CHAPTER – II
REVIEW OF LITERATURE

Introduction:

Malnutrition is a phenomenon largely observed in developing countries where one of every three households lives in poverty. To reduce the malnutrition among children in India, Integrated Child Development Services (ICDS) scheme was introduced in 1975 to eradicate malnutrition among children as well as their illiterate, ignorant, and poverty stricken mothers in the lower socioeconomic strata of society. The program was designed to deliver a specific service to the target pregnant mothers and child population.

All the initial programs that were introduced earlier come under serious scrutiny in due course and gradually it become obvious that the programs generally had failed to achieve their intentions for a variety of reasons. Learning from the mistakes in the innovating the service package to make it applicable nationally, welfare policy makers designed the ICDS scheme with the aim of reaching all the needy children in the age group of 0-6 years expectant and nursing mothers and women in the age group 15-44 years with basic services. The ICDS package includes welfare services of supplementary nutrition immunization, health checkup, health referral, nutrition and health education for both
children and mothers and non formal preschool education for children. Since inception, ICDS scheme has been a subject of considerable research and evaluation. Government and private organizations as well as individuals in research institutions, medical college, Social work schools and home sciences college have conducted research on the different aspects of ICDS. In fact, the national institute of public co-operation and child development (NIPCCD) New Delhi has published commending of such research reports.

At the implementation level, ICDS is a highly human interactive program. An ICDS team comprising child development project officer, supervisor (Mukhya Sevikas), Anganwadi workers and Anganwadi helpers supported by medical officers and auxiliary nursing midwife and lady health visitors provide diverse services to different beneficiaries to register an integrated impact on the target population. Accordingly, different aspects from organizational behavior of functionaries to pre service delivery needs and post service delivery effects on Anganwadi beneficiaries have been researched.

This literature review, however, is being restricted to the studies relevant to the present research topic, that is Anganwadi
workers and helpers and the six integrated services delivered to the beneficiaries through the ICDS set up. The studies that are concentrated on the ICDS scheme and issues related to malnutrition are reviewed.

1). Singhi, N. K., Joshi, Varsha and Pal, Pritam. (1996). in their study covered 40 Anganwadi centers in 3 tribal districts of Rajasthan viz., Banswara, Doongarpur and Chittorgarh. Information was collected through observation, Interviews, participatory rural appraisal in the context of the community, and through continuous dialogue with the field staff. Results revealed that Adolescents Girls Project in ICDS was in operation in six districts of Rajasthan and among the districts covered, Most of the women were malnourished, anemic and too young when the first child was born. The practice of rejecting colostrums was common.

2). Nagi, B. S., Dighe, Anita and Sadana, Rajeev. (1997) the present study was carried out to assess the knowledge of different respondents, women, adolescent girls and Anganwadi worker, on health and nutrition issues pertaining to children, pregnant women and nursing mothers. The study was conducted in three ICDS blocks of Udaipur and two ICDS blocks of Sirohi, Rajasthan.
After the baseline survey, project interventions were introduced in the program area for two and a half years. The main aim of the study was to decrease malnutrition among low income children in 621 Anganwadi centers from five blocks. The knowledge of Anganwadi worker increased about five immunization preventable diseases.

3). National Institute of Public Cooperation and Child Development New Delhi: (1997). Out of the 30 districts where the induction training of Anganwadi worker has been conducted, 9 districts namely Bastar, Raipur and Surguja in Chhattisgarh; Chhatarpur, Sagar and Shahdol in Bundelkhand; Bhind and Guna in Vindhyachal; and Jhabua in Malwa region were selected for study. Each selected district has minimum 200 Anganwadi workers who have undergone induction training for 15 days between June 1996 and June 1997. 23 ICDS projects, 12 tribal and 11 rural were selected randomly. In all, a sample of 474 Anganwadi worker was selected out of 4734 Anganwadi worker for the purpose of the study. Majority of Anganwadi worker (62%) were less than 25 years of age. Chhattisgarh and Bundelkhand regions had higher percentage of younger Anganwadi worker whereas Vindhyachal regions had higher proportional of
Anganwadi worker in the age group 26-35 years. Majority of the Anganwadi worker (86%) were below the poverty line. Only 14% Anganwadi worker were from families with monthly income above Rs. 1000/-. More than 90% Anganwadi worker of Bhind, Surguja, Sagar and Guna districts were below poverty line. Induction training made Anganwadi worker aware of their job responsibilities. 85% Anganwadi worker had adequate knowledge of their job responsibilities. 54% Anganwadi worker had knowledge of using medicine kit, but it was made available to about half of them only. The objective of referral services was clear to only 46% Anganwadi worker. About 34% Anganwadi worker had knowledge about nutritious value of supplementary nutrition items distributed to beneficiaries while 66% could not reply. 50% Anganwadi worker were aware about the grading system and identification of malnourished and ‘at risk’ children could be done by 64% Anganwadi worker. The knowledge regarding nutrition and health education was found adequate for about 56% Anganwadi workers.

4). Banerjee, Sangita. (1999) Investigated how better community participation can be ensured. Among the sample, 15 mothers and 15 fathers of beneficiary children, 10 were non beneficiary
parents, representatives of local organizations and 5 were functionaries of different centers. Fathers of beneficiary children mentioned that they could not earn money if they did not go outside the home, and the adult family members looked after their children. Only 7 out of 15 mothers reported correctly about the program services for children rendered by Integrated Child Development Services (ICDS). It showed that Anganwadi Worker had no links with people who were not getting benefits from their centre.

5). Agarwal, K. N. Et Al. (2000) the study investigated the impact of ICDS services on maternal weight gain in pregnancy, birth weight, gestation period and caloric intake. The sample comprised 5289 pregnant women who were registered during 1987-93 in 28 ICDS and 21 non-ICDS villages in two adjoining blocks of Varanasi. Anthropometric measurements, hemoglobin estimation and dietary assessment was done of all the subjects. Results revealed that ICDS supplemented mothers gained 100 gm more during pregnancy, and birth weight of babies was higher by 58 gm as compared to unsupplemented ICDS mothers. ICDS supplemented women had a significantly smaller proportion of low
birth weight babies (14.4%) compared to ICDS unsupplemented women (20.4%) and Non-ICDS women (26.3%).

6). Saiyed, F. and Seshadri, S. (2000). The study investigated the impact of an integrated package of nutrition and health services on the nutritional status and morbidity profile of preschool children in Baroda. 610 preschool children (0-36 months) under an urban ICDS block were placed in three categories of service utilization, viz full, partial and none. Data on socio-economic characteristics of the children included family size and type, religion, education, occupation, per capita income, house type, toilet facilities and home sanitation. The findings showed that complete utilization of all services resulted in significant improvement in nutritional status as assessed through anthropometric indices viz height/age, weight/age, and weight/height. Thus major efforts should go into the convergence of services and their full utilization by the community.

7). Indian Institute of Health Management Research, (2000). The study was carried out to provide baseline indicators to assess the effective implementation of World Bank assisted ICDS Phase III in 26 ICDS blocks spread over 20 districts of Rajasthan,
selected by systematic random sampling. The survey covered 12,883 households, 21,013 children aged 0-6 years (12775 aged 0-3 years and 8238 aged 3-6 years), 1223 pregnant women, 7253 lactating mothers, 4160 non-pregnant non-lactating women and 3410 adolescent girls. About 14% children aged 0-3 years were severely malnourished, and 23% were underweight. In the 3-6 years age group 13% were severely malnourished and 24% were underweight. The incidence of low birth weight was nearly 30%. In tribal areas in old ICDS blocks, the incidence of low birth weight was about 40%. Around 30% of the children surveys were registered at the Anganwadi centers, and in the tribal group in old ICDS blocks nearly 49% children were registered. Nearly 63% children aged 3-6 years were registered at Anganwadi centers and attended pre-school education. Exclusive breastfeeding of children aged 0-5 months was reported in about 10% cases, colostrums was given to 21% children, and vitamin A rich food was consumed by 23% children 3-36 months old. Nearly 27% pregnant women reported consumption of Iron Folic Acid supplements and 17% received supplementary food from ICDS. Around 25% of the deliveries in Rajasthan were institutional deliveries.
8). George, K. A., Et Al. (2000). The study was conducted among 3633 pre-school children of 108 Anganwadi centers in rural Kerala to find out the hemoglobin level, weight for age status and dietary habits of preschool children. Information regarding their age, sex, clinical condition and dietary habits was collected on a perform through interviews. Most of the children belonged to low income no vegetarian group (74.5%). The prevalence of anemia was 11.4%, and female children were more susceptible to anaemia. Normal nutritional status was seen among 46.7% of the children, and while 11.78% of the mildly undernourished children were anemic, the percentage of anemia among moderate undernourished children was 16.37%.

9). Bhasin, Sanjiv K. Et Al. (2001) the present study was conducted in 13 Anganwadis (out of 132) in Nand Nagri, East Delhi to assess the nutritional status of children in relation to utilization of ICDS during their early childhood. Information regarding utilization of ICDS facilities, socio-demographic details, general awareness, etc. was collected through interviews, anthropometric and clinical examination of every child, and attendance score of every child at the Anganwadis was calculated. Results revealed that most of the children (59.1%) were non-
beneficiaries. Parents of most of the children were illiterates (60.7% mothers and 27.6% fathers). 94.2% children were attending schools. The proportion of children utilizing ICDS services for more than 6 months ranged from 8.8% to 24.3%. Age and sex of the children, education status of their parents and total attendance at the Anganwadi showed statistically significant relation with the degree of malnutrition.

10). National Council of Applied Economic Research, New Delhi. (2001) The Ministry of Women and Child Development (MWCD) entrusted the National Council of Applied Economic Research (NCAER) with the task of conducting a nationwide evaluation of the ICDS Scheme to help the Government in initiating corrective measures to make the program more effective. Nearly 4000 projects, 60,000 Anganwadi centers, 4000 Mukhya Sevikas and 1.80 lakh beneficiary households with children in the age group of 0-1 years, 1-3 years and 3-6 years were selected. It was found that nearly 66% of the eligible children and 75% of the eligible women were registered at Anganwadi centers. Less than 3% children were severely malnourished, except in Bihar, where severe malnutrition among children 13-36 months was 28%, children 6-12 months were 6%, and in children aged 37-72
months was 5%. Most states indicated low levels of severe malnourishment. Gujarat and Rajasthan had the lowest percentage of matriculate functionaries. Majority of households reported that they needed the services of supplementary nutrition, Pre School Education, immunization and etc.

11). Barman, Nibha Rani. (2001) out of 150 Anganwadi centers, 50 Anganwadi centers were covered and a total of 150 beneficiary women were selected for the study. It was found that Community Survey was conducted very often by 86.67% Anganwadi worker. Activities based on community participation and maintaining liaison with other institutions were given medium level of priority by the Anganwadi worker. Formal sessions of nutrition and health education (NHE) were conducted only in 26.67% Anganwadi centers, out of which in only 6.67% Anganwadi centers, nutrition and health education sessions were conducted once in 6 months, and in 13.33% Anganwadi centers, nutrition and health education sessions were conducted once in a year.

12). Joshi, Anita. (2001) a total of 480 beneficiary mothers (BMs) and 60 Anganwadi workers were selected for the study. Anganwadi worker and Beneficiary Mothers in urban areas had
maximum awareness about the nutritional requirements of growing children that was 100% and 87.5% respectively. To improve the overall quality of nutrition and health education (NHEd), and develop the skills of Anganwadi worker refresher training should be organized at the sector level so that Anganwadi worker can easily participate in the training.

13). **Datta, Vrinda (2001).** A total of 615 Anganwadi worker and 72 Supervisors were selected. It was found that the training centers were very old and there were no additional classes or laboratories for intensive work or doing practical. There was no feedback taken from training centers. 50% Supervisors looked into the many registers and records maintained at Anganwadi centers like attendance, growth chart, food record, Mahila Mandal meetings, etc. There is need to improve the quality of training, improve board and lodging facilities. There is need for Mobile Training Units.

14) **Kariyil, Antony and Sunny, Celine (2001).** This study attempted to make a realistic assessment of the time utilization by Anganwadi worker in relation to their multifarious tasks, and evolve appropriate strategies for improving the functioning of
Anganwadi centers in Kerala. 400 Anganwadi centers and 10,470 respondents were selected. In 76.7% centers less than 20 minutes were assigned for motor activities, which should have been 30 minutes daily. Anganwadi worker in 25.3% never attended to this aspect. Anganwadi worker in 43% centers did not assign time for creative activities but more Anganwadi worker in tribal areas undertook creative activities than Anganwadi worker in rural areas. In 37% centers, Anganwadi worker spent less than the expected time for supplementary nutrition. Urban areas had highest number of centers where Beneficiaries were satisfied with the ongoing services of the centre but they complained about the poor infrastructure in a majority of the Anganwadi centers. A time frame should be fixed for specific activities/ services of the pre-school component. Indicators for monitoring allocation of time for various activities should be incorporated in the training module of the Supervisors and Child Development Project Officers (CDPOs). Strict measures should be taken by the authorities to minimize interruptions during pre-school activities.

15). Saini, Sarita and Sharma, Seema. (2002). conducted study from 1997 to 1998 in Punjab to study the perceptions of the parents about the importance of learning stimulation for pre-
scholars aged 3 to 6 years, and to investigate facilities provided at home and at Anganwadis. The data was collected from 5 villages of 4 districts namely V. Sidhwan Bet (Ludhiana), Pohir (Ludhiana), Bhokhra (Bhatinda), Dhanola Khurd (Sangrur) and Kheewewal (Hoshiarpur). It was found that the services meant for children were quite inadequate. The supply of play materials and supplementary meals was irregular and inadequate. Only 4% Anganwadis provided adequate play material and 24% provided mid day meals to children. Universal literacy program should be started to improve the socio-economic status of the people. To provide better services to disadvantaged groups, community support needs to be mobilized.

16). Sandhya Rani, P.M. (2002). The study was carried out in Chittoor district in Andhra Pradesh in Primary Health Centers (PHC), one where ICDS was operational and the other were ICDS scheme was not in operation. The aim of the study was to know the nutritional and health status of people in the Primary Health Centers area; and to understand the role of health staff at the Primary Health Centers in the promotion of nutrition and health programs. ICDS functionaries and Primary Health Center staff should work in a coordinated manner for achieving higher
immunization coverage, and providing better pre-natal, natal, and post-natal services to mothers.

17). Arora, Samridhi, Mahajan, Arti and Bharti, Shaveta. (2003). Study was conducted to assess the non-formal pre-school education services provided at Anganwadi centers and to know the awareness and utilization level of these services. The sample, taken from the urban slums of Jammu City, consisted of 15 Anganwadi centers, 15 Anganwadi workers and 30 parents of children who were attending Anganwadi centers. Data was collected through interview schedules and observations. In spite of the poor physical set-up of the Anganwadi centers, non-formal pre-school education was provided to the children. It was recommended that physical set-up of Anganwadi centers should be improved. Adequate measures should be taken to make the parents aware of the progress of their children, and regular activities should be conducted for this purpose. Equal emphasis should be given to all the services of ICDS rather than focusing only on nutrition.

18). Paul, Dinesh, Et Al. (2003). This study was conducted by NIPCCD (National Institute of Public Cooperation and Child
Development) Headquarters in 2002 to evaluate the extent of utilization of medicine kit provided to Anganwadi worker in the northern, southern, north eastern and central region ICDS projects. 16 projects which were in operation since 1996 were selected 4 project each from northern, southern, northeastern and central region. A total of 640 Anganwadi centers, 150 auxiliary nursing midwifery’s, 16 CDPOs, 4-5 Supervisors, 1280 beneficiaries and 100 community leaders were selected for the study. The availability of medicine kit was found to be very poor in all the four regions, and almost half the Anganwadi centers were without a medicine kit. Out of 633 Anganwadi workers, 504 Anganwadi workers had received job training. About 24.6% Anganwadi worker did not receive any separate training regarding the use of medicine kit. In all the regions, the utilization of medicines ranged from 76.3% to 86.2%. The least used medicine was Sulphacetamide whereas Benzylbenzoate emulsion was used maximum. Feasible mechanisms for promoting interaction and functional linkages must be identified and institutionalized. It was recommended that separate training on the use of medicine kit and also special refresher courses should be started.
19). Bharti, Shaveta, Mahajan, Arshi and Arora, Samridhi. (2003) study was undertaken to evaluate the health services provided to children aged 3-6 years at ICDS centers and to know the extent of awareness and its utilization. Sample was taken from urban slums of Jammu City, and comprised 15 Anganwadis, 15 Anganwadi workers and 30 parents who attended Anganwadi centers. The study revealed that majority of these centers is located in hygienic surroundings. Parents found these centers best in providing health, nutrition, and immunization and referral services, free of cost.

20). National Institute of Public Cooperation and Child Development, Regional Centre Lucknow (2003). The Project, which was started in 1975-76, delivers services in 55 Anganwadi centers and 13 Mobile Centers. Out of these, four Anganwadi centers were randomly selected as the sample for the visit. Field observations were discussed with Director, Directorate of Social, Women and SC Welfare, Government of Himachal Pradesh. Action points were listed for qualitatively improving implementation of ICDS projects in the state viz., filling up posts of supervisors and CDPOs on priority basis; orientation of Anganwadi worker on conducting Pre School Education activities, use of Pre School
Education Kit supplied by NIPCCD; continuing education of Anganwadi worker on growth monitoring, health check-up and referral services need to be revitalized.


World Bank assists ICDS projects so that qualitative improvement is achieved in services provided. The present study explored the functioning of World Bank assisted ICDS–II projects in Chhattisgarh, and assessed the existing level of ante- and post natal care; breastfeeding and childcare practices; awareness about Anganwadi centers nutritional status of children and growth monitoring; their perception of the causes of under nutrition, i.e. health and other specific reasons; understand the resource base of beneficiary groups; and the manner in which they met their nutritional needs. The information related with this study has been collected from heads of households, mothers of children aged 0-3 years and 3-6 years, pregnant women, lactating women, adolescent girls and Anganwadi workers. The World Bank assisted 152 blocks in 16 districts, of which 61 were rural, 85 were tribal and 6 were urban blocks. The study covered 66 Anganwadi centers. Mahila Mandals were formed in all Anganwadi centers where health and nutrition education was imparted to women.
Mothers were not aware of the causes of malnutrition in urban areas, and in tribal areas they believed malnutrition was a curse of God and Goddesses.

22). World Bank, (2003). The World Bank assisted Andhra Pradesh Economic Restructuring Project (APERP) under which strengthening the Integrated Child Development Services (ICDS) component was the major initiative. Under APER Project, the ICDS component covered 251 blocks, 108 old ICDS projects for service quality improvement inputs, and 143 new blocks in which ICDS services were initiated in 21 districts. Baseline data from Mehbboobnagar District showed that 79% adolescent girls (AGs) were anemic, a large number of children were moderately malnourished, and the prevalence of stunting among children was widespread in the state. Objectives of the project were universalization of ICDS which has now been achieved in terms of block outreach; but to target the deserving poor households will be the real challenge during the remaining project period. It was also recommended that provisions should be made for visits by doctors to tribal blocks, and incentive schemes taken up for functionaries should be reviewed.
23). Sobha, I. (2003) a sample of 500 beneficiaries (250 children, 250 mothers), along with 4 Child Development Project Officers (CDPO), 1 Assistant Child Development Project Officer (ACDPO), 23 Supervisors and 50 Anganwadi Workers were selected from 10 Anganwadi centers in each project. It was found that 30% pregnant women could not add any additional foods to their normal meal due to their low income status, and almost 35% avoided Papaya, Egg, Mango, Guava, Black Fruits, etc. due to ignorance about the nutritional value.

24). Pasupuleti, Usha Rani Et Al. (2004). This study was conducted in the state of Andhra Pradesh to evaluate the job performance and job expectations of Supervisors working in urban, rural and tribal ICDS projects. Three districts, namely Hyderabad (Urban), Anantpur (Rural) and Visakhapatnam (Tribal) were covered. Majority of Anganwadi worker in Hyderabad urban projects were Muslims who could not write in Telugu language and they were not able to fill up records and registers. Anganwadi worker were unable to attract and hold the attention of children during pre-school education due to lack of proper play material and teaching aids, and the children just took their food and ran away.
25). Pandey, D.D. (2004). A total of 109 participants, 76 CDPOs/ACDPOs and 33 trainers of ICDS functionaries were covered in the study. Slow career progression of functionaries, lack of motivation among Supervisors, and Anganwadi worker wish to become regular Class III employees were identified as most important factors adversely affecting the implementation of ICDS. There is need to avoid high cost model of ICDS, and the system should prefer to work with a model promoting the provision of necessities.

26). Dept. Of Economics and Statistics, Chandigarh. (2004) selected 48 Anganwadi centers and 576 beneficiaries for its study. In 2001-02, the expenditure on supplementary nutrition component of ICDS was borne by the Central Government (57%) and by the State Government (43%). The trend of availing supplementary nutrition by expectant women/nursing mothers during the years 1999-2000 to 2001-02 was decreasing. All Anganwadi workers were fully trained, while 33 (69%) helpers were not trained. It was found that the achievements under supplementary nutrition was 76% in 6 months – 3 years age group for enrolled children, 83% for 3–6 years children, and 74% for pregnant and nursing mothers enrolled. The performance of
ICDS was found to be satisfactory in Supplementary Nutrition, Pre-school Education and immunization program, but supervisory staff, PO, CDPO and supervisors should increase their visits to further improve the program.

27). Balsekar, Ameya, Et Al. (2005) in Perumkadavila project 62% of the children fell under the normal weight category. The normal weight category of children in Grade ‘A’ Anganwadi centers (Anganwadi centers) was 68%, and in Grade ‘B’ Anganwadi centers 53% children were normal. Chakaparra was the only Anganwadi center where nearly 100% coverage of the child population aged 3-6 years was achieved for pre-school education. In Grade-D Anganwadi center at Kazhakuttom enrolment was 20.6% because the Anganwadi worker belonged to the scheduled caste community and parents hesitated to send their children to the Anganwadi center.

28). Darnal, Srijana Et Al. (2005). The main causes of infant and child mortality in developing countries are diarrhea, malaria, measles and malnutrition. National Family Health Survey II (NFHS-2, 1998) data also includes fever (27% prevalence in the last 2 weeks), acute respiratory infection (ARI 17%), diarrhea
(13%) and malnutrition (45%) as causes of child mortality. The Integrated Management of Neonatal and Childhood Illnesses (IMNCI) are a new UNICEF and Government of India strategy to reduce the Infant Mortality Rate and under five mortality rate (U5MR). It was recommended that Anganwadi worker should be given additional training; structured assessment should be done; practice of using Auxiliary Nursing Midwifery’s and Multi-Purpose Workers to translate lessons into local dialects should be promoted; and use of visual aids should be increased. The importance of teamwork and communication between health and ICDS functionaries should be emphasized during training and implementation. UNICEF needs to redesign the format of registers and make the contents simpler. Auxiliary Nursing Midwifery’s and Anganwadi worker should receive some monetary incentives for travelling to remote areas.

29). Sharma, Adarsh and Pandey, D.D. (2005). This study was conducted to evaluate the impact of Job Training Course on job responsibilities of Anganwadi worker. Two districts of Uttar Pradesh, namely Muzaffarnagar and Saharanpur was covered and 100 Anganwadi worker, 50 from Saharanpur Anganwadi Training Centers and 50 from Muzaffarnagar Anganwadi Training Centers
were selected. Anganwadi worker’s ability regarding composite skills concerning Pre School Education sessions, namely storytelling, narrating children’s song, organizing outdoor games, organizing creative activities, organizing number games, organizing word games, etc. was evaluated. It was found that the Anganwadi worker who had undergone the Job Training Courses were equipped in a better way with five skills namely storytelling, narrating children’s song, organizing creative activities, organizing number and word games. The ICDS functionaries lacked the basic directional philosophy of the scheme. They always seemed to need early childhood education aids supplied by state owned agencies. This habit of Anganwadi worker negates the basic challenge emanating from the Non-Formal Pre-School Education component of the ICDS Scheme. Anganwadi worker of both the groups were able to keep children happy and allowed children to play with toys/play material. They could use locally available food stuff and ready to eat food. Anganwadi worker who had attended Job Training Course had better composite skills for eliciting community participation than those who had not attended Job Training Course. Both the groups of Anganwadi worker had a similar attitude towards running the anganwadi center efficiently.
but the inner willingness of Anganwadi worker to go through the reading material was much more in the case of Anganwadi worker who had attended Job Training Course. Training strategies should be designed in such a way that the trainees are adequately prepared to handle the revised syllabus. Trainers’ guides or handbooks should be made available to all the trainees.

30). Operation Research Group, (2005). Integrated Child Development Services (ICDS) program is the world’s largest child care program reaching out to 35.4 million children below six years of age and 6.4 million expectant and nursing mothers. Udisha, the nationwide training component of ICDS program, implemented since 1999, is the crucial foundation of the new Women and Child Development Project. The highlights of Udisha are revision of the syllabus, revised financial norms, training based on area/region specific needs, integration and coordination of training, clearing backlog for job and refresher training for Anganwadi worker by training teams, technical support and institution building, and monitoring. Both, secondary and primary sources were utilized to study the progress of Udisha; training needs of ICDS functionaries; and impact of training on quality of service delivery. The achievement of CDPOs/ACDPOs training was 42%.
Chhattisgarh, Maharashtra, Assam, Meghalaya, Bihar and Tamil Nadu did organize a variety of innovative training programs. Out of 571 sanctioned Anganwadi training centers only 445 (80%) were operational. Shortage of training infrastructure in Madhya Pradesh, Bihar, Orissa, Andhra Pradesh, Rajasthan and Gujarat was relatively very high. Various constraints at Anganwadi centers do not allow the Anganwadi worker to perform at their best. In case of supervisors refresher training, Punjab has achieved 66% of the target, while Himachal Pradesh has achieved only 1.4% of the target. A few reasons for no achievement of the desired target was delay in creation of training infrastructure, frequent transfers or deputation of trained CDPOs to other departments, low attendance, non-availability and no accessibility of training infrastructure and aids, etc. In UP, after the launch of UDISHA, one innovative training program was organized in the year 2001-2002. To enable the Anganwadi worker to work in line with the objectives of the training, it is essential that ground realities are understood and addressed, and problems related to infrastructure and supplementary nutrition is tackled effectively.

31). Aggarwal, Arun Kumar and Rajesh Kumar. (2005). The present study was done to assess the long term effects of ICDS on
the behavior and academic achievements of children in their post Anganwadi years. The study was conducted in Raipur Rani ICDS block, District Panchkula, Haryana. Data was collected from Anganwadis and 1067 children in the age group 7-13 years through household survey. It was found that a majority of the children 1022 (96%) were school going. Of the 46 children who never attended school, 72% (33/46) were girls. Regular users of Government schools lagged behind non-users in combing hair and in school absenteeism. The study suggested that awareness about ICDS services should be increased among community people in rural areas so that they could avail all the benefits. Also, effective training should be given to the ICDS staff such as Anganwadi worker so that they can provide proper services to the people.

32). Shoba Srinath, et.al, (2005), There are limited data on child mental health needs in our country. Therefore, an epidemiological study to determine the prevalence rates of child and adolescent psychiatric disorders was initiated as a two-centre (Bangalore and Lucknow) study by the Indian Council of Medical Research. It also aimed to study the psychosocial correlates of the psychiatric disorders. We present here the findings of Bangalore Centre. In Bangalore, 2064 children aged 0-16 year, were selected by
stratified random sampling from urban middle-class, urban slum and rural areas. The results indicated a prevalence rate of 12.5 per cent among children aged 0-16 year. There were no significant differences among prevalence rates in urban middle class, slum and rural areas. The psychiatric morbidity among 0-3 year old children was 13.8 per cent with the most common diagnoses being breath holding spells, pica, behaviour disorder NOS, expressive language disorder and mental retardation. The prevalence rate in the 4-16 year old children was 12.0 percent. Middle class urban areas had highest and urban slum areas had lowest prevalence rates. The implications for clinical training, practice and policy initiatives are discussed.

33). Operations Research Group, Centre for Social Research, Mumbai. (2005). A participatory approach was employed, wherein beneficiaries, functionaries and intermediaries (NGOs, Panchayats, etc.) involved in ICDS were contacted for the study. Techniques used were Desk Research, Rapid Field Reconnaissance Survey, Participatory Interviews, Observation of Anganwadi centers, Facility Mapping and Stakeholders Analysis. Urban, rural and tribal areas in Maharashtra were selected for the study. Anemia appeared to be the most prevalent illness among
women in urban, tribal and rural areas, whereas diarrhea was the most common illness found among children. There is a need to improve awareness about the services provided at Anganwadi centers so that the beneficiaries can avail of them.

34). Indian Institute of Management Bangalore, Bangalore (2005). The supplementary nutrition and Amylase Rich Food (ARF) was not of good quality and distribution was not regular. Storage facilities, measuring scales and cooking facilities were not available or were inadequate. Lack of proper coordination with the health department and absence of mission mode had made the immunization program less effective. There is a need to improve the buildings and provide proper toilet facilities, clean drinking water and proper storage facilities.

35). Balsekar, Ameya Et Al. (2005). Attempted to assess the functioning of the Integrated Child Development Services (ICDS) Anganwadi at the grass roots level five Anganwadi centers were selected from each block based on a system of grades given to them by the ICDS Department of Thiruvananthapuram district. Kerala still faces challenges in the areas of child health and nutrition. It is, therefore, important to bring more members of
local communities under the ambit of the ICDS program. It was also recommended that Anganwadi centers should be more responsive to the needs and demands of parents, particularly teaching of the English language.

36). National Institute of Public Cooperation and Child Development, New Delhi. (2005). Data for the Pre-Test Study was collected from all over India including the NCT of Delhi. In all, 280 mothers/women beneficiaries, including expectant mothers and nursing mothers were selected randomly from Mehrauli and Najafgarh ICDS blocks, who could comprehend either Hindi/English (read and write) for eliciting their views on the Mother and Child Protection Card. Data was also collected from ICDS and health functionaries. The basic purpose of this exercise was to assess the knowledge gain of mothers after using the card and consultation of the guidebook in case of doubt. The percentage of mothers (both pregnant and lactating mothers) on clarity and comprehension of illustrations and messages on developmental milestones increased considerably. All pregnant and lactating mothers had gone through the card and guidebook out of interest. After two months of usage of the card, about 91% pregnant mothers and 92% lactating mothers expressed the view
that the card should be in the custody of mothers as it has very valuable information about their child.

37). **FORCES, (Forum for Crunches Child Care Services) New Delhi (2005)** undertook study to ascertain the status of ICDS services in Hayathnagar, Ranga Reddy District. Anganwadi Workers and beneficiaries were covered in Peddamarpet village, and the Anganwadi center at Thorroor village, Andhra Pradesh was studied. The interaction with stakeholders, beneficiaries, administrators and workers was the source of primary data. The distribution of supplementary nutrition and immunization was taking place regularly as described by the CDPO (child development project officer)

38). **Midstream Marketing and Research Pvt. Ltd. (MMR), New Delhi. (2005)** this study was conducted to assess the performance of ICDS with focus on health and nutritional status of children and mothers in the context of role of social organizations. This comparative study covered two states namely Maharashtra and Madhya Pradesh (MP). 480 beneficiaries were selected in Maharashtra and 660 beneficiaries in Madhya Pradesh (MP). In both states people were not taking interest in the functioning of
ICDS. The no beneficiary children, pregnant and nursing mothers and adolescent girls, 25% in Maharashtra and 34% in Madhya Pradesh, were attending crèche/preschools, health centers and schools.

39). Citizen's Initiative for the Rights of Children under Six, New Delhi. (2006) the basic aim of the FOCUS (Focus on Children under Six) survey was to find out how ICDS is doing on the ground. The FOCUS survey found that pre-school education was in great demand, especially in areas where parents are relatively well educated. Many things can be done to further the rights of children under six, and ensure that every settlement has a lively Anganwadi.

40). Centre for North East Studies and Policy Research, Guwahati. (2006) in Kamrup, about 35 (87.5%) centers out of 40 had 70-89 beneficiaries. On an average every centre had a total of 25.60 children in the age group of 0-3 years, and every centre provided services to nearly 6.33 pregnant mothers and 6.41 lactating mothers. Out of the total 40 centers, 34 centers accounting for 85% provided immunization to the beneficiaries and 6 of the centers did not keep records of immunization. Only
31 centers provided Primary Health Center services to the beneficiaries, but 9 centers did not provide immunization services, and did not keep any record. Only 32 centers provided immunization services through Primary Health Centers, but 8 of the centers did not keep the record or they did not provide immunization services.

41). **Gunajit, Kalita, Supplementary Nutritionowden, Hannah and Ghosh, Sujata. (2006)**. The broad objective of this study was to determine the effectiveness of the Mother and Child Protection Card as a community management tool. Mother and Child Protection Card is a folding pictorial tool designed to assist the mother to understand and monitor individual progress of maternal and child health and psychosocial development. It was found that communication was generally good among primary service providers, and between service providers and mothers.

42). **Dash, N.C. Et Al. (2006)** studied a sample of 250 villages/Anganwadi centers were covered. 12,621 children under 3 years, 12,468 children 3-6 years, 2221 pregnant women, 2686 lactating mothers and 13908 Action Groups comprised the sample. The results indicate that, 96% Anganwadi Workers s
provided HNE to target groups. They faced problems of irregular supply of food (12%), irregular supply of drugs (12%), and extraneous work assignments such as formation and grading of SHG’s survey works, preparation and distribution of emergency feeding, etc. Referral units were found to be suffering due to non availability of funds.

43). **Prasanna Kumari, B., Kamini, S. And Menon, A.G.G. (2006)** the Integrated Child Development Services Scheme (ICDS) is India’s most ambitious multidimensional welfare program to reach millions of children and their mothers who are caught in the grip of malnutrition. This study has been designed to ascertain the knowledge, attitude and adoption of improved practices in health and nutrition of ICDS beneficiaries in the context of health and nutrition education imparted to them in the Anganwadi. There was significant association between knowledge, attitude and adoption of improved Nutrition and Health Education practices (NHE) among ICDS beneficiaries. It was suggested that a viable nutrition and health education component should be built into the ICDS program, planned according to the needs of local people, and employ participatory techniques which would motivate and help develop interest of the beneficiaries in the program.
44). Gopal A.K. Et Al. (2006). Data from the study showed that only 31% of the households had toilet facilities. Sewage/drainage system was reported in 57% villages under regular ICDS projects and projects assisted by World Bank. Most of the Anganwadi centers (60%) were found to be easily accessible to children as they were brought there by their parents, siblings, or older ladies of the locality. Data showed that 66.1% children were immunized, highest being in rural projects (71.6%), and around 76.2% pregnant mothers received tetanus toxoid immunization about 77.4% nursing mothers reported that their children were immunized, and BCG vaccine coverage was the maximum (82.4%). It was found that birth weight of 7% children was below 2 kg. The average number of visits Anganwadi workers made to families was highest in urban projects (46.7%). Around 44% Anganwadi workers were also rendering services under the Adolescent Girls Scheme (Kishori Shakti Yojana).

45). Dept. Of Women and Child Development, Uttarakhand (2007). Holds that, Community based monitoring system aims to induce behavioral change among community members to make the program sustainable and feasible. It was found that the respondents were generally satisfied with the frequency of
distribution of supplementary nutrition. About 50% children were exclusively breastfed for six months. In all villages, the mother and newborn child are kept isolated for a period of 11 to 21 days.

46). Vinnarasan, A. (2007) covered 88 Anganwadi centers situated in Adyar, Besant Nagar, Mandaiveli, Santhome, Kotturpuram and Pattinapakkam. Total 150 non-enrolled children aged 2.5 to 5 years residing in ICDS area were selected for the study and information was gathered from their mothers. It was found that 47.3% respondents believed that the purpose of existence of the Anganwadi center was to look after young children. More than half the respondents (60%) had attributed medium of instruction, which was Tamil in Anganwadi centers, to be the reason for their child’s non-enrollment. 25.3% mothers felt that Anganwadi workers attitude was also the reason for not sending their children to the Anganwadi center. Nearly 22.7% respondents mentioned that community participation in children’s enrollment was high in their habitation.

47). Tomohiro Et Al. (2007) the integration of services as proposed under the ICDS to improve the growth and development of children was inadequate in this village. This inadequacy,
combined with shortcomings of village planning initiatives and the lack of a community voice, has hampered the success achieved by an otherwise laudable immunization program. The objectives of this study were to identify the factors that led to successful implementation of the Government of Jharkhand Routine Immunization initiative in Ghutia village; the factors that contribute to the lack of improvement of child nutrition in the same village; and the patterns of discrimination in the village in the provision of health services and their impact on disparities in child health and nutrition for the tribal population of the village. Improved nutrition should require behavioral change and transformation of economic and political environments.

48). Ministry Of Women and Child Development, (2007). The ICDS-III Project was made effective for a period of five years originally in five states covering Uttar Pradesh and Rajasthan in the northern part, Maharashtra in the western part, and Kerala and Tamil Nadu in the southern part of India. Capacities of existing Anganwadi training center and Middle Level Training Centers have been further strengthened to take up increased responsibility and new Anganwadi training center and Middle Level Training Centers have also been established for the purpose.
The Project has achieved overall its main objective of clearing the backlog of job training. A total of about 928,000 ICDS functionaries, out of which 366,000 Anganwadi worker and 759,000 other persons have been imparted on the job and refresher training under the Project through a countrywide network of about 600 Anganwadi training center, 40 Middle Level Training Centers and the National Institute of Public Cooperation and Child Development and its Regional Centers. The overall performance under job training for the different categories of functionaries was 115% of the PIP target, while such performance under refresher training was 129%. There were some new initiatives taken during the implementation of Project Udisha, like training through Mobile Training Teams, which was provided at the project level/ block level by key trainers. There is urgent need to establish a Nutritional Surveillance System up to the block level to monitor the nutritional status of severely and moderately malnourished children and take appropriate actions for their management.

49). Dept. of Women and Child Development. (2007). Accordingly, AMS Consulting Pvt. Ltd. was commissioned to conduct an Infant Death Audit in the rural areas of Uttarkashi
and Pithoragarh Districts to identify the various causes of infant mortality in the project area, and suggest suitable interventions at various levels to bring about behavioral changes to reduce infant mortality. Findings of the study indicated that ARI/ pneumonia and diarrhea were the two major killers, accounting for nearly half (47%) of the total infant deaths. District wise analysis revealed the incidence of LBW to be higher in Uttarkashi (45%) as compared to Pithoragarh (36%). During the interaction, parents and caretakers were asked whether the infant was ill at the time of his/her death. In 66 cases, parents had recognized that the infant was ill. Anganwadi worker should be trained to use referral slips and health functionaries should give due cognizance to the referrals made by Anganwadi worker.

50). Dept. of Women and Child Development. (2007). This study investigated the incidence of low birth weight (LBW) babies in three distinct geographical regions of Uttaranchal namely Garhwal, Kumaun and foothills. A sample size of 50 infants was taken, and ICDS and non-ICDS villages were compared. It was found that even in most of the institutional deliveries, family members were unable to tell the weight of the infant at birth.
51). **Gangur, S.G. (2007).** The study was conducted in Ahmedabad, Vadodara, Surendranagar, Valsad and Dangs district of Gujarat. Data was collected through interviews with Supervisors, CDPOs and Anganwadi worker. It was found that majority of the Supervisors were graduates (67%), postgraduates (23%) and matriculates. 85% of the Anganwadi worker found that Supervisors were more helpful in managing Anganwadi centers. 80% Anganwadi worker felt that their Supervisors need to ensure solutions to the problems they faced.

52). **Pandey, D.D. Et Al. (2008).** Conducted study to assess the qualitative inputs being provided under different public initiatives of preschool in India. A total of eight districts were selected from 4 states namely Haryana, Himachal Pradesh, Uttarakhand, and Punjab, and two clusters (one each from rural and urban areas) were selected, bringing the number of clusters up to 16. Total 96 preschool education centers were studied. In Haryana and Punjab records were in very good condition, and in Uttar Pradesh they were in good condition. The attendance of all children enrolled was highest in RGNCS centers (90.62%), followed by ICDS (81.25%) and SSA (75%) centers. It was suggested that decentralized mode of training initiatives have to be strengthened.
through respective Block Resource Centers and Cluster Resource Centers.

53). Pawan Kumar and Garg, Meenakshi. (2008). The present intervention study was carried out in Udupi and Karkala Districts of Karnataka. The projects in operation cover 175 Taluks and 10 urban areas. 239 (66.21%) children were registered and 231 (96.65%) were availing benefits. The number of pregnant women in the sample was 96, and 90 (93.75%) were registered and availing the benefits of supplementary nutrition. There were 75 nursing mothers of whom 71 (94.67%) were registered and all of them were availing supplementary nutrition. There were 572 adolescent girls in the sample areas and 18 girls were registered in 10 Anganwadi centers. Amylase Rich Energy Food (AREF) was given to the beneficiaries after mixing it with lukewarm water and made into Laddus (round sweets)/porridge. The composition of AREF is whole wheat (roasted), Soya dhal (steamed), defatted Soya flour (roasted), Bengal gram (roasted), powdered sugar, vitamins and minerals (premix) and malted Ragi. Supervision of the Anganwadi centers by the supervisor in particular, needs to be made more regular and intensive.
54). Prekshi, Sehgal, Salil and Kawatra, Asha. (2008). Children have special nutritional needs because of their extensive growth during the preschool age. The growth pattern or anthropometric measurements of a child is a useful criterion for judging his/her nutritional status. A study was conducted to determine the anthropometric measurements of preschool children (4-5 years) of Gurgaon district of Haryana. Data was collected of 300 preschool children (150 boys and 150 girls) selected from randomly selected 6 villages namely, Vazirabad, Jharsa, Chakarapur, Badshahpur, Teekli and Palra. Mean height of boys and girls was 87.49 cm and 84.67 cm respectively which were significantly lower than the reference value. Sub-optimum nutritional status of the preschool children might be due to lower intake of energy, protein and iron rich foods.

55). Sally M GranthamMcGregor et. al (2014) conducted a systematic review of studies that examined the effect of interventions combining a child development component with a nutrition one; in some cases the nutrition interventions also included health-promotion components. Only papers with both child development and nutrition outcomes and rated as moderate to good quality were included. There was generally little benefit of
at-scale programs to nutritional status. We found no rigorous evaluations of adding stimulation to health and nutrition services at scale and there is an urgent need for them. There is also a need to establish quality-control mechanisms for existing scaled-up programs and to determine their long-term effects.