CHAPTER-II

REVIEW OF LITERATURE

2.1 The Rationale

The research on health issues of human beings in general and children in particular across the globe have given importance to innumerous factors responsible for ill-health, under-nutrition and malnutrition. The studies on health across the world from time to time mention that the social factors play significant role to keep the children and their families in poverty and the related consequences. In this scenario, for the present study, the researcher has gone through umpteen proportions of studies, reports, periodicals, published and unpublished research works etc., and reviewed them systematically in connection with the dimensions as well as factors responsible for ill-health, malnutrition and under-nutrition. Improving nutrition is the key for child survival and it is one of the four basic rights of a child. The rights are:

- Survival rights
- Participation rights
- Protection rights and
- Development rights

Malnutrition is a shameful pain to the country because, the world has enough food for everyone, so putting an end to the malnutrition crisis is the right thing to do. Every child has the right to a life free from
malnutrition. No child should be born to die from a cycle of malnutrition and disease because they are not able to eat enough nutritious food. Improving child nutrition and reducing levels of child mortality can lead to families for sustainable societies. The Green revolution might have gone a long way to tackling child malnutrition; Norman Borlaug’s creation of dwelt spring wheat strains in the 1960’s meant that India could feed itself at last. Better farming techniques and food security policies have made mass starvation a thing of the past. Yet the problem of child malnutrition remains critical, and the reasons it deserves concerted attention are many. The statistics from 2006 onwards may well underestimate the problem, as rampant food price inflation takes its toll on many millions of Indian families.

One in every three malnourished children in the world live in India and South Asia has the highest rates and largest number of malnourished children in the world, with 47% of children in India aged under 5 categorized as moderately or severely malnourished. This compares to rates of moderate or severe child malnutrition of 38% in Ethiopia, 24% in Mozambique or 20% in Kenya or 8% in China (UNICEF, 1986) 1. Malnutrition results not just from limited food intake and it is also caused by lack of access to health services, poor feeding practices and infection. (Health Education to villages programmes for mother and child nutrition (http://hetv.org/programmes.htm)2. Furthermore, malnutrition is perpetuated from one generation to the next. Poorly
nourished mothers give birth to babies weighing too little and lacking sufficient nutrition.

2.2 Some of the Facts to be Remembered

The 47 percent of India’s children below the age of three years are malnourished (http://www.littlemag.com) 3. The World Bank puts the number probably at 60 million (http://www.woldbank.org) 4. This is out of a global estimated total of 146 million. 47 percent of Indian children under five are categorized as moderately or severally malnourished (UNICEF, 1992) 5. The UN ranks India in the bottom of countries by under-1 Infant Mortality and Under Five Mortality (78 deaths per 1000 live births) (http://www.un.org) 6. According to the 2008 CIA fact book, 32 babies out of every 1,000 born alive die before their first birthday (http://www.cia.gov) 7. At least half of Indian infant deaths are related to malnutrition, often associated with infectious diseases. Malnutrition impedes motor, sensory, cognitive and social development (http://www.hetv.org) 8. So, malnourished children will be less likely to benefit from schooling, and will consequently have lower income as adults. The most damaging effects of under-nutrition occur during pregnancy and the first two years of a child’s life. These damages are irreversible, making dealing with malnutrition in the first two years crucially important (http://www.web.worldbank.org) 9. A close reading of available statistics shows the problem to be far from uniform (World Bank Report-2005) 10.
Nutrition Status in India – November, 2008

<table>
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<th>Nutrition</th>
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<tr>
<td>% of infants with low birth-weight, 1998-2005</td>
<td>30</td>
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<tr>
<td>% of children (1996-2005) who are; exclusively breastfed (&lt;6 months)</td>
<td>37</td>
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<td>% of children (1996-2005) who are; breastfed with complementary food (6-9 months)</td>
<td>44</td>
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<td>% of children (1996-2005) who are still breastfeeding (20-23 months)</td>
<td>66</td>
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<td>% of children (1996-2005) suffering from; underweight, moderate &amp; severe</td>
<td>47</td>
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<td>% of under fives (1996-2005) suffering from; underweight, severe</td>
<td>18</td>
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<td>% of under fives (1996-2005) suffering from; wasting, moderate and severe</td>
<td>16</td>
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<td>% of under fives (1996-2005) suffering from; stunting, moderate and severe</td>
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<td>Vitamin A supplementation coverage rate (6-59 months), 2004</td>
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<td>% of households consuming iodized salt, 1998-2005</td>
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(Source: UNICEF, 2008) 11

2.3 Children’s Nutritional Status

Almost half of children under age five are stunted or two short for their age which indicates that they have been undernourished for some time. Twenty percent are wasted, or too thin for their height, which may result from inadequate recent food intake or a recent illness. Forty-three percent are underweight, which takes into account both chronic and acute under-nutrition. Even during the first six months of life, when most babies are breastfed, 20-30 percent of children are undernourished according to each of these three measures. Children in rural areas are more likely to be undernourished, but even in urban areas, almost two in
five children suffer from chronic under-nutrition. Girls and boys are equally likely to be undernourished. Children’s nutritional status in India has improved slightly since NFHS-2 by some measures but not by all measures. Children under age three (the age group for which nutritional status data are available in NFHS-2) are less likely to be too short for their age today than they were seven years ago, which means chronic under-nutrition is less widespread, but they are slightly more likely to be too thin for their height, which means acute under-nutrition is still a major problem in India (http://www.mohfw.nic.in) 12. “Effective media communication during public health emergencies” (WHO, 2005) 13.

2.4 Relevance of Health

The World Health Organization (WHO) has come with the crystal clear definition for health as ‘Health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity’ (WHO-1948)14. The importance of health has to be understood from various paradigms. One among them is the health can give the self confidence for an individual and a person who is living healthier can contribute his/her best to the family, community, society and nation. The very definition of health given by World Health Organization mentions that the social phenomena is a great and the woman has to do many things for the welfare of the family members are concerned. As a leader of the premier social institution, family woman has to transfer the social values, customs, traditions, norms etc., slowly, systematically and
silently as desired by the society through the socialization process. She is not only do the mentioned activities but she shapes the food habits and the dietary pattern in the family, which help the family in a big way to promote the positive health, and prevent and occurrence of diseases because, across the world, everyday 40,000 children die due to the preventable diseases (Library think quest.org). The preventable diseases are related to lack of awareness of the human beings, ignorance of them and the health is not at all the priority agenda in the day to life. The poverty joins along with the negative factors and pushes the families into income generating activities. Whenever the labour demanding variables come into picture the health related variables of the families occupy the back seats and health is being kept in bay. Many people never understood the family’s significance and the woman as mother, leader and care-taker for all the people is simply being ignored. In fact, there is no obvious linkage between levels of child malnutrition and income poverty. 26 percent of India’s population lives below the poverty line, yet 46 percent of children under three are malnourished. Most Sub-Saharan countries report higher levels of income poverty than India even though levels of child malnutrition in India are consistently higher. And within India itself, in 1993-4 in Haryana, 35 percent of children were reportedly malnourished with 25 percent of the population under the poverty line. In Assam, 36 percent of children were malnourished, yet a full 41 percent lived in poverty. In other words, although the destitute poor have
higher rates of malnutrition than the rich, poverty itself is not a sole cause. And the quantity of food required to adequately feed an infant is affordable for practically all families-half a chapatti or half a banana or a boiled potato or a bowl of dhal (http://www.hindu.com) 15. Realizing this importance, the year 1994 had been celebrated as International Year of the Family (IYF) which came with an appropriate definition as ‘Family is the smallest democracy in the heart of the society’. The unlikable socio-economic situation of the family prevents its members to access the cheap and healthy food. The three basic phenomena nutrition, health, and wellness are intertwined (www.nutritiion-you.com) 16.

2.5 Relationship Between Mother and Child

Abnormality in nutrition tends to influence significantly on health and well-being of individuals. In the course of life, the eating habits have been changed in myriad of ways from their usual, natural pattern as the economic characteristics of the families are the deciding authorities. In this scenario, the woman and her contributions, to carve out the people’s best largely depends on her awareness and freedom to act. The mother and child’s health is crucial. Studies show that the kind of food the children consume at early stages of life sets in the metabolism pace of our body for the rest of a man’s life. So, the benefits of eating right at early years can play a noteworthy role for greater and long lasting. A parent is the best observer of a child’s development. So, all parents should know the warning signs which mean that a child is not making
normal progress and that something may be wrong. (David Morley and Ella Young, 1993) 17. Mother-child bond is having striking impact on the nutrition and mothers are playing pivotal roles for the integrity of the family and the community as economic as well as social units. In the first place, their work secures the health and well-being of the family; in the second place, their economic contribution in food production and distribution, other unpaid work, and also wage labour—although it has never been adequately quantified provides the core on which the community is built and can develop. High rates of maternal mortality therefore strike at the heart of the development process”. (Health Promotion and Education-2004) 18. In this dimension, the health is not simply the result of an individual’s state of being and it is intimately connected with the way in which people construct reality, with the way in which social institutions do the function. It is being believed that health should be seen as a product of interplay of societal and the natural forces (Nada, 1973) 19. Nothing is more important than the health of the child. It is a primary duty of a parent to make sure that the important right of a child is ‘the health care’. The parent(s) have to protect the child from many different things and measure that they are giving right health care to keep them safe. The periodical check-ups of the children is the key factor which is depending up on child’s age and health condition. (www.theparents/zone.com/child-health-disorders-2009)20. The WHO sets the standard of positive health as a goal to be attained by the
people. So, it envisages three dimensions—physical, mental and social well-being. A person who enjoys health at these three planes is said to be in a state of positive health.

2.6 How to Attain Positive Health?

The attainment of positive health implies that a person should be able to express as completely as possible the potentialities of his genetic heritage and this is possible only when the person is allowed to live in healthy relationship with his environment (Dubos, 1969). The ideal health will, however, always remain a mirage because everything in our life is subject to change. Health in this context may be described as individual’s ability to adapt and modify according to the changing condition of life. In working positive health the doctor and the community health expert are in the same position as the gardener or fame faced with insects, moulds and weeds. Their work is never done (Prasad, 1959). Health is multidimensional concept also and many conceptual and methodological issues complicate its practical use as a descriptor of the quality of life. Therefore, it is not nearly as easy as we might first assume to define what it means for a person to be healthy, as opposed to being ill. A different definition given from a sociological perspective comes from Talcott Parsons who describes health as a state of optimum capacity for the effective performance of valued tasks. Parsons focuses him attention on social importance of health because healthy individuals are able to function well in order to perform social
roles while ill-health reduces their ability to do so. One must exercise caution, however, before imputing casual relationships between health and social variables. For one thing normality is a relative evaluation; people are seldom perfectly healthy, even in the absence of pathological symptoms (Talcott Parsons, 1964)\textsuperscript{23}. The rapid growth of industrialization has encouraged the desire to produce and earn more. It has bought immense degradation in health of the population because unplanned rapid industrialization has adversely affected the living and environmental conditions. In other works, it can be said that health hazard are the product of rapid industrialization in a developing county like India (Coe, 1970)\textsuperscript{24}. Relationship between health and environment has become a debatable subject. This subject comes under the periphery of ecology of health. According to the ecological approach, health is a state of dynamic equilibrium or adjustment between man and his environment (Dubos, 1969)\textsuperscript{25}. The multinational financial, industrial and agricultural corporations are today’s most powerful agents for extending the business in developing countries. Such agencies at the time of crisis control the county and identify themselves with the ruling class. They create dependencies. Without thinking about the health hazards they refer to pernicious economic as well as health effects. Thus, the health hazards become an important part of life of the developing counties (Ray, 1981)\textsuperscript{26}. Vast majority of the populations of the world still have no access to decent health care. Rural populations and the
people who live below poverty line in India and other developing countries are underprivileged with respect to health care.

2.7 Improper Distribution of Health Resources

There is a misdistribution of health resources not only between countries but also within countries. The WHO has set the goal of ‘Health for All’ as an acceptable level of health for everybody within next twenty-five years. Its achievement depends upon urgent action by individuals, communities, the health professions and national governments. It calls for a new economic and social order (WHO, 2006)\(^{27}\). The resultant malnutrition is not a simple problem with a simple solution. It results from the complex interplay of social and biomedical factors. Nonetheless, the social factors and consequences of malnutrition, issues are considered are important and governance and other organizations have look into it seriously. The complex relationship obviously exist between nutrition, health and environment. The relatively high level of dissatisfaction with the quality and quantity of the diet and this was generally attributed to their lack of purchasing power to buy more and better food. (Gore, 1968)\(^ {28}\). Particularly in the Indian situation, the problem of health hazards is related to social stratum which has its own mode of living, habit, attitude and taboos. In India, it is generally found that the poor are the worst affected by epidemics and contagious diseases while the upper class people suffer from heat diseases, blood pressure and other sophisticated diseases (Srivastava, 1979)\(^{29}\). Besides,
in India, the problem of health hazards is very widespread and the masses are deeply steeped in the culture of silence and poverty. Not only are the people ignorant but they also accepting exploitation and oppression very meekly. The poor and the downtrodden have accepted their pathetic situation in the name of divine providence, socially and culturally sanctioned taboos, percepts and traditions, The socio-economic inequality, the exploitation the low caste and the oppression of the high caste have developed such a cultural trait in which the depiction of health hazards can be tolerated easily (Toha and Srivastava, 1989) 30. Health hazards can be seen in different spheres of society, these are nutrition and diet. Good nutrition is the basic component of health. The terms food and nutrition are sometimes used synonymously, but it is not strictly correct. The term foodstuff is defined as anything which can be used as food. Nutrition on the other hand, signifies a dynamic process in which the field is consumed, is utilized for nourishing the body (Bock, 1991) 31. The other dimensions of malnutrition and under nutrition are they have complex links with fertility, infection, family size, physical and mental growth and the development and immunity mechanism of the body also. The basic etiological factors of protein energy malnutrition are, Inadequate diet, both in quantity and quality (this is primarily due to poverty and ignorance) and Infections and parasitic diseases, notably diarrhoea, respiratory infections, measles and intestinal worms (Maeyer, 1976) 32. Diarrhoea and acute respiratory infecting are still killing
hundreds of infants and children every year and under-nourishment is common in children under 5 years. (Health Promotion and Education, 2005) 33. Nutrition is the combination of processes by which, the living organism receives and utilizes the material necessary for the maintenance of its functions and for the growth and renewal of its components. Nutrition means affording nourishment. (Basm, 2005) 34. While the country is yet to overcome under-nutrition among children and communicable diseases, it is increasingly facing problems over-nutrition and obesity especially in urban high-income group children. Research studies in India are highlighting the possibility that under-nutrition in childhood might be one of the predisposing factors for over nutrition and obesity. (Prema Ramachandran, 2007) 35.

2.8 Malnutrition and its Consequences

The seriousness of malnutrition is more common in India than in Sub-Saharan Africa. One in every three malnourished children in the world lives in India. Malnutrition limits development and the capacity to learn. It also costs lives: about 50 percent of all childhood deaths are attributed to malnutrition. In India, around 46 percent of all children below the age of three are too small for their age, 47 percent are underweight and at least 16 percent are wasted. Many of these children are severely malnourished. The prevalence of malnutrition varies across states with Madhya Pradesh recording the highest rate (55 percent) and Kerala among the lowest (27 percent). (www.unicef.org/india.htm) 36.
Providing adequate nutrition to children is a very serious issue in India. The Government’s initiative for improving nutrition in children involves three steps:

1. A commitment to reduce malnutrition and low birth weight through national and state level policies
2. The use of a community-based approach to address malnutrition and child development
3. Provision of Vitamin A and iron supplements to address damage caused by vitamin and mineral deficiencies.


There are numerous other contributory factors like poor environmental conditions, large family size, poor material health, failure of lactation, premature termination of breast feeding, and adverse cultural practices relating to child eating and weaning, such as the use of over diluted cows milk and cooking water from cereals and delayed supplementary feeding (Shah, 1974) 38. High maternal mortality is closely linked to the poor health of the mothers and the poor health of the mothers is closely related to the poor health of the children they bear and the health status of the population (Karkal, 1985) 39. The major nutritional concerns in India are those related to maternal under nutrition, high infant and child mortality, impaired growth and development of children (NFI Bulletin, 1988) 40. The levels and distribution of income, the social and cultural practices and perceptions, the choice of technology with its impact on the occupational and natural environment, all these factors influence and are in turn influenced by the
physical and mental health status of a society as well as children (Hema muraleedaran, 1993) 41. Weight is an indicator of the individual’s physical development, (Kakal, 1991) 42.

“The diet of a pregnant woman is closely linked to the health and development of her child both before and after birth”, “Babies grow very rapidly- Birth weight is doubled within six months and tripled by twelve months- development of the brain continues through this period, both intellectual and physical achievements depends as an adequate diet” (ERNST L.WYNDE, 1996) 43. Discrimination against women and girls in key aspects of health, nutrition, economic activity and social empowerment is prevalent across South Asia. It results are plainly evident in child and maternal health outcomes for the region and its principal countries. These includes South Asia is the only region of the world in which girls are more likely to be underweight than boys. (The state of Asia Pacific children -2008) 44. In most of the developing countries, the death rates for girls are higher than the death rates for boys, indicating the socio-cultural patterns that discriminate against girl. The discrimination takes several forms. Young girls may not get the same health care and nutrition as young boys (Human Development Report, 1990) 45. The effect of discriminating socialization of girl children may seen from this deteriorating, sex ratio, higher mortality rate, low literacy and ill-treatment in families. “Missing girls” especially from certain states and pockets of our country. (Leelamma Devasia, 2005) 46.
2.9 Breast Milk and its Importance

In early infancy nutrients are met by breast milk. Breast milk is the best milk for the infants. Mammary gland produces 500-600ml of milk. This milk is sufficient for the six months of infant life. Child requires additional supplementary diet. Breast milk is ideal milk for the infant. 100ml of human milk contains total energy 65 percent protein 7 percent, fat 47 percent and carbohydrate 31 percent. Breast milk promotes maternal infant bonding and decreases risk of hypoglycemia, hyperkalemia, dehydration, fever and hyperbilirubinemia (J.Viswanathan, AB Desai, 1989) 47. Preparation of mother emotionally and physically during antenatal period; Baby is put to breast with in an hour of delivery; Holding the baby in correct position; Empty the first breast completely before offering the second breast; No restriction is put with frequency and duration of feed; Incorrect position of the baby on the breast may cause pain (JE Park, 1980) 48.

Management of breastfeeding among working mothers, breast milk, and especially colostrums in the long term, prevents atherosclerosis, hypertension and obesity, it also prevents allergy to nonspecific proteins and develops immunity. So, breast fed babies have low incidence of respiratory infection, dental caries and allergy etc., recent evidence shows that breast milk promotes rapid brain growth and breast milk feeding is associated with higher IQ. Breastfeeding also benefits the family as it saves money and time and is “the best
Investment”. It also saves indirectly because breastfed babies are less severely ill. World Alliance for Breast feeding Action (WABA) organizes world breast feeding week” during first week of August”, every year to strengthen the breast feeding culture, (Sumita Reddy, 2005) ⁴⁹. The quantity and quality of Breast milk report on the WHO collaborative study on breast feeding. “Psychological, Physiological and Sociological factors may affect the quantity of breast milk” (World heath organization- 1985) ⁵⁰. An adequate supply of iodine is essential for normal brain development (World Health Organization, 1996) ⁵¹. The effects of iodize deficiency on growth and development are now denoted by the term iodine-deficiency disorders (IDD)”. These effects are seen at all stages of development and particularly in the fetus, the neonate and the infant ie, in periods of rapid growth. An adequate supply of iodine is essential for normal brain development, (World Health Organization, 1996) ⁵². Around 171 million children, aged less than five years are stunted annually, while 115 million suffer from wasting, around 3.9 million children (35% of total deaths) die because of exposure to nutritional risk, including under weight, sub-optimal breast feeding and vitamin and mineral deficiencies - particularly of vitamin A, iron, iodine and zinc (World Health Organization, 2011) ⁵³. Children from birth to one year should be weighed every month and during the second and third year, at least every alternate month. If there is no weight gain for two months, something is wrong. Breast milk alone is the best possible
food for the first four-to-six months of a child’s life. By the age of four months, the child needs supplementary foods in addition to breast milk. A child under three years of age needs food five or six times a day. A child under three years of age needs a small amount of extra fat or oil added to the family’s normal food. All children need foods rich in vitamin-A. After an illness, a child needs extra nourishment to catch up on the growth lost during the illness. Talking, playing, and showing loves are essential for a child’s physical, mental and emotional growth. Babies should be breastfed as soon as possible after birth. Virtually every mother can breastfeed her baby. Frequent sucking is needed to produce enough breast milk for the baby’s needs, (UNICEF, 1985) 54. Energy requirement of Infants and children, recommended by WHO,

- 0-6 months - 108 kcal per kg per day
- 6-12 months - 115 kcal per kg per day
- 1-3 years - 1240 kcal per kg per day
- 4-6 years - 1690 kcal per kg per day (Onila Salins, 2005) 55.

2.10 Childhood and the Nation’s Future

A nation’s children are its supremely important asset and the nation’s future lies in their proper development. An investment in children is indeed an investment in nation’s future. A healthy and educated child of today is the active and intelligent citizen of tomorrow. Bestow blessing on those, little innocent lives bloomed on earth, which have brought the message of joy from heavenly garden. (R.N.Tagore,2004) 56.
Child development is integral to overall socio-economic development of a nation. Problem of child health and development present a formidable challenge. To meet this challenge every citizen of India has to make some contribution. It is obvious that hospitals or the medical staff alone would not be able to cope with the growing needs of our children, without the active and positive involvement of the community. It is the mother who has to assume the role of frontline health worker; and the doctors and others have only to supplement and support her efforts, whether the issue involved is diarrhoeal dehydration or vaccine-preventable disease, low birth weight or malnutrition, infant death or childhood disability or the lack of attainment of full mental faculties. (Sudarshan Agarwal, 2005) 57.

Since independence, India has built a capacity to implement several social development programmes. Our Integrated Child development Service (ICDS) projects provide basic health care and pre-school education to a fifth of nation’s children in need. Talking in context of immunization Prime Minister Rajiv Gandhi (late) announced ‘Every child in India is to be the living memorial to the memory of his mother. (Sudarshan Agarwal, 1998) 58. In the past 20 years, micronutrients have assumed great public health importance. As a consequence, considerable research has been carried out to better understand their physiological role and the health consequences of micronutrient deficient diets, to establish criteria for defining the degree
of public health severity of micronutrient malnutrition, and to develop prevention and control strategies. One of the main outcomes of this process is greatly improved knowledge of human micronutrient malnutrition and identifying the most appropriate measures to prevent them. This process also led to successive expert consultations and publications undertaken jointly by FAO and WHO and the international Atomic Energy Agency (IAEA) providing up-to-date knowledge and defining standards for micro nutrient requirements. In recognition of this rapidly developing field and the substantial new advances that have been made since the most recent publication in 1996, FAO and WHO considered it appropriate to convene a new expert consultation to re-evaluate the role of micronutrients in human health and nutrition. 

(World Health Organization (WHO), Food and Agriculture Organization of the United Nations (FAO), 2005)⁵⁹. Survey consistently reports that mortality rates are lower among the children of more educated mothers. To a large extent, differences in mortality rates reflect differences in family living standards, access to health care and similar influences. But recent studies have suggested that the mother’s level of education itself has a substantial direct impact and is perhaps the most important of all social and economic influences on child mortality. (Health Promotion and Education, 2004) ⁶⁰.
2.11 Immunization Status

A safe, effective and reasonably inexpensive vaccine is available against measles for the past five decades and measles is a potentially eradicable disease. Most developed and many developing counties have significantly reduced the burden and even eliminated measles by a multi pronged strategy comprising of improved routine coverage, provision of a second dose through routine immunization or periodic supplementary immunization activities, careful surveillance and appropriate case management. Interestingly measles immunization saves more lives per unit cost than any other health intervention. However measles still kills around 6,000,00 children globally and 80,000 in India every year. Additionally, measles causes significant morbidity including malnutrition blindness and neurologic damage suboptimal primary immunization coverage which in India as per National Family Health Survey-3 is only 60% is primarily responsible for this dismal scenario and needs to be urgently addressed vaccine (NFHS-3,2005) 61.

Public health is concerned with threats to the overall health of a community based on population health analysis. The population in question can be as small as a handful of people or as large as all the inhabitants of several continents (for instance, in the case of a pandemic). Public health is typically divided into epidemiology, biostatistics and health services. Environmental, social, behavioral and occupational health is also important subfields. Vaccination policy refers
to the policy a government adopts in relation to vaccination. Vaccinations are voluntary in some countries and mandatory in some countries. Some governments pay all or part of the costs of vaccinations for vaccines in a national vaccination schedule. ([http://en.wikipedia.org](http://en.wikipedia.org)) Infant mortality in India is as high as 63 deaths per 1000 live births. Most infant deaths occur in the first month of life upto 47 percent in the first week itself, while the infant mortality rate showed a rapid decline during the 1980s, the decrease has slowed during the past decade. Maternal deaths are similarly high. The reasons for this high mortality are that few women have access to skilled birth attendants and fewer still to quality emergency obstetric care. In addition, only 15 percent of mothers receive complete antenatal care and only 58 percent of mothers receive complete antenatal care and only 58 percent receive iron tablets or syrup. Children in India continue to lose their life to vaccine preventable diseases such as measles, which remains the biggest killer tetanus in newborns, remains a problem in at least some states of India. ([UNICEF,2005](https://www.unicef.org)) India faced both the problems of acute and chronic under nutrition at the time of Independence. Recognizing the importance of nutrition for health and human development the country adopted multi sectoral, multi pronged strategy to combat under nutrition. Consequently, self sufficiency in food production was achieved and buffer stocks were built up. Food for work for out of work poor persons and public distribution of food items providing subsidized food grains were operationalised to provide food
security to the poor. Recognizing the vulnerability of children special efforts were made to bridge the gap in energy requirement of children through food supplementation. Integrated child development scheme and mid day meals schemes. *(www.csdindia.org)* 64.

### 2.12 Rights of the Children

Child rights are fundamental freedoms and the inherent rights of all human beings below the age of 18. These rights apply to every child, irrespective of the child’s parents / legal guardian’s race, colour, sex, creed or other status. The essential message is equality of opportunity. Girls should be given the same opportunities as boys. All children should have the same rights and should be given the same opportunity to enjoy an adequate standard of living. There are four basic rights of children. In 1992, India ratified the United Nations Convention on Rights of the Child. The charter of child rights (CRC) is built on the principle that “All children are born with fundamental freedoms and All human beings have some inherent rights”. The charter confers the following basic rights on all children across the world.

- **Right to survival** - to life, health, nutrition, name and nationality
- **Right to development** - to education, care, leisure, recreation
- **Right to protection** - from exploitation, abuse, neglect
- **Right to participation** - to expression, information, thought and religion

In South Asia, almost 10 percent of children under the age of five die each year from easily preventable causes such as diarrhoea, pneumonia and malaria. These children do not survive because of parental ignorance or because communities in remote regions do not have access to affordable and effective lifesaving interventions like oral rehydration solution (ORS) for diarrhoea, antibiotics to treat respiratory infections, and child survival initiatives have long been top priorities of health care agencies. (www.akdn.org/india_surival.asp) 

2.13 Survival Index of Child

According to a new wealth and survival index, India is one of the worst performers in cutting child mortality, given its national wealth, the new report by Save the children UK says even the poorest of countries can attain child survival if they pursue the right policies. Every year 10 million children still die before their fifth birthday, 99% of them in the developing world, according to Save the Children. (http://southasia.oneworld.net, 2009).

A study based on a survey of the height and weight of more than one lakh children across six states has found that as many as 42 percent of under-fives are severely or moderately under weight and that 59 percent of them suffer from moderate to severe stunting, meaning their height is much lower than the median height for age of the reference population. The findings contained in the Hunger and Malnutrition (HUNGaMA) reports by the Naandi Foundation were described by Indian
Prime Minister Manmohan Singh as a “National Shame” at a function (The Hindu, 11th January 2012) 68.

Major Killers of Children

The major killers of children are acute respiratory infections, dehydration due to diarrhea, measles and neonatal tetanus and in some areas malaria. The high prevalence of malnutrition contributes to over 50% of child deaths. In India, a significant proportion of child births (over 40% of under five mortality and 64% of infant mortality) takes place in the neonatal period. Apart from infections, other causes like asphyxia, hypothermia and pre-maturity are responsible for neonatal mortality. About one-third of the newborns have a birth weight less than 2500grm (Low-birth weight). A significant proportion of mortality occurs in low-birth weight babies. It has been recognized that further reduction of IMR (www.whoindia.org) 69. Despite extensive international and national efforts over the past several decades, the majority of under five deaths in India is caused by communicable, maternal and prenatal conditions, and nutritional deficiencies, these largely preventable conditions constitute some 50 percent of the disease burden in India today, and India still leads the world in malnutrition, with an estimated 53 percent of children under five years being malnourished in 1996 and 217,000 children under five expected to die of diarrhea even in the year 2000. Among deaths associated with malnutrition, however, more than three fourths are linked not to severe, but to moderate or mild forms. While
India continues to suffer from huge numbers of child deaths, major economic and social changes have brought a new brand of health problems that of non communicable lifestyle diseases among the middle class as well as the poor. Although mortality from communicable, maternal and prenatal conditions and nutritional deficiencies is expected to fall from almost 5 million to below 3 million a year in India by the year 2020, according to the 1996 Global Burden of Disease series issued jointly by the World Health Organization, the World Bank and the Harvard School of public Health, deaths from non communicable disease and injuries in India are projected to almost double from about 4 million to about 8 million a year. ([www.ceche.org](http://www.ceche.org))

The ANM (auxiliary mid-wife nurse), ASHA (accredited social health attendant) and the AWW (anganwadi worker) the triad forms the backbone of health and nutrition interventions for pregnant mothers and children in India. “I may be starting the obvious but let me say it again - Child survival is at the heart of human progress. Child survival is about the protection of human rights, particularly of the most vulnerable amongst us the children”. He said far too many young lives are lost as the global under-five mortality figure remains over 26,000 deaths a day. ([UNICEF,2006](http://www.unicef.org))

“Child survival” UNICEF statistics on child mortality have shown that every year, almost 10.5 million children die before their fifth birthday, i.e., 30,000 children every day half of the deaths in under 5
children can be directly attributed to just 5 diseases, pneumonia, diarrhoea, malaria, measles and AIDS. These deaths can be prevented by low-cost prevention and treatment measures such as exclusive breastfeeding, rational antibiotic therapy for acute respiratory infections, oral rehydration for diarrhoea, immunization, and appropriate prevention and treatment of malaria. Malnutrition also contributes to over half these deaths, thus it is imperative to ensure proper nutrition as a key strategy in child survival. (http://motherchildnutrition.org) 72. Infant mortality rate (IMR), a sensitive indicator of health status as well as of overall socio-economic development, has fallen in Tamil Nadu from about 113/1000 live births in 1971 to 91/1000 in 1981 i.e., at 2.2 points per year. In the next decade the fall was much steeper namely 57/1000 in 1991 i.e. at 3.4 points per year. Subsequently, IMR has declined from 49 in 2001 to 37 in 2005. As a result of the improved strategies of the family welfare programme during 1970s and 1980s, the Crude Birth Rate in Tamil Nadu declined from 30/1000 population in 1973 to 28.9 in 1979. Though it remained static till 1984, it declined rapidly to 21.6 in 1990 and 19.2 in 1994. The CBR for Tamil Nadu has further from 19.1 in 2001 to 16.5 in 2005. (Family welfare department and states tenth plan, 2007) 73.

2.14 Communicated Health Messages

All human beings are born free and equal in dignity and rights”, so begins the Universal Declaration of Human Rights established 60 years
ago and celebrated today around the globe. This year’s theme is non-discrimination. When it comes to nutrition, all of India’s children are not equal. According to India’s third National Family Health Survey (NFHS-3) of 2005-2006, 20 percent of Indian children under five years old are wasted due to acute under nutrition and 48 percent are stunted due to chronic under nutrition. In absolute numbers, an average 25 million children are wasted and 61 million are stunted. (The Hindu, 10th December-2009) 74.

Although finance minister of India Pranab Mukherjee had promised food security and inclusive growth in his budget speech last year, hunger continues to stalk over 300 million citizens of the country. India slipped to 67th place in the Global Hunger Index 2010 rankings of 122 countries prepared by International Food Policy Research Institute. An Oxford University report said that 410 million Indians live in poverty. While there may be nit picking over the actual numbers, but one thing is clear there is widespread if not alarming hunger and malnutrition in the country despite a high growth trajectory. (The Times of India, 24th February-2011) 75.

As many as three out of 10 newborns in India suffer from acute iron deficiency, the highest in the world. The inadequacy is contributing to low birth weigh and stunted growth in young Indian children according to world Health Organization (WHO). WHO’s Nutrition Guidance Expert Advisory Group (NUGAG) is meeting in Geneva from
March 14-18 to update their guidance in areas of micronutrients, diet and health nutrition in the life course and under nutrition. World wide, malnutrition accounts for 11% of all diseases and causes long term poor health and disability said D.Francesco Branca, WHO’s diector of nutrition for health and development. (The Times of India, 18th March-2011) 76. The population of children (0-6 years) in the country has recorded a decline of about five million over the previous census according to provisional results census 2011. the total number of children in the country in the age group of 0-6 years is 158.8 million, about five million less than the 2001 census figures and marks a negative growth of 3.08%, registrar general of India and census commissioner said here while releasing the report while the decline in male population (0-6years) is 2.42% it is higher at 3.80% in females. (The Times of India, 1st April-2011) 77.

One third of children in Andhra Pradesh (one of the adjoining state of Tamil Nadu) are stunted despite failing poverty, considerable economic growth and the development of significant policies, a new survey has shown. Stunting has serious long-term implications for health, psycho-social well-being and educational achievement. The report “The impact of Growth on Childhood Poverty in Andhra Pradesh,” done by Young Lives as part of an international study on child hood poverty, also points out that despite higher enrolment, drop-out and school quality remain critical issues. (The Hindu, 12th January 2012) 78.
2.15 Social Welfare and Nutrition Meal Programme Department

Government of Tamil Nadu has formulated various schemes to improve the health and nutritional status of children and to develop their mental and physical ability. Purachi Thalaivar MGR (Former Chief Minister of Tamil Nadu state) Nutritious meal programme was introduced with effect from 01.07.1982, in child welfare centers in rural areas for pre-school children in the age group of 2-5 years, the scheme was extended to the Nutrias meal centers in urban areas from 15.09.1982 onwards and further modified latter. The main objective of the scheme is to provide adequate nutrition to economically disadvantaged children, which seek to. Combat malnutrition among the children, Increase literacy rate of the children, Act a a potent incentive for increasing the enrolment and reducing dropouts. (www.tn.gov.in/policy notes) 79.

Health of the person depends upon the economic status, food he eats, environment in which, he lives. To sustain and maintain good health body needs well-balanced diet of different nutrients. The balanced diet helps in growth and development of the body and prevention of infection. The nutrients, which help in growth and developments, are carbohydrates, proteins, fats, vitamins, minerals, trace elements and water. There are many reasons for becoming sick. Improper selection of food, religious taboos in eating, food fads, food beliefs, food habits, poverty, national and international policies, educational status, use of
technology, transport facilities affect health. Deficiency of food causes poor resistance to infection, anorexia, general weakness, poor growth and development, under and poor nutrition causes malnutrition. Nutrition is defined as the combination of process by which the living organism receives and utilizes the material necessary for the maintenance of its functions and for the growth and renewal of its components (Onila Salins, 2005) 80. The dietary constituents of food are proteins, fats, carbohydrates, vitamins, minerals and water. It is also classified as

1. Energy yielding : Carbohydrates and lipids
2. Body building : Proteins

(Brian I Fox Allan G.Glameron, 1995) 81.

2.16 Daily Requirements of Proteins

Daily requirements of protein are one gram of proteins per kilogram of body weight. During infancy and childhood protein requirement is more. In pregnancy protein requirement are increased by another 15-20 gram per day. Requirement of protein need depend upon the size of the body, quality of protein consumed by the individual, previous health status of nursing mothers, efficiency of digestion and special physiological needs during illness, growth, pregnancy and lactation (C.Gopalan, BV Ramasastri, 2004) 82. A good or adequate diet is known as balanced diet. It is also defined as a diet, which contains
different types of food in such quantities and proportions so that the need for calories, proteins, minerals, vitamins and other nutrients in adequately met and a small provision is made for extra nutrients to withstand short duration of leanness. Diet is planned according to the age, sex, physical activities and physiological stress. During pregnancy, lactation, physical stress, growing age there is increase in need for well balanced diet. FAO and WHO has recommended that 75 percent of diet should consists of cereals which provides energy and 15 percent of energy should derive from fats and 5 percent should come from refined sugar and jaggery. Well-balanced diet should contain carbohydrate, proteins, fats, vitamins, minerals, trace elements and water.

Plant sources of proteins are cheap compare to animal sources of protein. Common man can include more of plant sources in their diet. Diet should contain essential fatty acids. Male requires 40 to 60 percent of fat and female requires 20-45 percentage of fat. Improve quality of food by mixing cereals, pulses, vegetables and fruits in the diet. Sprouted cereals, grams increase vitamin and mineral content of the food. Raw vegetables and tubers in the form of salad give vitamins and minerals essential for the body (M.Raheena Begum, 1997) 83.

2.17 Schemes for Children

A centrally sponsored scheme started on 2nd October 1975. The beneficiaries are children 0-6 years, adolescent girls 11 to 18 years, Pregnant and lactating mothers. Each Anganwadi unit covers a
population of about 1000. Field supervision is done by the Child Development Project Officer (CDPO). The workers at village level who deliver the services are called Anganwadi workers.

Objectives of ICDS

- Improve Nutritional and Health status of children 0-6 years
- Reduce incidence of mortality, morbidity, malnutrition and school dropouts
- Enhance the capability of the mother and family to look after the health nutritional and development needs of the child. Achieve effective coordination of policy and implementation among various departments to promote child development. Lay the foundation for proper psychological, physical and social development of the child.

ICDS services (Supplementary nutrition, growth monitoring, nutrition and health education, immunization, referral and pre-school education) [www.ICDS.gov.in](http://www.ICDS.gov.in) 84.

### 2.18 Public Health and Preventive Medicine

The Directorate of Public Health is one of the oldest Departments formed as early as 1923 for the improvement of the general health conditions of the people with special emphasis on providing maternity and child health care to the rural and urban poor and for prevention and control of communicable diseases. [www.tn.gov.in](http://www.tn.gov.in) 85. Several important developments have, however, also taken place during the 70’s. Parliament approved India’s first Child Welfare Policy Statement in 1974,
which stated that children are a nation’s supremely important asset and that their programmes must find a prominent place in our national plans for the development of human resources. The emphasis on preventive and promotive aspects of child health, nutrition for infants and nursing and expectant mothers, care of orphan and destitute children, crèches for working women and training and rehabilitation of the handicapped from the core of the National Policy for Children. It might be mentioned, however, that earlier in 1974, the Indian Council for Child Welfare had submitted an 8-point policy statement to Government asking for special emphasis on two important points among others. One was the premise that investment in the child represented investment in the human capital of our Five Year Plans, and the second was that the unwanted child should not be born. This letter underlined India’s special needs of family limitation especially in those sectors where the child was neglected or had been conceived in circumstances that could not guarantee its health, well-being or freedom from social or physical handicaps. (Plan of Action Document, Department of Social Welfare, Sept.15, 1975) 86.

2.19 Health Care System in India

In India, the hospitals are run by government, charitable trusts and by private organizations. The government hospitals in rural areas are called primary health centre (PHC)s. Major hospitals are located in district head quarters or major cities. Apart from the modern system of medicine, traditional and indigenous medicinal systems like Ayurvedic
and Unani systems are in practice throughout the country. The Modern System of Medicine is regulated by Medical Council of India, whereas the Alternate systems recognized by Government of India are regulated by Department of AYUSH (an acronym for Ayurveda, Yunani, Siddha and Homeopathy) under Ministry of Health, Government of India. PHC’s are existent in most places, due to poor pay and scarcity of resources. Patients generally prefer private health clinics. These days some of the major corporate hospitals are attracting patients from neighboring countries such as Pakistan, countries in the Middle East and some European countries by providing quality treatment at low cost. In 2005, India spent 5% of GDP on health care, or US $36 per capita. Of that, approximately 19% was government expenditure. But now the situation is changing. (http://en.wikipedia.org/wiki/Health_care_system) 87.

2.20 Structure and Dynamics of the Country

India occupies only 2.4% of the world’s land area, it supports over 15% of the world’s population. Only China has a larger population. Almost 40% of Indians are younger than 15 years of age. About 70% of the people live in more than 550,000 villages and the remainder in more than 200 town and cities. Over thousands of years of its history, India has been invaded from the Iranian plateau, Central Asia, Arabia, Afghanistan, and the west, Indian people and culture have absorbed and changed these influences to produce a remarkable racial and cultural synthesis.
Religion, caste, and language are major determinants of social and political organization in India today. The government has recognized 18 languages as official Hindi is the most widely spoken. Although 83% of the people are Hindu, India also is the home of more than 120 million Muslims. The population also includes Christians, Sikhs, Jains, Buddhists, and Parsis.

The caste system reflects Indian occupational and religiously defined hierarchies. Traditionally, there are four broad categories of castes (Varna's), including a category of outcastes, earlier called “untouchables” but now commonly referred to as “dalits”. Within these broad categories there are thousands of castes and subcastes, whose relative status varies from region to region. Despite economic modernization and laws countering discrimination against the lower end of the class structure, the caste system remains an impotent source of social identification for most of the Hindus and a potent factor in the political life of the country. (http://www.indianchild.com) 88.

2.21 Strategies for Children Under Six

Children under six years of age need good nutrition, education and care in order to meet their full potential of health, well being and capacity for the rest of their lives. However, children under six (particularly those under two) and their needs rarely get any recognition in policies, programmes and budgets. Their feeding, development and care is assumed to be the responsibility only of the family. Children are citizens
with rights, and society has the responsibility for ensuring that they are
given adequate and appropriate care. The only government programme
that addresses the rights and needs of this age group is the Integrated
Child Development Services (ICDS). The ICDS is supposed to address the
health, nutrition and pre-school needs of all children below the age of six. However, the coverage of ICDS is quite limited, and the quality of the
programme is also quite poor. “Universalisation with quality” is urgently
required to protect the fundamental rights of children under the age of six. In November 2001, the Supreme Court ordered the government to
universalize ICDS. Further detailed orders were passed in 2004, which
spelt out that ICDS should never be restricted to BPL (Below Poverty
Level) families, and prohibited contractors from supplying nutrition to
Anganwadis; instead it directed that funds should be spent by village
communities, self-help groups and Mahila Mandals for “buying grains
and preparation of meals”. The entitlements of children under six were
further strengthened by the landmark order of December 13, 2006,
which ordered the government to ensure “Universalisation with quality”
within a time frame. The order clearly states that all ICDS services
(supplementary nutrition, growth monitoring, nutrition and health
education, immunization, referral and pre-school education) must be
extended to every child under the age of six, all pregnant women and
lactating mothers and all adolescent girls.
The policy and programmes of the restructured ICDS programme that is supposed to meet the nutritional, health, learning and development needs of children below six years of age, are in the process of being finalized. Any policy on early childhood care and development should focus on providing holistic and comprehensive care for children under six and contain the following essential components.

- A system of food entitlements, ensuring that every child receives adequate food, not only in terms of quantity but also in terms of quality, diversity and acceptability.
- A system of child care that supplements care by the family and empowers women. Such care needs to also address their learning needs and must be provided by informed, interested adult carers, with appropriate infrastructure.
- A system of health care that provides prompt locally available care for common but life threatening illnesses. Such a system needs to address both prevention and management of malnutrition and disease. ([http://motherchildnutrition.ogl](http://motherchildnutrition.ogl)) 89.

### 2.22 Anthropometric Definitions of Malnutrition

**Stunted:** Stunted growth refers to low height-for-age, when a child is short for his/her age but not necessarily thin. Also known as chronic malnutrition, this carries long-term developmental risks.
**Under-weight:** Under-weight refers to low weight-for-age, when a child can be either thin or short for his/her age. These reflect a combination of chronic and acute malnutrition.

Stunted and Under-weight children are most likely to suffer from impaired development and are more vulnerable to disease and illness.

Mother should monitor their babies’ growth from birth by taking them monthly to the local clinic where they will be weighed and have their growth plotted on a chart. This should ensure that correct information and advice are provided to mothers support the appropriate growth of their babies.

**Wasted:** Wasted refers to low weight-for-height where a child is thin for his/her height but not necessarily short. Also known as acute malnutrition, this carries an immediate increased risk of morbidity and mortality. Wasted children have a 5-20 times higher risk of dying from common diseases like diarrhoea or pneumonia than normally nourished children.

Based on anthropometric criteria, acute malnutrition can be divided into severe or moderate. Children with acute malnutrition need immediate medical attention. A child suffering from severe malnutrition is at risk of dying if not treated immediately.

**Marasmus:** When children do not get enough energy-giving food their bodies become thin and they feel weak. Children with marasmus look old and wrinkled. Their skin is dry and their faces are thin, with
sunken cheeks and large eyes. Their abdomen looks swollen. They present sagging skin on legs and buttocks. Children with marasmus cry a lot, are very irritable and have increased greedy appetite. They are liable to all kind of disease.

**Kwashiorkor:** When children do not get enough variety of the right kind of food, for example when they eat only cereal-based porridge, their bodies (especially their stomachs and legs) swell so they may look fat. Micronutrient deficiency, particularly anti-oxidant nutrients, might be a probable cause. Sores develop on their skin and at the corner of their mouths. Their skin becomes pale and starts to peel off. Kwashikor children are most likely to lose their appetite and an interest in their surroundings. ([http://motherchildnutrition.org](http://motherchildnutrition.org)) ⁹⁰.

**2.23 Millions of Children in India go Without Basic Care**

A study has revealed that 32 million children in India under the age of six do not have access to basic education and healthcare. A report by the centre for Child Rights finds that socially and economically marginalized groups are the most affected says a report called Status of Children in India, 2008. ([http://southasia.oneworld.net](http://southasia.oneworld.net)) ⁹¹.

**2.24 Making TamilNadu a Malnutrition Free State**

To make the state of Tamil Nadu free from malnutrition by adopting various strategies through Anganwadi centres which would each children, adolescent girls, women and families. Eradicating the malnutrition shall be made by a people’s movement through a state wide
IEC campaign. A plan of action is drawn in a low cost strategy while utilizing and converging funding agencies viz., Government of India and World Bank. In a significant change in strategy, it is proposed to change from a primary focus on “Management of Malnutrition” to “Prevention of Malnutrition”. [http://www.tn.gov.in/policy] 92.

2.25 Occupation Emerged as Important Factors

Father’s education and occupation emerged as important factors that were significantly associated with underweight status among 0-6 years children. Analysis showed that children, whose fathers had higher level of education and non-manual work status (serviceman, businessman etc.), were lower in proportion of weight deficiency than those with illiterate fathers. Usually father is the main earner and decision maker of a family and so their higher level of education plays an important role to ensure better nutritional status of children. [http://ispub.com] 93.

Definition of Indicators

Low birth weight: Less than 2,500 grams

Underweight: Moderate and severe – below minus two standard deviations from median weight for age of reference population; severe-below minus three standard deviations from median weight for age of reference population.

Wasting: Moderate and severe-below minus two standard deviations from median weight for height of reference population.

Stunting: Moderate and severe- below minus two
standard Deviations from median height for age of reference population

(http://www.unicef.org) 94.

It helps the child us to grow, gives child energy to do work, Helps to protect against diseases, to keep the children skin, hair, teeth in good condition. All systems of the child’s body like brain, heart, lungs, and muscle require food.

If the child does not eat a balanced diet, its body will not work well. Each one should think of the child’s body as a factory. Each department of which will work well if it is provided with proper raw material. It is great fun to enjoy food but it is equally important that the food is balanced according to the needs of our body. That means a balanced diet.

**Balanced diet:** It is very essential that the food we eat should be selected carefully. What does a good diet mean? A diet containing all the nutrients in right quantity required by the body is called a balanced diet.

**The nutrients are:** Carbohydrates, proteins, fats, vitamins, minerals and salts.

**Carbohydrates:** Carbohydrates, as a class, are found in nature. They are produced by green plants and by bacteria using the process known as photosynthesis. They are known as energy giving foods, e.g. Rice, potato and wheat, bread, sugar.
**Proteins:** Proteins are called body builders. They help to repair the wear and tear of the body. Milk, milk products, eggs, meat, fish, soyabean, peas are growth promoting foodstuff. Growing children must have food that contains bodybuilding proteins.

**Fats:** Fats provide energy. e.g. nuts, ghee and oil.

**Vitamins:** They improve our appetite, help us to fight against diseases, keep our body fit. e.g. Green leafy vegetables, yellow vegetables, fresh fruits, are rich source of vitamins. Vitamin A in carrots is good for our eyes, Vitamin B in nuts helps us absorb energy from other foods, Vitamin C in oranges and lemons protects against cold. Exposure of body to sunlight is a good source of vitamin D.

**Minerals:** Important minerals for our body are iron, calcium, zinc etc. They protect us against diseases. We get calcium from milk, cheese, and fish and get Iron from green leafy vegetables. Iron gives our blood more oxygen. Zinc is found in pulses, meat, seafood etc. To increase the nutritive value of food we should eat sprouted and germinated grains, pulses, and cereals. ([www.health.com] 95).

### 2.26 Nutritional Conditions in Other States of India

Naveen Patnaik’s eight-year-long rule in Orissa seems to have brought little cheer to the people in rural areas as the result of a survey shows that the health and nutrition indices in the state are very pathetic. The 2005-06 National Family Health Survey (NFHS-3), the third in a series of national surveys of population, health, and nutrition, was
conducted by State Institute of Health and Family Welfare (SIHFW) between November 2005 and April 2006. The survey result released recently reveals how malnutrition continues to be a significant problem for children and adults in Orissa. Forty five per cent of children under the age of five are stunted, or too short for their age, which indicates that they have been undernourished for some time. One in five is wasted, or too thin for their height, which may result from inadequate recent food intake or a recent illness. (Indian Express.com, 20th October, 2008) 96.

2.27 Integrated Child Development Scheme (ICDS)

During 1980-85 the most significant development affecting the growth of ICDS was the political priority accorded to it as the main vehicle for the delivery of service for children and mothers. Several state Governments established their own projects and by 1984, 112 state projects were established. Some states aim at total coverage by 1990. This will bring cheer to the lot of 110 million Indian children under the age of 6 years. The UNICEF’s contribution would be to help Government of India and the States for providing the structure of ICDS (Non-recurring expenses), to support pilot projects and innovation in Management (training, domestic technologies monitoring, evaluation, research and communications) and promotion of child survival activities (infant feeding, immunization, growth monitoring, ORT, nutritional supplements and education, birth spacing etc.).
There should be a national nutritional enlistment programme which should emphasize balanced cereal / pulse-oriented diet. Efforts should also be made to popularize nutrition on low cost and balanced foods (Thankamma, 1976) ⁹⁷.  

2.28 Theoretical Approach

A considerable proportion of the children in India and other developing countries has stated in the above discussions are living with under nutrition and malnutrition.

Every society is a relatively persistent structure of elements with built-in mechanisms for self-regulation. Using the principle of homeostasis, Parsons and his associates view society as a self-regulating system, attempting by more or less automatic adjustments to redress the balance of its equilibrium when it is upset by internal or external forces. The maintenance of relative stability, including stability of certain processes of change like the growth of an organism, in the face of substantially greater environmental variability, means that...there must be “mechanisms” that adjust the state of the system relative to changes in its environment. The development of thesis strain of thought has proceeded through three distinct stages. First, functionalisms regarded society as a stable system of patterned interaction or structured social relationships. In this view, basic relationships among system system components change little over time and emphasis was on such concepts as order, stability, structure, integration and persistence. In the second
stage, functionalism sought to overcome the difficulties of ‘normative’ interpretations and problems of invariance by shifting from a more teleological type of explanation fashioned after the biological model to a more mechanistic or causal type of analysis following the lead of the physical science model. Thus, functionalists introduced the principle of homeostasis which postulates that society maintains a state of equilibrium, which may be temporarily disturbed by crisis but will be automatically restored. Thirdly, faced with the criticism that equilibrium meant maintenance of status quo with no scope for fundamental changes, functionalists introduced the concept of dynamic equilibrium meaning ‘a minimum of integration’ of ‘a net balance of an aggregate of consequences’. According to this view change is possible, status quo is not necessarily restored, and the new balance simply maintains the new order and the new equilibrium. As Vanden Berghe points out, ‘Although integration is never perfect, social system are fundamentally in a state of dynamic equilibrium, i.e., adjustive responses to outside changes tend to minimize the final amount of change within the system. The dominant tendency is thus towards stability and inertia. As maintained through built-in mechanism of adjustment and social control’.

The functioning of a social system depends on consensus of its members on common goals and values related to the basic needs of the society.
Stages of Intellectual Development since Childhood

The Chinese proverb rightly observes that “ruling the nation is easier than bring up the child”. In this line of thinking, a few phenomenal research works like.

Erik Erikson and Jean Piaget deal with the socialization issue. The socialization process starts in the family. So, they focus their attention primarily on stages of development. Both, unlike Freud, extended their stages beyond the early yeas and place more importance on social structure and reasoning. Because the social structure is the compact mechanism which provides a strong platform for Erikson, who is one of Freud’s students, as the childhood a psycho-analyst who sees socialization as a lifelong process, beginning at birth and continuing into old age as most of the sociologists visualize the same perennially. He developed and is well known for his eight stages of human development. Each stage constitutes a crisis brought on by physiological changes, and the constantly changing social situation. In infancy (the first year), the crisis centers around trust versus mistrust. Being totally dependent on adults, the feelings of the child are developed in response to the quality of maternal care as dependable or undependable, accepting or rejecting. In early childhood (the fist two to three years), the issue centers around autonomy versus shame and doubt. Again the feelings of the child are developed in response to the actions of parents who allow the child to accomplish new things and govern himself or herself (autonomy) or
receive constant supervision, indicating he or she cannot reach, walk, control bowels and the like without ridicule and shame.

The play stage (age 4 or 5) involves the issue of initiative versus guilt. As children master their own bodies, as they play and fantasize and act out adult roles, they develop feelings of self-worth.

**Jean Piaget**, a Swiss Social Psychologist, observation on the development of intellectual functions and logic in children. His work stimulates interest in maturational stages of development and in the importance of cognition in human development. Differing dramatically from the views of the learning and psychoanalytic frames of reference, Piaget sees development as an ability to reason abstractly, to think about hypothetical situations in a logical way, and to organize rules (which he calls operations) into complex, higher order structures. Children invent ideas and behaviors that they have never witnessed or had reinforced.

Piaget believes that there are four major stages of intellectual development. Sensorimotor (0-18) months, preoperational (18 months to age 7). Concrete operations (ages 7 to 12), and finally formal operations (ages 12 onward). The stages are continuous and each is built upon and is a derivative of the earlier one.

The sensorimotor stage, further differentiated into six developmental stages, involves for the child a physical understanding of himself or herself and his or her world. The unlearned responses such as
sucking and closing one’s first become repetitive but with no intent, purpose, of interest in the effect this behavior has on the environment. Later activities in this first stage become more intentional. A child may kick his or her legs to produce a swinging motion in a toy hung on the crib. A child may knock down a pillow to get a toy behind it. A primary cognitive development at this stage is the discovery of object permanence; toys and mother do not dissolve when they are not visible. Early development includes the coordination of simple motor acts with incoming perceptions (sensorimotor acts).

The preoperational stage involves language and its acquisition. Objects are treated as symbolic of things other than themselves. Dolls may be treated as babies or a stick may be treated as a candle. At this stage, overt actions and the meaning of view of another child or adult. Unlike the next (operational) stage, the child does not have a mental representation of a series of actions. For example, a child may be able to walk to a store several blocks away but cannot draw the route on paper. Nor can the child at this stage grasp the notion of relational terms (darker, larger), reason simultaneously about part of the whole and the whole, or arrange objects according to some quantified dimension such as weight or size.

The operational stage involves the ability to do things such as those just mentioned. Children learn to manipulate the tools of their culture. They lean that mass remains constant in spite of changes in
form. They learn to understand cause and effect, to classify objects, to consider the viewpoints of others, and to differentiate between dreams and real things. By approximately age twelve the child enters the adult world and the stage of formal operations.

The formal operations stage includes the ability to think in terms of abstract concepts, theories, and general principles. Alternate solutions to problems can be formulated. Hypothetical propositions can be formulated and answered. Preoccupation with thought is the principal component of this stage of development.

Piaget’s insights into cognitive development are unsurpassed. His stages take into account both social and psychological phenomena. Like Freud, Piaget has a specific conception of the goals of maturity and adulthood. Also like Freud, Piaget believes that the child passes through stages. But where Freud emphasized emotional maturity and the unconscious as extremely important, Piaget emphasizes reasoning and consciousness. Whereas Freud focused on bodily zones, Piaget focuses on the quality of reasoning.

The frames of reference covered up to this point can be summarized by suggesting that the leaning theorists are concerned with overt behavior, the Freudians with motives and emotions (often unconscious and rooted early in childhood), and the child developmentalists with motor skills, thought, reasoning processes and conflicts. Let’s now turn our attention to a symbolic interaction fame of
reference that shares many assumptions of Erikson and Piaget in the importance given to language, reasoning and societal influences.

**World Level Events to Reduce the Malnutrition**

Number of summits and conferences till date all over the world have discussed and analyzed the intent to reduce malnutrition. For instance, the World Summit for Children in 1990, the International Conference on Nutrition in 1992 have reasserted and added depth to work for achieving the goals. At the World Food Summit (WFS) of 1996 (FAO, 1996), leaders of 186 countries pledged to reduce by half the numbers of hungry people in the world by 2015 (FAO, 2000). The UN’s recent Millennium Development Goals included commitments to a similar intent *(UN, 2000)*.

**Technical Background**

Malnutrition can disturb the child and his/her growth and if the same continues for ever, the child can not grow properly as expected. The net result is the family members have to contribute spare productive period to the child, because the particular child may be live with health hazards. In this scenario, the functionalists see every society is a relatively persistent structure of elements with built-in mechanisms for self-regulation. Using the principle of homeostasis, Parsons and his associates view society as a self-regulating system, attempting by more or less automatic adjustments to redress the balance of its equilibrium when it is upset by internal or external forces. “The maintenance of
relative stability, including stability of certain processes of change like the growth of an organism, in the face of substantially greater environmental variability, means that ... there must be “mechanisms” that adjust the state of the system relative to changes in its environment”. The development of this strain of thought has proceeded through three distinct stages. First, functionalists regarded society as a stable system of patterned interaction or structured social relationships. In this view, basic relationships among system components change little over time, and emphasis was on such concepts as order, stability, structure, integration and persistence. In the second stage, functionalists sought to overcome the difficulties of “normative” interpretations and problems of invariance by shifting from a more teleological type of explanation fashioned after the biological model to a more mechanistic or causal type of analysis following the lead of the physical science model. Thus, functionalists introduced the principle of homeostasis which postulates that society maintains a state of equilibrium which may be temporarily disturbed by crisis but will be automatically restored.

According to Parsons, the functional requirements of a social system are adaptation to external situation, instrumental goal-attainment and integration among units of the system and pattern maintenance and tension-management. He emphasizes the problem of order and the adequacy of motivation. The system can sustain itself only if a sufficient proportion of its members perform the essential social roles
with an adequate degree of effectiveness. Parsons insists that the system must ‘have a sufficient proportion of its component actors adequately motivated to act in accordance with the requirements of its role system, positively in the fulfillment of expectations and negatively in abstention from too much disruptive, i.e., deviant, behaviour.’ He classifies the minimum conditions for the stability of a system into three categories: (1) Functional pre-requisites with respect to the individual. The minimum needs of the majority of the actors must be met and individuals must be motivated to participate in socially valued and rewarding activities. (2) Functional pre-requisites with respect to society. There must be a minimum of control over potentially disruptive behaviour and adequate mechanisms of social control. (3) Functional pre-requisites with respect to culture. There must be sufficient cultural resources to internalize a level of personality adequate for a social system; minimum conditions necessary for the production, maintenance and development of cultural systems in general and of particular types of cultural systems including language, symbols and communication, must be met.