

**11<sup>th</sup> FIVE-YEAR PLAN  
(2007-2012)**

**REPORT OF THE  
WORKING GROUP ON  
INTEGRATING NUTRITION WITH HEALTH**



**GOVERNMENT OF INDIA  
MINISTRY OF WOMEN AND CHILD DEVELOPMENT  
NOVEMBER 2006**

## FOREWORD

Nutrition is the science of food and its relationship to health. Good Nutrition is a fundamental requirement for positive health, functional efficiency and productivity. Nutritional status is internationally recognized as an indicator of national development. Nutrition is both an input into and an output of, the development process. A well nourished healthy workforce is a pre-condition for successful economic and social development, and as such, food security, nutrition, health and sanitation are the responsibility of all development sectors and indeed of all citizens.

In many developing countries including India, economic productivity has increased and impressive efforts have been made in nutrition interventions, but significant improvement in nutritional status has not accompanied these advances. Investing in nutrition has both economic and social benefits. Improved nutritional status has an enhancing effect on investments in other sectors such as health, education and agriculture. Moreover, the enormous social and financial costs of malnutrition are averted when nutritional status is improved.

This Report of the Working Group on Integrating Nutrition with Health for the XI Five Year Plan briefly reviews the nutrition and health scenario in the country, the existing nutrition and health interventions and gaps, infant feeding and child survival issues, sets nutrition goals for the XI Five Year Plan and provides strategic recommendations for achieving the goals. The critical issues of concern have been given due weightage in the report. Some of these are bringing nutrition issues center stage, establishing a nutrition information system in the country, addressing infant and young child nutrition more effectively to ensure child survival, growth and development on the one hand and to prevent diet related chronic diseases on the other, addressing micronutrient deficiencies in a holistic manner adopting a five-pronged strategy with due focus on dietary diversification, nutrient supplementation, food fortification, horticultural interventions and public health measures, and creating a climate of nutritional awareness in the country utilising all available channels of communication. Efforts have been made to include recommendations of important committees, advocacy and consultation meets on nutrition with a view to provide useful inputs for the XI Five Year Plan.

The valuable contribution of all the members of the Working Group is gratefully acknowledged. I would like to compliment Smt. Shashi P. Gupta, Technical Adviser, Food and Nutrition Board of this Ministry, who has transformed this exhaustive exercise into the Report of the Working Group on Integrating Nutrition with Health for the XI Five Year Plan (2007-12). It is hoped that the Report of the Working Group will serve as a blue print to incorporate a direct, effective and time bound strategy for addressing the widespread problem of malnutrition in the country in the XI Five Year Plan and help accelerate the pace of national development.

(Deepa Jain Singh)  
Secretary  
Ministry of Women & Child Development  
Government of India

Dated the 30<sup>th</sup> October, 2006  
Place: New Delhi.

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# Report of the Working Group on Integrating Nutrition with Health for the XI Five Year Plan (2007-2012)

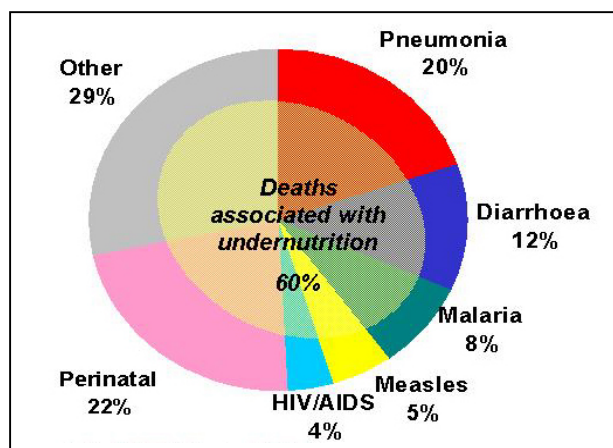
## Chapter I

### INTRODUCTION

1.1 Nutrition and Health are two sides of the same coin and are, therefore, inseparable. While good health is the ultimate objective of nutrition, nutrition is the vital component of health. Nutrition is increasingly being recognized as an important indicator of development at national and international levels. Nutritional well being of the population is considered as an economic asset and a pre-requisite for national development.

1.2 India has progressed dramatically in various fields but the levels of malnutrition in the country are not showing desired reduction rates. As a result the magnitude of the problem of malnutrition and poor health indicators like infant mortality rate, under 5 mortality rate and maternal mortality rate in the country are higher than some of the developing countries of the South East Asia. Malnutrition, therefore, continues to be a cause for concern. Malnutrition being a multifaceted problem requires inputs from various sectors like health, women & child development, agriculture, food, education, rural development etc. The health sector assumes greater significance as many of the nutrition related activities fall under the purview of this sector.

1.3 Malnutrition contributes to 60% of the 10 million deaths globally that occur every year among children under five years of age (Figure 1). Its contribution to child deaths is even higher during first six months of life, when mortality is highest. Breastfeeding can avoid this within one hour, and exclusive breastfeeding during first six months.



Sources: WHO 2002; Lancet 2003

Figure 1 – Malnutrition and Under-five Mortality

1.4 Recognizing the importance of addressing the widespread problem of malnutrition through various health interventions, the Planning Commission vide its order No. 2(12)/06-H & F.W. dated the 25<sup>th</sup> May, 2006 constituted a **Working Group on Integrating Nutrition with Health for the XI Five Year Plan (2007-2012)** under the Chairpersonship of the Secretary, Ministry of Women & Child Development (**Annexure I**). The Working Group was represented by the senior representatives of the concerned sectors of the Government at Centre and State, eminent experts from National Institutions in the field of nutrition and health and reputed NGOs. The composition of the Working Group and its Terms of Reference (TOR) may kindly be seen in Annexure I.

1.5 The first meeting of the Working Group was held under the Chairpersonship of Smt. Reva Nayyar, former Secretary, Ministry of Women and Child Development on 14<sup>th</sup> July, 2006 at Shastri Bhavan, New Delhi. After a brain storming session on TOR of the Working Group, **four Sub Groups were constituted** as under:

#### **Sub Group I**

Assessing the magnitude of various nutritional disorders and associated health problems and suggesting institutional mechanism for nutrition monitoring, mapping and surveillance, legislation if any required for improving nutrition status (TOR 1, 3 & 10)

#### **Sub Group II**

Reviewing the progress achieved as a result of interventions strategies, National Nutrition Policy and suggesting remedial actions and mechanism for intersectoral coordination at different levels (TOR 2, 4, 6 & 10)

#### **Sub Group III**

**Food and Nutrition Security including micronutrients (TOR 5 & 10)**

#### **Sub Group IV**

Community Awareness on Nutrition (TOR 7, 8, 9 & 10)

1.6 The **Composition** of the Sub Groups is given in **Annexure II**. Most of the Sub Groups interacted with their members and the Ministry electronically while Sub Group IV held one meeting in the Ministry.

1.7 The Chairpersons of the four Sub Groups made power-point presentations on their report and recommendations in the second meeting of the Working Group held on 8<sup>th</sup> September, 2006 at 10.30 a.m. under the chairpersonship of Smt. Deepa Jain Singh, Secretary, Ministry of WCD in Shastri Bhavan, New Delhi. The presentations were followed by discussions.

1.8 The Report of the Working Group is based on the discussions held in the Working Group meetings as well as the reports of the four Sub Groups. The minutes of the two Working Group meetings and handouts of the presentations of the four Sub Groups are given in **Annexures III-VIII** respectively. The draft report of the Working Group was discussed in the meeting taken by the Secretary (WCD) on 13<sup>th</sup> October, 2006. The report was accepted by all members with a few suggestions, which have been incorporated in the final report.

## Chapter 2

### CURRENT NUTRITION AND HEALTH SCENARIO IN INDIA

#### Nutrition Scenario

2.1 There has been a **conquest of nutritional deficiencies** – Florid Nutritional Deficiency Syndromes like Pellagra, Beri Beri, Scurvy, Kwashiorkar have disappeared, famines are no more, severe malnutrition among preschoolers has reduced appreciably and nutritional status of adults has improved significantly. But still the high levels of malnutrition continue to influence morbidity and mortality rates in the country.

2.2 The **Challenge** that still remains include –

- High Malnutrition Levels particularly in Women and Children
- Undernutrition
- Micronutrient Malnutrition
- Emerging diet related diseases,
- High Mortality Rates-IMR, U5MR and MMR
- Inadequate Access to Health Care, Immunization etc.

2.3 **Undernutrition** is defined as the outcome of insufficient food intake (hunger) and repeated infectious diseases. Undernutrition includes underweight (being underweight for ones age), stunted (being too short for ones age), wasted (being dangerously thin), and micronutrient malnutrition (being deficient in vitamins and minerals). As per NFHS 2 (1998-99) 47% of children under three years are **underweight**, 45.5% **stunted** and 15.5% **wasted**. India fares poorly even among the South East Asian countries, occupying the third place from the bottom with only Nepal and Bangladesh faring worse than India. The prevalence of **low birth weight** continues to be about 30% for last three decades. Low birth weight babies are more likely to die because of neonatal infections and under nutrition. **Chronic Energy Deficiency** in adults is 39% in females and 37% in males (NNMB 2002).

2.4 **Iron Deficiency Anaemia** prevalence continues to be high particularly among the high risk groups like children under 5 years, adolescent girls, pregnant and lactating women. About 68-78 per cent of these population groups suffer from anaemia (NNMB 2003).

2.5 **Vitamin A Deficiency** continues to be a problem of public health significance among pre-school children with prevalence of Bitot spots, an objective sign of vitamin A deficiency being equal to or more than WHO cut off level of 0.5%. The stagnant prevalence of vitamin A deficiency (Bitot Spots) ranging from 0.7% to 1.1% during the period 1988-90 to 2003 requires a comprehensive approach for its prevention and control.

2.6 No state in India is free from **Iodine Deficiency Disorders**. The total goiter rate (TGR) in 260 districts out of 321 districts surveyed is reported to be more than 10%, a prevalence more than the WHO recommended cut off level of 5%, indicating endemicity of IDD.

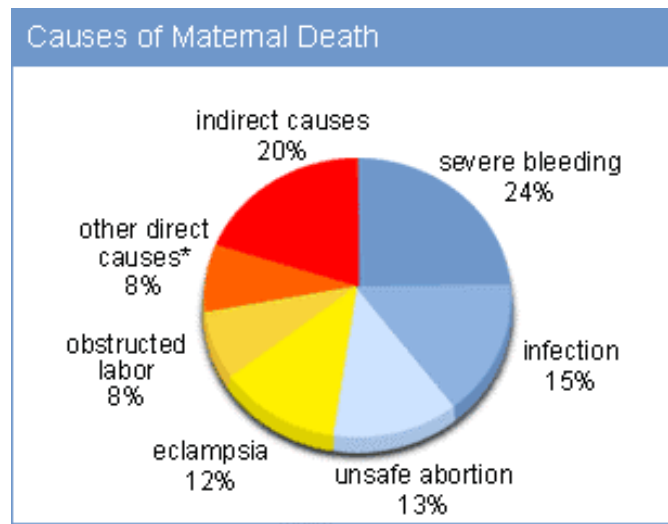
2.7 **Infant Mortality Rate** is still very high, i.e., 58 per thousand live births (as per SRS 2006 for the year 2004). The plateau in IMR observed since 1990 can only be removed by addressing malnutrition in mother-child dyad. Under 5 Mortality Rate and Maternal Mortality Rate are also unacceptably high.

2.8 **Under-five mortality rate** is also high. About 11 million children under the age of five die each year, 98% of them in developing countries. Almost 40% of these deaths occur in the first 28 days after birth, the neonatal period. Infections account for 36% of these deaths. Malnutrition is closely linked to child mortality; a malnourished child faces a much greater risk of death compared to a well nourished child. More than half of these child deaths are preventable if a set of do-able interventions and practices were to be applied on a large scale. These relatively simple but highly effective interventions and practices include timely and adequate infant feeding (early and exclusive breastfeeding) practices, treatment of diarrhea, immunization, keeping a newborn baby warm, and others.

2.9 **Infant and young child feeding practices** in India are far from optimal. According to NFHS-2, exclusive breastfeeding falls rapidly from 72% at one month to 20% at six months. Only about 16% babies in India start breastfeeding within one hour. Other indicators are also disappointing. For instance, complementary feeding practices are very poor: only 33% of children aged between 6-9 months are given solid mushy foods (NFHS-2). Comparison with NFHS-1 highlights that we are able to stop the decline in breastfeeding. However, achieving the national goals will require massive action and resources. Results from a recent study from 49 districts (2003), with data for about 9000 mothers, also show a dismal picture. This is where malnutrition begins as young babies are dependant on parents or other caregivers for their food intake.

2.9.1 Age wise distribution of prevalence of underweight in children reveals that malnutrition peaks during the first two years of life. From 11.9% prevalence among 0-6 month old infants, it reaches 58.5% in 12-23 months old children. This steep rise in malnutrition during the first two years is mainly due to poor infant feeding practices.

2.10 Maternal mortality also continues to be high in many parts of the world, especially in Sub-Saharan Africa and some of the countries in Asia. It is estimated that worldwide more than 500,000 women die each year while giving birth. In Sub-Saharan Africa the rate is 940 deaths per 100,000 live births, while in South Asia it is 560. The main causes are depicted in the graph below and include severe bleeding, infection, unsafe abortion and eclampsia. More than 20 percent of maternal deaths are caused by diseases such as malaria, anemia, TB, and HIV/AIDS that are aggravated by pregnancy. Adolescents are at increased risk of dying during pregnancy and childbirth. They are twice as likely to die as women in their twenties, and teens younger than 15 are five times as likely to die of complications. As with child mortality, high rates of maternal mortality can also be brought down drastically through a combination of do-able interventions. The chances of survival are greatly increased by availability and access to emergency obstetrical care.



## IMR and MMR in India

2.11 Major investments in child health in India have not yielded any substantial decline in maternal, infant and young child mortality in the recent decade.

2.12 Of the 26 million infants born in India every year, about 2.3 million die before reaching the age of five years, and about 1.2 million of these die before the age of one month (Dadhich and Paul 2004). This amounts to almost 30 percent of worldwide neonatal deaths. The current neonatal mortality rate (NMR) of 44 per 1,000 live births accounts for nearly two-thirds of all infant mortality and half of under-five child mortality (NFHS 1998-99). In order to reduce child and infant mortality rate it is, therefore, important to address neonatal mortality.

2.13 The major causes of neonatal death in India resemble the global picture with infections, prematurity and asphyxia as the leading causes. About a third of all neonatal deaths occur on the first day of life. Approximately an additional one third of deaths occur between the first and seventh day of life. Preventing a substantial proportion of neonatal deaths requires appropriate postnatal care, especially immediately after birth.

2.14 However, only 42.3 percent of deliveries are attended by a health professional. Two thirds of all deliveries (66.4 percent) occur at home. The proportion of home deliveries is particularly high in rural areas (75.3 percent) where over three quarters of the population lives. Among home deliveries, a postnatal contact with a health professional occurs only in 2.3 percent during the first two days after delivery, 5.2 percent during the first week and 16.5 percent at any time during the 2 month period following delivery (NFHS 1998-9).

2.15 Inappropriate newborn care practices are highly prevalent. Colostrum is often discarded; breastfeeding is initiated several hours or even days after birth, and pre-lacteal feeds given to three quarters of all newborns (Bhandari Lancet 2003). The importance of keeping the baby warm is not understood, resulting in about 20 percent babies becoming hypothermic in the first few days of life (Bang 2001, Kumar 1998). Health care seeking is usually delayed because of lack of recognition of signs of early illness, cultural factors and situational constraints. A study indicated that only a quarter



of the sick newborns who were referred were actually taken to a hospital even when free transportation and assistance in hospital admission was provided (Bhandari 1996).

2.16 Child mortality and undernutrition are closely linked with the health and nutritional status of the mother, and the care and services she receives during pregnancy and child birth. In India this is still far from adequate, demonstrated by the high maternal mortality ratio of about 404/100,000 live births and the fact that the distribution of causes has not changed dramatically over the last 20 years. The main causes of MMR are: (i) Hemorrhage, both ante-partum and post-partum; (ii) pregnancy-induced hypertension (eclampsia); and (iii) infection. Only 20 percent receive the sufficient level of recommended antenatal care.

### **Tenth Five Year Plan Goals for India**

2.17 Realizing the relevance of Nutrition for development and survival of children, the 10<sup>th</sup> five-year plan set specific nutrition goals to be achieved by 2007. The plan document emphasized on Intensifying nutrition and health education to improve infant and young child feeding and caring practices so as to:

- Bring down the prevalence of under-weight children under three years from the current level of 47 per cent to 40 per cent.
- Reduce prevalence of severe Undernutrition in children in the 0-6 years age group by 50 per cent.
- Enhance Early Initiation of Breastfeeding (colostrums feeding) from the current level of 15.8 per cent to 50 per cent.
- Enhance the Exclusive Breastfeeding rate for the first six months from the current rate of 55.2 per cent (for 0-3 months) to 80 per cent; and
- Enhance the Complementary Feeding rate at six months from the current level of 33.5 per cent to 75 per cent.
- Reduce prevalence of anaemia by 25% and that of moderate and severe anaemia by 50%.
- Eliminate vitamin A deficiency as a public health problem; and
- Reduce prevalence of IDD in the country to less than 10% by 2010.

### ***The Development Paradox***

2.18 The paradox is that while India now in the front ranks of fast growing global economies, with a vibrant economic growth rate of around 7 %, nearly 30 % of the global burden of child deaths is borne by India. Economic growth is, at best, a slow and undependable way of eliminating child undernutrition. While income poverty in India is reduced to 26 % - underweight prevalence in children under three years remains at 47 % (NFHS 2 -1998-99), reinforcing the argument that economic growth is a necessary, but not sufficient condition for improvements in young child survival, nutrition and development. (**Figure 2-Income Growth Vs Infant Survival**).

2.19 The unacceptably high Infant Mortality Rate in India is also much higher than that of countries like Bangladesh, which have not experienced such economic growth rates. Reductions in Infant Mortality in India can only be achieved through accelerated reductions in neonatal mortality, entailing services of killed attendant at birth, ensuring

first hour support to breastfeeding, exclusive breastfeeding for first six months, adequate and safe complementary feeding from six months of age, the prevention and management of common neonatal and childhood illnesses, timely and complete immunization, and the prevention of malnutrition, as early as possible, across the life cycle.

2.20 It is much more effective to prevent malnutrition, before it occurs – than to only deal with it after it has set in, because growth and development deficits in young children are cumulative and often irreversible. Accelerated large-scale reductions in the unacceptably and persistently high malnutrition rates are only possible when there is clear emphasis on early action.

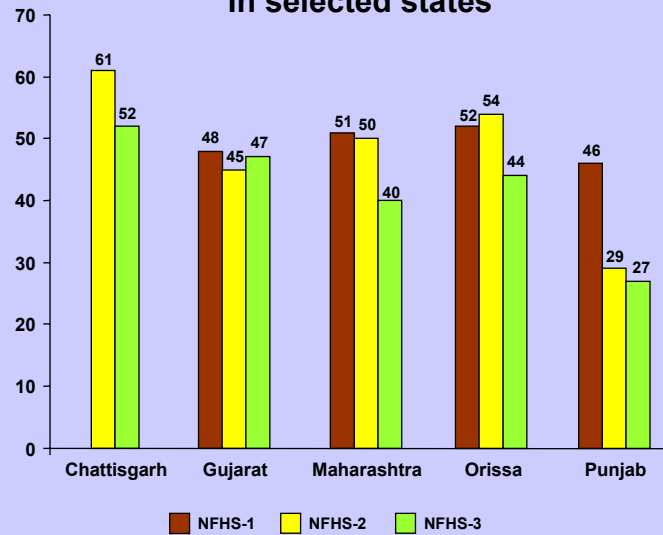
2.21 The above analysis calls for priority attention to integrated early childhood development and child health approaches as the most effective way of breaking an intergenerational cycle of malnutrition, poverty and gender discrimination. Integrated interventions for young children emerge as the natural entry point for a comprehensive human development strategy- and as a powerful instrument for ensuring equality of opportunity to present and future generations of the disadvantaged. Early childhood development interventions are also a prerequisite for ensuring enhanced cognitive and social skills in the young child, resulting in improved retention and learning outcomes in primary education.

### **Emerging trends**

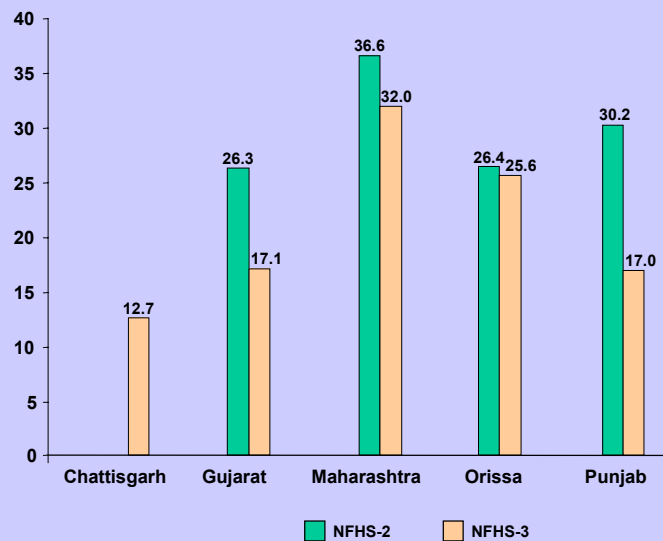
2.22 The recently released NFHS 3 data (2005-2006) for 5 states is showing some positive improvements in nutritional status (underweight prevalence in children 0- under 3 years) in Orissa, Chhattisgarh and Maharashtra, but is revealing stagnation of some key health and nutrition parameters in states like Gujarat and Punjab. There are discernible and largely consistent improvements in these three states as related to infant and young child feeding, nutritional status and in Infant Mortality, (as also seen in SRS data). However, in the states for which data has been released- there is no improvement in nutritional anemia in young children and this continues to be a major problem in women in the reproductive age group- especially adolescent girls and pregnant mothers. Vitamin A supplementation coverage also has shown a decline. Immunisation coverage also remains a cause for concern.

## Undernourished children under age 3 ( % underweight )

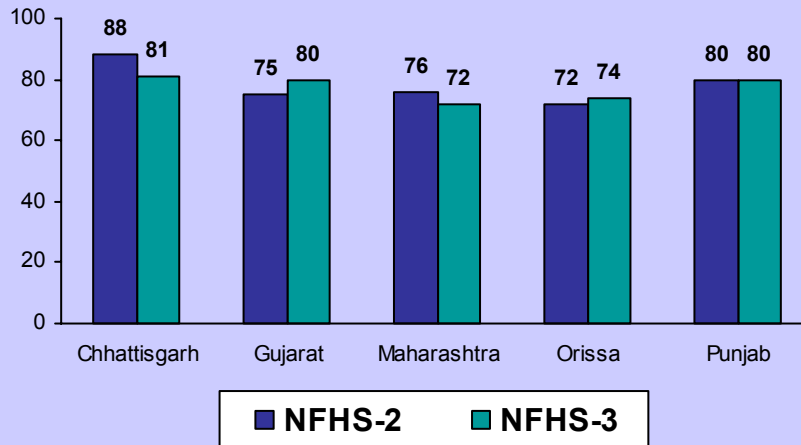
### In selected states



## Children aged 12-35 months who received a Vitamin A dose in last 6 months (%)



### Children age 6-35 months who are anaemic

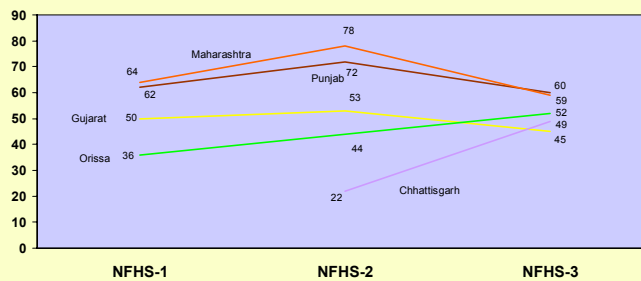


### 2005-2006 NATIONAL FAMILY HEALTH SURVEY-3 (NFHS-3)

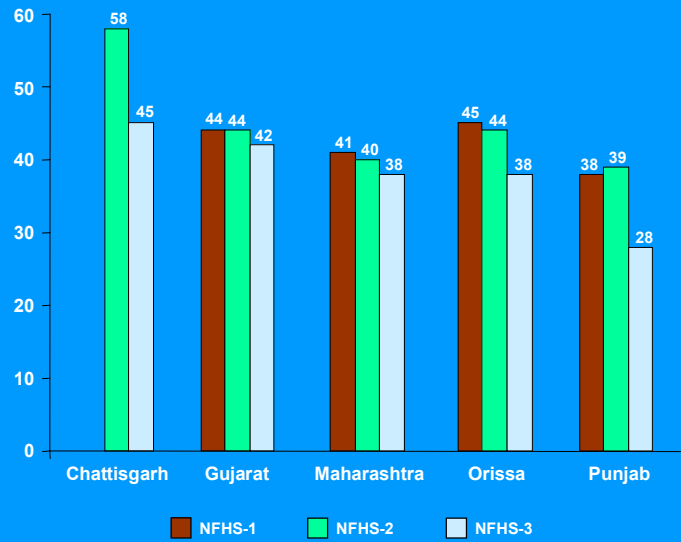
#### Child Immunization

Impressive gains in immunization coverage have been made in Chhattisgarh and Orissa, but in Maharashtra, Punjab and Gujarat there has been a substantial deterioration in full immunization coverage in the last seven years, due to a decline in vaccination coverage for both DPT and Polio.

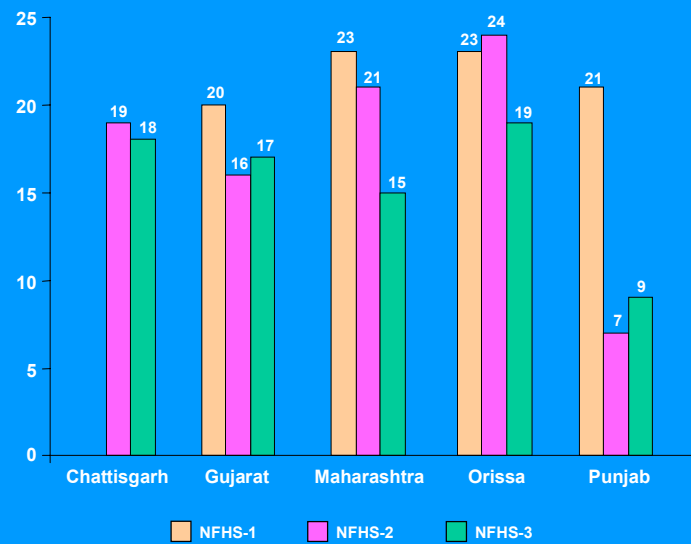
#### Children fully immunized



## Percentage of children under age 3 who are stunted



## Percentage of children under age 3 who are wasted



## Chapter 3

### EXISTING NUTRITION AND HEALTH INTERVENTIONS AND GAPS

3.1 Malnutrition being a multi-faceted problem requires a multisectoral approach for its prevention and control. A number of direct and indirect nutrition interventions are being undertaken by different sectors of the Government with a view to promote nutrition of the people. Some of the **direct nutrition interventions** are as under:

#### Ministry of Women and Child Development

- Integrated Child Development Services (ICDS) Scheme.
- Nutrition Programme for Adolescent Girls (NPAG)
- Nutrition Advocacy and Awareness Generation Programmes of Food and Nutrition Board (FNB)
- Follow up action on National Nutrition Policy (1993)

#### Ministry of Health and Family Welfare –

- Iron and Folic Acid Supplementation of pregnant women
- Vitamin A supplementation of children of 9-36 months age group.
- National Iodine Deficiency Disorders Control Programme

#### Department of Elementary Education and Literacy

- Mid Day Meal for primary school children

Some of the **Indirect Interventions** include:

#### Department of Agriculture and Cooperation

- Increased Food Production
- Horticultural Interventions

#### Food and Public Distribution

- Targetted Public Distribution System
- Antodaya Anna Yojana
- Annapurna Scheme

#### Rural and Urban Development

- Food for Work Programme
- Poverty Alleviation Programmes
- Safe Drinking Water and Sanitation
- National Rural Employment Guarantee Scheme

#### Ministry of Health

- National Rural Health Mission
- Integrated Management of Neonatal and Childhood Illnesses (IMNCI)
- Various Public Health Measures

#### Department of Elementary Education and Literacy

- Sarva Siksha Abhiyaan

- Adult Literacy Programme

Ministry of Women and Child Development

- Various women's welfare and support programmes.

3.2 The gigantic problem of malnutrition requires concerted efforts from different partners.

3.3 There are innumerable **Gaps** in the existing nutrition related interventions, some of which are as under:

- There is no national system of nutrition monitoring, mapping and surveillance. District level disaggregated data not available from NNMB and NFHS surveys.
- Nutritional concerns are not adequately reflected in the policies and programmes of the Government.
- Intersectoral coordination mechanism, crucial for nutrition promotion, is inadequate.
- ICDS coverage is not universal. States are not able to allocate resources for supplementary nutrition.
- Tribal areas, food scarce districts, chronically drought prone rural and tribal hamlets have inadequate access to nutrition and health services.
- Nutrition Education and Awareness Generation is weak. Except the programmes undertaken by the limited infrastructure of Food and Nutrition Board of this Department, it is not being undertaken by other nutrition and health interventions.
- Coverage of children under three years in vitamin 'A' prophylaxis programme is low.
- Iron and Folic Acid Supplementation for pre school children, adolescent girls, pregnant women and lactating mothers is inadequate.
- Availability of iodized salt at household level had declined after the lifting of the ban on sale of non-iodized salt in October 2000.
- Micronutrient malnutrition is not being addressed in a comprehensive manner.
- Food Fortification programmes are negligible. Supplementation, dietary diversification and horticultural interventions are inadequate.
- Nutrition Programme for Adolescent Girls (NPAG) is only in 51 districts.
- Optimal infant and young child feeding practices (breast feeding and complementary feeding) need aggressive promotion.
- There are significant gaps found through a national assessment, in both policy and programmes on Infant and young child feeding.

## Chapter 4

### INFANT FEEDING AND CHILD SURVIVAL

4.1 According to the planning commission appraisal paper, 75% of all under five deaths are occurring during infancy, and a larger portion of infant deaths occur during the neonatal period. This needs a clear focus and plan of action. The National Guidelines on Infant and Young Child Feeding point out that malnutrition among children occurs almost entirely during the first two years of life and is virtually irreversible after that. In short, child mortality is closely linked with malnutrition and inappropriate feeding.

4.2 Here comes the importance of the findings from Ghana study (Pediatrics, 2006), which clearly showed for the first time in the world, that ensuring initiation of breastfeeding within 1 hour could cut 22% all neonatal mortality. This effect was seen independent of exclusivity of breastfeeding. That means in India, if all mothers were enabled to initiate Breastfeeding within 1<sup>st</sup> hour, about 2.5 lac deaths occurring during first month could be saved. It brings in the point of first hour support for early initiation of breastfeeding, that should be available to reduce deaths significantly, As per NFHS 2 only about 16% women in India are able to do so.

4.3 According to *The Lancet*, 2003 Child survival series, If breastfeeding (including exclusive breastfeeding for the first six months and continued breastfeeding for the next six months) was universalized it will serve as the single most effective preventive intervention. Exclusive breastfeeding for the first six months can cut down about 15% of all child deaths. However in India only about 20% women are able to practice exclusive breastfeeding for six months.

4.4 Adequate complementary feeding between six months to 24 months could prevent an additional 6 per cent of all such deaths. This means that extending coverage of exclusive breastfeeding and complementary feeding could save over 450,000 child deaths each year in India.

#### 4.5 Foetal and Early Childhood Nutrition and Diet Related Chronic Diseases

4.5.1 Nutrition is an issue of survival for current and succeeding generations. Foetal and early childhood malnutrition has life long consequences on growth and development of the population. Malnutrition during the period of early childhood can result in short and long term consequences such as poor brain development, poor growth and muscle mass in childhood as well as chronic degenerative disorders in the later part of adulthood. All these consequences result in poor cognitive and educational performance, poor immunity and work capacity and diet related chronic diseases like diabetes, hypertension, cardiovascular diseases, stroke, cancer etc in later life. The importance of ensuring optimum nutrition for the people cannot be overemphasized for achieving sustainable development.

4.5.2 Malnutrition has been responsible, directly or indirectly, for 60% of the 10.9 million deaths annually among children under five. Well over two-thirds of these deaths, which are often associated with inappropriate feeding practices, occur during the first



year of life. No more than 35% of infants worldwide are exclusively breastfed during the first four months of life; complementary feeding frequently begins too early or too late, and foods are often nutritionally inadequate and unsafe. Malnourished children who survive are more frequently sick and suffer the life-long consequences of impaired development. Rising incidences of overweight and obesity in children are also a matter of serious concern. Because poor feeding practices are a major threat to social and economic development, they are among the most serious obstacles to attaining and maintaining health that face this age group.

4.5.3 The health and nutritional status of mothers and children are intimately linked. Improved infant and young child feeding begins with ensuring the health and nutritional status of women, in their own right, throughout all stages of life and continues with women as providers for their children and families. Mothers and infants form a biological and social unit; they also share problems of malnutrition and ill-health. Whatever is done to solve these problems concerns both mothers and children together.

4.5.4 The global strategy for infant and young child feeding is based on respect, protection, facilitation and fulfillment of accepted human rights principles. Nutrition is a crucial, universally recognized component of the child's right to the enjoyment of the highest attainable standard of health as stated in the Convention on the Rights of the Child. Children have the right to adequate nutrition and access to safe and nutritious food, and both are essential for fulfilling their right to the highest attainable standard of health. Women, in turn, have the right to proper nutrition, to decide how to feed their children, and to full information and appropriate conditions that will enable them to carry out their decisions. These rights are not yet realized in many environments.

4.5.5 Rapid social and economic change only intensifies the difficulties that families face in properly feeding and caring for their children. Expanding urbanization results in more families that depend on informal or intermittent employment with uncertain incomes and few or no maternity benefits. Both self-employed and nominally employed rural women face heavy workloads, usually with no maternity protection. Meanwhile, traditional family and community support structures are being eroded, resources devoted to supporting health- and, especially, nutrition-related, services are dwindling, accurate information on optimal feeding practices is lacking, and the number of food-insecure rural and urban households is on the rise.

4.5.6 The HIV pandemic and the risk of mother-to-child transmission of HIV through breastfeeding pose unique challenges to the promotion of breastfeeding, even among unaffected families. Complex emergencies, which are often characterized by population displacement, food insecurity and armed conflict, are increasing in number and intensity, further compromising the care and feeding of infants and young children the world over. Refugees and internally displaced persons alone currently number more than 40 million, including 5.5 million under-five children.

#### **4.6 APPROPRIATE INFANT AND YOUNG CHILD FEEDING PRACTICES**

“Breastfeeding is an unequalled way of providing ideal food for the healthy growth and development of infants; it is also an integral part of the reproductive process with important implications for the health of mothers. As a global public health recommendation, infants should be exclusively breastfed for the first six months of life to

achieve optimal growth, development and health. Thereafter, to meet their evolving nutritional requirements, infants should receive nutritionally adequate and safe complementary foods while breastfeeding continues for upto two years of age or beyond” – WHO, 2002.

4.6.1 Modern science and technology has not been able to produce a better food for young infants than mother’s milk. Breastfeeding is the best way to satisfy the nutritional and psychological needs of the baby.

4.6.2 Early initiation of breastfeeding is extremely important for establishing successful lactation as well as for providing ‘Colostrum’ (mother’s first milk) to the baby. Ideally, the baby should receive the first breastfeed as soon as possible and preferably within an hour of birth.

4.6.3 Delayed initiation of breastfeeding is a common practice in the country and this deprives the new borns from the concentrated source of anti-infective properties, vitamin A and protein available in colostrum. In some communities breastfeeding is started as late as the fifth day for various superstitions and ignorance. In India only 15.8% of the new borns are started with breastfeeding within one hour of birth and only 37.1% within a day of birth.

4.6.4 Late initiation of breastfeeding not only deprives the child of the valuable colostrum, but becomes a reason for introduction of pre-lacteal feeds like glucose water, honey, *ghutti*, animal or powder milk which are potentially harmful and invariably contribute to diarrhoea in the new born. Late initiation of breastfeeding also causes engorgement of breasts which further hampers establishment of successful lactation.

4.6.5 Exclusive breastfeeding provides babies with the best start in life. It makes them smarter with higher intelligence and helps in optimal development. Exclusive breastfeeding is, therefore, extremely important to prevent infections like diarrhoea and acute respiratory infections in early infancy and thus reduce infant mortality. It must be remembered that benefits of breastfeeding are reduced if it is not exclusive breastfeeding.

4.6.6 Ante natal checkups and maternal tetanus toxoid immunisation contact points should be utilised for promoting early initiation of breastfeeding, feeding of colostrum, exclusive breastfeeding and discouraging prelactal feeds. Advice regarding diet, rest and iron & folic acid supplementation should also be given.

#### **4.7 Importance of Complementary Feeding**

4.7.1 Complementary feeding is extremely essential from six months of age, while continuing breastfeeding, to meet the growing needs of the growing baby. Infants grow at a very rapid rate. The rate of growth at this stage is incomparable to that in later period of life. An infant weighing around 3kg at birth doubles its weight by six months and by one year the weight triples and the body length increases to one and a half times than at birth. Most of the organs of the body grow rapidly, both structurally and functionally during the early years of life and then later on, the growth slows down. Most of the growth in the nervous system and brain is complete in the first two years of

life. In order to achieve optimum growth and development, there is an increased demand for a regular supply of raw material in the form of better nutrition.

4.7.2 Adequate complementary feeding from six months of age while continuing breastfeeding is extremely important for sustaining growth and development of the infant.

4.7.3 Baby needs all foods from six months namely cereals, pulses, vegetables particularly green leafy vegetables, fruits, milk and milk products, egg, meat and fish if non-vegetarian, oil/ghee, sugar and iodised salt in addition to breastfeeding. A diversified diet of the infant alongwith breastfeeding will also improve the micronutrients' status of the child.

4.7.4 Low energy density of complementary foods given to young children and low frequency of feeding result in inadequate calorie intake and thus the malnutrition. Most of the foods are bulky and a child cannot eat more at a time. Hence it is important to give small energy dense feeds at frequent intervals to the child with a view to ensure adequate energy intake by the child.

4.7.5 Breastfeeding must be continued upto the age of two years or beyond. Continuing breastfeeding while giving adequate complementary foods to the baby provides all the benefits of breastfeeding to the baby. In other words, the child gets energy, high quality protein, vitamin A, anti-infective properties and other nutrients besides achieving emotional satisfaction from the breastfeeding much needed for optimum development of the child. Breastfeeding especially at night ensures sustained lactation.

#### **4.8 Growth Monitoring and Promotion (GMP)**

4.8.1 Weighing the child regularly and plotting the weight on the health card is an important tool to monitor the growth of the baby. Infants and young children should be weighed every month in the presence of their mothers and the growth status of the child should be explained to the mother. The growth chart kept in a plastic jacket could be entrusted to the mother. If the child is having malnutrition, the mothers should be advised to provide additional food to the child every day. Malnourished children should be followed up at home and mothers encouraged to come and ask questions regarding the feeding and care of the child.

#### **4.9 Feeding Malnourished Infants**

4.9.1 Infants and young children who are malnourished are most often found in environments where improving the quality and quantity of food intake is particularly problematic. To prevent a recurrence and to overcome the effects of chronic malnutrition, these children need extra attention both during the early rehabilitation phase and over the longer term. Continued frequent breastfeeding and, when necessary, relactation are important preventive steps since malnutrition often has its origin in inadequate or disrupted breastfeeding.

4.9.2 Nutritionally adequate and safe complementary foods may be particularly difficult to obtain and dietary supplements may be required for these children. Mothers

of malnourished children could be invited in a camp and provided with a fortnight's ration of roasted cereal-pulse mixes with instructions. The children could be followed up every fortnight for growth monitoring, health check up and supply of instant food ration for a period of three months. When malnourished children improve with appropriate feeding, they themselves would become educational tools for others.

4.9.3 Breast milk is particularly important for preterm infants and babies with low birth weight (newborn with less than 2.5kg weight) as they are at increased risk of infection, long term ill health and death.

#### **4.10 Obligations and Responsibilities**

4.10.1 Central and State Governments, national and international organisations and other concerned parties share responsibility for improving the feeding of infants and young children so as to bring down the prevalence of malnutrition in children, and for mobilising required resources – human, financial and organizational. The primary obligation of Governments is to recognise the importance of improving infant and young child feeding (IYCF) at the highest policy making level and integrate IYCF concerns in existing policies and programmes. An effective national coordination is required to ensure full collaboration of all concerned Government agencies, national and international organisations and other concerned parties. Regional and local Governments also have an important role to play in implementing the national guidelines on infant and young child feeding.

4.10.2 The Departments of Women and Child Development, and Health and Family Welfare have a special responsibility to contribute to optimal infant and young child nutrition. National Guidelines on Infant and Young Child Feeding should form an integral part of nation-wide Integrated Child development Services (ICDS) and the Reproductive and Child Health (RCH) Programme. These need to be effectively operationalised through the programme managers and field functionaries of these on going programmes. The managers and functionaries of these programmes need to be practically oriented to the correct norms of IYCF. These guidelines should form an essential part of the nursing and undergraduate medical curricula. The medical and para-medical personnel of the Departments of Paediatrics, Obstetrics and Gynecology and Preventive and Social Medicine should actively educate and motivate the mothers and other relatives for adoption of appropriate IYCF practices. In addition, the services of other community level workers and involvement of formal and non-formal education, the media and voluntary organisations is recommended to be utilised for effective implementation of these guidelines.

4.10.3 In this context, due attention needs to be given to the monitoring of the implementation of the Infant Milk Substitutes, Feeding Bottles and Infant Foods (Regulation of Production, Supply and Distribution) Act 1992 and its subsequent amendment(s).

4.10.4 The National Guidelines on Infant and Young Child Feeding provide governments and society's other main agents with both a valuable opportunity and a practical instrument for rededicating themselves, individually and collectively, to protecting, promoting and supporting safe and adequate feeding for infants and young children.

## Chapter V

### NATIONAL NUTRITION GOALS FOR THE XI FIVE YEAR PLAN (2007-12)

5.1 India is proud to have adopted the National Nutrition Policy as early as in 1993 while the World Health Organisation and Food and Agriculture Organisation of the United Nations had just given a call at the International Conference on Nutrition held in December 1992 at Rome, that all countries prepare the National Nutrition Policy and a National Plan of Action on Nutrition. The efforts for formulation of a Nutrition Policy in India had started in early 80s when the Planning Commission had set up a task force on nutrition policies and programmes. This task force recommended the formulation of a National Nutrition Policy.

5.2 The National Nutrition Policy is the most comprehensive document which covers almost every area that affects nutrition of the people. Even in early 90s it documented a close linkage between the nutritional status of population and the development and well being of a nation, the concept which is now being documented by various other countries. It very clearly established in the introduction (Chapter I) that mere economic development or even the adequacy of food at household level is no guarantee for a stable and satisfactory nutritional status. Therefore, the task is not merely in terms of formulating a nutrition policy but also in terms of locating it and grounding it in the overall development strategy of the country.

5.3 The adoption of the National Nutrition Policy in 1993 under the aegis of Department of Women & Child Development made it a nodal department for nutrition. The Food and Nutrition Board of the Ministry of Food was transferred to DWCD w.e.f 1<sup>st</sup> April, 1993 in pursuance of the National Nutrition Policy with the orders of the Hon'ble Prime Minister. A number of initiatives had been undertaken by FNB, DWCD on different instruments of the National Nutrition Policy. To quote a few, Nutrition Advocacy and Awareness Generation on National Nutrition Policy, Micronutrient Malnutrition Control, Disaggregated Data in the form of District Nutrition Profiles and Establishing Nutrition Monitoring, Mapping and Surveillance based on Triple AAA Approach, Promoting a Comprehensive Approach for Micronutrient Malnutrition Control and Intensifying IEC Activities on Nutrition, have been undertaken by FNB of Ministry of WCD.

5.4 Some of the **constraints** in institutionalizing the instruments of the National Nutrition Policy have been as under:

- i. Malnutrition is still to be focused as a national problem.
- ii. Nutrition does not have the status of a separate ministry nor even a department, and all existing departments have their own mandates.
- iii. Nutrition is not seen as an explicit goal by the concerned sectors.
- iv. Nutrition is invariably seen as synonymous with feeding.
- v. State level actions on Nutrition Policy instruments depend on directions supported by resource allocation.

5.5 The vision of the National Nutrition Policy of achieving optimum nutrition for all, although is the ultimate goal to be achieved, all efforts need to be directed towards this aim if the country wants to accelerate its economic growth and development.

5.6 “**Malnutrition Free India**” is the goal whose time has come and is the vision for National Nutrition Policy for the next decade. India’s strong institutional and human resource base is capable of bringing about a transformation. The success will depend on the full involvement of all concerned sectors from Centre and State Governments, national institutions, community and social organisations, and women’s groups in implementing the mandate of the National Nutrition Policy.

5.7 With the constitution of the National Nutrition Mission under the chairmanship of the Hon’ble Prime Minister, there is an uncommon opportunity of mobilising all stakeholders towards achieving the goal of malnutrition free India. The country has nation-wide Integrated Child Development Services scheme, Reproductive and Child Health Programme and Universalisation of Primary Education. All these development infrastructure need to be utilised to carry forward the task of meeting the goal of the National Nutrition Policy in the next decade.

5.8 Good nutrition is the material basis for human resource development of a country or a community; nutrition is an issue of survival, health and development for current and succeeding generations. Children born under-weight have impaired immune function and increased risk of diseases such as diabetes and heart disease in their later life. Malnourished children tend to have lower I.Q. and impaired cognitive ability thus affecting their school performance and then the productivity in their later life. Such a vicious cycle of nutrition and development is not widely acknowledged and has very weak influence in policy making. **It has to be realised that the nutritional health in all age groups represents a national economic asset.**

5.9 Malnutrition is not to be viewed merely as an offshoot of poverty having adverse effect on the health & development of individuals but as a national problem that results in loss of productivity and economic backwardness. Time has come to create a movement so as to achieve the nutrition goals. A series of actions in different spheres are required to be undertaken in a **mission mode approach** to address this gigantic problem of malnutrition, some of which are listed here:

- Malnutrition to be viewed as impediment to national development at highest level.
- Silent emergency of malnutrition to be fought on war footing.
- Sustained political commitment needed.
- A high level standing interagency coordination mechanism must be created at centre and state levels to direct macro and micro level strategies.
- Social sector – Nutrition, Health, Education and Women and Child Development must receive higher budgetary allocations.
- The problem of malnutrition must be made visible at different levels. There must be concentrated nutrition awareness, advocacy, communication and capacity building in respect of both the community and functionaries at various levels.
- The Health sector should include nutrition in all spheres of its activity viz, medical education, training, primary health care, surveillance etc.

- Rural Development and Public Distribution System should state explicit nutrition goals.
- Panchayati Raj Institutions to be empowered to serve as focal point for all developmental schemes.
- Families and communities to be sensitised towards prevention of malnutrition among infants between the age of 0-2 years, adolescent girls, pregnant and lactating women, delaying the age of marriage, education of girl child, hygiene and sanitation and utilising timely medical care
- The Education sector to include nutrition in all its formal and non-formal activities.
- The nutritional requirements of the country should be met before decisions to export any commodities are taken, e.g., sugar, oil, pulses etc.
- Agriculture sector to promote production of coarse grains, pulses, red palm oil, fruits and vegetables.
- Horticulture interventions for nutritional improvement to be taken up at all levels.
- Home Science Colleges (numbering about 101 in the country) to be strengthened and actively involved in nutrition training of functionaries and nutrition advocacy and communication.
- Nutritionists to be positioned as advisers at various levels by Central and State Governments.
- Nutrition Monitoring and Surveillance System to be established utilising ICDS infrastructure - ICDS to be universalised to take on this responsibility.
- NNMB to be expanded to cover all States for supporting nutrition surveillance.
- Nutrition to be reviewed as a separate subject in the State/UT development reviews. An Annual nutrition review to be instituted at national level and Nutrition Awards to be given to best District/State.
- Food & Nutrition Board bearing nodal responsibility for coordinating the implementation of National Nutrition Policy to be strengthened.

5.10 For the first time the X Five Year Plan had set goals for infant and young child feeding indicators and reduction of undernutrition in children including micronutrient malnutrition. Many of the X Five Year Plan Goals are yet to be realized. Keeping in view the mandate of the Millennium Development Goals and the unmet goals of X Five Year Plan, the **following National Nutrition Goals are recommended for the XI Five Year Plan** to be met by 2012. The State specific goals would need to be identified accordingly.

- Reduce the prevalence of underweight in children under 5 years to 20%.
- Eradicate the prevalence of severe undernutrition in children under five years.
- First hour breastfeeding rates to increase to 80%.
- Exclusive breastfeeding rates to increase to 90%.
- Complementary feeding rate at six months to increase to 90%.
- Reduce prevalence of anaemia in high risk groups (infants, pre-school children, adolescent girls, pregnant and lactating women) to 25%.
- Eliminate vitamin A deficiency in children under 5 years as a public health problem and reduce sub-clinical deficiency of vitamin A in children by 50%.
- Reduce prevalence of Iodine Deficiency Disorders to less than 5%.

5.11 The achievement of the National Nutrition Goals for the XI Five Year Plan would require a multi-pronged action on various issues. A number of policy decisions at the macro and micro level would be required at center and state levels to achieve the goals.

5.12 The Food and Nutrition Board, MWCD has been undertaking nutrition advocacy of policy makers at central and state levels on strategies for promoting nutrition of the people. Five Regional Consultation Meets on Nutrition have been organized during 2005-06 for North Eastern States at Shillong in February, 2005, Western States at Pune in May, 2005, Eastern States at Bhubaneswar in July 2005, Northern States at Chandigarh in January, 2006 and Central States at Bhopal in June 2006. The Recommendations of three high level advocacy meets are given in **Annexure XIV**.

Strategies for achieving the nutrition goals in the XI Five Year Plan are discussed in the following chapter.

## **Chapter VI**

### **STRATEGIC RECOMMENDATIONS FOR THE XI FIVE YEAR PLAN**

#### **6.1. Articulating malnutrition as number one public health problem in the country.**

6.1.1 All available data conclude that malnutrition is the only single most important contributory factor towards high infant and under 5 mortality rates and maternal mortality. Further, foetal and early childhood nutrition not only determines the growth, development, nutrition and health of the child but has life long consequences for the health of a human being throughout his life span because of poor metabolic programming during this critical period. Currently most of the public health programmes are directed for control of specific nutritional deficiency, infectious disease, emerging problem of diet related chronic diseases like diabetes, hypertension, cardiovascular diseases, cancer etc. Very little attention is given to preventive aspects or to say to the nutritional issues working as indirect causes of disease and mortality.

#### **6.2 Greater emphasis on Nutrition Action by Health Sector at all levels**

6.2.1 The Health sector needs to give due emphasis to 'nutrition' at all levels, such as:

##### **6.2.2 Strengthening Nutrition in Medical, paramedical, AYUSH and Agriculture education**

- There is an urgent need to strengthen and update nutrition curricula of medical and para medical education in the country involving Medical Council of India and similar bodies.
- Optimal infant and young child feeding (IYCF) practices in medical books need to be updated incorporating the Resolutions of the 55<sup>th</sup> World Health Assembly, Global Strategy on IYCF and Innocenti Declaration, 2005.
- The second edition of the National Guidelines on Infant and Young Child Feeding (FNB, MWCD, GOI, 2006) released in May 2006 needs



to be incorporated in all such curricula. Adequate emphasis on national problems like delayed initiation of breastfeeding, poor exclusive breastfeeding and delayed and inadequate complementary feeding of infants and young children needs to be addressed. Micronutrient malnutrition, food and nutrition security issues for different age groups, social causes of malnutrition and shared parenting also needs to find a place in medical and para medical curricula.

- There is no separate subject of nutrition in the MBBS courses at graduate level. Nutrition is taught through Preventive and Social Medicine and Paediatrics. Medical graduates, therefore, do not have adequate knowledge of food based approaches to the problem of malnutrition. Nutrition needs to be made a separate subject at graduate level in medical and para medical courses.
- National guidelines on IYCF need to be built into implementation of their medical and nursing teaching curriculum.
- Core Nutrition Module need to be integrated in all agriculture and rural development training programmes.
- Nutrition advocacy and education for agriculture students and scientists need to be undertaken.

### **6.2.3 Training Programmes for Health Personnel**

- All training programmes for different level functionaries should equip the trainees to address the problem of malnutrition, low birth weight, nutritional efficiency disorders and issues concerning breastfeeding, complementary feeding, nutrition and health education etc. A core Nutrition Module needs to be integrated into the training curricula of various training institutions under health and family welfare, namely National Institute of Health & Family Welfare, State Institutes of Health & Family Welfare and in-service and pre-service training courses. Crash courses on critical issues like infant feeding and child survival, micronutrient malnutrition, under-nutrition, stunting and wasting in children under-5 years, home based care of low birth weight babies and severely malnourished children needs to be organised for health personnel with a view to address the problem of malnutrition effectively.
- Define skills training needs of health care providers at different levels, integrating breastfeeding education effectively in existing programmes, their curriculum should include at least three days of training in infant and young child feeding counselling. Existing ICDS workers should be given additional training. Similarly, in the context of the recently-launched National Rural Health Mission, the accredited social health activist (ASHA) must be properly trained in all areas, but should have at least three days of training in infant and young child feeding counselling. This will ensure basic education to impart correct information, and help all women to solve the 'not enough milk' problem and other common problems related to feeding. The ASHA should also be trained to refer women to a higher level for complicated problems like breast infection and abscess. This higher level support could be

established by creating breastfeeding support centres /clinics at block level run by trained women, after having received 7 days training.

- **Integrated Management of Neonatal and Childhood Illnesses (IMNCI)** launched under the RCH II programme in 125 districts is another opportunity to promote infant feeding skills. Urban hospitals staff and HIV counsellors should also be trained for counselling on breastfeeding. For those health workers from whom it is expected that they will counsel on breastfeeding, complementary feeding as well as HIV and infant feeding, the training package of 7 days would be necessary. All these packages are based on WHO/UNICEF training courses on the three subjects and have been adapted in India by the Breastfeeding Promotion Network of India (BPNI). Needless to say, this component must also be included in pre-service training.
- **National Rural Health Mission (NRHM):** Framework of implementation of the NRHM and the Indian Public Health Standards (IPHS) should clearly reflect nutrition inputs through action at village level, cluster of 4-5 villages and 30 villages, and at the Block level. Nutrition inputs can only be ensured through building of Infant and young child feeding support centres/clinics at the cluster level and block level by a skilled female workers. ASHA at village level should actively engage in promotion of Breastfeeding and provide support within one hour at birth to begin Breastfeeding. (Details in the Annex).

The project implementation plans at district level under NRHM should include details on micronutrient malnutrition control programmes namely Iron & Folic Acid Supplementation, Vitamin A Supplementation and National IDD Control programme. The District Media Officers under NRHM need to be sensitised towards the problem of malnutrition including micronutrient malnutrition and equip to undertake nutrition orientation, awareness generation and IEC activities on various nutritional issues. At present the job responsibility of the District Media Officers do not include nutritional issues.

#### **6.2.4 Primary Health Care to include Nutrition as important service**

- An ICMR study undertaken during 1989 revealed that although nutrition is an important part of job responsibility of health personnel, many of them do not even know about it and those who know fail to give adequate attention to these aspects for want of supervision of nutritional inputs into the primary health care. Recognizing the importance of nutrition in prevention, the management and treatment of disease, it is important that all the contact points with the people either at PHC, hospital or immunization days, are utilised for communicating nutrition messages to the people. Needless to say, a word from the doctor's mouth is a bible truth for the patient. Many of the anganwadi workers have expressed that they were promoting optimal norms for breastfeeding and complementary feeding, but for want of support from the medical personnel of PHC, district hospital or registered medical practitioners, they find it difficult to convince the community about the correct norms for IYCF.
- Nutrition needs to be recognized as an important service under primary health care.

### **6.2.5 Clinic/beds for severely malnourished children at PHC, CHC and district hospitals**

- Severely malnourished children and low birth weight babies contribute significantly to the IMR and Under-5 mortality rates in the country. It is, therefore, imperative that severely malnourished children are given special attention by the primary health centres, community health centres and district hospitals. A separate set up with an OPD clinic and a few beds for severely malnourished children should be made available at all PHCs, CHCs and district hospitals in the country. This is urgently needed to reduce infant and child mortality due to malnutrition. It needs to be appreciated that severe malnutrition is often accompanied with infection and such children may require parental nutrition, treatment of infections with antibiotics and treatment of any other complication which could be interfering with the weight gain of such children on dietary regime.
- The Government of Madhya Pradesh under their '*Balsanjivini*' programme through '*Balshakti*' component has shown convincingly that with modest expenditure on malnourished children through the health system, it is possible to reduce malnutrition levels in an accelerated manner. The Government of Rajasthan has also demonstrated management of severely malnourished children involving the health infrastructure.
- Nutrition rehabilitation centres have contributed significantly to reduction of malnutrition in Bangladesh.
- At present there is no generic system in the country to handle severely malnourished children through hospital set up on a regular routine basis. This important service needs to be created in XI Five Year Plan.

## **6.3 Establishing Nutrition Information System in the country**

6.3.1 There is no system to reveal the current status of under-nutrition, micronutrient malnutrition and diet related chronic diseases among the people in the country at present. Many a times one is faced with an embarrassing situation with reports from international and UN agencies quoting India as worse than even the countries of the developing world as far as data on nutrition and health are concerned.

6.3.2. The country must assess the outcome of the precious resources being spent. In other words, whether the valuable inputs into the existing nutrition and health interventions are bringing desired results or not and what mid course corrections are needed. The existing data on nutrition and health is available from the following sources although all have their own limitations:

- **National Nutrition Monitoring Bureau (NNMB)** undertakes diet and nutrition surveys periodically in 8-10 States in the country and projects the State level scenario for these States. NNMB continues to function in a project mode under ICMR since 1972 resulting in heavy turnover of staff, and poor staff strength. The National Nutrition Policy adopted by the Government in 1993 mandated that nutrition monitoring and surveillance system should be established in the country and that the National Institute of Nutrition entrusted with this responsibility and to be made accountable to MWCD for nutrition surveillance. In order to achieve

this, it is imperative that NNMB is established in all States and UTs and is assigned the task of establishing a system of nutrition monitoring, mapping and surveillance.

NNMB should also undertake district level food and nutrition surveys including survey on prevalence of diet related chronic diseases every five years in the country to enable area specific planning and programming using disaggregated data.

- **Management Information System (MIS)** of various services under NRHM and ICDS also provides useful information on the coverage under various programmes. The MIS of various services need to be improved and utilised to serve as an important source of information for enabling nutrition monitoring, mapping and surveillance.
- **National Family Health Survey (NFHS)** undertaken by International Institute of Population Sciences are coordinated by the Ministry of Health & Family Welfare and are undertaken at an interval of 5-6 years. In fact this is the only source of nation wide data on under-nutrition among children under 5 years and anaemia among women and children. In fact, anaemia was added at NFHS 2 stage (1998-99) while NFHS currently in progress has taken a little more indicators on nutrition. However, NFHS will not be able to supply any information at the district level and information on prevalence of important micronutrient deficiencies like vitamin A deficiency in children, anaemia in adolescent girls in the age group of 10-15 years, prevalence of iodine deficiency disorders and other nutritional deficiency diseases. Still it is important that NFHS should include nutritional indicators to a great extent and provide district level data for atleast the backward districts of the States/UTs.
- **District Level Health Survey (DLHS)** covers all districts in a phased manner and is an important resource for projecting district level nutrition and health scenario in the country. Presently very few indicators on nutrition are included under the DLHS. Due emphasis to nutrition under DLHS and making reports available to all every two years is required. Infant and young child feeding indicators should be the lead and first indicators

6.3.3. The Ministry of Health & Family Welfare has Central Bureau of Health Intelligence, Statistical Division, ICMR, NIN, NNMB, NFHS and DLHS etc. The need of the hour is that efforts of all these institutions, including ICDS and NRHM are pooled together to design a Nutrition Information System for the country so that the country has the following:

- Annual Nutrition and Health Reviews instituted at national, state and district level with best State, best district in each State and best village in each district awards annually.
- Annual publication on nutrition and health status of the people with special emphasis on children under-5, adolescent girls, pregnant and lactating women, elderly and tribal population.
- District wise disaggregated data on nutrition including micronutrient deficiencies and health status every 5 years.
- Review of malnutrition in monthly development reviews by the Chief Secretaries in States/UTs.
- District level and if possible block level mapping of high malnutrition areas with the help of software like GIS (Geographic Information System) of NIC, KIM of

FAO, Dev Info of UNICEF or any other utilising district level electronic network of NIC under health, WCD and related sectors.

- NIN under ICMR to undertake training and capacity building of States for the purpose.
- Nutritional status of children under 3 years and IYCF indicators to be the key progress indicators in NRHM, State/District plans.

6.3.4 Surveillance on Folic Acid deficiency related birth defects needs to be undertaken atleast in institutionalized deliveries, in view of the increased cases of NTD's and *spina bifida* cases being reported.

6.3.5 Developing a National Nutrition Information System through community based monitoring mechanism has been illustrated in the Figure at **Annexure IX**.

#### **6.4. Infant and Young Child Feeding and Nutrition Security for Infant Survival**

- Infant and Young Child Feeding (IYCF) counselling to be taken as a component of 'service delivery'. This is crucial to make the functionaries aware of their key responsibilities, or Core job both in ICDS and NRHM/RCH II (MOHFW & WCD). The objective should be clear to achieve high rates of **initiation of Breastfeeding, exclusive breastfeeding within first hour of birth** for the first six months and complementary feeding at six months, thus ensuring mainstreaming Infant and young child feeding in all sectors and implementation of the National guidelines on Infant and Young Child Feeding and the Infant Milk Substitutes, Infant Foods and Feeding Bottles (Regulation of Production, Supply and Distribution) Act 1992, as Amended in 2003 (IMS Act).
- **Job Responsibility of Health care providers:** It should include home visits during last trimester of pregnancy, **first hour at birth**, first week, 6-8 months, 9-11 months 12 to 18 months. Skilled support at birth for early and exclusive breastfeeding: Provision of skilled support service at birth, for the first 1 hour to ensure timely initiation of breastfeeding within one hour, should be made an entitlement both at family level and facility level, and in public as well private sector. In fact first one-hour support should be made an entitlement.
- **Legislative support /entitlement:** Dealing these issues is important to ensure rights of mothers and babies: Prioritize food and care for pregnant and lactating women. **Maternity entitlements (leave and other benefits)**, which allow the women to absent herself from work for six months after the birth of child without economic loss should be provided. Otherwise women are forced to adopt inappropriate feeding practices, which cause diarrhoea, and perpetuate poverty. This should include enough food supply during pregnancy, **skilled support at birth to ensure initiation of breastfeeding within one hour**, cash benefits for all working women, 6 months maternity leave for those in organized sector. It should be a minimum essential package on a universal basis.
- **Create clear adequately resourced budget head on nutrition** including IYCF in NRHM.
- **Create a network of resource centres/institutions** for promoting optimal IYCF viz National level IYCF resource centre, State resource centre and district resource units. A flow chart for the purpose is given in **Annexure X**. The existing training resources of Breastfeeding Promotion Network of India (BPNI) to

be utilised to create decentralised training capability for IYCF in both NRHM and ICDS.

○ **Making the under 6 months visible in NRHM and ICDS**

- The criticality of addressing the first day, week, month ( neonatal care) and early infancy is well recognized as a key strategy for accelerating reductions in neonatal and infant mortality and malnutrition. The 0-6 months infant is often left out of initial weighing/ child care counseling sessions, because most deliveries take place at home, mothers are superstitious about new borns being weighed, and also because 0-6 months infants are to be exclusively breastfed and hence no SNP is to be provided to them – and most ICDS records/ reporting is SNP centred.
- The inclusion of extent of exclusive breastfeeding practiced by the for the first 6 months of life in the ICDS MPR – as recommended by GOI, as an outcome variable, is already being practiced in States such as Rajasthan is another way of ensuring adequate attention to these crucial early months of life, and the care practice of exclusive breastfeeding – for better young child survival growth and development outcomes.
- Create Nutrition and breastfeeding support centers, initially in all district hospitals- and followed by at CHC, PHC levels in a phased manner – manned by skilled counselors to provide lactation management support, and management of severe malnutrition.
- Preventing the onset of malnutrition by adopting a life cycle approach needs to be emphasized in the NRHM. Six months to three year old children have to be targeted with special attention on feeding advice. Preparations of complementary foods from family pot have to be reinforced through interpersonal communication at various contact points. *Sattu* like cereal-pulse mixes need to be demonstrated for feeding of infants and young children. Due care of adolescent girls with special emphasis on iron and folic acid supplements, balanced diet, family life education, mother and child care education and skill development training is essential to break the inter-generational cycle of malnutrition. Gender sensitive nutrition indicators need to be adopted in the health services as well as NRHM.

6.4.1 A framework in which Nutrition and Health Integration could be conceptualized, implemented and monitored is at **Table 1**.

## **6.5 Creating Nutritional Awareness at all levels**

6.5.1 A **National Nutrition Education Programme (NNEP) needs to be launched** to create a climate of nutritional awareness at different levels so that the invisible and silent emergency of malnutrition could be addressed effectively. Currently only the infrastructure of Food and Nutrition Board (FNB) of Ministry of Women & Child Development is taking up nutrition advocacy and awareness generation as a service. In all other nutrition related interventions, nutrition and health education is treated as an appendix and is not given due emphasis. The Tenth Five Year Plan recognized the importance of nutrition and health education and mandated intensifying nutrition and health education to reduce malnutrition in children by enhancing IYCF rates.

- Expanding nutrition education through FNB of MWCD enlisting cooperation of Home Science and Medical Colleges, Nehru Yuvak Kendra Sangathan, Panchayati Raj Institutions and NGOs besides strengthening FNB in large States

like Uttar Pradesh, North Eastern States and at the centre would be required in the XI Five Year Plan.

- The most important change agents for nutrition are the anganwadi workers and the ANMs. It is important to enhance the capacity of the States and their institutions to train the anganwadi worker, ASHA, ANM and different functionaries under ICDS to enable them to focus on malnutrition.

6.5.2 A comprehensive National Nutrition Education Programme would include the following:

- **Advocacy and Sensitisation** of Parliamentarians and senior policy makers at Centre and State level with a view to create 'political will' and 'administrative will' respectively for addressing the problem of malnutrition with high priority.
- **Nutrition orientation** of programme managers and implementers of various direct and indirect nutrition interventions of the Government.
- **Capacity building** of field functionaries of health, women and child development, education, rural development, food and public distribution, civil supplies etc, on various nutrition issues.
- **Nutrition Education** of the public by launching a vigorous awareness campaign on nutrition in the form of '*Poshan Jagriti Abhiyaan*' on the lines of Pulse Polio and HIV/AIDs campaign is needed to create awareness among different target groups on the issues of consequences of malnutrition on growth, development and learning ability of children, the importance of micronutrients, promoting correct norms for infant and young child feeding, providing information on existing nutrition and health services and the role of family and community towards nutrition promotion.

Awareness generation on nutrition to be undertaken through newspaper columns, a daily programme of *Poshan Charcha* on radio and T.V. and mass awareness campaigns through melas, fairs etc. Development of nutrition software for different target groups, its production in all languages and dissemination to remote corners of the country is a gigantic task and needs to be undertaken.

6.5.3 A diagram at **Annexure XI** would reveal as to how these four components of Nutrition Education Programme could be undertaken and what would be their outcomes. The ultimate goal is to have a Self Sustaining Development Model where people are empowered with nutrition and health awareness to take care of their nutrition and health.

6.5.4 In addition to the NNEP primarily to be undertaken jointly by FNB of MWCD and NRHM of Ministry of Health & Family Welfare, Nutrition Education needs to find a place in the following:

- Nutrition education to be included as a service under primary health care.
- The Central Health Education Bureau and IEC Bureaus of Ministry of Health and Family Welfare needs to focus on malnutrition through nutrition education.
- Nutrition Education to be an important component of CHEB, SHEB and NRHM.
- Nutrition component of medical education to be strengthened.
- Nursing curricula to include appropriate norms on infant and young child feeding, prevention and management of various forms of malnutrition including micronutrient malnutrition.

- All contact points for antenatal care and immunization to be utilised for imparting nutrition to the community.
- A core module on nutrition can be included in the induction training programmes of all Government officers and staff, including IAS officers.
- Launching a People's Movement through country wide campaign for making malnutrition visible is needed.
- A policy decision to include a degree in community nutrition at graduate level in all universities, available to both boys and girls, would be required so that the country has nutrition literate citizens and enough supply of nutrition qualified people to serve the basic nutrition and health related interventions of the Government.
- Nutrition also needs to be included in all formal and non-formal educational systems, namely the curricula of school children from III to X standards, as a subject in BA (Pass) and B.Sc (Genl.) courses and in various adult education and functional literacy programmes etc.
- Nutrition needs to be included in various Agricultural and Rural Development training programmes so that nutrition orientation of agricultural and poverty alleviation programmes is possible.

## 6.6. Micronutrient Malnutrition Control through Intensified Programmes

6.6.1 Micronutrient malnutrition is not only most devastating for pre-school children and pregnant women, it is debilitating in all age groups. It is also debilitating for the national economy as well. A World Bank study states that micronutrient malnutrition robs many countries 5% of their national income, while addressing the problem would cost only 0.3%. The control of vitamin and mineral deficiencies offers an opportunity to improve life at a very low cost and in a short time. With political will and financial support, micronutrient malnutrition could be reduced significantly within this generation.

6.6.2 The **National Nutrition Policy** adopted by the Government in 1993 had directed controlling micronutrient malnutrition particularly anaemia due to iron and folic acid deficiency, vitamin A deficiency and iodine deficiency disorders through intensified programme. The nutrition scenario reveals that anaemia continues to be a cause of concern resulting in high prevalence of low birth weight babies, maternal mortality, poor cognitive development of children and low work capacity and productivity of adults resulting in poor purchasing power and food insecurity at the household level.

- **Double Fortification of Salt (DFS)** – The Tenth Five Year Plan had given directions to utilise DFS (common salt fortified with both iodine and iron) for controlling anaemia. The technology of DFS developed by the NIN is based on a simple method of dry mixing of iodised salt with iron and does not involve elaborate or expensive measures. Large scale production of DFS (upto 60 MT) was successfully demonstrated in factories. NIN formulation of DFS contains refined common salt (100%), potassium iodate (0.0067%), ferrous sulphate hepta hydrate (0.508%) and sodium hexa meta phosphate (1%) as a stabilizer so as to provide 40 ppm iodine and 1000 ppm iron. NIN formulation of DFS showed good stability under the most adverse testing conditions. Sensory acceptability trials carried out using several commonly consumed Indian foods containing DFS indicated that the DFS compared well with control salt in attributes such as taste, colour, flavour and overall acceptability. Bioavailability studies demonstrated that



iodine and iron are well absorbed and utilized in the body under dietary conditions prevailing in the country. Production, long-distance transportation and distribution in 0.5/1 kg pouches or 50 kg sacs were found to be feasible.

The Government of India has already accepted the formulation of NIN for DFS and is in the process of releasing the guidelines for use of DFS in the country. On the recommendation of the ICMR, the MWCD had directed all State Governments to utilise DFS, if available, in supplementary feeding programmes under ICDS.

The Government of Chattisgarh has been utilising DFS since 2003 and the NFHS 3 has clearly demonstrated that Chattisgarh has dramatically reduced malnutrition and anaemia levels in its population. The group strongly recommended that DFS should be adopted and utilised in the country. The Department of Women and Child Development, Government of Chattisgarh has been providing 500g packet of DFS/month free of cost to each ICDS beneficiary as take home ration.

- A **national programme of manufacturing and distributing salt fortified with iron, iodine, vitamin A and folic acid** for which proven technology is available was recommended by the Group.
- **Fortified Wheat Flour and RTE foods** - Instead of supplying rice and wheat in major food based programmes like TPDS, Antodaya Anna Yojana, Anapurna scheme, Food for Work programme etc, enriched foods should be supplied. Micronutrient enrichment of ICDS and Mid Day Meal was also necessary.
- The **formation of Nutrition Development Corporation** as an adjunct to Food Corporation of India - This Corporation can procure *ragi* and other millets on the same line as FCI is procuring rice and wheat, and support the manufacture and sale of different food mixes enriched with vitamin premix.
- **Self Help Women Groups to prepare food mix to serve as complementary food for children**, for marketing in rural areas.
- **Horticultural Interventions** – Although India is the largest producer of fruits and vegetables in the world, the per capita availability of these protective foods is far from satisfactory. Horticultural interventions have long been recognized as an important strategy for achieving nutrition security for the people. Talking of kitchen gardens, a school garden etc alone is not sufficient. A comprehensive approach to promote production of these foods at household and community level is needed. The foremost task would be to assess the requirements of fruits and vegetables with special emphasis on green leafy vegetables for the population and plan for ensuring production of that amount for domestic consumption. Household and community level horticultural interventions need to be promoted through agricultural extension and nutrition and health education efforts. Provision of 'cool chambers' at the community/village level would be necessary for ensuring the safe storage of these perishable foods.

Every school to have drumstick tree and nutrition garden of greens. Propagation of growing green leafy vegetables in empty tins or as creepers on the roof tops of the households on the pattern of Thailand's experience, needs to be taken up.

The Self Help Women Groups (SHWG) would need to be trained in home scale preservation of fruits and vegetables so that they could preserve the produce when available in plenty for use during the lean seasons. Marketing link up would also be necessary to help the SHWG to sell their products over and above their own community requirements.

- **A National Programme of Dietary Diversification** needs to be implemented utilising services of Home Science Colleges who could disseminate dietary guidelines in local languages and train the self help women groups and NGOs to help the households in diversifying their diets. Proper counselling on basic and primary biotechnology tools in improving the quality of diets like fermentation, using parboiled rice, sprouted grains, leafy vegetables is also necessary.
- **Strengthening the existing Iron & Folic Acid and Vitamin A Supplementation programmes was universally recommended.** In case of iron and folic acid supplementation the two high risk groups, namely infants and young children and adolescent girls are still not covered under this national programme. Iron deficiency during infancy can cause permanent brain damage while iron deficiency during preschool years can inhibit their learning ability and concentration power thus affecting school performance. In fact, IFA supplementation of pre-school children in the age group of 2-5 years through paediatric IFA tablets receives very low priority. IFA supplementation of infants and young children in the form of syrup needs to be taken up on priority. Similarly, adolescent girls in the age group of 10-19 years need to be provided with weekly IFA supplements both through schools as well as out of school adolescent girls. Kishori Shakti Yojana (KSY) has been identified as a viable scheme for providing iron and folic acid supplements to adolescent girls. Since KSY has a universal reach and is implemented by WCD Departments of the States/UTs through ICDS, modest financial support for IFA supplementation of adolescent girls through this scheme could give fruitful results. Incidentally, financial support is necessary since the existing financial norms of the KSY scheme are very weak. Deworming tablets should also be given to adolescent girls every six months.

Fortified supplementary food need to be given to ICDS beneficiaries since the gap in the existing diets and the RDAs are too high. For infants and young children, fortified complementary foods in the form of take home ration needs to be given since children in the age group of six months to three years do not need to visit anganwadi on daily basis. The existing nutritional norms and the financial norms do not permit fulfillment of RDAs by ICDS beneficiaries. The calories and protein norms for children in age group of six months to six years need to be enhanced to 500 calories and 10g protein/child/day from the existing 300 calories and 8-10g protein. Severely malnourished children in this age group need to be given 600 calories and 20g protein/child/day. Financial norms for normal children for supplementary food per day should be enhanced to Rs. 4.00 while for severely malnourished children to Rs.10. A severely malnourished child requires nutrient dense food 5-6 times a day. The background of the child reveals that such nutritional inputs are not feasible with the existing financial condition of the family. Rs.5.00 for double the ration and Rs. 5.00 for take home ration/child/day is required. Similarly, for pregnant and lactating mothers 500 calories and 20g protein with a financial norm of Rs. 4.00/beneficiary/day is recommended. Only when the financial norms are raised to this minimum level that one can expect provision of nutritionally dense supplementary food for ICDS beneficiaries to create an impact on nutritional outcome. Incidentally, the Ministry had revised the nutritional norms for ICDS beneficiaries in January 2006 with a view to provide 50% of the RDA of various micronutrients through supplementary food under ICDS.

Flexibility to districts to provide nutritionally dense supplementary food to ICDS beneficiaries in the form of cereal-pulse combination supplemented with vegetables and fruits or micronutrients was also considered necessary. Fortification of supplementary food with soyabean flour in the range of 5-10% has also been made compulsory in Maharashtra to enhance protein and mineral content.

- An **Inter Ministerial Coordination Committee on Micronutrient Malnutrition Control** has been constituted in the MWCD under the chairpersonship of the Secretary to look into various issues connected with the problem of micronutrient malnutrition and suggest an action plan. The first meeting of the Committee was held on 30<sup>th</sup> May, 2006 and the **recommendations** that emerged are at **Annexure XV**.

6.6.3. A **Committee of Secretaries** under the Chairpersonship of the Cabinet Secretary has been meeting regularly to deliberate on the need to accelerate programmes to overcome micronutrient deficiencies. In the last meeting held on 17<sup>th</sup> October, 2006. The Ministry of Women & Child Development was asked to prepare the Agenda Papers for the meeting. The **Issues of Concern** prepared by MWCD and considered by the Committee in the aforesaid meeting are as under:

#### Issues of Concern

- Micronutrient Malnutrition continues unabated in the country leading to heavy economic loss.
- Existing programmes do not address the problem in a holistic manner. Only nutrient supplementation programmes are in existence and that too not covering the entire high risk group.
- There is no monitoring of micronutrient deficiencies in the country. NFHS undertaken every six years covers only anaemia levels in women and children under 3 years and project only state level picture. NNMB exists only in 10 States giving State level projections for the 8 States only.
- Food fortification has not been given adequate attention.
- Nutrition oriented horticultural interventions to promote production of fruits and vegetables at household and community level is yet to be taken.
- Awareness generation on consequences of micronutrient malnutrition, its prevention and management is not being addressed adequately.

6.6.3(i) The Committee observed that the problem of micronutrient deficiencies continues to be unabated in the country. The existing programmes did not address the problem in a holistic manner. The data available was inadequate and very little monitoring was being done. There was a need to prioritize food fortification, horticultural interventions and generating awareness in the people regarding this problem.

6.6.3(ii) A **five pronged strategy** had been advised to accelerate the programmes to overcome micronutrient deficiency in the country. These related to (i) **Dietary Diversification** Awareness Creation concerning the Ministries of Health & Family Welfare, women & Child Development and Information & Broadcasting. This needed to be attempted through intensive IEC; (ii) **Nutrient Supplementation** concerning the Ministries of Health & Family Welfare, Women & Child Development and Department of School Education and Literacy. This could be achieved through biannual campaigns for administration of vitamin A to children between 6 months to 6 years, providing iron and folic acid supplements to children from 6 months to 2 years and to adolescent girls 10-19 years, administering iron tablets to all pregnant and lactating women and by emphasizing breastfeeding of infants upto 6 months under the NRHM Project Implementation Plans; (iii) **Food Fortification** involving the Ministries and Department of Health, Food Processing Industries, Food & Public Distribution, Consumer Affairs, Finance, Panchayati Raj and State Governments. This would be achieved by providing the composition and quantity of fortificants to meet the micronutrient needs in different foods, by providing incentives to industry for production and identifying appropriate channels for distribution; (iv) **Horticulture Intervention** involving the Ministry of Agriculture for the supply of seeds, extension and storage support; and, (v) **Public Health Measures** involving the Ministries and Departments of Health & Family Welfare, Women & Child Development, Commerce, Rural Development and Urban Development. This would require streamlining procedures of procurement and supply, building institutional capacity in organizations for monitoring and mapping micronutrient deficiencies and provision of safe drinking water and sanitation.

6.6.3(iii) To achieve the above goals, nutritional security needs to be prioritized during the XI Plan with the provision of earmarked funds. Estimated costs per day per beneficiary would be around 16 paise and with 50% cost sharing with the States, the total expenditure will be around Rs. 500 to 600 crores per month. The issues involved need a high degree of Inter Ministerial Coordination necessitating a Mission Mode for achieving synergies for the best delivery of facilities. Panchayati Raj bodies would also need to be made partners in this endeavour. On these issues being decided, Planning Commission will be approached for funds for this Mission.

6.6.3(iv) The Committee also noted that overcoming micronutrient deficiency was internationally accepted as one of the major goals of rural development initiatives, second only to fighting infant malnutrition, both being linked. The direct cost benefit ratio was 1:37 for this programme and accounting for indirect benefits will make the multiplier many times higher. The time had come when the country needed to seriously address this problem as one of the core issues affecting the quality of rural life and for developing strategies to fight rural poverty. There was need to segregate the short term and long term plans to implement the scheme in a decentralized manner in the States. It will require appropriate financial backing from the Government of India. For effective implementation the programme will need to be monitored at the highest levels for ensuring synergies between the Ministries/Departments as also for ensuring quality. Upgrading the level of awareness about the importance of overcoming micronutrient deficiency would add to the effectiveness of the project. An hour long session on this important subject in the next Chief Secretaries conference was also suggested.

6.6.3(v) The Committee also observed that fighting micronutrient deficiency was important for ensuring a better quality of life, specially for children and women in the

rural areas. A fast growing/globalizing economy like India could not ignore such issues. A Mission Mode Project was needed to achieve the best results, which would include inputs from Ministries/Departments of Health & Family Welfare, Food and Public Distribution, Food Processing Industries, School Education & Literacy, Rural Development, and others proposed by the Secretary, Ministry of Women & Child Development. The project could be implemented during the XI Plan with appropriate budgetary support from the Government.

6.6.3(vi) After detailed deliberations, the Committee of Secretaries recommended that:

- A Mission Mode Project would be launched during the XI Plan with appropriate budgetary support from the Government for overcoming micronutrient deficiency in the country. Ministry of Women & Child Development will prepare a detailed plan for this in consultation with the concerned Ministries/Departments and the Planning Commission.
- The technical issues involved with respect of fortification of rice, wheat, vegetable and edible oils and salt will be sorted out by the Department of Food and Public Distribution in consultation with representatives of Asia Micronutrient Initiative for upscaling these operations.
- The Committee of Secretaries will review the progress made every quarter.

## **6.7 Strengthening Inter Sectoral Coordination Mechanism**

6.7.1 A high level inter agency coordination mechanism is required to enable policy directions to the concerned sectors. A multi-pronged action by various key sectors of the Government is possible only when a high level coordination mechanism is set under the Prime Minister/Cabinet Secretary at Centre and Chief Minister/Chief Secretary in States. The main function of this high level coordinating body should be to make policy decisions required for promoting nutrition of the people for concerned sectors. The Role of concerned sectors towards nutrition is given in **Annexure XII**.

6.7.2 A regular coordination between health and women & child development is essential since these two key sectors implement the largest health and nutrition programmes in the country. It would be desirable to have a Coordination Committee on Nutrition and Health under the joint Chairpersonship of Secretary (Health) and Secretary (WCD) so that the Secretaries of these two sectors could be the chairpersons of the same committee alternately. Such a committee can evolve tools for joint supervision and monitoring of the health and nutrition interventions.

6.7.3 Similar joint coordination committees at State and District levels are also required. At programme implementation level, the programme managers could form small task force of key officials and meet frequently for implementation and monitoring of the programme.

## **6.8 Enhancing Investment in Nutrition and Health**

6.8.1 An analysis of the expenditure at different stages of the life cycle in the country reveals that there is a mismatch between the allocation and the requirement. Infants and pre school children who are most vulnerable and where maximum physical and

brain development takes place have the least budgetary provision. **Figure 3** illustrates this mismatch.

6.8.2 The National Common Minimum Programme mandates health care as one of the seven thrust areas wherein it is proposed to increase the expenditure in health sector as proportion of GDP from 0.9% to 2% to 3% over the next five years. The percentage expenditure on nutrition is still lower. As per the calculations of the Planning Commission, the expenditure on SNP component of ICDS accounts for only 0.05% of the GDP during the years 2002-05.

6.8.3 Investment in nutrition promotion programmes needs to be viewed as an investment in human resource development, higher economic growth and overall development. Adequate funds, atleast equal to 6% of GDP should be the minimum allocation since without basic human development no amount of expenditure on education and other sectors will yield positive results. Imposition of nutrition cess could also be considered for the XI Five Year Plan.

6.8.4 The budgetary requirements for the Nutrition Schemes proposed to be taken up by the FNB of MWCD during the XI Five Year Plan would be Rs. 370.00 crores as detailed in Annexure **XIII**.

6.8.5 Recognizing the magnitude of the problem of micronutrient malnutrition in the country, the Committee of Secretaries (CoS) under the chairmanship of the Cabinet Secretary has recommended a Mission Mode Project during the XI Five Year Plan with appropriate budgetary support from the Government for overcoming micronutrient deficiency in the country. The estimated cost per day per beneficiary would be around 16 p and with 50% cost sharing with the States, the total expenditure will be around Rs. 500-600 crores per month. The Ministry of Women & Child Development has been asked to prepare a detailed plan for this in consultation with the concerned Ministries/Departments and the Planning Commission. CoS will be reviewing the progress made every quarter.

6.8.6 The existing programmes of IFA supplementation, vitamin A supplementation and National IDD Control programme being implemented by the MHFW need to be strengthened and budgetary allocation enhanced for these programmes.

6.8.7 In order to give thrust to nutritional issues in the XI Five Year Plan, adequate budgetary provision would be prime pre-requisite. Building institutional capacity for nutrition action is also essential and would require adequate budgetary provision for the purpose.

## **6.9. Building Institutional Capacity for Nutrition Action**

6.9.1 There has been very little attention given to building institutional capacities during the last five decades. The national institutes in the field of nutrition have not expanded over the years, rather their structures have shrunk. To quote a few, National Institute of Nutrition, National Nutrition Monitoring Bureau, Food and Nutrition Departments of Home Science Colleges and Food and Nutrition Board of MWCD. To take forward the gigantic task of promoting nutrition and health of the people, nutrition has to be brought

to centre stage with adequate capacity building for various actions. The following is recommended to build institutional capacity for nutrition action.

### **6.9.2 Nutrition Foundation of India**

The National Institute of Nutrition with its present structure cannot undertake the amount of work in the field of surveys, research and training for the entire country. The Nutrition Foundation of India (NFI), an NGO of international repute could be adopted by the Government to serve as an institute of nutrition for carrying out surveys, research and training in Northern and Central part of India. During the X Five Year Plan there had been a lot of dialogue between the Cabinet Secretariat, PMO and the Ministry for utilising the services of NFI on a regular basis for improving nutrition profile of the country. NFI could serve as a resource centre for the MWCD as well as health and help promote issues like bringing out nutrition scenario publication annually, development of educational and training material and capacity building of programme managers of the concerned sectors.

### **6.9.3 National Nutrition Monitoring Bureau (NNMB)**

The NNMB of the National Institute of Nutrition has its field units only in 10 States in the country which continue to work in project mode even after 34 years of existence. The NNMB units need to be established in all State/UTs to assist the Ministries of WCD and Health & Family Welfare in undertaking nutrition monitoring, mapping and surveillance and to be made permanent to ensure effective functioning.

### **6.9.4 Breastfeeding Promotion Network of India (BPNI)**

Recognising the importance of infant and young child nutrition (IYCN) for promoting nutrition and health of the people, an exclusive institute for promoting IYCF would be required. There is no institute or NGO specialized in this area other than BPNI. The BPNI has a network in States and Districts with paediatricians working honorarily for the cause of IYCN. BPNI with its national network needs to be adopted by the Government to serve as an institute for promoting IYCN in the country.

Needless to say, adopting an existing set up may be much easier, economical and faster than creating a new structure for the purpose.

### **6.9.5 Food and Nutrition Board (FNB) of MWCD**

The infrastructure of FNB comprising of 488 Group A to D officers in the country was transferred with the orders of the Prime Minister in pursuance of the National Nutrition Policy (NNP) in 1993 from Ministry of Food to the MWCD. Over the years its strength has reduced to less than 400 while the mandate of coordinating the implementation of NNP had been entrusted to it. The NNP Review 2004 reveals that a number of initiatives were taken up by FNB since 1993.

The proposed National Nutrition Mission (NNM) constituted under the chairpersonship of Hon'ble Prime Minister vide Gazette Notification in July 2003 includes implementation of NNP and National Plan of Action on Nutrition among its

Terms of Reference. FNB needs to be strengthened to serve as a secretariat for NNM as well as to intensify creation of nutritional awareness at different levels.

A Nutrition and Diet Council of India is needed on the pattern of Medical Council of India to ensure quality education in the field of nutrition and dietetics and their utilisation in Government programmes.

### **6.9.6 Home Science Colleges**

The Food and Nutrition Departments of Home Science Colleges in the country could be strengthened for their support in training and capacity building, research and nutrition extension in respective areas.

Building institutional capacity for nutrition in the country needs to be viewed as infrastructure development for ensuring nutrition and health of the people for accelerating national development. Nutrition and health of the people will determine the strength of the nation when the country will be one of the leading economies in the world.

## **EPILOGUE**

Malnutrition is a complex problem, the determinants of which vary from food adequacy, literacy levels, conditioning infections, access to health care, empowerment of women, access to safe drinking water and sanitation to economic growth.

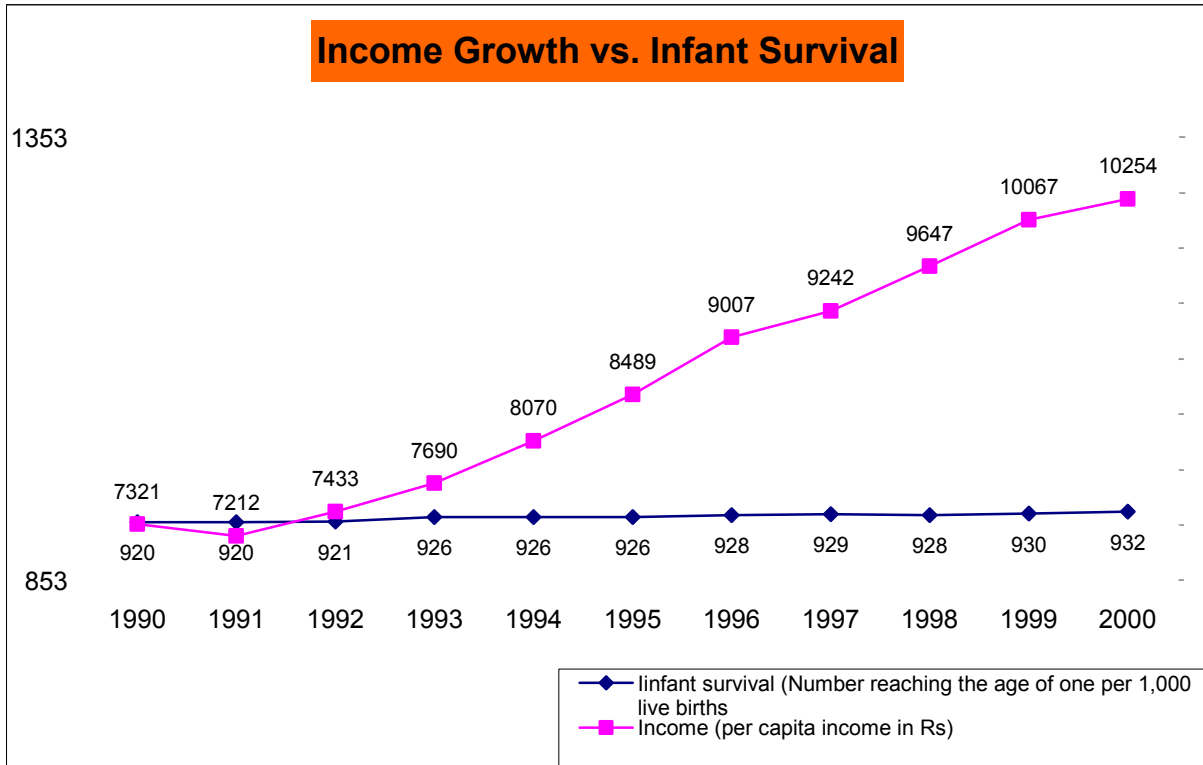
No single organisation can ever address the multifaceted problem of malnutrition alone.

Many inputs in different spheres are required from different sectors both public and private.

Policy decisions at macro level and integrated planning and programming at different levels would be required in each of the important areas like nutrition monitoring and surveillance, nutrition advocacy and public education, infant and young child nutrition, micronutrient malnutrition control etc.

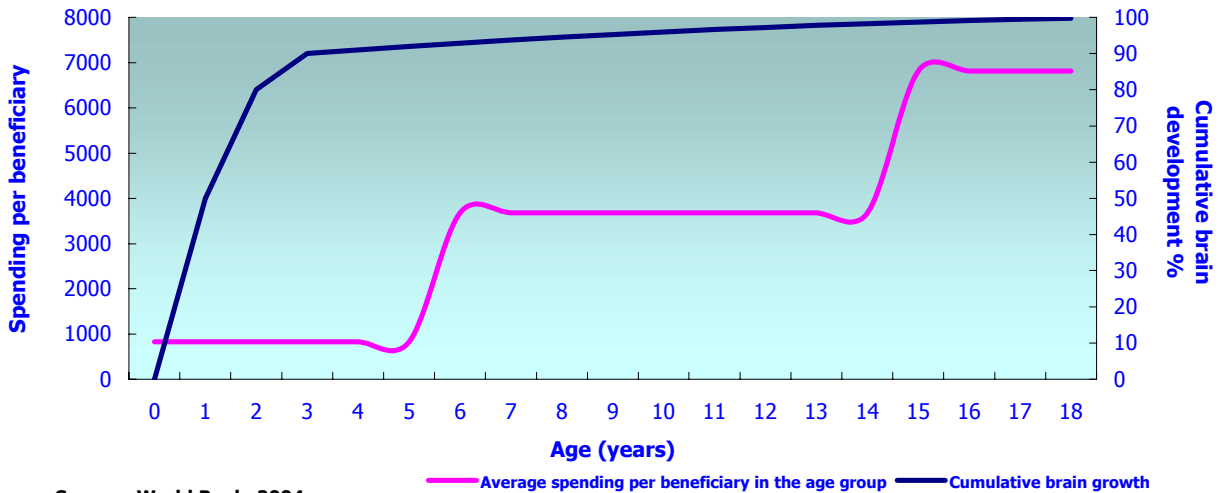
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Source: Selected Socio –economic Statistics, India 2001 and Sample Registration System

**Figure 2**  
**Critical Period In Brain Development – Financing Gap**



Source : World Bank, 2004

Figure 3

Table.1

**INTEGRATING NUTRITION WITH HEALTH IN THE XI PLAN**

Framework in which Nutrition and Health integration could be conceptualized, implemented and monitored.

	<b>What is missing Some examples of</b>	<b>What should be done in XI Plan (some examples)</b>
<b>Program level</b>		
The packages	<p><b>ICDS</b> Feeding of LBW not adequately reflected</p> <p><b>Health</b> ANC contact: No advice on early, exclusive BF IMNCI contact:</p> <p>AWW Issues such as care of LBW babies (warmth, assisted feeding) not explicit</p> <p>ASHAs Training materials don't provide enough lactation counseling skills to the ASHAs</p> <p>ANMs</p>	<p>1) Skill development joint training of AWW, ANM, and ASHA on IYCF, new born care, kangaroo care for LBW etc.</p> <p>2) Ensure stronger, problem oriented pre-service training of new AWWs</p> <p>3) Include lactational counseling skills in ASHA training program</p>
Skills of providers	<p>Male workers Inadequate skills in nutrition counseling</p> <p>Doctors MOs Govt</p> <p>Private Specialists General AYUSH providers</p> <p>Nurses</p>	<p>Ensure crash courses on Nutrition and Health Education.</p> <p>Develop education tools on IYCF for MBBS course</p>
Coverage	<p><b>ICDS</b> Contact coverage soon after birth is very low</p> <p><b>Health</b> Post-natal / post partum contact coverage is very low.</p>	<p>Revise job responsibilities of AWWs to include this</p> <p>Regular and frequent contact during the first month and periodical contacts for the entire infancy to be emphasized.</p>
Supervision	<p>Program managers of health at the district level donot see promoting BF and CF as their responsibility</p>	<p>Joint Supervision, Joint Coordination Committee of Health and ICDS to be chaired alternately</p>

Managerial	Convergence system at the district level needs strengthening	by the Secretary (Health) and Secretary (WCD) at Centre and State levels will improve convergence.
Monitoring	Common health and nutrition indicators should be owned by both the health and ICDS	
Facility level	Care of the child with severe malnutrition under-emphasised  Feeding / nutrition counseling often not seen as a responsibility  Expertise for feeding of LBW babies poor	Nutrition rehabilitation of severely malnourished children to become an important service under Health and ICDS.
IEC	IEC messages often do not link health and nutrition	Nutrition to be an integral part of all health education efforts of IEC bureaux, CHEB, SHEBs etc.
Community participation		
<b>Policy level</b>	RCH II Recommendations on iron supplementation not identified Zinc supplementation not included	Iron syrup for infants and IFA for adolescent girls already recommended by ICMR expert group to be implemented as a measure to cure diarrhoea, t be recommended. ICDS to support IFA, vitamin A and zinc supplementation.
	ICDS	
	Higher profile of health and nutrition required at the State and District level	Nutrition to be made a subject of Development reviews at State Level. District Nutrition Cells to be created to enable microplanning, monitoring, mapping and surveillance.
<b>Resources</b>	Health Resources for breastfeeding promotion not earmarked in State PIPs  ICDS – no separate budget head.	A separate budget head with adequate resources to be created under RCH II and ICDS for promotion of IYCF as committed under Innocenti Declaration 2005.
<b>Accountability</b>	ICDS Progress measured through Process Indicators  Health Not accountable to reduce malnutrition levels	Accountability and flexibility to be Introduced.

Annexure I

No.2(13)/06-H & F.W  
Government of India  
Planning Commission  
(Health, Family Welfare & Nutrition)

Yojana Bhavan  
Sansad Marg  
New Delhi  
25<sup>th</sup> May, 2006

**ORDER**

**Subject: Constitution of Working Group on integrating nutrition with health for the Eleventh Five-Year Plan (2007-2012).**

In the context of formulation of the Eleventh Five Year Plan (2007-2012), it has been decided to set up a Working Group on integrating nutrition with health under the Chairpersonship of Secretary, Ministry of Women & Child Development. The composition of the Working Group will be as follows:

1.	Secretary, Ministry of Women & Child Development, New Delhi	Chairperson
2.	Representative, Department of Health and Family Welfare, New Delhi	Member
3.	Representative, Department of Food Processing & Industry, New Delhi	Member
4.	Dr. K.V.Rao, DG, NSSO, RK Puram, New Delhi	Member
5.	Secretary, Health & Family Welfare, Government of Orissa, Bhubaneswar, Orissa	Member
6.	Secretary, DWCD, Government of Chattisgarh, Raipur	Member
7.	Secretary, Department of Women & Child Development, Government of Maharashtra, Mumbai	Member
8.	Salt Commissioner, Government of India, Jaipur	Member
9.	Dr. B.K. Tiwari, Adviser (Nutrition), DGHS, New Delhi	Member
10.	Director, National Institute of Nutrition, Hyderabad	Member
11.	DDG, Social Statistics Division, CSO, New Delhi	Member
12.	Director, NIPCCD, New Delhi	Member
13.	Dr. Vinod K Paul, Dept of Paediatrics, AIIMS, New Delhi	Member
14.	Prof. Amitabh Kundu, JNU, New Delhi	Member
15.	Shri Ambrish Kumar, Director (H&FW), Planning Commission, N. Delhi	Member
16.	Shri K.M. Gupta, Director, Ministry of Finance, New Delhi	Member
17.	Director (WCD), Planning Commission, New Delhi	Member
18.	Dr. Umesh Kapil, Department of Human Nutrition, AIIMS, New Delhi	Member
19.	Dr. Rajagopalan, MS Swaminathan Research Foundation, Chennai	Member
20.	Dr. Prema Ramachandran, Director, Nutrition Foundation of India	Member

21.	Dr. Kamala Ganesh, D-I, Gulmohar Park, New Delhi	Member
22.	Dr. Indu Capoor, CHETNA, Ahmedabad	Member
23.	Prof. Mehtab Bamji, Nutrition Expert, Hyderabad	Member
24.	Dr. Arun Gupta, National Coordinator, BPNI	Member
25.	Dr. Saraswati Bulusu, National Programme Manager, Micronutrient Initiative, New Delhi	Member
26.	Smt. Shashi Prabha Gupta, Technical Adviser, Ministry of Women & Child Development, New Delhi	Member
27.	Joint Secretary, Ministry of Women & Child Development, New Delhi	Member Secretary

2. The terms of reference of the Working Group will be as follows:

- 1) To assess the magnitude of under nutrition, micro-nutrient deficiencies, other nutritional disorders and associated health problems in different segments of the population in different regions of the country,
- 2) To assess the progress achieved as a result of intervention strategies and programmes aimed at reduction of the prevalence of nutritional disorders, review the findings of evaluation studies and suggest remedial actions to effect desired improvements,
- 3) To suggest institutional mechanism for nutritional monitoring and surveillance, legislation, if any, required for improving nutritional status,
- 4) To define mechanism for improving the implementation of ongoing nutritional interventions through intersectoral coordination between various Central and State Departments and collaboration among Government, Voluntary and Private Organizations, the Panchayati Raj Institutions and the Community,
- 5) To assess progress towards achievement of food security at the national, state and household levels,
- 6) To review the progress in implementation of Action Plan of National Nutrition Policy,
- 7) To assess the magnitude of the emerging life style related nutritional problems of obesity and over nutrition, its associated health hazards, adolescent nutrition, nutritional problems in the elderly and ongoing programmes aimed at prevention and management of these problems,
- 8) Based on the review, draw up priority areas of research, intervention strategies and programmes required during the 11<sup>th</sup> Plan Period for improving nutrition of the population especially of all the vulnerable groups,
- 9) To review funding for nutrition in center and state sectors during different plan periods and State-wise investment in nutrition during X Plan; analyse the problem of mismatch between outlays and needs (as identified by prevalence of poverty and under-nutrition) and suggest remedial measures for the 11<sup>th</sup> Plan,

10) To deliberate and give recommendations on any other matter relevant to the topic.

3. The Chairperson may form sub-groups and co-opt official or non-official members as needed. The Working Group will submit its report by 31<sup>st</sup> August, 2006.

4. Ms. Radha R. Ashrit, SRO (H & FW), Room No.343, Planning Commission, New Delhi-110001 will be the nodal officer for all further communications (Tel. No.23096666-2383, Email radha-pc@nic.in)

5. The expenditure on TA/DA in connection with the meetings of the Working Group in respect of the official members will be borne by the parent Department / Ministry to which the official belongs as per the rules of entitlement applicable to them. The non-official members of the Working Group will be entitled to TA/DA as permissible to Grade I officers of the Government of India under SR 190 (a) and this expenditure will be borne by the Planning Commission.

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To Chairman and Members of the Working Group.

Copy to:

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2. All Pr. Advisers/ Advisers/ HODs in Planning Commission,
3. Prime Minister's Office, South Block, New Delhi,
4. Cabinet Secretariat, Rashtrapati Bhavan, New Delhi
5. US (Admin.I) / Pay & Accounts Officer/ Accounts-I-Section, Planning Commission / DDO, Planning Commission,
6. Information Officer, Planning Commission

(Ambrish Kumar)  
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**Working Group on Integrating  
Nutrition with Health for the XI Five Year Plan (2007-2012)**

*Composition of the four Sub Groups*

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**Minutes of the first meeting of the Working Group on Integrating Nutrition with Health for the XI Five Year Plan (2007-2012) held on 14<sup>th</sup> July, 2006.**

The first meeting of the of the Working Group on Integrating Nutrition with Health for the XI Five Year Plan (2007-2012) constituted by the Planning Commission was held on 14<sup>th</sup> July, 2006 at 11.00 a.m. in Shastri Bhavan. The List of Participants is annexed. Incidentally, the State Representative from Maharashtra, Orissa and Chattisgarh could not participate. Although Dr. B.K. Tiwari, Adviser (Nutrition), DGHS attended the meeting, there was no representation from Ministry's side for maternal and child health programmes.

**Shri Chaman Kumar, Joint Secretary (CDN), MWCD and Member Secretary of the Working Group** welcomed the members and highlighted the Terms of Reference (TOR) set by the Planning Commission for this Working Group. He expressed that there was some overlap in TOR of different working groups for XI Five Year Plan, such as food and nutrition security which figures in this working group also. It was, therefore, important that while dealing with food and nutrition security issues, greater emphasis is laid on the health perspective. This was following by self introduction and discussion.

**Smt. Reva Nayyar, Secretary, MWCD and Chairperson of the Working Group** highlighted the importance of nutrition. She said that health interacts with several areas of growth and development as well as with lives of everyone. The broad perspective for giving recommendations for this Working Group would be to promote integration of nutritional concerns in every dimension of health at every level. Creation of health awareness could be considered as an important responsibility of the health infrastructure since many of the nutrition and health disorders could be alleviated if people were made aware about basic nutrition and health facts. She requested the members to give their best for this Working Group, which is coming after 60 years of independence, since this would help in formulating the draft XI Five Year Plan in the area of nutrition and health which needs to address malnutrition and health problems.

There was a general discussion on all TOR of this Working Group. **Dr. Mahtab Bamji, Nutrition Expert, Dangoria Charitable Trust, Hyderabad** expressed concern as to why with different nutrition related programmes in the field, there was no impact or say there was programme failure. According to her the biggest lacuna in the failure of these programmes was lack of nutritional awareness and there was very little attention given to this aspect. The group should deliberate in detail as to which Ministry/Ministries should look into these issues.

**Dr. S. Rajagopalan from M.S. Swaminathan Research Foundation, Chennai** highlighted the need to translate food security into nutrition security at the grass root level. He observed that the focus of nutrition interventions has changed drastically over the years. The vertical programmes are not being synergised at the grassroots level. He also highlighted the need for expanding the National Nutrition Monitoring bureau

(NNMB) in all States/UTs to enable nutrition monitoring, mapping and surveillance in the country.

Dr. Rajagopalan highlighted the structure of Food and Nutrition Board (FNB) in early 70s when it undertook a number of food processing and fortification projects through Modern Food Industries, Roller Flour Millers, research on iron fortified salt etc. Today when the need is even much more, it has shrunk to a very small size and that there was need to strengthen FNB to effectively serve as the Secretariat for the National Nutrition Policy.

The Chairperson stated that FNB was brought to this Ministry in pursuance of the National Nutrition Policy and it is only the FNB which is undertaking nutrition education and awareness generation while health and other sectors should also devote equal attention to this important factor.

**Dr. Arun Gupta, National Coordinator, Breastfeeding Promotion Network of India, New Delhi** expressed that while the important issues like integrating nutrition with the health is being discussed, the presence of a senior representative from the Ministry of Health & Family Welfare was absolutely essential. He stated that there was no active mechanism that dealt with nutrition across the key sectors.

The question of legislation in nutrition and health was also discussed. **Dr. Prema Ramachandran, Director, Nutrition Foundation of India, New Delhi** expressed that food processing and preservation is increasing in a big way. Additives, labeling, colors and many other food safety issues may require legislation.

**Dr. Indu Kapoor, Director, CHETNA, Ahmedabad** expressed that the diagnosis of the problem of malnutrition has to be correct if we really want to solve it. She stated that nutrition supplementation alone can never solve the problem. Nutritional status was the end result of many variables like poverty, food availability, access to health care and other social services and to equate it to food supplementation was rather simplification of the entire problem.

**Dr. B.K. Tiwari, Adviser (Nutrition), DGHS, Ministry of Health & Family Welfare** stated that National Rural Health Mission (NRHM) takes care of various nutrition and health issues although the worker ASHA is available only in 18 States.

**Prof. Amitabh Kundu of Jawaharlal Nehru University, New Delhi** highlighted the importance of National Sample Surveys and stated that the unit data from the 61<sup>st</sup> Round of National Sample Survey (NSS) could be made available to different organisations dealing with nutrition and health. He expressed that it was possible to map nutrition situation utilising the data on socio-economic parameters from NSS. He emphasized that food security was essential but not sufficient to address the problem of malnutrition. According to him, with the decline in poverty, 77% of the people were in a position to buy adequate food but they were not doing so. There are, therefore, certain factors which create this imbalance. Fast foods, food processing were other important issues to be dealt with.

**Dr. Umesh Kapil, Professor, Department of Human Nutrition, AIIMS, New Delhi** stressed that Health Ministry was implementing the micronutrient malnutrition

control programmes since long and is responsible for these programmes. The other Ministries particularly MWCD need not direct what the Health Ministry could do. It was clarified by the Chairperson and Smt. Shashi P. Gupta, Technical Adviser (FNB), MWCD that there is a National Nutrition Policy adopted by the Government under the aegis of MWCD in 1993 which assigns the responsibility of coordinating the implementation of various nutrition related interventions of the other sectors to the MWCD. The Chairperson further expressed that for this reason only it was necessary to have a high policy making body in the country in the field of nutrition like the National Nutrition Mission, with the Prime Minister as the Chairperson, so that directions for promoting nutrition through sectoral programmes of the Government could be given at the highest policy making level to enable effective implementation.

While the 9<sup>th</sup> TOR relating to the funding for Centre and State sectors during different time periods and state-wise investment in nutrition during X Plan was being discussed, **Dr. Saraswati Bulusu, National Programme Manager, The Micronutrient Initiative** informed that they had carried out such an exercise a few months back for the Planning Commission and that The Micronutrient Initiative could provide the requisite data to this Working Group.

Realising that there was no nation wide data on nutritional status of the people, there was a strong recommendation from various members of the Group that the scope of NNMB should be expanded to all States/UTs as well as to include nutrition surveillance. The Group noted that for several years the need for expanding NNMB to all States/UTs had been felt and recommended at various fora but it has not been implemented so far.

**Dr. G.N.V. Brahmam, Deputy Director, National Institute of Nutrition, Hyderabad** explained that the NNMB was undertaking only nutrition monitoring at present and that nutrition surveillance was a continuous activity.

After detailed discussions on different TOR, it was decided to constitute **four Sub Groups** of this Working Group to enable concrete suggestions on important issues. Considering that there was some overlapping in the TOR, the same were clubbed under different groups. The following four Sub Groups were constituted:

### **Sub Group I**

**Assessing the magnitude of various nutritional disorders and associated health problems and suggesting institutional mechanism for nutrition monitoring, mapping and surveillance, legislation if any required for improving nutrition status (TOR 1, 3 & 10)**

### **Chairperson**

Dr. B. Sesikeran, Director, National Institute of Nutrition, Hyderabad

### **Members**

- i) Dr. K.V. Rao, Director General, NSSO, New Delhi
- ii) Mr. K.D. Maiti, Director (MH), MHFW
- iii) Shri Ambrish Kumar, Director (HFW), Planning Commission
- iv) Dr. G. Sanjeevan, Social Statistics Division, CSO, New Delhi.

- v) Prof. Amitabh Kundu, JNU, New Delhi.
- vi) Dr. Prema Ramachandran, Director, NFI
- vii) Dr. P.N. Mari Bhat, Director, International Institute of Population Sciences, Mumbai
- viii) Dr. G.N.V. Brahmam, Deputy Director, NIN, Hyderabad.
- ix) Ms. Radha Ashrit, SRO, Planning Commission
- x) Dr. Umesh Kapil, Department of Human Nutrition, AIIMS, New Delhi

### **Sub Group II**

**Reviewing the progress achieved as a result of interventions strategies, National Nutrition Policy and suggesting remedial actions and mechanism for intersectoral coordination at different levels (TOR 2, 4, 6 & 10)**

#### **Chairperson:**

Dr. Prema Ramachandaran, Director, Nutrition Foundation of India

#### **Members**

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- ii) Shri R.N. Senapati, Principal Secretary, Department of Health & Family Welfare, Government of Orissa
- iii) Dr. B.K. Tiwari, Adviser (Nutrition), DGHS, MHFW
- iv) Dr. Sangeeta Saxena, Assistant Commissioner (MH), MHFW
- v) Dr. Dinesh Paul, Additional Director, NIPCCD, New Delhi.
- vi) Dr. Vinod Paul, Department of Paediatrics, AIIMS, New Delhi
- vii) Shri S. Sunderesan, Salt Commissioner, Ministry of Industries, Jaipur, Rajasthan
- viii) Dr. Arun Gupta, National Coordinator, BPNI
- ix) Dr. G.S. Toteja, Deputy Director General, ICMR
- x) Shri Surinder Singh, Assistant Director, Ministry of Food Processing Industries, Panchsheel, New Delhi
- xi) Smt. Shashi Prabha Gupta, Technical Adviser (FNB), MWCD.

### **Sub Group III**

**Food and Nutrition Security including micronutrients (TOR 5 & 10)**

#### **Chairperson**

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- iii) Smt. Vandana Krishna, Principal Secretary, Department of WCD, Government of Maharashtra

- iv) Smt. Anita Chaudhary, Joint Secretary, Department of Food and Public Distribution, GOI.
- iv) Dr. S.K. Nanda, Secretary, Department of Food & Civil Supplies, Government of Gujarat
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- vi) Dr. S.N. Shukla, Assistant Director General (Food Crops), ICAR, Krishi Bhavan
- vii) Dr. Mehtab Bamji, Nutrition Expert, Hyderabad
- viii) Prof. M.M.A. Faridi, Department of Paediatrics, GTB Hospital, Delhi

#### **Sub Group IV**

#### **Community Awareness on Nutrition (TOR 7, 8, 9 & 10)**

#### **Chairperson**

Dr. Indu Capoor, CHETNA, Ahemdabad

#### **Members**

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All the Chairpersons of the Sub Groups were requested to deliberate in their sub groups both electronically as well as through meetings which would be facilitated by FNB at Shastri Bhavan. It was informed that the TA/DA for participation in the sub group meetings would be borne by the MWCD. The Chairpersons were requested to submit the Sub Group reports latest by 10<sup>th</sup> August, 2006 so that the reports could be consolidated for the final report of the Working Group and discussed in the meetings of the Working Group before finalization and submission.

The meeting ended with a vote of thanks to the chair.

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**First meeting of the Working Group on Integrating  
Nutrition with Health for the XI Five Year Plan (2007-2012)  
14<sup>th</sup> July, 2006 at 11.00 a.m.**

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**Minutes of the second meeting of the Working Group on Integrating Nutrition with Health for the XI Five Year Plan (2007-2012) held on 8<sup>th</sup> September, 2006.**

The second meeting of the Working Group on Integrating Nutrition with Health for the XI Five Year Plan (2007-2012) constituted by the Planning Commission was held on 8<sup>th</sup> September, 2006 at 10.30 a.m. under the Chairpersonship of **Smt. Deepa Jain Singh, Secretary, Ministry of Women & Child Development at Shastri Bhavan**. The List of Participants is annexed.

The Chairperson welcomed the members and highlighted the importance of the Working Group on Integrating Nutrition with Health elaborating as to how nutritional levels of the population, particularly of the vulnerable groups were influencing the health and mortality indicators. She added that various scientific studies reveal that malnutrition accounts for more than 60% of child deaths while nutritional anaemia takes heavy toll of pregnant women. It was, therefore, imperative that nutrition is given due emphasis at every level by the health and family welfare infrastructure. She talked about the diversity in the country, grassroot level problems and hoped that the deliberations of this Working Group would be able to bring out some doable suggestions. This was followed by self-introduction.

**Shri Chaman Kumar, Joint Secretary, MWCD** narrated the developments since the first meeting of the working group held on 14<sup>th</sup> July, 2006.

The first presentation was made by **Dr. S. Rajagopalan of M.S. Swaminathan Research Foundation**, the **Chairman of Sub Group III** on Food and Nutrition Security including micronutrients, taking care of TOR 5 & 10 of the Working Group. He enumerated the emerging nutrition scene in which micronutrients and phytonutrients had acquired the central stage in the field of nutrition. Phytonutrients in the foods have biological property for disease prevention and health promotion, thus making nutritious diet an essential instrument for promoting health and preventing diseases. He talked of Article 47 of the Constitution of India, the need for adopting a life cycle approach followed by identified strategies for addressing the nutritional requirements across all phases of human life. He enumerated the double burden of childhood malnutrition and diet related adult diseases. He projected the time trend in malnutrition levels in the country. He advocated a comprehensive approach for addressing micronutrient malnutrition involving food based approach, synthetic nutrient supplements and fortification of foods. Some of the **recommendations** for the XI Five Year Plan made by **Sub Group III** are as under:

- Strengthening existing iron and folic acid and vitamin A supplementation programmes.
- A national programme on manufacturing and distributing salt fortified with iron, iodine, vitamin A and folic acid for which proven technology is available.
- Horticultural Interventions – every school to have drumstick tree and nutrition garden of greens.
- Self Help Women Groups to prepare food mix to serve as complementary food for children, for marketing in rural areas.

- The formation of Nutrition Development Corporation as an adjunct to Food Corporation of India. This Corporation can procure ragi and other millets on the same line as FCI is procuring rice and wheat, and support the manufacture and sale of different food mixes enriched with vitamin premix.
- Instead of supplying rice and wheat in major food based programmes like TPDS, Antodaya Anna Yojana, Anapurna scheme, Food for Work programme etc, enriched foods should be supplied. Micronutrient enrichment of ICDS and Mid Day Meal was also necessary.
- The National Programme of Dietary Diversification to be implemented utilising services of Home Science Colleges who could disseminate dietary guidelines in local languages and train the self help women groups and NGOs to help the household in diversifying their diets. Proper counselling on basic and primary biotechnology tools in improving the quality of diets like fermentation, using parboiled rice, sprouted grains, leafy vegetables was necessary.

Dr. Rajagopalan concluded by saying that micronutrient malnutrition was most devastating for pre-school children and pregnant women, but it was debilitating in all age groups. It was also debilitating for the national economy as well. He quoted a World Bank study stating that micronutrient malnutrition robs many countries 5% of their national income, while addressing the problem would cost only 0.3%. The control of vitamin and mineral deficiencies offers an opportunity to improve life at a very low cost and in a short time. With political will and financial support, micronutrient malnutrition could be reduced significantly within this generation.

**Dr. Prema Ramachandaran, Director, Nutrition Foundation of India**, the **Chairperson of Sub Group II** on Reviewing the progress achieved as a result of interventions strategies, National Nutrition Policy and suggesting remedial actions and mechanism for intersectoral coordination at different levels, taking care of TOR 2, 4, 6 & 10, highlighted the paradigm shift in the Tenth Plan, improvement in nutritional status over the last three decades and the short falls, and role of intersectoral coordination for improving nutritional status. Maternal undernutrition and consequences and corrective interventions were enumerated in detail. **The current concerns highlighted by her included reducing low birth weight, improving exclusive breastfeeding for the first six months and timely and appropriate complementary feeding, reducing nutritional anaemia in high risk groups.**

The relationship between birth weight and health was highlighted by quoting studies that reveal that low birth weight is associated with increased risk of obesity, diabetes and coronary heart diseases in later life. Mother Child dyad was an inseparable unit and to reduce low birth weight, nutrition and health care of mother was essential. She quoted the World Bank 2006 Report highlighting the need to address foetal and early childhood nutrition as that is the only window of opportunity for addressing malnutrition. She advocated the need for giving high priority to infant and young child feeding in XI Plan so that universal breastfeeding, early initiation of breastfeeding, exclusive breastfeeding for first six months, complementary feeding initiated at six months, continued breastfeeding for 24 months or longer could be achieved. Setting State specific goals for IYCF were also recommended by her.

The relationship between nutrition and infection was also highlighted. **The focus for the XI Plan as recommended by Sub Group II** was as under:

- Prevention of undernutrition through nutrition education by inter-personal communication by ANM/AWW/ASHA aimed at –
  - Ensuring appropriate IYCF practices, appropriate intra-family distribution of food
  - Dietary diversification to meet the nutritional needs.
  - Strengthening health components and integrated approach under ICDS through convergence of services.

She concluded by saying that poverty was no longer the driving force behind undernutrition nor affluence the reason for over nutrition. The country has knowledge, technology and resources, including human resources, to combat the dual burden of malnutrition.

**Dr. G.N.V. Brahmam, Deputy Director, National Institute of Nutrition, Hyderabad** made a presentation on **Sub Group I** on Assessing the magnitude of various nutritional disorders and associated health problems and suggesting institutional mechanism for nutrition monitoring, mapping and surveillance, legislation if any required for improving nutrition status taking care of TOR 1, 3 & 10. The monitoring of nutritional status of the people particularly the preschool children through existing interventions was highlighted by Dr. Brahmam. He narrated the nutrition surveillance model developed for Andhra Pradesh on behalf of the MWCD during 1994-98 under which a quarterly progress report for nutrition monitoring was advocated. He explained the various sources of data on nutrition in the country which included ICDS, NNMB, NFHS and NSSO. Since ICDS was in operation in more than 80% of the area and has regular growth monitoring of children under six years, data on nutritional status of children should be utilised for monitoring nutrition situation and creating a Nutrition Information System in the country.

Some of the important **recommendations of Sub Group I** included:

- Establishment of a State level Surveillance Cell consisting of a Nutritionist and a Programmer to monitor the activities and bring out reports periodically.
- Early warning system to be established to forecast impending nutritional disaster due to natural calamities (drought, floods, famines etc) and initiating timely and appropriate remedial measures to minimize the harm.
- NNMB service to be made a permanent activity.
- NNMB operating in 10 States has to be strengthened and extended to remaining States and entrusted with the nutrition monitoring and surveillance in the country as mandated in the National Nutrition Policy, 1993.

**Dr. Indu Capoor, Director, CHETNA, Ahemdabad, the Chairperson of Sub Group IV** and Vd. Smita Bajpai of CHETNA could not participate in the meeting because of floods. **Dr. (Mrs.) Adarsh Sharma** made a presentation of **Sub Group IV** on Community Awareness on Nutrition taking care of TOR 7, 8, 9 & 10 on behalf of CHETNA. Dr. Sharma highlighted the nutritional concerns in life cycle particularly during infancy, adolescence, maternal malnutrition and nutritional status of elderly, particularly the elderly females. She advocated the need for a “National Nutrition Education Programme” linked to all public health services provided to the people. Optimal use of existing structures like FNB, CHEB, NCERT, ICDS, Primary Health Care

for impacting Nutrition and Health Education to various sections of the society was advocated. Social mobilization, involving adolescents and young people as changed agents, school based approach for achieving nutrition goals were considered critical by Sub Group IV. Nutrition and Health Education particularly on infant and young child feeding, micronutrient malnutrition, infant milk substitutes act, growth monitoring, etc were highlighted.

After the four presentations, the Working Group deliberated in depth on the recommendations made by these Sub Groups. Smt. Deepa Jain Singh, the Chairperson and Shri Chaman Kumar gratefully acknowledged the practical suggestions given by the four Sub Groups.

The Chairperson summed up the discussions and invited the volunteers from different Sub Groups for constituting a drafting committee for preparing the Report of the Working Group on Integrating Nutrition with Health for the XI Five Year Plan. The Drafting Committee including the following:

- Dr. Prema Ramachandran
- Dr. S. Rajagopalan
- Dr. G.N.V. Brahmam
- Ms. Deeksha
- Dr. Adarsh Sharma
- Smt. Shashi P. Gupta as member-convener.

The Secretary requested the Drafting Committee to sit for half an hour or so and strategize the line of action for preparing the Report of the Working Group so that the group could work electronically and the Working Group Report could be produced at the earliest.

The meeting ended with a vote of thanks to the chair.

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**Second Meeting of the Working Group on Integrating Nutrition with Health for the XI Five Year Plan (2007-2012) held on 8<sup>th</sup> September, 2006.**

List of Participants

1. Smt. Deepa Jain Singh, Secretary, Ministry of Women & Child Development Shastri Bhavan, New Delhi In Chair
2. Shri Chaman Kumar, Joint Secretary, Ministry of Women & Child Development Shastri Bhavan, New Delhi
3. Smt. Rita Teatota, Joint Secretary, Ministry of Health & Family Welfare, Nirman Bhavan, New Delhi.
4. Dr. Prema Ramachandran, Director, Nutrition Foundation of India, New Delhi-110 016.
5. Dr. S. Rajagopalan, M.S. Swaminathan Research Foundation, Chennai.
6. Dr. G.N.V. Brahman, Deputy Director, National Institute of Nutrition, Hyderabad-500 007.
7. Dr. Saraswati Bulusu, Nation Program Manager, The Micronutrient Initiative, New Delhi.
8. Dr. Kamala Ganesh, Consultant (Obs. & Gyen.), D-1, Gulmohar Park, New Delhi-110 049
9. Shri S. Sundaresan, Salt Commissioner, Jaipur
10. Shri Srikara Naik, Director (WCD), Planning Commission,
11. Ms. Radha R. Ashrit, SRO, Room No.393, Health Division, Planning Commission.

12. Shri Surinder Singh,  
Assistant Director,  
Ministry of Food Processing Industries,  
Panchsheel, New Delhi
13. Smt. Neelam Bhatia,  
Joint Director, NIPCCD, New Delhi.
14. Shri Pratik Khare  
Joint Director (ICDS)  
Government of Raipur  
Chattisgarh.
15. Shri Ujwal Uke,  
Commissioner (ICDS), Government of Maharashtra  
Raigarh Bhavan, Belapur, Navi Mumbai.
16. Ms. Deeksha  
BPNI, New Delhi.
17. Smt. Shashi P. Gupta,  
Technical Adviser (FNB), MWCD.
18. Dr. Jai Singh,  
Deputy Technical Adviser (FNB), MWCD.
19. Shri Ravi Shankar,  
Deputy Technical Adviser (FNB), MWCD.
20. Shri J.H. Panwal,  
Deputy Technical Adviser (FNB), MWCD.



## ROLE OF CONCERNED SECTORS TOWARDS NUTRITION

### ‡ Women and Child Development

- To reach all eligible children under six years, pregnant and lactating women in 14 lakh habitations with appropriate supplementary nutrition alongwith nutrition education.
- To reach information on appropriate infant and young child feeding practices for children under two years to every household.
- To screen grade II, III and IV malnourished children and concentrate on rehabilitating them by organising camps and supplying *sattu* like instant food for a period of about 3 months.
- To reach all adolescent girls from BPL families with food and micronutrient supplements.
- Launch a national level Nutrition Programme for pregnant women and girl child.
- To expand nutrition advocacy, sensitisation, capacity building and education of public to a national scale enlisting cooperation of Home Science Colleges, established NGOs etc.

### ‡ Agriculture

- To promote production of coarse grains, pulses, fruits and vegetables, milk, nuts and oil seeds.
- To promote nutrition oriented horticulture at the community and household levels.
- To undertake fortification of milk with vitamin A (Department of Animal Husbandry and Dairying).

### ‡ Food and Public Distribution

- To ensure food and nutrition security at the household level.
- Antodaya Cards for all households at risk of hunger to be introduced and all Antyodaya households to be supplied with either a vitamin-mineral premix or multiple fortified salt with a view to launch a frontal attack on hidden hunger caused by the deficiency of micronutrients.
- To set up grain banks in chronically food insecure areas and some tribal areas in Madhya Pradesh, Maharashtra and Andhra Pradesh which tend to remain isolated during monsoon season. 1000

**Community Grain Banks to be established at the rate of Rs. 2.00 lakhs per grain bank with the help of Gram Sabhas and managed by Community Grain Bank Self Help Groups of Women.**

- **Households with vulnerable age groups like infant, pre-school child, adolescent girl, pregnant or lactating women to receive additional quota of foodgrains under TPDS.**
- **Including iodized salt, *sattu* like low cost instant infant food mixes, pulses, coarse grains and oil under public distribution system.**

#### **# Food Processing Industries**

- **To undertake fortification of wheat flour, cereal products, RTE energy foods for children with iron, folic acid, vitamin A etc.**
- **To promote production of health foods based on traditional foods of India.**

#### **# Education**

- **“Feeding Minds Fighting Hunger” – an initiative of FAO as a follow up of World Food Summit, involves introducing Food and Nutrition issues in primary, secondary and high school curricula needs to be given due consideration.**
- **To include nutrition in curricula of all formal and non-formal educational systems.**
- **To introduce B.Sc./B.A. degree in ‘Community Nutrition’ in all universities so that both boys and girls have equal opportunities for becoming nutrition literate.**
- **Mid Day Meal scheme and school health programme to include nutrition education as an integral component.**

#### **# Health and Family Welfare**

- **To give due emphasis to nutrition at every level.**
- **Nutrition and health education to be made an integral part of job responsibility of different level health functionaries.**
- **Joint Trainings and supervision of RCH and ICDS functionaries need to be evolved.**
- **Integrated planning and programming to address various forms of malnutrition need to be adopted.**
- **To ensure universal coverage under IFA and Vitamin A supplementation.**

## ⌘ Rural Development and Urban Development

- **To ensure universal access to safe drinking water and sanitation.**
- **To improve purchasing power through poverty alleviation programmes.**

## ⌘ Information and Broadcasting

- **To help create a climate of nutritional awareness in the country by launching a daily programme on 'Poshan Aur Swasthya' on AIR and Doordarshan.**

## PROPOSED NUTRITION SCHEMES FOR XI PLAN

Schemes	Funds requirement (Rs. In crores)
1. National Nutrition Education Programme (NNEP)	250
2. Training and capacity building for improving IYCF practices.	50
3. Development of District Nutrition Profiles to enable area specific planning.	20
4. Establishing Nutrition Information System through ICDS (nutrition monitoring, mapping and surveillance).	30
5. Strengthening FNB to serve as Secretariat for the NNM.	20
Total	370 crores

## RECOMMENDATIONS OF THE NORTH EAST CONSULTATION MEET ON NUTRITION HELD AT SHILLONG, MEGHALAYA

### Recommendations

1. The picture that emerged from several expert presentations both by the Department as well as by eminent experts from other institutions and UNICEF is not very optimistic. The nutrition and health status of children and women in North East is far from satisfactory. For instance, the anaemia levels in women are quite high. The infant mortality rate and under-5 mortality rates in many of the North Eastern States are rather high and most surprisingly the percentage of children vaccinated against all diseases (all the six vaccine preventable diseases in children), is low inspite of high female literacy and matriarchal society of the North East. The North East, therefore, deserves more focus through various nutrition and health interventions of the Government.
2. The nutritional status of the vulnerable groups is the outcome of complex and interrelated set of factors. Many of these factors relate to health care, hygiene, sanitation, safe drinking water, public health measures etc. Needless to say, if the non-food factors are not taken care of, the supplementary food given to children through ICDS will have no impact. It would be just like a 'leaky pot' where food provided through mouth finds the way out through various infections.
3. The hilly terrain of some of the regions probably makes it difficult for the population to access health and welfare services. Innovative interventions of reaching health care, immunisation, health and nutrition education to the people need to be evolved on priority. Deworming of children and women in areas with high anaemia levels need to be implemented.
4. Capacity building of field personnel, training institutions and professional organisations in the region also deserve due attention.
5. Six critical areas were identified for action by the State Governments:
  - i. Bringing nutrition issues centre stage.
  - ii. Strengthening inter-sectoral coordination and creating synergy.
  - iii. Establishing Nutrition Monitoring, Mapping and Surveillance System.
  - iv. Ensuring Optimal Infant and Young Child Feeding practices.
  - v. Addressing Micronutrient Malnutrition due to deficiencies of vitamin A, iron, folic acid and iodine through intensified programmes.
  - vi. Creating nutritional awareness at different levels utilizing all available channels of communication.

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## **RECOMMENDATIONS OF THE REGIONAL CONSULTATION MEET ON NUTRITION AT PUNE, 19-20 MAY, 2005**

The important **Recommendations** that emerged from the two-day Regional Consultation Meet on Nutrition for Western Region, covering the States/UTs of Maharashtra, Gujarat, Goa Dadra & Nagar Haveli, Lakshadweep and Daman & Diu, are enumerated here:

### **1. Giving high priority to malnutrition control**

Nutrition is an input into development. Nutrition was considered critical for human and economic development and its neglect would adversely impact on health, cognitive development of children, productivity of the people, economic growth and slow pace of national development. Nutrition agenda, therefore, needs to be given high priority with greater investment for accelerating human, economic and national development.

A proactive approach for prevention and control of malnutrition was needed.

A revolution in nutrition programming to reach all infants and young children, to address every stage of the life cycle including adolescent girls, to strengthen micronutrient malnutrition control programmes and to monitor behavioural change was required.

### **2. State Nutrition Mission**

Every State should have a State Nutrition Mission to reduce malnutrition and mortality rates among children and women on the pattern of Maharashtra Nutrition Mission. The Mission should focus on eradication of malnutrition among children and women, motivation and training of the cadre, accountability and flexibility, addressing mother child dyad and empowering community to address the problem of malnutrition on their own. After antenatal registration of the pregnant women, each case should be followed up to ensure child survival as well as optimal infant and young child feeding, immunization etc. Village Health Committees and Panchayati Raj Institutions need to be empowered.

### **3. Convergence for synergistic impact**

Achieving convergence between Departments implementing developmental programmes was crucial for achieving the synergistic impact. The village level community based micro planning was essential to involve all the available functionaries, numbering about 17-20, in nutrition related services. A resource team was needed to build alliance between Government functionaries and the community so that Assessment, Analysis and Action could become a regular activity. Training institutions like NIPCCD, YASHADA etc could be utilised in micro planning exercise.

The Department of WCD being the nodal Department for implementing the National Nutrition Policy in the country needs to establish stronger linkages with Ministries of Agriculture, Food and Public Distribution, Elementary Education and

Literacy, Health & Family Welfare, Information & Broadcasting, Rural and Urban Development, Tribal Affairs to ensure improved food and nutrition security and access to health care. "Community Grain banks" in hunger hot spots to be managed by Gram Sabhas, Women Self Health Groups utilising grain surpluses should also be set up.

#### **4. Utilising Civil Registration System**

Civil Registration System need to be gainfully utilised to provide valuable information on sex ratio, low birth weight of the new borns as was being done in Gujarat. Computerised civil registration at district level interlinked to State level needs to be set up. Audit of all deaths needs to be undertaken.

#### **5. Urban Malnutrition**

The problem of malnutrition was invariably much worse in urban slums than in rural areas. Urban malnutrition, therefore, needs to be addressed more effectively.

#### **6. Tribal Areas**

Special attention was required to address the problem of malnutrition in tribal pockets.

#### **7. Infant and Young Child Nutrition**

National Guidelines on Infant and Young Child Feeding needs to be integrated in the curricula of various training institutions particularly for health and ICDS functionaries. A diploma in Lactation management needs to be instituted. Certification of crèches was necessary to prevent bottle feeding and other harmful practices concerning breastfeeding and complementary feeding.

The ICDS needs to focus on children under three years with due emphasis on the care of the pregnant women, new born care, breastfeeding issues, complementary feeding, hygienic practices for feeding infants and psychosocial stimulation through active feeding. Skill development training of ICDS personnel was an important prerequisite to focus on IYCF issues.

#### **8. Nutrition and Health Education**

A paradigm shift was required from Nutrition and Health Education (NHE) to Nutrition & Health Education and Communication (NHEC) in ICDS. Empowerment of women is an important objective of ICDS but NHEC from an empowerment and behaviour change perspective was one of the weakest links in ICDS.

NHEC has great potential to improve infant and young child feeding practices, improve utilization of services and reduce malnutrition in women and children under-three years. Reorientation of ICDS was needed to make time and resources available for NHEC on a regular and sustained basis, strengthening supervision and monitoring of NHEC. Adequate budget allocation for development, production and dissemination of quality NHEC materials was required. Training in communication and counselling and ensuring outreach of services through home visits also needed strengthening.

NHE should focus on communication for behaviour change, should address family as a whole and not just the women, and should have gender sensitivity built into it.

NHEC has not been given a chance so far. It needs to be taken up as a service and successful experiences giving cost benefit analysis and operations for best practices need to be documented.

Strong networking between Government, Home Science and Medical Colleges, international organisations, private sector etc was needed. The role of media and opinion leaders in NHEC need to be recognized and their representation ensured in various nutrition and capacity building workshops etc so that they serve as the secondary target group and contribute to the communication and advocacy efforts by covering nutrition issues regularly.

## **9. Networking with Home Science Faculties and Colleges of Standing**

Home Scientists with foods and nutrition specialization were a large untapped human resource that needs to be utilised for improving the nutritional status of families and communities. Premier nutrition teaching institutions need to be identified and regional and zonal centres for nutrition promotion established. These centres should help in building the capacities of extension Home Scientists/Nutritionists in improving the nutrition situation in their state or region. International organisations working in the area of food and nutrition could come forward and support the setting up of such centres by providing necessary infrastructure, expertise and support.

Good nutrition and dietetic practices need and must be a part of daily life if people are to be healthy. It was, therefore, important that those who do not pursue a professional career in food and nutrition must have “**NUTRITION LITERACY**” so they do not fall a prey to wrong mass media advertisements. A compulsory course on “**NUTRITION LITERACY**” needs to be included by UGC in all academic courses for all students.

It is high time to work towards “**NUTRITION REVOLUTION**” in the country.

## **10. Improving status of Training Centres.**

The present status of Middle Level Training Centres (MLTC) deserved strengthening in terms of honorarium, career management, motivation and recognition to attract properly qualified trainers and Principals on a sustainable basis (currently the Principal was drawing only Rs. 4900/- and Trainer Rs. 4500/- per month)

## **11. Involvement of Women’s Technical Education and Research Institutes**

The area of work of Women’s Technical Education and Research Institutes of Ministry of HRD has been currently extended to cover BPL population of urban areas including physically and mentally challenged people although it is basically a rural based project. There are 450 community polytechnics in the country (Maharashtra



having 37 each) with a fund allocation of Rs. 7.00 lakhs. Networking with community polytechnic of India would help reach nutrition and health information to villages. Rural Diet Counselling Centres could be started in each extension centres of these Institutes.

## **12. Formation of Nutrition/Diet Council of India**

A Nutrition or Diet Council like the Medical Council of India is needed to promote the cause of nutrition and dietetics in the country. Quality management of various courses and training programmes in this field, employment potential, recruitment details for this important paramedical course, associated matters like nutrition/health tourism and hospitality industry, intellectual property rights, nutraceuticals etc factors could be looked into by such a Council. All these are needed for improving the quality of teaching in this area and its utilization in the overall nutrition and health delivery system of the country.

## **13. Micronutrient Malnutrition Control**

A holistic approach for addressing the widespread problem of micronutrient malnutrition was required. The prevalence of vitamin A deficiency (VAD) being still of public health significance required concerted efforts for its elimination. The prevalence of VAD was high in 3-6 year age group also besides 1-3 years and hence it was necessary that Vitamin A Supplementation Programme was extended to children upto the age of six years, as was being done in other South East Asian Countries also.

Nutritional Anaemia continued to be a cause of concern as its prevalence was above 70% in high risk groups namely infants and young children, adolescent girls, pregnant and lactating women. Iron and folic acid supplementation for adolescent girls needs to be undertaken on a national scale on top priority. Similarly, IFA supplementation for infants who were not covered so far under the programme deserved top priority.

The Ministry of Consumer Affairs, Food and Public Distribution need to make adequately iodized salt available through the Targetted Public Distribution System. Supplementary Feeding Programmes under ICDS and Mid Day Meal to use only adequately iodized salt.

## **14. Fortification of Common Foods**

Fortification of common foods is one of the important strategies for addressing the problem of micronutrient deficiencies in a short time in cost effective manner. Fortification of wheat flour with iron and folic acid and double fortification of salt with both iron and iodine need to be taken on priority.

The supply of wheat through various Government schemes, PDS needs to be changed to fortified wheat flour. States with some reservations could initiate a pilot project.

Roller Flour Milling industry needs to be motivated to wheat flour fortification till mandatory provisions are enacted.

The Integrated Food Law being enacted may include micronutrient fortification of foods as per the CODEX guidelines.

The Information, Education and Communication (IEC) on wheat flour fortification was also required to create awareness among the people. States could examine accessing funds for Staple Food Fortification Programme from GAIN (Global Alliance for Improving Nutrition) through their State Nutrition Mission/Fortification alliance.

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## **RECOMMENDATIONS OF THE REGIONAL CONSULTATION MEET ON NUTRITION HELD AT BHUBANESWAR ON 18-19 JULY, 2005**

The important **Recommendations** that emerged from the two-day Regional Consultation Meet on Nutrition for Eastern Region, covering the States of Bihar, Jharkhand, Orissa and West Bengal, are enumerated here:

### **1. Malnutrition is a drain on Economy and a silent emergency requiring urgent multipronged action**

- Malnutrition is a drain on economy and adversely affects national development. Thus, malnutrition was a Silent Emergency and required innovative measures for its prevention and control. A multipronged action involving all developmental sectors was required urgently to address the problem of malnutrition in a time bound manner.
- The action and progress to be monitored in months and not years.
- Urban malnutrition was as bad as rural picture if not worse, and deserved due emphasis.

### **2. Panchayati Raj Institutions for convergence and effective delivery of services at periphery**

Out of the six services provided through ICDS, three and a half services concerned health sector. Convergence of services was important and the Panchayati Raj Institutions could be utilized to achieve convergence. Interface between Government and PRI system needs to crystallize.

### **3. Food and Nutrition Mission at the State Level**

State Level Coordination Mechanism is essential for policy initiatives and greater synergy between various programmes. A centrally sponsored Food and Nutrition Mission at State level could be the best option to address the problem of malnutrition in a mission mode.

### **4. Better Linkages between ICDS and Department of Elementary Education and Literacy**

- “*Balwarg*” comprising of 3 – 6 year old children need preschool education as well as supplementary feeding and micronutrient supplements. Such children

covered under 'Sarva Shiksha Abhiyan' should be provided quality preschool education and nutrition through convergence between MID Day Meal and ICDS as Education has a separate teacher for 'Balwarg'.

- The existing training institutions under Education like Block Resource Centres (BRCs), Cluster Resource Centres (CRCs) (for a group of villages in good middle school) and DIETs should be utilized for training ICDS personnel too. One training centre could take care of two ICDS projects.
- Joint Committee of Education and ICDS should look after both programmes for better convergence.
- Nutrition Education should become an important service under ICDS.
- Syllabi of all formal and non-formal educational systems should have basic nutrition information. The syllabi should be reviewed and nutrition content incorporated utilizing the expertise of FNB and NIN.
- School children can prove to be the best change agents. NIN has converted FAO "Feeding Minds Fighting Hunger" publication to suit Indian system. The Indian module on Feeding Minds Fighting Hunger should be incorporated in primary, secondary and senior secondary school curricula.

#### **5. Effective positioning of Infant and young child Feeding in ICDS, RCH, NRHM etc.**

- Optimal breastfeeding i.e., early initiation, exclusive breastfeeding for the first six months and continued breastfeeding upto two years and beyond alongwith complementary feeding introduced at six months of age, was considered critical for child survival, development and health. Exclusive breastfeeding for first six months and continued breastfeeding for another six months along with adequate complementary feeding has shown to reduce infant mortality rate by 16% (Lancet 2003).
- Priority to infant and young child feeding has to be reflected in national/state/local plan resources and goals.
- Effective positioning of infant and young child feeding in ICDS, Reproductive and Child Health, National Rural Health Mission and others – focusing on best possible start to life, survival, growth and development, maternity protection and family support is required.
- Adopting / translating National Guidelines on Infant and Young Child Feeding, integrating these in the training curricula under ICDS, Reproductive and Child Health, Panchayati Raj Institution and Rural Development needs to be undertaken on priority.
- ICDS monitoring to include indicators on early initiation of breastfeeding, exclusive breastfeeding for first six months, complementary feeding with home based foods from six months along with continued breastfeeding up to two years or beyond.
- Facts like breastfeeding prevents obesity, it has economic value, exclusive breastfeeding prevents HIV in infants, etc. need to be utilized in Behavioural Change Communication.
- Reposition ICDS with a focus on under twos. Deliver IYCF counseling as a service in ICDS.

- BPNI's network in States and Districts to be utilized for skill development training, capacity building and awareness generation on IYCF.

**6. Promoting production of low cost processed and fortified complementary foods for infants and young children at District, Block and Village levels**

- Production of low cost processed and fortified blended foods for ICDS beneficiaries utilizing Self Help Women Groups needs to be promoted at district and block levels.
- Self Help Women Groups to be the owners of such production units (2 MT capacity/day) with one time financial assistance as has been done in Orissa.
- Public – Private partnership for reaching 'Sattu' like instant infant mixes at village shops should also be explored.

**7. Addressing critical stages of life cycle adopting life cycle approach**

- Focus on prenatal care and counseling, under threes, pregnant and lactating mothers and adolescent girls.
- Emphasis on early action and preventive approach is required.

**8. Joint Training and Supervision of ICDS and Health personnel for synergetic impact**

- Joint training of ICDS and health personnel is essential.
- Using a common mother-child growth and development card by RCH and ICDS and an entitlement card for unreached population would be desirable.

**9. Monitoring of performance under ICDS to be based on "Outcome indicators" and not "Process indicators" alone**

Monitoring of ICDS through Monthly/Quarterly Progress Reports to be based on "Outcome" indicators like improvement in nutritional status of the children rather than "process" indicators like receiving supplementary food, preschool education etc.

**10. Ensuring 100 % weighing efficiency in ICDS**

- Weighing efficiency was reported to be directly proportional to reduction in malnutrition levels.
- Universalisation of ICDS should also mean 100 % registration of all children under three years, all under threes to be weighed and all under three families to be provided with mother child card.

**11. Addressing micronutrient malnutrition in a holistic manner**

- Micronutrient malnutrition control requires concerted action on all the five major strategies viz. Dietary Diversification, Supplementation, Food Fortification, Horticultural Interventions and Public Health Measures.

- Ensuring universal coverage under Iron and folic Acid supplementation programme and extending the anaemia control programme to cover infants and adolescent girls needs to be taken up on priority.
- ICDS workers could identify moderate and severe anaemia through pallor of mucosal membranes and take remedial measures.
- Importance of iodine in brain development to be emphasized in communication efforts.
- Vitamin A supplementation coverage should be universalised for children under 3 years and all efforts made to cover children up to 6 years. Household and community production and consumption of red, yellow and green coloured fruits and vegetables besides milk and eggs needs to be promoted.

## **12. Fortification of Foods**

- Multipronged strategies with due focus on fortification is required for addressing micronutrient malnutrition.
- Micronutrient malnutrition has been effectively addressed through fortification in West and also in some South American and African countries. Fortified wheat flour in Darjeeling district of West Bengal demonstrated a significant reduction in anaemia (15 – 16 % in adolescent girls) in 18 months period.
- Supplementary foods for ICDS beneficiaries and Mid Day Meals for primary school children should be fortified with essential micronutrients.
- Iodised salt and fortified supplementary foods should be made available to people through fair price shops.
- Fortification of cereals with iron and folic acid, salt with iron and iodine needs to be adopted on priority.

## **13. Vigorous Awareness Campaign on Nutrition**

- The link between nutrition education and health needs to be emphasized. Awareness on consequences of malnutrition on physical and mental growth, school performance, productivity and economic growth needs to be generated.
- Nutrition education should address family as a whole and not just the women. Nutrition education should focus on communication for behavioural change.
- Advocacy and sensitisation of policy makers and Parliamentarians should be undertaken to create “Administrative” and “Political” will.
- Networking with professional institutions like Food and Nutrition departments of Home Science Colleges, Medical Colleges and NGOs was needed to extend the coverage under nutrition education.
- Electronic media to be involved in Advocacy and Behavioural Change Communication.
- All commercial advertisements need to be censored and celebrities need to dissociate themselves from the same.

## **14. Achieving Convergence between ICDS and RCH**

- Observe Nutrition and Health days in AWCs to increase outreach coverage with focus on ANC, weighing, immunisation and micronutrient supplementation.
- Regular subcentre level meetings for better coordination between AWWs, ANMs and PRI functionaries.
- Continuous capacity building of AWWs and ANMs.

## 15. Nutrition Monitoring, Mapping and Surveillance

- The successful experiences of West Bengal and Orissa on reducing malnutrition through Nutrition Monitoring, Mapping and Surveillance need to be replicated in other States.
- Community based monitoring to be adopted and Social audit at the village level using social maps/para-maps done on a regular basis.
- Resources available with the ICDS could be utilized effectively for monitoring and data analysis.
- The **Monitoring Procedure** could be as under:
  - Data compilation at the Project level by CDPO.
  - District level compilation by the DPO
  - Electronic transmission and state level compilation at the Directorate.
  - Data analysis with various indicators
  - Nutritional and growth monitoring on the basis of these indicators and available resource maps.
- Coordination Committees at State and District levels, monitoring Committees at Subdivision and Project levels and Village Level Committee at the AWC should be the **Monitoring Infrastructure**.

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## Annexure-XV

### RECOMMENDATIONS OF THE FIRST MEETING OF THE INTER MINISTERIAL COORDINATION COMMITTEE ON MICRONUTRIENT MALNUTRITION CONTROL HELD ON 30<sup>th</sup> MAY, 2006 AT 11.00 A.M.

1. Micronutrient Malnutrition continues to be unabated in the country. Ensuring adequate vitamin and mineral status to maximize human potential should be considered a priority.
2. The National Nutrition Policy advocated the need for intensified programmes for reduction and elimination of micronutrient deficiencies way back in 1993. Several recommendations from national and international organisations have emerged thereafter for addressing micronutrient malnutrition adopting a holistic approach, on priority, to improve productivity and economic growth of the country.
3. Food fortification has been successfully adopted by the West. In India also some States have taken up food fortification in a big way with convincing results like wheat flour fortification in Gujarat. The States of West Bengal, Andhra Pradesh, Chattisgarh

and Bihar have also adopted food fortification in different ways with good results. There is need to adopt food fortification in a big way in the country to accelerate the reduction in malnutrition levels in the population.

4. Nutrition Monitoring, Mapping and Surveillance particularly of micronutrient deficiencies are also negligible. The MHFW should take up this task with the help of NNMB and NIN and create a database on micronutrient deficiencies. NNMB must be expanded to all States/UTs to provide State level as well as disaggregated data up to district level of various micronutrient deficiencies. The FIVIMS experience of Department of Food and Public Distribution should also be utilised in developing a system for nutrition monitoring, mapping and surveillance.

5. IFA supplementation for infants and adolescent girls recommended since long should be initiated immediately by the MHFW.

6. The Public Distribution System should include pulses, soybean, and soya fortified wheat flour so that poor people could be provided food with important nutrients at reasonable rates.

7. The Ministry of Agriculture should consider fixing minimum support prices for pulses also so that the production and consumption of pulses could be promoted in the country.

8. The Ministry of Food Processing Industries may extend financial support to the industries for production of fortified food by way of meeting the cost involved in purchase/modification of equipments.

9. The MHFW should provide specifications for DFS under the PFA so that the rate contract for the same could be fixed for the benefit of different States/UTs.

10. There is need to regulate the prices, concentration of micronutrients, safety, packaging of fortified foods so that the shelf life of the product is ensured and the consumer is not cheated. The Central Monitoring Body for food fortification with adequate budget allocation needs to be set up.

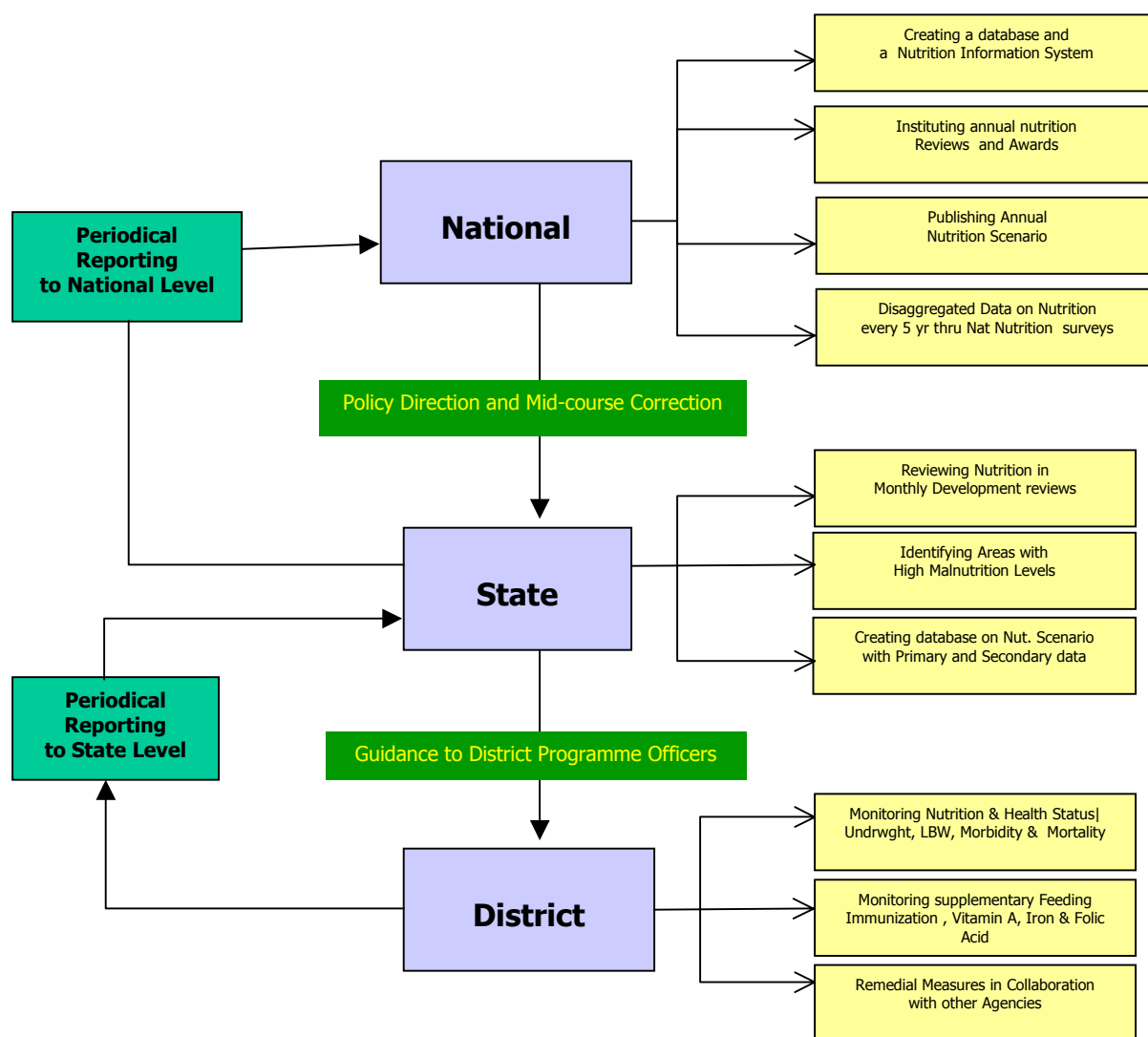
11. Awareness about the consequences of micronutrient malnutrition was extremely important for people to make efforts to prevent and control the same. The Ministries of Health & Family Welfare and Women & Child Development should create such awareness utilising all available channels of communication.

12. Ministry of Information and Broadcasting should contribute effectively in creating a climate of nutritional awareness in the country.

13. A National Workshop on Food Fortification should be organised to inform various States/UTs about the importance of food fortification and how it could be made feasible.

14. The MHFW, which is implementing the three major programmes on micronutrients, should include specific programmes in the XI Five Year Plan for addressing micronutrient malnutrition in a holistic manner.

**COMMUNITY BASED NUTRITION MONITORING MECHANISM**



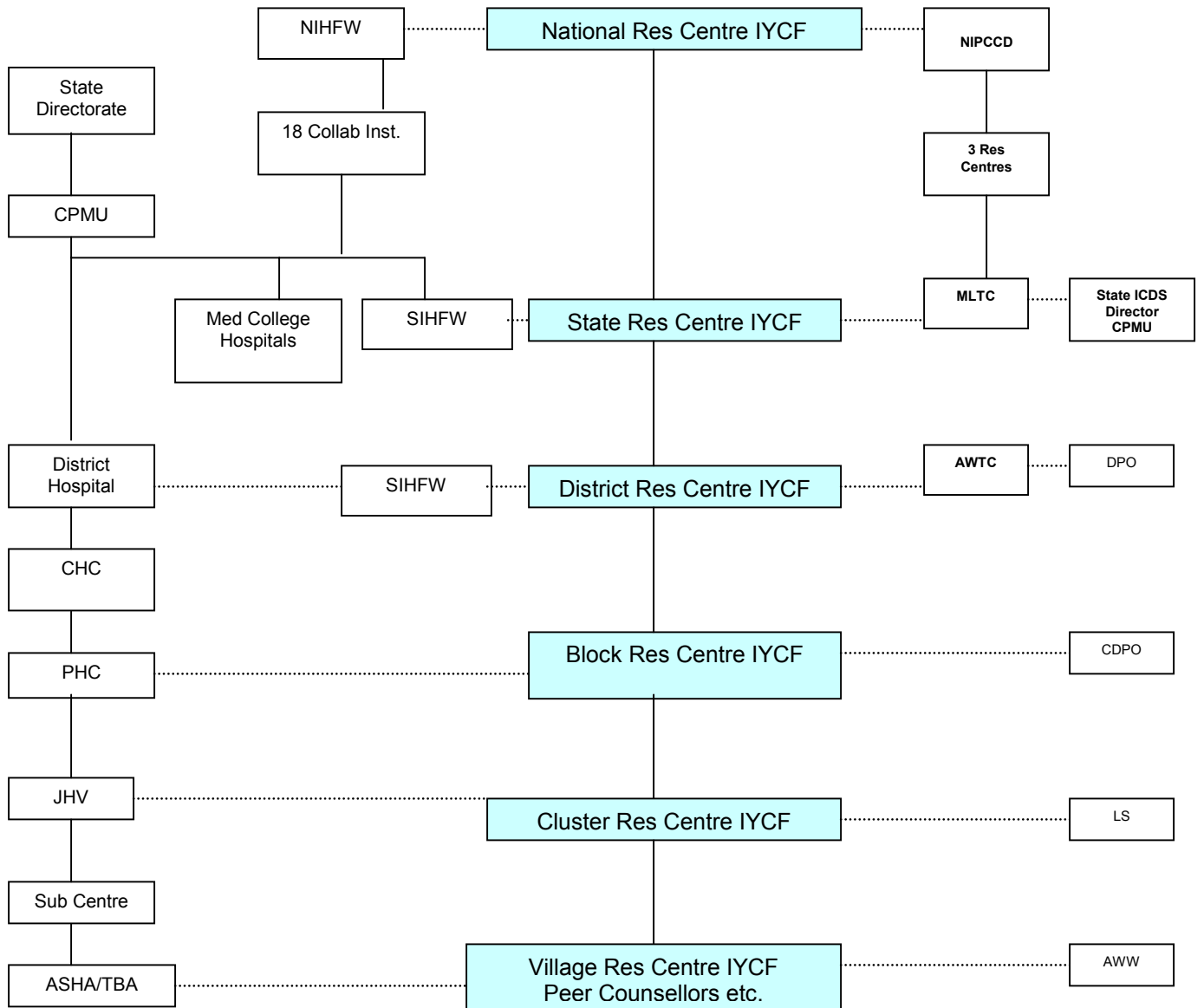
Source: Shashi P Gupta, Nutrition Module for WHO 2005



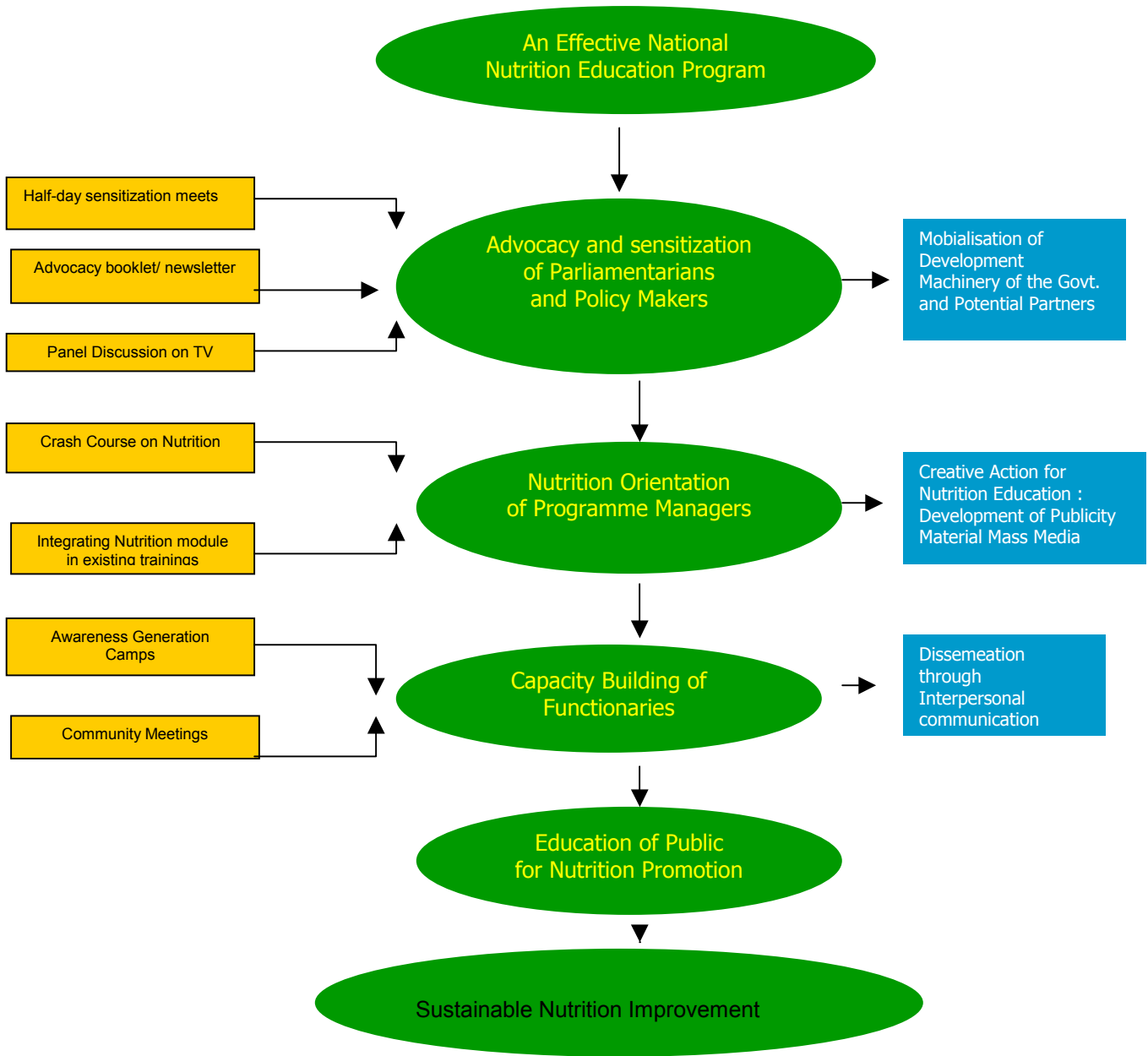
**Annexure X**

**ICDS-MWCD**

**NRHM-MOHFW**



**NUTRITION EDUCATION FOR THE NATION**



Source : Shashi P Gupta, Nutrition Module for WHO 2005