National Nutrition Strategy

2009-2015

NATIONAL NUTRITION PROGRAM
MINISTRY OF HEALTH OF CAMBODIA

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List of Acronyms and Abbreviations

3YRP	3-Year Rolling Plans
AIDS	Acquired immune deficiency syndrome
AOP	Annual Operational Plans
CDHS	Cambodia Demographic and Health Survey
CSS	Child Survival Strategy
GDP	Gross Domestic Product
HIS	Health Information System
HIV	Human Immunodeficiency Virus
IDD	Iodine Deficiency Disorders
IMCI	Integrated Management of Childhood Illness
INGO	International Non-Governmental Organisation
MDG	Millienium Development Goal
NCN	National Council of Nutrition within the Ministry of Planning
NGO	Non-Governmental Organisation
NNP	National Nutrition Program
PMTCT	Prevention of mother to child transmission (of HIV)

Executive Summary

Cambodia is one of 36 high burden countries in the world for maternal and child under-nutrition, with 44 percent of children below the age of five years chronically malnourished (stunted), 28 percent underweight and 8 percent acutely malnourished (wasted). Anemia rates are also high with 62 percent children below the age of five years anemic. Twenty percent of women are chronically energy deficient (thin), and 44 percent of women of reproductive age and 57 of pregnant women are anemic. The maternal mortality ratio is one of the highest in the region at 472 per 100,000 births. Although there has been significant progress in the child survival rate, it is estimated that 1 in 12 children (83/1,000 live births) in Cambodia die before reaching their fifth birthday.

This is the first National Nutrition Strategy. The strategy was developed by the National Nutrition Program using a participatory process involving the key stakeholders. The purpose of the Strategy is to provide a clear focus and long term direction for addressing maternal and child under nutrition Cambodia. The overall goal of the National Nutrition Strategy is to contribute to reduced maternal and child morbidity and mortality by improving the nutritional status of women and children in Cambodia. Thus, the strategy will contribute to the achievement of the national strategic development goals as articulated in various national strategic frameworks, including the Cambodia Millennium Goals, the Health Strategic Plan for 2008-2015, the Rectangular Strategy, the National Strategic Development Plan 2006-2010, the Strategic Framework for Food Security and Nutrition in Cambodia 2008-2012, the Cambodia Nutrition Investment Plan 2008-2015, and the Food Security and Support Program.

The three key results to be achieved are:

Key result 1: Reduction in protein-energy malnutrition and micronutrient deficiencies in young children

Key result 2: Reduction in protein-energy malnutrition and micronutrient deficiencies in women

Key result 3: Strengthened national leadership, cross-sectoral collaboration and increased allocation of resources in the area of food security and nutrition

In line with the key results, objectives and specific targets have been developed (detailed on page 14).

Five strategic approaches have been developed to reach the key results and objectives:

7.1 Increase the coverage of proven and cost effective maternal and young child nutrition interventions through health system strengthening, advancing progress in decentralization of health service delivery and mainstreaming of nutrition into all health programs.

7.2 Increase the coverage of proven and cost effective maternal and young child nutrition interventions through strengthening community involvement in nutrition activities and improving individual and family practices on maternal, infant and young child feeding and general nutrition.

7.3 Strengthen multi-sector linkages, improve the collaboration with concerned government structures/civil society and enhance the consideration of nutrition in overall national strategies and sector plans and programs.

7.4 Develop effective leadership and technical nutrition capacity of government and non government development partners for the implementation of the National Nutrition Strategy

7.5 Increase availability of information for policy makers and program planners through improved monitoring, evaluation and research

The strategy focuses specifically on what the Ministry of Health can do to address maternal and young child under nutrition. It is therefore limited in scope to address the full spectrum of causes of under nutrition, which requires a broad coalition of multi-sectoral interventions. Every effort has been made to link the strategy to other policy and strategic frameworks in the area of nutrition, which are currently under development such as: the Strategic Framework for Food Security and Nutrition in Cambodia 2008-2010, the Cambodia Nutrition Investment Plan 2008-2012, and the Food Security Support Program. In addition, the strategy outlines the importance of reaching-out to other sectors beyond health via advocacy and development of partnerships in areas relevant to nutrition. A National Nutrition Strategy costing exercise will need to be conducted, and adequate funds need to be allocated for the strategy's implementation.

1. Introduction

1.1. Nutrition and the Millennium Development Goals

Although there have been improvements in the nutritional status of women and young children in the last few years, maternal and child undernutrition remains a serious problem. Cambodia is designated as one of the 36 high burden countries in the world for maternal and child under-nutrition. This is confirmed by the results of the Cambodia Demographics Health Survey 2005, with 44 percent of children below the age of five years chronically malnourished (stunted), 28 percent underweight and 8 percent acutely malnourished (wasted). Anemia rates are also high with 62 percent children below five years of age anemic. Twenty percent of the women are chronically energy deficient (thin), and 44 percent of the women of reproductive age and 57 percent of the pregnant women are anemic. Even mild and moderate anemia is associated with an increased risk of maternal mortality.

The poor nutritional status of Cambodian women and children is reflected in high maternal and under-5 mortality rates. Between the two Cambodia Demographic and Health Surveys 2000 and 2005, maternal mortality did not record any improvements, stagnating at 472 per 100,000 live births. Although there has been significant progress in the child survival rate, it was estimated in 2005 that 1 in 12 children (83/1,000 live births) in Cambodia die before reaching their fifth birthday.

The Royal Government of Cambodia has signed the Millennium Declaration and is committed to achieving the Cambodia Millennium Development Goals by 2015. Eradicating extreme poverty and hunger, reducing child and maternal mortality and achieving all the Cambodia Millennium Development Goals related to health and education are largely dependent on progress in nutrition. If undernutrition and micronutrient deficiencies are not successfully addressed, it will be impossible to reach the other Millennium Development Goals.

The National Nutrition Strategy 2008-2015 is the first long term nutrition strategy developed by the Ministry of Health. Previously the National Nutrition Program developed and implemented Annual Operational Plans. The National Nutrition Strategy describes priority evidence based nutrition related interventions that are amenable to the Ministry of Health action. The strategy's implementation will contribute towards the achievement of the Cambodia Millennium Development Goals on poverty reduction, decreasing child mortality, improving maternal health and reducing maternal mortality, and fighting HIV/AIDS, as well as contributing to the achieving the goals of the Rectangular Strategy, the National Strategic Development Plan 2006-2010 and the Health Strategic Plan for 2008-2015. The National Nutrition Strategy is also linked to other nutrition policy and strategic frameworks which are currently under development: the Strategic Framework for Food Security and Nutrition in Cambodia 2008-2012, the Cambodia Nutrition Investment Plan 2008-2015, and the Food Security and Support Program.

The key health challenges prioritized in the strategy are maternal and young child undernutrition, including deficiencies of vitamin A, iron, iodine and zinc. Nutrition in relation to HIV, nutrition in emergencies, and nutrition and non communicable diseases are also addressed. In addition, the strategy highlights the importance of strengthening linkages to other sectors beyond health via advocacy and development of partnerships in areas relevant to nutrition.

1.2. Purpose

The purpose of the national nutrition strategy is to provide a clear focus and long term direction to the National Nutrition Program and development partners, which will enable an effective and coordinated response to improve maternal and young child undernutrition and

therefore improve maternal and child survival. The strategy outlines a well defined evidence based 'roadmap' of nutrition interventions, and includes the overall goal, objectives, strategies and activity plan from 2008 -2015.

1.3. The Development of the National Nutrition Strategy

A participatory process was employed to develop the strategy with a series of meetings and consultations which involved input and feedback from relevant stakeholders. The National Nutrition Program and Nutrition Technical Working Group played a key role in reviewing and revising several drafts of the strategy.

1.4. Limitations

The National Nutrition Strategy is a Ministry of Health document and focuses specifically on what the ministry can do to address maternal and young child undernutrition. It is therefore limited in scope to address the full spectrum of causes of undernutrition, which requires a broad coalition of multisectoral interventions. Every effort has been made in the strategy document to link the current strategy with multisectoral policies and documents, and to identify areas requiring stronger partnerships and collaboration. A National Nutrition Strategy costing exercise will need to be conducted, and adequate funds need to be allocated for the strategy's implementation.

2. Summary of the 2008 Analysis of the Nutritional Status, Trends and Causes in Cambodia

2.1. Young Child Undernutrition

Child malnutrition remains a huge problem in Cambodia, affecting almost half of the children below the age of 5 years. As a result, children are suffering more from disease and mortality is high. Furthermore, undernutrition results in reduced cognitive ability as adults and in reduced productivity. Although the rate of child malnutrition has decreased over the last decade, the reduction rate has been low and will not be enough to reach the Millennium Declaration Goal of halving the rate by 2015. Furthermore, as the reduction rate is just slightly higher than the population growth rate, the absolute number of malnourished children remains almost unchanged at 700,000.

Malnutrition causes untold suffering and death, and it also puts a high financial cost on the society. The loss from reduction in productivity has been estimated at 2-3 percent of GDP. Furthermore, reduction in malnutrition will help to accelerate poverty reduction. Investments in improved child nutrition is thus not only a realization of children rights, it makes economic sense. For increased investments in nutrition, there is an urgent need to put nutrition on the agenda of senior policy makers and the society at large. This will require a campaign aimed at explaining the severity of the present situation, its consequences and its solutions.

Improved child care should be the focus of the efforts to reduce child malnutrition. This requires the involvement of parents and the community at large as active participants, which requires a community based approach. To build a community based movement for improved child care and nutrition, the involvement of relevant ministries and groups dealing with community development will be essential.

2.2. Young Child Anemia

Young child anemia is a serious problem, with 62 percent affected in 2005. The damage caused by this to children and their cognitive development calls for urgent action. The coverage of deworming, the ongoing priority intervention, was low at 27 percent. Although

ongoing efforts to increase the deworming coverage are likely to be successful, the prevalence of anemia is highest in the youngest children, who have relatively low worm infestation. It is thus likely that anemia will remain a serious problem even if deworming is successful. This calls for complementary efforts, such as sprinkles, i.e. small sachets with a mix of micronutrients added to the food of young children. Sprinkles are particularly promising since they focus on the critical window between 6 and 11 months of age when the demand for iron and other micronutrients is highest.

2.3. Young Child Vitamin A Deficiency

Young child vitamin A deficiency remains a significant public health problem. The prevalence of vitamin A deficiency was 22 percent in 2000, and the coverage of vitamin A supplementation is low. Efforts are needed to increase the supplementation coverage, and to ensure that supplementation is established in all districts. There is also a need to ensure that all children receive their first vitamin A supplement at 6 months of age, which means individual targeting in addition to the biannual supplementation events. Furthermore, timely availability of vitamin A supplements well before each supplementation round needs to be assured.

2.4. Young Child Iodine Deficiency Disorders

The efforts to eliminate iodine deficiency disorders in Cambodia have been successful. Even if the use of iodized salt is below the target of 90 percent, the high median urinary iodine excretion shows that there is no longer a problem of public health significance. Conversely, the overall high iodine intake found in the latest survey could be a cause for concern. The survey also noted a wide variation in the iodine content in household salt, and although the overall iodine intake was high, 22 percent of the children had too low intake.

One reason for the uneven salt iodization is the relatively simple technology used, linked to the difficulty of achieving homogeneous iodization with large crystal salt. However, even under these conditions better iodization results are possible. To improve the iodization process and attain homogeneous iodine levels, a mandatory internal quality assurance system is required, strengthened through external verification. If the iodization process would take place in fewer sites, better equipment could be installed and a working quality assurance system established. In addition, routine monitoring of salt iodine content at retail level, such as shops and markets, would be valuable.

The salt iodization level stipulated by the IDD legislation could be reviewed, given the high urinary excretion found in the 2008 survey. To guide this, there is a need to determine the average daily consumption of salt, including salt in fish sauce.

2.5. Young Child Zinc Deficiency

Young child zinc deficiency is likely to be a big problem in Cambodia, contributing to the high levels of disease and mortality, as well as to the high proportion of stunting. The ongoing efforts to provide zinc as treatment of diarrhea will be helpful and the efforts should be expanded to the whole country. However, all young children regardless of whether they have diarrhea or not need zinc to protect them from disease and to ensure that they are growing well. Sprinkles for home based food fortification offers a feasible alternative.

2.6. General Maternal Undernutrition

General maternal malnutrition is a major problem in Cambodia. Twenty percent of the women are underweight and there has been no improvement between 2000 and 2005. Adequate weight gain during pregnancy is essential to break the intergenerational cycle of malnutrition,

as it will reduce low birth weight in the newborn. Adequate weight gain is also important for the women themselves.

Weight gain monitoring is an important aspect of pregnancy and weight gain faltering needs to be identified early. As the efforts to strengthen and expand antenatal care services continue, weight gain monitoring needs to be included, along with counseling on how to assure better weight gain. In addition to counseling with affected women and their families, efforts should be made to bring the findings from pregnancy weight gain monitoring to the Village Health Support Groups and to encourage community based discussions on the situation of pregnant women, their need to eat for two and to rest for two, and to find ways to support this.

Links could also be made with women's associations, projects and groups working with gender related issues and other groups working in the communities to bring the issue of adequate weight gain during pregnancy to their agenda.

2.7. Maternal Anemia

In spite of moderate reductions, maternal anemia remains a serious problem affecting almost half of the women of reproductive age. Although the improvements seen in iron/folate supplementation is encouraging, with 58 percent of pregnant women taking supplements, further progress is needed. There is also a need to ensure increased coverage of deworming during and after pregnancy. In addition, there might be a need to review the policy on iron/folate supplements during pregnancy as the present recommendation of 90 tablets during pregnancy is short compared to the global recommendation of 180 tablets.

With the high prevalence of anemia seen in Cambodia, pregnancy supplementation will not be enough to overcome the problem. Iron supplementation of non-pregnant women would be desirable, both for adolescents prior to the first pregnancy and in general between pregnancies.

2.8. Maternal Vitamin A Deficiency

Although maternal vitamin A deficiency is not a problem of public health significance in Cambodia, it is still a reality for many women. Night blindness is affecting 2 percent of the pregnant women, indicating that a larger proportion suffer from sub-clinical deficiency. The ongoing effort to provide women with high-dose vitamin A supplements as soon as possible after delivery thus needs to be accelerated. Furthermore, since night blindness is a danger sign, a policy on its identification and treatment as part of routine antenatal care should be considered.

Since pregnant women in Cambodia suffer from multiple nutrient deficiencies – not only iron and vitamin A, a policy on the provision of multiple micronutrient pregnancy supplements instead of the present iron/folate tablets might be considered, at least in provinces with high rates of vitamin A deficiency.

2.9. Maternal Iodine Deficiency Disorders

Adequate intake of iodine is especially important during the early stages of pregnancy. Since pregnancies are not detected in the early stages, it is essential that adequately iodised salt is used all the time.

2.10. Maternal Zinc Deficiency

The best approach to ensure adequate intake of zinc during pregnancy is to provide multiple micronutrient supplements.

3. Description of the National Nutrition Program and Current Nutrition Activities

3.1. Important Milestones in the Development of the National Nutrition Program

Year	Milestone	Comments
1993	Ministry of Health/Helen Keller International vitamin A survey reported nightblindness of 6 % among children 1-6 years old	In four rural provinces and urban slum areas of Phnom Penh
1994	First Vitamin A Policy developed	Vitamin A supplementation program set up and integrated with National Immunization Days and Sub-National Immunization Days
	Baby Friendly Hospital Initiative started	Discontinued in 1997
1995	The National Nutrition Program established	
1997	Vitamin A supplementation integrated into immunization activities during outreach sessions	Supplementation changes from 3 times per year to twice per year in March and November through outreach and National Immunization Days and Sub-National Immunization Days
1999	Vitamin A Policy updated	
2000	First Cambodia Micronutrient Survey reported nightblindness rate of 0.3-2 % among children 18-59 months and 1-7 % among lactating women with children less than 24 months	Conducted in seven provinces
	Baby Friendly Hospital initiative revitalized	
2001	National Infant and Young Child Feeding Policy developed	
2002	Vitamin A Policy revised to included vitamin A supplementation of postpartum women	
2004	With Health Sector Support Project funding, the National Nutrition Program implemented MPA 10 training in 12 target provinces	
	National Sub-degree for control of iodized salt passed	
	National Sub-degree for marketing of breast milk substitutes passed	
2005	Sub-degree for the marketing of breast milk substitutes passed	
	Baby Friendly Community Initiative began	
2006	Child Survival Strategy	
2007	Vitamin A Policy revised	Vitamin A supplementation rounds changed to six monthly in May and November and post partum vitamin A supplementation changed from within 8 weeks post partum to 6 within weeks post partum
2007	National Guidelines for iron/folate supplementation for pregnant and post partum women developed	
2008	National Guidelines for Infant and Young Child Feeding updated	
	National Communication Strategy for Vitamin A developed	
	National Communication Strategy for Infant and Young Child Feeding developed	
2008	National Communication Strategy for iron/folate supplementation for pregnant women developed	
	Nutrition Situation Analysis developed	
	National Nutrition Strategy developed	

3.2. Policies, Guidelines and Regulations

The Ministry of Health has developed and adopted a number of policies and guidelines addressing under nutrition and micronutrient deficiencies in women and children such as: the Infant and Young Child Feeding Policy (2002), the National Vitamin A Policy Guidelines (2007 revision) and the National Guidelines for the Use of Iron/Folate Supplementation To Prevent and Treat Anemia in Pregnant and Postpartum Women (2007 revision). These policies are used by health managers and professionals for planning and implementing related activities

The Infant and Young Child Feeding Policy, which primarily focuses on breastfeeding promotion, is currently being revised to include the latest evidence of complementary feeding, infant feeding in the context of HIV and infant feeding in emergencies.

Other important policies and regulations include the recently passed Sub-decree on Marketing of Products for Infant and Young Child Feeding (2004), which provides support for exclusive breastfeeding, especially for urban populations. The Sub-decree will ensure that breastmilk substitutes will not be marketed in a way that confuses mothers as to whether breastmilk or substitute is best for their baby. To ensure compliance, the Department of Drugs and Food of the Ministry of Health and the CamControl Department of the Ministry of Commerce are responsible for monitoring the implementation. However, the current measures require further strengthening and support from other ministries is needed, such as the Ministry of Information to ensure the identification/reporting of violations.

Another important policy is the Sub-decree on Management of Iodized Salt Exploitation (2004) which is aimed at universal salt iodisation.

Some policy gaps that require priority attention of the Ministry of Health include development of a National Anemia Prevention and Control Policy to address anemia in young children and women of reproductive age, and guidelines for maternal nutrition, nutrition and HIV/AIDS (including guidelines for HIV and infant feeding) and nutrition in emergencies.

3.3. The National Nutrition Program Structure

The National Nutrition Program was established in Phnom Penh in 1995 to be responsible for Ministry of Health nutrition activities. The program has x units, dealing with general malnutrition, vitamin A and iron/folate supplementation, deworming and salt iodization. The program currently has 13 staff responsible for policy development, planning, coordination, supervision, evaluation, curriculum development, training, development of communication activities and financial program management. It also liaises with other ministries and organizations to promote nutrition.

The National Nutrition Program is also responsible for estimating the demand of nutrition commodities, such as vitamin A capsules, iron/folic acid tablets, and Mebedazole for deworming. It submits the requirements to and follow-up with the Central Medical Stores for procurement to ensure adequate stock throughout the system. Furthermore, it organizes distribution rounds, monitors the distribution, and manages identified shortcomings.

The National Nutrition Program is vastly understaffed and overstretched. The staff are mainly medical doctors with several years of experience of working with nutrition programs, but none of the staff has a post graduate qualification in nutrition. Other constraints include lack of proficient English language and inadequate skills and experience in managing large and increasingly complex nutrition interventions.

3. 4. Nutrition Services at Health Facilities

The National Nutrition Program is primarily implemented through hospitals and health centers, the latter also providing outreach services. There are two main forms of nutrition services: provision of nutritional supplements for prophylactic or therapeutic purposes, and counseling/education for home-based practices to promote optimal nutrition. There are also related services that influence nutritional status, such as deworming and malaria prevention.

Some of the key challenges of the services include low uptake of government health services and lack of comprehensive maternal nutrition services, currently limited to micronutrient interventions. In addition, inter-personal communication skills and counseling capacity of health care staff is generally low. There is also an overall shortage of trained midwives and other health staff. Presently 18 percent of the health centers have no midwife at all, and 39 percent only have one. Furthermore, there is a need for improvements in forecasting, distribution and funding of micronutrient commodities, as well as the provision of adequate resources to ensure universal coverage.

Hospitals

Treatment of Severe Malnutrition

Great strides have been made in improving rehabilitation of severe malnutrition at referral hospitals. With support from the Health Sector Support Project, 56 health staff in the pediatric wards of 6 provincial hospitals have been trained in management of severe malnutrition according to the World Health Organization protocols, bringing the total number of referral hospitals equipped for nutritional rehabilitation to 15. These 15 hospitals also have been outfitted with equipment and supplies for appropriate treatment.

Micronutrient Supplementation

Therapeutic vitamin A capsules provided at hospitals for infants/children and women based on a diagnosis of vitamin A deficiency. Iron and folate tablets are given for therapeutic reasons to infants/children and adults with identified anemia, and as anemia prophylaxis to pregnant women during antenatal care visits.

Health Centers

Micronutrient Supplementation

Nutrition services for children at health centers are outlined in the Minimum Package of Activities 10 on nutrition and the Integrated Management of Child Illness protocol, and include therapeutic use of vitamin A for measles and xerophthalmia, and therapeutic iron/folate supplementation for identified anemia. There is currently no pediatric formulation of iron/folate and adult dose tablets are divided to treat anemic children. Health centers also provide Antenatal Care at which pregnant women receive iron/folate either therapeutically for identified anemia, or prophylactically as part of pregnancy care.

Nutritional Care of the Sick Child

The Minimum Package of Activities 10 on nutrition and the Integrated Management of Child Illness protocol outline procedures for providing information to mothers on feeding during illness and recuperative feeding following illness. Children identified with severe malnutrition through the Integrated Management of Child Illness protocol are referred to hospital-based care.

3.5. Community-based Out-reach and Community Volunteers

Infant and Young Child Feeding

Health Centre staff conduct monthly outreach sessions in community catchment areas. In many communities Village Health Support Groups have been established to assist during outreach days, remind the community members about the date for next outreach, and help with follow up activities.

Because 78 percent of births take place outside of health facilities, Antenatal and Postnatal Care activities during outreach sessions provide important opportunities for conveying nutrition messages on correct breastfeeding practices, appropriate complementary feeding and micronutrient supplementation. Outreach sessions are also used to give practical assistance to breastfeeding mothers.

The fact that most outreach sessions primarily focus on immunization and that health center staff spend minimal time in the villages during outreach sessions are important challenges to the provision of nutrition counseling and education. There is also a lack of communication materials for use at the village level.

An opportunity for strengthening and expanding community based approaches to infant and young child feeding is the Baby Friendly Community Initiative, a village level initiative to support, promote, and protect breastfeeding and to promote adequate complementary feeding practices. The Baby Friendly Community Initiative works through the establishment of mother support groups consisting of Village Health Support Group volunteers, traditional birth attendants, women-volunteers with previous positive breastfeeding experience, religious leaders and the village chief. The initiative, which was developed and tested by NGOs and UNICEF, has proved to be effective in increasing the rates of exclusive breastfeeding and improving complementary feeding practices. The approach is now considered by the National Nutrition Program for nation-wide expansion. There are currently approximately 3,360 ‘Baby Friendly villages’.

Another important opportunity for promoting community and household practices on nutrition is the Community Integrated Management of Child Illness approach, which is designed to reach the community itself and which has reached half of the operational districts. Along with breastfeeding and complementary feeding, it promotes micronutrient supplementation, feeding of sick children at home, and hygiene. The training modules are currently undergoing review and revision and a new standard job aid for use by village volunteers has been developed and focuses on 12 key family practices

Micronutrients

Currently, vitamin A capsules, together with deworming drugs, are distributed to young children through outreach sessions twice annually in May and November. The distribution coverage benefits from the assistance of the Village Health Support Groups and NGOs active in vitamin A support, but not all operational districts receive support. There has been some progress made towards developing a national standard vitamin A program. The National Nutrition Program has developed a National Vitamin A Policy that ensures uniformity in the approach for providing these supplements; the vitamin A training curricula has been revised and integrated into the updated MPA 10 training and a national communication strategy for vitamin A has been developed. There continues to be issues with supervision of vitamin A supplementation activities.

Iron/folate supplementation also takes place through community-level activities and the supplements are provided to pregnant women at antenatal care visits. Shortage of iron/folate tablets is a common problem that needs to be corrected.

3.6. Cross-cutting issues

Salt Iodization

The inter-sectoral National Sub-Committee for the Control of Iodine Deficiency Disorders, of which the National Nutrition Program is a member, is charged with coordination of activities related to iodine deficiency disorders. The sub-committee has identified a number of steps for ensuring adequate salt iodization at production sites. These include vigilant monitoring of production, increased technical assistance to salt producers, and improvements in the quality of iodization. The National Nutrition Program will support intensified communication efforts to promote the use of iodized salt, especially in areas where non-iodized salt is readily available.

Other Food Fortification Activities

The food industry in Cambodia is not well developed and there are few vehicles for food fortification that could reach national coverage. In early 2008 the National Sub-Committee for Iron Deficiency Anemia, broadened its scope to become the National Sub Committee for Food Fortification. Membership consists of eight ministries and is based at the Ministry of Planning. The sub-committee meets bi-annually but has minimal funding for running the secretariat or for monitoring and supervision of current food fortification activities. Current food fortification activities in Cambodia are at small scale and include iron fortification of fish sauce which is supported by Reproductive and Child Health Alliance (RACHA) and International Life Science Institute-Japan and fortification of soy milk and children's snacks supported by Hagar.

Communication strategies and activities

Various nutrition communication activities for promotion of breastfeeding and micronutrient supplements are conducted by health staff and NGO partners using a variety of channels including mass media, community theater, radio, interpersonal communication and small media. Most of the activities have been small in scale using a variety of messages and themes.

National communication and social mobilization activities for the promotion of breastfeeding take place annually with the celebration of the World Breastfeeding Week since 2003 followed by nation-wide comprehensive communication campaigns in 2005, 2006, 2007 which included media/advertising, interpersonal communication and community mobilization activities. National mass media campaigns are also implemented bi-annually to vitamin A supplementation and deworming of children below five years of age.

Complementary feeding and micronutrient supplementation of women have received limited attention in nation-wide communication efforts. During 2008, new national communication strategies will be developed for infant and young child feeding, vitamin A and for iron/folate supplementation.

4. Vision Statement

In 2015:

All Cambodian women and children are healthy, well nourished and secure, and live happy productive hopeful lives. They are able to achieve their full potential and actively contribute to building a prosperous, environmentally sustainable and just society for future generations.

Nutrition is a high profile well funded and strongly supported national priority, and nutrition interventions are fully integrated into relevant policies and multi-sectoral programs. A caring, passionate, motivated and confident team of Cambodian nutrition experts and innovative managers lead, motivate, inspire and co-ordinate a strong partnership of committed leaders at all levels of society to ensure that all Cambodians have equal access to quality nutrition services, livelihood resources and nutrition information

5. Overall Goals

The overall goal of the National Nutrition Strategy is to contribute to reduced maternal and child morbidity and mortality by improving the nutritional status of women and children in Cambodia. Thus, the strategy will contribute to the achievement of the national strategic development goals as articulated in various national strategic frameworks, including the Cambodia Millennium Goals, the Rectangular Strategy and the National Strategic Development Plan 2006-2010 and the Strategic Framework for Food Security and Nutrition in Cambodia 2008-2012.

The National Nutrition Strategy will contribute to the following overall goals:

- Reduction in under-5 mortality from 83/1,000 live birth in 2005 to 65/1,000 in 2015
- Reduction of maternal mortality from 473/100,000 live births in 2005 to 243 in 2010 and 140 in 2015
- Reduction in child undernutrition (using NCHS/WHO growth reference):
    - Stunting from 37% in 2005 to 28% in 2010 and 22% in 2015
    - Underweight from 36% in 2005 to 29% in 2010 and 22% in 2015
    - Wasting from 7% in 2005 to 6% in 2010 and 5% in 2015
- Improved nutritional status of women with underweight reduced from 20% in 2005 to 12% in 2010 and 8% in 2015
- Decreased prevalence of micronutrient deficiencies:
    - Anemia in children under 5 years of age from 62% in 2005 to 52% in 2010 and 42% in 2015
    - Vitamin A deficiencies in children under 5 years of age from 22% in 2000 to less than 10% in 2015
    - Anemia in women of reproductive age from 44% in 2005 to 32% in 2010 to 19% in 2015
    - Anemia in pregnant women from 57% in 2005 to 39% in 2010 and 33% in 2015
    - Night blindness in pregnant women from 8% in 2005 to 5% in 2010 and less than 5% in 2015

6. Key Results and Objectives

The strategy is aiming at the achievement of three key results:

1. Reduction in protein-energy malnutrition and micronutrient deficiencies in young children
2. Reduction of protein-energy malnutrition and micronutrient deficiencies in women
3. Strengthened national leadership, cross-sectoral collaboration and increased allocation of resources in the area of food security and nutrition

The objectives for each key result are shown below:

Key result 1: Reduction in protein-energy malnutrition and micronutrient deficiencies in young children

Objectives

1.1 Increase the rates of immediate and early initiation of breastfeeding and exclusive breast feeding until six months

1.2 Increase the rates of appropriate complementary feeding of infants and young children (6-23 months of age), focusing on energy and nutrient density

1.3 Increase the rates of appropriate care for and feeding of sick children

1.4 Improve management of severely malnourished children at facility and community levels

1.5 Improve the management of nutrition/feeding of HIV-positive children, including counseling of HIV positive pregnant women and mothers

1.6 Increase and expand the coverage of vitamin A supplementation/Mebendazole distribution and vitamin A treatment for young children

1.7 Reduce the rate of anemia and zinc deficiency in young children

1.8 Increase the proportion of household using adequately iodized salt, targeting areas with lowest coverage

1.9 Promote nationwide coverage of zinc treatment during diarrhea

1.10 Strengthen the response capacity to nutrition emergencies, natural or manmade

Key result 2: Reduction of protein-energy malnutrition and micronutrient deficiencies in women

Objectives

2.1 Increase the coverage of weekly iron/folate supplementation of women of reproductive age

2.2 Improve care for pregnant women, including extra dietary intake and rest for increased weight gain during pregnancy

2.3 Increase the coverage of and adherence to iron/folate supplementation during pregnancy

2.4 Increase the coverage of Mebendazole during pregnancy

2.5 Increase the coverage of vitamin A, Mebendazole and iron/folate in the post partum period

2.6 Increase the coverage of HIV positive women receiving appropriate nutrition information

Key result 3: Strengthened national and sub-national leadership, cross-sectoral collaboration and increased allocation of resources to nutrition

Objectives

3.1 Increased technical nutrition capacity of government health staff at all levels

3.2 Strengthen the management capacity of the National Nutrition Program, Provincial Health Departments, Operational Districts and Health Centers

3.3 Strengthen existing and establish new linkages with other sectors, local authorities, private sector, civil society organizations and communities in support of nutrition

3.4 Strengthen the capacity of health center staff to deliver an integrated package of nutrition services at facility level and during outreach

3.5 Strengthen the capacity of the National Nutrition Program and the Ministry of Health to negotiate increased budget allocations for nutrition

3.6 Strengthen the partnership among development partners

3.7 Strengthen the policy environment on Nutrition

7. Objectives and Specific Targets

An overview of the objectives, related indicators, as well as baselines and targets for the interventions and practices promoted by the National Nutrition Strategy are presented in table 7.1. This will be used to monitor progress towards reaching the goals reducing protein-energy malnutrition and micronutrient deficiencies among children and women.

For indicators where specific targets have not yet been developed, baseline values and goals will be formulated during the span of the strategy.

7.1. Objectives and Specific Targets the National Nutrition Strategy 2008-2015

Indicator	2000 Baseline (CDHS 2000)	2005 Baseline (CDHS 2005)	Targets	
			2010	2015
Key Result 1: Reduction in protein-energy malnutrition and micronutrient deficiencies in young children				
Objective 1.1: Increase the rate of immediate and early initiation of breastfeeding and exclusive breastfeeding until six month of age				
Proportion of infants put to breast within one hour after birth	11%	35%	45% (MDG)	62% (MDG)
Proportion of infants given pre-lacteal foods in the first three days of life	57%	55%	45% (NNP)	35% (NNP)
Proportion of infants 0-6 months old exclusively breastfed	11%	60%	34% (MDG) 65% (NNP)	49% (MDG) 70% (NNP)
Number of Baby Friendly Hospitals	0	4	19	25
Objective 1.2: Improve the rate of appropriate complementary feeding of infants and young children (6-23 months of age), focusing on energy and nutrient density				
Proportion of breastfed children who are fed three and more food groups daily and are receiving age-appropriate frequency of meals:				
6-23 months	N/A	49%	59%	69%
6-8 months		33%	43%	53%
9-11 months		44%	54%	64%
12-17 months		62%	72%	82%
18-23 months		47%	57%	67%

Proportion of breastfed children 6-8 months receiving semi-solid foods	71%	82%	95%	95%
Indicator	**2000 Baseline** (CDHS 2000)	**2005 Baseline** (CDHS 2005)	**Targets**	
Objective 1.3: Increase the rate of appropriate care for and feeding of sick children				
Percentage of children under 5 receiving extra liquids during diarrhea episode		38%	45%	60%
Percentage of children under 5 who continue to feed during diarrhea : 1) Amount of liquids given - more 2) Amount of food given - more		 38% 12%	 48% 22%	 58% 32%
Objective 1.4: Improve the coverage with community based programmes promoting nutrition				
Number/proportion of health centers trained on C-IMCI modules on IYCF		0% with the C-IMCI modules revised in 2008	30 ODs (at least 50% of HCs)	77 ODs (at least 50% of HCs)
Number/proportion of health centers trained on C-IMCI modules on Micronutrients		0% with the C-IMCI modules revised in 2008	30 ODs (at least 50% of HCs)	77 ODs (at least 50% of HCs)
Number of villages in which VHSG were trained on C-IMCI modules on IYCF		0% with the C-IMCI modules revised in 2008	30 ODs (100% of villages in 50% of HCs)	77 ODs (100% of villages in 50% of HCs)
Number of villages in which VHSG were trained on C-IMCI modules Micronutrients		0% with the C-IMCI modules revised in 2008	30 ODs (100% of villages in 50% of HCs)	77 ODs (100% of villages in 50% of HCs)
Number/proportion of Baby Friendly Communities	0%	3,038 villages (21%), by end of 2008	3,900 villages 30%	7,000 villages 50%
Number/proportion of villages covered with community-based management of malnutrition	0	Only a limited number of NGOs support small scale programmes	TBD	TBD
Objective 1.5: Improve the management of nutrition/feeding of HIV-positive children, including counseling of HIV positive pregnant women				
Proportion of HIV+ pregnant women accessing PMTCT services (sites) - coverage			TBD	TBD
Proportion of HIV+ pregnant women who accessed PMTCT services receiving counseling on infant feeding options – quality			TBD	TBD
Objective 1.6: Increase and expand the coverage of vitamin A supplementation/Mebendazole distribution and vitamin A treatment of children for young children				
Proportion of children 6-59 months of age receiving bi-annual supplementation with Vitamin A	29%	35% (51% - adjusted after additional analysis of DHS findings), 72%, HIS	85% (CSS)	90% (CSS)
Proportion if children 12-59 months of age receiving bi-annual Mebendazole treatment		27%	85% (NNP)	90% (NNP)

Objective 1.7: Reduce the rate of micronutrient deficiency in young children				
Proportion of young children (under 2 y.a) receiving sprinkles as in-home fortification with micronutrients		Operational research in Svay Rieng	10 ODs from high-risk provinces	TBD (once operational research finalized and national policy and scale-up plan developed)
Proportion of HCs implementing sprinkles in-home fortification for young children (Good Food for Children)		Operational research in Svay Rieng	TBD (once operational research finalized and national policy and scale-up plan developed)	TBD (once operational research finalized and national policy and scale-up plan developed)
Number of villages implementing sprinkles in-home fortification for young children (Good Food for Children)		Operational research in Svay Rieng	TBD (once operational research finalized and national policy and scale-up plan developed)	TBD (once operational research finalized and national policy and scale-up plan developed)
Objective 1.8: Increase the proportion of households using adequately iodised salt, targeting areas with lowest converge				
Proportion of household using adequately iodized salt	12%	73%	90% (NCN)	95% (NCN)
Objective 1.9: Promote nationwide coverage of zinc treatment during diarrhea				
Proportion of children 6-59 months of age receiving zinc tablets during episodes of diarrhea	0%	0%	TBD	TBD
Proportion of health centers implementing diarrhea treatment with Zinc	0%	RACHA & ARC have implemented pilot intervention in 5 operational districts in Pursat and Siem Reap	TBD	TBD
Indicator	**2000 Baseline** (CDHS 2000)	**2005 Baseline** (CDHS 2005)	**Targets**	
Objective 1.10: Strengthen the response capacity to nutrition in emergencies, natural or manmade				
Emergency preparedness for nutrition assessment conducted		No	Assessment completed	
Emergency response guidelines developed, clearly defining required action in specific situations		No	Guidelines developed and disseminated to relevant partners	
Training of identified key response staff conducted and supplies and		None	According to the training	

equipments needs identified			plan (to be developed)	
Key Result 2: Reduction in maternal anemia, vitamin a deficiency and chronic energy deficiency				
Objective 2.1: Increase the coverage of weekly iron/folate supplementation of women of reproductive age				
Proportion of women of reproductive age receiving weekly supplements (in schools and communities)	NA	3.2% (93,000 WRA) 2008	TBD	TBD (once the policy is finalized and scale-up plan developed)
Proportion of health centers implementing weekly iron folate supplementation for women of reproductive age (in schools in communities)	NA	18% out of 996 HCs (182 HCs) 2008	TBD	TBD (once the policy is finalized and scale-up plan developed)
Number (Proportion) of schools implementing iron folate supplementation programmes		240 schools 2008	TBD	TBD (once the policy is finalized and scale-up plan developed)
Objective 2.2: Improve care for pregnant women, including extra dietary intake and rest for increased weight gain of pregnant women				
Proportion of children with low birth weight		15% (CDHS 2005)	12%	10%
Objective 2.3: Increase the coverage and adherence to iron/folate supplementation during pregnancy				
Proportion of pregnant women receiving 90 tablets of iron/folate		62% 69% (HIS)	80% (NNP)	90% (NNP)
Proportion of pregnant women who report taking 90 tablets of iron/folate during pregnancy	4% (took for 2 months)	18%	50% (NNP)	80% (NNP)
Objective 2.4: Increase the coverage of Mebendazole during pregnancy				
Proportion of pregnant women receiving Mebendazole		11%	75% (same as iron/folate)	90%
Objective 2.5: Increase the coverage of vitamin A, Mebendazole and iron/folate in the post partum period				
Proportion of postpartum women receiving high dose vitamin A capsule within 6 weeks after delivery	11%	27% 50% (HIS)	80% (NNP)	85% (NNP)
Proportion of postpartum women receiving 42 tablets of iron/folate		57% (HIS)	85% (NNP)	90% (NNP)
Key Result 3: Strengthen national and sub-national leadership, cross-cutting collaboration and increased allocation of resources to nutrition				
Objective 3.1: Integrate technical nutrition capacity of government health staff at all levels				
Number of pre-service curriculum for medical students, nurses and midwives that have nutrition integrated				
Indicator	**2000 Baseline** (CDHS 2000)	**2005 Baseline** (CDHS 2005)	**Targets**	
Objective 3.2: Strengthen the capacity to manage nutrition interventions of the National Nutrition Program, Provincial Health Departments, Operational Districts and Health Centers				
Number of Cambodian institutions		None	NIPH to	

offering post graduate nutrition courses			include the track on nutrition in MPH	
Number of staff with post graduate nutrition diploma		One	At least one more in process	
Number of staff with management qualification		6 NNP staff and 24 PHD managers (Programme management guidelines for MNCH)	77 OD managers	
Stock-management indicators		Baseline data for pilot districts will be available in late 2009	TBD	TBD
Objective 3.3: Strengthen existing and establish new linkages with other sectors (agriculture, water and sanitation, education, women's affairs), local authorities, private sector, civil society organizations and communities in support of nutrition				
Nutrition incorporated into National Strategic Development Plan and budgeted for		There is no single nutrition indicator in the NSDP 2006-2010	At least 1-2 nutrition indicators are included in the next NSDP	
Number and type of Joint Programmes across sectors		None	At least one joint programme between MOH and MoAFF, or MRD, or MoP	
Joint Monitoring Indicator of the FSN TWG addresses Nutrition and linkages among Food Security and Nutrition				
Number and type of MoH/NNP inputs (presentations) made during FSN TWG meetings, FSN Forums, other high level events (with members of parliament or council of ministers) to raise nutrition profile on the national agenda				
Objective 3.4: Strengthen the capacity of health center staff to deliver an integrated package of nutrition services at facility level and during outreach				
Number of health centers having received MPA 10 training			100%	
Number of health centers having received refresher training in MPA 10			20%	100%
Objective 3.5: Strengthen the capacity of the National Nutrition Program and the Ministry of Health to negotiate increased budget allocations for nutrition				
Annual budget allocation to the		US$ (2009)	US$ (20%	US$ (40%

National Nutrition Program (national budget and development partners)		864,716 HSSP2 245,050 UNICEF Discrete 294,207 A2Z 50,000 WHO Other NOGs	increase compared to baseline 2009)	increase compared to baseline 2009)
Annual budget allocations for Nutrition sub-programme to sub-national level (PHDs)		US$ (2009)	US$ (20% increase compared to baseline 2009)	US$ (40% increase compared to baseline 2009)
Objective 3.6: Strengthen the partnership among development partners				
As for objective 3.3. above				
Objective 3.7: Strengthen policy environment on nutrition				
Relevant policies developed (Management of malnutrition; Micronutrient supplementation for children and women; Nutrition and HIV/AIDS, etc.)				

8. Strategic Approaches

The National Nutrition Strategy gives five strategic approaches to reach the objectives by 2015.

1. Increase the coverage of proven and cost effective maternal and young child nutrition interventions through health system strengthening, advancing progress in decentralization of health service delivery and mainstreaming of nutrition into all health programs.
2. Increase the coverage of proven and cost effective maternal and young child nutrition interventions through strengthening community involvement in nutrition activities and improving individual and family practices on maternal, infant and young child feeding and general nutrition.
3. Strengthen multi-sector linkages, improve the collaboration with concerned government structures/civil society and enhance the consideration of nutrition in overall strategies, and sector plans and programs.
4. Develop effective leadership and technical nutrition capacity of government and non government development partners for the implementation of the National Nutrition Strategy
5. Increase availability of information for policy makers and program planners through improved monitoring, evaluation and research

1. Increase the coverage of proven and cost effective maternal and young child nutrition interventions through health system strengthening, advancing progress in decentralization of health service delivery and mainstreaming of nutrition into all health programs

To increase coverage and to enhance efficiency and effectiveness of current activities in the area of nutrition, increased integration and provision of preventive and curative nutrition services will be pursued. This will require a streamlining of policies and guidelines so that relevant nutrition interventions will be integrated into existing Maternal, Newborn and Child Health packages, i.e. antenatal, delivery, postnatal, management of sick child or well-child visits. Particular attention will be paid to improving the quality of nutrition services via strengthened evidence based planning at all levels, enhanced training, appropriate staffing, and through improved monitoring, follow-up and supervision.

Existing programs and national training curricula that promote an integrated approach to Nutrition will be further strengthened and geographically expanded. Among those are the National Nutrition In-Service Training Module (Minimum Package of Activities 10 on nutrition), the Integrated Management of Child Illnesses, the Minimum Package of Activities 12 on Antenatal and Postpartum Care and the newly developed Postnatal Care Package.

In addition, focused approaches to promoting breastfeeding and complementary feeding at the facility level will be promoted, i.e. Baby Friendly Hospital Initiative, Integrating Counseling Course, Infant and Young Child Feeding and HIV, Management of Severe Malnutrition, etc. It is also anticipated that these programs will integrate HIV related services.

With HIV prevalence rate of 0.6 percent (Cambodia Demographic and Health Survey 2005), infant feeding and nutrition in relation to HIV are important for Cambodia. The National Nutrition Program will take greater leadership in this area, developing and promoting guidelines for a) establishing Ministry of Health policy for HIV and infant feeding, b) helping mothers to make informed choices about breastfeeding, c) helping mothers assess and

choose options for discontinuing breastfeeding, and d) developing nutritional guidelines for people living with HIV/AIDS (including children).

2. Increase the coverage of proven and cost effective maternal and young child nutrition interventions through strengthening community involvement in nutrition activities and improving individual and family practices on maternal, infant and young child feeding and general nutrition

Nutrition activities primarily take place within households, which means that interventions need to be taken as close to the households as possible. In order to increase coverage with quality nutrition interventions, a two-pronged approach will be adopted: strengthening of the monthly integrated out-reach activities and empowering existing community structures to provide health promotion and essential services at the community level.

Continued expansion of Community-Integrated Management of Child Illness approach is the first foray of nutrition education and promotion into the community as it will create an important foundation for future nutrition community-based activities. Health Centre staff, supported by Village Health Support Group volunteers, will promote Community Integrated Management of Child Illness through monthly outreach to communities. For maximum impact on nutrition, staff and volunteers will need clear and detailed guidelines on the content and priorities of outreach visits, communities will need to be aware of the timing and place of the visits, and staff and volunteers will need to keep accurate records of community members that should be present or visited during outreach (e.g. pregnant women, children below 2 years of age and their mothers, infants requiring immunizations). These records will also provide the basis for useful monitoring of activities to assess whether the target population for outreach has been served.

A promising community-based approach, the Baby Friendly Community Initiative will be adopted by the National Nutrition Program as a standard model for improving breastfeeding and complementary feeding practices. The Baby Friendly Community Initiative will be integrated into the Community-Integrated Management of Child Illness package and promoted for scaled up the national level implementation.

The establishment of successful community-based approaches will require streamlining of policies and guidelines, training of health workers and community volunteers, and strengthened supervision. There is also a need to identify the best possible ways of keeping community volunteers motivated. In addition, community-based activities will require mobilizing community structures that already exist, and focusing their efforts on nutrition. These community structures will need to be integrated into planning and evaluation of nutrition activities, with local workers accountable to these same structures. The National Nutrition Program will need to devise a mechanism by which externally designed interventions can be implemented using local skills and resources.

Communication strategies will be reviewed and employed to support community-based programs and promote positive nutrition practices at the individual and community level, such as breastfeeding, complementary feeding, maternal nutrition, etc.

During 2008-2009, the National Nutrition Program will explore various options for community-based nutrition and develop a national model for addressing community-based nutrition.

3. Strengthen multi-sector linkages, improve the collaboration with concerned government structures/civil society and enhance the consideration of nutrition in overall national strategies and sector plans and programs

Although malnutrition among young children and women is common in Cambodia, the problem and the urge for action are not always fully recognized by all strata of the society. The strategy therefore outlines possibilities for reaching national consensus on the need to improve nutrition, through involving members of parliament, senior government officials, civil society and popular individuals. This will be done by advocacy meetings and workshops and by disseminating advocacy messages.

The primary focus of the National Nutrition Strategy is to improve caring/feeding practices and to better prevention and treatment of childhood diseases and the strategy is primarily through the health sector. However, malnutrition has several causes that require a broader approach. Efforts will therefore be made to ensure that nutrition is adequately incorporated in overall national strategies, such as the National Strategic Development Plan.

Inter-sectoral collaboration will be essential for the problem of malnutrition to be addressed in a comprehensive manner. Collaboration will be intensified with organizations such as the Food Security and Nutrition Technical Working Group, Health Technical Working Group, and Inter Ministerial Technical Committee for Nutrition of the National Council for Nutrition. The National Nutrition Program will participate in progress reviews of these groups, and representatives from the same should participate in scheduled progress reviews of the National Nutrition Strategy.

The successful establishment of community-based nutrition activities will require mobilizing local authorities and other community structures in support of nutrition. Awareness and capacity of the village chiefs, commune councils and district/provincial authorities will be build to ensure greater support to nutrition during local planning and budgeting processes, as well as during implementation and monitoring of social services provided by them. For this, the National Nutrition Program will collaboration with relevant government structures in the framework of decentralization, such as the Ministries of Interior, Ministry of Rural Development, Ministry of Women's Affairs.

Another possibility for introducing community-based nutrition activities is building on the current nutrition interventions carried out by a large number of NGOs. Strategic orientation, dissemination of relevant policies, guidelines and implementation packages will be an important part of National Nutrition Program activities throughout the implementation of the National Nutrition Strategy.

4. Develop effective leadership and technical nutrition capacity of government for the implementation of the National Nutrition Strategy

The National Nutrition Program is vastly understaffed and overstretched. There is no National Institution of Nutrition and although the National Nutrition Program staff are mostly medical doctors with several years of experience of working with nutrition programs, none of the staff have a post graduate qualification in nutrition.

During the timeframe of the National Nutrition Strategy, a comprehensive functional review of the National Nutrition Program will be conducted in order to assess the current situation and develop recommendations with regards to appropriate structure and staffing level at the national level. Provincial and district level structures responsible for Nutrition activities under the Ministry of Health and their roles will also be reviewed.

Indigenous leadership development for the nutrition sector is a key priority. Three strategies will create this capacity: 1) specialized training for National Nutrition Program and other selected Minister of Health staff in public health nutrition, 2) support for academic development among National Nutrition Program leadership, and 3) creation of a curriculum at the Public Health Institute for the conferral of post-graduate diplomas in public health nutrition.

5. Increase availability of information for policy makers and program planners through improved monitoring, evaluation and research

The National Nutrition Program of the Ministry of Health will promote the use of information in planning and reviews. It will also work with the Department of Planning and Health Information to identify priority information needs and improve the quality of data collection, reporting and analysis through training and supervision. Efforts will be made to ensure that monitoring visits and evaluations are included in program plans and conducted regularly.

On a regular basis, the National Nutrition Program will assess progress made against the strategy objectives present the assessment report with key findings and recommendations to the Ministry of Health for endorsement.

A number of research activities will be supported to measure nutritional trends and fill existing knowledge gaps, inform policy development and improve ongoing implementation of nutrition activities.

In addition, efforts will be made to establish a nutrition emergency surveillance system in close collaboration with already ongoing surveillance systems.

9. Strategic Approaches and Priority Intervention Areas

Strategic Approaches	Priority Intervention Areas	
Strategic Approaches 1: Increase the coverage of proven and cost effective maternal and young child nutrition interventions through health system strengthening, advancing progress in decentralization of health service delivery and mainstreaming of nutrition into all health programs	1.1 Policies and Guidelines	1. To make the implementation of nutrition interventions more effective and integrated, there is a need to streamline policies and guidelines. One step towards that is to review gaps in existing nutrition policies and guidelines (e.g. policies on infant and young child feeding, vitamin A, iron supplementation of pregnant women, the Sub-decree on Marketing of Products for Infant and Young Child Feeding, the nutrition part of Health Strategic Plan 2, Integrated Management of Child Illness, policies/guidelines related to national reproductive health, prevention of mother to child transmission of HIV, nutrition and HIV/AIDS, etc) o The review will ensure that existing guidelines are consistent with the policies, that the guidelines identify the tasks of specifics actors and that mechanisms in health facilities are established for efficient policy implementation o Identify gaps requiring development of new policies/guidelines ▪ New and emerging issues, e.g. nutrition emergencies, preparedness and response, emergency surveillance, etc ▪ Already identified areas, e.g. weekly iron/folate supplementation of women in reproductive age, home-fortification for iron and multi-micronutrients to young children, mainstreaming nutrition into community participation guidelines, community based management of moderate and acute malnutrition, revision of facility based management of severe malnutrition, HIV and infant feeding, nutrition for people living with HIV, etc. 2. Develop new policies and guidelines as needed and follow up for endorsement, including the National Policies on Micronutrient Deficiency Prevention and Control in young children and women, HIV and infant feeding, nutrition for people living with HIV etc. 3. Summarize all Ministry of Health and other ministries nutrition related polices into one document for easy reference and dissemination 4. The streamlining of nutrition policies and guidelines will require a streamlining of training approaches (see 1.3 Human Resources below) 5. Disseminate the nutrition policies and guidelines to all relevant stakeholders 6. Periodically review and update, as necessary, the nutrition policies and guidelines

Strategic Approaches	Priority Intervention Areas	
	1.2 Evidence Based Planning and Resource Mobilization	To ensure that nutrition related policies and guidelines are implemented at all levels – national, provincial, operational district, health center – and are linked to community interventions, promote a realistic and integrated character of the plans based on evidence. This will require: o Annual Operational Plans (AOP) and 3-Year Rolling Plans (3YRP) at the national and sub-national levels to be based on information (data from Health Information System and identified priority problems) (see strategic approach 5) o Regular review meetings to assess progress and identify bottlenecks o Revision of AOPs and 3YRP, as required 1. Coordinate with the Department of Planning and Health Information to ensure that it is aware of the nutrition related policies and that these are included in the overall plans of the Ministry of Health 2. Coordinate annual planning process with other Ministry of Health programs and departments with potential implication on nutrition, i.e. Central Medial Store, National Reproductive Health Program, National Malaria Center, etc 3. Support Provincial Health Departments and Operational Districts through participation in planning and review meetings 4. Engage in active dialogue with the relevant departments of the Ministry of Health, Health Sector Support Program 2, other potential donors for increased and sustainable resource mobilization to the area of nutrition. Use funding opportunities launched by Global Fund to strengthen nutrition interventions
	1.3 Human Resources	A. Staffing To ensure adequate and competent staff to implement the nutrition policies and plans, coordination will be strengthened with the Departments of Personnel, of Administration and of Human Resources Development to: o Review the staffing structure at national and sub-national levels o Review job descriptions and required qualifications for the posts to ensure consistency with tasks required o Identify vacancies and staff with training needs

Strategic Approaches	Priority Intervention Areas	
	1.3 Human Resources	B. Training 1. Identify priority training programs for maximum integration: o Review overlaps and gaps in existing in-service nutrition training programs (e.g. Nutrition Minimum Package of Activities 10 on nutrition, Baby Friendly Hospital Initiative, Baby Friendly Community Initiative, Infant and Young Child Feeding, Integrated Management of Childhood Illness, Management of Severe Malnutrition, Antenatal and Postnatal Minimum Package of Activities 12, and Postnatal Care Package) linked to the streamlining of policies and guidelines, 1.1 above o Identify and/or develop key training programs to be conducted for special functional groups based on the review of training needs in 1.A.1 above o Training on basic management, including program and staff management, and use of data for programming will be included in the training programs (see 5.1 and 5.2 below) 2. To ensure that health staff is adequately trained to implement the nutrition policies and plans, coordinate with the Human Resource Department and relevant partners to develop and implement training plans (in-service training) and follow-up refresher courses. 3. To ensure that the pre-service training curriculum for medical, nursing and midwifery student include global best practices for nutrition, coordinate with the curricula development unit for appropriate review and revisions 4. Form a task force to advocate for and lead the process of establishing post graduate nutrition courses (Diploma, Master in Public Health, Doctorate) based on feasibility and needs assessment C. Incentives To ensure that staff working in the area of nutrition are motivated and that their nutrition work is recognized, various forms of incentives are important (Merit Based Performance Incentive, Priority Mission Group, Service Delivery Grants, etc). For nutrition related work to be included, collaborate with the groups working on incentives to: o Ensure that the groups are knowledgeable of nutrition related working areas and the importance of these o Develop nutrition related performance indicator(s) and to be included in the incentive schemes and performance based contracts

Strategic Approaches	Priority Intervention Areas	
	1.3 Human Resources	D. Supervision and follow up after training To ensure that nutrition plans are adequately implemented, nutrition will be mainstreamed into the integrated supervision system of the MOH and specific technical supervision will be conducted o Supervision visits will be included in annual plans at all levels (National Nutrition Program to Provincial Health Departments, Provincial Health Departments to Operational Districts, Operational Districts to Health Centers and Health Centers to Village Health Support Groups) to ensure that planned activities are conducted and to solve any identified shortcomings o Nutrition will be included in the Integrated Supervision of the Ministry of Health o Follow-up after training (recommended at one, six and twelve months after the training) will be systematically used to consolidate new services and skills in the area of nutrition o Regular meetings will be used for supervisory discussions
	1.4 Supply and Logistics	To ensure timely provision of nutrition related supplies (e.g. iron/folate, zinc, deworming drugs, vitamin A capsules, therapeutic foods, equipment for rehabilitation of malnutrition), preparation in advance is essential: o Appoint a focal person/responsible within the National Nutrition Program for management of nutrition-related drugs and supplies o Assist the National Nutrition Program in building capacity by providing technical assistance in the form of; training, system development and implementation o Develop brief management guides to describe in detail how nutrition-related pharmaceutical/supply management functions should be performed o Develop long-term and annual requirement lists, based on annual implementation plans, present coverage and projections on coverage expansions o Ensure that the requirements are included in the Ministry of Health essential drug list and procurement system and that the disbursement plan is shared with the Central Medical Store o Follow up with the Central Medical Store to ensure that the supplies arrive as planned and are disbursed according to plans, and that supplies meet the required quality standards o Encourage Provincial Health Departments to follow up with the Operational Districts and report any potential shortage o Use feedback on shortages or overstocking to adjust procurement plans for the following year

Strategic Approaches	Priority Intervention Areas	
Strategic Approaches 2: Increase the coverage of proven and cost effective maternal and young child nutrition interventions through strengthening community involvement in nutrition activities and improving individual and family practices on maternal infant and young child feeding and general nutrition	2.1 Policies and Guidelines	1. The ultimate goal of the National Nutrition Strategy is to reach out to the homes of young children and women. The strengthening of community involvement in nutrition activities is one step towards that. This requires that the streamlining of nutrition related policies and guidelines covered in 1.1 above will include the community aspect to ensure that key nutrition interventions are established in the communities. With the aims of strengthening monthly integrated outreach and empowering communities, this will include: o Ensure that health centre outreach team provides integrated outreach package which includes nutrition activities o Integrate, as much as possible, community approaches rather than conduct different stand alone ones, or at least clarify the relationships and timing in training and initiation. This will require clarification on whether all of the nutrition approaches – infant and young child feeding and care, screening for undernutrition, growth promotion, vitamin A distribution, promotion of iodised salt, sprinkles for young children, iron/folate supplementation, deworming of children and pregnant and postpartum women, care and rest for pregnant women, etc – should be included in the community approaches at the same time o The review of appropriate community approaches will also be linked to a review of what each approach requires in terms of roles and responsibilities from the commune councils, community leaders, volunteers and care takers, to avoid overload, duplication and possible contradictions o Advocate for and ensure better collaboration with local public authorities for improved targeting of the poor and long-term sustainability of community-based approaches 2. To ensure that existing approaches to community work and mobilization, such as Baby Friendly Community Initiative and nutrition packages of Community-Integrated Management of Child Illness, are expanded to new areas of the country, ongoing efforts will be closely reviewed and monitored to bring lessons learned for further development/refinement of policies and guidelines (see 5.4 below)
	2.2 Human Resources	A. Supervision To ensure that Village Health Support Groups and local leaders are motivated and performing well, good contacts are needed between communities and health facilities. Regular supervisory visits will be conducted, especially following training programs to ensure that activities are implemented correctly o Supervisory visits to communities should be included in the annual plans of health facilities o Out-reach sessions should be utilized to supervise and follow up on community nutrition activities o Regular meetings with community leaders and volunteers should be included in annual plans and used for promoting nutrition as central to health and development

Strategic Approaches	Priority Intervention Areas	
	2.2 Human Resources	B. Incentives To keep community volunteers motivated and well-performing, recognition and incentives are essential. Efforts will therefore be made to: o Explain to health workers the importance of encouraging volunteers and to appreciate the work of the volunteers o Effectively promote non-monetary incentives for volunteers: training, basic supplies for health education activities, participating in regular meetings at Health Centre level, provision of health care for volunteers and their families at public health facilities o Explore possibilities for the local authorities and community at large to support their volunteers, e.g. budgeting for incentives and specific nutrition activities from Commune Councils budget, helping during harvest time C. Training Training approaches for Village Health Support Groups and community leaders will be scaled up. As much as possible, key local influential individuals, religious leaders and other potential allies will be included in the training and advocacy strategies
	2.3 Communication approaches	1. Based on the nutrition situation and trends, identify the areas that require priority communication support on annual basis, for example breastfeeding, appropriate complementary feeding, vitamin A supplementation, iron supplementation during and after pregnancy 2. For each of the priority areas ensure the development (if not exist at the moment) of comprehensive communication plans with appropriate behavioral objectives, communication objectives, key messages and main communication activities to be implemented. Adopt comprehensive approaches to communication including the use of sustained media promotion, interpersonal communication, community mobilization and out-door promotion. 3. Partner with the National Centre for Health Promotion in developing and implementing communication plans in the area of nutrition. Involve other national programs and MOH departments in the communication planning and implementation processes 4. Ensure proper costing of the communication plans and their inclusion into the 3 Year Rolling Plans and Annual Operational Plans at the national and sub-national levels 5. Where good quality communication plans exist, ensure coordinated and systematic implementation in close partnership with the National Centre for Health Promotion, relevant national programs and development partners. 6. Monitor and evaluate the implementation of each communication strategy as identify in its plan. 7. Review the communication priorities and plan of actions periodically to reflect changes in the nutrition epidemiology

Strategic Approaches	Priority Intervention Areas	
Strategic Approaches 3: Strengthen multi-sector linkages, improve the collaboration with concerned government structures/civil society and enhance the consideration of nutrition in overall national strategies, and sector plans and programs	3.1 National consensus on the need to improve nutrition	Malnutrition as a problem is not always fully recognized by all strata of the society. Efforts will therefore be made to "put nutrition on the agenda": o Organize individual targeted advocacy meetings with high-level officials and high-level meetings for parliamentarians, political parties, senior Ministry of Health officials and other key groups to raise the awareness on the present level of malnutrition, the consequences and proven solutions, e.g. dissemination of the National Nutrition Strategy; o Involve civil society in meetings and workshops on nutrition o Develop and disseminate advocacy messages on the consequences of malnutrition and what needs to be done o Involve popular individuals such as movie and sports stars etc. in the efforts of increasing the general awareness on the need to accelerate reduction of child and maternal malnutrition
	3.2 Mainstream Nutrition into the National Strategic Plan of Cambodia	To ensure that nutrition is adequately incorporated in overall national strategies, support will be provided to the Ministry of Planning: 1. To adequately include nutrition in the National Strategic Development Plan and related monitoring processes 2. To include key nutrition indicators into the National Strategic Development Plan monitoring framework 3. In analyzing nutrition-related information from the national surveys (Socio-Economic Survey, Cambodia Demographic and Health Survey, etc.) and reporting on progress with regard to nutrition as part of Millennium Declaration Goals and National Strategic Development Plan processes
	3.3 Collaboration with inter-ministerial bodies and ministries	For the problem of malnutrition to be addressed in a comprehensive manner, cooperation with inter-sectorial coordination structures relevant to the area of nutrition (such as Food Security and Nutrition Technical Working Group, Health Technical Working Group, Inter Ministerial Technical Committee for Nutrition of the National Council for Nutrition) needs to be intensified and used for advocacy, information sharing and enhanced consideration of nutrition as a development priority etc. In view of this, the National Nutrition Program will: o Participate and support the above structures in all their nutrition related work; use those structures and various information platforms (Food Security and Nutrition Information System/Council for Agricultural and Rural Development, etc.) for dissemination of key data, reports, lessons learnt on nutrition o Support Inter-Ministerial Technical Committee/National Council for Nutrition to set up and to monitor the Nutrition Investment Plan o Participate in the National Sub-Committee on IDD and the National Sub-Committee on Food Fortification planning and coordination of nutrition related activities

Strategic Approaches	Priority Intervention Areas	
		Work with other relevant ministries/groups to provide technically sound inputs to help clarify how nutrition can best be addressed and to ensure that nutrition is part of the relevant national development policies and plans
	3.4 Collaboration with relevant ministries (or government structures) in the framework of decentralization and de-concentration to address nutrition at local level	The successful establishment of community based approaches to nutrition, including improved home based care for women and children, will require that local authorities are mobilized and supportive of the nutrition goals. The National Nutrition Program will therefore: o Work with the Ministries of Interior, Ministry of Rural Development, Ministry of Women's Affairs, Cambodian Red Cross on how best work together for improved nutrition o Link with Ministry of Agriculture, Forestry and Fishery/Ministry of Water Resources and Meteorology to address nutrition issues in the framework of the Food Security Support Program of the Strategy on Agriculture and Water o Advocate for importance of nutrition to be part of local development efforts and for nutrition to be included in local plans, e.g. Commune Plans o Advocate for nutrition indicators to be used by community networks
	3.5 Collaboration between partners working with nutrition	There are several INGOs, NGOs and other development partners presently involved in nutrition related work at different levels. To strengthen the collaboration and experience sharing between such groups, and to coordinate the implementation approaches, efforts will be made to: o Identify partners and to develop a partner and project database, building on existing databases o Invite partners to periodic coordination meetings to share experience and discuss coordination issues o Develop mechanisms by which local NGOs and similar partners can be supported, e.g. through the provision of training guidelines and communication materials
Strategic Approaches 4: Develop effective leadership and technical nutrition capacity of government for the implementation of the National Nutrition Strategy	4.1 Strengthen the capacity of key nutrition actors to plan, monitor and evaluate nutrition activities	The National Nutrition Program is presently overstretched, understaffed and short of staff with postgraduate technical nutrition expertise. Efforts will therefore be made to: o Conduct a functional analysis of the National Nutrition Program and nutrition focal points at provincial and district level to assess the current capacity and future needs in the area of nutrition o Develop and implement a comprehensive capacity building plan for selected Ministry of Health staff in nutrition, including specialized training, technical assistance, etc to strengthen planning, monitoring, and evaluation of nutrition related activities o Identify support for academic development among the National Nutrition Program leadership and other relevant ministries and NGOs

Strategic Approaches	Priority Intervention Areas	
Strategic Approaches 5: Increase availability of information for policy makers and program planners through improved monitoring, evaluation and research	5.1 Use of information in planning	In spite of information and data being available, its use is not always maximized in planning and reviews. As a result, plans are too often not responsive to the situation on the ground. In view of this, efforts will be made to: o Build the capacity of program managers at all levels to analyze and use relevant and up-to-date information for planning and review processes (human resource 1.3) o Plan key data collection activities so that information (e.g. reports from Health Information System, monitoring feedback, survey reports) is available when plans are made
	5.2 Health Information System	A common problem with health information systems is that they tend to collect too much data and the quality of data is not always good. Because of the multitude of indicators, it is difficult for the facility staff to fill all forms and to provide high quality reports. Simultaneously, with the multitude of indicators reported, the utilization of the reports is not maximized. In an effort to address this, the National Nutrition Program will: o Work in close collaboration with the Department of Planning and Health Information to identify priority information needs and related indicators o Improve the quality of data collection, reporting and analysis on these key indicators through training, supervision and monitoring (see 1.3.B above) o Strengthen the National Nutrition Program‘s utilization of its Integrated Data base. Compile, analyze and use key indicators for planning and in reviews, and create a feedback mechanism to the Health Information System to improve observed data quality issues
	5.3 Monitoring and evaluations	1. Monitoring and evaluation are two important mechanisms to provide feedback on the performance of nutrition program and to bring knowledge to policy levels o Monitoring visits will be included in plans, and findings from the monitoring will be fed back to review meetings and planning sessions o To make the monitoring systematic and relevant, monitors will be briefed before field trips and standardized checklists will be developed and used 2. Evaluations will also be included in program plans. Evaluations will be conducted less frequently to complement monitoring information and review meetings. Evaluations will include outcome indicators and indicators not provided by routine sources 3. To measure the progress made against the objectives of the National Nutrition Strategy, regular assessments will be conducted and reports submitted to the Ministry of Health for endorsement. o Every two years assessments will be conducted, based on data from the Health Information System, Annual Reports of the National Nutrition Program, relevant studies and research activities o More formal evaluations will be linked to the conduction of Cambodia Demographic and Health Surveys 2010 and 2015 o Both bi-annual assessments and evaluations will serve as a basis for amending, if necessary, the Strategy’s objectives, strategic approaches and interventions

Strategic Approaches	Priority Intervention Areas	
	5.4 Research, special studies	1. To measure the overall nutritional trends and the impact of nutrition programs, The National Nutrition Program will work closely with already ongoing surveys to ensure that nutrition related indicators are included in the surveys. This will require: o The National Nutrition Program to actively assist the National Institute of Statistics in preparing the nutrition components of large surveys (Cambodia Socio-Economic Survey, Cambodia Demographic and Health Survey, other ad-hoc specialized nutrition surveys) and in the analysis of nutrition related data o Participate in planning meetings to advocate for the inclusion of nutrition indicators o Involvement in the development of questionnaires and field preparations to ensure highest possible data quality and reliability 2. The National Nutrition Program will also identify the need for special studies, e.g. operational research to test new approaches. Special studies might also be required to develop new indicators, e.g. a feasible indicator for complementary feeding.
	5.5 Nutrition Emergency Surveillance	In view of the global food price crisis and other potential emergencies, efforts will be made to establish early warning systems. This will include: o Working closely with already ongoing surveillance systems, e.g. the Vulnerability Assessment and Mapping system and food price monitoring systems, to examine how nutrition status indicators can be included. The benefit of working with established systems is that groups in severe stress can be identified before their nutritional situation further deteriorates. o Using knowledge already obtained from ongoing surveillance when planning nutrition surveys, both to target geographical areas as well as population groups.

Annex 1: Nutrition Related Policies and Strategies

The Ministry of Health Nutrition Policies and Guidelines:

- The Infant and Young Child Feeding Policy
- The National Vitamin A Policy Guidelines
- The National Guidelines for the Use of Iron/Folate Supplementation To Prevent and Treat Anemia in Pregnant and Postpartum Women
- The Sub-decree on Marketing of Products for Infant and Young Child Feeding
- The Sub-decree on Management of Iodized Salt Exploitation

Broader Development Policies Related to Nutrition

- The Health Strategic Plan for 2008-2015
- Cambodia Millennium Goals
- The Rectangular Strategy
- The National Strategic Development Plan 2006-2010
- The Strategic Framework for Food Security and Nutrition in Cambodia 2008-2012
- Cambodia Nutrition Investment Plan 2008-2015
- The Food Security and Support Program

Annex 2: List of Ongoing Nutrition Research Projects

Anemia in young children

The Good Food for Children Study is a three years study on home fortification using sprinkles with multi micronutrient powders and infant and young child feeding education) will be completed in 2010. The study is implemented in one district in Svay Reing Province. It is a cluster randomized controlled community-based study to evaluate the effectiveness of providing infants 6-11 months of age with daily micronutrient powders, in addition to nutrition education targeted to caregivers to improve infant and young child feeding practices on anemia, vitamin A and zinc deficiencies, and growth. A total of 3,500 children will be involved in the study and blood tests, anthropometry and other information will be collected from 1,200 children (600 infants in each arm) who will be randomly selected from a complete listing of children in the targeted area. The study will also test the operational feasibility of delivering multi-micronutrient powders with nutrition education through existing government health services. This project is funded by A2Z (USAID), the Health Sector Support Project of the World Bank and the World Health Organization.

World Vision Cambodia will conduct a study in 2008 to identify the causes of anemia in young children in selected program areas. Although the study will not be nationally representative, it is a large scale study that will test for haemoglobinopathies and also measure worm load.

Anemia in women of reproductive age

A pilot study on weekly iron/folate supplementation for the prevention and control of anemia in women of reproductive age is currently being undertaken with secondary school girls and women of reproductive ages in five provinces of Cambodia. When the results of the endline survey are completed the National Nutrition Program will develop a national policy for prevention and control of anemia in women of reproductive age. It is anticipated that the most feasible way to scale up of the WIF will be through social marketing. The National Nutrition Program will work closely with partners to identify opportunities for national scale social marketing of weekly iron/folate supplementation.

The National Nutrition Program will conduct a TIPS qualitative research study in 2008 to research pregnant/postpartum women's knowledge, perception and practices about anemia and daily iron folate supplementation

National Nutrition Surveillance System

TO BE ADDED.