



Strategy for Infant and Young Child Feeding: Nepal 2014



**Government of Nepal
Ministry of Health and Population
Department of Health Services
Child Health Division**

Foreword

Nutrition is a foundation of survival, growth and development, a pre-requisite of accelerated attainment of all the Millennium Development Goals (MDGs), and can foster social and economic development. Nepal has made progress in reducing under-nutrition, still, a high proportion of infant and young children remain affected, which is a serious concern. There is abundant evidence showing that optimal feeding and care practices play a key role in attainment of optimal growth, health and development outcomes in early childhood. Especially, when interventions that improve quality of infant and young child feeding are combined with those that enhance caring practices – such as hygiene and sanitation as well as those that enhance food security, evidence suggests that a substantial reduction of under-nutrition can be attained.

This “Strategy for Infant and Young Child Feeding” has been developed with a view of providing a strong framework for accelerating action to improve feeding as well as care practices that have proven to play a major role in enhancing the survival, health, nutrition, and development of infants and young children. The strategy aims at creating an environment that enables mothers, families and other caregivers in all circumstances to adopt optimal feeding and care practices for infants and young children. It provides a framework for a set of essential interventions that when implemented at scale can contribute towards a substantial reduction of under-nutrition through improvements in breastfeeding, complementary feeding and care practices. Furthermore, it identifies potential links between Infant and Young Child Feeding and key existing non-health measures like social protection and food security initiatives, targeting the poor and the marginalized groups, to mitigate the effects of economic deprivation and food insecurity on optimal feeding and care practices during early childhood. To this end, by fully implementing the National Strategy, children of Nepal will be better protected from the profound, irreversible and lifelong consequences of under-nutrition.

The Nutrition Section, Child Health Division, Department of Health Services of the Ministry of Health and Population is to be congratulated for taking this important initiative to develop the National Strategy, in line with Nepal’s recently launched Multi-sector Nutrition Plan, and for organizing and coordinating the series of working group meetings and stakeholder workshops that have led to its development. The valuable contributions of key experts from the government, development partners, academia, NGOs and research institutes, which made this National Strategy possible, are highly appreciated. I call upon all the key stakeholders and partners for their continued support to fully implement this Strategy. Let us all join hands together to eliminate the scourges of under-nutrition during the early years of life in Nepal.

Honourable Minister,
Ministry of Health and Population

Message

Nepal has made excellent progress to reduce maternal and child mortality, and is thus on track to attain MDG 4 and MDG 5. Improvements on Nutrition, especially micronutrients (including vitamin A with de-worming to children, Iron and Folic with de-worming to women during pregnancy and lactation, and increased access to adequately iodized salt) have contributed significantly to the reduction in mortality. However, improvements on MDG 1 is still to be further accelerated, related to poverty and hunger, including reducing under-nutrition. Even though under-nutrition has declined over the years, it still affects a large number of children and women. Therefore, accelerated reduction of under-nutrition in women and children is a high priority for the Health, Nutrition and Population Sector Programme of Nepal. Existing evidence has demonstrated that feeding and care practices of infants and young children, particularly breastfeeding, complementary feeding, and care practices – including hygiene, sanitation and early child stimulations are not optimal in Nepal. Plus, due to persisting poverty and food insecurity in some pocket areas, access to diverse and nutrient-dense diet remains a challenge. All these factors are contributing to the high levels of under-nutrition in infants and young children in the country. The Strategy for Infant and Young Child Feeding for Nepal identifies the main strategic approaches for improving these practices, the key actions needed, and the roles and responsibilities of the main stakeholders and partners.

I would like to thank the support and co-operation of all partners and stakeholders who contributed to the development of this important strategy document. The Nutrition Section within the Child Health Division has taken a very important initiative to develop the Strategy through a participatory and consultative process. I trust and hope that all the key stakeholders will continue to extend their full support in implementing the essential interventions in line with the Nepal Strategy for Infant and Young Child Feeding.

Secretary
Ministry of Health and Population
Government of Nepal

Message

Despite the remarkable progress made in Nepal on reduction of infant and child mortality, there is a concern that the rate of decline has slowed. Almost ninety per cent of these deaths during infancy, including neonatal mortality, have remained stagnant over the last five years. A major contributing factor to this lack of progress especially related to infant and neonatal mortality, respectively, is non-optimal feeding and care practices. There is growing evidence to suggest that early breastfeeding initiation can contribute to significant reduction in neonatal mortality, while feeding with colostrum can further contribute to both neonatal and post-neonatal mortality. While, exclusive breastfeeding and appropriate complementary have been ranked among the most highly cost-effective interventions to reduce child mortality by at least 19%. Furthermore, non-optimal feeding and care practices can lead to impaired growth and development, with profound, irreversible and life-long consequences. Therefore, the Nepal Strategy for Infant and Young Child Feeding has been developed to improve infant and young child feeding and care practices, which is very timely and highly needed to tackle the major obstacles of accelerated reduction of infant and neonatal mortality, as well as attainment of optimum young child growth and development.

I appreciate the role of the Nutrition Section of the Child Health Division in organizing and coordinating all efforts to develop this strategy. I would also like to thank all the key stakeholders and development partners that have contributed to its development. This strategy will provide the roadmap for accelerating actions to improve optimal feeding and care practices, and if fully implemented, it shall contribute towards a substantial reduction in infant and neonatal mortality and improvement in young child health and nutrition status. Implementing the national strategy calls for increased political will, public investment, awareness among health workers, key professions, community workers and volunteers. Active involvement of the government, in collaboration with development partners and other concerned key stakeholders, Community Based Organization's, communities as well as families, will ultimately ensure that all the necessary action is taken.

Director General
Department of Health Services
Ministry of Health and Population

Message

Breastfeeding is almost universal in Nepal. However, even though there have been improvements on optimal breastfeeding over the last five years, there is still room for more progress. On the other hand, there has been very limited improvement on appropriate complementary feeding, which is a major concern. Existing evidence has shown that these non-optimal feeding practices are resulting in impaired growth among infant and young children of Nepal, which will in turn limit their possibility of attaining their full potential later in life. I believe that the Nepal Strategy for Infant and Young Child Feeding, which has been developed to improve infant and young child feeding and care practices, can make important contribution to tackle the major obstacles of accelerated attainment of adequate young child growth and development.

The Nutrition Section of the Child Health Division has played a critical role in organizing and coordinating all efforts to develop this strategy document involving the IYCF Core Working Group, and the broader IYCF Stakeholders under the Nutrition Technical Committee (NUTEC). I would like to express my appreciation and thanks to the valuable time and expertise of all the key stakeholders and partners that have contributed to this important process, especially the technical assistance of UNICEF, and the funding support of the European Union, which has all contributed to the development of the strategy. This Strategy will provide framework for essential interventions and guidance on the roles and responsibilities of the key stakeholders. The government remains highly committed to coordinate all the key actions that are needed to improve infant and young child feeding and care in Nepal.

Director
Child Health Division
Department of Health Services
Ministry of Health and Population

Message

There is strong evidence showing that appropriate feeding practices play a key role in the enhancement of nutrition, growth, development and survival of infants and young children. Infants should be initiated to breastfeeding within the first hour of birth, exclusively breastfed for the first six months of life, and introduced to appropriate complementary feeding after the completion of six months, with continued breastfeeding for up to two years and beyond. Practical support is needed for optimal feeding under all situations, including in exceptionally difficult circumstances, such as low birth weight infants, malnourished children, infants and children in emergencies, infants born to HIV-positive parents, and other vulnerable children living under challenging conditions.

The Nepal Strategy for Infant and Young Child Feeding has been informed by a series of recent quantitative and qualitative studies and programme review, including: further quantitative analysis of the NDHS data on IYCF trends and determinants, formative research study on IYCF beliefs, perceptions and practices, and comprehensive IYCF program review. It has been developed in line with the Nepal multi-sector nutrition plan (2013-2017), is based on latest global and in-country evidence on essential well proven interventions, and is consistent with the Global Strategy for and Programming Guidance on Infant and Young Child Feeding. The Strategy has identified comprehensive actions that are needed to improve: advocacy, policy, partnership and coordination to enhance political commitment in support of IYCF by all the key concerned; legislation and standards to protect optimum infant and young child feeding practices; establishment of IYCF and BFHI/CBFI services as central part of key health and nutrition programs within the health sector, with strong links to other programs in key non-health sectors so as to substantially improve infant and young child growth, development, and survival, in line with MSNP. The strategy also aims to address main cross-cutting issues; strengthening communication for behaviour change on IYCF as part of the national communication plan on maternal, infant and young child nutrition; capacity of key health workers at the facility and community levels on IYCF and BFH/CBFI; and IYCF research, monitoring and evaluation. The roles and responsibilities of the key partners - government, non-government and civil society organizations, international organizations, have been identified to ensure successful achievement of the Nepal Strategy's goal, objectives and targets. If fully implemented, the Nepal Strategy will significantly improve infant and young child feeding and care, so that all Nepali children meet their full potential. This will also contribute towards the accelerated achievement of all the MDGs as well as the country's social and economic development. Adequate investment in this important area will help Nepal move towards eliminating the scourges of under-nutrition and ensure that every child of Nepal develops to his or her full potential. Now is the time for accelerated action by all the concerned to fully implement the Strategy.

Chief, Nutrition Section
Child Health Division
Department of Health Services
Ministry of Health and Population

Acknowledgement

This Infant and Young Child Feeding Strategy was prepared by the Nutrition Section of Child Health Division, Department of Health Services (DoHS), Ministry of Health and Population (MoHP). This strategy was guided by Nutrition Technical Committee (NuTEC) of Ministry of Health and Population. The valuable inputs provided by IYCF working group and core group is highly appreciated. We would also like to acknowledge the technical support provided by various organisations, academia and research institutes such as UNICEF, WHO, WFP, FAO, USAID, Save the Children, ACF, HKI, IBFAN, SUSAHARA and SAIFRN. Its development was funded by the European Union through UNICEF.

DRAFT

Abbreviations

| | |
|----------|--|
| AIDS | Acquired Immune Deficiency Syndrome |
| BF | Breast Feeding |
| BFHI | Baby Friendly Health Initiative |
| BMI | Body Mass Index |
| BMS | Breast Milk Substitute |
| CB-IMCI | Community Based Integrated Management of Childhood Illness |
| CB-NCP | Community Based New-born Care Program |
| CBO | Community Based Organization |
| CB-PMTCT | Community Based Prevention of Mother to Child Transmission |
| CF | Complementary Feeding |
| CFLG | Child Friendly Local Governance |
| CHD | Child Health Division |
| CLTS | Community Led Total Sanitation |
| CMAM | Community Based Management of Acute Malnutrition |
| DACA | Decentralised Action for Children and Women |
| DALYs | Disability Adjusted Life Years |
| DFTQC | Department of Food Technology and Quality Control |
| DoHS | Department of Health Services |
| EBF | Exclusive Breast Feeding |
| ECD | Early Childhood Development |
| FBO | Field Based Organization |
| FCHV | Female Community Health Volunteer |
| GAFFSP | Global Agricultural and Food Security Project |
| GMP | Growth Monitoring Promotion |
| GoN | Government of Nepal |
| HIV | Human Immunodeficiency Virus |
| IBFAN | International Baby Food Action Network |
| ILO | International Labour Organization |
| IMNCI | Integrated Management of Newborn and Childhood Illness |
| IYCF | Infant and Young Child Feeding |
| LBW | Low Birth Weight |
| LNS | Lipid Nutrient Supplements |
| M&E | Monitoring & Evaluation |
| MDG | Millennium Development Goal |
| MIYCF | Maternal, Infant and Young Child Feeding |
| MN | Micro Nutrient |
| MNH | Maternal and Newborn Health |
| MNP | Micro Nutrient Powder |
| MoHP | Ministry of Health and Population |
| MoLD | Ministry of Local Development |
| MSNP | Multi-Sector Nutrition Plan |
| MTCT | Mother to Child Transmission of HIV |
| MUAC | Mid Upper Arm Circumference |

| | |
|---------|---|
| NDHS | Nepal Demographic and Health Survey |
| NFHP | Nepal Family Health Program |
| NGO | Non-Government Organization |
| NHEICC | National Health Education, Information and Communication Center |
| NUTEC | Nutrition Technical Committee |
| NWGIYCF | National Working Group on Infant and Young Child Feeding |
| ORC | Out Reach Clinics |
| OTP | Outpatient Therapeutic Program |
| PLHA | People Living with HIV |
| PMTCT | Prevention of Mother to Child Transmission |
| RUTF | Ready to Use Therapeutic Food |
| SAM | Severe Acute Malnutrition |
| SBA | Skilled Birth Attendant |
| SGA | Size for Gestational Age |
| TIPS | Trials of Improved Practices |
| UNICEF | United Nations Children's Fund |
| WABA | World Alliance for Breastfeeding Action |
| WASH | Water Sanitation and Hygiene |
| WHA | World Health Assembly |
| WHO | World Health Organization |

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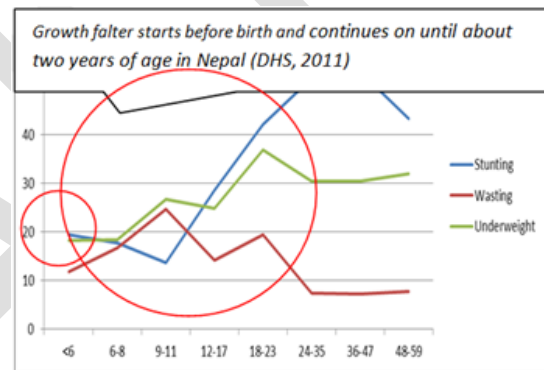
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1. Background

Introduction

Infant and neonatal mortality rates are considered important indicators of a country's socio-economic development, and of its population's quality of life and health status. Adequate nutrition is recognized as the foundation of survival and development. Nepal has made considerable progress to reduce infant mortality over the last 15 years, which currently stands at 46 per 1,000 live births (NDHS, 2011). However, this figure is still high, masks disparities within the regions and ecologies, and there is a concern that the rate of decline in infant mortality has slowed over the last five years. Furthermore, neonatal mortality has remained stagnant over the same time period and is representing more than two-third of infant deaths. The prevailing serious level of child under-nutrition in the country is one of the major contributing factors. Therefore, without significant improvement especially in young child nutrition, accelerated reduction of infant and neonatal mortality (MDG 4) is not likely to be achieved in the country; accelerated attainment of all the other MDGs is also under threat.

Though Nepal has seen a steady decline in child under-nutrition over the last fifteen years, it still remains very high. According to the NDHS 2011, 41% of children under 5 years of age are suffering from stunting (low height for age) – a measure of chronic under-nutrition, 11% are wasted (low weight for height) – a measure of acute under-nutrition, and 29% are underweight (low weight for age) – a composite measure of both stunting and wasting.



Using maternal subjective estimates of their infant's size at birth, the 2011 DHS estimated low birth weight (i.e. "very small" or "smaller than average") at 12%, which is likely to be an underestimate; recent hospital based studies across Nepal have found LBW rates varying from 8% to 34% (Sreeramareddy C.T. et al. 2008; Joshi H. S. Et al, 2007). Furthermore, national nutrition status estimates also mask wide inequities. Children from the lowest quintile or whose mother has no education are more than twice likely to be stunted than those from richest quintile or whose mother has secondary level or more education. The mountain zone has the highest stunting rate of 56%, while the Terai has the lowest rate (37%). Though there have been improvements in reducing anaemia, 46% of children under-five years of age still remain anaemic despite high de-worming coverage, with younger children under 2 years of age having the highest burden (69%), which is a very serious concern.

Analysis of global evidence has shown that growth falter occurs early in life, from conception up to two years of age (Victora, C.G. et al. 2010), stabilizing afterwards. However, the children who are stunted by the age of two never regain the losses in cognitive development and physical growth. In Nepal, LBW is relatively high^{1,2} and the age pattern of growth faltering is similar to that observed in the developing world.

Inadequate maternal nutrition, infant and young child feeding and care are the major contributors to poor infant and young child growth and development. A woman's poor nutrition status during pregnancy, especially low BMI and anaemia (Black, R.E. et al. 2008) are among the main determining factors to intrauterine growth restriction (IUGR), along with pre-term delivery, in addition to other maternal health complications. Children having low weight at birth and do not receive optimal feeding and care are most likely to be stunted by the age of two, with irreversible, profound and life-long consequences. Therefore, it is crucial to intervene during this "narrow window of opportunity," that is before the first two years of life. Child under-nutrition accounts for at least 45% of child mortality (Black, R.E. et al. 2013); those who survive under-nutrition face a diminished life. They are ill more often and during their childhood, they are less likely to be enrolled in school, more likely to enrol late in school, to attain in lower achievement levels of grade for their age, and have poorer cognitive ability or achievement scores compared to their well-nourished counterparts (Grantham-McGregor, S.G. et al. 2007). LBW children have increased risk of nutrition related chronic disease such as diabetes and obesity later in life in comparison with normal children (Barker, D.J.P. 2004). It is estimated that as high as 10% of lifetime earning capacity is lost due to under-nutrition and lowered productivity (World Bank 2006).

Nepal is a signatory to global commitments, which have recognized that the survival, adequate nutrition, growth and development of infants and children are a fundamental right. The Convention on the Rights of the Child states that access to adequate nutrition services, including support for optimal feeding practices, is a right that should be supported for every child. Breast milk is recognized as the best start to life by the 1990 Innocenti Declaration on Protection, Promotion and Support of Breastfeeding.

Additionally, the 2002 Global Strategy for Infant and Young Child Feeding, were reaffirmed as the foundation for action in the 2005 Innocenti Declaration. Infants should be initiated breastfeeding within the first hour, exclusively breastfed for the first six months of life, introduced to appropriate complementary feeding at completion of six months, with continued breastfeeding for two years and beyond, to achieve optimal growth, development and health. To this end, practical support, promotion and protection is needed for all mothers, including in exceptionally difficult circumstances – including, low-birth-weight babies, infants and children who are malnourished, during emergencies, and those born to HIV-positive women (ref: WHO/UNICEF 2003; UNICEF/WHO 2009; IFE Core Group 2007; WHO/UNAIDS/UNFPA/UNICEF 2010). The importance of creating an enabling environment for women to optimally feed and care for their children was also emphasized; the World Alliance for Breastfeeding Action (WABA), a global network of individuals and organizations and the International Baby Food Action Network (IBFAN) are actively working to champion

Global commitments which have recognized survival, growth and development as fundamental rights, and the critical importance of optimal feeding and care practices:

- International Code for BMS (1981) and subsequent World Health Assembly resolutions (WHA39.28, WHA41.11, WHA46.7, WHA47.5, WHA49.15, WHA54.2);
- Convention of the Rights of the Child (1989);
- World Summit for Children (1990);
- Innocenti Declaration on the Protection, Promotion, and Support of Breastfeeding (1990);
- International Conference on Nutrition (1992);
- International Conference on Population and Development (1994);
- World Health Assembly resolution on Global strategy for Infant and Young Child Feeding, WHA55.25 (2002);
- Innocenti Declaration on Infant and Young Child Feeding (2005);

protection, promotion and support of optimal IYCF practices, and to reduce infant and neonatal mortality.

Most recently, there is a growing momentum globally to accelerate progress on reduction of under-nutrition, and to scale-up a package of well proven and highly cost-effective nutrition interventions especially in countries having high burden of under-nutrition, including Nepal. The *Lancet* Maternal and Child Under-nutrition Series (Bhutta, Z. A. et al. 2013; Bhutta, Z. A. et al. 2008) identified efficacious nutrition interventions on the basis of a review of evidence from hundreds of studies in a variety of country settings; breastfeeding promotion and improved complementary feeding were amongst those recommended. The Scaling Up Nutrition (SUN) framework for action (2010), provided an updated list of 13 highly cost-effective interventions concentrating on the window of opportunity for children under two and for maternal nutrition. Four of these are related to optimal feeding and care practices (breastfeeding, complementary feeding for infants after the age of six months, provision of micronutrient powders, and improved hygiene practices, including hand washing). Nepal is one of 54 (as of August, 2014) early SUN riser countries that have made commitments to scale-up nutrition. The National Planning Commission (NPC) of the GoN has prepared a costed Multi-Sector Nutrition Plan (MSNP), for the period 2013-2017 (GoN/NPC 2012), involving five key Ministries – in addition to the Ministry of Health and Population (MoHP). Improved infant and young child feeding is a central core component of this plan.

IYCF and its role in child survival, growth and development

There is overwhelming evidence showing that optimal breastfeeding and complementary feeding practices are essential to meet the nutritional needs of children, enhancing their survival, growth and development during the first years of life. An analysis of child survival strategies (Jones et al. 2003) found that optimal breastfeeding and appropriate complementary feeding are among the most effective preventive interventions in reducing child mortality. Optimal breastfeeding (exclusive breastfeeding up to six months of age and continued breastfeeding up to 12 months) ranked number one among fifteen preventative measures of child mortality, while complementary feeding starting at six months ranked as number three. These two interventions alone were estimated to prevent 19% of under-five mortality in developing countries. This analysis was later reinforced (Black, R.E. et al. 2008); exclusive breastfeeding was estimated to prevent potentially 1.4 million deaths every year among children under five globally (out of the approximately 10 million annual deaths), contributing significantly to the attainment of MDG 4.

However, after six months, mother's milk alone is not enough to meet all the nutritional needs of infants. Therefore, it needs to be complemented by other foods, after six months, in order to meet all of a child's nutritional requirements. Still, mother's milk continues to be an important source of nutrients as well as impacting disease morbidity and mortality (Jones, G. et al. 2003). Timely introduction of appropriate complementary feeding at six months of age is critical to provide key nutrients (e.g. iron and other micronutrients, essential fatty acids, protein, energy, etc.) that the child needs for rapid growth at this age. Inappropriate complementary feeding (in terms of safety, quality, quantity, and frequency) can restrict growth and jeopardize child survival and development.

The early growth faltering period – from conception up to two years of age or the first 1,000 days of life, coincides with the period when the globally recommended infant and young child feeding practices are applied. Therefore, optimal feeding and care, during this narrow window of opportunity, can play an important role to prevent irreversible stunting, as well as acute under-nutrition, and ensure that children achieve their full growth and development potential. The two immediate factors that determine a child's optimum growth include - adequate dietary intake and infections (Scrimshaw, N.S. et al. 1968), which are synergistically related, leading to a vicious cycle of under-nutrition and infections (Katona, P. and J. Katona-Apte 2008). These two factors are in turn affected by the following key underlying factors - non-optimal infant and young child feeding and care practices, poor access to

Summary of key selected scientific evidence on the benefits of optimal breastfeeding:

- Breastmilk cannot be duplicated by any artificial means (Picciano, M.F. 2001); it is unique in its composition and function;
- Provides immune factors specifically manufactured to fight illnesses to the mother's and infant's environment (Hanson, L.A. 2004);
- Supplies growth factors that combine to mature the infant gut (Catassi C.B.A. et al, 1995) especially beneficial for the pre-term baby (Taylor, S.N. 2009; Riezzo, G. 2009);
- Contains complex oligosaccharides (sugars) in which normal intestinal microflora thrive, coating the lining of the baby's digestive system and protecting it (Zivkovic, A.M. 2011);
- Contains substances essential for optimal development of the infant's brain, with effects on both cognitive and visual function (Heining, M.J. and K.G. Dewey 1996).
- Early breastfeeding initiation within the first hour and first day of birth can reduce neonatal mortality (Edmond, K. et al. 2006; and Mulany, L.C. et al. 2008)
- Feeding colostrum can lower risk of neonatal and postneonatal mortality (Singh K. P. Srivastava 1996)
- Exclusive breastfeeding for <6 months (Lamberti, L.M. et al. 2011; Mihrshahi, S. et al. 2007; Black, R.E. 2008; and Arifeen S. et al. 2001) and continued breastfeeding from 6-11 months (WHO 2000) can reduce mortality from two biggest contributors to infant deaths: diarrhea and pneumonia, as well as on all-cause mortality.

environmental health services and food insecurity (UNICEF 1990). Therefore, it is evident that interventions that enhance infant and young child feeding (breastfeeding and complementary feeding), when combined with those that improve caring practices, including hygiene and sanitation, as well as those that address household food security, can substantially reduce under-nutrition. These combined efforts are needed to reduce effectively and significantly under-nutrition during the first two years of life. A multi-sector approach is thus required given that interventions that address these key determining factors fall not only under the domain of the health ministry but also under non-health sectors (e.g. WASH, Education and Agriculture).

The *Lancet Series* on Child Development recognized tackling stunting and micronutrient deficiencies (particularly iron and iodine deficiencies) as two of the four most effective early childhood development interventions, along with cognitive stimulation (Jolly, R. 2011). At the same time, a review of existing studies (Bentley, M.E. et al. 2011) found that positive caregiver verbalizations during feeding increased child acceptance of food, though a few studies demonstrated a positive association particularly between responsive feeding and child under-nutrition. While a study in Bangladesh (Aboud, F. E. and S. Akhter 2011), showed that stimulation and responsive feeding provided constant positive interactions between mother and child, which contributed to nutrition and language development. Therefore stimulation and responsive feeding could influence acceptance of food and dietary intake, and potentially enhance child growth and development.

Hygiene and sanitation services are inadequate in Nepal, only 49% of households had a place for hand washing with water and soap, and about 40% defecated out in the open (NDHS 2011). Therefore improving hygiene and sanitation practices especially during the “narrow window of opportunity” can potentially contribute to improvements in infant and young child survival and growth. A randomized control trial in Pakistan (Luby S.P. et al. 2004) showed that Infants living in households that received hand washing promotion and plain soap had 39% fewer days with diarrhea as compared to infants living in control neighborhoods; severely malnourished children younger than 5 years living in households that received hand washing promotion and plain soap had 42% fewer days with diarrhea as compared to severely malnourished children in the control group. A meta-analysis of seven intervention studies (Curtis, V. and S. Cairncross 2003) found that hand washing with soap reduced diarrhea risk in the community by 42-44%. Therefore provision of toilets and promotion of hand washing after faecal contact could control tropical enteropathy with further positive effects on growth.

Summary of the scientific rationale on the benefits of improved complementary feeding through a multi-sector approach:

- Feeding Interventions with 99% coverage (promotion of complementary feeding with supportive strategy) was estimated to significantly reduce stunting by 17.2% at 24 months and enhance survival (Bhutta, Z.A. et al. 2008);
- Programmes that include pre-tested educational messages through multiple channels, delivery of home-fortification or other products (depending on the needs of the target population), improved growth by one third of the average deficit; home fortification reduced anemia on average by 21%, while fat-based fortified food-product was found to improve gross motor development (Dewey, G.W. and S. Adu-Afaruah 2008);
- In order to reduce young child-under-nutrition by another two third of the deficit, interventions that improve feeding to address the first immediate cause of under-nutrition (poor nutrient intake) must be combined with those that specifically address the second immediate cause of under-nutrition (infections), and the key underlying factors – poor hygiene and sanitation, inadequate care – including responsive feeding, and food insecurity (SUN 2010);
- Sanitation and hygiene interventions with 99% coverage was estimated to reduce diarrhea incidence by 30%, which would in turn decrease the prevalence of stunting by 2.4% (Bhutta ZA et al. 2008).
- Furthermore, provision of toilets and promotion of hand washing after faecal contact could control tropical enteropathy with positive effects on growth (Humphrey, J. 2009).
- Stimulation and responsive feeding can enhance child acceptance of food (Bentley, M.E. et al. 2011), as well as nutrition and language development (Aboud, F. E. and S. Akhter 2011).
- Cash transfer programs that are well designed (with appropriate duration and size of the transfer, and include complementary nutrition services) have shown to increase expenditure and food availability, translating into improvements in nutritional indicators, particularly for vulnerable groups (UNICEF 2012; DFID 2012; SCF 2009).
- Small-scale improved agriculture and livestock production when combined with nutrition education can significantly improve dietary diversity (Talukder A. et al. 2010).

There has been improvement in poverty situation in Nepal; it has declined from 31% in 2004 to 25% by 2011 (NLSS 2011). However, one fourth of the population only earns only US\$1 per day plus there is wide regional variation; the western mountain area has the highest

proportion (60%) of households that are in the lowest quintile (DHS 2011), followed by far-western hill (59%) and mid-western hill (56%). Therefore targeted social protection measures, in addition to essential nutrition services, is vital to in these most vulnerable areas. Cash transfers have been identified as a preferred mechanism for delivery of social protection in many countries; they have the potential to increase household income; improve food consumption and thus contribute to reducing hunger (UNICEF 2012). A review of existing studies (DFID 2012) found a strong and consistent impact of cash transfer programs on reducing hunger and food insecurity; the impact was most pronounced in low income countries where poverty is generally more severe. In these settings, households receiving additional income were particularly likely to prioritize spending on improving the quantity and/or quality of food consumed. An evaluation of Malawi's Cash Transfer program showed that around 75% of the transfer was spent on groceries (Vincent K and T. Cull 2009). As shown by a number of studies, this increased expenditure and food availability can translate into improvements in nutritional indicators, particularly for vulnerable groups (DFID 2012). A study in Mexico, for instance, found that cash transfer programme reduced the poverty gap by 30% among beneficiaries after two years of operation; raised the height-for-age of beneficiary children by 1 cm after two years compared with a control group (Fernald LCH et al 2009). A review of existing studies (SCI 2009) found that the level of gains in child nutrition arising from transfer programs depend on three key design features: (1) duration over which the transfer is received, the age of recipient (given the importance of the window between 0–24 months of age); (2) size of transfer; and (3) whether complementary services are offered alongside, such as health and nutrition services. The Government of Nepal is currently providing child cash grant to children under-five years of age to all families living in the poorest region of Karnali as well as targeting the disadvantaged families across the entire country.

A pilot project is being implemented on integrated Child Cash Grant and community IYCF programme, including communication for behavior change component, in five districts, Karnali Zone, with an aim to improve child nutrition status. At the same time a trial is ongoing in selected districts in the Terai to test effectiveness of cash transfer versus fortified food transfer coupled with nutrition education to mothers during pregnancy, towards reducing low-birth weight prevalence. Findings of these ongoing studies will serve as input to future policy decisions to refine the national Child Cash Grant program design, as required, and to expand it further, as stipulated in the MSNP.

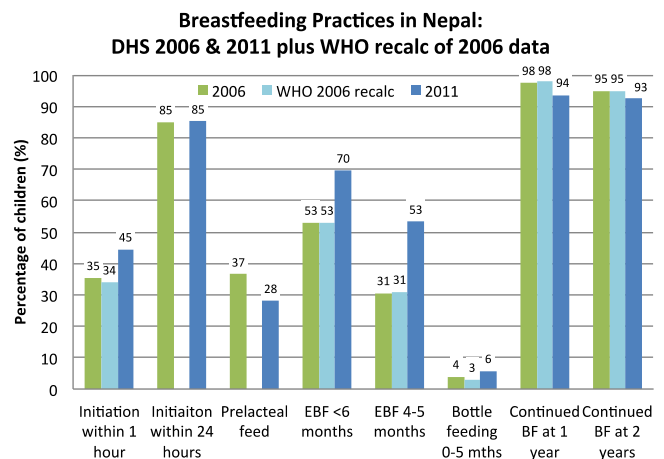
According to the 2010/11 NLSS, poor diet diversity is especially a serious problem in the country; more than half of households (52 per cent) have a *Very High Staple Diet* (more than 75 per cent of their total calories from staples). This is one of the key underlying causes of poor complementary feeding practices, which is in turn resulting into impaired growth. Increasing availability, consumption and bio-availability of micronutrient-rich foods through a household's own production is an important food-based strategic approach (Ruel M.T. and C.E. Levin 2001); it is one of the main pathways through which agriculture interventions can impact on nutrition (Mebratu, S., Pelletier, D., and P. Pinstруп-Andersen 1995; Haddad, L. 2000). Small-scale agriculture and livestock interventions, integrated with nutrition education

to enhance the intake of bioavailable micronutrients by household members, have been piloted in four countries including Nepal. The evaluation of the program (Talukder A. et al. 2010) found that dietary diversification significantly improved across the four countries; all four countries showed improved animal food consumption among program households, with liver consumption increasing from 24% at baseline to 46% at endline and the median number of eggs consumed by families per week increasing from 2 to 5. The sale of the food products also improved household income. Anemia prevalence among children 6-59 months of age decreased in program households in all the four countries; but, the decrease in anemia prevalence among children was significant only in Bangladesh and the Philippines at endline. The impact evaluations did not study the effects on dietary iron intake or iron status but improved intake of dietary iron and other micronutrients such as vitamin A is expected to have contributed to the reduction in anemia prevalence.

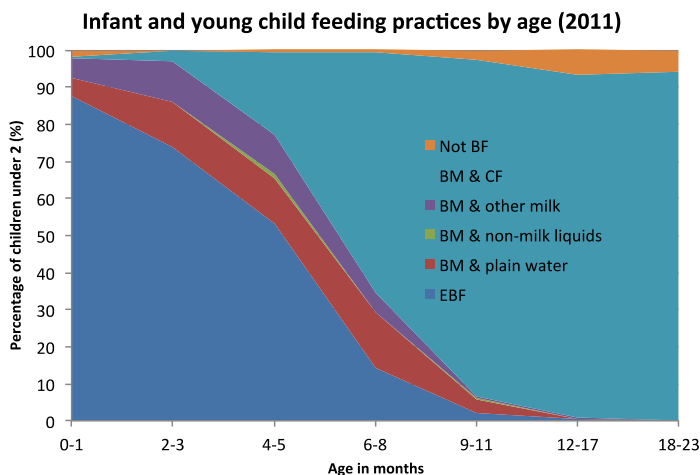
IYCF practices in Nepal

Breastfeeding practices have improved in Nepal over the last five years, but there is still scope for further progress. The NDHS 2011 showed that almost all children (98%) are breastfed at some time in their lives, with negligible differences by sex.

Traditional beliefs and perceptions are among the main causes of non-optimal breastfeeding. According to recent formative research (RIDA 2012): water is given to babies in the hot regions of the country to quench the babies' perceived thirst; plus, mothers worried about their inadequate milk production and that their babies were not getting sufficient food and thus started complementary feeding before the recommended six months; furthermore, mother's workload and the distance to the place of their work affected their breastfeeding practice; also mothers did not receive much child care



Ref: DHS 2011 – Tables 11.3 & 11.6 and DHS 2006 – Tables 12.2 & 12.5 and WHO recalculation of 2006 data based on new IYCF indicators, published in WHO "Indicators for assessing infant and young child feeding practices. Part 3: Country Profiles"

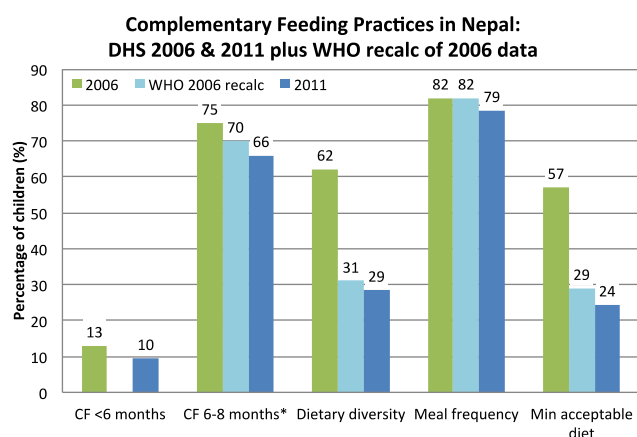


Ref: DHS 2011 – Table 11.3

support from their male partners, as it was traditionally perceived as women's work; finally women have limited decision making power regarding infant feeding practices as it is often influenced or made by the mother-in-law or the father. Therefore, it is critically important to involve key influencers and members of the family in promoting optimal feeding, and to encourage them to support mothers feed their babies optimally. A study

undertaken in 1999 (Nandini 1999) found that women in the hill districts of Nepal had heavy workload; women were found to work around 16 hours a day, compared with the 9 to 10 hours men worked. The NDHS (2011) found that 60% of women 15–49 years of age were employed in the 12 months preceding the survey compared with 78% of men of the same age. Furthermore, a multivariate analysis using 2006 NDHS data (Pandey, S. et al. 2010) on the determinants of non-optimal breastfeeding found that:

- The risk of delay in initiation was significantly lower among mothers who were involved in household decisions;
- Infants born by cesarean delivery were at higher risk for not receiving timely initiation of breastfeeding than those born by normal delivery;
- Mothers who attended antenatal clinics had lower rates of exclusive breastfeeding than those who did not make any antenatal visits;
- Mothers who lived in the terai were at a lower risk for delay in initiating breastfeeding than those in the mountains;
- The rate of exclusive breastfeeding was higher for infants living in the hills or the terai than those living in the mountains;
- Infants living in urban areas were more likely to be bottle-fed than those living in rural areas;
- The risk of an infant's being bottle-fed was lower when the birth was attended by untrained personnel rather than trained health personnel; and
- Increasing age of the infant was significantly associated with absence of exclusive breastfeeding.
- Similar analysis using 2011 DHS, will be available soon – to highlight possible differences over the last five years, which can help sharpen the plan of action related to breastfeeding.



Ref: DHS 2011 – Tables 11.3 & 11.6 & Figure 11.4, DHS 2006 – Tables 12.2 & 12.5 and WHO recalculation of 2006 data based on new IYCF indicators – WHO Indicators for assessing infant and young child feeding practices. Part 3: Country Profiles 2010

Unlike breastfeeding, complementary feeding over the last five years has either deteriorated or shown limited improvements. A formative research study undertaken in three districts of Mahottari, Kavre and Jumla (NFHP II 2011) found that local food restrictions were common barriers to optimal infant young child feeding and care: due to food

restrictions, components of the family meal were removed and the rest was then given to the baby, reducing the diversity of the child's nutritional intake; special foods for the baby were often not prepared; beliefs that exposure to open air and particularly to the sun would have negative consequences both for children and mother were prevalent in the study districts; furthermore, many mothers had a belief that breast milk was made of blood and that by breastfeeding, the mother would become thin. Another formative research study (RIDA 2012) also found restrictions on foods categorized as hot or cold; diversity within the complementary foods was not practiced; while meat was not part of

the complementary feeding of children as babies were seen as unable to chew, swallow or digest it; women were not provided with additional nutrition during pregnancy, though they were provided extra nutrition (e.g. milk, potatoes) right after delivery (15 days to 3 months) to help them recover, and for milk production.

Furthermore, a multivariate analysis using 2006 DHS data (Joshi, N. et al. 2012) on the main determinants of non-optimal complementary feeding found that:

- Non-working mothers, mothers having secondary or above level of education and mothers aged 35-49 years were more *likely to introduce complementary foods by 6-8 months*;
- The risk of *not receiving timely complementary foods* was higher for infants living in the terai than for those living in the mountains.
- Mothers who were unable to read were significantly associated with *delayed introduction of complementary feeds* at 6-8 months compared to literate mothers. Fathers with primary or with no education were significantly associated with delayed introduction of complementary foods
- *Adequate meal frequency* was more likely among non-working mothers, educated mothers and mothers who watched television almost every day.
- The mothers from urban areas, however, were less likely to give the recommended minimum frequency of solid, semi-solid or soft foods.
- The child's age was significantly associated with complementary feeding practices and lower ages showed alarmingly inadequate meal frequency.
- The infants of mothers who listened to radio almost every day and infants of mothers who had four or more antenatal visits had significantly *higher dietary diversity* compared to the infants whose mothers had limited exposure to media and had less or no antenatal clinic visits.
- Compared with mothers with higher level of education, those who had primary level of education or who were illiterate reported risk for *poor dietary diversity*. The risk for

Strategic Issues (1)

- Persisting beliefs among some mothers/caregivers and other family members (influencers such as male partners and mothers' in law) that breast milk alone is not adequate to support proper growth of infants in the first six months of life. Key specific issues that need to be addressed include:
 - Only 70% are exclusively breastfed at <6 months;
 - Provision of water (10%) and other milk (9%) at <6 months; and
 - Only 45% are initiated to breast milk within the first hour and 28% are provided with pre-lacteal feed.
 - Continued breastfeeding for at least two years has declined from 95% in 2006 to 93% in 2011.
- The risk of non-exclusive breastfeeding increases with increasing age of the baby, hence importance of specific messages stressing the benefits of exclusivity of breastfeeding for the first six months of life and the dangers of introducing water or milk before six months.
- Women's empowerment (to make household decisions) can lead to their adoption of optimal feeding practices.
- Mothers have a heavy workload which can prevent them from adopting optimal feeding practices due to time constraints (especially exclusive breastfeeding for the first six months of life), hence importance of creating an enabling environment for mothers to breastfeed optimally within the family, the community, and the workplace
- Women who have had ANC visits and caesarean deliveries are at greater risk of sub-optimal feeding, which means there is insufficient breastfeeding promotion and protection and support through health care facilities during key contact points (ANC, delivery) and outreach services in the community.
- PNC visits are minimal and represent missed opportunities to further counsel lactating mothers on breastfeeding.
- There are significant geographic variations: babies from the mountains are at greatest risk of sub-optimal feeding; children from urban areas are at an increased risk of being bottle-fed.

inadequate dietary diversity was gradually increasing with lowering wealth index quintiles.

- *Minimum acceptable diet rate* was significantly higher among mothers who had completed secondary education and among mothers who were not working. Compared with children from richest households, children from households with lower wealth quintiles were in higher risk of not meeting minimum acceptable diet.
- Updated analysis on the determinants of complementary feeding practices is being undertaken using 2011 DHS, and will be available soon – to highlight possible differences over the last five years, and will serve as input to the development of the plan of action related to complementary feeding.

Existing evidence has shown that that the prevailing poor infant and young child feeding (IYCF) practices in Nepal are contributing to persistently high levels of stunting and underweight. Further analysis of IYCF and nutrition data from NDHS 2011 (Crum, J. and Mason J. B. 2012) found that poor complementary feeding practices in terms of low dietary diversity and low minimum meal frequency were significantly, negatively associated with weight-for-age and height-for-age among children 6-23 months, with the greatest effect among ages 6-11 months, even when controlling for maternal education, maternal nutritional status, water and sanitation and child age and gender. While, low diversity and low meal frequency were negatively associated with weight-for-height for children 18-23 months using the same factors in analysis. The combination of adequate diversity and meal frequency had the greatest effect on all three indicators of child growth.

Strategic Issues (2)

- Persisting beliefs and practices on food restrictions are a barrier to optimal complementary feeding, which have remained poor with negative consequences on child growth and development, especially among the youngest children (6-11 months). Both minimum meal frequency and dietary diversity have the largest effect on child growth. Key specific issues that need to be addressed include:
 - 66% of babies are introduced with complementary foods at 6-8 months;
 - 79% are receiving minimum meal frequency; and only 29% are receiving a diverse diet.
- IYCF counselling with a focus on improving complementary feeding practices should begin early in infancy, at the critical time of weaning from breastfeeding and introduction of foods, thus maximizing potential for adequate growth through two years of age.
- Anemia in children under two is very high (70%) which is most likely related to maternal nutrition in Nepal, which means interventions need to start with the mother, combined with improved nutrient intake including provision of multiple micronutrient powders.
- There are significant geographic and ethnic variations, with children from the terai, central region and Madhesi children being at greatest risk of receiving sub-optimal complementary feeding.
- Working mothers and mothers with low education and children from urban areas are at increased risk of adopting sub optimal feeding practices.
- Enabling environment is needed for working mothers to allow them to adopt optimal feeding practices with targeted support to disadvantaged families or intensified efforts in high risk areas.
- Infection peaks between 6-24 months of age, hygiene and sanitation messages should be focused particularly to this age group.
- Women have heavy workload, requiring family and community support to lessen their burden – especially by encouraging male involvement in child-caring.

An Overview of the IYCF programme in Nepal

Comprehensive programmes should include legislation and its enforcement to protect breastfeeding from the marketing of breast milk substitutes and constraints caused by maternal employment, skilled support by the health system, counselling and support interventions at community level, multi-channel communications to support IYCF behaviours at all levels, additional complementary feeding interventions such as the provision of complementary food supplements and interventions to support IYCF in difficult circumstances, in particular in the context of HIV/AIDS and emergencies. The IYCF programme review revealed that overall national actions in Nepal are inadequate though some key policy and legal framework are in place and some activities have been undertaken. This is in line with UNICEF (2011) results of global 2010-2011 assessments of key actions for a comprehensive IYCF intervention in 65 countries, including Nepal, estimating Nepal's national level IYCF action score at 6, which is below the mean score for the South Asia region (7). Countries with a score between 4 and 6 were considered below average and were rated as having a low or "fair" national IYCF action level. Out of 65 countries included in this assessment, 26 (40%) fell in this category, including Nepal. The report recommended that these countries intensify efforts to strengthen their national IYCF actions.

Breastfeeding practices in Nepal is improving, but a lot needs to be done to get it to an adequate level; bottle-feeding has doubled in the last five years and complementary feeding practices are not improving, which gives a cause for major concern. The main component on 'additional complementary feeding interventions' as well as 'in difficult circumstances' has been strongly implemented through piloting which have led to plans for national scale up targeting high priority districts, in particular of community IYCF integrated with multiple micronutrient powders and with community based treatment of acute malnutrition (CMAM). At the same time, a number of other pilots or programs are ongoing: IYCF integrated with early stimulation and responsive feeding components of Early Child Development (ECD), targeting children less than two years

Strategic Issues (3)

Intensified efforts are required to strengthen national IYCF actions, with strong links to ongoing efforts to improve maternal nutrition. The following key actions are needed to accelerate progress:

- In line with both the IYCF and existing maternal nutrition strategies – develop a consolidated maternal infant and young child nutrition costed plan of action, to ensure integration and strong linkages within the nutrition programme.
- Mobilize key stakeholder support for scale-up of priority IYCF interventions, in line with the MIYCN costed plan of action.

While maintaining and strengthening progress on breastfeeding, the following options of interventions to improve nutrient quality of complementary feeding require priority attention:

- Anaemia in young children is very high and over 40% of children are stunted by the age of two, which is a serious concern, and complementary feeding and care practices are poor: scale-up nationwide community IYCF with MNPs including hygiene and sanitation, stimulation and responsive feeding, combined with strengthening of nutrition counselling with IFA and de-worming for pregnant mothers to ensure adequate iron store in infants.
- Household dietary diversity is low especially among poor rural farm households – community IYCF with homestead food production to support production and promote consumption of diversified diet with MNPs has been piloted and its outcome should serve as input to future policy decisions for its expansion.
- Poverty levels are very high particularly in some areas, among these economically deprived and disadvantaged families food affordability is a critical issue – IYCF with child grant should be evaluated and considered for expansion on the basis of this outcome.
- Provision of fortified supplementary foods for children suffering from moderate acute malnutrition in very severe food insecure areas is being considered as part of the national IMAM programme integrated with IYCF, including in HIV and emergency context, and should be considered for support.
- There is a need to develop a national standard for processed fortified complementary foods and to strengthen national capacity on quality assurance.

of age, and with Growth Monitoring Promotion (GMP) in selected pilot districts; community IYCF promotion integrated with Child Cash Grant targeting disadvantaged families in five pilot districts; Integrated Nutrition Program which also includes IYCF and other key essential nutrition and hygiene actions is being implemented in over 20 districts; and supplementary feeding to children 6-24 months integrated with facility IYCF in highly food insecure areas. Though these pilots and programs have included community based counselling on infant and young child feeding, the support component is still limited and the scale has been relatively small. Furthermore, the IYCF materials and tools used in these various initiatives need to be harmonized and streamlined into the national IYCF program, so that these are coherent and contribute towards the country's IYCF related goals and objectives. Efforts are on-going to develop food based dietary guidelines using locally available foods, but accelerated progress is needed to develop recipes for nutrient-dense and culturally acceptable complementary foods for children based on formative research and TIPS (Trials for Improved Practices) findings, as central core component of the national IYCF program. Policies and guidelines are in place on infant and young child feeding in difficult circumstances but it is not very evident that these are systematically being implemented. Legislations (both maternity protection law and national BMS act) exist to protect breastfeeding but these are either not sufficient or not being actively or fully implemented. There is no national standard for local production of processed fortified complementary food not a strong quality assurance mechanism in place to ensure its food and nutrition safety. In view of the current status of IYCF practices and programming in Nepal, priority actions in the short term should focus on improving the skills of health workers and expanding community based counselling and support and coverage of additional complementary feeding interventions. The following priority interventions are thus recommended.

Scale up community IYCF, including integration with additional support strategies:

- Establish and roll out a national harmonized and integrated, community-based and harmonized counselling and communication package for behaviour change on IYCF, including improved hygiene and sanitation practices, early stimulation and responsive feeding, care of the sick child and maternal nutrition.
- Scale up the harmonized integrated community IYCF package, including MNPs in high priority districts.
- Review the latest qualitative and quantitative evidences on community IYCF integrated with small scale agricultural and livestock production and communication for behaviour change, promoting recipes of improved complementary foods using locally available foods, to serve as input to future policy decisions in this regards.
- Based on the outcome of evidence review, further strengthen or develop recipes of nutrient-dense, diverse and culturally acceptable complementary foods using locally available food products, as an integral part of community IYCF programme.
- Evaluate the impact of community IYCF integrated with child cash grant pilot program on child nutrition and growth to determine if the grant scheme needs to be further refined (size of support, frequency, focus on 1000 days etc) based on the findings as

well as other latest evidence review, and support its expansion to the rest of the country, targeting the most marginalized and disadvantaged population groups.

- Scale up community IYCF integrated with IMAM program in high priority or most affected district
- Strengthen IYCF counselling in national GMP program
- Fortified food supplementation to children 6-24 months of age linked integrated with facility-based IYCF program should be considered for support in highly food insecure areas; and

Skilled support by the health system and beyond:

- Develop and roll out integrated IYCF/BFHI/CBFI training for all health workers and relevant personnel from other sectors in all districts of Nepal.
- Incorporate the Ten Steps of BFHI or CBFI into routine health facility care.
- Include relevant IYCF counselling into multiple contact points (ANC, PNC, FP, deliveries, BPP, EPI, CB-IMCI/NCP, referral IMNCI etc.) and relevant programmes of other sectors.
- Update pre- and in-service curriculum to include essential knowledge and practical and skilled based training on IYCF and incorporate the ten steps of BFHI/CBFI.

Communication for Behaviour Change:

- Sensitize key policy and programme decision makers inside/outside the health sector on the importance of IYCF, including national BMS act and maternity protection, for survival, growth and development.
- Raise awareness and support communication for behaviour change on optimal feeding and caring practices, including BMS and maternity protection, targeting the general public using multiple channels in line with the national communication PoA on MIYCN/IYCF.

Legislation:

- Implement, Monitor and Enforce the Breast Milk Substitutes Act.
- Advocate for review/update of the maternity protection law to align with international standards and enforcement of national legislation on maternity protection for both formal and informal sectors.
- Establish a national standard for processed fortified complementary foods, and strengthen national capacity on quality assurance.

2. Goal, objectives and targets of the strategy

Goal

The overall goal of this strategy is to improve the nutritional status, including the micronutrients, and ensure adequate growth, development, health and survival of infants and young children in Nepal.

Objectives

The IYCF strategy will provide a framework of essential actions to improve infant and young children feeding and caring practices. The specific objectives of the strategy are:

- To improve optimal breastfeeding practices;
- To improve age appropriate optimal complementary feeding practices;
- To ensure enforcement of national legislation related to infant and young child feeding (such as marketing of breast milk substitutes and maternity protection)
- To improve the consumption of essential micronutrients (such as vitamin A, especially among 6-24 months, and deworming tablet, especially among 12-24 months)

Key indicators and targets:

The strategy will attain the following behaviour impact targets by 2020:

1. Increase early initiation of breastfeeding rate (within one hour birth) from 45% to 65%.
2. Increase exclusive breastfeeding rate (<6 months) from 70% to 80%.
3. Maintain the rate of continued breastfeeding at 2 years at above 93%.
4. Increase the proportion of infants 6-8 months of age that are introduced to complementary food from 66% to 88%.
5. Increase the proportion of children 6-23 months of age that are fed with 4 or more food groups from 28% to 50%.
6. Increase the proportion of breastfed and non-breast fed children 6-23 months of age that receive, as per the recommended minimum number of times or more, solid, semi-solid or soft foods from 78% to 90%.
7. Increase prevalence of minimum acceptable diet in children 6-23 months of ages from 24% to 50%.
8. Improve the proportion of children 6–23 months of age that receive iron-rich food or iron-fortified food from 24% to 50%.
9. Increase percentage of children who consume vitamin A rich foods from 46% to 65%.
10. Increase coverage of vitamin A supplementation in young children, with focus on children 6-23 months from 86% to over 90% and sustain.
11. Increase coverage of deworming among children 12-23 months from 75% to 90%.
12. Decrease prevalence of anaemia among young children, with special focus to the children 6-23 months from 69% to below 40%

3. Strategic areas and components

According to the Nepal context, and review of the existing evidence, this document is strategically categorised into nine broad areas and components :

- (1) Advocacy, policy, partnership and coordination;
- (2) Legislation and standards;
- (3) IYCF in the health system;
- (4) National communication plan on MIYCN, including IYCF;
- (5) Community based IYCF;
- (6) Additional complementary feeding interventions, including non-health sector strategic support in line with MSNP;
- (7) IYCF in difficult circumstances;
- (8) Capacity building on IYCF and BFHI/CBFI – including pre- and in-service training for health and non-health sectors, in line with MSNP, and
- (9) Research, Monitoring and Evaluation of IYCF.

3.1. Advocacy, Policy, Partnership and Coordination

Nepal's recently launched Multi-Sector Nutrition Plan (2013-2017) has IYCF as one of the key interventions to be implemented at scale by the MoHP, this was also reflected in the previous three-year interim plan. Continued advocacy is required to ensure that this national commitment in support of IYCF is maintained and fully supported. The National Nutrition Policy and Strategy (2004) includes guidelines on Infant and Young Child Feeding Practices, which requires updating as per the latest national policies and plan (e.g. MSNP), the global strategies, recommendations and guidance, including national guideline on HIV/AIDS and Nutrition (2011), for harmonization with respect to HIV and Infant Feeding counseling and support.

Nutrition Technical Committee (NUTEC) was formed and approved by the MoHP in 2012, under which IYCF working group has been established. However, this partnership and coordination is at early stages which need to be further strengthened to include all the key stakeholders, in line with MSNP, and maintained, with links to the breastfeeding protection and promotion committee.

Advocacy, Policy, Partnership and Coordination has two main strategic objectives:

- To ensure IYCF strategy and costed multi-year plan is approved by the end of 2014, with adequate budget allocation and effective implementation by 2020;
- To ensure that the Breastfeeding Protection and Promotion Committee (BPPC) meets regularly, to review progress on code implementation and monitoring, in line with BMS Act by the mid of 2015, and that the IYCF working group under NUTEC operates to effectively coordinate and monitor implementation of the comprehensive IYCF strategy through 2014-2020;

This area will have the following main outputs:

Advocacy and Policy

- National IYCF multi-year costed plan of action is in place by the end of 2014, with adequate budget allocation from national and international partners at all key (national, district and community) levels for its implementation.
- IYCF is a central component of multi-sector nutrition programs which was included in the next three-year interim development plan (2014-2016), and in the updated national nutrition policy and strategy.
- Scaling up of IYCF, as a central component of integrated nutrition program, is included in all district development plans by 2020.
- Policy guidelines on integrated IYCF and BFHI/CBFI are reviewed and updated as per the national IYCF strategy (2014-2020) and in harmony with the national HIV and nutrition guidelines (2011).

Partnership and Coordination

- Revised ToR of the IYCF working Group involving non-health sectors and relevant agencies is in place in line with comprehensive IYCF strategy—to ensure that protection, promotion and support IYCF functions are well covered.
- Breastfeeding Protection and Promotion Committee (BPPC) meets regularly as per guideline to review progress on code implementation and BMS act.
- The roles and responsibilities of the key stakeholders within health and non-health sectors are defined as part of the national IYCF costed plan by 2014.
- All key stakeholders, as members of IYCF working group, meet regularly to monitor and coordinate ongoing activities, with follow-ups up to 2020 and beyond.

3.2. Legislation and standards

The Government of Nepal (GoN) adopted the Breast Milk Substitutes (BMS) Act in 1992 and its Regulation in 1994. The aim of the National Code is to contribute to the provision of safe and adequate nutrition for infants by ensuring appropriate marketing and distribution of breast milk substitutes and to prohibit their promotion. However, there is limited awareness on the BMS Act among key health workers, and national capacity on code implementation and monitoring is weak. There is no ongoing monitoring and reporting of code violation in the country, thus requiring attention as a key measure to protect breastfeeding in Nepal.

The GoN has also allocated maternity leave of 60 days prior to or after delivery with full pay system, which is not in line with the International Labour Organisation (ILO) convention on maternity protection (14 weeks). Furthermore, there is no provision for breastfeeding break, nor is there an appropriate space for the mother to breastfeed (e.g. workplace day-care centre) when she resumes her work. These existing arrangements prevent working mothers from optimally feeding their infants and young children, especially to exclusively breastfeed for the first 6 months and to continue to breastfeed for at least two years.

There is no national standard for processed fortified complementary foods and these are not among the list of foods requiring compulsory certification. Quality control mechanisms are not in place to ensure that these foods meet national standards. To this end, support towards development of a national standard, establishment of a strong quality control mechanism with compulsory certification is important and crucial to ensure that processed complimentary foods that are locally produced and/or marketed meet the food and nutrition safety standards.

This broad area has the following strategic objective:

- To ensure that legislation that protect IYCF are strengthened and in place: BMS Act is implemented effectively with strong monitoring and enforcement mechanism; Maternity Protection Law is reviewed/revised at least according to the international standards; and the standards for fortified or nutrient-dense complementary food for children (6-24 months) under Food Act are developed, enacted and effectively implemented with strong quality control mechanism in place by 2015;

This area will have the following main outputs:

National breast milk substitutes act

- All the key stakeholders are sensitized on the code and importance of protecting breastfeeding.
- All the relevant stakeholder's capacity is strengthened on code implementation and monitoring by 2015, with continuous sensitization and refresher training by 2020 and beyond.

- Revitalized (functional) mechanism for regular monitoring and enforcement of the existing legislation on the BMS act (meets regularly to review code monitoring reports, takes action which is followed up) by the mid of 2015, and is maintained by 2020.
- Monitoring assessment undertaken on code violation in key selected areas and report is available for review and enforcement by the end of 2015 and a mechanism for regular code monitoring and enforcement is established by 2016.

Maternity protection in the workplace

- National legislation on maternity protection is reviewed and amended (for government, private as well as informal sector) in line with ILO convention No. 183 by 2015 (at least 14 weeks) by 2015, and maternity leave is six months by 2018.
- Employers in both priority public and private sectors are sensitized to maternity protection law, working mothers on their entitlements, and both are motivated to adhere to the national maternity law by 2016.
- Selected private and public sectors are supported as a model to demonstrate effective implementation of maternity law by 2016, with strategic plans in place to scale this up more widely by 2020.

National standard for processed fortified or nutrient-dense complementary foods

- National standard for local production of processed fortified or nutrient-dense complementary foods is developed based on global food and nutrition safety guidelines and assessment of locally available foods and consumption patterns and involving the private sector by 2015, as part of a national food fortification plan and standard.
- All the key producers of processed nutrient-dense complementary foods are mobilized to adhere to the national standard by 2015.
- Quality assurance mechanism is established in different places, including compulsory certification by the end of 2016.
- Local production of low cost, processed complementary food is piloted in few districts in line with national standard for processed fortified complementary foods, with a strategic plan for its scale-up as per need by the end of 2020.
- Key relevant local producers trained on local production of processed complementary foods in line with the national standard.

3.3.IYCF in the health system

The health care services that a woman receives during pregnancy, childbirth, and the immediate postnatal period are important for the survival and well-being of both the mother and the child. These key health contact points (during antenatal, neonatal, and postnatal care periods) also provide valuable opportunity to protect, promote and support optimal feeding (breastfeeding and complementary feeding) to further enhance the child's survival, growth and development. However, for this opportunity to be effectively utilized, health workers need to have practical and skill based training on IYCF, and delivery of core relevant IYCF services need to be reflected in respective health program guidelines, and included in routine monitoring and reporting mechanisms. IYCF capacity building and training of health workers is addressed in the following section, the focus of this strategic component is on the other three key elements that need to be in place within the health system for effective delivery of IYCF services during these specific health and nutrition contact points.

Protection, promotion and support of breastfeeding in MNH program

The proportion of women receiving antenatal care (ANC) from a skilled provider has more than doubled in the past 15 years, from 24% in 1996 to 58% in 2011 (NDHS 2011). Though some 80% of pregnant women took iron and folic acid supplements and 55% took de-worming tablets during their most recent pregnancy, it is evident that they are not receiving IYCF counseling services, which is a serious concern. The fact that only 63% of mothers living in the Terai, 53% of mothers in the hill zone, and 52% of mothers in the mountain zone are receiving ANC service from a skilled provider, indicates an important missed opportunity to protect, promote and support breastfeeding – to inform mothers on the dangers of sub optimal breastfeeding, the benefits of initiation of breastfeeding during the first hour of birth and exclusive breastfeeding for the first six months, and to counsel them to adopt optimal feeding to enhance survival and adequate growth and development of their babies.

Although birth preparedness package (BPP) has been rolled out in all 75 districts, currently only 35% of births are taking place in a health facility (NDHS 2011). To increase this, the MoHP plans to increase the number of birthing centres, placement of trained Skilled Birth Attendants (SBAs) at health facilities, and provision of subsidies to health institutions on the basis of deliveries conducted. At the same time, women's education, access to transportation and other enabling factors is steadily improving. All these factors are expected to increase deliveries in the health facilities over the coming years. This is an important opportunity to reach mothers with IYCF services, therefore, essential steps need to be taken to ensure breastfeeding and IYCF counselling is an integral part of the birth preparedness package and birthing centres.

To accelerate reduction of neonatal mortality, Community Based New-born Care Program (CB-NCP) has been implemented in selected districts involving FCHVs and will be included in the IMNCI package going forward. This training is another important health contact point for the FCHVs to counsel and support mothers to adopt optimal breastfeeding practices during postnatal visits.

Revitalization of Baby Friendly Hospital Initiative (BFHI)

The Baby-Friendly Hospital Initiative (BFHI) was introduced in Nepal in 1993 to improve hospital procedures and services so that they protect, promote and support optimal breastfeeding. However, a recent BFHI assessment has revealed that none of the hospitals that had attained BFHI status have maintained it. Though there is limited training of health workers at these facilities, BFHI monitoring and certification is not part of routine hospital accreditation (certification) procedures. With the increasing trend in health facility deliveries and the risks to survival, growth and development of sub optimal feeding practices, it is important to look at revitalizing BFHI in Nepal and to establish this as a standard hospital practice. At the same time, recognizing that some 63% of deliveries are still taking place within the home, this should be combined with exploring expansion to the community based support groups through Community Baby Friendly Initiative (CBFI).

Growth monitoring and promotion and IYCF

Growth Monitoring and Promotion of children is being done when children visit the government health facilities or at the outreach clinics (ORC). ORCs are supposed to be conducted in 3-5 places in a VDC every month, and so are considered an important entry point for growth monitoring and promotion combined with IYCF counselling. Unfortunately, coverage of Growth Monitoring is relatively low (30%) and very limited IYCF counseling is being provided at this point. However, the MoHP has recently revised the Growth Monitoring Standards and Tools, including the Child Health Card with growth monitoring charts. The new card and the core indicators were tested through the operational feasibility carried out in four districts - Rukum, Dang, Jumla and Udayapur in 2012-2013. The core indicators for IYCF as recommended by WHO along with relevant messages on IYCF have been incorporated in the growth cards, and will be used to monitor and promote child growth and deliver specific counselling on IYCF to the mother/caretaker of the child whose nutrition status has been monitored and assessed. MoHP has recently revised the HMIS indicators and the tools, which also includes indicators on Growth Monitoring and Promotion (GMP) as well as relevant IYCF indicators, which have been nationally scaled up as of fiscal year 2014/2015. Therefore, revitalizing GMP with appropriate IYCF counselling through the Out-reach Clinic and the Health Facilities will be crucial for promoting optimal feeding practices. This needs to be further linked to the household follow up by the FCHVs as well as during the mothers' group meeting.

IYCF in Integrated Management of Newborn and Childhood Illness (IMNCI)

IMNCI program in Nepal is currently addressing major causes of childhood deaths (diarrhoea, pneumonia, malaria, measles, neonatal infections, and HIV/AIDS) and underlying problems of under-nutrition. The IMNCI protocol includes promotion of optimal breastfeeding and complementary feeding during illnesses to enhance the health, nutrition and development of the child. In Nepal a relatively strong community component of IMNCI is in place involving the Female Community Health Volunteers (FCHVs). However, there is a scope to further strengthen the IYCF component in the IMNCI program. For instance, when the health workers attend to children who are brought to the health facilities for treatment and during follow up of

these children – their feeding and nutrition could be assessed and mothers could be counselled on IYCF accordingly.

This broad area has following strategic objective:

To assure that IYCF is firmly established and BFHI is revitalized within the health system by the end of 2015 and is fully implemented by the end of 2020.

The IYCF in health system will have the following key outputs:

Protection, promotion and support of breastfeeding in MNH program

- Revised BPP to include the essential steps to protect, promote and support optimal breastfeeding in BPP and CB-NCP packages (now IMNCI package) by mid of 2015 and support its implementation at scale by 2020.
- Access to IYCF counseling and support service enhanced during key health contact points (ANC, delivery at birthing centers, PHC/ORC) and during the immediate post-natal period by 2016.

Revitalization of Baby Friendly Hospital Initiative (BFHI)

- All BFHI certified hospitals are revitalized by the end of 2015, with at least 50% of tertiary level hospitals providing maternity services having mechanisms to sustain BFHI through regular in-serve training, monitoring and certification by 2018.
- CBFHI is adopted and introduced in selected areas with links to community MIYCN initiative by the end of 2015, and based on the outcome strategic plan for its expansion is in place by 2020.
- Hospital administrators from selected key hospitals providing maternity services are oriented to adopt BFHI policy and support training of all relevant health workers on lactation management integrated with IYCF by 2015.

Growth monitoring and IYCF

- Revised child health card (with growth monitoring chart) used to monitor child growth as per revised growth monitoring protocol and ensure the IYCF counseling to mothers is integrated in it.

IYCF in IMNCI

- The existing IMCI and NCP package reviewed, with advocacy and support for further strengthening of the IYCF component, including routine monitoring and reporting formats in upcoming IMNCI package by the end of 2015, enhanced mother's access to IYCF counseling during IMNCI contact points by 2020.
- Babies who are sick recovered more quickly if they continue to breastfeed during illness, feeding a child during and after illness is helped to return to his/her growth level before he/she was ill, with breastfeeding being a part of the treatment.
- The sick child is encouraged to continue to breastfeed or drink fluids and eat during sickness, and to eat more during recovery in order to quickly regain strength; advantage taken of the period after illness when appetite is back to make sure the child makes up for loss of appetite during sickness.

If the mother is ill-continue breastfeeding unless she is unable to breastfed even after the support of other person and unless she receives advice from the doctor not to breastfeed.

3.4.National communication plan on MIYCN, including IYCF

It is now a well-established fact that optimal breastfeeding is the best start to life, while appropriate complementary feeding and care is critical to ensure survival, optimum nutrition, growth and development of the young child. The practice of optimal infant and young child feeding and care needs to be promoted nationwide, involving all relevant stakeholders. This requires evidence-based behavior change communication, with a focus on the specific actions that need to be taken by a mother, her family, her employer, community, and the key service providers plus many others in support of optimal breastfeeding and complementary feeding practices. The behavior change communication plan should also address beliefs of those who influence the mother at all levels, particularly husbands, mothers-in-law and other family members, elders, community members. Multiple channels are needed to disseminate focused and actionable messages, one of which includes interpersonal communication. This would need to involve health service providers, community workers and volunteers that interact with the mother during key health contact points, and can motivate and counsel mother to adopt optimal feeding and care practices. In addition, channels like folk media should also be explored based on the communication action plan being developed on maternal infant and young child nutrition, which will have IYCF as its central component.

This component aims to achieve the following strategic objective:

- To assure that IYCF, as part of the national communication plan of action on maternal, infant and young child nutrition, is approved by 2014 and implemented at scale effectively by 2020.

This area will have the following outputs:

- National communication costed action plan on maternal, infant and young child nutrition (MIYCN) focusing on 1000 days is finalized, including IYCF component, based on review of existing quantitative and qualitative data on IYCF, by 2014.
- Core IEC messages and materials are developed and disseminated through multiple channels/multiple service delivery points in line with the MIYCN communication plan for all the key levels, involving male partners, community leaders and all key stakeholders by 2016.

3.5.Community based IYCF

In light of successful implementation of several community based nutrition and health interventions (community IYCF-MNPs, IYCF-CCG, IMAM, CB-IMCI, CB-NCP etc.),

community based IYCF programme can be an effective approach to mobilise and engage the community for optimal infant and young child feeding practices. In many community settings access to and utilization of health facilities still remain poor and the available services are often overstretched. In such contexts, high quality, community based IYCF actions at-scale are particularly vital to ensure that mothers and infants are reached with IYCF counselling and support services. In order to do this community based IYCF efforts must employ multiple channels of communication and multiple platforms to achieve high coverage and impact.

IYCF counselling can be provided during home visits and community service outlets (PHC/ORC, GMP, EPI clinic) to the mother and family members by community workers and volunteers of the health and non-health sectors. It is imperative to engage family members, especially mothers-in-law and husbands because they influence feeding decisions in the household. Since female community health volunteers (FCHVs) have demonstrated success in improving the health and nutrition status of children at the community level, they can serve as a delivery platform for IYCF counselling. Community workers from non-health sectors such as Early Childhood Development (ECD) facilitators and Social Mobilizers (SMs) of Local Governance and Community Development Program (LGDCP) can also be sensitized to deliver core IYCF interpersonal communication messages in their respective platforms. In addition, local folk and mass media should also be used to reinforce correct feeding messages and to increase exposure to these messages by a wider audience.

Support services are crucial to creating an enabling environment for adoption of IYCF practices. These services may be group meetings or local events to engage influential members of the community. Among community groups, the health mothers' group of reproductive age women meets on a monthly basis and is a forum through which mothers can support each other in overcoming barriers to IYCF practices through exchange of personal experiences. During these meetings, health mothers' groups will be adequately trained to demonstrate preparation of super flour and nutritious complementary foods to enable mothers to visualize and gain hands-on practice. The mother groups will also be encouraged to counsel pregnant and lactating mothers, especially those with malnourished and underweight children identified during growth monitoring. Maternal, infant and young child nutrition (MIYCN) groups may be formed of pregnant women and mothers of children under 2 years of age within the health mothers' group to address issues related to the first 1,000 days – a window of opportunity for nutrition. The community baby friendly initiative (CBFI) can be piloted in this group as breastfeeding promotion is relevant to members of this group.

All IYCF counsellors and information disseminators need to be equipped with appropriate knowledge and skills to negotiate with and build confidence of mothers and family members to adopt as well as sustain optimal breastfeeding and complementary feeding practices. Linkages with new and existing community structures and interventions should be explored to continually improve community based IYCF.

This broad area has the following strategic objective:

- To ensure that community-based IYCF programme with links to key health and other sector programmes is scaled up to the rest of the country, in line with the multi-sector nutrition plan, by 2020.

Furthermore, intensified efforts must be made to include disadvantaged groups that may be unreached by existing community initiatives.

This area will have the following outputs:

- Effective community based approaches on IYCF identified through a participatory method, involving community mobilization, establishing mother to mother support groups, involving male partners or peer educators and other family and community members in coordination with key nutrition and health community-based programs within the health sector, as well as non-health sector programs, based on a review of existing community social services by the end of 2015.
- Updated/designed guidelines, materials and tools on community based IYCF integrated with maternal nutrition and micronutrient supplementation within the health sector, with links to other non-health sectors in line with MSNP by 2016.
- Community-based IYCF, as part of an integrated MIYCN package (including maternal nutrition, micronutrients, and IMAM) is implemented at scale by 2020, using updated designs, guidelines, materials and tools.

3.6. Additional complementary feeding interventions, including non-health sector strategic support in line with MSNP

Where the main nutritional problems are micronutrient deficiencies, and locally available foods and/or persisting beliefs and perceptions cannot allow provision of sufficient bio-available micronutrients (which is most often the case for iron), supplementation with multiple micronutrients powders (home fortification) are recommended in addition to promoting optimum use of locally available nutritious foods. In Nepal, as high as 70% of children under two years of age are anaemic, which is a serious concern. Therefore, the MoHP has decided to scale-up home fortification with community infant and young child feeding, integrated with improved care practices for significant and substantial impact on child growth and development. However, with regards to the latter, there is a need to further strengthen links with key non-health sectors - with the Ministry of Urban Development to promote improved hygiene and sanitation especially during critical periods to prevent diarrhoea and possibly tropical enteropathy thereby enhancing child survival, health, and nutrition, and the Ministry of Education to counsel mothers on key ECD practices, especially early stimulation and responsive feeding to further enhance child growth and development.

Families facing food insecurity and economic deprivation, will often find it difficult to provide appropriate complementary foods to their children after six months, and will require additional strategic support. The MoHP is currently providing supplementary feeding to children 6-24

months of age in highly food insecure areas, with links to facility-based IYCF counselling. However, the monitoring and reporting component needs to be strengthened to ascertain the level of coverage and impact on nutritional outcomes. Additional strategic supports include food security enhancement and social protection measures to protect families and their children from food insecurity, hunger and under-nutrition. Such support requires strong linkages with other non-health sector programs. In Nepal, there is an ongoing pilot program within the agriculture sector which aims to enhance food and nutrition security among poor rural households through homestead food production and backyard poultry (including animal-source foods) combined with promotion of diverse food consumption and IYCF counselling to mothers and caretakers for better child nutritional outcome. It is important to review the outcome of this pilot and to explore feasibility of expanding this further, jointly with the Ministry of Agriculture and Development.

A specific social protection measure, in particular the national child cash grant scheme, is targeting highly disadvantaged and very poor families with limited access to production, including piloting of integration of complementary activities on community IYCF in the Karnali zone of Nepal. The mid-term evaluation has been completed and final report is expected in 2014, while final impact evaluation is by 2015. Therefore, joint review of this evaluation outcome, as well as of other relevant ongoing trials is important to serve as input to future policy decisions to further strengthen and to scale up the existing social protection measures integrated with maternal nutrition IYCF services for improved pregnancy outcome and nutrition status of children. As such, strengthened linkages are paramount with the Ministry of Federal Affairs and Local Development to ensure that such social protection measures are combined effectively with IYCF activities for better nutritional outcomes especially during the early period of life—from pregnancy up to two years of age.

This component aims to achieve the following strategic objective:

- To solidify and expand ongoing efforts to strengthen complementary feeding interventions with strategic support in the immediate-term by 2015, and support initiatives for sustained results, including promotion of nutrient-dense, diverse, culturally acceptable, and locally available complementary foods, coupled with advocacy to expand integrated social protection measures targeting the most disadvantaged by 2020;

Scaling up Micronutrient Powders with Community IYCF

This area will have the following output:

- Impact of MNPs with integrated IYCF behaviour change package is evaluated and reviewed by the end of 2015, and scaled up as per national scale up plan in high priority (targeted) areas by 2020 for accelerated reduction of anaemia and stunting in young children and improved optimal feeding practices, using updated guidelines, materials and tools.

Supplementary feeding in highly food insecure areas with facility-based IYCF

This area will have the following output:

- Based on the outcome of MCHC review, design and implement supplementary feeding to children 6-23 months in highly food insecure areas with strengthened facility-based IYCF by 2015, with advocacy and support for its expansion by 2020.

Non-Health Sector Strategic Support:

Strengthening Links with the Ministry of Urban Development: IYCF in Water, Sanitation and Hygiene (WASH)

According to recent formative research study (RIDA 2012), environmental cleanliness is not a priority; the norm is that of not paying attention to environmental cleanliness. Soap is seen as a luxury item and most identify soap with the bar soap as advertised in the media, representing a major barrier as pieces of soap (not bars of soap) are available in the household. Furthermore, most of the respondents stated that soaps were not available everywhere including in their work locations. They stated that they washed their hands with water. Furthermore, a barrier for washing hands is the lack of availability of water and due to cold water temperature especially during the winter season in the hills and mountains. Furthermore, poor access to improved sanitation is a major hurdle. Therefore, coordinated efforts are needed with the Ministry of Urban Development to ensure that promotion of hygiene and sanitation are combined with efforts that enhance access to soap and safe drinking water and that mobilize entire communities to create open defecation free zones. The further analysis of NDHS has also revealed that, among children under-five, the age group of 6-23 months, is having the highest prevalence of infections (diarrhoea, ARI and fever), hence the importance to ensure IYCF services, which primarily focus on this most vulnerable age group, to high burden of infections, is integrated with hygiene and sanitation messages, with links to MoUD ongoing efforts for better synergy.

This area will have the following outputs:

- Geographic alignment is ensured between nutrition and WASH intervention towards assuring a synergistic effect by the end of 2015, with continued coordinated efforts on harmonization of core messages on IYCF and WASH, in line with MSNP and Hygiene and Sanitation Master Plan in the selected priority districts by 2020.
- Undertaken mapping for districts with high burden of diarrhoea and acute under-nutrition by the mid of 2015, and in the high burden districts and VDCs support joint IYCF and WASH interventions, in line with MSNP and Hygiene and Sanitation Master Plan by 2020.

Strengthening links with the Ministry of Education: IYCF and ECD components on early stimulation/responsive feeding

The Department of Education has developed parental education package which has contents relevant to health, nutrition and early stimulation. Therefore, this is one of the appropriate areas for convergence between education and nutrition sectors, from the IYCF perspective. The parenting education package needs to be updated to include IYCF messages. The ECD facilitators (in total, numbering around 35,000) can work together with the FCHVs (around 50,000) to orient parents on young child rearing practices including orientation on optimal feeding (frequency and diversity), hygiene and sanitation, early stimulation and responsive feeding. Finally, in collaboration with the MoE's curriculum development centre, it will be important to review the secondary level curriculum of adolescent boys and girls to include core messages on the importance of optimum nutrition during early years of life as well as during adolescence for adequate nutrition, growth and development.

This area will have the following outputs:

- Convergence is ensured between IYCF and ECD/curriculum (secondary level) through a review of ongoing interventions to assess effectiveness of integration of IYCF into ECD and vice versa by the mid of 2015, with continued coordinated efforts to ensure harmonization of core messages on IYCF and ECD components on early stimulation and responsive feeding implemented initially in selected multi-sector ECD and MSNP districts (Accham, Baglung, Udaypur, Mahottari and Jumla) by the end of 2015 and gradually expanded by 2020.
- Formal and informal curricula on ECD, secondary level, parenting education as well as, community IYCF package reviewed/updated to include early stimulation, responsive feeding by 2015.
- ECD facilitators from selected districts trained on integrated IYCF-ECD package to work together with FCHVs to educate parents on appropriate IYCF-ECD practices by 2016.

Strengthening links with the Ministry of Agriculture and Development: Promotion of diversified, nutrient-dense and culturally acceptable locally available complementary foods and recipes

The use of limited variety of food groups with low nutrient content during complementary feeding is a major contributor to high rates of stunting (Crum and Mason 2012) in young Nepali children. Thus, development of recipes using diverse foods with high nutrient content that are culturally acceptable and their promotion during complementary feeding can ensure optimum nutrition, growth and development in young children. The Government of Nepal under the Ministry of Agricultural Development (MoAD) in collaboration with MoHP is currently preparing food-based dietary guideline. Therefore efforts to develop and promote recipes should be supported in close coordination. Efforts also need to be made to improve availability of nutrient-rich food and promotion of optimal feeding practices to meet the minimum dietary diversity as a part of the behaviour change communication through the ongoing nutrition sensitive agriculture projects (AFSP, Feed the Future etc) and in line with the upcoming food

and nutrition security action plan (2014-2023) as a part of the upcoming Agriculture Development Strategy.

This area will have the following outputs:

- Effective harmonization and alignment is ensured between IYCF strategic component and promotion of nutrient-dense and culturally acceptable recipes during complementary feeding and ongoing efforts to develop food-based dietary guidelines, including for children 6-23 months, by the end of 2014, with continued, coordinated efforts towards this end by 2020.
- Extension workers oriented on integrated nutrition package and promote the production and consumption of nutrient dense locally available and culturally acceptable food, as an essential part of the ongoing agriculture projects through 2020.
- Promotion for the production of supplementary foods and improved complementary foods/recipes is supported based on review and assessment of locally available food and its adoption in line with food-based dietary guideline for young children integrated with agriculture/food security interventions to improve household food security and young child feeding and nutritional outcomes through 2020.

Small-scale agriculture and livestock production interventions with community IYCF and MNPs

Small scale agriculture and livestock pilot interventions when combined with nutrition education as well as IYCF vs IYCF/MNPs have shown positive impact on appropriate feeding practices (eg. Action Against Malnutrition through Agriculture (AAMA), 2008-2012). Improving bio-availability of nutrients by increasing production and consumption of animal source foods was an important component of the interventions. However, joint program review of this type of on-going intervention is needed to assess operational feasibility of expanding this to districts in other food insecure areas.

This area will have the following outputs:

- Impact of small-scale agriculture and livestock interventions that aim to improve household food security with integrated IYCF behaviour change package is jointly reviewed by 2014-2015, this to serve as input to future policy decision for its expansion, for accelerated reduction of anaemia and stunting in young children and improved optimal feeding and care practices, especially targeting the food insecure areas, by 2020.

Strengthening links with the Ministry of Federal Affairs and Local Development: Child Grant with Community IYCF

The Government of Nepal under the Ministry of Federal Affairs and Local Development (MoFALD) is currently providing child cash grant to all families with children under-five years of age for up to two children per family in five districts of Karnali (the most impoverished zone) and throughout the country for the disadvantaged and 'Dalits'. Nutrition complementary activities—especially linking with community IYCF is being supported in the five districts of Karnali, with mid-line survey report to be available in 2014 and end-line impact evaluation expected by 2015. This is a very good opportunity to review the design of the child grant

scheme plus other latest available evidence, to further enhance its potential impact on nutritional outcomes, specially targeting the critical windows of 1000 days – from pregnancy to children under two.

This area will have the following outputs:

- Impact of Child Cash Grant with integrated IYCF behaviour change package is jointly reviewed by 2015-2016, to serve as input to review the design of the Child Cash Grant by 2016 for accelerated reduction of underweight in young children and improved optimal feeding and care practices among the disadvantaged group population, and scale-up by 2020.

IYCF in Child Friendly Local Governance (CFLG)

The Ministry of Federal Affairs and Local Development (MoFALD) has initiated Child Friendly Local Governance (CFLG), which has as its main objective to mainstream child rights (survival, development, participation and protection) issues in the policies, systems, structures, mechanism and working processes of local government (areas and levels). Currently it is being implemented in 34 districts of the country, with a vision to scale it up to all the remaining districts. CFLG approach, among others, supports nutrition interventions for children under 5 years of age (breastfeeding, complementary feeding) as well as water sanitation and hygiene (WASH) components. This represents a valuable forum to advocate for and promote optimal IYCF practices, targeting key local government policy leaders and community stakeholders.

This area will have the following outputs:

- Appropriate nutrition indicators and tools are incorporated in CFLG to ensure that IYCF is included as a core indicators and priority development agenda at the DDC and VDC levels as part of MSNP by the end of 2015, with continued coordinated efforts towards this end by 2020.
- Support to implement integrated MIYCN social behaviour change package at community level (eg. in citizen awareness centre) through CFLG, social mobilization for nutrition through the LGCDP hired social mobilizers, in line with MSNP through 2020.

3.7.IYCF in difficult circumstances

Infants and children are among the most vulnerable victims of natural or human-induced emergencies. In emergencies the likelihood of not breastfeeding increases, as do the dangers of artificial feeding and inappropriate complementary feeding. Interrupted breastfeeding, use of BMS and inappropriate complementary feeding heighten the risk of malnutrition, illness and mortality. Because of the urgency with which these interventions are required when an emergency arises, guidelines for infant and young child feeding in emergencies need to be in place so that they can be effective during an emergency. All stakeholders must be aware and have knowledge about the benefits of breastfeeding in emergency situations. A pool of expert trainers should be formed to train government, non-government, and humanitarian agency staff on good practices in infant and young child feeding during emergencies and to assist these agencies in developing interventions to improve feeding practices. Nepal has adopted the

nutrition cluster approach, which is operational, and in the event of an emergency, infant and young child feeding activities will be coordinated and monitored through the inter-agency coordination group responsible for nutrition in emergencies.

As indicated earlier, the MoHP has decided recently to scale up integrated management of acute malnutrition in targeted districts which includes IYCF as a core component. This will provide IYCF counseling support to mothers with children that are suffering from moderate acute malnutrition, in addition to providing treatment for severe acute malnutrition and treatment for moderate acute malnutrition in very food insecure areas. However, it has yet to reach the implementation scale. Furthermore, MoHP has recently developed a national guideline on nutrition and HIV (2011), but, HIV and IYCF counseling materials and tools have not yet been developed for use in the context of prevention of mother to child transmission (PMTCT). This is critical to ensure optimal feeding of children whose mothers are HIV positive to reduce transmission of HIV from mother to child thereby enhancing their survival and nutrition status.

This broad area has the following strategic objective:

- To ensure that guidelines on IYCF in emergencies are in place by 2014, and existing guidelines on IMAM and IYCF as well as HIV and IYCF are harmonized with IYCF guidelines and are fully implemented by 2020.

This area will have the following outputs:

IYCF in emergencies

- Guidelines, materials and tools on IYCF in emergencies, are in place by 2014, and are fully implemented during emergencies through 2020.
- Key stakeholders and service providers trained/oriented in high DRR priority districts (flood and drought prone areas) using IYCF in emergency materials and tools by the end of 2020.

IYCF in IMAM and HIV context

- Existing guideline, protocol, materials and tools on IYCF component of IMAM is harmonized with national IYCF guideline by 2014, and fully implemented by 2020.
- HIV and IYCF component of the national HIV and Nutrition guideline is harmonized with national IYCF strategy/guideline and on this basis HIV and IYCF materials and tools are developed, pre-tested and finalized by 2015, and fully implemented in PMTCT context by 2020.
- All PMTCT facilities provide HIV and IYCF counselling to HIV positive mothers by 2020.

3.8.Capacity building on IYCF and BFHI/CBFI – including pre- and in-service training for health and non-health sectors also in line with MSNP

For effective implementation of the comprehensive IYCF strategy and plan, the capacity building of key health workers, community workers, and volunteers on practical skills and knowledge to protect, promote and support optimal IYCF practices is important. One of their key roles is to provide practical support to the mothers, help them overcome barriers to adopting optimal feeding and care practices, and solve common clinical breastfeeding problems. This requires practical and skill-based training to enhance interpersonal counselling skills as well as improve basic knowledge and understanding of key clinical issues-e.g. lactation management, continued feeding of the baby during illnesses. Furthermore, the training should encourage community workers to seek support outside their narrow sector boundaries to address underlying factors of under-nutrition – such as hygiene and sanitation, care stimulation, and access to social protection measures for the most disadvantaged families.

Nutrition capacity needs assessment has been recently carried out across five sectors (health, education, WASH, local development, and agriculture) by the National Planning Commission and UNICEF for the key levels-including national, district and community, as part of the MSNP. At the same time, the MoHP has recently completed a review of the pre-service and in-service curricula of different cadres of health workers, identifying gaps and areas that need strengthening. Furthermore, a review of the existing IYCF training materials and tools is ongoing, which should culminate in developing a strengthened and harmonized comprehensive IYCF package as per the latest global materials and tools. Based on the outcome of the assessment and ongoing reviews, support needs to be then directed to a introduce the comprehensive harmonized IYCF training materials, for key health workers, community workers and volunteers-involving a network of training institutes, universities and professional associations. Furthermore, given the ongoing efforts to strengthen linkages between key health programs with other key non-health sector programs, in line with MSNP, to provide strategic support to mothers and caretakers to adopt optimal feeding practices under all circumstances, it will be important to ensure that key workers have basic knowledge and understanding of IYCF. Accordingly, different pre-service and in-service training packages for community cadres within non-health sectors should be reviewed to include the most relevant, harmonized IYCF core content, in a phase-wise manner.

Along with proper planning and implementation of comprehensive IYCF programs, supervision and monitoring of the programs is crucial to its success. Therefore, it is important to seriously consider institutionalising the supervision system by delineating clear roles, with targets, to identified staff responsible for the national IYCF program. This requires regularly scheduled supervisory visits followed by preparation of a report which then becomes an integral part of the monthly information and feedback system. This would identify gaps observed during supervision and recommend corrective measures for all stakeholders. Such a feedback system is essential for building further skills, solving problems and for overall program improvement.

This component of the strategy aims to achieve the following objective:

- To include strengthened and harmonized comprehensive IYCF package in pre-service and in-service training curriculum for key medical, paramedical, nursing cadre, community health workers and volunteers in the health sector and other key cadre in non-health sectors by 2015 and its implementation, with a strong supervisory and monitoring mechanism in place by 2020.

This area will have the following outputs:

Harmonization of IYCF training materials and tools

- Comprehensive IYCF and BFHI/CBFI training materials and tools are reviewed, harmonized and included in the integrated MIYCN package, and core aspects are integrated into key health sector programs and other key programs within non-health sectors in line with MSNP by the end of 2015, and is available for use, including the introduction of comprehensive IYCF in pre-service and in-service training by the end of 2020.
- Harmonized IYCF and BFHI/CBFI pre-service and in-service training materials and tools available by 2015.

Include comprehensive IYCF in pre-service and in-service training of key service providers

- Introduced, strengthened and harmonized comprehensive MIYCN package, including IYCF, based on nutrition capacity assessment findings and review of existing pre-service and in-service curriculum of key health workers, community workers and volunteers, with advocacy and support for its implementation by 2020.

Supportive supervision and monitoring

- Developed supervision and monitoring tools as part of the strengthened and harmonized comprehensive MIYCN package, including IYCF, based on nutrition capacity assessment findings and review of existing pre-service and in-service curriculum of key health workers, community workers and volunteers by 2020.

3.9. Research, Monitoring and Evaluation of IYCF

All the activities related to the national IYCF program need to be monitored at all levels, and evaluated periodically so as to track the implementation progress of the program, provide feedback on the ongoing progress and possible constraints, give justification for continuation of the interventions as well as identify the areas for modification in the modality or program interventions. Monitoring of the programs is a continuous process and provides the program managers and concerned stakeholders with the essential information about the strengths and weaknesses in the progress, challenges in achieving the results and objectives so that corrective actions can be made at the point where it starts. Evaluation is the systematic method to assess the progress and achievement against the program's goal and objectives. The programmatic

review is also important to ensure that the implementation is on track, that all the indicators; process, output, and outcome are monitored. While the data for process and some output indicators can be obtained from the on-going monitoring system or through integration of these indicators into the existing health management information system, the outcome and impact indicators will be assessed through the surveys, studies and research such as Nepal Demographic and Health Survey, Nepal Living Standard Survey, Multi-Indicator Cluster Survey and other nutrition related studies. Research using both qualitative as well as quantitative methods will also be used to determine the factors responsible for poor IYCF practices, to identify the groups who are using the services the least or the most and also to identify cost-effective approaches for improving IYCF practices for effective program implementation. The research for IYCF will include different stakeholders at all levels ranging from family to policy level.

This component of the strategy will aim to attain the following objective:

- To strengthen IYCF research, monitoring and evaluation and ensure its implementation by 2020, with core IYCF indicators included in the HMIS, and with links to MNIS.

This broad area has the following outputs:

- Detailed M&E framework for the comprehensive IYCF strategy developed as part of the detailed costed plan of action by 2014.
- Priority research agendas identified and supported with a focus on: identifying diverse, nutrient-dense and culturally acceptable complementary foods using locally available foods; qualitative and formative study on the factors associated with early breastfeeding initiation, exclusive breastfeeding and complementary feeding practices, operations research on effective delivery of IYCF counselling, including lactation management, formative research for coping strategies for IYCF in food insecure areas and use of innovative approaches for counselling including periodic evaluation involving key sectors in line with MSNP by the end of 2015.
- Regular comprehensive IYCF reviews and studies undertaken and supported at the key levels, in line with the MIYCN costed action plan and M&E framework through 2020.

4. Obligations and Responsibilities

The Government of Nepal, international non-government organizations, donors, development partners, UN agencies, NGOs, professional bodies, academia, CBOs, FBOs, families and communities share responsibility for ensuring fulfilment of the right of children to adequate health care and nutrition, by protecting supporting and promoting optimal feeding and care practices.

Each partner should acknowledge and fulfil its responsibilities for improving the nutrition status of infants and young children and for mobilizing required resources. All partners should work together to achieve the aim and objectives of the national strategy, through by innovative alliances and partnership to avoid conflict of interest, duplication of efforts and to enhance effective use of resources.

4.1 Government

- The government should support implementation of the strategy and operational plan at all levels.
- Adequate human, financial and organizational resources should be identified and allocated to facilitate timely and successful implementation of the plan. It is particularly important to have constructive dialogue and active collaboration with appropriate groups working for the protection, promotion and support of appropriate infant and young child feeding practices.
- The government should ratify the maternity protection rights in line with the ILO Maternity Protection Convention No. 183.
- Government should accelerate efforts to regular monitoring and enforcement of the Nepal Code for Marketing of Breast Milk Substitutes.
- Government should spearhead revitalization of the Baby Friendly Hospital Initiative (BFHI) countrywide. The integrated curriculum on implementation of BFHI in the context of HIV should be adopted and health service providers oriented on its use. BFHI needs to be integrated within the national health care system and provided with adequate resources to sustain it.
- The IYCF Counselling will be strengthened through the revitalization of the PHC/ORC as well as through the health mother groups (focusing on 1000 days).
- The National Working Group on Infant and Young Child Feeding under NUTEC should be strengthened to support implementation of the comprehensive IYCF strategy and action plan, with strengthened linkages to key non-health sector programs identified in the strategy, in line with MSNP.
- The government should advocate for and sensitize all stakeholders i.e. health and other sector ministries, institutions and partners on the national comprehensive strategy on IYCF.
- Government should engage CBOs, FBOs and NGOs operating in the community through monitoring and coordination of their activities. The linkage between the health facilities and the community should be strengthened through active engagement and collaboration.

4.2 Non-governmental organizations & community based support groups

Diverse national and local NGOs/CBOs/FBOs including the private sector have multiple opportunities to contribute to implementation of the operational plan on IYCF by:

- Providing their members with accurate, up to date information on IYCF.
- Integrating skilled support for infant and young child feeding in community based interventions and ensuring effective linkages with the nutrition and health care system.
- Supporting creation of mother and child friendly communities and work places that routinely support appropriate IYCF.
- Providing community based support including peer support through mother to mother support groups, breastfeeding counsellors.

4.3 International organizations

International organizations should place infant and young child feeding high on the global public health agenda due to its central significance in realizing the rights of women and children. They should serve as advocates for increased human, financial and institutional resources for implementation of the strategy. Specifically, international organizations should contribute to implementation of the action plan by:

- Supporting monitoring of the Baby Friendly Hospital Initiative and advocating for expansion beyond the maternity care setting.
- Assisting social mobilization and behaviour change activities for example using the mass media to promote appropriate infant feeding practices and educating media representatives.
- Supporting improvement of health workers skills to support optimal infant and young child feeding
- Supporting national and regional capacity building of policy and decision makers on IYCF
- Supporting monitoring of implementation of the code for and research on marketing practices of infant formula by commercial enterprises.
- Assisting revision of pre-service curriculum for doctors, nurses, midwives, nutritionists, dieticians auxiliary health workers, community health workers, volunteers and other groups as necessary.
- Support the Government of Nepal in financially and technically in effective implementation and scale-up of the consolidated MIYCF action plan.

4.4 Industries and enterprises

Manufacturers and distributors of industrially processed foods intended for infants and young children have a constructive role to play in achieving the strategy. All manufacturers and distributors of products within the scope of the international code for marketing of breast milk substitutes are responsible for monitoring their marketing practices according to the principles and aim of the code. They should ensure that their conduct at every level conforms to the Nepal code for marketing of breast milk substitutes.

4.5 Professional associations, Ministries, Mass Media and Other groups

Identification of crucial complementary and mutually reinforcing roles for protection, promotion and support of appropriate IYCF practices is very important. Many other components of society have potentially influential roles in promoting appropriate feeding practices.

- Educational authorities: help to shape the attitudes of children and adolescents with regard to infant and young child feeding. Accurate information should be provided through schools and other educational channels to promote greater awareness and positive perceptions.
- Academic Institutions: Relevant academic institutions need to include the IYCF curriculum in their pre-service training curricula. Likewise, the training institutions like

NHTC need to review and incorporate the IYCF curriculum in the in-service curricula at all levels.

- Mass media- influences popular attitudes towards parenting, child care and products within the scope of the international code for marketing of breast milk substitutes.
- Early child care and development centers and facilities permit mothers to care for their infants. These should facilitate continued breastfeeding and optimal complementary feeding.

4.6 Communities

Parents and caregivers are directly responsible for feeding children. Caregivers have a right to accurate information on feeding of infants and young children which they should be able to get from health care providers, as well as community based support networks including mother to mother support groups as well as peer IYCF counsellors.

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Annexes

1. Documenting the Consultations for Development of IYCF Strategy

Number of Meetings Held During the Development Process

| SN | Meeting | Date |
|----|---------------------------------------|--------------------|
| 1 | 1 st Working Group Meeting | 15 Dec, 2011 |
| 2 | 1 st Core Group Meeting | 17 Feb, 2012 |
| 3 | 2 nd Working Group Meeting | 01 March, 2012 |
| 4 | 3 rd Working Group Meeting | 30 April, 2012 |
| 5 | 2 nd Core Group Meeting | 19 Dec, 2012 |
| 6 | 3 rd Core Group Meeting | 24 Dec, 2012 |
| 7 | 4 th Core Group Meeting | 28 Dec, 2012 |
| 8 | 4 th Working Group Meeting | 23 Jan, 2014 |
| 9 | 5 th Core Group Meeting | 29 Jan, 2014 |
| 10 | 6 th Core Group Meeting | 20 Feb, 2014 |
| 11 | 5 th Working Group Meeting | 05-06 May, 2014 |
| 12 | 7 th Core Group Meeting | 07 July, 2014 |
| 13 | 8 th Core Group Meeting | 16 July, 2014 |
| 14 | 6 th Working Group Meeting | 12 September, 2014 |
| 15 | 9 th Core group Meeting | 17 September, 2014 |

Infant and Young Child Feeding Strategy Development Working Group Members

(From the meeting held at Grand Hotel, Soaltee mode, Kathmandu dated Sunday, 16 October 2011)

1. Raj Kumar Pokharel, CHD
 2. Lila Bikram Thapa , CHD
 3. Dr. Amit Bhandari, DFID
 4. Hari Koirala, USAID
 5. Ashok Bhurtyal, WHO
 6. Pradiumna Dahal, UNICEF
 7. Rahita Pachhai, UNICEF
 8. Sophiya Uprety, WFP
 9. Pooja Pandey Rana, HKI
 10. Prakash Chandra Joshi, HKI
 11. Neera Sharma, SCI
 12. Shafia Khatun, CHD
 13. Sujaya Nepali Bhattacharya, maxPro
- Mr. Parashuram Shrestha from Integrated Management of Childhood Illness (IMCI) section of Child Health Division,
 - Representative from Family Health Division,

- Dr. C B Kamal Raj from ACF and
- Representative from Nepal Pediatric Society (NEPAS) were added in the working group as a member from discussion.

Initial Core Group members:

- Raj Kumar Pokharel
- Sujay Nepali Bhattacharya
- Sumit Karn
- Safia Khatun
- Sri Krishna Basnet
- Rajendra Karkee

Later, another group worked further on the document; however, that group was never formally formulated. Members were consulted as per their expertise and as per needed:

- Raj Kumar Pokharel
- Saba Mebrahtu
- Pradiumna Dahal
- Rahita Pachhai
- Sujay Nepali Bhattacharya
- Amrit Gurung
- Pooja P Rana
- Kalpana Tiwari
- Prof. Dr. Prakash S Shrestha
- Sumit Karn
- Pranab Rajbhandari

A core group was formalized to develop the plan of action. The team comprises of: (23rd Jan, 2014)

- Basant Adhikari
- Pradiumna Dahal
- Prakash Chandra Joshi
- Sumit Karn
- Neera Sharma
- Nanda Adhikari
- Dr. Ojashwi Acharya
- Sujay Nepali Bhattacharya
- Bhim K Pun
- Amrit Gurung

Finally another group worked further on the document to finalize the IYCF strategy. The group, with following members, re-worked to update/revise the strategy which was drafted on 18th March, 2013 were:

- Giri Raj Subedi, CHD
- Basant Adhikari, CHD
- Saba Mebtathu, UNICEF
- Pradiumna Dahal, UNICEF
- Prakash Chandra Joshi, CHD/UNICEF

- Ashok Bhurtyal, WHO
- Devendra Adhikari, USAID
- Dr. Ojashwi Acharya, ACF
- Sujay Nepali Bhattacharya, ACF
- Sumit Karn, FAO
- Akriti Singh, SUA AHARA
- Prof. Dr. Ramesh Kant Adhikari

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2. Ten Steps to Successful Breastfeeding

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

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

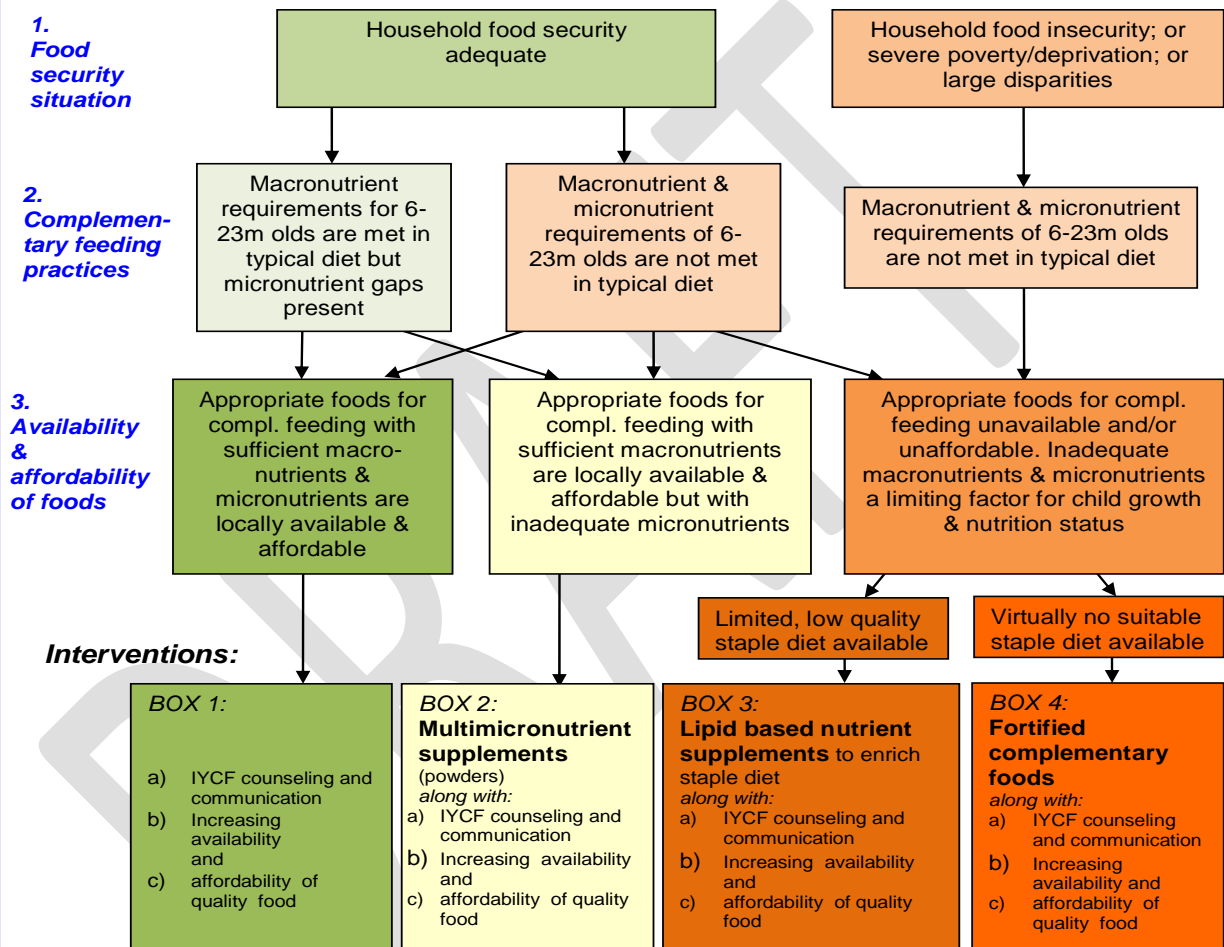
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3. Decision Tree for Interventions to Improve Nutrient Quality of Complementary Feeding

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:

- a) **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.
- b) **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.
- c) **Strategies for increasing affordability of high quality foods:** vouchers/coupons, conditional cash transfers or other social safety nets, or through free distribution.

Source: UNICEF 2011.