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# UNIT 11 REVIEW OF NATIONAL NUTRITION PROGRAMMES

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## 11.1 INTRODUCTION

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In **Unit 10** we studied about various national nutrition programmes launched by Government of India to combat malnutrition and nutritional deficiency disorders. The programmes - their objectives, components, beneficiaries etc. were discussed in details. Having gone through the text, you may have wondered whether these programmes have made any impact in controlling the deficiency diseases or improving the nutritional status of the population or not? In this unit, we will critically analyze some of these programmes and get to know their successes and failures. We will also learn why all these programmes when taken together have made limited impact in reducing malnutrition. We will conclude by studying the priority actions required to improve nutrition situation in India.

### Objectives

After studying this unit, you will be able to:

- highlight rationale behind the national nutrition programmes,
- explain major findings of the studies conducted to review nutrition intervention programmes,  
describe the actions to be taken to improve these programmes,
- elaborate on reasons for limited impact of nutrition programmes, and
- conclude the priority actions required to meet the national nutrition goals by 2010.

We will begin our study by reviewing the rationale behind the launch of national nutrition programmes.

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## 11.2 RATIONALE FOR NATIONAL NUTRITION PROGRAMMES

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We have read in Units 3 and 4 that nutrition deficiency disorders due to reduced intake of iodine, iron, vitamin A and calories are significant public health problems in India, particularly among the underprivileged communities. These disorders have been described as a silent emergency. The adequacy of iron, iodine and vitamin A play an important role in growth and development of young children. Thus, the prevalence of nutritional deficiency disorders like Iodine Deficiency Disorders (IDD), Iron Deficiency Anaemia (IDA), Vitamin A Deficiency (VAD) and Protein Energy Malnutrition (PEM) remains high in all states and Union Territories of the country. We have also learnt that the primary cause of nutritional deficiency disorders is inadequate intake of food, both in terms of quantity and quality. This is further aggravated by impaired absorption of nutrients due to infections and infestations. Poverty is another contributing factor of the nutritional deficiency disorders. Poverty is often linked to inadequate food and nutrition security, poor sanitation, lack of safe water and inadequate knowledge about child feeding and rearing practices, which play a role in causation of malnutrition. In view of all these problems and issues, we learnt that the Government has initiated national nutrition programmes to improve nutrition situation in India. Nutrient deficiency programmes were initiated to reduce/eliminate deficiency disorders. Integrated Child Development Services was launched to achieve holistic development of child and reduce malnutrition. Programmes like Public Distribution Scheme and Targeted Public Distribution Scheme were initiated to improve the food and nutrition security of vulnerable population. The Mid Day meals programme was started to provide supplementary food to school children, as well as, to increase the enrolment and attendance in schools. The basic aim of all these national nutrition programmes such as ICDS, National Mid Day Meals programme etc. was to bridge the gap between daily routine intake of nutrients and their actual requirements amongst the beneficiaries. Having launched these programmes with specific objectives and rationale, let us now critically review these programmes and learn about their achievements and failures.

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## 11.3 APPRAISAL OF NATIONAL NUTRITION PROGRAMMES

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You might be aware, that the purpose of appraisal or evaluation is to assess the achievements of the programmes with reference to its stated objectives, activities and utilization of its services by the target population. Evaluation also measures the impact of the programme. Evaluation studies on national programmes should ideally assess all the components of a national programme and its impact. However, except for ICDS, majority of research studies have evaluated one or two components of the nutrition programmes. For ICDS, several evaluations have been conducted in the past, which have looked at the entire programme in totality. Thus, in this unit, we will discuss the key findings of the research studies conducted to assess either partly or in totality the impact of these programmes. We will briefly recapitulate the objectives and various components of these programmes, discuss findings of research studies and describe various actions suggested to improve these programmes. As discussed earlier, we will review the following programmes:

- National Iodine Deficiency Disorders Control Programme (NIDDCP)
- National Anaemia Control Programme (NACP)
- National Programme for Prevention of Nutritional Blindness due to Vitamin A Deficiency

- Integrated Child Development Services Scheme (ICDS)  
National Mid Day Meals Programme  
Public Distribution System
- Targeted Public Distribution System, and
- Employment Generation Schemes

You already know that these programmes aim to reach significant segments of India's undernourished population, For example, poor households through PDS and employment generation schemes, vulnerable population like pregnant and lactating women and children 0-6 years of age through ICDS, and school children through NNMP. It is also important for us to know that in addition to the government programmes, there are few direct private sector efforts for nutritional improvement among the poor. Some NGOs concerned with health have focused on the treatment or prevention of malnutrition among women and young children. While some others, involved in a broad-based development efforts, have focused on community nutrition measures, such as grain banks or food distribution. In the aggregate, however, these efforts reach a miniscule proportion of the country's poor, and would need to be multiplied several hundred-fold to have a significant impact on India's malnutrition problem. In the short term, efforts would be useful to increase the attention of private medical practitioners to nutrition, of media to malnutrition and its effects, and to disseminate information about successful NGO programmes.

We will now critically analyze the function of national nutrition programmes as enumerated above and see what kind of impact they have made on the nutritional situation of vulnerable population. We will start with the National Iodine Deficiency Disorders Control Programme (NIDDCP).

### 11.3.1 National Iodine Deficiency Disorders Control Programme (NIDDCP)

We have studied about the National Iodine Deficiency Disorders Control Programme (NIDDCP) in Unit 10.

We know that goitre is the most explicit clinical manifestation of endemic iodine deficiency. The problem of goitre is as old as human civilization with several descriptions found in ancient texts. The term "Iodine Deficiency Disorders (IDD)" was coined in the eighties following the realization that iodine deficiency is associated with several physical and neurological disorders which we have already studied earlier in Unit 3.

In the year 1962, the Government of India, encouraged by the results of iodized salt supplementation trial in Kangra Valley, Himachal Pradesh launched the National Goitre Control Programme (NGCP). However, due to several logistic problems like inadequate production, distribution, poor quality control, public apathy and lack of coordination, the programme could not make an impact. This programme was strengthened in 1984 after the Government of India adopted the policy of universal iodization of all edible salt. In the year 1992, the programme was renamed as National IDD Control Programme (NIDDCP).

Currently, the programme is successfully implemented in the country. At present 70 percent of population is consuming iodized salt. The states lagging behind are the salt producing states of Gujarat, Rajasthan and Tamil Nadu. The possible reason is that it is economical to transport salt by road network. The quality of salt moved by road is not subjected to monitoring by functionaries of salt department. However, salt transported by railways is monitored by salt department for its iodine content. Hence, the states receiving salt by railways receive salt with adequate quantity of iodine.

Significant achievements have been made under NIDDCP These include:-

- i) About 795 private manufactures have been given license to produce iodized salt.
- ii) The manufacturers have an annual production capacity to produce 112 lakh tons of iodized salt against the total requirement of 50 lakh tons.
- iii) Annual production of iodized salt has increased to 44 lakh tons in 2003 from 3 lakh tons in 1983.
- iv) Enhanced inter sectoral coordination has been achieved.
- v) IDD Control Cells have been established for effective implementation of NIDDCP in all states and UTs (except Chhatisgarh, Jharkhand, Lakshadweep and Pondicherry).
- vi) National References Laboratory at National Institute of Communicable Diseases (NICD) and AIIMS, New Delhi has been established.
- vii) Field-testing kits for monitoring of the iodine content of salt are being used by village level, health and ICDS functionaries.
- viii) There has been ban on sale of non-iodized salt in all States/ UTs except Gujarat and Kerala.

There is no national level study to evaluate all the components of NIDDCP, however, several studies have been conducted in different parts of the country to look at various components of the programme. These studies have made an attempt to assess certain issues like 1) knowledge, attitude and practices (KAP) about NIDDCP amongst the beneficiaries, 2) availability of iodized salt, 3) impact of iodine supplementation on reduction of goitre prevalence, and 4) adverse health consequences, if any, of iodine supplementation under NIDDCP. Major findings of these studies show that:

- Awareness levels about the causes of IDD and their prevention and control is poor amongst the beneficiaries which has contributed to low demand and utilization of iodized salt.
- Families are consuming salt with iodine content of less than recommended levels of 15 ppm. Thus, although the salt is being iodized, either an inadequate quantity of iodine is added at the production level or there are losses of iodine at the different channels of distribution.
- There are beneficial effects of iodine supplementation through iodized salt in prevention of goitre and improvement in urinary iodine excretion levels indicating improved iodine nutrition.
- Prolonged consumption of iodized salt is not associated with ill effects due to extra iodine intake.

Thus having seen that awareness levels about the causes, prevention and control of IDD is low amongst households and families are consuming salt with less than recommended levels of 15 ppm., certain priority actions have been suggested to bring about improvement in aspects of programme implementation. These are as follows:

*Actions for improvement*

- Information Education Communication (IEC) activities should be undertaken amongst the population regarding NIDDCP.
- Regular monitoring of quality of salt at the manufacturer and consumption level should be done to ensure that the beneficiaries consume adequate quantity of iodine.
- There should be continued and sustained supply of iodized salt in iodine deficient endemic areas.

Thus, we can conclude that although the programme has made significant achievements, we still have a long way to go for achieving complete coverage under the programme.

Let us now move on to the National Anaemia Control Programme (NACP).

### 11.3.2 National Anaemia Control Programme (NACP)

We have read in Unit 3 that Iron Deficiency Anaemia (IDA) is the most common and the most neglected of nutritional deficiency disorders. In India, nearly 80 percent of the pregnant women, 50 percent non-pregnant non-lactating women, 30 percent men and more than 75 percent of adolescent and young children suffer from IDA. In under privileged communities, iron deficiency is the most common cause of anaemia and hence anaemia and IDA are used as synonyms in these communities.

The Government of India initiated National Anaemia Prophylaxis Programme (NAPP) in 1970, which was subsequently renamed in 1992 as the National Anaemia Control Programme (NACP). We have already studied about NACP in Unit 10. Except for one ICMR national study which has evaluated NACP in totality, other evaluations pertain to specific components of NACP like: 1) awareness amongst women and communities about the value of IFA tablets 2) awareness amongst health workers about NACP objectives 3) availability and distribution of IFA tablet, 4) consumption of IFA tablets 5) monitoring of NACP by health workers 6) impact of IFA supplementation on birth weight and incidence of low birth weight infants, and 7) chemical composition of IFA tablets. Major findings of these studies show that:

- There is lack of awareness amongst women and communities about the consequences of anaemia and importance of taking IFA tablets. Many women who receive the tablets do not consume these.
- There is lack of awareness amongst health workers about NACP objectives and health consequences of iron deficiency anaemia. They lack awareness about IFA distribution, i.e. age group of beneficiaries, especially for small tablets, dosage, side effects and management of side effects.
- There are major shortages of IFA tablets across the country.
- There is inadequate consumption of IFA tablets by women and children due to a) poor supplies, b) lack of compliance, c) lack of worker motivation, d) lack of nutrition and health education by health workers, and e) lack of follow up by health workers.
- There is lack of monitoring by the medical officers in charge of primary health centers for implementation of the NACP.
- Iron supplementation as per programme guidelines shows beneficial effects in improving the birth weight and lowering the incidence of low birth weight infants.
- Chemical analysis of the IFA tablet shows less than recommended levels of iron and folic acid content of the tablet.

Based on these findings, it emerges that even today, there is poor coverage and high levels of anaemia persist in pregnant women and preschool children. The priority actions needed for improving the programme are stated as follows:

#### *Actions for improvement*

- Information Education Communication (IEC) activities should be undertaken amongst the women and communities about causes, consequences of anaemia and importance of IFA and adequate diet in prevention and control of anaemia.

- Health functionaries should be adequately trained about the objectives and implementation of the NACP.
- Monitoring by health workers and the medical officers should be strengthened about the implementation of the NACP.
- Efforts should be made to improve the availability of IFA across the country.

We will now move on to the National Programme for Prevention of Nutritional Blindness due to Vitamin A deficiency (VAD).

### **11.3.3 National Programme for Prevention of Nutritional Blindness due to Vitamin A Deficiency**

We have studied about the National Programme for Prevention of Nutritional Blindness in Unit 10. In 1992-93, the programme was brought under the Child Survival and Safe Motherhood (CSSM) programme in which, universal coverage of children with vitamin A doses was targeted to 1-3 years of age. Also, an additional component of therapeutic administration of vitamin A was included in the programme. Accordingly, the therapeutic doses of vitamin A were to be given to children: suffering with eye signs of VAD, diarrhoea, measles and severe PEM with eye signs of VAD. The current beneficiaries include all children from 9 months to less than 3 years of age.

Currently, the main focus of the programme is on synthetic vitamin A supplementation without consideration of prevalence of under five mortality and infant mortality rates, dietary intake of vitamin A and prevalence of ocular signs of VAD. For example, the state of Kerala has the same policy of vitamin A supplementation as in Uttar Pradesh. Sustainable strategies like promoting intake of vitamin A rich foods are given low priority.

There are no studies which have evaluated all the components of Nutritional Programme for Prevention of Nutritional Blindness due to VAD hence, we would discuss major findings of studies conducted to assess the various components of the National Programme of Prevention and Control of Nutritional Blindness due to vitamin A. These studies have focused on 1) prevalence of VAD in the country 2) coverage of vitamin A supplementation in the country, and 3) impact of vitamin A supplementation on mortality and morbidity amongst children.

Major findings of the studies show that:

- VAD is a public health problem in certain geographical pockets/districts of the country. Some of these districts are Gaya, Patna and Bikaner, located in socio-economically poor regions of the country.
- Coverage levels of vitamin A supplementation to the children are low due to various reasons like inadequate outreach, inadequate and irregular supplies, lack of orientation of functionaries, lack of monitoring and supervision, vertical approach of the programme with total lack of community involvement and participation and complete absence of education and communication.
- Evaluation of the impact of vitamin A supplementation on mortality and morbidity shows no significant impact of vitamin A on mortality and respiratory tract infections among children.

Thus looking at the findings that VAD remains a public health problem in certain geographical pockets and coverage of vitamin A supplementation is low, certain priority actions for improving the vitamin A prophylaxis programme are suggested as follows:

*Actions for improvement*

- Consumption of vitamin A rich foods should be especially promoted in areas found to be deficient in vitamin A.
- The programme should be strengthened through various measures like improvement of community outreach, adequate training of functionaries, provision of regular and adequate supplies of vitamin A supplements, community participation and nutrition education and communication.

**Check Your Progress Exercise 1**

1. Write some of the achievements made under NIDDCP.  
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2. Mention the priority actions required to improve the NIDDCP.  
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3. Answer the following briefly:
  - a) One major finding of studies conducted to evaluate NACP.  
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.....
  - b) Priority actions required to improve the NACP.  
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4. Answer the following briefly:
  - a) Major findings of the studies conducted to evaluate vitamin A prophylaxis programme.  
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  - b) Priority actions needed to improve the vitamin A prophylaxis programme.  
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Let us now move on to Tntegrated Child Development Services Scheme.

**11.3.4 Integrated Child Development Services (ICDS) Scheme**

Integrated Child Development Services (ICDS) Scheme was launched on Oct.2, 1975 in pursuance of National Policy for children. We know that currently the scheme is the largest nutrition programme launched by Government of India for the holistic development of the child through interventions in nutrition, health and education.

Although the 0-6 year old population of areas covered by ICDS is already **63** million, and the population of pregnant and lactating women is 13.6 million, only **30** million children and 5.2 million mothers are actually covered by supplementary feeding and 15 million, **3-6** year olds, by pre school education. Coverage figures are not available for the other services. ICDS also includes, in fewer than 10 percent of the 4200 programme

blocks, schemes for adolescent girls, nutrition health awareness and skill development, and in some areas it has been linked with women's income-generating programmes. The impact of the programme is evident from the remarkable improvements made in child survival and development indicators as enumerated below :

- decrease in prevalence of malnutrition among preschool children
- improved immunisation coverage in ICDS areas
- decrease in IMR in ICDS areas
- improvement in school enrolment and reduction in school dropout rate in ICDS areas, 1992.

The most important impact of the scheme is clearly reflected in significant decline in the levels of severely malnourished and moderately malnourished children and Infant Mortality Rate in the country. The percentage of children suffering from severe malnutrition have significantly declined from 15.3% during 1976-78 to 8.7% during 1988-90 (figures published by National Nutrition Monitoring Bureau). The Infant Mortality Rates have declined from 80 per 1000 live births in 1991 to 73 during 1994 (Sample Registration System).

The programme is targeted at poor areas, and increasingly at poor households. Programme guidelines call for the food supplements (which are limited to 40 percent of the expected beneficiary population of an *anganwadi*) to be given preferentially to children and pregnant women from households at high risk of malnutrition - those of landless labourers, marginal farmers, scheduled castes or tribes. The adolescent girls' and women's programmes are intended to improve health and nutrition over the longer term through improvements in women's skills and access to resources. However, evaluations of ICDS have found its impact on nutritional status to be limited. The reasons for this are:

- inadequate coverage of children below 3 years of age, of those at greatest risk of malnutrition, and of women and children living in hamlets,
- irregular food supply, irregular feeding and inadequate rations,
- poor nutrition and health education of mothers (and none of families) to encourage improved feeding practices in the home and other relevant behavioural changes,
- inadequate training of workers, particularly in nutrition, growth monitoring, and communication,
- anganwadi worker's (AWW) overload, weak and unsupportive supervision of AWWs resulting in the neglect of crucial nutrition-related tasks, and
- poor linkages between ICDS and the health system.

In general, the quality of ICDS services needs great improvement. The programme's services are much in demand, but they are inadequately delivered and often uncoordinated. Worker training, in-service supervision and community involvement remain major gaps. Although there are exceptions, anganwadi facilities and environments need to be enhanced and the programme needs to inspire good health, hygiene and nutrition related behaviours that are essential to improving the nutrition and health status of children and women in poor households. To make a significant impact on nutrition and health, a great number of improvements are needed in ICDS. Thus, priority actions needed to improve the programme are:

*Actions for improvement*

- improved targeting, especially to reach children under 2 years of age and pregnant women who are most at risk of developing malnutrition,
- greatly enhanced quality of services and impact through better training **and** supervision,

- establishing a reliable monitoring and evaluation system as soon as possible,
- community ownership and management of programme, and
- reducing AWW overload and improving coverage of hamlets by either hiring a second worker or separating the preschool education component from the rest of the programme.

### *ICDS during the Tenth Plan*

Since its genesis, the ICDS has constantly gone through several stages of improvement in terms of enforced implementation and sustainability of its objectives. Thus in the current tenth five year plan (2002-2007) of the planning commission has focused on the following.

- Strengthening the nutrition and health education component for inter-familial distribution of food.
- Reach out programme for, 6-36 months age group children, pregnant and lactating women.
- Weighing of all vulnerable population, identification of CED group and provision of integrated health and nutritional support.
- Screening of children for growth faltering.
- Take-home supplementation to improve nutritional status of children in Grade III and IV undernutrition.
- Improved training of ICDS personnel for a more impactful effect of ICDS.
- Creating nutrition awareness through information, education and communication (IEC) at all levels.

Thus, we see that ICDS must greatly improve the quality of its services and their impact on the vulnerable groups. Both the quality of their services and impact must be regularly monitored and evaluated and improvements made continuously.

### **11.3.5 Pradhan Mantri Gramodaya Yojana: Setbacks and New Challenges**

You may recall reading about the Pradhan Mantri Gramodaya Yojana (PMGY) earlier in Unit 10 which focuses on the creation of social and economic infrastructure in the area of health, nutrition, education, drinking water, housing and rural roads. Now we shall look at the new changes brought about in PMGY. This includes an allocation of 15% funds for nutrition component as you may recall studying in Unit 10. This was done as poor and populous states with high undernutrition rates did not get sufficient funds.

Some of the available data today indicates that the major setbacks of this yojana are:

- Difficulty in procuring locally available take-home food supplements.
- Provision of relatively expensive ready to eat food was made, rather than the cereal-pulse-oilseed mixture.
- The funds provided under the nutrition component of PMGY were not treated as an additionality but were substituted for states own plan funds for nutrition.
- There has not been any substantial improvement in the enrolment of children.

The guidelines laid down for the nutrition component of PMGY emphasize that all infants and children should be weighed at least once in three months to detect those who are undernourished so that health and nutrition interventions could be undertaken. Under the Tenth Five Year Plan, the physical and financial evaluation and

the impact of the programme on infant feeding practices or infant nutritional status will be taken up.

We will now move on to National Mid Day Meals Programme also known as National Programme of Nutritional Support to Primary Education.

### **11.3.6 National Programme of Nutritional Support to Primary Education**

National Mid Day Meal Programme is the common name used for National Programme for Nutritional Support to Primary Education (NSPE). We studied about the coverage, salient features and implementation of the programme in Unit 10. We suggest you look up the sub-section 10.6.1 in Unit 10. Here, our focus would be to critically review the programme.

NSPE is being implemented in all States/UTs except Jammu and Kashmir and Lakshadweep (the latter runs its own programme). It covers 107.5 million children as of 2003-04, but the actual number fed may be far lower than this. Fourteen States and 7 UTs provide cooked meals to all primary school children, while 9 states provide cooked meals in some areas only. Four states are distributing food grains under the programme. According to a Supreme Court ruling in 2002, all states should provide cooked meals under NSPE. However, in the interim, until the institutional arrangements are made, states continue to provide food grains. Let us review the evaluation of NSPE.

#### *Evaluation of NSPE*

Although the NSPE has been in existence for 9 years (1995 to 2004), no all India level evaluation has been conducted so far for the programme. However, in 1999, an Operations Research Group, New Delhi, an independent agency, evaluated the programme in collaboration with UNICEF for ten states of which two states provide hot cooked meals. The findings state that while in Assam, MP, UP and West Bengal, there has been a boost to enrolment, in Gujarat, Haryana, Karnataka, Orissa and Rajasthan, the programme has made positive impact on attendance and retention particularly amongst girls. The Operations Research Group also made following recommendations:

- Since key objective of NSPE is to provide a boost to primary education, it is critical not only to strengthen the various programme components but also to design strategies to reach out of school population. This and other issues could be addressed by greater involvement of the community and panchayati raj institutions.
- There is a need to set up a separate cell for implementation of NSPE with full time staff. Presently, the Ministry of Human Resource Development is the national agency for the programme implementation, while at the state level, in all states except Rajasthan, Madhya Pradesh and Orissa, the implementing body is the Department of Education. There is little interaction between state agencies and the Food Corporation of India (FCI). Inter-linkages between the FCI and the implementing agency need to be improved for timely delivery of food grains.
- School records should be maintained on key indicators of the programme and data can be aggregated at various levels.
- There is need to improve the monitoring and supervision across states on various aspects of the programme such as: quantity and quality of food grains and cooked meals, timely delivery and frequency of distribution to eligible students.

As you may note that this review was conducted for ten states only. Therefore, it is widely suggested that a process and impact evaluation of NSPE be conducted on an all India basis. This process and impact evaluation should include the following:

- The reactions of the key participants at the grass root level, namely the schooler, the teacher and the local Ration Shop keeper about the programme.
- Linkages formed by the programme, if any, with the Primary Health Centre, the Village Panchayats, and the ICDS.
- The positive and negative aspects of the NSPE versus Hot Meal Variant.
- Impact on nutritional status and cognitive development among the children.

In other countries, school feeding has been found to increase learning achievement more when provided as a "breakfast" to hungry children than as a noon meal. The NSPE will have no impact whatsoever on the nutritional status of that child unless she/he consumes adequate food. To enhance nutrition and health status, food intake would need to be assured and accompanied by deworming, vitamin A and iron supplementation and control of infections. These improvements in the NSPE would require state commitment to providing cooked meals at school, substantially increased management capacity, improvements in the school health programme, and a larger quantum of resources than is currently available from either GOI or the state governments. Thus, following strategies have been suggested to achieve the nutrition and health objective of the programme.

*Strategies suggested to achieve the nutrition and health objective of NSPE:*

- The NSPE must put the Nutrition and Health objectives ahead of the enrolment, retention and drop-out objectives.
- It must set a time-frame, say by 2007 AD, where every primary schooler and middle-schooler will receive a Hot Cooked Meal.
- The NSPE implementers must insist that a good brand of iodized salt be used in the Hot Cooked Meal Variant.
- Several studies have clearly shown that the school-age population is the most heavily infected with intestinal parasites. Hence, periodic deworming, is a must, for this group of population. Fortunately, India has the capability to produce the required quantities of anthelmintics, iron supplements and iodized salt. Dosing can and should be done by the teacher in the classroom.
- Similarly, weekly iron supplementation can and should be done by the teacher in the classroom.
- India is one of the most vitamin-A deficient countries in the world. Legislation can make it mandatory that red palm oil which is abundantly rich in vitamin-A, be used in the "Hot Cooked Meals". Also inclusion of other carotene rich sources in the MDM food supplement. International community could also come to our aid in facilitating this process. Six-monthly deworming could be done very easily in the classroom.

It is also important to understand that policy makers and the implementers of the NSPE must fully realize that if hard choices are to be made, it would benefit the schooler more to give him/her a health package of deworming, iron, vitamin A, and iodine, rather than just food grains. The cost of health package is estimated at Rs.10/- child per year. Thus, for about 200 million primary school children in India, the total cost of the Health Package in the Classroom, would come to Rs. 2000 million. (200 million primary school age children x Rs.10 per child = Rs.2000 million). Whereas, the yearly expenditure of food grains for this group comes to about Rs.10,000 million. The best proposition would, of course, be to give the schooler both the *Hot Meal* plus the *Health Package* in the classroom.

Next, let us review the Public Distribution System.

### 11.3.7 Public Distribution System (PDS) and Targeted Public Distribution System (TPDS)

We studied about public distribution system in Unit 10. PDS is a food subsidy programme implemented by Government of India to provide food security to the poor people in India. PDS provides cereals and other essential items to cardholders at subsidized rates.

Various studies have been conducted to review PDS. While PDS has been an important buffer against local food shortages, it has fallen short in many respects as a measure to provide food security to the poor. Major findings of these research studies show that:

- PDS has been inadequately targeted, with a large number of beneficiaries actually coming from non-poor households.
- Many of the poorer states do not obtain the requisite quantities to cover their needy populations - they take less than their share of supplies from the PDS mainly because of weak administrative capacity and inability to move the food stocks.
- There are serious leakages in the programme, with supplies often finding their way to the open market.
- The PDS is a high-cost operation relative to the caloric support it provides, it costs about three times as much for the PDS to provide a given number of calories to a household, compared with ICDS.
- As late as 1997, access of the poor to the PDS was very limited, and particularly weak in the states with the highest incidence of poverty.

Thus, taking into consideration the various research findings about PDS, government introduced the Targeted Public Distribution System (TPDS) in early 1997. Let us now review the TPDS.

#### *Targeted Public Distribution System (TPDS)*

We know that the Central Government introduced the Targeted PDS (TPDS) aimed at better coverage of households below the poverty line. Under the TPDS, BPL households are given a special identity card to obtain up to 10 Kg of rice or wheat per month at half the issue price.

No review has been conducted of TPDS so far. However, while the TPDS is designed to improve food supplies in the poorest households, it has not gone far enough in a number of ways. Some of the criticism which TPDS faces are:

- Despite a very heavy subsidy burden, the TPDS has come in for severe criticism from various quarters including many State Governments. It has been argued that a scale of ration of 10 kilograms per month per BPL family is grossly inadequate since the average requirement of a family is about 30 kilograms per month. The quantity of subsidized grain provided amounts to a marginal supplement of 100 calories per person per day, far less than the estimated gap of poor people in rural areas. It has been suggested that the scale of ration to BPL families should be raised to 20 kilograms per month.
- Secondly, the PDS in most states still provides large quantities of subsidized food to non-poor households, although this food could be targeted at needy children and mothers, for example, through ICDS.
- It is unclear how the TPDS will plug leakages, particularly in the absence of a rigorous monitoring system.

We would like to bring this to your attention that people need not just food grains but also other food items such as pulses, milk, fruits and vegetables for improving their nutritional status. We also mentioned in Unit 2 that it is a challenge in front of us to provide these nutritious foods to people of India at affordable prices. We know that India's food grain production has continued to increase fairly steadily, though population growth has eroded these gains somewhat. The per capita availability of food-grains was 384 kilograms in 1960 and 464 kilograms in 1996. Unfortunately, however, the production of pulses, an important constituent of the vegetarian Indian diet, has fallen from 65.5 kilograms per capita to 34 kilograms in the same period, although availability has been boosted somewhat by imports. To ensure proper nutrition, adequate quantities of pulses or other protein-rich foods such as milk, eggs, or meat (which are also in short supply) must become more widely accessible, requiring increased production, improved distribution and consumption. Unless the prices of these commodities are reduced substantially - through vastly increased availability - they will remain out of reach of the poor.

Let us next review the Employment Generation Schemes.

### 11.3.8 Employment Generation Schemes

We studied about some of the employment generation schemes like Food For Work Programme, Sampoorna Gramin Yojana etc. earlier in Unit 10. However, there is little independent corroboration of the extent to which the employment programmes have supplemented the incomes and food available to the poor, though they are intended for this purpose. The programmes unfortunately suffer from managerial problems so that it cannot be assumed that the number of person, days of work they provide accrue fully to the poor. The efforts of the employment programmes to provide household food support by part payment in grain need to be strengthened, and the programmes have also to meet other nutritionally-relevant objectives, such as ensuring that 30 percent of beneficiaries are women, and raising participant families above the poverty line.

In this unit, so far, we have reviewed several nutrition programmes and pointed out the main deficiencies in each of the nutrition-related programmes. So now the question arises why all these *programmes taken together* have had a limited impact to combat malnutrition successfully. Let us now look at some of the reasons for this and what we can do to improve the situation. But first let us recapitulate what we have learnt so far.

#### Check Your Progress Exercise 2

- I. List the reasons for limited impact of ICDS on nutritional status of vulnerable groups.

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- 2 List the priority actions suggested to improve the ICDS scheme.

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3. If an all India process and impact evaluation is planned for Nutritional Support to Primary Education Programme, what are the key components you would include in the evaluation?

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4. What criticism does TPDS faces from different states?

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Next let us find out why the programmes discussed above have had a limited impact to combat malnutrition.

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## 11.4 LIMITED IMPACT OF NATIONAL NUTRITION PROGRAMMES IN INDIA

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Having reviewed all these programmes, it becomes necessary to ask this question as to why all these nutrition programmes *taken together* have not been very effective to combat malnutrition successfully in India. You would have noticed by now that each programme appears well-conceived, but in most cases implementation has been weak - particularly with regard to ensuring the access of the poor. There are also virtually no synergies between the programmes. There is also a shortage of funds for expanding coverage **and** improving the quality of the programmes.

Thus, some of the reasons why nutrition programmes taken together have not been very effective to combat malnutrition successfully in India are poor implementation, inadequate coverage of BPL families and poor synergies between programmes. We will explain these in detail now. Let us start with poor implementation.

- *Poor implementation:* There are many issues, which need to be addressed for successful implementation of these programmes.. These issues relate to coverage, targeting, awareness building, training, supervision, monitoring, community participation and logistics including supply and distribution. Overall, the direct nutrition programmes are insufficient to the task, uncoordinated, lack regular monitoring and evaluation, and have limited impact. If the current programmes were properly targeted, rationalized and improved in quality, they could succeed in substantially reducing malnutrition within the next two decades, particularly in the context of India's projected economic growth over this period. Recent developments in India, such as economic reforms, globalization processes, and the high skill-intensity of demand for labour, may increase the poor's vulnerability to shocks, and emphasize the need to strengthen programmes such as ICDS and TPDS.
- *Poor synergies between all the programmes:* Although the nutrition-specific actions are embedded in a broader policy framework that emphasizes employment-intensive economic growth, greater access to social services, and specific poverty alleviation measures, the potential synergies among these wider efforts and the direct nutrition programmes remain largely undeveloped. There is a great need to bring about coordination among the many institutions involved in the nutrition-related sectors. Key institutions such as the National Nutrition Council and the Department of Women and Child Development have important roles to play in advocating and implementing enhanced efforts for nutrition.
- *Inadequate coverage of BPL families by all the programmes:* The grinding poverty of rural and urban slum dwellers in India suggests that BPL households need to be reached by *all* the programmes mentioned above, that is, the employment schemes and TPDS to ensure adequate income and food availability to poor households, ICDS to care for the nutrition and health care needs of vulnerable women and children, and the NMMP to provide school children with both the incentive and nutritional support to learn. However, the affordability of all these programmes is questionable and, therefore, in the context of inadequate resources, it is necessary to examine and weigh their relative costs and contribution to achieving nutritional objectives.

This brings us to the next issue, a most important issue, indeed, about having funds and resources for expanding coverage of the programmes. One would believe that we do need additional funds to expand coverage and improve the quality of the programmes. But we can also argue that some of the improvements in the programme could be done without increasing the cost of the programmes. Let us critically look at this aspect. The next section reviews the costs of improving nutrition in India.

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## 11.5 COSTS OF IMPROVING NUTRITION SITUATION IN INDIA

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You would note that many of the actions needed to improve the nutrition programmes involve relatively little additional cost. Assigning higher priority to nutrition training, devolving responsibility to the state, district and village level, and fostering greater health-nutrition collaboration do not increase the cost of the programmes. Having a second village-level worker for health or preschool education will involve additional cost, but not a very large one, especially in the context of overall spending on food and nutrition. On the other hand, expanding ICDS or National Mid Day Meal Programme to fully cover their target groups would require a large increase in funding. What we need most in improving the nutrition programmes are political will, community ownership, strengthening the work ethic, and supporting workers with the tools they need to do their jobs. The most important of all these is the adequate and sustained commitment at all levels, especially *political levels*.

Let us discuss in detail about political commitment.

*Political commitment:* Malnutrition fails to receive the priority it deserves in India, as in many other countries, because it is largely invisible, and also because programme efforts must extend across many sectors and levels. The most important factor is that sustained political commitment is required for the long and difficult task of prevention of malnutrition. Due to inadequate political commitment, the programmes are therefore, not able to reach the poor, who are malnourished and therefore most in need of assistance. Sustained allocations and proper direction of the necessary financial and human resources would demonstrate political commitment in favour of improved nutrition.

Under the National Nutrition Policy, we had set certain National Nutrition Goals to be accomplished by year 2000, which were not achieved. Even if we want to achieve these goals by 2010, it demands certain actions and demonstrated success in four areas.

First, the country must put into place the leadership structure and administrative capacity to ensure commitment to and management of, the programmes required to deal with the massive challenge. This encompasses the policy, planning and implementation structure, and the institutional and individual capacities necessary to make it work effectively.

Second, the ICDS programme must greatly improve the quality of its services and their impact on vulnerable groups. Both the quality of services and their impact must be regularly monitored and evaluated and improvements made continuously.

Third, the health sector must give higher priority to malnutrition and ensure that its actions have far greater impact on the problem than they do now.

And fourth, India must do better at providing food security to the poor at the community and household level. Sustained success in these four areas is essential if India is to deal effectively with the crisis of malnutrition.

Let us study each of these in detail now:

### 1) *Rebuilding Institutional Capacity*

India must put into place the leadership structure and administrative capacity to ensure commitment to, and management of, the programmes required to deal with nutritional problems. Thus rebuilding India's capacity for nutrition action, training, research and advocacy will require:

- high level policy, planning and implementation structure,
- involving panchayati raj institutions in a major way,
- setting clear quantitative goals and auditing them at least annually in a high profile national conference, and
- making key institutions such as National Institute of Nutrition (NIN) and National Institute of Public Cooperation and Child Development (NIPCCD) autonomous.

Additional funds will be needed for 10-15 years, on a sustained basis, in order to assure a steady build up of capacity to undertake the tasks outlined above, and to provide the environment necessary to attract scientists and other professionals to careers in nutrition. Since the achievement of nutritional goals is a responsibility shared amongst several departments, reallocation of resources across departments must be guided by their relative effectiveness in combating malnutrition. Approximately Rs. 25 crores per year will be needed for NIN and NIPCCD, plus about Rs. 100 crores per year for 20-25 colleges of home science, medicine or other nutrition-related institutions.

### 2) *Enhancing the Quality and Impact of ICDS*

We have discussed earlier that ICDS programme must greatly improve the quality of its services. The priority actions needed in ICDS are:

- ensuring attention to 6-24 month-old children and pregnant women;
- enhancing quality and impact through better training, supervision, and community ownership;
- establishing a reliable monitoring and evaluation system as soon as possible; and
- reducing AWW overload and improving coverage of hamlets by either hiring a second worker or separating the preschool education component from the rest of the programme.

Measures to decentralize ICDS and place its management increasingly in the hands of panchayati raj institutions are likely to be budget neutral in the medium term, but extensive training will cost additional resources. Additional resources of about 150 crores would also be required for the second worker and the quality improvements that are necessary. Thus, if sincere efforts are made, then improving the quality and impact of the programme should be achievable within 3-5 years. Following this, reaching all those in need nationally, i.e. the one-third of families living in poverty, would cost on the order of an additional Rs. 1250 crores a year. In all ICDS will need an additional Rs. 1500 crores/year to have a substantial impact on malnutrition.

### 3) *Strengthening the Contribution of Health Sector*

The health sector must give high priority to malnutrition and ensure that its action have far greater impact on the problem than they do now. The priority actions needed to strengthen the contributions of the health sector are:

- training programmes to assure a quantum leap in the nutrition knowledge and capacity of all levels of health workers, and
- much greater synergy with nutrition programmes, especially ICDS, and especially by focusing ANM-AWW collaboration on 6-24 month olds and pregnant women.

The cost for this would not exceed Rs. 25 crores annually.

4) *Improving household Food security through TPDS and Mid Day Meal Programme*

India must do better at providing food security to the poor at the community and household levels. You read about Targeted Public Distribution System (TPDS) and National Mid Day Meal Programme in Unit 2 and Unit 10. These programme provide food security to vulnerable population including school children. Certain actions could be taken for improving these programmes which could improve the food security of the vulnerable population.

Let us first consider TDPS. The urgent priorities for TDPS are:

- effective coverage of the poor, and shifting the food subsidy entirely to the population below the poverty line,
- careful monitoring to ensure benefits reach the poor, and
- ensuring that the vulnerable are reached quickly with needed supplies during droughts and other disasters.

Next, let us consider NMMP.

*Increasing the impact of NMMP:* Increasing the impact of NNMP could be achieved by these actions:

- targeting NMMP by area, using low educational attainment and poverty criteria, and
- targeting food on preschool, as well as, primary school children, in areas not covered by ICDS

These goals could be achieved without additional resources and would increase substantially the overall education and nutritional impact, and the cost-effectiveness of the programme.

*Total Cost:* If we calculate the total cost of improving nutrition programmes, then by one estimate, it would be Rs. 400 crores/year. While for a period of ten years, it would be a total investment of around Rs. 4000 crorcs, excluding the cost of expanding ICDS. Since the achievement of nutrition goals is a responsibility shared amongst several departments, reallocation of resources across departments must be guided by their relative effectiveness in combating malnutrition. When one considers that the cost of malnutrition in lost productivity, illness and death is at least Rs. 50,000 crores annually, the cost-benefit ratio of these investments is readily apparent.

**Check Your Progress Exercise 3**

1. List the three reasons why nutrition programmes when taken together are not able to reduce malnutrition in India?

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2. What key actions are required if we want to achieve the National Nutrition Goals by 2010.

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## 11.6 LET US SUM UP

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The Government of India has launched many programmes to improve nutrition situation of India. Some of these programmes include nutrient deficiency programmes to combat micronutrient malnutrition, ICDS for holistic development of children through interventions in health, nutrition and education and for reduction of malnutrition; and PDS and TDPS for improving food and nutrition security. However, when taken together, these programmes have not been very effective in reducing malnutrition. The main reasons identified relate to lack of political commitment, poor implementation, inadequate coverage of BPL families, poor synergies between programmes and lack of funds. Key actions are required in four different areas if we want to achieve the National nutrition goals by 2010. First, the country must put into place the leadership structure and administrative capacity to ensure commitment to, and management of, the programmes required to deal with the massive challenge. Second, the ICDS programme must greatly improve the quality of its services, and their impact on vulnerable groups. Both the quality of services and their impact must be regularly monitored and evaluated and improvements made continuously. Third, the health sector must give higher priority to malnutrition and ensure that its actions have far greater impact on the problem than they do now. Lastly, India must do better at providing food security to the poor at the community and household level. All this would require a total investment of around Rs. 4000 crores over a period of ten years, excluding the cost of expanding ICDS. When one considers that the cost of malnutrition in lost productivity, illness and death at the rate of least Rs. 50,000 crores annually, the cost-benefit ratio of these investments is readily apparent.

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## 11.7 GLOSSARY

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- Beneficiaries** : persons who benefit
- Cluster** : group sharing a similar characteristic
- Corroboration** : confirmation, documentation
- Diversification** : expanded range
- Fortification** : strengthen
- Genesis** : origin, or mode of formation
- Intersectoral** : between more than one sector/department
- Micronutrient** : nutrient required by body in small quantities
- Strategy** : the art of planning for effective results

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## 11.8 ANSWERS TO CHECK YOUR PROGRESS EXERCISES

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### Check Your Progress Exercise 1

- I) Some of the significant achievements made under NIDDCP include:
- i) About 795 private manufactures have been given license to produce iodized salt
  - ii) The manufacturers have an annual production capacity to produce 112 lakh tons of iodized salt against the total requirement of 50 lakh tons,
  - iii) Annual production of iodized salt has increased to 44 lakh tons in 2003 from 3 lakh tons in 1983

2. Priority actions needed for improvement of NIDDCP are:
  - Information Education Communication (IEC) activities should be undertaken amongst the population regarding NIDDCP.
  - Regular monitoring of quality of salt at the manufacturer and consumption level should be done to ensure that the beneficiaries consume adequate quantity of iodine.
  - There should be continued and sustained supply of iodized salt in iodine deficient endemic areas.
- 3) a) One of the major findings of the studies to evaluate NACP show that:
  - There is lack of awareness amongst women and communities about the consequences of anaemia and importance of taking IFA tablets. Many women who receive the tablets do not consume these.b) The priority actions needed for improving the NACP are:
  - Information Education Communication (IEC) activities should be undertaken amongst the women and communities about causes, consequences of anaemia and importance of IFA and adequate diet in prevention and control of anaemia.
  - Health functionaries should be adequately trained about the objectives and implementation of the NACP.
  - Monitoring by health workers and the medical officers should be strengthened about the implementation of the NACP.
  - Efforts should be made to improve the availability of IFA across the country.
4. a) Major findings of the studies conducted to evaluate Vitamin A prophylaxis programme show that:
  - Coverage levels of vitamin A supplementation to the children are low due to operational reasons like persistent shortages of vitamin A supplements and poor logistics.
  - There is poor community awareness about the importance of vitamin A.
  - Evaluation of the impact of vitamin A supplementation on mortality and morbidity shows no significant impact of VA on mortality and respiratory tract infections among children.b) Priority actions needed for improving the vitamin A prophylaxis programme are:
  - There is a need of strengthening the VA supplementation programme through promotion of consumption of foods rich in vitamin A in areas which are found to be deficient in vitamin A.
  - The programme should be strengthened through various measures like improvement of community outreach, adequate training of functionaries, provision of regular and adequate supplies of vitamin A supplements, community participation and nutrition education and communication.

### Check Your Progress Exercise 2

1. Reasons for limited impact of ICDS on nutritional status are:
  - inadequate coverage of children below 3 years of age, of those at greatest risk of malnutrition, and of women and children living in hamlets,

- irregular food supply, irregular feeding and inadequate rations,
  - poor nutrition and health education of mothers (and none of families) to encourage improved feeding practices in the home and other relevant behavioural changes,
  - inadequate training of workers, particularly in nutrition, growth monitoring, and communication,
  - anganwadi worker's (AWW) overload, weak and unsupportive supervision of AWWs resulting in the neglect of crucial nutrition-related tasks, and
  - poor linkages between ICDS and the health system.
2. Priority actions needed to improve the ICDS programme are:
- improved targeting, especially to reach children under 2 years of age and pregnant women who are most at risk of developing malnutrition,
  - greatly enhanced quality of services and impact through better training and supervision,
  - establishing a reliable monitoring and evaluation system as soon as possible,
  - community ownership and management of programme and, reducing AWW overload and improving coverage of hamlets by either hiring a second worker or separating the preschool education component from the rest of the programme.
3. Process and Impact evaluation of NSPE should include the following:
- The reactions of the key participants at the grass root level, namely the schooler, the teacher and the local Ration Shop keeper about the programme.
  - Linkages formed by the programme, if any, with the Primary Health Centre, the Village Panchayats, and the ICDS.
  - The positive and negative aspects of the NSPE versus Hot Meal Variant. Impact on nutritional status and cognitive development among the children.
4. The TPDS faces following criticism:
- It has been argued that a scale of ration of 10 Kgs per month per BPL family is grossly inadequate since the average requirement of a family is about 30 Kgs per month. The quantity of subsidized grain provided amounts to a marginal supplement of 100 calories per person per day, far less than the estimated gap of poor people in rural areas. It has been suggested that the scale of ration to BPL families should be raised to 20 Kgs per month.
  - Secondly, the PDS in most states still provides large quantities of subsidized food to non-poor households, although this food could be targeted at needy children and mothers, for example, through ICDS.
  - It is unclear how the TPDS will plug leakages, particularly in the absence of a rigorous monitoring system.

### Check Your Progress Exercise 3

1. There are 3 main reasons which state why nutrition programmes taken together have not been effective to combat malnutrition successfully in India. These are poor implementation, inadequate coverage of BPL families and poor synergies between programmes.

2. The priority actions required if we want to achieve the national nutrition goals by 2010 are:
- First, the country must put into place the leadership structure and administrative capacity to ensure commitment to, and management of, the programmes required to deal with the massive challenge.
  - Second, the ICDS programme must greatly improve the quality of its services, and their impact on vulnerable groups. Both the quality of services and their impact must be regularly monitored and evaluated and improvements made continuously.
  - Third, the health sector must give higher priority to malnutrition and ensure that its actions have far greater impact on the problem than they do now.
  - Fourth, India must do better at providing food security to the poor at the community and household level. Sustained success in these four areas is essential if India is to deal effectively with the crisis of malnutrition.