial constraints by initiating income-generating activities. Lack of collaboration with other health services also threatens sustainability. As a general rule, networking and collaboration with government agencies and NGOs are essential links that can facilitate two-way referrals, shared training, and technical assistance opportunities. A solid and consistent support structure, with committed individuals, needs to be in place to support the community workers and groups.

Involving community-based decision-makers and groups and gaining their commitment and support

It is important to sensitize and gain commitment and involvement of key community members, given their in-depth knowledge and networks within communities and ability to influence practices. Their involvement and commitment can help to ensure that the programme receives their endorsement and validation, the potential for sustainability is increased, the community is effectively mobilized, practices and behaviours are influenced positively and the community cadres are supported. These key community members may include community and religious leaders, local politicians, administrators, teachers, nurses, extension workers, community-based organizations and women's group leaders, health committee leaders, skilled birth attendants (SBAs), traditional birth attendants (TBAs)¹ and other community-based cadres. A specific focus on influential women and female-led groups and initiatives is important for IYCF programmes. Their active participation should enhance ownership and responsibility for the programme.

Involvement of these influential persons and groups is important at the initial stages of design and planning of the programme, and their ongoing participation in oversight of the implementation and supervision is also crucial. Steps for involvement could include:

¹ Note that it is not proposed to involve TBAs in IYCF through any kind of work related to attending births – the latest WHO guidance on this must be upheld. However, as trusted women in the community they may have a role in promoting good IYCF practices, participating in mother support groups and encouraging attendance or referrals to health facilities. Involving TBAs in IYCF may also represent a potential approach to giving them a new role in their communities.

- Consultations with communities and local authorities and partners to determine the influential community members and decision makers.
- Identifying groups and individuals to include in the IYCF activities (Table 5).
- Orientation and advocacy sessions with the identified groups to gain their support of and engaging them in planning and implementation and motivating the different groups for action.

Designating “Baby-friendly Communities”¹

As part of the participatory planning process with communities, it may be decided to designate the community as a Baby-Friendly Community (BFC), as implemented in certain countries (e.g. The Gambia), in order to:

- Expand BFHI practices and criteria into community health services.
- Expand BFHI practices into delivery settings where there are no health facilities.
- Strengthen the vital tenth step in ensuring best practices and support for every mother.

The BFHI modules provide model national criteria for BFC guidelines, which minimally would need be adapted based on the local community situation and on dialogue with the communities. Criteria for a baby-friendly community could include the following:

Box 17: Criteria for a Baby Friendly Community (based on BFHI modules):

- i. Community political and social leadership, both male and female, are committed to making a change in support of optimal infant and young child feeding.
- ii. All health facilities that include maternity services, or local health care provision, are designated “Baby-friendly” and actively support both early and exclusive breastfeeding (0-6 months).
- iii. If home deliveries are the norm, all who assist in deliveries are informed concerning the importance of delayed cord cutting, immediate skin-to-skin continued for at least 60 minutes, and no prelacteal feeds.
- iv. All who assist in facility-based or home deliveries are informed concerning mother-friendly labour and birthing practices such as encouraging mothers to have companions to provide support, minimizing invasive procedures unless medically necessary, encouraging women to move about and assume positions of their choice during labour, etc.
- v. Community access to referral site(s) with skilled support for early, exclusive and continued breastfeeding is available.
- vi. Support is available in community for age-appropriate, frequent, and responsive complementary feeding with continued breastfeeding. This will generally mean that there is availability of micronutrients or animal based foods and adequate counselling to assist mothers in making appropriate choices.
- vii. Mother-to-mother support system, or similar, is in place.
- viii. No practices, distributors, shops or services violate the International Code (as applicable) in the community.
- ix. Local government or civil society has convened, created and supports implementation of at least one political or social normative change and/or additional activity that actively supports mothers and families to succeed with immediate and exclusive breastfeeding practices (e.g. time-sharing of tasks, granting authority to transport breastfeeding mothers for referral if needed, identification of “breastfeeding advocates/protectors” among community leaders, breastfeeding supportive workplaces, etc.).
- x. Simplified job-aids for assisting and for assessing home deliveries by skilled birth attendants have been developed and are in use.

Creating and supporting a functioning system of community cadres to conduct IYCF activities

Existing community structures afford many opportunities to promote and support IYCF. Table 5 lists different potential cadres and groups, their common characteristics and advantages and disadvantages of each in the provision of promotive and supportive IYCF in the community. Note that many of these potential providers/cadres are also secondary participants in the communication strategy.

¹ See the BFHI modules, Section 1.1 and 1.5, for more details on baby friendly communities.

Table 3: Potential Providers of Lay Community IYCF Promotion and Support Services

Providers/ Cadres	Common Characteristics	Advantages	Disadvantages
Peer/lay counsellors	<ul style="list-style-type: none"> • Women with current or recent infant feeding experience (peer counsellors) or strong commitment to infant feeding (lay counsellors) • Similar socio-cultural characteristics as clients • May provide one to one counselling in homes, health facilities, mother support groups, informal setting • May conduct group counselling/communication sessions 	<ul style="list-style-type: none"> • Model optimal infant feeding practices in case of peer counsellors • Ability to demonstrate improved recipes and food preparation for young children • Understand mothers' situation • Accessible • Focused attention on feeding issues 	<ul style="list-style-type: none"> • Often high turnover rates among volunteers • Part-time work limits number of contacts • If purely voluntary, incentive may be low
Multi-purpose community health workers	<ul style="list-style-type: none"> • May be affiliated with health facility, community group, or NGO • May provide one to one counselling in homes, health facilities, mother support groups, informal setting • May conduct group counselling/communication sessions • May receive salary or small stipend • May have or not have personal experience of breastfeeding 	<ul style="list-style-type: none"> • Integrated with other health services • Wider outreach 	<ul style="list-style-type: none"> • More limited IYCF support • May be distracted by other duties
Community development and extension workers	<ul style="list-style-type: none"> • Outreach extends beyond mothers and children • Broader set of issues • May conduct social mobilization on IYCF 	<ul style="list-style-type: none"> • Linked with other sectors such as agriculture • Can provide information and support on production and use of appropriate and high quality local foods for young children • Re-enforcement of messages; non-health contact points 	<ul style="list-style-type: none"> • Limited time for IYCF support • Balancing many duties
Traditional health practitioners (TBAs, traditional healers, herbalist etc.)	<ul style="list-style-type: none"> • Provide health care using traditional methods/ products • May have knowledge of traditional and modern medicine • May conduct social mobilization on IYCF 	<ul style="list-style-type: none"> • Serve women least likely to attend PHC facility 	<ul style="list-style-type: none"> • Require special training curricula, materials, and trainers
Local child nutrition advocates (Grandmothers, religious & traditional leaders local media, teachers, women's groups, members of village health committees, community or faith based organizations)	<ul style="list-style-type: none"> • Opinion leaders within family, the community, or country • May conduct social mobilization on IYCF 	<ul style="list-style-type: none"> • Broaden support network, reach secondary targets • May have special skills in community promotion and education 	<ul style="list-style-type: none"> • Usually not ideal candidates for facilitating infant feeding support groups • May be reluctant to abandon harmful traditional practices

Source: Adapted from WellStart Trilogy (1996) and Learning from Large Scale Community Based Breastfeeding Promotion (2008) [166]. Note that many of these community based providers are also secondary participants in the communication strategy.

Using existing cadres: Community-based IYCF actions should build upon existing structures as much as possible, rather than creating parallel ones. Many developing countries already have some form of community-based health and/or nutrition programmes and structures, such as community-based management of acute malnutrition (CMAM), community IMCI (C-IMCI) and community case management (CCM) of common childhood illnesses, with different types of community-based workers and varying types of incentives, from volunteers to paid cadres of the Government system.

Community health and nutrition programmes are not viewed as “*a panacea for weak health systems*” [169], but as a complementary approach to reach vulnerable groups. Their success depends on the ability to motivate involvement of CHWs, offer opportunities for personal growth and accomplishment, retain CHWs after they have been trained, sustain their performance, and provide supervision, support, and recognition from the health system and community

Creating a new community cadre: In some settings and situations, there may be a need to create a new community cadre. These may be necessary in case if:

- any community-based health and/or nutrition programmes and structures through which IYCF counselling can be delivered is absent.
- existing programme is not appropriate for adding this service.
- there is a need to create a dedicated cadre of counsellor for infant feeding, etc.

In these cases establishment of IYCF counselling through new community cadres may serve as an entry point for other elements of community-based health and nutrition care to become comprehensive community-based mother and child care.

IYCF counsellors also may be part of different outreach activities in target communities.

Community involvement is important during the process of planning and determining the most appropriate model of IYCF counselling.

Design and planning of the community IYCF activities

The following issues need to be addressed in designing and planning the community IYCF programme (focusing on counselling and mother support groups):

- Deciding on an appropriate CW or lay counsellor profile for the tasks of IYCF promotion, counselling and support, including gender, minimum educational level, residence, etc.
- Establishing a realistic and appropriate ratio of community workers to households. This is a crucial aspect of the design of the community programme. Too low a ratio – e.g. 1 CW to 20 households – means that scale will most likely never be achieved. Too low a ratio – e.g. 1 CW for 2,000 households – and the worker will probably not be able to reach all the people in his or her catchment area.
- Determining how many community workers will be deployed and trained over a specified time period.
- Establishing how, when and where IYCF counselling will be conducted in the community and the time commitment of the community workers – i.e. identifying multiple contact points most appropriate for IYCF promotion and counselling activities –e.g. home visits, at a health post or the home of the community worker, at the nearest health facility, early childhood care centres, community-based screening of severe acute malnutrition, growth monitoring and promotion sessions, immunization sessions, health days, and other community events.
- Establishing incentives for the community workers– in-kind, cash, transport, materials etc.
- Creating a system of mother support groups as appropriate, including establishing targets for the number of groups to be created over a specified time period.
- Establishing how the mother support groups will function, the time commitment of its members (e.g. how many meetings, group sessions, outreach visits etc.) and how the groups will be replicated.

- Defining the types and duration of training to be conducted for the different actors (e.g. IYCF counsellors and mother support groups) and the materials to be used
- Updating the knowledge and skills of health professionals on IYCF to ensure good quality training and supervision of community cadres.
- Planning training sessions for the identified community health workers/lay counsellors, mother support groups and other available groups or cadres functioning at community level (e.g. SBAs TBAs (see footnote on p.86), activists, promoters, health committees and other volunteers) on IYCF.
- Designing an effective system for sustained supportive supervision, mentoring and retraining for the identified cadres and groups, and ensure that supervision is included in annual plans.
- Ensuring a strong link with the health system, for example for referral, mentoring, supervision and data collection.
- Creating a structure for knowledge-sharing on IYCF in the community, such as billboards, regular community meetings, religious gatherings, using outreach and child health days systematically to disseminate IYCF messages, community theatre and music groups, mobile video units etc.

3.3.2 Building capacity for and implementing community IYCF counselling

Profile of the community IYCF counsellor

Individual counselling on IYCF is a key intervention that can be delivered by a trained lay counsellor, a skilled peer counsellor, a health visitor, community volunteer, paid community health worker or extension worker. There is growing experience with the successful involvement in counselling and support on IYCF, including on HIV and infant feeding, by community based counsellors. The involvement of this cadre in IYCF counselling could also reduce some of the time pressure on health workers and could significantly increase the counselling capacity in a country. A skilled peer counsellor for IYCF is typically a woman who has given birth to at least one child and is likely to have good skills and knowledge on successful breastfeeding and complementary feeding – although her success as a peer counsellor does not depend only on her previous positive experiences with feeding her own children, but also on her training and her ability to convey this knowledge and negotiate better practices with other women. The lay counsellor, on the other hand, may not have personal or recent infant and young child feeding experience and may be either a man or a woman. Educational levels may vary; it is desirable for the counsellor to have at least Grade 5-8 level schooling.

Role, skills and knowledge

The role of the CHW/lay counsellor is not just to promote good IYCF practices, but to provide practical support to mothers and help them solve common IYCF problems. The lay counsellor needs to have accurate knowledge and skills about infant and young child feeding, be equipped to negotiate feasible actions, help solve problems and be able to inspire the mother with confidence in her abilities. Sufficient attention needs to be given during training to developing interpersonal counselling skills, and not just on imparting the technical knowledge on IYCF.

Basic counselling skills include listening and learning, building the mother or caregiver's trust and confidence, providing support and practical help and negotiating behaviours and practices through applying a simple form of the triple-A process (assess, analyze and act).

Training

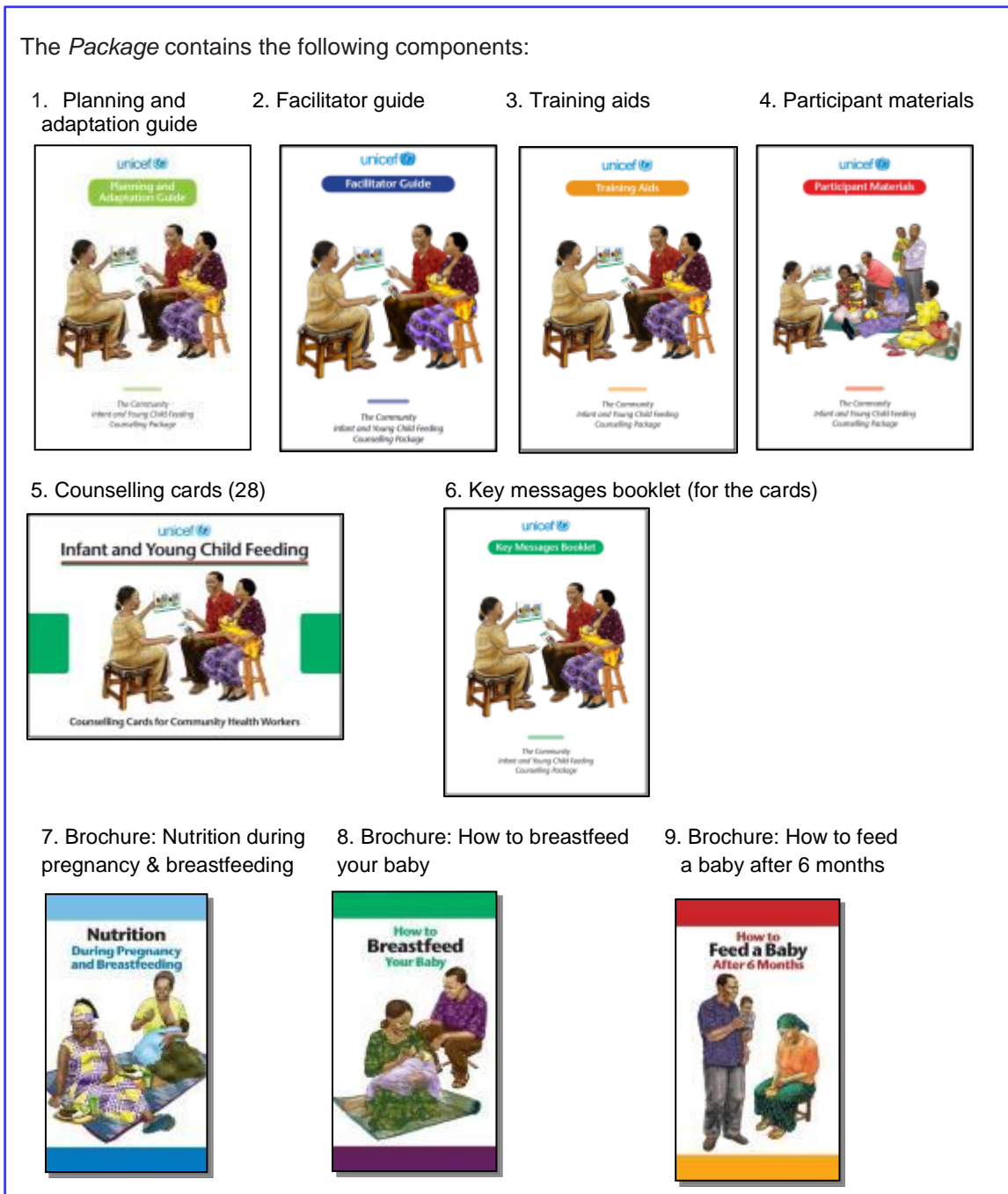
The duration and scope of the initial training packages for community cadres on health and nutrition vary greatly between countries and programmes, affording and necessitating a variety of training options. A number of different opportunities present themselves for integrating IYCF counselling training:

- In some programmes, community workers are trained over a six-month period and cover a wide range of topics. One option, therefore, is to integrate community IYCF counselling within the overall **pre-service training package** for community cadres.
- In other programmes, the community workers may receive a week-long training on the key preventive health and nutrition topics, in which IYCF may be covered in a session of a few hours. The latter may imply that the community worker receives some basic information to promote good IYCF practices, but the time allotted to the IYCF component of the training may not be sufficient to build the specific counselling and problem solving skills necessary to provide practical support to mothers. This will then mean that the community worker has to refer the mother and infant to the nearest health facility if there is a feeding problem – if at all the training has provided them with the skills to assess feeding practices properly. In such contexts advocacy is needed to add a training programme that builds the IYCF counselling, problem solving, group facilitation and communication skills of these community workers.
- A growing number of countries are initiating and expanding community-based management of acute malnutrition (**CMAM**) programmes, but many of these programmes focus on screening and home treatment of malnourished children with little attention to counselling on feeding of the child to prevent future episodes of SAM and promote good growth. The creation of new CMAM programmes presents a good opportunity for IYCF counselling and support actions to be included from the outset as the mandatory “preventive” module that complements the training on identification and management of SAM. In established CMAM programmes, IYCF content may be integrated in refresher training for existing community cadres and added to training for new community workers as part of the scale up process (See [Resources Annex 1-8](#))¹.
- Where there are no pre-existing community workers, the IYCF counselling training can be provided as a stand-alone package to new community workers. In this case the IYCF programme may serve as an entry-point for other community based health and nutrition activities.

The new UNICEF *Community IYCF Counselling Package* (see [Resources Annex 1-8](#)) adapted to the local context, is recommended for both initial and in-service training of community cadres. Three-day and five-day sample schedules, as well as seven-day training in a modular approach are options outlined in the package. An option for a three-day sessions with sessions tailored to the context of SAM is also outlined. The package covers breastfeeding, complementary feeding, HIV and infant feeding (based on the 2010 WHO guidelines), infant feeding in the context of emergencies and SAM and maternal nutrition. It uses interactive adult learning techniques particularly suited to people of low literacy and includes a set of 28 counselling cards. **The training methodology has been developed and tested over many years and represents good practice in terms of effective skills building and learning new knowledge.** The package also contains a planning and adaptation guide, with detailed checklists on the adaptation process. It also outlines the steps to adapt the graphics, using photographs, PhotoShop and InDesign software to reproduce the same high-quality graphics for different settings.

¹ [Integration of IYCF into CMAM: Facilitator's Guide \(IASC/IFE/ENN 2009\)](#) is a short training manual (1.5 days) to train health care personnel and community health workers as trainers/facilitators in integrating recommended infant and young child feeding (IYCF) practices within CMAM.

Figure 21: the UNICEF generic Community IYCF Counselling Package



The planning of the IYCF training using the training component of the *Community IYCF Counselling Package* is covered in detail in the introduction to the *Facilitator Guide* of the package.

Using multiple contacts

Multiple opportunities within the community setting can be used for sharing information, for individual counselling, and for other behaviour change activities by community cadres. Group meetings, growth monitoring or MUAC screening sessions, home visits and cooking sessions are all examples. House to house visits to pregnant women and new mothers may also be planned. Programmes and projects have been successful in achieving community-based behaviour change work through multiple channels and combine various methods, ranging from individual

counselling by health facility and community-based workers, community group sessions and information sharing through traditional channels and local media. Repeated contacts and messages help to reinforce both knowledge and practice.

It may be helpful for community workers to set specific targets for activities, either as individuals or as a group: e.g. for the expected pregnant and lactating women there would be in the community who need to be followed up, or for the number of group sessions to be conducted, the number of support groups to be created, or for the number of IYCF contacts to be made each month at growth monitoring sessions, community meetings etc. These targets can be discussed and set during the training and reinforced and followed up during mentoring and supervision. Setting targets gives a concrete structure and focus to the activities and helps in monitoring performance.

Linkages

Community-based IYCF support and counselling needs to be embedded in a larger context of communication activities that disseminate consistent and relevant information to mothers, other caregivers, as well as their support network, repeatedly and frequently. At the same time, the community-based programme needs to be closely linked to health system actions and impart the same messages on optimal practices and behaviours. The health system will often be involved in training and supervising the community cadres, but NGOs may also be the main facilitators. In both cases harmonization and consistency are essential. There should be a strong system of bi-directional referral: health workers should link mothers with lay counsellors or CWs and mother support groups for ongoing support and counselling on infant feeding; and the community cadres and groups should ensure that pregnant and lactating women attend consultations in health facilities.

A growing number of countries are initiating and expanding community based programmes for the management of severe and/or moderate acute malnutrition (generally referred to as CMAM). Many of these programmes, however, focus on screening and home treatment of malnourished children with little attention to counselling on feeding of the child to prevent future episodes of SAM and promote good growth. The creation of new CMAM programmes presents a good opportunity for IYCF counselling and support actions to be included from the outset. In established CMAM programmes, IYCF content may be integrated in refresher training for existing community cadres and added to training for new community workers as part of the scale up process using the two-day integration module developed for the Nutrition Cluster [170] or the UNICEF community IYCF package.

Similarly, more and more countries are implementing community case management (CCM) programmes for malaria, diarrhoea and pneumonia. The IYCF counselling training can be promoted as an integral module in a new CCM programme or can be provided later on to trained workers or during refresher training. Advocacy for integration should highlight the fact that optimal IYCF practices have a major impact on diarrhoea and pneumonia mortality and a community based IYCF counselling programme could significantly enhance the potential for results of the CCM programme in terms of reducing mortality from these diseases.

Another main programmatic success factor that has emerged from multiple reviews [171] is the involvement of local NGOs, who often provided excellent facilitators as well as culture-relevant training. They are usually accountable to the community, which facilitates sustainability to a great extent.

3.3.3 Mother-to-mother support

Definition and scope

Mother-to-mother support for infant feeding means women helping women and is a method for improving the health and well-being of women and their infants. Experienced breastfeeding mothers model optimal breastfeeding practices, share information and experiences, and offer

support to other women in an atmosphere of trust and respect. Similarly, mothers who have successfully fed their children from 6-23 months may model optimal complementary feeding practices in the group. Mother-to-mother support is available in the mother's own community and provides an essential complement to the health care system. The groups should aim to create a supportive and safe space for mothers. Mother support group members may gather together at regular meetings, they may provide individual support to mothers, they may facilitate larger community events, may provide group education at health facilities or during outreach visits or any other activities as needed.

A mother-to-mother support group is initiated and facilitated by a mother who facilitates the group. She may have received training, but her primary qualification is that she is a mother with breastfeeding experience¹. At the meetings organized by the mother support group, new, as well as experienced mothers, *share* information and are encouraged to voice their doubts and concerns. A mothers' support group may also be facilitated by a health care provider, a community health worker or someone who is considered an expert in a certain field. The facilitator may not be a mother or belong to the same peer group. Mothers' support groups can take place in the context of "clubs" formed for the purpose of credit, arts/crafts, gardens, sewing, etc. In some mothers' support groups, new, as well as experienced mothers, *share* information and are encouraged to voice their doubts and concerns; in others, information is *given* via talks or lectures.

Background and evidence

Evidence shows improving maternal knowledge and feeding practices can lead to increased dietary intake and growth of infants [172]. Various approaches to mother support groups have been described in reviews and case studies [166,173]. Often, it is easier to learn from other mothers within the community about positive practices. For example, recipe development and demonstrations by mothers and for mothers within communities can prove to be a successful method for improving the quality and quantity of complementary feeding. Practical demonstrations of how to increase dietary diversity for young children with local foods is another area highly amenable for implementation by mother support groups.

Information and advice on feeding has been successfully provided through mother support groups specifically created for this purpose, as well as through existing mother-to-mother support groups on broader health or nutrition issues. Mother support groups help to extend the care that is provided within the community and in the health system to families in the home. At the same time, mechanisms should be in place to refer mothers and babies with problems to health facilities. Mother to mother support groups are also particularly important in contexts where the institutional delivery rate is low and access or utilization of health services is poor.

With this in mind, the BFHI recommends the establishment of mother support groups as a requirement for each baby-friendly hospital (Step 10 of the 10 Steps to Successful Breastfeeding). Each maternity facility, regardless of its BFHI certification status, should aim to establish links with mother-to-mother support groups in the catchment area. However, in many settings, the hospital itself may not be in a position to create, train, supervise and support the groups (this has been one of the weakest links of the BFHI). Other institutions of the Government, NGOs or community-based organizations may need to support the establishment and functioning of the groups.

¹ An example of mother support is **Positive Deviance** strategies which can be used in a simple way in all mother to mother support groups. Positive Deviance is a "strength-based" or "asset-based" approach based on the belief that in every community there are certain individuals ("Positive Deviants") whose special, or uncommon, practices and behaviours enable them to find better ways to prevent malnutrition than their neighbours who share the same resources and face the same risks. Through a dynamic process called the Positive Deviance Inquiry (PDI), program staff invites community members to discover the unique practices that contribute to a better nutritional outcome in the child. The program staff and community members then design an intervention to enable families with malnourished children to learn and practice these and other beneficial behaviours. CORE has developed a manual on positive deviance for reducing malnutrition (see "Resources"), which may be adapted (and simplified) for use in countries. NB Positive Deviance approaches have only been applied in small-scale NGO supported projects thus far.

Design and planning:

In designing community based IYCF programmes that include mother to mother support groups, a **vision for scale** is needed, ensuring that:

- all communities are progressively reached with mother support groups
- the tasks of the support groups include outreach
- replication of the groups is mandated
- each group has a target number of pregnant women and mothers of under-twos in the community that the group should aim to reach.
- group leaders form a network and meet periodically to discuss activities, progress and challenges.
- Groups receive ongoing support, monitoring and motivation

A good country example of a mother support network for IYCF that has been initiated and is being scaled up in every district of the country is **Sierra Leone**¹.

Box 18: Summary case study on Sierra Leone's mother support groups

The community IYCF activities involve the formation of mother support groups who conduct behaviour change communication (BCC) activities on nutrition and hygiene, provide support to lactating mothers, conduct food demonstrations and promote backyard gardening. The groups are supported by the creation of "baby friendly communities" and are closely linked to the health facilities and to community workers who conduct screening for acute malnutrition, health activities etc.

One partner NGO supports a whole district to implement community nutrition activities (IYCF and CMAM). Starting in October 2009, all 12 of the districts (have established and trained at least three mother support groups per chiefdom, or around 600 groups. By the end of 2010 it is planned that 1,600 -1,800 groups will be established. The estimated cost to establish mother to mother groups has been around \$60,000 per district, and there have been concerted efforts to streamline the budgets.

It is envisaged that the groups will expand as the communities come to see benefits and the group members take initiatives (and are encouraged) to create new groups. It will be important to document whether this spontaneous replication actually occurs. It is also envisaged that the groups will become part of a national mother support network, the "We Pikin Network. It is also hoped the network will grow into a movement for mothers and children to create and sustain positive change for child survival, growth and development.

The training packages that are currently used for the mother support groups include a training on BCC approaches and a training on BCC for various topics related to nutrition, hygiene, diarrhoea and social aspects such as gender. The latter package, a three-day training, was selected by the nutrition partners' forum convened by UNICEF, which reviews various materials and selects packages the members feel to be appropriate. Some of the topics in this package may be more "nice to know" rather than essential, priority content. Currently there is no training on IYCF counselling at community level, the "missing link" in the programme.

A positive aspect of the communication approach is that it is not centred on repeating generic messages, but rather encourages debate on the barriers to implementing the good practices which everyone has heard about.

The challenge will be to ensure all mothers and infants are reached, and for this a large number of groups and proactive outreach are needed, complemented by continuous communication using various other channels such as radio, religious leaders etc. The mother support groups do conduct some outreach and house-to-house visits, but it is likely that some limit their activities to health talks at the PHUs and bi-monthly meetings of small groups, which may not be sufficient to effect significant change among a large number of mothers.

Training

Those involved in leading support groups should be oriented on the essentials of good breastfeeding and complementary feeding practices as well as on counselling and communication skills and group facilitation dynamics. Community workers may be mother support

¹ Source: Notes from trip report, UNICEF HQ, May 2010

group leaders. The *Community IYCF Counselling Package* training includes sessions on how to convene and facilitate mother support groups. Once groups are convened, the CW, supported by health providers or NGO staff if required, can organize a series of group meetings to convey the essentials of breastfeeding, complementary feeding and maternal nutrition and how to promote and communicate and to support mothers. Abbreviated sessions and materials from the UNICEF generic IYCF counselling package can be used for these sessions– e.g. some of the counselling cards. These materials need to be selected and prepared for use by the CWs and a plan on how to use them to conduct the orientation of the groups needs to be provided. The initial sessions need to be monitored and supported by the CWs' supervisors.

Some programmes, such as the one in Sierra Leone (see case study in Box 16 above), have undertaken a full training programme on IYCF and BCC through a three-day training workshop for the mother support group members. This was done in absence of a community IYCF counselling training and cadre of IYCF counsellors, but approach is unlikely to be possible or realistic at scale in many countries.

3.3.4 Supportive supervision, monitoring and evaluation

Supervision on a regular and sustained basis

Supportive supervision and mentoring of the community workers and supervision of the mother support groups are crucial to the success of a community-based programme. Supervision is often the weakest link in a community based programme and needs to be given proper attention in the design and planning of the programme. The team responsible for the community-based programme should build a system for supervision and mentoring for all the different counselling channels or contacts (e.g. C-IYCF counselling as a separate service, CMAM, GMP, CCM, C-IMCI, outreach, etc.) at which counselling is given. The persons responsible for supervision need to be clearly identified when the community IYCF programme is designed and planned. They may be health providers from the health facilities linked to the community programme, or NGO staff, or district staff, for example. The supervision activities need to be included in the regular workplans, budgets and tasks of these supervisors, ensuring that they have the time to conduct the supervision. It should not be seen as an optional task to be conducted only if there happens to be time or logistical opportunities such as an available vehicle going in a particular direction or similar. It should be “institutionalized” as part of the expected tasks of the identified staff, with agreed targets for regularly scheduled supervisory visits. Supervisory visit reports should be part of the monthly information and feedback provided to the worker and facility where he or she works.

The supervisors also need to be provided with an orientation on supportive supervision and mentoring of community workers, with tools (such as a supervision checklist) and resources (such as transport funds) to undertake this activity. A toolkit for supervision is found in Annex 14 of the *Planning and Adaptation Guide* of the *Community IYCF Counselling Package*.

Some methods of strengthening supervision that may prove more effective than others include:

- Observing (using a checklist) performance of a task.
- Conducting periodic refresher skills-building sessions for community workers during supervisory visits.
- Gathering direct feedback from caregivers (e.g. home visits made by supervisor).
- Conducting periodic group reviews at different levels.
- Adding unscheduled visits (that is, the worker is unaware of the visit in advance) in addition to any planned visits.

Feedback to community workers on their activities, the data they collect and their performance is essential to further building skills, solving problems and to overall programme improvements.

Monitoring and Evaluation (M&E)

A small set of clearly articulated indicators helps keep community IYCF promotion and support

focused on the essentials and provides data for assessing progress and informing programme strategies. Monitoring whether defined targets for activities were met during a certain period is helpful to assess performance of the CWs and mother support groups¹. Examples of targets could include:

- % of targeted pregnant and lactating women in the community who were counselled at least once.
- % of target mothers attending a mother support group meeting (per time period).
- % of target contact points (e.g. GMP or MUAC screening session, outreach visit by clinic, well child/immunization session at clinic, health post, community meeting, etc.) at which IYCF counselling provided (per time period).
- % of group sessions conducted out of the target number planned.
- % of support groups created out of target number planned.

Key basic principles for the use of information for action include the requirements to: only collect data that will be used; maximize the use of data at the level they are collected; and to collect the minimum, feasible amount of data required to inform and improve decisions leading to action.

Well-designed surveys and costs studies will enable programme managers to determine with greater confidence “what works” and at “what cost.” This information is valuable for future program planning and implementation as well as evidence-based advocacy.

¹ These are addressed in more detail in *Appendix 14: Package of supervisory tools in the Planning and Adaptation Guide of the Community IYCF Counselling Package*.

3.4 Communication

Overview of section for Communication on IYCF:

- 3.4.1 Establishment of a national coordination mechanism for communication aspects of the national IYCF strategy
- 3.4.2 Assessing and analysing the communication situation, including formative research
- 3.4.3 Development of a communication strategy and operational plan
- 3.4.4 Design of messages and materials and selection of channels
- 3.4.5 Implementation of the communication plan
- 3.4.6 Monitoring interim communication outcomes and evaluating impact on behaviours

Introduction

This section of the Programme Guidance provides general guidance on approaches to designing and implementing an evidence and results-based communication¹ strategy on IYCF and contains six action areas of a Triple-A type process. Communication should be viewed broadly: not as only a community-based action, or only a mass-media campaign, but as a comprehensive national strategy and set of actions with a broad stakeholder base and participation, and the use of multiple communication channels.

Communication for IYCF, an essential contributor to large-scale behavioural and social change, should be an intrinsic element of any national Child Survival/Health and Nutrition programme.

Countries where significant gains in exclusive breastfeeding rates (e.g., Cambodia, Ghana, Madagascar, and Malawi) were achieved included communication as part of a comprehensive approach to IYCF.

Communication broadly encompasses **advocacy, social mobilization, social marketing, and behaviour and social communication**. (See [Annex 2: Glossary](#) for the definitions of these above noted terms).

Box 16 summarizes some of the key elements of a successful communication strategy. Using participatory processes with stakeholders and beneficiaries, an effective communication strategy can be developed by analysing formative research data and other evidence on IYCF to tailor the optimal set of objectives, approaches, activities, communication tools, channels, and messages.

A participatory approach throughout the process of developing and implementing the communication strategy should help address the actual barriers to the optimal IYCF practices and to ensure the recommended behaviours are feasible to implement. Barriers to optimal IYCF practices are often related to **social norms** – and so the communication strategy needs to contain a focus on transforming these norms.

Box 19: Communication for Improved IYCF Practices:

Policy dialogue and advocacy to build support for IYCF & the communication strategy.

Formative research, including behavioural assessment with an analysis of benefits and barriers to change within the population, assessment of participant groups, identification of specific, feasible actions by different groups that achieve the desired outcomes and assessment of communication channels.

Development of targeted, concise messages to promote “do-able” actions along with practical help.

Consistent messages and materials across all program communication channels & wider IYCF programme to address critical behaviours and attitudes.

Building counseling and communication skills for health and community workers & other communicators.

Multiple exposures of specific participant groups to messages through selection of appropriate channels (mass media, print, interpersonal, event, traditional, religious etc).

Monitoring of behavioural objectives for all participant groups & evaluation of impact.

¹ UNICEF uses the term [Communication for Development \(C4D\)](#) but in this Guidance document the generic term “communication” is used.

The boxes below summarize some of the key “do’s and don’ts” of communication on breastfeeding based on lessons learned (and can be applied to communication on complementary feeding as well.)

<p>Do’s:</p> <ol style="list-style-type: none"> 1. Use evidence from KAP studies and barrier analysis to design strategies (including messages). 2. Emphasize the risks of artificial or mixed feeding as well as benefits of breastfeeding. 3. Use multiple channels with emphasis on inter-personal communication and community-based approaches. 4. Ensure continuous communication at multiple levels. 	<p>Don’ts:</p> <ol style="list-style-type: none"> 1. Use generic messages (e.g. “breast is best” or “breastfeed exclusively for 6 months” or “breastfed baby = healthy baby”) with no discussion of WHY and no context. 2. Focus only on the benefits of BF with no mention of risks of sub-optimal feeding practices. 3. Rely heavily on information, education, communication (e.g., posters, slogans, mass media). 4. Expect a campaign approach to be sufficient on its own (e.g., World Breastfeeding Week).
---	--

It is critical to learn from experiences with different approaches to communication on IYCF: a programme should not expect that **repeating the same messages and approaches that were used in the past with limited impact will produce different results.** Successful programmes have demonstrated that investment in the process required to design and implement an evidence-based, participatory communication strategy using multiple appropriate channels will produce results. To achieve behaviour and social change, findings support a shift in approach toward a process that:

- Is systematic, strategic, evidence-based, participatory and at scale.
- Has measurable behavioural and process objectives.
- Reflects values, local and larger contexts and potential for family members, including children, and many other participant groups to be agents of change.
- Focuses on social transformation for sustainable results.
- Is based on human rights principles of inclusivity, equity and universality.

Operationalization of this shift in approach is summarized in the 6 steps described below.

3.4.1 Establishment of national communication coordination mechanism

To focus on IYCF communication issues, it is necessary to form a national coordination team that will coordinate the development and implementation of national strategies and activities. The team membership should include not only national managers and planners, but also implementing partners, communication and monitoring experts and other partners such as community groups. The communication activities could be coordinated by the same team that coordinates IYCF overall, but additional stakeholders and experts specializing in communication should be part of this team as well.

3.4.2 Undertaking a communication situation assessment and analysis

Situation assessment

A situation assessment using both quantitative and qualitative methods and drawing on existing

information as much as possible should be undertaken to understand IYCF behaviours and practices (See [Chapter 2.2](#) on “IYCF Situation Assessment”)¹. Successful communication programmes derive from formative research using a mix of quantitative and qualitative methods. As has already been highlighted, the formative research on IYCF is used to design the communication strategy, the counseling tools for health providers, counselors and community workers and the advocacy messages for policy makers and other stakeholders. These various tools should all reflect the same fundamental messages. **Many tools are available for conducting formative research**, some of them specifically tailored to IYCF. (See [Resources Annex 1-3](#))

A thorough study of the factors that may influence infant feeding practices of different people in a community is a critical first step in any IYCF communication strategy. In depth knowledge of what mothers currently practice, what they value and what motivates them, how their families and communities influence them and which benefits of the optimal IYCF practices will appeal to them, will lead to designing effective communication strategy. The time, effort and resources required to gather and analyze this formative research data and to use it in designing the communication strategy is worthwhile as a strategy developed on the basis of the research is ultimately more likely to achieve results.

Quantitative data provides information on exclusive breastfeeding rates in a population and helps understand “where” the problems lie. This data is readily available in many countries from household surveys such as DHS and MICS and quantitative Knowledge, Attitudes and Practices (KAP) studies. It is recommended to conduct KAP studies if these have not been undertaken before, which can be also used for advocacy and policy purposes.

Qualitative or social data tells the “why” of the problem, with in-depth understanding of factors influencing and motivating people. In order to collect qualitative data on KAP related to IYCF, methods such as household trials, focus group discussions, counselling observations, key informant interviews, facility-level assessments, small studies, participatory rapid assessment, and community and market visits are used to better understand barriers and readiness to change behaviours. The research should be done *with* the communities in a participatory manner as much as possible.

A key aspect of qualitative research is **behavioural assessment** which is important to determine the direct and underlying factors that influence IYCF practices. This may include assessment of who is or is not practicing which behaviour that contributes to the problem, the underlying factors and influences for behaviours and practices of different groups. Understanding the barriers to desired behaviours, the current facilitating, positive practices that could *support* the desired behaviours and the opportunities for changing practices is important. Gender issues, divergent practices and views in different groups in the population, power relationships, social networks and community-wide practices are all factors to be explored.

Examples of assessment questions

- i. What information already exists about EBF practices of different groups of women and behaviors of groups who may influence them?
- ii. What are the reasons mothers practice these behaviours?
- iii. Who influences mothers to practice undesirable behaviours?
- iv. What are the roles of different members of household in feeding the infant, such as grandmothers or the husbands/partners?
- v. What are the views of different participant groups on infant care, breastfeeding, exclusive breastfeeding for 6 months, formula

Box 20:

“In Ghana one problem that was encountered was ‘breastfeeding on the run’. At each feed mothers gave a little bit of milk from both breasts, so children were not suckling enough to get the rich hind milk. Because of this, mothers were tempted to give other foods since they thought their babies were hungry—and they were! The standard message to give the breast at least 10 times a day was thus inappropriate for Ghana since mothers were already giving the breast as much as 20 times a day.”

Linkages Ghana

¹ The situation assessment may be conducted as a single process to inform the development of the community and communication components of the IYCF programme, as well as the counselling tools for health providers.

- feeding/mixed feeding, and family roles?
- vi. Who benefits from not practicing the desired behaviours?
 - vii. What resources for exclusive breastfeeding are already in place?
 - viii. Which family and community members can support mothers during the 6 EBF months?
 - ix. What actions and behaviours to improve EBF practices do you want to achieve at each level as a result of planned activities and most importantly as part of the overall social transformation process?
 - x. Why have these results not been achieved up to now?

The formative research will likely reveal a number of myths and beliefs about infant feeding, some of which are included in Box 21. Many of these will need to be countered in the communication messages.

Box 21: Common Beliefs about Infant Feeding That Are Not True

On breastmilk:

- Colostrum should be discarded.
- Colostrum is dirty.
- Colostrum is yellow because it has been in the breast for too long and has gone bad.
- A baby should not be suckled until the “white milk” comes in.
- Most women cannot produce enough milk, and therefore need to feed the baby other foods/milk
- Feeding other foods, milk and water together with breastmilk in the first six months is necessary and is not a problem.
- Babies need to receive traditional teas and medicines.
- Every baby needs water.
- Breastmilk is too thin.
- Milk that accumulates when the mother is separated from her baby should not be given to the baby
- Breastmilk gives some babies allergies.
- A sick infant should only be given rice water.
- Giving water, other liquids and milks in addition to breastmilk is fine in industrialized or middle income countries or in wealthier families with safe water sources and good sanitation and hygiene facilities and will not cause diarrhea.

On formula:

- Bottle feeding is harmless and hygienic.
- Formula is as good as breastmilk.
- Formula is the normal way to feed a baby.
- Babies in industrialized or middle income countries can safely be fed water or formula together with breastmilk as the risks of contamination and diarrhea are minimal.

On the mother's practices

- Breastfeeding is too hard, painful, messy and inconvenient.
- Mothers cannot eat or drink certain foods or liquids during breastfeeding and can only breastfeed if they have a perfect diet.
- A mother can't breastfeed and work.
- A woman's breasts are sexual and belong to the partner.
- Breastfeeding “ruins” your breasts.
- Breastfeeding is “gross”, should only be done in private.
- A mother who is angry or frightened should not breastfeed.
- A mother who is ill should not breastfeed.
- A mother who is pregnant should not breastfeed.
- A mother who is malnourished cannot produce enough milk and cannot breastfeed.
- A mother who is breastfeeding cannot have sex as the milk will go bad; therefore she should stop breastfeeding soon so that sexual relations can resume.

Determining whose behaviours related to IYCF are the focus should be done to the extent possible before the formative research begins. Some groups, such as fathers and mothers-in-law, should be included in the formative research; others such as employers may also emerge as important. The findings may indicate that different strategies or approaches may be needed for different groups.

An important component of the formative research is identification of **available communication channels** in the different target areas and for different groups in the population, and their potential to be good sources of information on child feeding/nutrition/public health. Media and channels of communication are identified through national surveys and in-depth formative research. Examples of different communication channels include interpersonal communication such as individual counselling and promotion; group sessions such as mother support group meetings; health education sessions; community meetings; religious channels; videos; shows; theatre etc., print media including magazines, brochures, cartoons, etc.; mass media and information and communications technology like cell phones and the internet.

Analysis of the formative research

Analysis of the formative research encompasses the IYCF behaviours, potential participant groups for communication, potential communication channels that will be used for the communication strategy and analysis of past experiences and lessons learned on communication for IYCF will include:

- **Behavioural analysis:** Using the formative research findings, behavioural analysis will enable the incentives and barriers to breastfeeding will be identified. This guides the development of the communication strategy, SMART¹ programme objectives and activities. This implies full review and discussion of the data to understand the types of behaviours, the reasons and motivators for them, the facilitating factors and barriers and the social, cultural, gender, economic and political context in which they take place. For example, is it pride in a child who is growing well and not getting diarrhea that may motivate a caregiver to not give water or other liquids and foods before 6 months? Or is it a better understanding of risks of mixed feeding and artificial feeding? Or how the prevailing social norm in the community influences them?
- **Participant analysis:** Analysis should also be undertaken to understand who influences feeding practices and where the different groups currently are in relation to their stage of awareness, knowledge and practice of the desired behaviours. The level of political will and resources of the Government for IYCF communication activities is examined. Information on the level of donor commitment is also important and should be integrated into the overall analysis.
- **Channel analysis** examines the range of available communication channels and how they are accessed and used by intended participant groups. The analysis phase determines which channels are likely to be most effective in reaching and influencing the different participant groups, and which ones less so.
- **Communication experiences:** Past and current communication experiences of various groups to promote good IYCF practices should be analyzed for lessons learned and possible replication (or avoidance). Analysis includes the availability of existing human resources for communication (such as community health workers, religious groups or women's groups) and what their capacities are.

3.4.3 Development of a communication strategy and operational plan

The starting point for implementation of communication activities should be a well-coordinated strategy involving all stakeholders. A strategy involves higher-level thinking that defines why the issue is being addressed, what the overarching goal and specific objectives are, what key principles will be observed and what should be done to achieve the objectives. Based on the results and analysis of the formative research, the IYCF communication strategy should complement, or feed into, the overall national strategy on child nutrition, and followed by detailed operational plan indicating targets, actions, responsible party and budget.

¹ Specific, measurable, achievable, realistic and time-bound

It is also important to design the monitoring system for the implementation of the communication actions from the outset - not later on once implementation has already started - identifying how information will be collected, by whom, how often, with which resources and how it will be compiled and used.

See [Resources Annex 1-9](#) for some relevant resources and tools for communication planning and some examples of country communication strategies¹.

Deciding on communication objectives for behaviour change

An important step in the planning process is to develop objectives for the communication strategy based on the results of assessment and analysis. Meeting communication objectives contributes to achieving the overall programme goals. However, the main outcomes of communication programs are usually health or social behaviors that support the overall program goal.

Communication and programme strategies may sometimes have different objectives, although they may share some of the same elements. In particular:

- Outcome objectives for the communication strategy focus on what can be achieved entirely through communication, addressing behavioural, social change and advocacy objectives.
- Outcome objectives for an IYCF programme rely on a broader range of strategies that includes communication.

A communication objective for behaviour and social change is SMART and indicates who-will-do-what.

- Behavioural objectives** should be defined for primary participant groups (e.g. mothers, fathers, grandmothers); for example
 - *“To increase the proportion of mothers with infants less than six months who do not give water along with breastmilk”.*
 - *At least 60 per cent of women with infants less than 2 years report at least one contact with a mother support group”.*
- Social change objectives** for secondary participants (e.g. health providers, community workers, religious leaders, etc.), for example:
 - *“Trained health providers/CHWs will develop plans for conducting communication sessions on IYCF and implement at least 70% of planned sessions”.*
 - *“Trained health providers/CHWs use at least 3 of 4 main communication skills”* see box 22 below).
 - *“At least 20% of religious leaders are sensitized and promote priority IYCF practices during their regular and special prayers and ceremonies”.*
- Advocacy objectives** for tertiary participant groups (e.g. policy and decision makers, Government authorities). For example:
 - *“50% of local government authorities (all directors and programme managers) and development partners are sensitized about the National IYCF Strategy and initiate allocation of resources for implementing relevant sections of the action plan”.*
 - *“Reporters and gatekeepers from 50% of national media outlets (print, broadcast, radio and web) producing increased coverage on IYCF practices and impact on child mortality, nutrition, health and development”.*

See the section on [Monitoring and evaluation of the effect of communication on behaviour](#) in this chapter for more information on monitoring of the achievement of the communication objectives and review and evaluation of the outcomes.

¹ Including: *“Communication for development in IYCF: Improving exclusive breast feeding practices”*; *“Using Communication for Development in ACSD Programmes* (under development, 2010) and [Behaviour Change Communication in Emergencies: A Toolkit \(UNICEF 2006\)](#), which contains practical tools for developing a communication strategy which can be applied to non-emergency situations as well. [Facts for Life \(UNICEF 2010\)](#) also includes basic information on breastfeeding and may be useful.

Box 22: Key communication skills

1. Establishes rapport or friendly relations with community members, sometimes called “smooth interpersonal relations”:

- Starts with greetings and by engaging members in a respectful, relaxed conversation on a common topic of interest.
- Fosters friendly environment through praise, smiles/facial expression, posture, other non-verbal gestures.
- Inspires confidence and trust by showing that he/she understands and respects local customs, traditions and norms, and speaks the local language.
- Avoids judgmental tones.

2. Listens actively and attentively:

- Encourages all members to express ideas, problems and issues.
- Maintains appropriate eye contact with all members.
- Shows empathy with members by indicating interest in understanding their views.

3. Involves and inspires members in friendly debate and dialogue to express opinions, discuss problems/issues, make decisions and agree on collective actions:

- Manages group discussion, problem solving and conflict resolution.
- Asks open-ended questions to check for understanding
- Uses local examples, anecdotes, humour (as appropriate), and engages members to share own stories to illustrate/explain subject or issue and to reflect on their feeling and actions (touches their hearts and not just their minds)
- Invites feedback, ideas, comments and suggestions
- Assists in examining consequences of each option discussed
- If not from community, trains and involves local mobilizers/animators to facilitate

4. Explains subject matter and answers questions clearly, credibly and with confidence

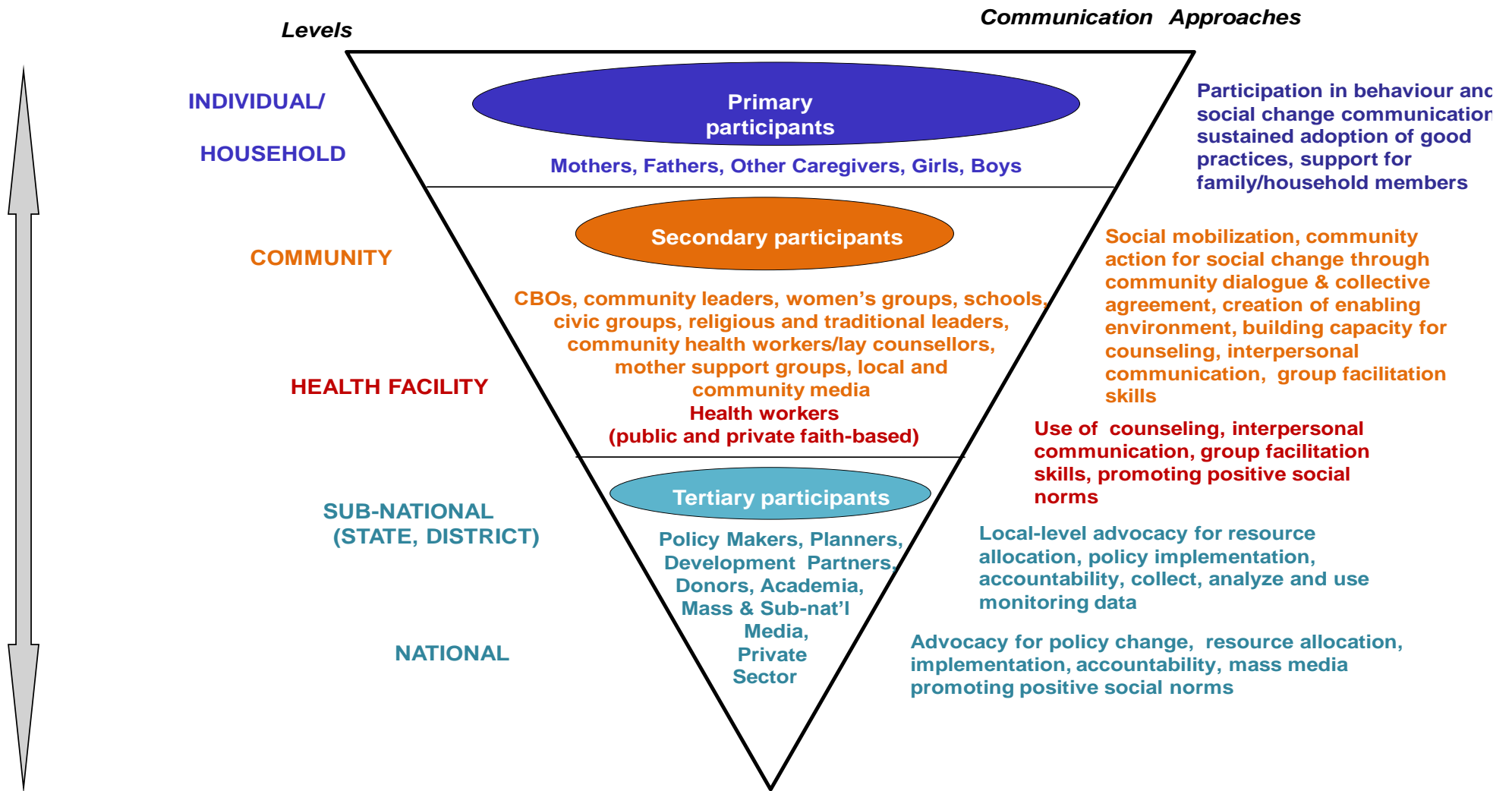
- Encourages both girls and boys, women and men, marginalized and disabled to participate and avail of opportunity to benefit
- Summarizes points of discussion and actions

Determining the participant groups for behaviour change

Communication for behaviour and social change requires the participation of numerous stakeholders and groups, including caregivers of infants and young children, family and community members, community leaders, community workers, health providers, religious institutions, opinion leaders, the media, managers, decision and policy makers and many others. In the process of designing and implementing the communication strategy for IYCF, a participatory process is considered highly important. Therefore, the various groups whose behavior and social norms are being addressed are called “participant groups” rather than “target audience”, as the latter implies a one-way approach.

Public health and IYCF programmes should not limit themselves to interventions directed towards mothers – often considered the primary participant group. The behaviours of other primary participants who influence the mother, such as family members especially fathers and elder women, as well as secondary and tertiary participant groups, are often not addressed in a communication strategy. Yet they are critical to achieving IYCF outcomes. Figure 22 shows the likely participant groups for an IYCF communication strategy at different levels and the communication approaches that may be used for each participant group.

Figure 22: IYCF participant groups and communication approaches



Coordinating & Harmonizing Across Levels to Effect Behaviour and Social Change

Determining the behaviours and practices to include in messages

The formative research should compare the **essential ideal behaviours** for exclusive breastfeeding to the actual behaviours observed during the formative research, and establish the main barriers, myths and norms that lead to deviations from the recommended practices. The same is true for essential behaviours for complementary feeding.

Box 23: Essential behaviours for exclusive breastfeeding

A mother practices optimal breastfeeding during the first six months when she:

1. Initiates breastfeeding within one hour of birth.
2. Feeds the colostrum to the baby.
3. Positions and attaches the infant correctly at the breast.
4. Breastfeeds on demand.
5. Breastfeeds frequently during the day.
6. Breastfeeds during the night.
7. Offers second breast after infant empties the first.
8. Gives only breastmilk; gives no water or teas or any other liquids or foods.
9. Continues breastfeeding when she is sick.
10. Increases breastfeeding frequency during and after infant's illness, including diarrhea.
11. Seeks help from a trained health worker or counselor if she has problems with breastfeeding.
12. Eats sufficient nutritious foods herself and takes supplements as recommended by the health provider.

Box 24: Essential Behaviours for complementary feeding

A mother practices optimal complementary feeding during the period 6-23m of the infant's life when she:

1. Starts feeding additional foods to the child at the age of 6 months.
2. Starts with soft or mushy foods at first that are age appropriate and are not too thin or thick, and gradually shifts to foods of a solid consistency if the child is ready.
3. Continues breastfeeding up to two years of age or beyond.
4. Offers solid or semi-solid foods 2-3 times per days when child is between 6-8 months of age, and 3-4 times per day after that, and offers nutritious snacks 1 or 2 times per day, as desired.
5. Offers a variety of foods, from all the food groups (grains, roots and tubers, legumes and nuts, animal source foods and fruits and vegetables) and increases in variety and quantity as the child grows.
6. Practices good hygiene in preparation and storage of complementary foods (including washing hands before and using clean water and utensils).
7. Continues breastfeeding and feeding complementary foods during illness.
8. Gives the child iron-rich foods such as animal source foods or iron supplements if iron-rich foods are less available.
9. Uses feeding times for interacting with the child, to teach and stimulate social development as well as encourage the child to eat.

However, it is emphasized that this list of correct behaviours¹ should not be seen as the exact messages to be reflected in communication materials. They need to be adapted for use with the different participant groups

Often, planners get caught up in what is medically correct, and recommend an ideal behaviour without examining whether it is **feasible**. Recommending a long list of behaviours or complex behaviours reduces the credibility of the advice and makes it seem impossible to do. One result of analysis is to make sure messages promote feasible behaviours and are linked with other activities that help to improve feasibility of the recommended behaviours and practices. The analysis needs to address the requirements to practice each desired behaviour (time, resources, skills, products), the extent to which people are already engaging in it, its acceptability to the various participant groups, the short and long term benefits, and the immediate and long term consequences of NOT engaging in the desired practices. To adopt and maintain the new practice, women need to be surrounded by a

¹ These ideal behaviours are derived from WHO recommendations on optimal practices. They may also be found in Facts for Life (Resources Annex 1-9).

supportive community that also believes in the value of the new practice. An enabling environment needs to be created that may include a reduction in workload, support from family members, correct and practical advice from health workers and counselling support to clarify misconceptions about breastfeeding. Therefore additional activities need to be conducted to make the messages on behaviours feasible to implement based on the local context, such as conducive health facility and workplace policies and practices, support services, helplines etc.

Box 25: Examples of feasibility considerations and contextualization of breastfeeding messages

- The advice to women who must return to work or will be separated from their infant during EBF months is often to “*express breastmilk and feed it to the baby from a cup*”. But is this even feasible? Behaviour analysis can put a microscope on the behaviours to express and store breastmilk. What are milk expression techniques? How long does it take to express enough milk for a feeding? Does a working mother have adequate time and place to express? How should she store the milk? How long will the milk last without refrigeration? What are recommended feeding techniques (cup or bottle) and are they available? What does the community think about expressing breastmilk – is it acceptable, or does the prevailing social norm not favour expressing? Focus group discussions with women who have expressed milk and behaviour observations of expressing, storage and feeding are important in making messages for working women.
- In Ghana one problem that was encountered was ‘breastfeeding on the run’. At each feed mothers gave a little bit of milk from both breasts, so children were not suckling enough to get the rich hind milk. Because of this, mothers were tempted to give other foods since they thought their babies were hungry—and they were! The standard message to give the breast at least 10 times a day was thus inappropriate for Ghana since mothers were already giving the breast as much as 20 times a day.

Trials of Improved Practices (TIPS)¹ is one approach that can be used to test the feasibility and acceptability of feeding recommendations among the participant groups, including health workers. TIPS is a formative research technique used by program planners to pretest the actual practices that a program will promote. (See [Resources Annex 1-3](#) for more tools for formative research.)

3.4.4. Design of messages and materials and selection of channels

Getting the message right

An IYCF communication strategy and plan should focus on a small selection of priority themes with the greatest public health impact according to studies and surveys in the country. It should avoid trying to address too many themes and messages simultaneously, as this can diminish the potential impact.

The way language is used to promote breastfeeding is crucial. Evidence shows that raising the issue of disease, survival or death (“*breastfeeding saves lives*”) or generic messages based on expert opinions and recommendations (“*breastfeed exclusively for the first six months*”; “*breastfeeding is best*”, “*don’t give water*” or “*your baby doesn’t need water*”, “*feed a balanced diet*”, “*feed a variety of foods*”, etc.) have little success in changing people’s behaviour. These types of abstract messages, still commonly used in communication activities, offer little explanation of why the behavior is recommended. They do not focus on concrete doable actions, do not address the socio-cultural barriers to optimal practices, and do not provide the opportunity to discuss and debate how behaviours might change.

¹ The procedure for TIPS consists of a series of visits in which the interviewer and the participant analyze current practices, discuss what could be improved, and together reach an agreement on one or a few solutions to try over a trial period; and then assess the trial experience together at the end of the trial period. The process leads to identification of ways to gauge the acceptability of new practices and learn how to promote and support them through program interventions.

It is likely that the tendency to select these types of generic messages may be due to the ease of rapidly producing posters, radio spots etc. However, this approach may result in little more than providing visibility for the producer of the poster or spot, decorating the walls of clinics or allowing the programme manager to report that an action to promote breastfeeding has been undertaken. Ensuring that the messages resonate with the target communities, are doable and feasible and actually motivate behavior change involves the process of formative research, pre-testing and ongoing monitoring and review that are described in this chapter.

It is vital to encourage debate and discussion so that communities can propose their own solutions, messages and communication approaches that address the barriers to optimal feeding. Using participatory communication methods such as group meetings with primary caregivers, peer educators and one to-one counselling is helpful in determining meaningful infant and child health related messages that they will understand. In addition, it is important to focus on a few messages only: those that are vital to influencing current practices in the country.

The priority messages that are selected should be:

- Clear, practical and understandable: promoting or prompting small, doable actions
- Appealing, memorable and able to hold the attention of intended participants
- Credible /believable
- Acceptable and appropriate to the local culture and language
- Relevant to intended participants' prevailing circumstances
- Addressing the barriers, norms and beliefs in the community

Communication on breastfeeding has traditionally focused on **promoting the benefits of breastfeeding** – but this does not always result in more women breastfeeding. Little attention is usually devoted to highlighting the risks of formula feeding and mixed feeding. In some settings, the generic messaging style on the benefits of breastfeeding used by many breastfeeding advocates and communicators does not resonate and lead to behaviour change, and may even end up subverting the good intentions of encouraging mothers to breastfeed [174], as highlighted in one of the examples in Box 26:

Box 26: Examples of messages on benefits of breastfeeding and risks of not breastfeeding

- Exclusive breastfeeding is a straight-forward health issue. The real issue with formula feeding and mixed feeding is the proven higher morbidity and mortality. Therefore, the risks of formula feeding or mixed feeding need to be properly and correctly explained and communicated to all mothers, to ensure that the mother and her family have all the necessary information to make informed decisions.
- If messages are designed only around the "benefits of breastfeeding," in some societies, particularly where breastfeeding is not the norm, they may lead to the implication that formula is "normal" and "adequate" and breastfeeding (the "*best way to feed your baby*") is something "ideal" or "extra". People are usually satisfied with "normal" behaviours, while "ideal" behaviours are perceived to be unattainable. Thus, instead of focusing only on the "benefits of breastfeeding," messages should also address the risks of not breastfeeding, or the risks of mixed feeding (such as "the risks of adding water", etc. – depending on the local context).
- Because breastfeeding is the biological norm, instead of only having messages stating "*breastfed babies are healthier*", messages highlighting that "*artificially-fed babies are ill more often and more seriously*" should also be included.
- On mixed feeding, rather than highlighting that mothers should "*exclusively breastfeed your baby*", messages could also emphasize that "*adding water, tea, milk or food to breastfeeding makes your baby sick and thin*".
- Instead of mentioning that "*breastfeeding prevents cancer, diabetes and obesity*", messages should highlight that "*non-breastfed infants have a higher risk of chronic conditions later in life compared to breastfed infants*".

In addition to messages around the benefits of breastfeeding and optimal breastfeeding practices, countries could also develop messages around the risks of artificial feeding or sub-optimal breastfeeding practices. All messages need to be pre-tested.

Some advertisements regarding the use of BMS and messages harmful to breastfeeding may have to be countered with messages that reinforce the benefits of breastfeeding and highlight the risks of artificial feeding.

(See [Resources Annex 1-9](#) for some examples of key messages and communication on exclusive breastfeeding and complementary feeding, including those in the flagship Facts for Life publication.)

Selection of communication channels

Once the formative research results have been translated into core messages, the most appropriate channels to deliver and exchange messages to and with different participant groups should be determined. The following are examples of common channels and how they can be utilized to communicate on IYCF:

Interpersonal communication involves face-to-face dialogue between individuals or groups. It can take place anywhere. It can be informal at any place and during conversations with family and friends. It can be also formal through discussions in household visits, mother support groups, health clinic group sessions, community meetings, women's group meetings, youth organizations and adult literacy classes. Interpersonal communication provides opportunities to ask questions and resolve doubts, to discuss inhibiting factors and obstacles, and to develop solutions. It should usually be prioritized in a communication strategy.

Community, traditional or “mid” media communication refers to materials and communication channels that are ‘in-between’ an interpersonal and a mass audience approach. Street theatre and performances of poetry, song and puppetry are examples. They also include videos, DVDs, audiocassettes and community radio programmes, usually accompanied by group discussion. Religious institutions could also be a powerful channel to deliver messages on feeding and care of children in societies where religion is widely practised and influential.

Mass media channels include radio, television, newspapers, magazines and the internet, which are excellent tools for reaching large numbers of people to introduce and reinforce new information, promote desired behaviours, and lead to social change. Information on IYCF can be presented through interviews, news articles, discussions, radio or television drama, soap operas, puppet shows, comics, jingles or songs, quizzes, contests and call-in shows. Increasingly, cell phones are being used to pass simple messages about health and may be considered for IYCF. If well monitored for results, this will contribute to the evidence of their effectiveness.

Print materials such as flip charts and counselling cards are used to support interpersonal communication and never used as stand-alone channels. Print materials *remind* people of the messages and provide more detailed information. If used well, they can help persuade an individual to try a new behaviour. However, print materials should not be the main delivery method in any context.

If resources are limited, the priority should be on interpersonal communication and mass media.

The strengths and weaknesses of channels, as well as their accessibility to all participant groups should be taken into consideration during design of communication activities. Low literacy rates, limited female mobility and other gender issues, access by disadvantaged and excluded groups, nomadic and displaced people and those living in remote areas are all examples of factors to consider in channel selection.

Importance of using multiple channels: Evidence shows that successful efforts use multiple channels to reach priority audiences with age- and context-specific messages on particular behaviours. They need to reach the primary audience frequently enough to stimulate lasting behavioural change. The messages should be regularly delivered and reinforced through the multiple channels, and should be consistent with the messages conveyed by health providers and community cadres.

Pre-testing

Pre-testing is an important step which helps to ensure that the strategy will ensure achievement of expected results for improving IYCF.

Messages and the methods and channels to deliver the messages (see the section below on channel analysis) should be **pre-tested** with the representation of all the intended participant groups. The use of the identified channels should also be pre-tested – this may be done through implementation of the strategy in demonstration areas - to see which channels are most effective and appropriate in reaching the different participant groups.

Design of the action plan

Once the participant groups, messages and channels have been identified and pre-tested, the overall operational or action plan for communication can be designed. Communication planning can be facilitated by using a **comprehensive planning matrix** for the plan. (Different models for this exist, and the matrix, developed by UNICEF, in [Annex 3](#) is included as an example.)

World Breastfeeding Week may feature as one element in the design of the communication plan, which affords a focused opportunity for advocacy with decision makers and delivering messages to the general population about optimal breastfeeding practices. However, limiting communication activities to World Breastfeeding Week alone is not sufficient to achieve significant and sustained results – an ongoing, multi-channel approach is needed.

As part of the communication action plan, it is important to prioritize training of health providers, community workers, mother support groups, etc., on effective interpersonal communication techniques, positive counselling and negotiation skills should be organized. Techniques on the effective use of counselling cards, flip charts, and other job aids during individual and group contacts should be included.

A communication plan that seeks to create demand for IYCF counselling services or supplements for complementary feeding is not helpful if IYCF counselling services are not easily accessible or the supplements are not available. Therefore, it needs to be linked to the service components of the overall IYCF programme. For example, it is often believed that general promotion of breastfeeding, whether through mass-media campaigns or by health workers, is sufficient to reach significant result. However, it has proven to be insufficient since breastfeeding women need practical support and assistance with solving problems from trained health workers and counselors, alongside action oriented, locally tailored and frequently repeated messages.

Note: *Communication strategies need to appropriately address HIV and infant feeding actions. Specific HIV and infant feeding issues related to communication are addressed in the separate HIV and infant feeding chapter in this guidance document.*

3.4.5 Implementation of the communication strategy

The action plan for implementation and monitoring of the communication strategy should be

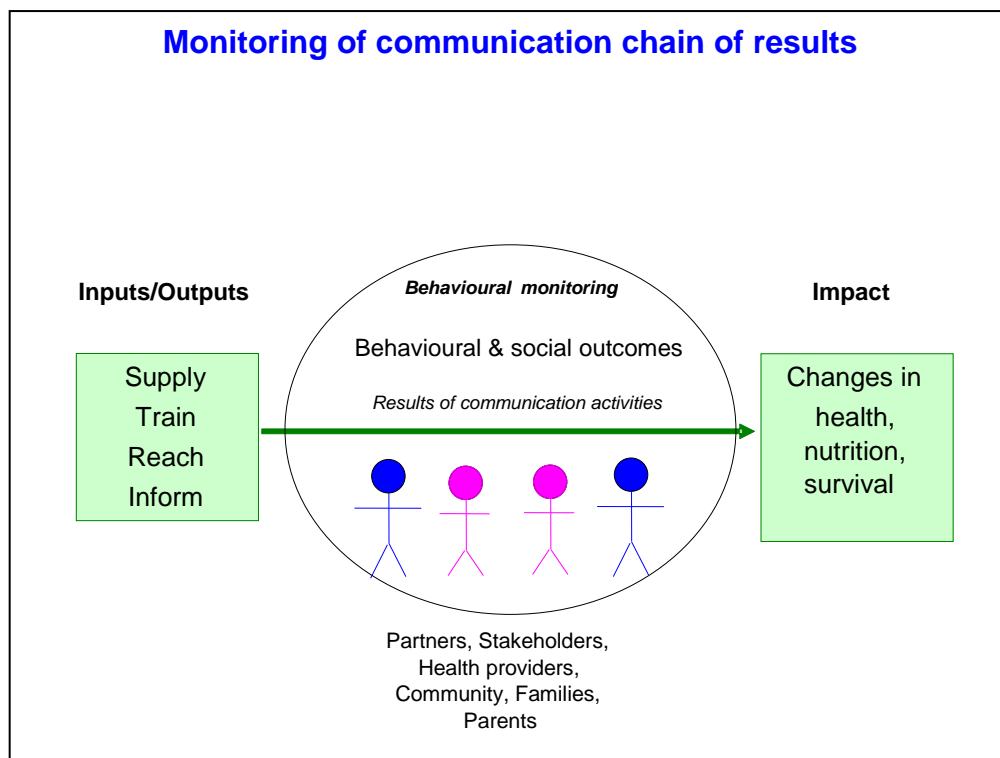
integrated within the overall national IYCF strategy and plan and the local microplans. Some elements will need to be included in the action plans of different sectors, for example, the communication research, monitoring and evaluation component and the media aspects. Opportunities for synergy amongst the service delivery system and the community level should be maximized. For example, if in-service training for health workers, lay counsellors or community health workers on IYCF counselling is planned, sessions on communication approaches and skills can be added. Synergies with other related programmes such as IMCI, PMTCT or CMAM, should also be explored to add communication skills training and define entry points for communication in IYCF.

3.4.6 Monitoring and evaluation of the effect of communication on behaviour

Monitoring and evaluation are essential to any strategic communication plan and should be built in from the beginning. The results of ongoing monitoring and periodic evaluations should be used for frequent feedback and adjustment of the strategy and activities as required. The aspects of monitoring described here are specific to the communication actions, but can be integrated within the overall IYCF programme monitoring plan – see the chapter on [monitoring and evaluation \(Chapter 2.7\)](#)

Monitoring and evaluation, respectively, answer the pivotal questions: “How are we doing?” and “How did we do”?

Figure 23: Monitoring of communication chain of results



Monitoring

Building a monitoring system to track performance of the communication intervention is essential for communication managers. The monitoring system will be able track input indicators to measure the quantity, quality and timeliness of resources provided, for example, funding, human resources, communication materials or technical support. It will also track output indicators to measure quantity, quality and timeliness of products or services provided through use of the inputs. They will measure immediate results, for example the number of people exposed to a message or participating in community action. Routine monitoring may also measure some of the intermediate outcomes of the communication activities, for example, behavioural outcomes in the primary participants, secondary participants' use of newly acquired communication skills and tertiary participants' allocation of resources etc.

If routine monitoring is not set up to collect this type of data on intermediate outcomes, a mid-term review may be needed as the major period evaluations may be too infrequent to ensure course correction if intermediate outcomes are not being achieved. For example, without M&E addressing intermediate outcomes, significant resources may be invested in training community health workers on communication skills but it will not be possible to determine if the skills are being applied. In case the skills are not being applied, these resources are not in fact being used optimally.

It is important not to confuse **how** the programme is doing with **what** is being done. The “what” can be a simple tally of activities, such as number of training sessions for health workers, number of visits made by representatives of mother support groups, number of meetings held with policy-makers. The measure that matters is the actual change that results from those training sessions, visits and meetings. For this reason, a communication strategy can widen the focus of M&E beyond *traditional indicators* of outcome and impact, such as reach of media and information, increased knowledge and awareness, improved and new skills, changes in individual behaviour and practices, increased delivery and demand for products and services, to also include *additional indicators* that acknowledge individual and community empowerment, human rights and social, systems and policy change in the long-term, for example:

- **Social norms and social processes** (e.g. social support for involvement of fathers in child care; participatory approach to the definition of most needed community services in support of IYCF; exposure in the media to positive images and stories on good IYCF practices).
- **Power within different levels of society** (e.g. number of women who recognize the importance of optimal IYCF and feel entitled to ask questions and demand services and support that would improve practices and behaviours; number of households where the fathers of children are supportive of and help enable optimal feeding).
- **Policies, systems and strategies** (e.g., workplace policies that provide support and resources for women who breastfeed, hospital policies supportive of successful breastfeeding, national legislation on marketing of BMS that is enforced effectively, strategies to provide appropriate complementary foods to the most vulnerable children, district plans etc.).
- **Social behaviours** (e.g., proportion of fathers and grandmothers who do not insist on giving formula or water to infants <6m, number of district directors of health allocate adequate human, material and financial resources to implement district-level IYCF communication activities).

It is also important to obtain information on the **coverage** of communication activities for IYCF. Since the use of multiple channels for communication is promoted, monitoring of coverage will need to be a composite of the channels used in a country. Coverage monitoring could therefore assess:

- The coverage (# & % of health facilities) that conduct group sessions on IYCF and estimated numbers of people reached in these sessions.

- The # and % of districts with community based BCC activities and estimated numbers of people reached.
- The number of the people reached through mass media messages.
- The same principle could be applied to other channels used in the local context, e.g. religious institutions, etc.

Evaluation

Evaluation provides information on whether the strategy is generating appropriate behaviour and social change results. Impact evaluations should be designed around the outcome indicators on IYCF knowledge, attitudes and practices of the various participant groups collected in the formative research. Trends in the standard programme impact indicators such as exclusive and continued breastfeeding and minimum acceptable diet in children aged 6-23 months should be analysed.

Table 4 gives examples of indicators that can be used for the different levels in the chain of results for communication on IYCF (see also the table of general IYCF indicators – national, health system and community levels – in [Chapter 2.7](#))

Table 4: Examples of indicators for IYCF communication strategy

Inputs
<ul style="list-style-type: none"> • # of district communication plans finalized • # of health workers and CHWs/lay counsellors trained on communication skills • # of communication materials produced • # of communication materials distributed • # of communication equipment items distributed • # of radio spots/programmes broadcast • # of supervisory visits to communicators (health providers, community workers, communication groups, mother support groups etc.) conducted • # of radio spots/programmes broadcast • # religious leaders sensitized
Outputs
<ul style="list-style-type: none"> • % of districts implementing communication strategy & allocating resources to it • % of planned communication sessions at health facility or in community conducted • % trained CHWs/lay counsellors who are providing counselling and conducting communication sessions • % of target mother support groups functioning • % of districts which received and have distributed communication materials on IYCF • % of planned advocacy sessions with directors of health/religious leaders/media etc. held • % of population who heard a radio spot or programme on IYCF • % of religious congregations where IYCF included in prayers/sermons etc. • % of population reached with different types of communication activities: health system, community, radio, etc.
Outcomes
<ul style="list-style-type: none"> • % health workers and CHWs/lay counsellors who use at least 4 communication skills (as per Box 23) • % of pregnant and lactating women who know that colostrum should be given to a newborn • % of mothers and caregivers who can explain the benefits of early initiation and exclusive breastfeeding • % of women who know that breastmilk contains sufficient water • % of mothers who can correctly name at least 6 of the 12 optimal breastfeeding practices (as per Box 19) • % of lactating women who do not give water or other fluids/foods to infants • % of elder women who tell new mothers that babies don't need water • % of lactating women who breastfeed on demand including during the night • % of mothers who can correctly state the age of introduction of complementary foods • % of formally employed mothers who are breastfeeding • % of mothers who can correctly name at least 5 of the 9 optimal complementary practices (as per Box 20) • % of mothers and caregivers who can explain how often a child 6-23m needs to be fed • % of mothers and caregivers who can list the important food groups that a child >6months needs to be fed • % of mothers who can state which foods are in each of the food groups • % of mothers who said they ate additional food while pregnant and lactating
Impact
<ul style="list-style-type: none"> • % of newborns who started breastfeeding within first hour • % infants <6m exclusively breastfeeding • % infants still breastfeeding at 12-15 months • % of children 6-23m who receive a minimum acceptable diet • % of mothers who fed their children 6-23m of age with the recommended frequency • % of mothers who fed their children 6-23m of age with the recommended variety of foods

3.5 IYCF in Exceptionally Difficult Circumstances

This section of the Programme Guidance highlights state of the art information and approaches to IYCF in especially difficult circumstances. It is divided into two major sections:

- **HIV and Infant Feeding**
- **Infant Feeding in Emergencies**

The *Global Strategy for Infant and Young Child Feeding (WHO/UNICEF 2003)* highlights the difficult circumstances in which infants and young children and their families require special attention regarding feeding. These include exposure to HIV, emergencies, severe malnutrition, low birth weight and other social circumstances such as orphans and children in foster care, and children born to adolescent mothers, mothers suffering from physical or mental disabilities, drug- or alcohol-dependence, or mothers who are imprisoned or part of disadvantaged or otherwise marginalized populations.

This guidance will focus on HIV and emergencies, as these are areas of IYCF that require specific approaches to programming globally. However, national programs should ensure that the other difficult circumstances, specific to county situation, are also adequately addressed and provisions made for appropriate feeding of the vulnerable children facing these circumstances¹.

3.5.1 HIV and Infant Feeding

Overview of section for HIV and Infant Feeding:

- 3.4.6.1 Summary of updated evidence and recommendations and implications for policy and programming
- 3.4.6.2 Development of guidelines on HIV and infant feeding as part of comprehensive IYCF policies and guidelines
- 3.4.6.3 Specific programming issues related to HIV and infant feeding

Introduction

Infant and young child feeding in the context of HIV and AIDS poses significant challenges due to the risk of transmission of the virus via breastfeeding. Prior to the latest guidelines on HIV and infant feeding, which are based on the evidence of positive outcomes for HIV-free survival through provision of ARVs to breastfed HIV-exposed infants, avoidance or early cessation of breastfeeding seemed logical and appropriate. However, the repercussions for the health and survival of the infants were serious, with studies [175] showing much higher mortality rates due to diarrhoea, malnutrition and other diseases in non-breastfed children. Thus the focus is now on ensuring HIV-free survival, not just on preventing transmission, and the new (2010) guidelines provide a much clearer pathway towards this goal.

3.5.1.1 Summary of updated evidence and recommendations and implications

Significant programmatic experience and research evidence regarding HIV and infant feeding has accumulated since the last WHO guidance was issued in 2006 [176]. The 2006 recommendations, formulated in the absence of ARV interventions, had suggested that breastfeeding should stop after the infant reaches six months as soon as specific AFASS (*affordable, feasible, acceptable,*

¹ Guidance for feeding of severely malnourished infants is available in the *Infant Feeding in Emergencies Module 2 V.1.1 (IFE Core Group 2003)*; guidance on feeding low birth weight babies and babies who are orphaned or who cannot breastfeed are provided in the various training modules on breastfeeding and IYCF (See [Resources Annex 1-11](#) for more resources and tools on IYCF in Emergencies).

sustainable and safe) conditions were in place to replacement feed. Where AFASS criteria were not met, the recommendation was to continue breastfeeding.

Since then, evidence that antiretroviral (ARV) interventions to either the HIV-infected mother or HIV-exposed infant can significantly reduce the risk of postnatal transmission of HIV through breastfeeding has been reported [177]. The evidence shows that administering anti-retroviral treatment (ART) to all HIV+ mothers with CD-4 counts <350 throughout the breastfeeding period [178] or providing extended anti-retroviral prophylaxis to infants born to HIV-positive women with CD-4 counts >350, along with prophylaxis for the mother, can significantly reduce post-natal transmission [179]. With provision of ARVs, **breastfeeding is made dramatically safer** and the “balance of risks” between breastfeeding and replacement feeding is fundamentally changed. The mother’s own health is also protected. This new evidence fundamentally transforms the landscape in which decisions on infant feeding practices are made by individual mothers, national health authorities and international development partners.

This evidence is the basis for the 2009/2010 WHO recommendations on PMTCT and on infant feeding in the context of HIV. The recommendations highlight that the risk of mother to child transmission of HIV can be reduced to less than 5% in breastfeeding populations (from a background risk of around 35%) and to less than 2% in non-breastfeeding populations (from a background risk of 25%). In addition, the most recent studies show that the risk of transmission in a breastfed infant can be reduced to less than 1% in the first 6 months when ARVs are provided.

Latest UN Guidance

In November 2009, WHO released the revised *Principles and Recommendations on HIV and Infant Feeding (2009)* as a Rapid Advice document. This preceded the more detailed joint publication, *Guidelines on HIV and Infant Feeding 2010* [180], which includes the principles and recommendations as well as a summary of the evidence. These HIV and infant feeding recommendations are consistent with new WHO recommendations on PMTCT [181] ([Resources Annex 1-10](#)).

In summary, the latest UN guidance is based on the following principle:

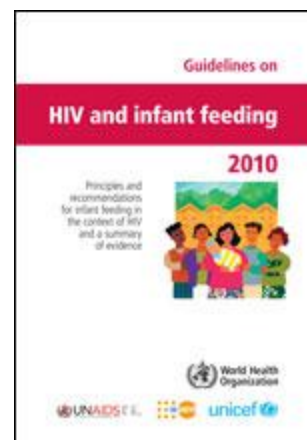
National infant feeding recommendations: National or sub-national health authorities should select and make a decision on which one of two feeding options should be supported by the health system as the strategy that will most likely give infants the greatest chance of **HIV-free survival**:

- either breastfeed and receive ARV interventions **or**
- avoid all breastfeeding

Following this policy decision, the health services should counsel and support **all** mothers known to be HIV-infected on the selected option. This decision should be based on international recommendations and consideration of the socio-economic and cultural contexts of the populations served by Maternal and Child Health services, the availability and quality of health services, the local epidemiology including HIV prevalence among pregnant women and main causes of infant and child mortality and maternal and child under-nutrition. Countries with high infant mortality rates are also likely to have a high risk of death due to lack of breastfeeding and therefore should carefully consider this balance of risks versus HIV transmission through safer breastfeeding with ARVs.

The revised WHO PMTCT recommendations [180] refer to two key approaches:

1. Treatment: lifelong antiretroviral therapy (ART) for HIV + women in need to treatment for her own health as per the criteria, while the infant receives prophylaxis for the first six weeks of life only.



2. Two ARV prophylaxis options are recommended for women who are not on lifelong ART for their own health and breastfeed (countries select either option A or option B as their national protocol):

Option A: The woman receives ARV prophylaxis during pregnancy, delivery and 7 days post-partum, and the infant receives daily ARV prophylaxis from birth until one week after all exposure to breastfeeding has ended or

Option B: The woman receives a three-drug ARV prophylaxis regimen during pregnancy, and continuing through the end of the breastfeeding period, while the infant receives prophylaxis for the first six weeks of life only.

ARV prophylaxis for the mother can start as early as 14 weeks of gestation, or as soon as possible when women present later in pregnancy, or during labour and delivery.

Infant feeding practices in countries where the policy is breastfeeding + ARVs:

Mothers known to be HIV-infected (and whose infants are HIV uninfected or of unknown HIV status) should exclusively breastfeed their infants for the first six months of life, introduce appropriate complementary foods thereafter, and continue breastfeeding for the first 12 months of life. Breastfeeding should then only stop once a nutritionally adequate and safe diet without breast-milk can be provided, and ARV prophylaxis should continue to be provided as long as the child is breastfed.

Conditions needed for safe replacement feeding:

Mothers known to be HIV-infected should only give commercial infant formula milk as a replacement feed to their HIV uninfected infants or infants who are of unknown HIV status, when specific conditions are met (see Box 27).

Infants known to be HIV-infected:

If infants and young children are known to be already HIV-infected, mothers are strongly encouraged to exclusively breastfeed for the first six months of life, introducing appropriate complementary foods thereafter, and continue breastfeeding as per the recommendations for the general population (up to two years of age or beyond).

Box 27: Conditions needed to safely formula feed (Recommendation 5 of WHO guidelines)

- a) safe water and sanitation are assured at the household level and in the community **and**
- b) the mother, or other caregiver can reliably provide sufficient infant formula milk to support normal growth and development of the infant **and**
- c) the mother or caregiver can prepare it cleanly and frequently enough so that it is safe and carries a low risk of diarrhea and malnutrition **and**
- d) the mother or caregiver can, in the first six months, exclusively give infant formula milk **and**
- e) the family is supportive of this practice **and**
- f) the mother or caregiver can access health care that offers comprehensive child health services.

Discussion on some of the key points from the new recommendations:

Shift away from using the term “AFASS”:

Countries which select a national policy of avoiding all breastfeeding should aim and strive to meet all the conditions to safely formula feed, and should only provide the BMS if either the programme or the mother can assure the conditions are met.

The 2009/2010 recommendations explicitly define the specific conditions (Box 27) to safely give replacement feeds, using common everyday language, rather than referring to the acronym AFASS (*affordable, feasible, acceptable, sustainable and safe*) that was adopted in previous recommendations. It was felt that more carefully defining the environmental conditions that make replacement feeds a safe (or unsafe) option for HIV-exposed infants will improve HIV free survival of infants. It was considered that such language would better guide health workers regarding what to assess, and communicate to mothers who were considering if their home conditions would support safe replacement feeding. The concept of AFASS had proven difficult to translate into counselling

messages. In addition, it should be noted that in some settings AFASS criteria have tended to be used as points and advice for counselling, not as criteria for whether a woman should choose replacement feeding or not. This may be especially true in programmes which provide free BMS. These programmes do not use the AFASS criteria as conditions to provide replacement milks or not, and they do not assure full compliance with all of the AFASS criteria, such as acceptability, safety, feasibility etc.).

Shift in focus of counselling: In conjunction with the known benefits of breastfeeding to reduce mortality from other causes, in many settings an approach that strongly recommends the option of breastfeeding plus ARVs as the standard of care can be justified: information about options should be made available but services would principally support the one approach. Similarly, a country which chooses replacement feeding as its recommendation should still provide information and counselling on breastfeeding plus ARVs and support women who opt out of replacement feeding. However, individual rights should not be forfeited in the course of public health approaches. Recommending a single option within a national health framework does not remove the need for skilled counselling and support to be available to pregnant women and mothers. The nature and content of counselling and support that are required will shift away from the current practices of counselling on the balance of risks and the different options available, and then helping a mother to make an informed choice. Rather, the counselling will focus on conveying the policy the national health authorities have decided to adopt and how to feed the baby according to these guidelines. The counsellors should be able to provide additional information on the alternative options if the mother asks (*Key Principle 5* of the WHO guidelines). This may be particularly relevant in countries with high coverage of PMTCT services where mothers have already been exposed to counselling and information directed towards counselling on choice.

Duration of breastfeeding: The 2010 Guidelines propose (*Recommendation 2*) that, in light of the effectiveness of ARV interventions, continued breastfeeding by HIV-infected mothers until the infant is 12 months of age capitalizes on the maximum benefit of breastfeeding to improve the infant's chance of survival while reducing the risk of HIV transmission. This is in contrast to the 2006 recommendation to stop breastfeeding after 6 months if AFASS conditions are met. In the presence of ARV interventions, being able to breastfeed to 12 months avoids many of the complexities associated with stopping breastfeeding and providing a safe and adequate diet without breastmilk to infants 6-12 months of age. It is not currently possible to recommend, *without any qualification*, that all HIV-infected mothers breastfeed beyond 12 months to 24 months, unless there were no other options.

Mixed feeding: Earlier evidence on HIV transmission through breastfeeding [182], highlights that exclusive breastfeeding for up to six months is associated with a three to four fold decreased risk of transmission of HIV compared to non-exclusive breastfeeding (mixed feeding). It is believed that mixed feeding in the first six months carries a greater risk of transmission because the other liquids and foods given to the baby alongside the breastmilk can damage the already delicate and permeable intestinal wall of the infant, allowing the virus to be transmitted more easily. Mixed feeding also poses the same risks of contamination and diarrhoea as artificial feeding, diminishing the chances of survival. Unfortunately mixed feeding is still the norm for many infants less than six months old in many countries with high HIV prevalence. Thus HIV transmission through breastfeeding can be reduced if HIV-positive women breastfeed exclusively for six months rather than practice mixed feeding. With the new recommendations, it is postulated that an HIV-infected woman who takes ARVs and mix-feeds may still have a higher rate of transmission than a mother who exclusively breastfeeds and takes ARVs: the transmission risk is shifted downwards for all breastfeeding modes but the pattern of increased risk remains for the mixed-fed infants. Thus continued emphasis needs to be placed on discouraging mixed feeding in the first six months.

Recommendations for situations when there are no ARVs: Every effort should be made to accelerate access to ARVs for both maternal health and also prevention of HIV transmission to infants. While ARV interventions are being scaled up, national authorities should not be deterred from recommending that HIV-infected mothers breastfeed as the most appropriate infant feeding practice in their setting, even when ARVs are not available. An implementation and communication challenge

will be to prevent the misconception that HIV-infected mothers should only breastfeed if they have ARVs. An additional Principle (*Key Principle 4*, absent from the 2009 Rapid Advice) has been added to the 2010 WHO guidelines which states:

“Even when ARVs are not available, breastfeeding may still provide infants born to HIV-infected mothers with a greater chance of HIV-free survival. Mothers should be counselled to exclusively breastfeed in the first six months of life and continue breastfeeding thereafter unless environmental and social circumstances are safe for, and supportive of replacement feeding”.

3.5.1.2 Development of guidelines on HIV and infant feeding

The new recommendations on infant feeding highlight the opportunity for investing in interventions that will improve infant feeding practices by both HIV-infected and uninfected mothers. Improving infant feeding practices for all would reduce the overall risk of death, malnutrition and illness and contribute significantly towards achieving development goals. The recommendations should help to give new momentum for the development and implementation of national policies and strategies for infant and young child feeding benefitting the entire population.

The revised national policy statements and guidelines should clearly address which infant feeding alternative will be recommended and supported as a national recommendation, create and define revised counselling algorithms that no longer emphasize counselling on individual choice, and provide concrete planning steps for introduction and implementation of these policies and guidelines. For example, when a country has made a decision to promote and support breastfeeding and ARVs, they will also need to decide and plan for a 'reasonable' implementation period to anticipate roll-out of ARVs to all areas of the country. The implementation of the policy should be well-coordinated to avoid confusion, mixed messaging and to ensure coverage at scale.

Mechanisms need to be also introduced to inform the population at large and in particular pregnant women, health workers and HIV and nutrition counsellors about the content of the policy, including training of health workers and communication.

It is important to ensure that during planning process the issues of infant feeding in the context of HIV are adequately addressed in both PMTCT programmes and general IYCF programmes (addressed in a harmonized manner in both).

Box 28: Notes on heat treatment of breastmilk, wet-nursing and milk banks in the context of HIV:

Heat treatment of expressed breastmilk effectively kills the HIV virus if done correctly. It requires sufficient fuel, utensils for heating the milk and cup-feeding and their hygienic use, and thus may be difficult to implement for many mothers in many settings. Heat treatment may be used in special circumstances – e.g. low birth weight baby, when the mother is unwell, to assist mothers to stop breastfeeding and when ARVs are not available.

Wet-nursing: In order for wet-nursing to take place safely, the wet-nurse would need to be confirmed as HIV-negative through a test undertaken at least three months after the last time she had unprotected sex or any other possible exposure to HIV, and she would need to ensure she does not become infected during the time she is breastfeeding the other woman's infant. These conditions may be difficult to fulfill in many settings, especially in settings with high levels of HIV. Secondly, there is a small chance that an infant who is already infected with HIV may pass the virus to the wet-nurse.

Milk banks: In a milk bank, the donor mothers need to be screened for HIV through a test undertaken at least three months after the last time she had unprotected sex or any other possible exposure to HIV, as well as other illnesses, and the milk needs to be pasteurized (heat-treated). Using donor-banked milk is usually a short-term option, as the supply may be limited, and another way of feeding will need to be discussed.

3.5.1.3 Specific programming issues related to HIV and infant feeding

Intensification of efforts to implement and enforce the Code

In countries with a high burden of HIV, particular challenges have been faced and continue to be faced with regard to implementing and enforcing the Code of Marketing of Breastmilk Substitutes¹. The Code aims to ensure that concerns about the transmission of the HIV virus through breastmilk does not undermine breastfeeding for the majority of infants around the world whose health and chances of survival are and will be greatly improved by breastfeeding. Governments need to ensure that commercial production, marketing and donation of breastmilk substitutes in the context of PMTCT programmes comply with the Code to reduce the possibility of spillover, reduce mixed feeding, and to protect breastfeeding. These issues may form part of the advocacy conducted with policy and decision makers. The Code is of particular relevance when mothers who are HIV positive opt not to breastfeed or live in a country which has adopted a national policy of replacement feeding, as the Code aims to:

- **Regulate the distribution of free or subsidised supplies of BMS to prevent “spillover”** to babies who would benefit from breastfeeding. The so-called spillover effect, whereby new mothers who either know that they are HIV-negative or are unaware of their HIV status do not breastfeed, breastfeed for a short time only, or mix-feed, because of unfounded fears about HIV, misinformation, and the ready availability of BMS. Influences on this spillover effect may originate from various sources, including health workers who are biased towards BMS feeding, social pressures and marketing strategies of the BMS companies.
- **Protect artificially fed children** by ensuring that product labels carry necessary warnings and instructions for safe preparation and use.

Actions required to strengthen the Code implementation and enforcement in settings with high HIV prevalence (in addition to the actions in the section on the Code above):

Ensure that the HIV pandemic is not being used to reintroduce donations of BMS to the health care system. Many Health Ministries adopted policies banning the distribution of free and low-cost supplies of BMS through health facilities by the commercial sector. These policies should continue to be respected. Where the government decides to make free or subsidised BMS available to HIV positive mothers, procurement should be encouraged in a transparent manner through tendering on the international or local market, avoiding a privileged relationship which will promote the image and products of one particular company. As specified in the Code once procured, the BMS should be supplied for as long as the child needs them.

There are many reasons why a government should not enter into a special "partnership" with any one company, but rather should procure supplies of BMS through public tender:

- This avoids dependency on "donated" or "low-cost" supplies which companies claim are given for humanitarian purposes. Supplies should not be subject to the goodwill of a donor or used as a marketing tool.
- A tendering process will guarantee and lead to a long-term and sustainable supply of BMS, since it leads to a legally binding contract for the supply of the BMS. Manufacturers have been hesitant to reveal the actual cost of production of BMS, but it is felt that it is extremely low compared with the market price.
- Any partnership with a particular company will imply the Government's satisfaction with the

¹ UNICEF programme instructions CF/PD/PRO/2000-003 on *Implementation of the International Code of Marketing of Breast Milk Substitutes – Monitoring Compliance* provide further information, as well as detailed suggestions on actions that might be taken to strengthen Code implementation at the national level.

marketing behaviour of that company. A company's desire to work in partnership with a Government is often motivated by the fact that such an association could be used to counteract criticism of its unethical marketing practices.

It is recommended that the following considerations be taken into account in organising a distribution system for breastmilk substitutes:

- If free or subsidised quantities of BMS are made available, they should be consistently in stock at a local, decentralised level to avoid the need for frequent trips to a distant distribution point, to reduce the chances of mixed feeding if the mother does not receive sufficient BMS and to reduce the chances of undernutrition.
- The receipt of free or subsidised BMS may become associated with HIV positive status of the mother and care is therefore needed to protect the anonymity of those receiving them to prevent potential stigmatisation. Stigma may also increase the chances of mixed feeding, whereby the mother may feed the infant with BMS at home and breastfeed in public.
- In addition to ensuring Code compliance and providing appropriate counselling and practical support on safe preparation and use of BMS, PMTCT programmes providing BMS may also provide water purification means, soap, stoves and fuel together with the BMS to ensure conditions for safe artificial feeding are met and reduce the chances of contamination.

Important Note:

UNICEF offices may provide support in ensuring Code-compliant procurement and distribution of BMS, but should not procure or supply BMS directly for PMTCT programmes [183]. UNICEF made the decision to cease procurement of BMS for PMTCT programmes in 2002, based on the following considerations:

- UNICEF's formula support was to the PMTCT pilot sites only in the early stages of these programmes.
- UNICEF resources have been used to purchase and provide infant formula, whereas use of these resources for hiring more infant feeding counsellors and improving the counselling on making breastfeeding safer will be more cost-effective.
- Anecdotal information from PMTCT sites suggested that many mothers who opted for free formula also breastfed because of social pressure to do so or convenience. The resulting mixed feeding not only put the child at an increased risk of infectious diseases and probably at increased risk of HIV, it was also a waste of the financial resources used to purchase the formula.
- Free formula was given for a short period, in most countries only 6 months. However a child needs replacement feeding (milk feed) till it is at least 2 years. Through donations a dependency on formula as the replacement food has been created, which may be far too expensive to maintain.

HIV and infant feeding actions in the health system

The infant feeding component of PMTCT programmes has proven to be extremely challenging in many countries. Infant feeding counselling has, until now, been given low priority within PMTCT programmes and the quality of counselling has generally been poor. This is manifest in the lack of resources – human, financial and time – for infant feeding counselling. Very little time is given to this topic in PMTCT training, and few examples exist of high-quality, country-level learning materials. This has led to widespread misunderstanding and confusion around the HIV transmission risk associated with different forms of breastfeeding. It has also resulted in lack of space and time for proper

counselling, poor support and supervision, and very weak monitoring and evaluation of infant feeding practices. Finally, there are very few examples of linkages between health facility PMTCT services and community-based infant feeding interventions.

While some countries have significantly scaled up PMTCT interventions over the past couple of years, it is realised that it will take some time before all health workers involved with supporting HIV+ mothers are properly trained on HIV and infant feeding counselling and conduct the counselling and support effectively. With the new guidance on HIV and infant feeding, health workers will need to be (once again) reoriented on the new recommendations which their respective national health authorities have set. There will need to be a shift in mindset away from individual counselling on risks and benefits of different options and asking the mother to choose an option, towards conveying the national recommendation to the mothers, providing counselling to the mother on how to implement it, but also counselling those mothers who choose to opt out of the national recommendation on alternative options.

Revised global training and counselling tools for health providers still need to be developed at the time of writing this guidance. The health system initiatives supportive of optimal infant and young child feeding in general, including BFHI and IYCF counselling and support through multiple health system contacts should use updated guidelines, training materials, counselling tools, job aids and communication messages and materials which address the 2009 guidance on infant feeding in the context of HIV. These efforts will contribute to an environment in which optimal breastfeeding and complementary feeding are the norm and HIV-positive mothers get appropriate counselling and special support on infant and young child feeding.

Key actions related to HIV and infant feeding in the health care system include the following:

Integrate infant feeding counselling in the counselling and testing contacts in maternal care services:

At present, far too few pregnant women are aware of their HIV status. HIV testing and counselling, now provided as part of the routine package of screening tests during pregnancy and delivery (provider-initiated testing), represents the main gateway to HIV prevention, care, and treatment for most women of reproductive age. These services need to be widely available to enable pregnant women and their partners to know their status and to access relevant treatment and care services, including ARVs. The testing service needs to be well-linked with counselling services on infant feeding to ensure that all HIV-positive women receive adequate counselling and support to enable them to feed their infants safely and effectively.

Box 29: Contact points for counseling and support on HIV and infant feeding:

- After an HIV-positive test result, but before delivery, in order to inform about the infant feeding recommendations (one or more sessions);
- Soon after birth (e.g., before discharge from hospital) to support the mother on feeding her child;
- Within the first week after delivery to help the mother successfully establish the feeding of her child;
- During routine postnatal care and at every well-child/immunization or sick-child attendance (as is the practice for women who are not HIV-positive and their children);
- Additional sessions may be required during special high-risk time periods, such as when the mother has breast problems, before she goes back to work and at 11 and 12 months to assess and decide if breastfeeding can be phased out;
- However, it is recognized that not all women come for counseling when they are pregnant or at regular intervals after birth.

Feeding implications of early infant diagnosis (EID) of HIV: Early infant diagnosis in PMTCT programmes in developing countries is a growing priority as technologies become more widely available. On the one hand, knowing a child's status as early as 6 weeks enables early treatment decisions to be made if the child is HIV-positive. In terms of infant feeding, the mother of the HIV+ child should be counselled to breastfeed the child if possible, even if she was feeding BMS before, to ensure that the infant can benefit from all the protective qualities of breastmilk. On the other

hand, the health provider faces a heightened counselling challenge for the mother of a child confirmed HIV- negative through EID. The decision to continue exposing the negative child to HIV through breastfeeding may be made more difficult by having this definitive knowledge, but the counselling principles around the low risk of transmission with ARVs plus breastfeeding and conditions to feed BMS safely in fact remain the same.

Support to training of counsellors in PMTCT sites and MCH health workers outside PMTCT sites on HIV and infant feeding counselling: Knowledge of health workers on HIV and infant feeding is usually poor, as is their knowledge of infant feeding in general. It seems that the rapidly-changing information on the risks of MTCT through breastfeeding and the constantly shifting guidance has confused many health workers and raised doubts about how best to support mothers. In addition, some of the information they receive, for instance through the media, may be incorrect and harmful. A similar lack of knowledge and mistaken beliefs also exist among the general population and pregnant women in particular. It is thus important that training on breastfeeding counselling and on HIV and infant feeding is not restricted to the counsellors in the PMTCT sites. Ideally all health workers who are in contact with pregnant women and mothers with infants and young children should be trained. All workers who counsel on infant and young child feeding choices should be well trained and able to communicate the national infant feeding policy in the context of HIV, and can provide support for exclusive breastfeeding, replacement feeding, and complementary feeding.

Introduce a new contact at 11 months: With the new recommendations on HIV and infant feeding, a visit at 11 months is needed to assess the food security and other aspects of the mother's situation to decide whether breastfeeding can be stopped after 12 months or whether it needs to continue. Up to two additional contacts may be needed to follow up the mother and infant and ensure feeding is adequate. These new contacts may also be used to provide complementary food supplements until the child reaches two years, if the country has a policy and programmes to do so.

Follow up support to and monitoring of feeding practices, health and nutritional status of mother and child: A key step of the counselling process for HIV-positive mothers is to follow up and provide continuous support to the mother in carrying out her infant feeding decision, to identify and solve possible problems, to monitor the health of the mother and the health and growth of the baby. This step is essential to ensure that the mother is feeding the child appropriately and that the baby is healthy and growing well. Since infant and young child feeding practices change several times during the first 24 months of a child's life, support to the mother should continue to be intensive during this period. Follow-up support should also include nutritional support to HIV-positive mothers, in particular those mothers who decide to breastfeed.

HIV and infant feeding actions in communities

Mothers often do not have the authority to make all the decisions on infant and young child feeding, since partners or relatives (e.g., mother or mother-in-law) often make these decisions. The focus should therefore be on addressing social norms, authority, and responsibility and resource issues within the wider community context to enable an HIV-positive mother to adequately feed her infant or young child. The issue of stigma surrounding HIV status needs to be carefully addressed through a comprehensive strategy of community sensitization and involvement, mother support and communication, so that mothers are able to take their ARVs, practice their infant feeding option appropriately, avoid the risky practice of mixed feeding and prevent their infant from becoming malnourished.

When planning community-based IYCF programmes in settings with a high HIV burden, HIV and infant feeding considerations and guidelines need to be integrated within the two main strategies for community-based IYCF programmes outlined in the chapter on community-based IYCF: IYCF counselling through community cadres and mother to mother support groups.

Actions at community level on HIV and infant feeding should include:

- **IYCF counselling and communication skills training** for community cadres using modules containing material on HIV and infant feeding that is based on the 2010 WHO recommendations, as well as breastfeeding and complementary feeding, such as the UNICEF *Community IYCF Counselling Package* (see Chapter 3.3). There should be one consolidated package containing both IYCF counselling and HIV and infant feeding counselling in HIV settings. The training should include practical sessions to enhance counselling skills, as well as address referral for testing of the pregnant women and of the infant and support for taking ARVs as applicable. It is expected that the national recommendation on HIV and infant feeding will be conveyed and explained to the mother at the PMTCT contact in the health facility, and the role of the community worker (CW) is to support the mother to implement it. The CW should have sufficient understanding of the policy to be able to promote and reinforce the health facility messages and provide further clarification or reassurance.
- **Capacity building and support for mother support groups:** Groups created through the PMTCT programme in countries should be adequately capacitated to address infant feeding in the context of HIV, and mother to mother groups created through the BFHI or nutrition programme. These groups should be encouraged to involve and follow up the women until the infant is at least two years old (and longer if the mothers wish), and not just for the duration of the pregnancy until the early infant diagnosis test, as is the case in some programmes. Simplified training tools to build interactive communication skills and to be able to provide support to mothers based on those for lay counsellors/CWs should be used; these should be adapted to the local context.
- **Data collection:** lay counsellors, CWs and mother support groups can be a rich source of information on actual infant feeding practices, challenges and possible solutions, and the monitoring tools for community based IYCF programmes in high HIV burden countries should include a section on infant feeding in the context of HIV.

Communication on HIV and infant feeding

While there may be communication strategies to create demand for PMTCT services, these strategies could also serve as an entry point for communication on HIV and infant feeding issues to various participant groups.

The 2010 recommendations on HIV and infant feeding pose a particular communication challenge: how to ensure that the public understands that breastfeeding has been made significantly safer with the new protocols on ARVs, but at the same time avoiding the perception that HIV-positive women can only breastfeed safely if they are on ARVs. Therefore, it is essential to communicate the new policy correctly and effectively.

Formative research in settings with high HIV should be tailored to understand the reasons for behaviours and practices related to infant feeding in the context of HIV. Results of formative research on HIV and infant feeding should be used to guide development of a comprehensive communication strategy to improve infant and young child feeding in settings with high HIV prevalence.

Communication activities in settings of high HIV need to continue to address specific issues related to infant feeding in the context of HIV, for example the risks of artificial feeding, the dangers of mixed feeding and the benefits of breastfeeding for all children, including those exposed to or infected with HIV. HIV-free survival should be emphasized in communication messages. These activities are particularly important to reach the pregnant women who do not know their status or who do not come to ante-natal care and do not receive counselling on HIV and infant feeding, or those who live in areas where ARVs have not yet been rolled out. They are also important to change attitudes and behaviours of secondary participant groups who influence mothers' practices:

it is often due to these groups that women, despite having received the counselling on infant feeding at the PMTCT service, do not practice the recommended behaviour optimally.

The approach to communication on HIV and infant feeding needs to follow the steps described in the chapter on communication.

Monitoring and evaluation considerations for HIV and infant feeding

Key areas include monitoring of actual infant feeding practices and the impact of interventions on child health and survival.

It is proposed that PMTCT and IYCF programmes collect data particularly in the following areas:

Routine monitoring of actual infant feeding practices among HIV-exposed children. This can be done through routine data collection if possible through the PMTCT programme, as well as formative studies using interviews with mothers, communities, health workers and people living with HIV. It is recommended to include an indicator on infant feeding practice by HIV-positive women as a key indicator in the national PMTCT programme. A routine M&E system is in place in most PMTCT programmes and many of the above data on IYCF can be integrated into this system. However, it should be understood that standard PMTCT monitoring forms only provide the basic minimum indicators that should be assessed, and in many settings the information on actual feeding practices is not available through the health system. This needs to be addressed by ensuring that an indicator on infant feeding practice is included in the monitoring system for the PMTCT programme and that this data is properly collected. WHO has recently proposed that this indicator should be:

- ***Proportion of children exclusively breastfed at the DPT3 contact in the EPI schedule.***

In addition, the drop-off of children and their caregivers is high: many HIV-exposed infants are lost to follow up and it is therefore not possible to establish their status in terms of HIV, survival and nutrition for example by age 12 or 24 months. However, for a more accurate assessment of feeding practices and a more in-depth understanding of processes and outcomes of HIV and infant feeding activities more information needs to be collected at household level.

Monitoring of the application of the new recommendations: monitoring of how many PMTCT sites have staff trained on IYCF in the context of HIV (based on 2010 guidelines and their national adaptation) and how many sites routinely conduct IYCF counselling; tracking the total number of health providers and community workers trained on and applying the latest guidance on HIV and infant feeding; formative research on knowledge and practices among health workers, community cadres, including assessment of the actual counselling of HIV-positive mothers through health facility survey type approaches such as observing a sample of counselling sessions; exit interviews with mothers/caregivers at PMTCT sites.

Assessment of Code implementation in the context of HIV programmes for mothers and infants needs to be undertaken.

Evaluation of the impact of interventions on mother and child health and survival is important to analyze through the use of household survey data such as DHS, MICS, and nutrition surveys in conjunction with sero-studies of HIV prevalence. In the absence of this type of gold-standard household surveys, lot quality assurance system (LQAS) can be used to obtain a rough indication of the ranges of coverage of exclusive breastfeeding, for example, in a specific population. Various tools for modelling potential impact can also be used.

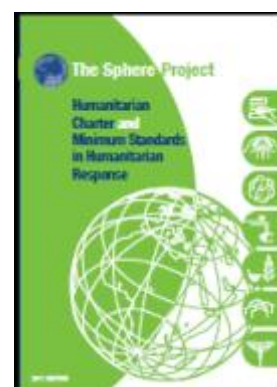
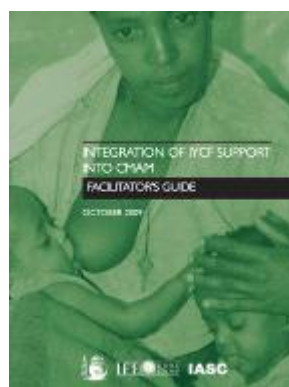
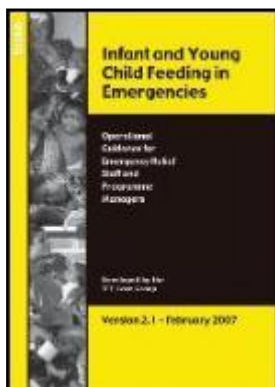
3.5.2 Infant and young child feeding in emergencies

Overview of section for IYCF in Emergencies:

3.5.2.1 Importance of optimal IYCF in emergencies

3.5.2.2 Priority actions

This chapter provides a brief summary of the key aspects of infant feeding in emergencies, as key policy and guidance tools such as the *Infant and Young Child Feeding in Emergencies: Operational Guidance (IFE Core Group 2007)* and various *training materials* already exist, including a module for counsellors on integration of IYCF into CMAM programmes. In addition to the e-learning module on infant feeding in emergencies developed by the Emergency Nutrition Network and the Harmonized Training Package module on IYCF in emergencies, UNICEF also has an e-learning on IYCF in emergencies as part of its Nutrition in Emergencies e-learning series (see [Resources Annex 1-11](#))



IYCF in emergencies is also reflected in the current Sphere standards for humanitarian response [184]. The two new IYCF standards in Sphere 2011 are:

- Infant and young child feeding standard 1: Policy guidance and coordination
- Infant and young child feeding standard 2: Basic and skilled support

3.5.2.1 Importance of optimal IYCF in emergencies

During emergencies such as earthquakes, floods, cyclones, drought or conflict, disease and death rates among under-five children are generally higher than for any other age group. Mortality may be particularly high due to the combined impact of a greatly increased incidence of communicable diseases and soaring rates of undernutrition. Infants less than six months old who are not breastfed in non-emergency situations are already more than 14 times more likely to die from all causes than exclusively breastfed children [4]. These risks are amplified in emergency situations when the situation with hygiene and water is often infinitely worse than usual and disease outbreaks are can be widespread. **Exclusive breastfeeding is a life-saving practice** with the highest potential preventive

impact for survival of infants less than six months during an emergency¹. The fundamental means of preventing both mortality and undernutrition among infants and young children during emergencies is to ensure their optimal feeding and care, focusing in particular on creating conditions that will facilitate breastfeeding.

In many emergency-prone countries, however, exclusive breastfeeding coverage remains very low and the scope and scale of IYCF programmes remains limited.

During an emergency, **continued breastfeeding** up to two years or beyond, together with **quality complementary feeding**, is also very important for the continued protection from infection that the breastfeeding confers, as well as its nutritional value. The valuable protection from infection and its consequences that breastmilk confers is all the more important in environments without a safe water supply and sanitation, where the safe preparation and use of BMS is often impossible.

In emergencies, the use of any BMS can further increase the risks of illness, malnutrition and death and disrupt the protection provided by breastfeeding. Breastfeeding during emergencies must not be undermined by inappropriate donations and use of BMS. Experience has shown that without proper assessment of needs, an excessive quantity of milk products for feeding infants and young children are often provided in emergency situations by well-intentioned but poorly informed donors or requested by poorly-informed Governments. If unsolicited supplies of donated BMS and/or powdered milks are widely available, mothers who might otherwise breastfeed might needlessly start giving artificial feeds. This exposes many infants and young children to increased risk of disease and death, especially from diarrhoea when clean water is scarce. The use of feeding bottles only adds further to the risk of infection as they are difficult to clean properly.

Thus, to summarize, IYCF programming in emergencies is important for the following reasons:

- Breastfeeding is safe, free and a crucial life-saving intervention for vulnerable children whose risks of death increase markedly in emergencies.
- Emergencies exacerbate risks of not breastfeeding or mixed feeding.
- Continued breastfeeding is crucial in reducing the risk of diarrhoea and other illnesses in older children, which is heightened in emergencies.
- Donations of BMS undermine breastfeeding and cause illness and death.
- IYCF is central to reducing the high risk of undernutrition during emergencies.
- Safe, adequate, and appropriate complementary feeding, which significantly contributes to prevention of undernutrition and mortality in children after 6 months, is often jeopardized during emergencies and needs particular attention.

Challenges

Some common challenges faced by countries in terms of IYCF in emergencies include the following:

- IYCF is often not well reflected in emergency preparedness and response plans and activities.
- Many countries do not have comprehensive IYCF programmes, which could serve as the basis for effective and well-organized emergency response activities. The lack of IYCF programmes also means that the IYCF practices at the onset of the emergency are also likely to be poor, and that local IYCF guidelines and training materials and other resources will be absent.
- Countries often lack a critical mass of various cadres of trained IYCF counsellors in health system and community who can be mobilized in emergencies.
- Only a small number of international agencies with presence in the field during emergencies have expertise in IYCF in emergencies: advocacy and capacity development have been lacking.

¹ See: "Why Promote Breastfeeding in Emergencies?" section in [Behaviour Change Communication in Emergencies: A Toolkit - Chapter 5 \(UNICEF ROSA 2006\)](#)

- Local and international capacity for communication for behaviour change on IYCF in emergencies is often inadequate.
- Clear guidance and materials are lacking on complementary feeding in emergencies (no single “panacea package” is available; attention and adaptation to local context is crucial).
- In many cases, governments fail to take action to implement and enforce the Code: donations of BMS and powdered milk still flood in all emergencies.
- The response to donations of breast-milk substitutes during emergencies is often inadequate or inappropriate:
 - Donations are not discouraged or blocked.
 - There is a lack of clarity on how to handle donations.
 - Logistics problems in storing or incorporating “confiscated” donations into pre-mixed blended foods/flours are often encountered.
- Systems to rapidly procure, target and distribute appropriate BMS to eligible non-breastfed children are often weak.

3.5.2.2 Priority actions

The *Operational Guidance on Infant and Young Child Feeding in Emergencies* (see [Resources Annex 1-11](#)) contains 6 “practical steps” for implementation of IYCF actions in emergencies:

1. Endorse or develop policies.
2. Train staff.
3. Co-ordinate operations.
4. Assess and monitor.
5. Protect, promote and support optimal infant and young child feeding.
6. Minimize the risks of artificial feeding.

Many of these steps are included in the priority actions the three items in bold have been added or addressed in more detail than in the Operational Guidance¹:

- i. **Emergency preparedness and planning.**
- ii. Protecting, restoring and supporting breastfeeding.
- iii. Preventing and handling donations of BMS and powdered milks.
- iv. Ensuring appropriate feeding for children with no possibility to be breastfed.
- v. **Ensuring availability and use of age appropriate complementary foods and supplements.**
- vi. **Ensuring the integration of IYCF counselling with emergency programmes for management of SAM.**

i. Preparedness and emergency planning

Emergency preparedness strategies for IYCF are crucial. The presence of a comprehensive, at-scale IYCF programme with available cohorts of trained and skilled health providers and community cadres positions a country better to address IYCF in emergencies. Achieving high rates of good breastfeeding practices pre-emergency is important, as is knowing about the complementary feeding situation and dietary deficits of children in pre-emergency situations. The following key actions help prepare a country to address IYCF in an emergency:

- Including IYCF interventions, with guidelines and training materials for IYCF in emergencies, in emergency preparedness and response plans.

¹ The Operational Guidance is due to be updated in 2011.

- Ensuring adequate local institutions and partners to design, plan and implement IYCF counselling, support and communication activities in emergencies, including training of humanitarian personnel and Government staff, as widely as possible.
- Developing adequate cohorts of skilled IYCF counselors (health providers and community workers) across the country should also be part of emergency preparedness as a key priority.
- Educating Government and NGO staff on the importance of protecting and supporting breastfeeding and approaches to preventing and dealing with donated BMS.
- Countries need to implement and enforce the Code, including the adoption of a policy on not requesting, preventing and dealing with donations of BMS and powdered milk, in emergency situations. It is important to sensitize Governments on the issue of donations as part of emergency preparedness, so that swift and decisive action can be taken at the onset of an emergency to ensure donations of BMS are not requested by the Government and that any donations are prevented and stopped effectively from the outset.
- During the emergency, there may be a need to conduct rapid training on IYCF counseling and specific issues (e.g. use of RUIF, how to establish and manage IYCF counseling sites [185] and services, how to integrate IYCF in SFP and CMAM). It is important to have trainers and materials in place as part of preparedness.

ii. Protecting, restoring and promoting breastfeeding

Creating conditions that will facilitate breastfeeding as a life-saving practice is of utmost priority during an emergency and needs to be given appropriate attention in emergency funding appeals, planning, guidance, coordination, response and monitoring. Key actions include the following:

- Ensuring that joint statements on the importance of IYCF and donations of BMS by UNICEF, WHO and the Government are rapidly issued and widely disseminated and publicized at the start of an emergency; these can be accompanied by tailored press releases. Resources such as the [Joint Model Statement on IFE](#) and [Media Guide on IYCF in Emergencies](#), which are on the ENN website, can help to guide these processes.
- Creation of IYCF counselling services, sites or “safe havens” for pregnant and lactating women. The services aim to help reduce stress, assess the feeding and broader health and nutrition of the infants and refer if required, provide IYCF counselling and support including relactation or artificial feeding where required, and provide the mothers with special rations, water and supplements. The services could be provided through existing health or community structures, integrated within CMAM services or child

Box 30: Some myths on breastfeeding in emergencies to take into consideration during design of counselling and communication messages:

"STRESS MAKES MILK DRY UP"

While extreme stress or fear may cause milk to momentarily stop flowing, this response, like many other physiological responses to anxiety is usually temporary. There is growing evidence that breastfeeding produces hormones that reduce tension, calm the mother and the baby and create a loving bond.

"BABIES WITH DIARRHEA NEED WATER OR TEA"

As breastmilk is almost 90% water, exclusively breastfeeding babies with diarrhoea do not usually need additional liquids such as glucose water or tea. Water is often contaminated in emergency situations. In the case of severe diarrhoea oral rehydration therapy (administered by cup) may be required.

"ONCE BREASTFEEDING HAS STOPPED, IT CANNOT BE RESUMED"

With an adequate relactation technique and support, it is possible to help mothers and their babies to restart breastfeeding after they have switched to BMS. This is sometimes vital in an emergency

"MOTHERS WHO DON'T HAVE ENOUGH TO EAT CAN'T BREASTFEED"

Only the most severely malnourished mothers will have reduced breastmilk production and quality. Mothers should be encouraged to breastfeed frequently so they will see that production of breastmilk improves. Supplementary feeding for pregnant and lactating mothers is also essential.

friendly spaces or through stand-alone specialized IYCF structures. The decision on which type of service should be implemented needs to be made based on the following considerations:

- When there are major threats or problems with breastfeeding large numbers of orphaned or unaccompanied infants and many displaced people, destruction of existing health facilities or disruption of services – then stand-alone temporary services such as “baby tents” or baby-friendly spaces”¹ are likely to be needed.
- When the emergency is slow-onset such as a drought, there is no major destruction of existing services and there are sufficient workers at sites with nutrition services, there is no significant displacement of the populations and no major concentration of people into camps, then IYCF services can be integrated within other nutrition services such as management of SAM and supplementary feeding.
- Establishing benchmark for required number of sites to provide counseling/support to all caregivers of infants <1 and the human, financial and material resources required to run them is important in planning the IYCF response.
- Communication strategies (See [Resources Annex 1-11](#))² to promote optimal infant feeding raise awareness of the risks of artificial feeding and broadcast information to mothers and caretakers on the services available (e.g. the “safe havens”, counselling and support, etc.).
- Effective IYCF coordination as part of the Nutrition Cluster is crucial. IYCF should feature prominently on the agenda of nutrition cluster meetings, effective IYCF interventions should be promoted, guidance and tools should be issued to all cluster partners, and if required an IYCF sub-group can be created.
- Monitoring of processes and outcomes of IYCF interventions in emergencies needs to be appropriately designed and undertaken. For example, if a SMART survey is undertaken, appropriate questions on IYCF may be included in the questionnaire as per the standard guidelines for IYCF surveys³, as well as other questions on receipt of donations and other relevant questions as required. The Nutrition Cluster should monitor IYCF activities undertaken by all partners as part of its standard monitoring portfolio. A review of the IYCF response may be commissioned if required.

iii. Preventing and dealing with donations of BMS and powdered milks

Key actions on this important issue, which unfortunately arises in every emergency that occurs, include the following

- Ensuring that such donations are not requested or accepted. This may involve advocacy to Governments to avoid requesting donations of BMS in the lists of emergency supplies, preventing donations from being made, issuing a joint statement calling for donations to be avoided, preventing consignments from entering the country through involving customs, or removing the donations from distribution channels.
- While the focus should be on preventing donations, if unsolicited donations of supplies do come in, a sole coordinating agency should be designated to handle the donated supplies, including their collection, planning their safe use and distribution. Appropriate use for those children who require BMS as described above should be ensured, and surpluses to such requirements should be used for target groups who could benefit from milk products, such as children 6-23 months or

¹ An example of a stand-alone IYCF service is the “baby tent” programme in Haiti following the earthquake, for which guidelines were developed (see [131] and Resources Annex.

² Including key documents such as [Joint Model Statement on IFE \(IFE Core Group 2008\)](#) and [Media Guide on IYCF in Emergencies \(IFE Core Group 2007\)](#)

³ As per IYCF indicators Part II (measurement), MICS or DHS questionnaires

pregnant and lactating women by mixing with milled fortified staple foods or blended foods. Powdered milk should never be distributed as a separate commodity. Close coordination is needed with WFP and its implementing partners and other food aid partners who may be preparing pre-mixes into which the powdered milk can be added.

- Mapping or monitoring of the scope and scale of donations may be included in household surveys or as a separate exercise¹.

Ensuring appropriate feeding for children with no possibility to be breastfed

There are some situations in emergencies when breastfeeding is not possible². This needs to be determined on the basis of professional assessment and advice by staff trained on lactation management, as well as on the accepted medical reasons for not breastfeeding³.

Any provision of BMS for feeding infants and young children should be based on careful professional assessment of needs, stipulating criteria for children with no possibility to be breastfed. They should be used only under strict control and monitoring. In the case of BMS for children under 6 months and unsafe water/hygiene conditions, a safer option may be ready-to-use infant formula (RUIF). These products should be distributed separately from food aid and separately from breastfeeding counselling consultations to avoid spillover. They should be stored, prepared and given under hygienic conditions as per international guidance and under the close supervision of trained health workers.

Procurement of RUIF or other BMS in an emergency for orphaned and other eligible infants should be made by the Government or a designated agency under the coordination of the Nutrition Cluster. UNICEF will only procure BMS after approval by HQ Nutrition Section⁴.

Box 31

In May 2010 the **World Health Assembly** expressed its concern that national emergency preparedness plans and international emergency responses do not always cover protection, promotion and support of optimal infant and young child feeding, and issued **Resolution 63.23** which urged Member States:

“to ensure that national and international preparedness plans and emergency responses follow the evidence-based Operational Guidance for Emergency Relief Staff and Programme Managers on infant and young child feeding in emergencies, which includes ... the need to minimize the risks of artificial feeding, by ensuring that any required breast-milk substitutes are purchased, distributed and used according to strict criteria;”

Key actions related to identification and appropriate feeding of infants with no possibility to be breastfed include the following:

- Rapid assessments should be conducted to determine whether the emergency-affected population includes significant numbers of unaccompanied or orphaned infants or other eligible infants with no possibility to be breastfed aged less than 1 year old who require support with appropriate infant feeding⁵. Estimates of numbers need to be quickly determined.

¹ See Resources and tools Annex 1-11 for a report on a monitoring exercise carried out in Haiti, including the tool. The ENN website contains a number of articles on monitoring of donations in recent emergencies.

² See Section 6.2.2 of *Infant and Young Child Feeding in Emergencies: Operational Guidance (IFE Core Group 2007)* [69].

³ See *Acceptable medical reasons for use of breastmilk substitutes (WHO/UNICEF 2008)* [1].

⁴ The IFE Core Group recently issued an [addendum to the Operational Guidance](#) that clarifies issues related to procurement of BMS (available on ENN website).

⁵ Example criteria from the IFE Ops Guidance for temporary or longer term use of infant formula include: absent or dead mother, very ill mother, relactating mother until lactation is re-established, mother who was exclusively artificially feeding her

- Locally-appropriate solutions to feed these infants need to be rapidly identified at the outset of the emergency. In some contexts this may involve wet-nursing or milk banks, while in others an appropriate BMS may be the best solution, particularly RUIF.
- Limited amounts of BMS may be appropriate in the hands of hospitals, camp health facilities, NGOs and orphanages, for eligible children. The nutrition coordination mechanism in the country (usually the Nutrition Cluster) should, as a key part of emergency preparedness, determine whether the Government can procure any needed BMS in an efficient and rapid manner according to defined criteria, or, in cases where the Government does not have this possibility, identify an appropriate provider. UNICEF may be a provider of last resort, upon approval by UNICEF HQ¹. The supplies should be in accordance with applicable standards recommended by the Codex Alimentarius Commission and labelled in accordance with the Code.
- Ensuring that only those children who need BMS receive them and avoid spillover effects.
- Ensuring that those who make decisions concerning acceptable supplies are informed about the dangers of distribution of these commodities.

Ensuring availability and use of age appropriate complementary foods and supplements

Children from the age of six months require appropriate, adequate and safe complementary feeding in addition to breastmilk. Under emergency conditions it may often be difficult to meet these requirements without additional support. Dietary diversity often decreases significantly, and risk of micronutrient deficiencies becomes very high [186]. Therefore, provision of fortified foods or micronutrient supplements in supervised programmes for young children represents a more appropriate form of food aid than sending milk products or unfortified cereal-based food aid. Suitable foods for feeding children aged 6-23 months include lipid nutrient supplements (see Resources Annex 1-2 for *description of complementary foods*). Actions include:

- Ensuring provision of appropriate complementary supplements or foods in cases where there is no access to quality local foods. These supplements may include lipid-based nutrient supplements such as Nutributter or Plumpydoz or fortified blended foods (FBFs) such as CSB++ for young children over 6 months old, with high nutrient density and of a suitable texture for infants when prepared. Decisions on the type of foods, target age group (6-23m, 6-35m, 24-59 months etc.), duration of the supplementation, targeting and delivery mechanisms will depend on the local context and the situation, including the type of emergency, the nutrition situation, levels of food insecurity and the availability of partners and suitable products.
- Ensuring provision of multi-micronutrient supplements if required¹⁸⁷. Multi-micronutrients may be given to older age groups (e.g. 24-59 months) where the younger children (6-23m) receive LNS or fortified blended foods (FBFs), or they may be given to all children >6m once the food security situation has stabilized but micronutrient content of the diet is still poor.
- Counselling and communication on complementary feeding, including use of the supplements if provided, as well as locally available foods, feeding and care practices, hygiene and care and feeding of the sick child, should accompany any distributions of supplements.

Ensuring the integration of IYCF counselling with programmes for management of SAM

In contexts where CMAM programmes are implemented, IYCF should be fully integrated within these

infant prior to the emergency and cannot relactate, HIV positive mother who has chosen not to breastfeed and where AFASS criteria are met, infant rejected by mother, rape victim not wishing to breastfeed

¹ See the [addendum to the Operational Guidance](#) that clarifies issues related to procurement of BMS (available on ENN website).

programmes:

- Any training on management of SAM (facility-based or CMAM) including during an emergency should include a module on IYCF counselling. The UNICEF *Community IYCF Counselling Package* can be used; it contains sessions tailored to the context of SAM.
- Before discharge of children admitted with SAM, reviewing of feeding practices of the malnourished child and counselling on exclusive breastfeeding or continued breastfeeding plus counselling on timely, safe, appropriate and adequate complementary feeding (after 6 months of age) , including demonstration of food preparation and sharing of recipes with mothers for optimal use of locally available foods for children 6-23 months.

Annex 1: Resources, tools & useful websites

Resources Annex 1-1: Policy & Planning

Materials available on IYCF policy, advocacy, planning and other technical resources:

IYCF Assessment Matrix. UNICEF (2009) This excel workbook is designed to comprehensively capture all of the recommended aspects of a comprehensive infant and young child feeding programme in a country, as well as report on the scale at which the different programme interventions are implemented. Countries are encouraged to complete it to obtain a detailed and comprehensive overview of programming, to periodically monitor programmatic progress and to assess to what extent their country's IYCF implementation addresses the recommended action areas of a comprehensive IYCF programme.

[http://www.intranet.unicef.org/PD/YCSD.nsf/0/F996EEFE3EBD0EDC852572030074B023/\\$FILE/IYCF%20survey-final%20June%2015.xls](http://www.intranet.unicef.org/PD/YCSD.nsf/0/F996EEFE3EBD0EDC852572030074B023/$FILE/IYCF%20survey-final%20June%2015.xls)

Global Strategy for Infant and Young Child Feeding. WHO/UNICEF (2003).

<http://www.who.int/nutrition/publications/infantfeeding/9241562218/en/index.html>

Infant and Young Child Feeding: A Tool for Assessing National Practices, Policies and Programmes. WHO/Linkages (2003).

http://www.who.int/child_adolescent_health/documents/9241562544/en/index.html

Experience LINKAGES: Policy Dialogue. Describes the conceptual framework for policy change, identifies the main policy issues related to IYCF, discusses LINKAGES strategies to address policy dialogue challenges, and summarizes lessons learned. AED/Linkages (2006).

http://www.linkagesproject.org/media/publications/Experience_LINKAGES_PolicyDialogue.pdf

Planning Guide for National Implementation of the Global Strategy for Infant and Young Child Feeding. WHO (2007).

http://www.who.int/child_adolescent_health/documents/9789241595193/en/index.html

Microplanning for immunization service delivery using the Reaching Every District strategy.

WHO. 2009. http://whqlibdoc.who.int/hq/2009/WHO_IVB_09.11_eng.pdf

Scientific rationale for breastfeeding. UNICEF (2009). This document briefly summarizes the scientific evidence for the benefits of breastfeeding and includes a list of references. The document can assist countries in preparing briefing papers, presentations, guidance documents and advocacy papers.

[http://www.intranet.unicef.org/PD/YCSD.nsf/0/F996EEFE3EBD0EDC852572030074B023/\\$FILE/Scientific%20rationale%20for%20BF%202009.doc](http://www.intranet.unicef.org/PD/YCSD.nsf/0/F996EEFE3EBD0EDC852572030074B023/$FILE/Scientific%20rationale%20for%20BF%202009.doc)

Quantifying the Benefits of Breastfeeding: A Summary of the Evidence. Leon-Cava N. *et al.*

PAHO (2002). <http://www.linkagesproject.org/media/publications/Technical%20Reports/BOB.pdf>

A Guide for Calculating the Benefits of Breastfeeding: The guide offers detailed guidance for users of the "Policy Analysis Tool for Calculating the Health, Child Spacing, and Economic Benefits of Breastfeeding" and identifies the main features of the tool's seven worksheets and the basis for calculations. J. Ross, V. Aguayo, H. Stiefel. **AED** (2006).

http://www.linkagesproject.org/media/publications/BOB_guide_10.06.pdf

PROFILES: is a process for nutrition policy and advocacy designed to demonstrate the contribution that improved nutrition can make to human and economic development. It uses current scientific knowledge and interactive computer-based models to project the functional consequences of poor nutrition on important development outcomes such as mortality, morbidity, fertility, school performance, and labor productivity. It also estimates the costs and benefits of nutrition

programs in a given country. Software was updated recently to take into account new scientific evidence, and is continuously being updated to include the latest literature available. At the following link you can see the models Profiles has: For example, it has new mortality models based on the WHO growth standards which use the mild severity category of underweight, stunting and wasting. It also has a new stunting-productivity model using the latest available literature. <http://www.aedprofiles.org/about-profiles>

A Policy Analysis Tool for Calculating the Health, Child Spacing, and Economic Benefits of Breastfeeding: This Excel spreadsheet tool consists of seven worksheets: introduction, assumptions, breastmilk production, health, survival, fertility, and summary. The spreadsheets estimate the effects of breastfeeding on a variety of functional outcomes with public policy significance. J. Ross, V. Aguayo, H. Stiefel. **AED** (2006).
<http://www.linkagesproject.org/technical/breastfeeding.php>

Experience LINKAGES: Cost & Effectiveness. Describes the process LINKAGES' Madagascar program undertook to link the costs of its interventions with the resultant changes in infant feeding behaviours. AED/Linkages (2005).
http://www.linkagesproject.org/media/publications/Experience_LINKAGES_Cost&Effectiveness.pdf

Marginal Budgeting for Bottlenecks (MBB): A tool for performance-based planning of Health and Nutrition Services for Achieving Millennium Development Goals. MBB is a result-based planning and budgeting tool that utilizes knowledge about the impact of interventions on child and maternal mortality in a country, identifies implementation constraints and estimates the marginal costs of overcoming these constraints. It was jointly developed by UNICEF, the World Bank and WHO. It is being used to assist in setting targets for proven high-impact interventions and the estimation of their expected impact, cost per life saved and additional funding requirements, as well as a projection of the required fiscal space to finance these extra costs. Information is available from UNICEF Health Section, contact: toconnell@unicef.org.

Operational Guidance on Gender Analysis and Programming for Young Child Survival and Development. UNICEF, Version 1, April 2010. This guidance aims to orient UNICEF programme staff on how to apply gender analysis and programming to young child survival and development overall, as well as to sectoral areas of intervention. While some areas are more advanced than others in terms of understanding and mainstreaming gender into programming, this document provides a starting point for pragmatically introducing a gender perspective into UNICEF's work in young child survival and development. Contains a specific section on IYCF and maternal nutrition.
<http://www.intranet.unicef.org/iconhome.nsf/1033ed9773ce3c1e8525756900783ac9/277b5da2ba8717a885257769005a0a72?OpenDocument>

Resources Annex 1-2: Technical

Technical guiding principles, norms and standards

The Optimal Duration of Exclusive Breastfeeding: A Systematic Review. Report of a technical consultation. WHO (2001).
http://www.who.int/nutrition/publications/optimal_duration_of_exc_bfeeding_review_eng.pdf

Acceptable Medical Reasons for Use of Breastmilk Substitutes. WHO/UNICEF (2009).
http://www.who.int/nutrition/publications/infantfeeding/WHO_NMH_NHD_09.01/en/index.html

Guiding Principles for Complementary Feeding of the Breastfed Child. PAHO/WHO (2003).
http://www.who.int/nutrition/publications/infantfeeding/guiding_principles_compleeding_breastfed.pdf

Guiding Principles for Feeding Non-breastfed Children 6-24 Months of Age. WHO (2005).
http://www.who.int/nutrition/publications/infantfeeding/guidingprin_nonbreastfed_child.pdf

Complementary feeding: family foods for breastfed children. WHO (1998).
http://www.who.int/nutrition/publications/infantfeeding/WHO_NHD_00.1/en/index.html

Description of available complementary foods and supplements (UNICEF 2009)
[http://intranet.unicef.org/PD/YCSD.nsf/0/F996EEFE3EBD0EDC852572030074B023/\\$FILE/Complementary%20foods%20and%20supplements%20Sept.%202010.pdf](http://intranet.unicef.org/PD/YCSD.nsf/0/F996EEFE3EBD0EDC852572030074B023/$FILE/Complementary%20foods%20and%20supplements%20Sept.%202010.pdf)

Resources Annex 1-3: Tools for formative research & other situation assessment tools

Tools for situation assessment/prioritization

ProPAN Manual: Progress for the Promotion of Child Feeding. PAHO (2003). (currently being updated) <http://www.paho.org/common/Display.asp?Lang=E&RecID=6048>

Linear Programming. WHO/LSHTM. A mathematical tool for analyzing and optimizing children's diets during the complementary feeding period (currently being revised to become more user-friendly for programming in the field). <http://www.nutrisurvey.de/lp/lp.htm>.

A description of Linear Programming by SCN can be found at
http://www.nutrisurvey.de/lp/lp_scn.pdf

Trials of Improved Practices (TIPs). The Manoff Group. TIPs is a formative research technique used for nutrition programming since the late 1970's to pretest the actual practices that a program will promote.
http://www.manoffgroup.com/approach_developing.html

Tools for measurement of food security situation:

Comprehensive Food Security and Vulnerability Analysis (CFSVA) Guidelines, WFP. January 2009. Provide extensive guidance on how to conduct an in-depth study of the food security and vulnerability situation during a "normal year" (non crisis time).
<http://www.wfp.org/content/comprehensive-food-security-and-vulnerability-analysis-cfsva-guidelines-first-edition>

FAO/WFP Crop and Food Security Assessment Missions (CFSAM) Guidelines, January 2009. Provides guidance on assessing crop and food security by looking at the supply and demand for staple foods, and households' access to food and on estimating uncovered staple food import requirements. <http://www.wfp.org/content/faowfp-joint-guidelines-crop-and-food-security-assessment-missions-cfsams>

United Nations Food and Agriculture Organization (FAO) Food Insecurity and Vulnerability Information and Mapping System (FIVIMS) <http://www.fivims.net/index.jsp?lang=en>
FIVIMS is an Inter-agency initiative to promote information and mapping systems on food insecurity and vulnerability.

Guidance on measurement of food security, US Government.
<http://www.ers.usda.gov/Publications/EFAN02013/>

The Famine Early Warning Systems Network (FEWS NET) is a USAID-funded activity that collaborates with international, regional and national partners to provide timely and rigorous early warning and vulnerability information on emerging and evolving food security issues. FEWS NET monitors and analyzes relevant data and information in terms of its impacts on livelihoods and markets to identify potential threats to food security. <http://www.fews.net/Pages/default.aspx>

Household Food Insecurity Access Scale (HFIAS) for Measurement of Food Access: Indicator Guide, Version 3 of 2007): FANTA, in collaboration with Cornell and Tufts Universities, has developed a Household Food Insecurity Access Scale (HFIAS) measure and a guide, with a standardized questionnaire and data collection and analysis instructions.
<http://www.fantaproject.org/focus/foodsecurity.shtml>

Global Monitoring for Food Security <http://www.gmfs.info>
GMFS provides early warning, agricultural mapping and crop yield assessment services in support of food security monitoring activities in Africa.

Formative research tools for IYCF:

Formative Research: Skills and Practice for Infant and Young Child Feeding and Maternal Nutrition. AED/Linkages (2004). This manual trains participants to conduct formative research using effective communication skills in order to collect information to plan and improve programs.
http://www.linkagesproject.org/media/publications/Training%20Modules/Formative_Research_Module_2-23-04.pdf

Designing by Dialogue: A Program Planner's Guide to Consultative Research for Improving Young Child Feeding. AED (1997).
http://www.globalhealthcommunication.org/tool_docs/58/designing_by_dialogue_-_full_text.pdf

BEHAVE Framework: Strategic Planning for Behaviour Change. AED (2002)
http://www.globalhealthcommunication.org/tool_docs/54/the_behave_framework_-_full_text.pdf

Sample questionnaires for KAP studies. AED/Linkages.
<http://www.linkagesproject.org/publications/index.php?series=12>

Knowledge, Practices, and Coverage Survey 2000+Module 2 (2006). KPC Module 2 (Breastfeeding and Infant and Young Child Feeding) contains 14 questions on breastfeeding and infant and young child feeding. *IYCN Website links to KPC Survey Module 2 and 3:*
<http://www.iycn.org/monitoring-and-evaluation.php>

Community Assessment of Breastfeeding Knowledge and Behaviours – Questionnaires on Infant and Young Child Feeding and Related Practices. *Bolivia and Ghana (2003) breastfeeding and complementary feeding community surveys:*
<http://www.linkagesproject.org/tools/m&questionnaires.php>

The Handbook for Excellence in Focus Group Research. AED.
[http://globalhealthcommunication.org/tool_docs/60/handbook_for_excellence_in_focus_group_research_\(full_text\).pdf](http://globalhealthcommunication.org/tool_docs/60/handbook_for_excellence_in_focus_group_research_(full_text).pdf)

Resources Annex 1-4: Monitoring and evaluation

Indicators for Assessing Infant and Young Child Feeding Practices: Part 1: Definitions. WHO, UNICEF, USAID, AED, UCDAVIS, IFPRI (2008).

<http://www.who.int/nutrition/publications/infantfeeding/9789241596664/en/index.html>

Indicators for Assessing Infant and Young Child Feeding Practices. Part 2: Operational Guide on Measurement (2010)

<http://www.who.int/entity/nutrition/publications/infantfeeding/9789241599757/en/index.html>

Indicators for Assessing Infant and Young Child Feeding Practices. Part 3: Country Profiles (2010) http://whqlibdoc.who.int/publications/2010/9789241599290_eng.pdf

Infant Feeding: Key Indicator Monitoring Manual. AED/Linkages/USAID (2006)

http://www.linkagesproject.org/media/publications/M&E_manual_IF.pdf

Standardized Monitoring and Assessment of Relief and Transitions (SMART) Methodology and Surveys.

www.smartmethodology.org. Document:

http://www.smartmethodology.org/images/stories/SMART_Methodology_08-07-2006.pdf

Trends in Infant Feeding Patterns and area graphs (by country). UNICEF (2008).

http://www.childinfo.org/breastfeeding_infantfeeding.html

Introduction to Interpreting Area Graphs for Infant and Young Child Feeding. UNICEF. (2010).

http://www.unicef.org/nutrition/files/Area_graphs_introduction_SinglePg.pdf

Resources Annex 1-5: Code

International Code of Marketing of Breastmilk Substitutes. WHO (1981) and relevant World Health Assembly Resolutions: http://apps.who.int/gb/e/e_wha63.html and the most recent WHA Resolution: http://apps.who.int/gb/ebwha/pdf_files/WHA63-REC1/WHA63_REC1-P2-en.pdf.

The Code Handbook: A Guide to Implementing the International Code, 2nd edition. Ellen Sokol (2005). Contact IBFAN to order a copy of the guide: ibfanpg@tm.net.my

Making Sense of the Code. ICDC. Contact IBFAN to order a copy of the document:

ibfanpg@tm.net.my

The Code in Cartoons. Annelies Allain, (revised 2006). Contact IBFAN to order a copy:

ibfanpg@tm.net.my

Protecting Infant Health: A Health Worker's Guide to the International Code of Marketing of Breastmilk Substitutes (11th edition). Annelies Allain & Yeong Joo Kean. Contact IBFAN to order a copy of the guide: ibfanpg@tm.net.my

Complying with the Code: A Manufacturers' and Distributors' Guide to the Code. Ellen Sokol & Annelies Allain. Contact IBFAN to order a copy of the guide: ibfanpg@tm.net.my

Code Essentials 1, 2 and 3: Annotated International Code of Marketing of Breastmilk Substitutes and subsequent WHA resolutions, ICDC, September 2008. Contact IBFAN to order copies:

ibfanpg@tm.net.my

Code monitoring kit: This 40-page kit contains a full set of guidelines and forms for Code monitoring. Contact IBFAN to order a copy of the kit: ibfanpg@tm.net.my

For a full list of Code and other breastfeeding resources, see the *IBFAN website*:
<http://www.ibfan.org/code-publications.html>

Resources Annex 1-6: Maternity Protection

The World Alliance for Breastfeeding Action Maternity Protection Campaign Kit. This kit contains all the background information, tools and examples needed to assist in organizing a successful maternity protection campaign. WABA. *The Maternity Protection Campaign Kit*:
<http://www.waba.org.my/whatwedo/womenandwork/mpckit.htm>

ILO Information Sheet on Maternity Protection. ILO (2004). *Conditions of Work and Employment Programme: Maternity Protection document*:
<http://www.ilo.org/public/english/protection/condtrav/pdf/infosheets/wf-4.pdf>

A Global Review: Working Conditions Laws 2006-2007. ILO (2008). Chapter 3 reviews the maternity protection laws of 167 countries: *A Global Review: Working Conditions Laws 2006-2007*:
http://www.ilo.org/public/english/protection/condtrav/pdf/work_laws.pdf

Resources Annex 1-7: Health service IYCF actions

Baby-friendly Hospital Initiative: Implementation, 20 hour (3 day) training course and assessment. For maternity staff and health staff providing supporting services. The HIV sessions need to be updated following the 2009 Rapid Advice. UNICEF/WHO (2009).
<http://intranet.unicef.org/pd/ycsd.nsf/acf15d033c45653b85256fa5005984d2/28eaaa811f05356b8525720300784bda?OpenDocument>

Note: Section 5: External Assessment and Reassessment is not available online for general distribution however is available upon request from UNICEF Intranet website or Headquarters Nutrition Section.

Infant and Young Child Feeding Counselling: An Integrated Course (5 days). WHO/UNICEF (2007). For health staff working with mothers, caregivers and children from 0 to 23 months of age. Includes breastfeeding and complementary feeding, and HIV component optional depending on setting, (HIV chapter will be updated following 2010 Guidelines on HIV & IF).
http://www.who.int/nutrition/iycf_intergrated_course/en/index.html

Breastfeeding Counselling: A Training Course WHO/UNICEF (1993). (currently under revision). 40-hour course that provides more detail on lactation management than the integrated course or BFHI lactation management course. For health facility level workers.
http://www.who.int/child_adolescent_health/documents/who_cdr_93_3/en/index.html

Infant and Young Child Feeding: Model Chapter for textbooks for medical students and allied health professionals. WHO (2009)
<http://www.who.int/nutrition/publications/infantfeeding/9789241597494/en/index.html>

Lactation Management Self-Study Modules, Level 1, 3rd Edition. Wellstart (2009). Contact:
info@wellstart.org

Self-study and e-learning modules on lactation management and related issues. International Board of Lactation Counsellor Education website.
<http://www.iblce.edu.au/CERP%20Programs%20.php>

Integrated Management of Childhood Illness. WHO (2008). 11-day course (adaptations made in countries for 6-day course; 1 day on infant feeding, including 2 practice sessions). For doctors, nurses and other health workers at first level facilities.
http://www.who.int/child_adolescent_health/documents/IMCI_chartbooklet/en/index.html

Adolescent Nutrition: A Review of the Situation in Selected South-East Asian Countries (chapter 8 contains strategies for adolescent nutrition). WHO (2006).
http://www.searo.who.int/EN/Section13/Section38_11624.htm

Essential Nutrition Actions: A Four Day Training Course for Planners and Managers of Health & Nutrition Programs: Training guide for program managers and pre-service instructors to train service providers in an action-oriented approach to improve the nutrition of infants, young children and women. AED (2004; 2008 update available)
http://www.linkagesproject.org/media/publications/Training%20Modules/ENA_module_Ethiopia.pdf

Essential Nutrition Actions: Using essential actions in nutrition to improve the nutrition of children and women. Training course for Health Workers. Three-day training for facility-based health workers with 1-day training on IYCF. AED (2008). <http://www.linkagesproject.org/>

Training Methodologies and Principles of Adult Learning: Application for Training in Infant and Young Child Nutrition and Related Topics. AED/USAID/Linkages (2005).
<http://www.linkagesproject.org/media/publications/Training%20Modules/TOT-Adult-Learning.pdf>

Facts for Feeding: Birth, Initiation of Breastfeeding and the First Seven Days after Birth. Identifies actions health care providers can take during the first week postpartum to help the mother and baby establish and maintain good breastfeeding practices. AED/Linkages (2003).
http://www.linkagesproject.org/media/publications/facts%20for%20feeding/FFF7daysEnglish_update0703.pdf

Facts for Feeding: Feeding Infants and Young Children During and After Illness. This document describes optimal feeding behaviours during and after illness, challenges of feeding during these times, special considerations for common illnesses, and guidelines for counselling caregivers. AED/Linkages (2006). http://www.linkagesproject.org/media/publications/Facts-for-Feeding-Illness_11-21-06.pdf

Facts for Feeding: Feeding Low Birth weight Babies. This recent publication in the Facts for Feeding series provides guidance on breastmilk feeding options to ensure that low birthweight babies receive the attention needed to survive, grow, and develop. AED/Linkages (2006).
http://www.linkagesproject.org/media/publications/FFF_LBW_3-30-06.pdf
http://www.linkagesproject.org/media/publications/FFF_LBW_3-30-06.pdf

A Toolbox for Building Health Communication Capacity. AED/Linkages (1995).
<http://www.globalhealthcommunication.org/tools/29>

Behaviour Change Communication for Improved Infant Feeding. Manual for Training of Trainers for Negotiating Sustainable Behaviour Change. Linkages (2004).
http://www.linkagesproject.org/media/publications/Training%20Modules/BCC_and_IF.pdf

Ethiopia - Counselling Cards for Fathers. These counselling cards were developed for use with fathers, to encourage their support of breastfeeding and maternal nutrition. They tell fathers what they can do during pregnancy and breastfeeding to support the health of their wives. AED/Linkages.
<http://www.linkagesproject.org/media/publications/Tools/Ethiopia-counseling-cards-fathers.pdf>

Care for Development (UNICEF/WHO, March 2009): The Care for Child Development package consists of simple recommendations health workers can make to families to improve the growth, health and development of children; training programmes and materials, guidance for the integration of Care for Child Development into ongoing programmes and activities at health and nutrition facilities and in the community; guidance for adaptation for local conditions; advocacy materials; and a monitoring and evaluation framework.

<http://intranet.unicef.org/pd/ecd.nsf/96054cb61a0f902885256fd9004dda04/2641aa458a57dd43852575b400598923?OpenDocument>

Resources Annex 1-8: Community based IYCF

Generic Training Package on Integrated IYCF Counselling for Community Cadres.

UNICEF. Contact the IYCN Unit iycn@unicef.org to obtain original software files. Pdfs at: http://www.unicef.org/nutrition/index_58362.html

Integration of IYCF Support into CMAM: Facilitator's Guide. IASC/IFE/ENN (2009). Facilitator's guide and handouts for participants on 1 ½ day orientation on IYCF counselling in the context of community-based programmes for management of severe acute malnutrition.

<http://www.enonline.net/pool/files/ife/iycf-cmam-facilitators-us-final.pdf>

An Inventory of Tools to Support Household and Community-based Programming for Child Survival, Growth and Development.

UNICEF (1999). UNICEF Intranet website: [http://intranet.unicef.org/PD/CBSC.nsf/0/B4661542878584D6852575370068A118/\\$FILE/health_UNICEF_inventory.pdf](http://intranet.unicef.org/PD/CBSC.nsf/0/B4661542878584D6852575370068A118/$FILE/health_UNICEF_inventory.pdf)

Child Health in the Community: "Community IMCI". Briefing package for facilitators: Reference Document. WHO (2004) http://www.who.int/child_adolescent_health/documents/9241591951/en/

Community-based Strategies for Breastfeeding Promotion and Support in Developing Countries.

WHO (2003). http://www.who.int/child_adolescent_health/documents/9241591218/en/index.html

Learning from Large-Scale Community-based Programmes to Improve Breastfeeding Practices: Report of ten-country case study.

WHO/UNICEF/AED/USAID (2008). http://www.unicef.org/nutrition/files/Learning_from_Large_Scale_Community-based_Breastfeeding_Programmes.pdf

Community-based Breastfeeding Support Trilogy: Planning Manual, Guide for Trainers & Supervisors and Training Curriculum. WellStart International Expanded Promotion of Breastfeeding Program (1996). <http://www.wellstart.org/publications.html>

Mother-to-Mother Support Group Methodology and Infant Feeding.

AED/Linkages (2003). <http://www.linkagesproject.org/media/publications/Training%20Modules/MTMSG.pdf>

Mother-to-Mother Support for Breastfeeding. Frequently Asked Questions.

Linkages. 2004 http://www.linkagesproject.org/media/publications/frequently%20asked%20questions//MTMS_FAQ_update04-04.pdf

Positive Deviance/Hearth: A Resource Guide for Sustainably Rehabilitating Malnourished Children. CORE Group (2003). http://www.positivedeviance.org/pdf/hearth_book.pdf

Resources Annex 1-9: Communication

Improving Exclusive Breastfeeding Practices by Using Communication for Development in IYCF Programmes: UNICEF, 2010. Consists of a Reference Guide and a PowerPoint presentation, and is being presented through webinar sessions. (on UNICEF Intranet).

[http://www.intranet.unicef.org/PD/YCSD.nsf/0/F996EEFE3EBD0EDC852572030074B023/\\$FILE/C4D_in_EBF_manual-Version15_June_2010.pdf](http://www.intranet.unicef.org/PD/YCSD.nsf/0/F996EEFE3EBD0EDC852572030074B023/$FILE/C4D_in_EBF_manual-Version15_June_2010.pdf)

Using Communication for Development in young child survival and development programmes: Manual for Web Based Training. UNICEF Intranet Website (2010). Contact Paula Claycomb, pclaycomb@unicef.org.

Behaviour Change Communication in Emergencies: A Toolkit. UNICEF (2006). This toolkit includes a chapter on breastfeeding and some useful tools.

http://www.influenzaresources.org/files/BCC_in_Emerg_chap1to8_2006.pdf

Facilitating Community Participation through Communication. UNICEF (2001). UNICEF Intranet Website:

[http://www.intranet.unicef.org/PD/CBSC.nsf/0/4750BF75E9DB3D4C852573F500617D88/\\$FILE/Singhal-UNICEF-Participation-Report-Final.pdf](http://www.intranet.unicef.org/PD/CBSC.nsf/0/4750BF75E9DB3D4C852573F500617D88/$FILE/Singhal-UNICEF-Participation-Report-Final.pdf)

Writing a Communication Strategy for Development Programmes: A Guideline for Programme Managers and Communication Officers. UNICEF Bangladesh (2008). UNICEF Intranet Website:

[http://intranet.unicef.org/PD/CBSC.nsf/0/EB94FD48C00CAA95852575A00072354F/\\$FILE/CSD_P.pdf](http://intranet.unicef.org/PD/CBSC.nsf/0/EB94FD48C00CAA95852575A00072354F/$FILE/CSD_P.pdf)

Facts for Life. Fourth edition. Chapter 4 has messages on breastfeeding and Chapter 5 on Nutrition and Growth; it also has suggestions on how to use the messages and how to design and implement communication actions around the messages. UNICEF/WHO/UNESCO/UNFPA/UNDP/UNAIDS/WFP/WB. 2010. www.factsforlifeglobal.org/

Examples of Communication Materials on Infant and Young Child Feeding. AED/Linkages. <http://www.linkagesproject.org/publications/index.php?series=12>

Exclusive Breastfeeding: The Only Water Source Young Infants Need - Frequently Asked Questions. Discusses the nutritional and health consequences of giving infants water during the first six months, and the role of breastfeeding in meeting an infant's water requirements. AED/Linkages (2004).

http://www.linkagesproject.org/media/publications/frequently%20asked%20questions/FrequentlyAskedQuestions_Water_eng.PDF

A Toolbox for Building Health Communication Capacity. AED/Linkages (1995).

<http://www.globalhealthcommunication.org/tools/29>

Behaviour Change Communication for Improved Infant Feeding: Training of Trainers for Negotiating Sustainable Behaviour Change. AED/Linkages(2004).

http://www.linkagesproject.org/media/publications/Training%20Modules/BCC_and_IF.pdf

Training modules on essential communication skills for front line workers, UNICEF Bangladesh (draft available on UNICEF intranet, Communication for Development site)

Building Interpersonal Communication Skills: A Training Manual, UNICEF India, 2007.

Learning to listen to mothers. Vella, Jane, and Uccellani, Valerie, Academy for Educational Development, Washington, D.C. Focuses on GMP programmes. (Available at: www.globalhealthcommunication.org)

Development of Messages and Materials to Promote Improved Infant and Young Child Feeding: A Case Study in Northern Ghana. AED/Linkages. (2003). http://www.linkagesproject.org/media/static_pdfs/ccards/ghana_bcc_casestudy.pdf

Development Communication Sourcebook: Broadening the Boundaries of Communication. World Bank (2008). http://www.wds.worldbank.org/external/default/WDSContentServer/WDSP/IB/2008/07/09/000020953_20080709145627/Rendered/PDF/446360Dev0Comm1ns0handbook01PUBLIC1.pdf

World Breastfeeding Week. Website contains advocacy and communication resources for each of the annual World Breastfeeding Week events. <http://worldbreastfeedingweek.org/>

Resources Annex 1-10: HIV and Infant Feeding

Guidelines on HIV and infant feeding 2010. Principles and recommendations for infant feeding in the context of HIV and a summary of evidence. WHO (2010). Includes a new, additional principle on what to do when ARVs are not immediately available. http://www.who.int/child_adolescent_health/documents/9789241599535/en/index.html

HIV Transmission through Breastfeeding: A Review of Available Evidence - 2007 Update. WHO/UNICEF/UNAIDS/UNFPA (2008). This is superseded by the 2010 Summary of Evidence. http://www.who.int/child_adolescent_health/documents/9789241596596/en/index.html

HIV and Infant Feeding: Update Based on the Technical Consultation. Held on behalf of the Inter-agency Task Team (IATT) on Prevention of HIV Infection in Pregnant Women, Mothers and their Infants, Geneva, 25-27 October 2006. WHO/UNICEF/UNAIDS/UNFPA (2008). This is superseded by the 2009 Rapid Advice and 2010 Guidelines. http://www.who.int/child_adolescent_health/documents/9789241595964/en/index.html

HIV and Infant Feeding Counselling Tools. WHO (2005, 2008) Breastfeeding counselling training is a prerequisite. The trainer's guide has been updated in 2008 and is based on the 2006 global recommendations (may be updated to reflect the 2010 guidelines). http://www.who.int/child_adolescent_health/documents/9241592494/en/index.html

HIV and Infant Feeding: Framework for Priority Action. WHO (2003). This is now outdated and a revised framework has been proposed for development following the 2009 updated recommendations. http://www.who.int/child_adolescent_health/documents/9241590777/en/index.html

Resources Annex 1-11: IYCF in emergencies

Infant and Young Child Feeding in Emergencies: Operational Guidance for Emergency Relief Staff and Programme Managers. ENN/IFE Core Group (2007). (Available in 9 languages and will be updated in 2011). <http://www.ennonline.net/pool/files/ife/ops-guidance-2-1-english-010307.pdf>

Infant Feeding in Emergencies, Module 2, Version 1.1 for health and nutrition workers in emergency situations, for training, practice and reference. ENN/IFE Core Group (2007). (Available in English and French) <http://www.ennonline.net/pool/files/ife/module-2-v1-1-complete-english.pdf>

IFE Module 1, v 2.0, 2009: IFE Orientation package. ENN/IFE Core Group, 2009. This is a package of resources to help in orientation on infant and young child feeding in emergencies (IFE). These resources are targeted at emergency relief staff, programme managers, and technical staff involved in planning and responding to emergencies, at national and international level. This IFE Orientation Package (IFE Module 1, v 2.0, 2009) is an update of Module 1 on IFE (essential orientation), a print content first produced in 2001. It comprises e-learning lessons, training resources and technical notes. Module 17 of the Harmonized Training Package of the Global Nutrition Cluster will also be uploaded here once it is updated.
<http://www.enonline.net/ife/orientation>

Introduction to Nutrition in Emergencies: Basic Concepts. E-learning lessons. Module 5 is on IYCF in emergencies (produced by IFE Core Group). On UNICEF intranet or contact Erin Boyd (eboyd@unicef.org)

Model Statement and Media Guide on Infant Feeding in Emergencies. ENN/IFE Core Group (2008). *Model Statement on IFE:* <http://www.enonline.net/resources/237> and Media Guide on IYCF in Emergencies: <http://www.enonline.net/resources/126>

Guiding Principles for Feeding Infants and Young Children during Emergencies. WHO (2004). http://www.who.int/nutrition/publications/guiding_principles_feedchildren_emergencies.pdf

Complementary Feeding of Infants and Young Children in Emergencies. Evaluating the Specific Requirements of Realizing a Dedicated Complementary Feeding in Emergencies Training Resource; a Preliminary Scoping Review of Current Resources. IFE Core Group/IASC Nutrition Cluster. October 2009. <http://www.enonline.net/pool/files/ife/cfe-review-enn-&ife-core-group-oct-2009.pdf>

Behaviour Change Communication in Emergencies: A Toolkit. UNICEF (2006). This toolkit includes a chapter on breastfeeding and some useful tools.
http://www.influenzaresources.org/files/BCC_in_Emerg_chap1to8_2006.pdf

Joint Statement on Preventing and Controlling Micronutrient Deficiencies in Populations Affected by an Emergency: multiple vitamin and mineral supplements for pregnant and lactating women and for children aged 6 to 59 months. WHO/WFP/UNICEF (2007).
http://www.who.int/nutrition/publications/micronutrients/WHO_WFP_UNICEFstatement.pdf

Integration of IYCF Support into CMAM: Facilitator's Guide. IASC/IFE/ENN (2009). Facilitator's guide and handouts for participants on 1 ½ day orientation on IYCF counselling in the context of community-based programmes for management of severe acute malnutrition.
<http://www.enonline.net/pool/files/ife/iycf-cmam-facilitators-us-final.pdf>

Management of Severe Acute Malnutrition in Children: Programme Guidance. UNICEF (February 2008). UNICEF Intranet Website:
<http://intranet.unicef.org/PD/YCSD.nsf/acf15d033c45653b85256fa5005984d2/a5877444f0698b07852571a7003df704?OpenDocument#Management%20of%20Severe%20Acute%20Undern>

Management of Acute Malnutrition in Infants (MAMI) Project: Summary Report. IASC Nutrition Cluster/ACF/UCL/ENN. October 2009.
<http://www.enonline.net/pool/files/ife/mami-project-summary-report-final-041209.pdf>

Guidelines for Selective Feeding: the Management of Malnutrition in Emergencies. UNHCR/WFP (2009). <http://www.enonline.net/pool/files/ife/wfp-unhcr-sfp-guidelines.pdf>

Resources Annex 1-12: Useful websites

Academy of Breastfeeding Medicine (BFMED):

<http://www.bfmed.org>

The Academy of Breastfeeding Medicine is a US-based worldwide organization of physicians dedicated to the promotion, protection and support of breastfeeding and human lactation. Publishes a journal "Breastfeeding Medicine", lactation management courses for physicians, protocols, resources such as a Model Breastfeeding Policy, etc.

Academy for Educational Development (AED):

www.aed.org/

The AED website with information on AED projects, pages on infant and young child nutrition, publications, materials on behaviour change and social marketing in particular which are relevant to IYCF. AED also manages PROFILES, an advocacy tool (<http://www.aedprofiles.org/>) and "Alive and Thrive", a project on IYCN funded by the Gates Foundation.

Child Info:

www.childinfo.org

This website contains UNICEF's statistical information, including data used in UNICEF's flagship publications, *The State of the World's Children* and *Progress for Children*. Website may also include area graphs on infant feeding for many countries and technical resources for conducting UNICEF-supported Multiple Indicator Cluster Surveys (MICS), which are a major source of global data on IYCF.

Emergency Nutrition Network (ENN):

<http://www.ennonline.net/ife/>

The ENN website with pages on infant feeding in emergencies containing the operational guidance on IFE, training materials, media guide, news, links, resource library, etc.

FANTA Project:

<http://www.fantaproject.org/focus/children.shtml>

The Infant and Young Child Nutrition pages of the FANTA-2 project, a USAID nutrition project (2008-2013).

Global Alliance for Improved Nutrition (GAIN):

<http://www.gainhealth.org/programs/gain-infant-and-young-child-nutrition-program>

The GAIN website with pages on its infant and young child nutrition.

International Food Policy Research Institute (IFPRI) <http://www.ifpri.org>

The site from the International Food Policy Research Institute (IFPRI), which operates as part of the Consultative Group on International Agricultural Research (CGIAR). The comprehensive Research Themes section gives project information on subthemes organized under four principal sections: Environment and Production Technology, Food Consumption and Nutrition, Markets and Structural Studies, and Trade and Macroeconomics.

Infant and Young Child Nutrition (IYCN) Project:

www.iycn.org

The IYCN Project is the flagship project on infant and young child nutrition of the US Agency for International Development (USAID), run by PATH (www.path.org/). The IYCN Project maintains a collection of useful resources on maternal nutrition, infant and young child feeding, prevention of mother-to-child transmission of HIV (PMTCT) and more. The collection offers a variety of high-quality training materials, publications, web links, and other helpful resources.

Inter-Agency Standing Committee (IASC) Global Cluster (Nutrition Cluster):

<http://oneresponse.info/globalclusters/nutrition>

The cluster website with news, tools, training packages, events etc.

International Baby Food Action Network (IBFAN):

www.ibfan.org

The IBFAN website with news, fact sheets, resources, Code watch etc. Website includes links to regional IBFAN sites and the International Code Documentation Centre.

International Lactation Consultant Association (ILCA):

<http://www.ilca.org>

The ILCA is the professional association for International Board Certified Lactation Consultants (IBCLCs) and other health care professionals who care for breastfeeding families.

La Leche League International (LLL):

<http://www.lalecheleague.org>

The LLLI aims to help mothers worldwide to breastfeed through mother-to-mother support, encouragement, information, and education, and to promote a better understanding of breastfeeding as an important element in the healthy development of the baby and mother.

Linkages Project:

www.linkagesproject.org

USAID-funded project (1996–2006) to provide technical information, assistance, and training to organizations on breastfeeding, related complementary feeding and maternal dietary practices. Website contains many useful training, communication, formative research and monitoring tools on IYCF.

Pan American Health Organization (PAHO):

www.paho.org

WHO's regional office for the Americas with documents on IYCF for the region (including Spanish and Portuguese versions), as well as the *ProPAN Manual*.

UNICEF Intranet:

<http://intranet.unicef.org/>

This is the Intranet site accessible with a password by UNICEF staff, which has many IYCF documents and documents on other aspects of UNICEF's nutrition programming. It also contains Section 5 of the BFHI, including the computer tool. The IYCF documents can be found by going to: Programmes > Young Child Survival and Development > High Impact Health and Nutrition Interventions > Nutrition > Infant and Young Child Feeding.

UNICEF Public Website:

http://www.unicef.org/nutrition/index_breastfeeding.html

UNICEF's public website with pages on IYCF and links to documents and stories from the field.

UN Standing Committee on Nutrition (SCN):

www.unscn.org/

Information on the SCN work, meetings, publications, updates, news, networks, etc., as well as working groups, including the breastfeeding and complementary feeding working group.

Wellstart International:

www.wellstart.org

US-based organization focusing on health professional's education on breastfeeding, includes Lactation Management Self-Study Modules, Level 1. This educational tool is downloadable without charge.

World Alliance for Breastfeeding Action (WABA):

<http://www.waba.org.my/>

WABA is a global network of organizations and individuals supporting breastfeeding, which includes IBFAN, ILCA, BFMED, Wellstart and La Leche League. Website contains information about WABA's work, resources, events etc.

World Bank (WB):

www.worldbank.org/

The [WB Nutrition Section website](#) contains info on WB Nutrition strategy, news, links, etc, and [WB Nutrition Publications](#).

World Breastfeeding Week:

<http://www.worldbreastfeedingweek.org/index.htm>

World Breastfeeding Week website with information on the current and past year's events.

World Food Programme (WFP):

www.wfp.org/nutrition

Contains information on WFP programming for nutrition, nutrition products, mother and child health, stories and links.

World Health Organization (WHO):

www.who.int/child_adolescent_health/ and www.who.int/nutrition/

The WHO website includes the Child and Adolescent Health Department and the Nutrition Department - containing information, guidelines, meeting reports, training courses, the new IYCF indicators and other documents on IYCF.

Annex 2. Sample monitoring sheet for IYCF counselling

Health centre																												
Monthly target	Year	Catchment population					Total target popl.<2					Target post-natal					Target 0-5 m.			Target 6-23m.			Monthly target <2s			Coverage		
12																												100%
11																												
10																												
9																												75%
8																												
7																												
6																												50%
5																												
4																												
3																												25%
2																												
1																												
0																												0%
	Jan	Cum total	Feb	Cum total	Mar	Cum total	Apr	Cum total	May	Cum total	Jun	Cum total	Jul	Cum total	Aug	Cum total	Sep	Cum total	Oct	Cum total	Nov	Cum total	Dec					
Post natal counselling																												
Counselling for < 6 months children																												
Counselling for 6-23 months children																												

Adapted from the monitoring chart in the guide: Microplanning for immunization service delivery using the Reaching Every District (RED) approach. WHO. 2009

Annex 3: Sample Planning Matrix for Communication Strategy¹

1. Behavioural Analysis	Primary Participant Group (PPG): Individual or Household Level	Secondary Participant Group (SPG): Community Level	Tertiary Participant Group (TPG): Policy/Decision Level
Who are the participants?	PPG1: Mother	SPG1: MCH health worker	TPG1: Ministry of Health (head of family health/nutrition)
	PPG2: Senior women	SPG2: CHW/lay counsellor	TPG2: Provincial/District Director of Health
	PPG3: Father	SPG3: Mother support group	TPG3: Head of province/region/district Government
		SPG4: NGO field staff	
What are the current behaviours?	PPG1: Gives water to breastfed infant <six m. or BMS	SPG1: Does not communicate correct information on EBF; does not promote EBF; promotes BMS; provides didactic health education sessions	TPG1: Does not prioritize IYCF communication strategy; does not allocate sufficient funds to EBF component; allows BMS promotion;
	PPG2: Gives water or BMS to infant <6m or advises breastfeeding mother to do so	SPG2: Does not communicate correct information on EBF; does not conduct activities to promote EBF	TPG2: Does not allocate resources or track provincial/district implementation of EBF communication plan
	PPG3: Requires wife to maintain full workload, not allowing sufficient time to breastfeed; does not participate in infant feeding matters	SPG3: Do not use correct information on EBF in contacts; do not seek out the breastfeeding women in the community;	TPG3: Ignorant of the importance of EBF; does not promote EBF in speeches; does not promote and track success on improving child health/nutrition status
		SPG4: Does not use correct information on EBF; promotes didactic communication and distribution of posters; does not conduct supportive supervision to CHWs or mother support groups	

¹ This format was developed by Dr. Renato Linsangan, formerly with UNICEF Pakistan. It has been used by several UNICEF Country Offices and can be adapted to fit local needs. It has been partially filled in to give a sample of the information that might be included; the example in this case relates to exclusive breastfeeding.

1. Behavioural Analysis	Primary Participant Group (PPG): Individual or Household Level	Secondary Participant Group (SPG): Community Level	Tertiary Participant Group (TPG): Policy/Decision Level
What is the recommended/ desired behaviour?	PPG1: Gives only breast milk	SPG1: Promotes EBF correctly at every contact with eligible women; does not promote BMS; uses appropriate communication skills	TPG1: National IYCF communication strategy developed and funded; takes necessary actions to limit promotion of BMS; does not tolerate any incentives to self or staff from formula manufacturers; promotes EBF in speeches, documents etc.
	PPG2: Does not give infant any water; advises mother to give only breast milk	SPG2: Promotes EBF correctly at every contact with eligible women; does not promote BMS; uses appropriate communication skills	TPG2: Assures resource allocation and implementation of communication activities; tracks implementation and discusses monitoring results with ICYF team at regular meetings; informs key gov't officials of progress/constraints
	PPG3: Supports wife to lighten workload, allowing sufficient time to breastfeed; discusses EBF with senior women in family	SPG3: Seeks out all eligible mothers in community to promote EBF, support and problem solve	TPG3: Speaks correctly about EBF at public events; helps solve logistical issues for EBF promotion and supervision
		SPG4: Builds capacity of CHWs and mother support groups to conduct interactive & problem solving communication sessions on EBF; conducts regular supportive supervision	
What is the key barrier to the recommended behaviour? (immediate and long term)	PPG1: Senior women tell mother to give water	SPG1: Lack of knowledge on EBF; bias towards formula; work overload; supervisor does not emphasize communication on EBF;	TPG1: EBF is not a donor priority; accountable for success of other, high profile CSD interventions
	PPG2: Belief that water is necessary along with breastmilk; belief that "Grandma knows best"	SPG2: Lack of knowledge on EBF; work overload/competing priorities; lack of resources and incentives; supervisor does not emphasize communication on EBF	TPG2: Not accountable from MOH for status of EBF in locality; not convinced improving EBF will change local child health status; lack of human resources in communication
	PPG3: Men perceive no role in infant feeding and care	SPG3: Lack of knowledge on EBF; lack of community recognition and support;	TPG3: Child health status not a re-election priority; poor relations with health system; lacks knowledge of impact of EBF
		SPG4: Lack of knowledge on EBF; poor skills on communication; supervisor does not emphasize communication on EBF;	
What are the other barriers to the recommended behaviour? What benefits come from current behaviour?	PPG1: Competing demands on her time (household and agricultural chores, work etc.)	SPG1: Didactic methods require less time and effort; incentives provided by formula companies;	TPG1: Prefers curative interventions; working on communication involves new partners, more meetings
	PPG2: Senior women's authority over mother of infant	SPG2: Curative services easier and garner greater community recognition	TPG2: Comfortable with current programme priorities

1. Behavioural Analysis	Primary Participant Group (PPG): Individual or Household Level	Secondary Participant Group (SPG): Community Level	Tertiary Participant Group (TPG): Policy/Decision Level
	PPG3: Perception of wife's role in household	SPG3: Targeted house to house visits require time, effort and coordination	TPG3: Political rewards from other priority areas; no pressure from community
		SPG4: Interactive communication methods are harder to teach and supervise	
What current or traditional practice/s could support/serve as root for (or enhance promotion of) the recommended behaviour?	PPG1: Traditional culture of breastfeeding	SPG1: HW is the authority / influential/credible	TPG1: Responsive to donor inputs; working on decentralizing CSD
	PPG2: Senior women's role in child care and feeding (giving water, teas, foods etc.)	SPG2: CHWs are community members; know community	TPG2: Is good at networking
	PPG3: Male head of household role in wellbeing of family	SPG3: Women's role in infant feeding and care	TPG3: Likes networking, making public appearances
		SPG4: Contractual accountability; time and resources limited by NGO budget	
What social norms hinder desired behaviour?	PPG1: Wife's role subordinate to husband and senior women in HH	SPG1: Didactic methods, authoritarian role	TPG1:
	PPG2: Authority over daughters/daughters in law	SPG2: May not be a credible source in community (esp. male or younger female CHWs)	TPG2: "team player" means don't make others look bad
	PPG3: Male role does not include infant feeding and care	SPG3: Social structures not conducive to mother to mother support; class and ethnic differences;	TPG3: Party platform dictates actions, priorities
		SPG4: Class and ethnic differences	

2. Communication Strategy	Primary Participant Groups: Behaviour Change Communication	Secondary Participant Groups: Social Mobilization	Tertiary Participant Groups: Advocacy
What can communication do to overcome the key barrier to the recommended behaviour?	PPG1: Connect to EBF support group; improve knowledge on EBF and that water not necessary	SPG1: Improve knowledge and communication skills; community mobilization techniques	TPG1: Advocate with donors to prioritize ICYF and EBF in particular and development of a C4D strategy
	PPG2: Promote another way senior women can be involved in infant care and feeding; improve knowledge on EBF	SPG2: improve knowledge and communication skills; improve community mobilization techniques	TPG2: Advocate with MOH to allocate human and financial resources at sub-national level for C4D activities
	PPG3: Promote ways father can support wife during EBF (nutrition, less work); improve knowledge on EBF	SPG3: Improve knowledge and communication skills; build capacity to plan and run group activities	TPG3: Improve visibility with voters; improve knowledge of CSD and EBF
		SPG4: Improve knowledge and communication skills; support to supervisory activities	

2.Communication Strategy	Primary Participant Groups: Behaviour Change Communication	Secondary Participant Groups: Social Mobilization	Tertiary Participant Groups: Advocacy
What benefits (immediate and long term) of the recommended behaviour can C4D promote?	PPG1: Baby will not be as sick as often; no financial cost	SPG1: Doing more and effective communication on EBF, discouraging BMS will improve health of children in catchment area.	TPG1: Supporting EBF programmes and C4D strategy will help meet CSD targets
	PPG2: Continues role of influence; infant will be plump and healthy	SPG2: Community recognition for role in supporting EBF; doing more and effective communication on EBF, discouraging BMS will improve health of children in catchment area.	TPG2:
	PPG3: "Involved father" results in healthy children, lower medical expenses	SPG3: Group will gain community and MOH recognition for role in improving EBF rates	TPG3:
What is the strategy for behaviour change?	PPG1: Get senior women to support EBF in household by lighten work load, feeding mother, talk to infant's father	SPG1: Improve supervision to include communication role; use media to create more supportive environment for BF women; improve knowledge	TPG1:
	PPG2: Improve knowledge of EBF, danger of added water and BMS; show her correct role in infant care and feeding	SPG2: Improve supervision to include communication role; use media to create more supportive environment for BF women; improve knowledge	TPG2:
	PPG3:	SPG3: Show women how they are helping in improving EBF rates and child health; improve knowledge; have them target senior women as well as EBF women	TPG3:
		SPG4: Improve accountability for supportive supervision; involve in behaviour monitoring process	
What should the participant group do (key behaviour) as a result of exposure to communication activities?	PPG1:	SPG1:	TPG1:
	PPG2:	SPG2	TPG2
		SPG3:	TPG3:
What else should the participant group do as a result of exposure to communication (supportive behaviours)?	PPG1	SPG1	TPG1:
	PPG2:	SPG2:	TPG2:
What is the key	PPG1:	SPG1:	TPG1:

2.Communication Strategy	Primary Participant Groups: Behaviour Change Communication	Secondary Participant Groups: Social Mobilization	Tertiary Participant Groups: Advocacy
message?			
	PPG2:	SPG2:	TPG2
		SPG3:	TPG3:
		SPG4:	
What are the supportive messages?	PPG1	SPG1	TPG1:
	PPG2:	SPG2:	TPG2:
		SPG3:	TPG3:
		SPG4:	
What are the C4D interventions? (e.g., interpersonal communication through peer education, community dialogues; street theatre; radio/TV, advocacy)	PPG1: See that BF women are exposed to multiple channels of communication for correct information and problem solving to overcome barriers	SPG1: conduct communication skills training; monitor communication outcomes	TPG1: Advocacy for prioritizing EBF and C4D in national ICYF and CSD plans; use MOH leaders to prioritise EBF and C4D at subnational levels; package behaviour monitoring data for use at national level
	PPG2: Use folk theatre and mass media to show senior women's role in infant feeding, support to infant's mother.	SPG2: conduct communication skills training; monitor communication outcomes; use folk theatre and mass media to create social environment for EBF	TPG2: Advocacy with provincial/district health directors to prioritise EBF and C4D in ICYF and CSD plans; use provincial/district health director to monitor EBF and C4D activities and outcomes at subnational levels; package monitoring data for use at sub-national level
	PPG3: Use folk theatre and mass media to show father's role in infant feeding, support to wife.	SPG3: use folk theatre and mass media to create social environment for EBF; recognize women's group role; conduct communication skills training	TPG3: Assure press coverage of gov't leader's advocacy efforts; improve knowledge of health impact of EBF; package monitoring data for use by local leaders
		SPG4: use folk theatre and mass media to create social environment for EBF; conduct communication skills training	
What are the programme interventions? (e.g., supplies, services, training, supervision,	PPG1:	SPG1: prioritize supportive supervision for HW—esp. in EBF promotion	TPG1: Monitor implementation of infant feeding Codes; put ICYF and EBF on MOH agenda; use monitoring data; seek funding for C4D and EBF activities
	PPG2:	SPG2: prioritize supportive supervision for CHW—	TPG2: develop regular links with local government and community to support BF

2. Communication Strategy	Primary Participant Groups: Behaviour Change Communication	Secondary Participant Groups: Social Mobilization	Tertiary Participant Groups: Advocacy
management)		esp. in EBF promotion and community mobilization	promotion activities; find ways to iron out logistic barriers to supervision, HH visits, etc.; review and discuss monitoring outcomes;
		SPG3: assure linkages with health system; monitor outcomes; recognize progress	TPG3: Include local gov't official in monitoring child health in locality;
		SPG4: prioritize supportive supervision for NGO field staff—esp. in EBF promotion and community mobilization	

Annex 3: Glossary

Acute malnutrition: WFH <-2 Z scores or < 80% of the reference median and/or bilateral oedema

Advocacy: A continuous and adaptive process of gathering, organising and formulating information into argument, to be communicated to decision-makers through various interpersonal and media channels. This is done with a view to influencing their decision towards raising resources or political and social leadership acceptance and commitment for a programme such as IYCF, thereby preparing a society for its acceptance. Advocacy should include developing mechanisms to ensure that the perspectives, concerns and voices of children, women and men from marginalized groups, are reflected in upstream policy dialogue and decision making (based on McKee et al, *Involving People Evolving Behaviour*, 2000).

Artificial feeding: Infant is fed only breastmilk substitute.

Balance of risks: To weigh the risk of mother-to-child transmission of HIV through breastfeeding and excess morbidity and mortality associated with positive HIV status, against the risk of excess morbidity and mortality by not breastfeeding, whether an infant is HIV positive or not. Current WHO guidelines recommend that HIV positive mothers should avoid breastfeeding only if replacement feeding is acceptable, feasible, affordable, safe and sustainable, or to breastfeed exclusively but stop as early as possible. The risk of virus transmission through breastfeeding depends on a variety of factors, including the disease status of the mother, whether she exclusively breastfeeds and for how long. Experts now estimate that on average, for each month of breastfeeding, less than 1% of infants are infected. With exclusive breastfeeding, the risk drops to less than half this level. The extremely high risks of infant mortality associated with not being breastfed need to be taken into account when informing HIV-infected mothers about options for feeding their infants.

Behaviour Change Communication (BCC): A research-based consultative process of addressing knowledge, attitudes and practices that are intrinsically linked to programme goals, including IYCF. It identifies analyses and segments audiences and participants and provides them with relevant information and motivation, using an audience-appropriate mix of interpersonal, group and mass-media channels, including participatory methods and social marketing. Behaviour change strategies tend to focus on the individual as a locus of change. In general, BCC is considered more data driven, based on empirical evidence and able to demonstrate measurable results, sometimes in relatively shorter time frames.

Bottle-feeding: Infant is fed from a bottle (with expressed breastmilk, water, formula, etc.).

Breastmilk substitutes: Any food being marketed or otherwise represented as a partial or total replacement for breastmilk, whether or not it is suitable for that purpose.

Communication for Development (C4D): A systematic, planned and evidence-based process to promote positive and measurable individual behaviour and social change that is an integral part of development programmes, policy advocacy and humanitarian work. It uses research and consultative processes to promote human rights, mobilize leadership and societies, influence attitudes and support the behaviours of those who have an impact on the well-being of children, women, their families and communities. It uses a combination of advocacy, social mobilization, behaviour change communication and social change communication. Using one without the others will not yield the desired long-term results. C4D is a UNICEF term; previously known as Programme Communication.

Community health worker (CHW): CHWs are known by many different names in different countries. The umbrella term "CHW" embraces a variety of community health aides selected, trained and working in the communities from which they come. CHWs are trained to carry out one or more functions related to health care. A widely accepted definition was proposed by WHO: *Community health workers should be members of the communities where they work, should be selected by the communities, should be answerable to the communities for their activities, should be supported by the health system but not necessarily a part of its organization, and have shorter training than professional workers.*

Community-based Management of Acute Malnutrition (CMAM): Also known as Community-based Management of Severe Acute Malnutrition (CMSAM). Evidence suggests that large numbers of children with severe acute malnutrition can be treated in their communities without being admitted to a health facility or a therapeutic feeding centre. The community-based approach involves timely detection of severe acute malnutrition in the community and provision of treatment for those without medical complications with ready-to-use therapeutic foods or other nutrient-dense foods at home. If properly combined with a facility-based approach for those malnourished children with medical complications and implemented on a large scale, community-based management of severe acute malnutrition could prevent the deaths of hundreds of thousands of children. CMAM evolved from Community-Based Therapeutic Care (CTC), which is a community-based approach for the management of acute malnutrition in emergency settings. Although CMAM was developed in the emergency context, its decentralized nature has been shown to lend itself to integration into existing services at the primary health care level in the longer term and in non-emergency contexts. (Also see IMAM in this glossary)

Community case management (CCM): A community-based approach for treating diarrhoea, malaria and pneumonia in children.

Complementary feeding: The child receives both breastmilk or a breastmilk substitute and solid (semi-solid or soft) foods. The process starts at six months when breastmilk alone is no longer sufficient to meet the nutritional requirements of infants, and therefore other foods and liquids are needed, along with breastmilk. The target age range for complementary feeding is generally taken to be 6 to 24 months of age. It is not recommended to provide any complementary foods to children less than six months old.

Complementary food: Any food, whether manufactured or locally prepared, used as a complement to breastmilk or to a breastmilk substitute.

Counselling: A way of working with people so that you understand their feelings and help them to develop confidence and decide what to do.

Cup-feeding: Feeding an infant from an open cup without a lid, whatever is in the cup.

Demand feeding: Feeding a baby whenever he shows that he is ready, both day and night. This is also called 'unrestricted' or 'baby-led' feeding or "feeding on cue".

Extension worker: The Community Extension Worker is the main actor, living and deriving a livelihood within the community, but is not necessarily born there. Hence a CEW is accessible and understands the community's strengths, vulnerabilities and aspirations better than usually more educated, professional extension agents. S/he knows the language and has intrinsic understanding of community cultural norms, customs and practices. Extension workers work in all sectors, agriculture, health, education, environment, etc.

Essential fatty acids: Fatty acids which are essential for a baby's growing eyes and brain, which are not present in cow's milk or most brands of formula. Some of the food sources of fatty acids are fish and shellfish, flaxseed (linseed), hemp oil, soya oil, canola (rapeseed) oil, pumpkin seeds, sunflower seeds, leafy vegetables, and walnuts. Diets in developing countries are often deficient in essential fatty acids, and sometimes supplementation is needed.

Exclusive breastfeeding: Infant receives only breastmilk (including breastmilk that has been expressed or from a wet nurse) and nothing else, except for ORS, medicines and vitamins and minerals

Expressed breastmilk: Milk that has been removed from the breasts manually or by using a pump.

Formative research: Uses quantitative and qualitative techniques (e.g., baseline data, focus group discussions, in-depth interviews, participant observations) to learn more about a problem in its own social context. Formative research helps identify the extent of the problem, such as use of BMS, in a given population. It will explain existing levels of knowledge and attitudes toward the situation and

barriers to behaviour change. Source: Strategic Communications in the HIV/AIDS Epidemic by Neill McKee, Jane T. Bertrand, Antje Becker-Benton, 2004

Formula: Artificial milk for babies made out of a variety of products, including sugar, animal milks, soybean, and vegetable oils. They are usually in powder form, to mix with water.

Commercial infant formula: A breastmilk substitute formulated industrially in accordance with applicable Codex Alimentarius standards to satisfy the nutritional requirements of infants during the first months of life up to the introduction of complementary foods.

Fortified foods: These are foods that have certain nutrients added to improve their nutritional quality.

Growth Monitoring and Promotion (GMP): Growth monitoring and promotion programs include regularly weighing of children to detect early growth falterers, using the growth chart as an educational tool to trigger improved caring practices among health workers and caretakers. GMP is a preventive and promotive strategy aimed at action before malnutrition occurs; it is a behaviour change strategy carried out through communication to achieve adequate growth through home and community action.

HIV testing and counselling: Testing for HIV status, preceded and followed by counselling. Testing should be voluntary and confidential, with fully informed consent. The expression means the same as the terms: counselling and voluntary testing, voluntary counselling and testing, and voluntary and confidential counselling and testing. Counselling is a process, not a one-off event: for the HIV-positive client it should include life planning, and, if the client is pregnant or has recently given birth, it should include infant-feeding considerations.

Information, Education and Communication (IEC): An outdated approach to behaviour change that focused on the development of posters, flyers, leaflets, brochures, booklets, messages for health education sessions, radio broadcast TV spots and other materials, as a means of promoting desired, positive behaviours in the community. Today's managers recognize that effective IYCF programme design incorporates the design, pre-testing and production of materials as only one element of a comprehensive C4D strategy.

Integrated Management of Acute Malnutrition (IMAM): Integrated management of acute malnutrition encompasses both the community-based approach (see definition of CMAM above) and in-patient management of severe cases of malnutrition with complications or less than 6 months in a health facility or therapeutic feeding centre with skilled health care providers, both in the **emergency and development contexts**.

Integrated Management of Childhood Illness (IMCI): A WHO/UNICEF principal strategy developed in the mid-1990s that integrates all available measures for disease prevention and management of the major health problems during childhood (fever, respiratory illness, diarrhoea and malnutrition), for their early detection and effective treatment, and for promoting healthy habits within the family and community. Based on this evaluation, IMCI gives clear instructions on disease classification and problems, establishing the treatment that should be administered for each one. IMCI implementation involves the participation of the community, the health-service sector and the family. This is carried out in three ways: 1) improving the performance of health workers for in the prevention and treatment of childhood diseases; 2) improving the organization and operation of health services so they provide quality care; 3) improving family and community care practices.

Infant feeding counselling: Counselling on breastfeeding, on complementary feeding, and, for HIV-positive women, on HIV and infant feeding.

Infant: A child from birth to 12 months of age.

Knowledge, Attitude and Practice (KAP) studies: These surveys are a tried and tested way to measure changes in people's knowledge, attitudes and practices on specific issues. The **Knowledge** possessed by an individual or community refers to their understanding of that topic. **Attitude** refers to their feelings toward the subject, such as complementary feeding, as well as any preconceived ideas they may have towards it. **Practice** refers to the ways in which they demonstrate their knowledge and attitudes through their actions. Understanding these three dimensions will allow a project to track

changes in them over time, and may enable the project to tailor activities to the needs of that community. KAP studies should be conducted both pre- and post-intervention to measure impact.

Lactation Amenorrhoea Method (LAM): Using the period of amenorrhoea after childbirth as a family planning method. It is most effective during the early months and if the infant is exclusively breastfed on demand including at night and as long as the menstruation has not returned, but there is still a chance (of a few per cent) that the woman can become pregnant, and this increases after six months, when other family planning methods should be used.

Lay counsellor: Lay counsellors are members of the community who are trained to provide a specific service or to perform certain limited activities. Lay community counsellors overcome the issues of entry into community, those related to ethnocentrism, and the shortage of resources, by training members from within the affected community. Lay counsellors have been effectively used in promoting exclusive breastfeeding and in supporting HIV and AIDS programs, among others.

Lipid-based Nutrient Supplements (LNS): Are ready-to-use foods that have been used for treating children with severe acute malnutrition and for preventing malnutrition and linear growth failure. Because of their high energy and nutrient content, LNS could be used for supplementation during and soon after illness to mitigate the impact of illness-associated anorexia on the nutritional status of children.

Low birth weight (LBW): An infant weighing less than 2.5 kg at birth.

Mixed feeding: Infant receives both breastmilk and any other food or liquid including water, non-human milk and formula before 6 months of age. Mixed feeding significantly increases the risk of mother to child transmission of HIV.

Moderate Malnutrition (MM): MM includes all children with moderate wasting (also known as moderate acute malnutrition - **MAM**) defined as a weight-for-height between -3 and -2 z-scores of the WHO child growth standards and all those with moderate stunting defined by a height-for-age between -3 and -2 z-score of the WHO child growth standards. Most of these children will also be moderately underweight (weight-for-age between -3 and -2 z-scores). Children with moderate malnutrition have an increased risk of mortality and MM is associated with a high number of nutrition-related deaths. If some of these moderately malnourished children do not receive adequate support, they may progress towards severe acute malnutrition (severe wasting and/or oedema) or severe stunting (height-for-age less than -3 z-scores), both life-threatening conditions. Therefore, the management of MM should be a public health priority.

Mother-support group: A community-based group of women providing support for optimal breastfeeding and complementary feeding.

Mother-to-Child Transmission (MTCT): Transmission of HIV to a child from an HIV-infected woman during pregnancy, delivery or breastfeeding.

Mid Upper Arm Circumference (MUAC): MUAC is a quick and simple way to determine whether or not a child is malnourished using a coloured plastic strip. MUAC is suitable to use on children from the age of 12 months up to the age of 59 months. However, it can also be used for children over six months with length above 65 cm.

Multi-micronutrient supplements: Preparations of several vitamins and minerals, in the form of powders to add to food, syrups, capsules or tablets.

Norms: norms tend to reflect the values of the group and specify those actions that are proper and those that are inappropriate, as well as rewards for adherence and the punishment for conformity. Related to nutrition, there are many traditional beliefs and accepted norms that need to be recognized and respected in developing socially acceptable and effective policies.

Operational research (OR): OR identifies service-delivery problems and tests new programmatic solutions to these problems. An important objective of OR is to provide program managers and policy decision makers with the information they need to improve and expand existing services. OR employs many methodologies in a process that includes five basic steps: (1)

problem identification and diagnosis; (2) strategy selection; (3) strategy experimentation and evaluation; (4) information dissemination; and (5) information utilization.

Overweight: Body Mass Index (BMI) is a simple index of weight-for-height that is commonly used to classify underweight, overweight and obesity in adults. It is defined as the weight in kilograms divided by the square of the height in metres (kg/m^2). Measuring overweight and obesity in children aged 5 to 14 years is challenging because there is not a standard definition of childhood obesity applied worldwide. The new WHO Child Growth Standards, launched in April 2006 include BMI charts for infants and young children up to age 5. However, WHO is currently developing an international growth reference for school-age children and adolescents.

Partial breastfeeding: Infant receives other liquids or solids in addition to breastmilk before 6 months of age

Peer support or mother-to-mother support: Peer or mother-to-mother support takes place one-on-one or in groups, informally or formally, in a variety of settings including, but not limited to, chance encounters (market place, bus stop, church meetings, community hall, maternity clinics, etc.), telephone counselling, hospital and home visits, interactive presentations at service club meetings, schools, universities, etc. One form of peer or mother-to-mother support is the “support group.” A mother-to-mother support group is initiated and operated by a mother who facilitates the meeting. She may have received training, but her primary qualification is that she is a mother with breastfeeding experience. Mother-to-mother support is not about giving medical advice but about sharing information, and raising doubts or concerns.

Policy: A policy is a high-level overall statement of general goals and acceptable procedures especially of a governmental body to guide and determine present and future decisions. An IYCF policy, therefore, would spell out Governments’ goals and procedures in ensuring optimal infant and young child nutrition at various levels including in the health system and at the community level. A policy spells out “what” should be implemented.

Prevention of Mother to Child Transmission (PMTCT): In the absence of any preventive intervention, infants born to and breastfed by HIV-infected women have a 25–40% chance of acquiring HIV infection. This can happen during pregnancy, during labour and delivery, or after delivery via breastfeeding. The risk of mother-to-child transmission (MTCT) can be reduced through the complementary approaches of antiretroviral therapy for the mother and infant, implementation of safe delivery practices, and use of safer infant feeding practices.

Predominant breastfeeding: Infant receives certain liquids (water and water-based drinks, fruit juice), ritual fluids and ORS, vitamins, minerals, medicines) in addition to breastmilk

Prophylaxis: Women may receive antiretroviral (ARV) drugs during pregnancy as part of potent combination regimens used to treat their HIV infection or as prophylaxis to prevent HIV infection in infants. ARV treatment for women benefits their health but also substantially reduces the risk of MTCT. All efforts should be made to ensure that all women who require ARV treatment have access to it.

Provider-initiated or opt-out testing: Testing for HIV that is routinely offered, for example in antenatal or delivery care services for women or for inpatients. Clients are offered the test and can specifically decline to be tested. Once they accept the test, they are offered pre and post-test counselling.

Ready to use foods (RUF): Are energy-dense, mineral and vitamin-enriched foods that deliver precise quantities of macro and micronutrients and are therefore ideally suited to the treatment of the various types of under-nutrition. These foods come in the form of oil-based pastes with the texture of peanut butter. They have a very low moisture content and because of this they do not spoil and can be stored in simple packaging in tropical climates. As they can be eaten straight from the pack and do not require cooking or dilution with water, the labour and fuel demands on poor households are minimised. RUF can also be designed for other purposes such as the treatment of adults living with HIV or prevention of severe or chronic malnutrition in children under two. They can be made from a variety of cereals and legumes including peanuts, chickpeas, sesame seeds, maize and soybeans

and can therefore be designed to take advantage of ingredients that are the most cost-effective in a given area. The technique for making RUF is very simple and requires basic production processes and technology that is generally available in developing countries.

Ready to use infant formula (RUIF): Are products that represent an option to feed infants, especially those less than six months old, with no possibility to be breastfed, in a manner that may be safer than feeding powdered infant formula. They are safer because they do not need to be mixed with water, but still pose risks of contamination if fed in bottles rather than cups or if diluted with water. These products are particularly relevant in emergencies.

Relactation: Re-establishing breastfeeding after a mother has stopped, whether in the recent or distant past.

Replacement feeding: The process of feeding a child who is not receiving any breastmilk with a diet that provides all the nutrients the child needs until the child is fully fed on family foods. During the first six months this should be with a suitable breastmilk substitute. After six months it should be with a suitable breastmilk substitute, as well as complementary foods made from appropriately prepared and nutrient-enriched family foods.

Responsive feeding: Feeding infants directly and assisting older children when they feed themselves, being sensitive to their hunger and satiety cues.

Rooming-in: A baby staying in the same room as his mother.

Severe Acute Malnutrition (SAM): Malnutrition defined by a very low weight for height (WHZ below three z scores of the median WHO growth standards), MUAC less than 115 mm, by visible severe wasting, or by the presence of nutritional oedema.

Social marketing: The application of marketing techniques to achieve specific behavioural goals for a social good. Social marketing campaigns may be multifaceted approaches for a variety of audiences, including mothers, their families and health care providers and their community. They are particularly effective if part of a comprehensive communication strategy around IYCF.

Social mobilization: A process that engages and motivates a wide range of partners and allies at national and local levels to raise awareness of and demand for a particular development objective through face-to-face dialogue. Members of institutions, community networks, civic and religious groups and others work in a coordinated way to reach specific groups of people for dialogue with planned messages. In other words, social mobilization seeks to facilitate change through a range of players engaged in interrelated and complementary efforts.

Social protection programme: Social protection involves policies and programs that protect people against risk and vulnerability, mitigate the impacts of shocks, and support people who suffer from chronic incapacities to secure basic livelihoods. It can also build assets, reducing both short-term and intergenerational transmission of poverty. It includes social insurance (such as health, life, and asset insurance, which may involve contributions from employers and/or beneficiaries); social assistance (mainly cash, food, vouchers, or subsidies); and services (such as maternal and child health and nutrition programs). Interventions that provide training and credit for income-generating activities also have a social protection component.

Spillover: A term used to designate the feeding behaviour of new mothers who either know that they are HIV-negative or are unaware of their HIV status – they do not breastfeed, or they breastfeed for a short time only, or they mix-feed, because of unfounded fears about HIV or of misinformation or of the ready availability of breastmilk substitutes.

Strategy: A strategy sets out “how” the goals will be achieved and the selected interventions will be implemented.

Supplementary feeding (SF): Provision of an additional food ration for moderately malnourished children or adults - “targeted SF;” or to the most nutritionally vulnerable groups - “blanket SF”.

Stunting: Stunting, or chronic undernutrition, is a form of undernutrition. It is defined by a height-for-age (HAZ) z-score below two SDs of the median WHO standards. Stunting is a result of prolonged or

repeated episodes of undernutrition starting before birth. This type of undernutrition is best addressed through preventive maternal health and nutrition programmes aimed at pregnant women, and improved infant and young child feeding of children under age 2, especially complementary feeding.

Supplements: Drinks or artificial feeds given in addition to breastmilk after the age of six months

Ten Steps to Successful Breastfeeding: Ten activities for support for breastfeeding in maternity services, distilled from successful clinical experiences in protecting, promoting and supporting breastfeeding in maternity services in a wide range of settings, both developing and industrialized country

Trials of Improved Practices (TIPS): TIPs is a formative research tool to help programme planners select and “pre-test” the actual practices that the programme will promote. Mothers and other family members try out and sometimes modify a menu of possible improved practices prepared on the basis of previous community research. In the case of infant feeding, recommendations are tested in homes by discussing and negotiating specific practice changes, and following up to record the mothers’ and children’s experiences with and reactions to the new practices. This method is also referred to as household trials.

Undernourished: A classification that indicates undernutrition such as stunting, underweight, or wasting.

Undernutrition: A consequence of a deficiency in nutrient intake and/or absorption in the body. The different forms of undernutrition that can appear isolated or in combination are acute malnutrition (bilateral pitting edema and/or wasting), chronic malnutrition (stunting), underweight (combined form of wasting and stunting), and micronutrient deficiencies.

Underweight: A composite form of undernutrition including elements of stunting and wasting and is defined by a weight-for-age z-score (WAZ) below 2 standard deviations of the median (WHO standards). This indicator is commonly used in growth monitoring and promotion (GMP) and child health and nutrition programmes aimed at the prevention and treatment of undernutrition.

Young child: A person from the age of more than 12 months up to the age of 36 months.

References

1. WHO/UNICEF. Global Strategy for Infant and Young Child Feeding. 2003.
2. WHO/UNICEF. Acceptable medical reasons for use of breast-milk substitutes. 2008.
3. Jones G. *et al.* How many child deaths can we prevent this year? (Child Survival Series) *The Lancet* 2003 Vol. 362.
4. Black R. *et al.* Maternal and child undernutrition: global and regional exposures and health consequences. (Maternal and Child Undernutrition Series 1). *The Lancet* 2008.
5. Newborn Survival Series. *The Lancet* 2005.
6. Childhood Development in Developing Countries Series. *The Lancet* 2007.
7. Edmond, K *et al.* Delayed breastfeeding initiation increases risk of neonatal mortality. *Pediatrics* 2006; 117(3):e380-6.
8. Mullany L. *et al.* Breastfeeding patterns, time to initiation and mortality risk among newborns in southern Nepal. *The Journal of Nutrition* 2008; 138; 599-603.
9. WHO. Effect of breastfeeding on infant and child mortality due to infectious diseases in less developed countries: a pooled analysis. Collaborative Study Team on the role of breastfeeding on the prevention of infant mortality. *Lancet*, 2000, 355:451–455.
10. Picciano MF. Nutrient composition of human milk. *Pediatr Clin North Am* 2001; 48: 53–67.
11. Position of the American Dietetic Association: breaking the barriers to breastfeeding. *J Am Diet Assoc.* 2001 Oct;101(10):1213-20.
12. Heinig MJ, Dewey KG. Health advantages of breastfeeding for infants: a critical review. *Nutr Res Rev* 1996; 9: 89-110.
13. Catassi *et al.* Intestinal permeability changes coloring the first month; effect of natural versus artificial feeding. *J Pediatr Gastroenterol Nutr* 1995; 21: 383-386
14. Hanson, LA. Immunobiology of human milk: how breastfeeding protects babies. 2004.
15. Zivkovic AM, German JB, Lebrilla CB, Mills DA. Microbes and Health Sackler Colloquium: Human milk glycomiome and its impact on the infant gastrointestinal microbiota. *Proc Natl Acad Sci U S A.* 2010 Aug 4. [Epub ahead of print].
16. Schanler, R., The use of human milk for premature infants, in R. Schanler (ed.), *Breastfeeding 2001: Pediatr. Clin. North Am.*, 2001; 48: 207–220.
17. Standing Committee on Nutrition of the British Paediatric Association, 'Is Breastfeeding Beneficial in the UK?', *Arch. of Dis. Child*, 1994; 71: 376–380.
18. Atkinson, S.A., The Effects of Gestational Age at Delivery on Human Milk Components, in R. Jensen (ed.), *Handbook of Milk Composition*, San Diego, Calif.: Academic Press, 1995, 222–237.
19. Walker WA. The dynamic effects of breastfeeding on intestinal development and host defense. *Adv Exp Med Biol.* 2004;554:155-70.

-
20. American Academy of Pediatrics, Work Group on Breastfeeding. 'Breastfeeding and the Use of Human Milk', *Pediatrics*, 2005; 115(2): 496–506.
 21. Edmond, K *et al.* Delayed breastfeeding initiation increases risk of neonatal mortality. *Pediatrics* 2006; 117(3):e380-6.
 22. Mullany L. *et al.* Breastfeeding patterns, time to Initiation and mortality risk among newborns in southern Nepal. *The Journal of Nutrition* 2008: 138; 599-603.
 23. Singh K, Srivastava P. The effect of colostrum on infant mortality: Urban rural differentials. *Health and Population* 1992;15(3&4):94–100.
 24. Lamberti LM, Fischer Walker CL, Noiman A, Victora C, Black RE. Breastfeeding and the risk for diarrhea morbidity and mortality. JHU. In press. 2011.
 25. Arifeen, S. *et al.*, Exclusive breastfeeding reduces acute respiratory infection and diarrhea deaths among infants in Dhaka slums, *Pediatrics*, 2001; 108(4): E67.
 26. Heinig MJ, Dewey KG. Health advantages of breastfeeding for infants: a critical review. *Nutr Res Rev* 1996; 9: 89–110.
 27. Cushing, A. H. *et al.*, Breastfeeding reduces risk of respiratory illness in infants, *Am. J. Epidemiol.*, 1998; 147(9): 863–870.
 28. Silfverdal *et al*, Protective effects of breastfeeding: an ecological study of haemophilus influenzae (HI) meningitis and breastfeeding in a Swedish population. *Int J Epidem* 1999; 28:152-6.
 29. Cochi SL, Fleming DW, Hightower AW, *et al.* Primary invasive Haemophilus influenzae type b disease: a population-based assessment of risk factors. *J Pediatr.* 1986;108:997-896
 30. Lucas, A. and T.J. Cole, 'Breast milk and neonatal necrotising enterocolitis', *The Lancet*, 1990; 336:1519–1523.
 31. Pisacane A, *et al* "Breastfeeding and Urinary Tract Infection" *J Pediatr* 1992 120: 87-89.
 32. Furman L. *et al.* 'The effect of maternal milk on neonatal morbidity of very low-birth-weight infants', *Arch. Pediatr. Adolesc. Med.*, 2003; 157:66–71.
 33. Oddy W.H., *et al* *BMJ* 1999;319:815-819 (25 September).
 34. Heinig MJ. Host defense benefits of breastfeeding for the infant: effect of breastfeeding duration and exclusivity. *Pediatr Clin North Am*, 2001; 48: 105–123.
 35. Uhari M, Matysaari K, Niemela M. A meta-analytic review of the risk factors for acute otitis media. *Clin Infect Dis* 1996; 22: 1079–1083.
 36. Moreland J, Coombs J. Promoting and supporting breast-feeding. *Am Fam Physician* 2000;61(7):2093-100, 103-4.
 37. Heinig MJ, Dewey KG. Health advantages of breastfeeding for infants: a critical review. *Nutr Res Rev* 1996; 9: 89–110.

-
38. Akobeng AK et al. Effect of breastfeeding on risk of coeliac disease: a systematic review and meta-analysis of observational studies. *Archives of Diseases in Childhood*, 2006, 91:39-43.
 39. M.S. Eiger. MD, S. Wendkos Olds. *The Complete Book of Breastfeeding* 1999.
 40. Neiva et al, *J Pediatr (Rio J)* 2003;79(1):07-12.
 41. Loesche WJ, Nutrition and dental decay in infants. *Am J Clin Nutr* 41; 423-435, 1985.
 42. WHO. Effect of breastfeeding on infant and child mortality due to infectious diseases in less developed countries: a pooled analysis. Collaborative Study Team on the role of breastfeeding on the prevention of infant mortality. *The Lancet*, 2000, 355:451-455.
 43. Villalpando S, Lopez-Alarcon M. Growth Faltering is Prevented by Breastfeeding in Underprivileged Infants in Mexico City. *J Nutr.* Mar 1997; 127(3):436-43.
 44. Froozani MD, Permezhadeh K, Motlagh AR, Golestan B. Effect of breastfeeding education on the feeding pattern and health of infants in their first 4 months in the Islamic Republic of Iran. *Bull World Health Organ.* 1999; 77(5):381-5.
 45. Arifeen SE, Black RE, Caulfield LE, Antelman G, Baqui AH. Determinants of infant growth in the slums of Dhaka: size and maturity at birth, breastfeeding and morbidity. *Eur J Clin Nutr.* 2001 Mar; 55(3):167-78.
 46. Kramer MS, Guo T, Platt RW, Shapiro S, Collet JP, Chalmers B, Hodnett E, Sevkovskaya Z, Dzikovich I, Vanilovich I; PROBIT Study Group. Breastfeeding and infant growth: biology or bias? *Pediatrics.* 2002 Aug; 110(2 Pt 1):343-7.
 47. WHO. HIV and Infant Feeding Technical Consultation held on behalf of the Inter-agency Task Team (IATT) on prevention of HIV infections in pregnant women, mothers and their infants in Geneva on October 25-27, 2006 (2007).
 48. Ip S, Chung M, Raman G, et al. Breastfeeding and maternal and infant health outcomes in developed countries. Rockville, MD: US Department of Health and Human Services, Agency for Healthcare Research and Quality; 2007.
 49. Chen A, Rogan WJ. Breastfeeding and the risk of postneonatal death in the United States. *Pediatrics.* 2004 May;113(5):e435-9.
 50. Jonville-Ber, A. et al., Sudden unexpected death in infants under 3 months of age and vaccination status – A case-control study. *Br. J. Clin. Pharmacol.*, March 2001; 51(3): 271–276.
 51. McVea, K.L., P. D. Turner and D.K. Peppler, The role of breastfeeding in sudden infant death syndrome. *J. Hum. Lact.*, Feb. 2000; 16(1): 13–20.
 52. Schellscheidt, J., A. Ott and G. Jorch. Epidemiological features of sudden infant death after a German intervention campaign in 1992. *Eur. J. Pediatr.*, Aug. 1997; 156(8): 655–660.
 53. Shu X-O, et al. Breastfeeding and the risk of childhood acute leukemia. *J Natl Cancer Inst* 1999; 91: 1765-72.
 54. An Exploratory Study of Environmental and Medical Factors Potentially Related to Childhood Cancer." *Medical & Pediatric Oncology*, 1991; 19(2):115-21.

-
55. IASC Nutrition Cluster/ACF/UCL/ENN. Management of Acute Malnutrition in Infants (MAMI) Project: Technical Review: Current evidence, policies, practices & programme outcomes. January 2010.
 56. Scrimshaw NS et al. Interactions of nutrition and infection. Geneva: World Health Organization. 1968.
 57. Dewey K, Adu-Afarwuah S. Review article: Systematic review of the efficacy and effectiveness of complementary feeding interventions in developing countries. *Maternal and Child Nutrition* 2008; 4: 24-85.
 58. Kramer MS, Kakuma R. The optimal duration of exclusive breastfeeding: a systematic review. *Advances in Experimental Medicine and Biology* 2004; 554:63-77.
 59. Sternberg RJ. Intelligence and lifelong learning: what's new and how can we use it? *Am Psychology* 1997 Oct; 52(10):1134-9.
 60. Engle P *et al.* Strategies to avoid the loss of developmental potential in more than 200 million children in the developing world. *The Lancet* 2007; 369.
 61. Horta, B *et al.* Evidence on the long-term effects of breastfeeding: systematic review and meta-analyses. WHO 2007.
 62. Dietz, W. Breastfeeding may help prevent childhood overweight. *JAMA* 2001; 285:2506–2507.
 63. Dewey, K. Is breastfeeding protective against child obesity? *J. Human Lactation* 2003; 19(1): 9-18.
 64. Jones ME, Swerdlow AJ, Gill LE, et al. Pre-natal and early life risk factors for childhood onset diabetes mellitus: A record linkage study. *Int J Epidem* 1998;27:444– 9.
 65. Thorsdottir, I. et al. Association of birth weight and breast-feeding with coronary heart disease risk factors at the age of 6 years. *Nutr. Metab. Cardiovasc. Dis.*, Oct. 2003; 13(5):267–272.
 66. Rich-Edwards, J.W. et al. Breastfeeding during infancy and the risk of cardiovascular disease in adulthood. *Epidemiology*, 1 September 2004; 15(5): 550–556.
 67. Martin, R. et al. Does breast-feeding in infancy lower blood pressure in childhood? *Circulation*, 2004; 109:1259–1266.
 68. Singhal, A. et al., 'Breast milk-feeding and Lipoprotein Profile in Adolescents Born Preterm: Follow-up of a prospective randomised study', *The Lancet*, May 15 2004; 363 (9421): 1571–1578.
 69. Shu XO, Linet MS, Steinbuch M, et al. Breast-feeding and risk of childhood acute leukemia. *J Natl Cancer Inst* 1999;91:1765–72.
 70. Freudenheim JL, Marshall JR, Graham S, Laughlin R, Vena JE, Bandera E, et al. Exposure to breastmilk in infancy and the risk of breast cancer. *Epidemiology* 1994; 5:324–1.
 71. Victora, C. *et al.* Maternal and child undernutrition: consequences for adult health and human capital. *The Lancet* 2008; 371(9609): 340-357.

-
72. Heinig MJ, Dewey KG. Health advantages of breastfeeding for mothers: a critical review. *Nutr Res Rev* 1997; 10: 35–56.
 73. Labbok MH. Effects of breastfeeding on the mother. *Pediatr Clin North America* 2001; 48: 143–158.
 74. Collaborative Group on Hormonal Factors in Breast Cancer (2002). Breast cancer and breastfeeding: collaborative reanalysis of individual data from 47 epidemiological studies in 30 countries, including 50,302 women with breast cancer and 96,973 women without the disease. *The Lancet* 360: 187-95
 75. Kalwart HJ and Specker BL Bone mineral loss during lactation and recovery after weaning. *Obstet. Gynecol.* 1995; 86:26-32
 76. Blaauw, R. et al. Risk factors for development of osteoporosis in a South African population. *SAMJ* 1994; 84:328-32
 77. Ip S, Chung M, Raman G, et al. Breastfeeding and maternal and infant health outcomes in developed countries. In: Evidence Report/Technology Assessment Number 153: Agency for Healthcare Research and Quality; April 2007.
 78. Davies, H.A. Insulin Requirements of Diabetic Women who Breastfeed. *British Medical Journal*, 1989.
 79. Dewey KG, Heinig MJ, Nommwen LA. Maternal weight-loss patterns during prolonged lactation. *Am J Clin Nutr* 1993;58:162-166.
 80. M. Sears, R.N. and Wm. Sears, M.D. *The Breastfeeding Book*, Copyright 2000, Little Brown and Co.
 81. Helena Ribe, Banco Mundial, Nutricion, Guatemala. 2005.
 82. Victora, C., Barros, F., Horta, B., Martorell R. Short-term benefits of catch-up growth for small-for-gestational-age infants. *Int J Epidemiol* 2001; 30: 1325–30.
 83. World Bank. *Repositioning Nutrition in Development* (2005).
 84. Hoddinott J *et al.* Effect of a nutrition intervention during early childhood on economic productivity in Guatemalan adults. *The Lancet* 2008; 371: 411-416.
 85. Indicators for Assessing Infant and Young Child Feeding Practices: Part 1: Definitions. WHO, UNICEF, USAID, AED, UCDAVIS, IFPRI (2008).
 86. WHO. *Guiding principles for complementary feeding of the breastfed child.* 2003.
 87. WHO, UNICEF and Partners. *Indicators for assessing infant and young child feeding practices. Part 3: country profiles.* World Health Organization. 2010.
 88. UNICEF. *Tracking Progress on Child and Maternal Undernutrition. A Survival and Development Priority.* November 2009
 89. Innocenti Declaration on the Protection, Promotion and Support for Breastfeeding. 1990
http://www.unicef.org/nutrition/index_24807.html

-
90. Convention on the Rights of the Child. 1989. (see article 24).
 91. Millennium Declaration. 1990
 92. UNICEF. A World Fit for Children. 2006.
 93. Innocenti Declaration on Infant and Young Child Feeding. November 2005
 94. UNICEF. 1990 – 2005 Celebrating the Innocenti Declaration on the Protection, Promotion and Support of Breastfeeding: Past Achievements, Present Challenges and the Way Forward for Infant and Young Child Feeding. 2005
 95. Fairbank I. *et al.* A systematic review to evaluate the effectiveness of interventions to promote the initiation of breastfeeding (Cochrane Review) *Health Technology Assessment* 2000: 4 (25): 1-171.
 96. Kramer MS, Chalmers B, Hodnett ED, *et al.* Promotion of Breastfeeding Intervention Trial (PROBIT): a randomized trial in the republic of Belarus. *JAMA* 2001: 285(4):413–20.
 97. Perez-Escamilla R, Segura-Millan S, Pollitt E, Dewey KG. Effect of the maternity ward system on the lactation success of low-income urban Mexican women. *Early Human Development* 1992: 31(1): 25–40.
 98. Sikorski J *et al.* Support for breastfeeding mothers. *Cochrane Database of Systematic Reviews* 2002: (1):CD001141.
 99. Fairbank L, O'Meara S, Renfrew MJ, Woolridge M, Snowden AJ, Lister-Sharp D. A systematic review to evaluate the effectiveness of interventions to promote the initiation of breastfeeding. *Health Technology Assessment* 2000: 4(25):1–171.
 100. WHO. Community Based Strategies for Breastfeeding Promotion and Support in Developing Countries (2003).
 101. Sikorski J *et al.* Support for breastfeeding mothers. *Cochrane Database of Systematic Reviews* 2002: (1):CD001141.
 102. Ling JC, Franklin BA, Lindsteadt JF, Gearon SA. Social marketing: its place in public health. *Annual Review of Public Health* 1992:13:341–62.
 103. Cohen R, Mrtek MB. The impact of two corporate lactation programs on the incidence and duration of breastfeeding by employed mothers. *American Journal of Health Promotion* 1994: 8(6): 436–41.
 104. Dewey K *et al.* Systematic review of complementary feeding developing countries. *Maternal and Child Nutrition* 2008: 4: 24–85.
 105. Guldán G.S., Fan H.C., Ma X., Ni Z.Z., Xiang X. & Tang M.Z. Culturally appropriate nutrition education improves infant feeding and growth in rural Sichuan, China. *Journal of Nutrition* 2000: 130: 1204–1211.
 106. Bhandari N., Mazumder S., Bahl R., Martinez J., Black R.E. & Bhan M.K. An educational intervention to promote appropriate complementary feeding practices and physical growth in infants and young children in rural Haryana, India. *Journal of Nutrition* 2004: 134: 2342–2348.

-
107. Ferguson E.L., Darmon N., Fahmida U., Fitriyanti S., Harper T.B. & Premachandra I.M. Design of optimal food-based complementary feeding recommendations and identification of key 'problem nutrients' using goal programming. *Journal of Nutrition* 2006; 136: 2399–2404.
108. Moursi M., Mbemba F. & Treche S. Does the consumption of amylase-containing gruels impact on the energy intake and growth of Congolese infants? *Public Health Nutrition* 2003; 6: 249–258.
109. Santos I., Victora C.G., Martines J., Goncalves H., Gigante D.P., Valle N.J. *et al.* Nutrition counselling increases weight gain among Brazilian children. *Journal of Nutrition* 2001; 131: 2866–2873.
110. Zlotkin S., Antwi K.Y., Schauer C. & Yeung G. Use of microencapsulated iron (II) fumarate sprinkles to prevent recurrence of anemia in infants and young children at high risk. *Bulletin of the World Health Organization* 2003; 81: 108–115.
111. Adu-Afarwuah S, Lartey A, Brown KH, Zlotkin S, Briend A, Dewey KG. Randomized comparison of 3 types of micronutrient supplements for home fortification of complementary foods in Ghana: effects on growth and motor development. *Am J Clin Nutr* 2007; 86(2):412-20.
112. Dhingra P., Menon V.P., Sazawal S., Dhingra U., Marwah D., Sarkar A. *et al.* Effect of fortification of milk with zinc and iron along with vitamins C, E,A and selenium on growth, iron status and development in preschool children – a community-based double-masked randomized trial. *Report from the 2nd World Congress of Pediatric Gastroenterology, Hepatology and Nutrition* 3-7 July 2004: Paris, France.
113. Avula R., Frongillo EA, Arabi M., Sharma S. and Schultink W. Enhancements to Nutrition Program in Indian Integrated Child Development Services Increase Child Growth and Energy Intake. (accepted for publication by *Journal of Nutrition* in January 2010)
114. Rivera J.A., Sotres-Alvarez D., Habicht J.P., Shamah T. & Villalpando S. Impact of the Mexican program for education, health, and nutrition (ProgresA) on rates of growth and anemia in infants and young children: a randomized effectiveness study. *Journal of the American Medical Association* 2004; 291: 2563–2570.
115. Rivera JA, Martorell R, Ruel MT, Habicht JP, Haas JD. Nutritional supplementation during the preschool years influences body size and composition of Guatemalan adolescents. *J Nutr.* 1995 Apr;125 (4 Suppl):1068S-1077S.
116. Behrman, J., and J. Hoddinott. 2000. An Evaluation of the Impact of PROGRESA on Pre-School Child Height. July. International Food Policy Research Institute, Washington, D.C.
117. UNICEF. Progress for Children. A World Fit for Children Statistical Review. Number 9. September 2010
118. Dancer D, Rammohan A, Smith MD. Infant mortality and child nutrition in Bangladesh. *Health Econ.* 2008 Sep; 17(9):1015-35.
119. Wamani et al. Boys are more stunted than girls in Sub-Saharan Africa: a meta-analysis of 16 Demographic and Health Surveys. *BMC Paediatrics* 2007; 7:17.

-
120. Smith, L. C., U. Ramakrishnan, et al. (2003). The Importance of Women's Status for Child Nutrition in Developing Countries. Household decisions, gender, and development: A synthesis of recent research. A. R. Quisumbing, Washington, D.C.
 121. Cleland, John G., and Jeroen K. van Ginneken. Maternal Education and Child Survival in Developing Countries: The search for pathways of influence. *Social Science and Medicine*, vol. 27, no. 12, 1988, pp. 1357–1368.
 122. WHO. Indicators for Assessing breastfeeding practices. Report of an informal meeting, 11-12 June 1991. Geneva, Switzerland. 1991.
 123. WHO/UNICEF/USAID/AED/FANTA/UC Davis/IFPRI. Indicators for assessing infant and young child feeding practices. Part II. Measurement. 2010.
 124. Pelto, G. Levitt, E and Thairu L. Improving feeding practices: current patterns, common constraints, and the design of interventions. *Food and Nutrition Bulletin* 2003; 24(1):45-82.
 125. Moore, A., Akhter, S. and Aboud, F. Responsive complementary feeding in rural Bangladesh. *Social Science and Medicine* 2006; 62(8): 1917-1930.
 126. UNAIDS/UNFPA/UNICEF/WHO Guidelines on HIV and infant feeding 2010. Principles and recommendations for infant feeding in the context of HIV and a summary of evidence. 2010.
 127. Horton, S., et al. Scaling up Nutrition: What will it cost? The World Bank (2010).
 128. United States Government Accountability Office. Report to Congressional Addressees: Some strategies used to market infant formula may discourage breastfeeding. State contracts should better protect against misuse of the WIC name. (Feb. 2006 GAO-06-282)
 129. Foss, K, and Southwell, B. Infant feeding and the media: the relationship between "Parent's Magazine" content and breastfeeding 1972-2000. *International Breastfeeding Journal* 2006; 1:10.
 130. C3 Maternity Protection Convention, 1919. <http://www.ilo.org/ilolex/cgi-lex/convde.pl?C003>; C103 Maternity Protection Convention (Revised), 1952. <http://www.ilo.org/ilolex/cgi-lex/convde.pl?C103>; C183 Maternity Protection Convention, 2000 <http://www.ilo.org/ilolex/cgi-lex/convde.pl?C183>
 131. R95 Maternity Protection Recommendation, 1952. <http://www.ilo.org/ilolex/cgi-lex/convde.pl?R095>; R191 Maternity Protection Recommendation, 2000. <http://www.ilo.org/ilolex/cgi-lex/convde.pl?R191>
 132. Avula R., Frongillo EA, Arabi M., Sharma S. and Schultink W. Enhancements to Nutrition Program in Indian Integrated Child Development Services Increase Child Growth and Energy Intake. (accepted for publication by Journal of Nutrition in January 2010).
 133. WHO/UNICEF/AED/USAID: Learning from large-scale community-based programmes to improve breastfeeding practices. Report of ten-country case study. 2008.
 134. WHO/UNICEF. Strengthening action to improve feeding of infants and young children 6-23 months of age in nutrition and child health programmes (2008).
 135. Kim F. Michaelsen, Kathryn G. Dewey², Ana B. Perez-Exposito, Mulia Nurhasan, Lotte Lauritzen, Nanna Roos. Food sources and intake of n-6 and n-3 fatty acids in low-income countries with emphasis on infants, young children (6–24 months), and pregnant and

lactating women. *Maternal & Child Nutrition*. Special Issue: Fatty Acid Nutrition in Early Life, Volume 7, Issue Supplement 2, pages 124–140, April 2011.

136. Mensah, P. and A. Tomkins, Household-level technologies to improve the availability and preparation of adequate and safe complementary foods, *Food and Nutrition Bulletin*, vol. 24, no. 1, 2003, pp. 104-125.
137. Randolph, T. *et al.* Role of livestock in human nutrition and health for poverty reduction in developing countries. *Journal of Animal Science* 2007;85 (11): 2788-2801.
138. Ianotti, L. *et al.* Improving diet quality and micronutrient nutrition, homestead food production in Bangladesh. IFPRI 2009.
139. Maundu, P. 2003. IPGRI report: African Leafy Vegetable Promotion Forum, (March 26-28, 2003).
140. Hertzler, A. A. & Frary, R. B. Effect of instruction and family attributes on iron intake of expanded food and nutrition education homemakers. *Topics in Clinical Nutrition*. 4(1): 27-35, 1989.
141. Bowering, J. Role of EFNEP aides in improving diets of pregnant women. *J Nutr Educ*. 8(3): 111-117, 1976.
142. Cadwallader, A. A. & Olson, C. M. use of a breastfeeding intervention by nutrition paraprofessionals. *J Nutr Educ*. 18(3): 117-122, 1986.
143. Ramakrishnan U., Nguyen P., and Martorell R. Effects of micronutrients on growth of children under 5 y of age: meta-analyses of single and multiple nutrient interventions. *Am J Clin Nutr* 2009;89:191–203.
144. Zlotkin SH, Schauer C, Christofides A, Sharieff W, Tondeur MC, Hyder SM. Micronutrient sprinkles to control childhood anaemia. *PLoS Med*. Jan 2005;2(1):e1.
145. Rasmi Avula, Edward A. Frongillo, Mandana Arabi, Sheel Sharma and Werner Schultink. Enhancements to Nutrition Program in Indian Integrated Child Development Services Increase Child Growth and Energy Intake (accepted for publication by *Journal of Nutrition* in January 2010).
146. Guidelines for Selective Feeding: the Management of Malnutrition in Emergencies. UNHCR/WFP (2009).
147. Codex Alimentarius: Standard for processed cereal-based foods for infants and young children (CODEX STAN 74-1981, Rev.1-2006); Guidelines on formulated supplementary foods for older infants and young children (CAC/GL 8-1991).
148. GAIN. Nutritional guidelines for complementary foods and supplements supported by GAIN's Infant and Young Child Nutrition (IYCN) program (not yet released, under review).
149. Bassett. Can Conditional Cash Transfer Programs Play a Greater Role in Reducing Child Undernutrition? SP discussion paper 0834, 2008, the World Bank.
150. Lechtig, Aaron, *et al.*, Decreasing Stunting, Anemia, and Vitamin A Deficiency in Peru: Results of the Good Start in Life Program, *Food and Nutrition Bulletin* 2009 Mar;30(1):37-48.

-
151. Habicht JP, Martorell R, Rivera JA Nutritional impact of supplementation in the INCAP longitudinal study: analytic strategies and inferences. *J Nutr.* 1995 Apr;125(4 Suppl):1042S-1050S
 152. Behrman, J. and Hodinott J. An Evaluation of the Impact of PROGRESA on Pre-School Child Height. International Food Policy Research Institute. 2000.
 153. Palombi, L., *et al.* Treatment acceleration and the experience of the DREAM program in prevention of mother-to-child transmission of HIV. *AIDS* 2007; 21(S4): 565–571.
 154. Jackson, J., *et al.* Intrapartum and neo-natal single-dose nevirapine compared with zidovudine for prevention of mother to child transmission of HIV-1 in Kampala, Uganda: 18-month follow-up of the HIVNET 012 randomized trial. *The Lancet* 2003; 362(9387):859-868.
 155. David Gordon, Shailen Nandy, Christina Pantazis, Simon Pemberton and Peter Townsend. The Distribution of Child Poverty in the Developing World. Report to UNICEF. 2003.
 156. WHO/PAHO. Guiding Principles for Feeding of the Breastfed Child. 2003.
 157. WHO. Guiding Principles for Feeding of the Non-Breastfed Child. 2005
 158. Lutter, Chessa, K. Macrolevel approaches to improve the availability of complementary foods. *Food and Nutrition Bulletin*, vol. 24, no. 1, 2003.
 159. D'Adamo, M and Kols, A. A Tool for Sharing Internal Best Practices. USAID INFO Project (2005).
 160. UNICEF/AED. Infant and Young Child Feeding Programme Review: Consolidated Report of Six-Country Review of Breastfeeding Programmes. 2010.
 161. Fairbank I. *et al.* A systematic review to evaluate the effectiveness of interventions to promote the initiation of breastfeeding (Cochrane Review) *Health Technology Assessment* 2000; 4 (25) 1-171.
 162. DiGirolamo AM, Grummer-Strawn LM, Fein S. Maternity care practices: implications for breastfeeding. *Birth* 2001; 28 (2):94–100.
 163. Ip, H., Hyder, S., Haseen, F., Rahman, M., and Zlotkin, S. Improved adherence and anemia cure rates with flexible administration of micronutrient Sprinkles: a new public health approach to anemia control. *European Journal of Clinical Nutrition* 2009; 63(2) 65-73.
 164. Stoltzfus R., Dreyfuss M.L. Guidelines for the Use of Iron Supplements to Prevent and Treat Anaemia. WHO/UNICEF/INACG. 1998.
 165. WHO/UNICEF/WFP. Preventing and controlling micronutrient deficiencies in populations affected by an emergency. Multiple vitamin and mineral supplements for pregnant and lactating women, and for children aged 6 to 59 months. 2007.
 166. UNHCR/WFP Guidelines for Selective Feeding: the Management of Malnutrition in Emergencies. (2009).
 167. Learning from Large-Scale Community-based Programmes to Improve Breastfeeding Practices: Report of ten-country case study. WHO/UNICEF/AED/USAID (2008).

-
168. WHO. Community-based Strategies for Breastfeeding Promotion and Support in Developing Countries. 2003.
169. Bhattacharyya K, Winch P, LeBan K, Tien M. Community health worker incentives and disincentives: How they affect motivation, retention, and sustainability. BASICS Project for USAID. (October 2001).
170. IASC/ENN. Integration of IYCF into CMAM. 2009. Facilitator's Guide and handouts for participants. 1 ½ - 2 day orientation on IYCF counselling in the context of community based programmes for management of severe acute malnutrition.
171. Kraissid Tontisirin and Stuart Gillespie. Linking Community-based Programs and Service Delivery for Improving Maternal and Child Nutrition. *Asian Development Review*, vol. 17, nos. 1,2, pp. 33-65.
172. Lutter, C. K., Macro-level approaches to improve the availability of complementary foods. *Food and Nutrition Bulletin* 2003; 24(1):83-103.
173. Stone-Jiménez, Maryanne, and Irma (Mimi) de Maza. Mother-to-Mother Support Groups: The Periurban Model. In *The Proceedings of an International Conference on Communication Strategies to Support Infant and Young Child Nutrition*. Edited by Peggy Koniz-Booher. Cornell International Nutrition Monograph Series Numbers 24 and 25, 1993, p. 103-115.
174. Wiessinger, Diane. *Watch Your Language* in *Journal of Human Lactation*, Vol. 12, No. 1, 1996.
175. WHO/UNICEF/UNAIDS/UNFPA: HIV transmission through breastfeeding: A review of available evidence (2007).
176. WHO: HIV and infant feeding: update based on the technical consultation held on behalf of the Inter-agency Team (IATT) on Prevention of HIV Infections in Pregnant Women, Mothers and their Infants, Geneva, 25-27 October 2006. 2007.
177. WHO. Summary of Evidence for the Revised WHO Principles and Recommendations on HIV and Infant Feeding (2010).
178. Palombi, L., *et al.* Treatment acceleration and the experience of the DREAM program in prevention of mother-to-child transmission of HIV. *AIDS* 2007; 21(S4): 565–571.
179. Jackson, J., *et al.* Intrapartum and neo-natal single-dose nevirapine compared with zidovudine for prevention of mother to child transmission of HIV-1 in Kampala, Uganda: 18-month follow-up of the HIVNET 012 randomized trial. *The Lancet* 2003; 362(9387):859-868.
180. UNAIDS/UNFPA/UNICEF/WHO Guidelines on HIV and infant feeding 2010. Principles and recommendations for infant feeding in the context of HIV and a summary of evidence, 2010.
181. WHO. Revised WHO recommendations on the use of antiretroviral drugs for treating pregnant women and preventing HIV infection in infants (2009).
182. WHO. HIV and Infant Feeding Technical Consultation held on behalf of the Inter-agency Task Team (IATT) on prevention of HIV infections in pregnant women, mothers and their infants in Geneva on October 25-27, 2006 (2007).
183. UNICEF. Infant feeding and mother to child transmission of HIV. Operational guidance note. 2002.

-
184. The Sphere Project. Humanitarian Charter and Minimum Standards in Humanitarian Response, 2011.
 185. République d'Haïti, Ministère de la Santé Publique et de la Population. Points de conseil en nutrition pour bébé. Directives Nationales (revised July 2010). An English, generic version is being produced by UNICEF HQ.
 186. Block, Steven et al. Macro shocks and micro outcomes: child nutrition during Indonesia's crisis. *Economics and Human Biology* 2004: 2:21–44.
 187. WHO/UNICEF/WFP. Preventing and controlling micronutrient deficiencies in populations affected by an emergency: Multiple vitamin and mineral supplements for pregnant and lactating women, and for children aged 6 to 59 months. 2007.