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## Research Studies on Women and Children

### CHILD LABOUR

1. Satpathy, Anoop K., Sekar, Helen R. and Karan, Anup K. (2010).  
Rehabilitation of child labour in India : lessons learnt from the evaluation of  
NCLPs. Noida: V.V. Giri National Labour Institute. 262 p.

**Abstract :** The Government of India (GoI) has followed a proactive policy towards elimination of child labour. The constitution of India not only secures compulsory primary education to all children has, through its 86<sup>th</sup> Amendment, made Right to Education a fundamental right for all children in the age group of 6-14 years. And several other initiatives have also been taken for protection of children from a variety of forms of exploitation ad to ensure that all the children are brought into the purview of schooling. NCLP was first initiated in 1988, which aims at elimination of child labour. The location of the project has been concentrated in the states of Uttar Pradesh, Bihar, Andhra Pradesh, Rajasthan, Orissa, Madhya Pradesh and West Bengal. 3 states viz. Andhra Pradesh, Bihar and Uttar Pradesh taken constitute up to almost one-third of the total number of districts covered under the scheme. India's child workforce indicates that much of the child employment is concentrated in agriculture and allied activities, accounting for over 66 percent of the total employment followed by manufacturing (16.55 percent). Trade, hotels and restaurants also account for a significant share of child workers (8.45 percent). In terms of territorial expansion of child labour in India, Uttar Pradesh appears to account for almost 255 followed by Andhra Pradesh with 13 percent, Maharashtra at 9 percent and West Bengal 8 percent. Total children working before enrolment is 69.83 percent, parents reporting the work of children an hazardous is 7.46 percent, parents working long working hours for children in 8.31 percent and 4.91 percent parents are reporting the work as not suitable for children. 55 percent teachers in schools responded that formal curriculum is most ideal from the perspective of better education and mainstreaming. Only 31 percent of the teachers responded that a mix of both formal and non-formal education is ideal. As NCLP are considered as complete rehabilitation centres, the schools are supposed to deliver facilities and services related to formal/informal education, provision of reading and learning materials, food and nutrition stipend, regular health check-up, vocational training etc.

Presently only 78 percent schools (85 percent in urban and 71 percent in rural) are able to provide vocational training to students. Approximately 335 of the schools both in rural and urban areas report that the course content of the vocational training was decided by the district project office. All together only 76 percent schools reported that they have opened children's bank/post office account. And among 70 sample districts, 8 reported that bank accounts have not been opened so far for a number of children enrolled. Approximately 10 percent of all 819 schools in the sample districts reported opening of bank accounts for some children but not for all the enrolled children, nearly 63 percent rural and 90 percent urban schools are within the reach of local health centres in different towns and villages. Teachers play a great role in motivating the parents in sending their children to special rapport with the community. As well as state government functionaries, NGOs are significant among stakeholders. NSSO should focus on analyzing '5-Digit' level data of the NCO to find out the concentration of child labour in different industries and occupations. Timely release of funds plays a crucial role in successful operationalisation and implementation of NCLP but also in utilization of funds allocated to the district. In addition to all the existing special schools and irrespective of any plan to increase the number of such schools, every district should have a few residential special schools.

**Key Words:** 1.CHILD LABOUR 2.REHABILITATION 3.REHABILITATION 4.CHILD LABOUR 5.EVALUATION CHILD LABOUR 6.CHILD WORKERS 7.WORKFORCE PARTICIPATION 8.EDUCATION STATISTICS 9.STATISTICS.

## **DESTITUTE CHILD**

2. Rao, P. Venkata. (2011).  
Sex workers and their children : a study in Visakhapatnam city of Andhra Pradesh. New Delhi: Indian Adult Education Association. 14 p.

**Abstract :** The Human Development Report 1995 summarized the forms of discrimination and exploitation against women under 4 broad categories which capture most forms of gender inequality facing various sections and classes of women (UNDP 1995). These include: the denial of human capabilities, the denial of economic opportunities, the denial of political power and legal inequality

combined with inadequate social protection from violence. Objectives of the study are: to find out the magnitude of the problem; to find out the socio-economic background of the sex workers and their children and to find out the problems of the sex workers. Sex workers found in different areas in the city, viz, Allipuram, Kobbarithota, Chaluvathota, Bupesh Nagar, Santhosh Nagar, Port Stadium area, etc. It is also found from the availability source of information that there are from 20 to 50 in those areas totaling 300, out of which the researcher planned to collect the information from 170 sex workers on random sampling basis. It can be seen that a majority (30.7 and 46.9) of the respondents between 21-25 and 26-30 age group earning more money than compare to other age groups. The income of the majority 88 of the respondents falls between Rs. 5001 – 6000 covering an average daily income to be around Rs. 200/-. In some areas they operate on a contract basis through an owner for 10-15 days and earn Rs. 5,000 - Rs. 8000. Independent sex workers are getting Rs. 100/- to Rs. 150/- per a contract. It is found that there are 110 married respondents followed by 33 separate or divorced women who are practicing illegal sex. There are also 24 unmarried women who are involved in the sex work. It is also found that there are 3 widows from the areas covered under study. 78 out of 170 entered the profession owing to the family and also find this occupation as an easy way of income to support themselves. This is supported by family problems due to poverty as this category comprises 55 out of 170 respondents. Most of the sex workers are coming to this profession due to broken families, poverty, failure in love affair and some force or influence of local people. Children of sex workers indicated that 69.4% of the sex workers children are admitted in the school and 26.5% of the sex workers children are engaged in different types of work and remaining 4.1% sex workers children are away from the home and they are not under the control of their parents. Among those a majority of the sex workers reveal that they admitted their children in Government residential social welfare hostels. Majority 91.6% respondents revealed that they do not want their children to enter the sex trade. They strongly desired to get their children educated and wanted them to lead lives as normal citizens in the society. Since majority of the sex workers are economically poor and socially backward they are to be provided with financial assistance/economic projects or employment for their self development and better life in the society. Rehabilitation of sex workers is an issue that requires careful handling.

**Key Words:** 1.DESTITUTE CHILD 2.CHILDREN OF PROSTITUTE 3.CHILDREN OF SEX WORKER 4.SEX WORKERS 5.PROSTITUTION 6.SOCIO-ECONOMIC CONDITION 7.VISAKHAPATNAM 8.ANDRHA PRADESH

## EDUCATION

3. Pratham, New Delhi. (2011).  
Annual status of education report (rural) 2010 : provisional. New Delhi:  
Pratham. 254 p.

**Abstract** : Annual Status of Education Report (Rural) (ASER) started impact which measured the impact of the 2% education cess on all Central taxes. The purpose of the ASER 2010's assessment survey in rural areas is twofold (i) to get reliable estimates of the status of children's schooling and basic learning (reading arithmetic level) at the district level and (ii) to measure the change in these basic learning and school statistics from last year. The sample is obtained by selecting 30 villages per district and 20 households per village. In 2010, for rural India, the percentage of children (age 6 to 14) not enrolled in school is 3.5%. It was 4% in 2009. The proportion of girls (age 11-14) who are still out of school has declined from 6.8% in 2009 to 5.9% in 2010. This number was 11.2% in 2005. However the percentage of out of school girls (11-14) is still high in some states like Rajasthan (12.1%) and Uttar Pradesh (9.7%) where the proportion remains largely unchanged since last year. In Bihar, there is a decline of out of school girls and boys in all age groups has been declining steadily since 2005. In 2006, 12.3% of boys and 17.6% girls were out of school in the 11 to 14 age group. By 2010, these numbers had declined to 4.4% for boys and 4.6% for girls showing very little difference by gender. Overall ASER 2010 shows that private school enrollment for rural children in the age group 6 to 14 has increased from 21.8% in 2009 to 24.3% in 2010. Between 2009 and 2010, the percentage of children (age 6-14) enrolled in private school has increased from 29.7% to 36.1% in Andhra Pradesh, from 19.7% to 25% in Tamil Nadu, from 16.8% to 20% in Karnataka and from 51.5% to 54.2% in Kerala. Among other states, Punjab shows an increase from 30.55 to 38%. Private school enrollment (6-14) remains low in Bihar (5.2%), West Bengal (5.9%), Jharkhand (8.8%), Orissa (5.4%) and Tripura (2.8%). Nationally, the percentage of 5 years olds enrolled in school has increased from 54.6% in 2009 to 62.8% in 2010. The biggest increase is visible in Karnataka where the proportion of 5 years olds enrolled in school has increased from 17.1% in 2009 to 67.6% in 2010, Punjab (68.3% to 79.6%), Haryana (62.8% to 76.8%), Rajasthan (69.9% to 75.8%), Uttar Pradesh (55.7% to 73.1%) and Assam (49.1% to 59%). Only 53.4% children in Standard 5 can read a Standard II level text. Nationally, there is a decline in the ability to do maths. The proportion of Standard I children who can recognize numbers (1-9) has declined from 69.3% in



2009 to 65.8% in 2010. The proportion of children in Standard III who can do two digit subtraction problems has decreased from 39% to 36.5% in the same period. The proportion of children in Standard V who can do simple division problems in Standard V has dropped from 38% in 2009 to 35.9% in 2010. Overall, in Standard VIII, three quarters of all children were able to do the calculations based on the menu about two thirds of all children could use the calendar and only half could do the calendar and only half could do the calculations related to area. The all India percentage of primary schools (Standard 1-4/5) with all teachers present on the day of the visit shows a consistent decrease over 3 years, falling from 73.7 in 2007 to 69.2 in 2009 and 63.4 in 2010. For rural India as whole, children's attendance shows no change over the period 2007-2010.

**Key Words:** 1.EDUCATION 2.PRIMARY EDUCATION 3.RURAL SCHOOLS 4.RURAL INFRASTRUCTURE 5.SCHOOL ENROLLMENT 6.OUT OF SCHOOL CHILDREN.

## **GROWTH AND DEVELOPMENT**

4. Gadkar, V.D. (2011).  
Documentation on activities of child guidance centre. Lucknow: NIPCCD Regional Centre Lucknow. 68 p.

**Abstract :** Child mental health in India is noted to be a neglected area. Learning and behavioural problems are on rise now-a-days among school going children due to unprecedented stress, changing family structure, influence of mass media. Most of the schools are not technically or professionally geared up to address the problems of these children due to various reasons. Children with these problems often need professional guidance and counselling to overcome these difficulties. Objectives were to identify children between 6 to 14 years having difficulties in learning and behaviour, to provide guidance and counselling services to children and parents, to refer children to institutions for specialised services and help. The present document was prepared on the basis of cases of children having learning and behavioural problems reported to child guidance centre for assessment and intervention services. Out of 372 clients registered, 108 were selected. They went through complete assessment and intervention services of psychiatrist,

special educator, clinical psychologist and social worker. Major findings that emerged out after analysis showed problems in their developmental perspective. Majority of children were found to belonging to the age group of 6 to 14; years and remaining were above 14. 44 percent mothers were graduates. 12.3 percent children's parents were separated and one child had lost one of his parents. 71.29 percent were involved in household works. 87.96 percent were interested to go to school, 12.4 percent were not interested to go to school. 65 percent of children have changed 2 to 5 schools till the time they had come to Child Guidance Centre. 75.92 percent demonstrated poor memory and attention, 69.44 percent had poor academic performance and 53.70 percent children do not have separate room for study. 55 percent children took tuitions. 81.48 percent were involved in play. 18.61 percent were not involved in play. 69.44 percent were receptive and expressive in communication. 73.14 percent were able to manage all the self help skills. 72.22 percent had normal early development milestones. 20.55 percent had normal birth and 12.96 percent mothers had high risk pregnancy. Behaviour of 83.33 percent subjects was acceptable for 8.33 percent it was not acceptable. 35.18% of the children were found engaged in lying, stealing, truancy and jealousy. 28.78 percent children were restless, disobedient and had poor attention. 17.59 percent children had learning problems, 12.96 percent children were slow learners. 87.04 percent received guidance at Child Guidance Centre, 12.96% were referred to other centres. Out of 108 children, 50 children were referred by various schools, and other children came by various sources. Majority of children had improvement in academic. Team needs to regularise visits to homes, schools, hospitals and referral centres which requires redefining of para professionals' roles in the community. Organise group counselling to parents having similar problematic children.

**Key Words:** 1.GROWTH AND DEVELOPMENT 2.CHILD GUIDANCE CENTRE 3.COUNSELLING 4.CHILD MENTAL HEALTH 5.CHILD PSYCHOLOGY 6.ASSESSMENT OF CHILD GUIDANCE CENTRE 7.DOCUMENTATION AND ACTIVITIES 8.BEHAVIOURAL PROBLEMS 9.SCHOOL CHILDREN 10.CASE STUDIES.

5. Prakash, Deep, Mathiyazhagan, T and Devrani, G.P. (2011). Risk behaviour of adolescents in Almora district of Uttarakhand. New Delhi: Indian Adult Education Association. 13 p.

**Abstract :** The term adolescent is derived from the latin verb adolescere, which means grow up. The study entitled 'Risk of adolescents in Almora district of

Uttarakhand' was conducted with the specific objectives (i) to assess the knowledge of adolescents about risk behavior and its consequences (ii) to study the risk behavior practiced by the adolescents and its sources of information; and (iii) to suggest appropriate measures to overcome the risk behavior by the adolescents. Age of the students in the school under study ranged from 13 to 17 years. Maximum number of students were 17 years old and 16 years old in schools under Tarikhet block (63.1%) and Ranikhet block (61.5%) respectively. 78% were males and the remaining were girls in all the schools under study of 240 students, 15 students in Tarikhet block (6.2%) and 23 students in Ranikhet block (9.6%) had the habit of drinking alcohol. 38 out of 240 students drinking alcohol in the study areas only 31 students had knowledge about the consequences of drinking. It is very unfortunate that though they know the consequences of drinking alcohol they continue to drink. 40 out of 240 students (16.7%) have been using tobacco from all 6 schools of Tarikhet and Ranikhet blocks. 33 out of 40 students chewing tobacco were aware of the consequences of it. However, they continued to chew. 225 out of 240 students from all 6 schools of Tarikhet and Ranikhet blocks had knowledge about use of cigarettes/biris. 5 out of 240 students have developed the habit of smoking in the study area in their adolescent age. 47 out of 55 students had knowledge about the consequences of smoking. Among the physical activities, the adolescent boys and girls considered running as number one physical activity (92.5%) followed by yoga (92%), walking (91%) and playing games (89%) as observed by Najebullah, 2007 in his experimental study on regular physical exercise and physical fitness of PLWH. 87 out of 240 students performed physical activities more than 3 days a week. 54% students in the schools of Tarikhet block perform physical activities more than 3 times a week as compared to the students of Ranikhet block (46%). Among the sources of information for students about physical activities in the study area, parents stood first (34.2%) followed by T.V. (27.5%) suggestions given by the students to quit risk behavior such as (i) one should be aware of risk behavior (20%), (ii) listen to parents advice (19%), and (iii) put resistance to peer pressure (17%). Some other suggestions given by them included (i) awareness programme in the school (ii) discourage the use of film, T.V., internet etc. (iii) physical activity and yoga and (iv) listen to doctors advice.

**Key Words:** 1.GROWTH AND DEVELOPMENT 2.ADOLESCENT BEHAVIOUR 3.ADOLESCENT PROBLEM 4.ADOLESCENTS 5.ALMORA 6.UTTARAKHAND.

6. Premakumari, S. and Deepa, K. (2008).  
Socio-economic, nutritional and health factors influencing the cognitive development of 7-9 year old children. Coimbatore: Avinashilingam University for Women, Dep of Food Science and Nutrition. 10 p.

**Abstract :** The objective was to study the socio-economic, nutritional and health factors influencing the cognitive development of 7-9 years old children. 120 children comprising of 60 boys and 60 girls from each income groups like high income (> Rs 7500/month), middle income (Rs 4500 - 7500/month) and low income (< Rs 4500/month) groups as per the HUDCO (2204) classification were equally distributed in all the three age groups namely 7, 8 and 9 years formed the subjects for the study. A majority namely 54, 68 and 90 percent of the child from low, middle and high income families respectively had one sibling and about 35, 25 and 5 percent of the children had 2 siblings. A majority of the fathers belonging to the low and middle income groups (35 and 27 %) were found to be labourers, while fathers of the high income groups were mainly businessmen (52 %) or professionals (11 %) or employed in private sector (31 %). The mean blood haemoglobin levels of the children were found to be 8.23, 9.41 and 12.58 g/dl in low, middle and high income groups respectively. The combined mean scores received by the boys and girls of the increasing income of Malin's intelligence scale for boys and girls of the increased income were 104.23 and 105.35, 110.162 and 112.77 and 126.09 and 129.2 respectively for a maximum score of 155. Care should be taken to provide children with an intellectually stimulating environment for the optimal expression of that inherent genetic potential.

**Key Words:** 1.GROWTH AND DEVELOPMENT 2.COGNITIVE DEVELOPMENT 3.SOCIO- STATUS 4.CHILDREN (7-9 YEAR) 5.EDUCATIONAL STATUS 6.NUTRITIONAL STATUS.

## HEALTH

7. Bharati, D.R., Deshmukh, P.R. and Garg, B.S. (2006).  
Correlates of overweight and obesity among school going children of Wardha city, central India. Sewagram: Mahatma Gandhi Institute of Medical Sciences, Dep of Community Medicine. 5 p.

**Abstract :** Overweight and obesity are important determinants of health leading to adverse metabolic changes and increase the risk of non communicable diseases. In adult obesity, the proportion of adolescent overweight and obesity has been increasing. The study was undertaken to study the magnitude of underweight/obesity and its correlates among school going children of Wardha city in central India and suggest interventions. The cross sectional study was carried out in 31 middle schools (Vth to VIIth standards) and high school (VIIIth to Xth standard) of Wardha city. Height and weight was measured and BMI was calculated. Overweight and Obesity was assessed by BMI for age. Student who had BMI for ages  $\geq$  85th and  $<$  95th percentile of reference population were classified as overweight and BMI for age  $\geq$  95th percentile of reference population were classified as obese. Overweight and obesity were found to be 3.1 percent and 1.2 percent respectively, together these constitute 4.3 percent for overweight/obesity. Final model of the multivariate logistic regression showed that the important correlates of overweight/obesity were urban residence, father/mother involved in service/business, English medium school and child playing outdoor games for less than 30 minutes. Family characteristic play an important role in predisposing the children to overweight/obesity and hence the interventions need to be directed towards the families.

**Key Words:** 1.HEALTH 2.OBESITY 3.OVERWEIGHT 4.ADOLESCENCE 5.BMI 6.CHILDHOOD 7.FATNESS 8.NUTRITION 9.NON-COMMUNICABLE DISEASES 10.SCHOOL GOING CHILDREN 11.WARDHA.

8. Bhattacharjee, Harsha et al. (2008).  
Causes of childhood blindness in the northeastern states of India.  
Guwahati: Sri Sankaradeava Netralaya. 5 p.

**Abstract :** The north eastern region (NER) of India is geographically isolated and ethno-culturally different from the rest of the country. The objective is to determine the causes of severe visual impairment and blindness amongst children from schools for the blind in the 4 states of NER of India. A total of 376 students were examined of whom 258 fulfilled the eligibility criteria. The highest numbers of children examined were from Assam with 174 followed by Manipur 36, Tripura 25, and Mizoram 23. The major anatomical causes of visual loss amongst the 258 were congenital anomalies (anophthalmos, microphthalmos) 93; 94; cataract or aphakia 28, retinal disorders 15 and optic atrophy 14. Nearly, half of the children were blind from conditions which were either preventable or treatable (48.5 percent). To develop control programmes to prevent childhood blindness, it is necessary to identify important avoidable causes in each country and monitor the changing patterns of childhood severely visually impaired or blind in different regions of the country over time.

**Key Words:** 1.HEALTH 2.CHILDHOOD BLINDNESS 3.BLINDNESS 4.CAUSE OF BLINDNESS.

9. Kalpana, C.A., Lakshmi, U.K. and Radha Devi, S. (2010).  
Impact of different intervention strategies on selected obese children of Coimbatore city. Coimbatore: Avinashilingam University for Women, Dep of Food Science and Nutrition. 9 p.

**Abstract :** The objective is to develop and implement intervention strategies namely nutrition education, physical activity and snack substitution on selected obese children and evaluate the impact of the different intervention strategies. Four schools from different areas of Coimbatore city were selected to implement the different intervention strategies. A total of 240 obese children (120 boys and 120 girls) were selected by purposive sampling method and they were further divided into 3 experimental groups and one control group of 60 each as follows: Group A (60): Nutrition Education, Group B (60): Nutrition Education and Physical Activity, Group (C): Nutrition Education, Physical Activity and snack

substitution, Group (D): Control with no intervention. The mean weight of obese boys in experimental groups A, B and C respectively was found to be 56.1 kg, 55.3 kg and 53.4 kg at the start of the intervention strategies which got reduced to 55.1 kg , 54.1 kg and 52 kg after the intervention strategies, it was observed that the mean Body Mass Index (BMI) value among the obese boys in groups A, B and C were 23.8, 24.4 and 25.2 initially, which reduced to 22.8, 23.0 and 23.6 after intervention and were statistically significant ( $p < 0.01$ ). Group C exhibited a maximum reduction of 1.6 among all groups. With regard to control group D an increase in BMI by 1.1 was observed which was statistically not significant. The mean weight of obese girls in groups A, B and C ranged from 47.9 to 50.6 kg before intervention and had reduced to 47.2 to 50 kg with a difference of 0.3 to 0.7 after intervention. The mean Body Mass Index (BMI) of the obese girls in groups A, B and C was found to be 23.5, 24.9 and 25.6 respectively before intervention and the mean values reduced to 22.8, 24.0 and 24.1 after intervention. The reduction in BMI ranged from 0.7 to 1.5 and was found to be statistically significant in groups A and B and the maximum reduction of 1.5 in the mean BMI was observed in group C. On the contrary an increase in BMI by 1.3 was seen in control group D which was statistically significant ( $p < 0.01$ ). It can be concluded that school-and family-based intervention which includes nutrition education, increased physical activity and substituting of high calorie food with low calorie, low fat and high fibre foods can be recommended which would be effective in the management of childhood obesity.

**Key Words:** 1.HEALTH 2.OBESITY 3.OVERWEIGHT 4.OBESITY IN CHILDREN 5.CHILDHOOD 6.STRATEGY FOR OBESITY 7.NUTRITION EDUCATION 8.ANTHROPOMETRIC MEASUREMENTS 9.COIMBATORE.

10. NIPCCD Regional Centre Lucknow, Lucknow. (2010).  
Socio-cultural barriers in the adoption of safe reproductive and child health practices: a study in a tribal block of Uttarakhand. Lucknow: NRCL. 123 p.

**Abstract :** Tribal population forms 8.2 percent of the total population of India. Tribal groups inhabit widely varying ecological and geo-climatic conditions. The present study has been conducted in Chakrata block of Dehradun district of Uttaranchal state. 88 respondents from three villages namely Lakhamandal, Jogiyo and Tyuni were selected. Samples include unmarried adolescent girls,

women in reproductive age group, pregnant women, lactating mothers, health care workers and community stakeholders. Objectives of the study are to assess the knowledge, attitude, behavior and practices of tribal women towards reproductive and child health, to identify myths, misconception and barriers about reproductive and child health and care; recommend measures to government for re-shaping strategies in consonance with the tribal culture; and to identify the areas where trainings of the programme functionaries is needed. 17.6 percent unmarried adolescent girls have attained education up to primary level, 32.5 percent secondary level, 2.9 percent adolescent girls were found illiterate. 63.8 percent married women were unemployed and engaged either in cultivation or household work. 35.3 percent adolescent girls and 63.8 percent married women do not have bathroom facility. 52.9 percent of adolescent girls know about anaemia while 40 percent had no knowledge. 100 percent girls experienced symptom of weakness and fatigue during anaemia, 72.2 percent showed breathlessness, 55.5 percent loss of appetite. 26.4 percent adolescent girls have received immunisation after the age of 10 years. 73.5 percent of girls have not received any immunization. 97.0 percent of adolescent girls and 63.8 percent married women use panties daily while 2.9 percent of girls and a total of 33.3 percent use panties only during menstruation. 75 percent of the adolescent girls faced physical problems during menstruation. 62.55 of girls and 80.5 percent women use clean cloth during menstruation. 37.5 percent girls and 11.1 percent married women use market-based sanitary napkins. 91.1 percent adolescent girls and a total of 88.8 percent married women had knowledge about methods of family planning. 86.1 percent had knowledge about antenatal care, 13.8 percent were found not having awareness about antenatal care. 88 percent of women knew Anganwadi Centre as the place for availability of services for pregnant women. 25 percent of women got conceived at the age of 16 years followed by 17 years (19.4 %) and 21 years (13.8 %) respectively; 36.1 percent women got themselves registered during pregnancy, 27.7 percent received TT immunisation and 16.6 percent women consumed IFA tablets during pregnancy. 27.7 percent women take extra diet during pregnancy. 86.1 percent married women were enrolled during pregnancy while 13.8 percent women did not get themselves enrolled during pregnancy. 80.5 percent delivery cases are carried out at home and 19.4 percent in hospitals. 72.2 percent of women were not aware about the 5 cleans to be practiced during delivery (i.e. clean hands, clean place, clean blade, clean thread and clean cord). 41.6 percent initiated breastfeeding after an hour. 72.2 percent of women were aware about the correct duration of breast feeding. 97.2 percent of women were aware about the importance of child immunisation. 7.69 percent women did not find it essential. 63.3 percent women take their children for treatment while 8.3 percent refused any kind of treatment. 7.5



percent unmarried adolescent girls have heard about HIV/AIDS. Media/TV was found to be a major source of information. 87.5 percent of girls and 81.4 percent women, having heard of HIV/AIDS, have knowledge about transmission of this virus. It is recommended that extensive educative/awareness campaigns by the paramedical staff and women social workers be deployed in the tribal areas to generate necessary awareness regarding health and hygiene. Systematic action plan for propagating the construction and use of toilets needs to be included as an essential element of health and hygiene programmes. General level of awareness about different aspects of health and hygiene were found to be low, hence informal education system must be introduced. Introduced a supply of low cost item through public private partnership basis and made available to them on subsidised rate. This work could be coordinated at PHC/AWC level. Social marketing of schemes and programmes of ICDS, RCH, NRHM should be done. Inter scheme coordination committee as at different level to be established.

**Key Words:** 1.HEALTH 2.REPRODUCTIVE AND CHILD HEALTH 3.TRIBAL WOMEN 4.CHILD HEALTH CARE 5.KAP OF MOTHER 6.KNOWLEDGE AND ATTITUDE 7.SOCIO-CULTURAL FACTORS 8.CHILD HEALTH PRACTICE 9.ADOPTION SAFE HEALTH PRACTICES 10.UTTARAKHAND

11. Rema, N. and Vasanthamani, G. (2011).  
Prevalence of nutritional and lifestyle disorders among school going children in urban and rural areas of Coimbatore in Tamil Nadu, India. Coimbatore : Avinashilingam Deemed University, Dept. of Food Service Management and Dietetics. 10 p.

**Abstract :** The prevalence of both nutritional as well as lifestyle disorders is common among children as quoted by the World Health Organisation (2010) and we studied this in both urban and rural areas of Coimbatore city. The objective is to determine strategies to prevent the occurrence of both underweight, overweight and obesity. Another objective is, devising strategies to well as avoid nutritional deficiencies among children in order to increase their capacity in education, extracurricular activities, grow into complete individuals with mental and physical prowess. Students were selected from each of Matriculation, Corporation and Panchayat schools in the age groups of 6-15 years. Background information of 2180 students from Matriculation schools, 2122 from Corporation schools and 1870 from Panchayat schools was obtained using an

interview schedule. It could be deciphered from the anthropometric measures that 8.44 percent of boys and 7.43 percent of girls from Matriculation schools were obese while in Corporation schools 5.73 percent boys and 4.45 percent girls and in Panchayat schools 2.65 percent boys and 1.59 percent girls were found to be obese. Common nutritional deficiencies identified among the students include anaemia prevalent among 24.22 percent boys and 21.54 percent girls in Matriculation schools, while it was 35.43 percent boys and 46 percent girls in the Corporation schools and 34.4 percent boys and 41.92 percent girls from Panchayat schools in the pre-adolescent group. Among adolescents 47.11 percent boys and 66.82 percent girls in Matriculation schools, 64.65 percent boys and 69.52 percent girls in Corporation schools and 58.67 percent boys and 67.5 percent girls in Panchayat schools had anaemia. Thus it can be concluded that the extremities of underweight, obesity and nutritional deficiencies are prevalent among the school children.

**Key Words:** 1.HEALTH 2.OBESITY 3.UNDERWEIGHT 4.SCHOOL GOING CHILDREN 5.NUTRITIONAL DEFICIENCIES 6.LIFE STYLE DISORDER 7.ANTHROPOMETRY 8.COIMBATORE.

## ICDS

12. Prinja, Shankar. (2009).  
Role of ICDS programme in delivery of nutritional services and functional integration between anganwadi and health worker in north India. Chandigarh: PGIMER, Dep of Community Medicine. 7 p.

**Abstract :** The Integrated Child Development Services ICDS programme is being conducted for children, pregnant and lactating women and adolescent girls in close coordination with the health services for improvement of health status and overall development of children and other beneficiaries. Objectives is to ascertain the nutritional status and dietary patterns of 1-3 year old children in areas served by ICDS programme and assess the nature and extent of functional integration between the ICDS and health sector. This cross sectional study was done from June 2005 to November 2005. District Rohtak was purposively chosen. The study covered 10 percent anganwadi centres from the 5 rural blocks. Incidence of underweight was found among 199 children with the prevalence of moderate to severe malnutrition (grade II or III) being 15.5 percent.

Only 81 and 41 children among 1-3 year old had calories and protein intake respectively more than 80 percent of recommended dietary allowance (RDA). Breast feeding was initiated by 68 mothers within 1 hour of childbirth and 163 mothers had started semisolid complementary feeding within 6-9 months age. Exclusive breastfeeding (till 6 months age) was done by 115 women. Information on postnatal care and vitamin A was exchanged by 12 and 41 anganwadi workers respectively. Information on contraception was shared between 35 AWWs and their MPHWS (F). Help provided by MPHWS (F) to AWWs included predominantly provision of health education to the women beneficiaries (47), providing basic medicines including iron folic acid tablets, oral rehydration solution, contraceptives, paracetamol and antimalarial drugs for presumptive treatment (33), and identification and referral of severely malnourished children (16). The problem to persist with low involvement of mother. It needs to be further revamped with a holistic approach towards child development and making the mother responsible for the health of the child.

**Key Words:** 1.ICDS 2.NUTRITIONAL STATUS 3.NUTRITIONAL SERVICE 4.ANGANWADI 5.HEALTH WORKER.

13. Saikia, D.K. et al. (2011).  
ICDS in Tripura : an evaluation. Guwahati: NIPCCD Regional Centre.  
159 p.

**Abstract :** Integrated Child Development Service Scheme (ICDS) which was launched in India in 1975 on an experimental basis in 33 blocks has turned out to be the world's one of the most comprehensive developmental intervention for children. Objectives are: to assure the existing status of implementation of ICDS programme in terms of coverage, outreach, coordination and convergence; to compare the differences in implementation of ICDS programme in different districts and also in rural, urban and tribal areas; to identify gaps and problems in the implementation of ICDS; to find out the extent of support provided by the community and local bodies in implementation of the programme and to explore the inter-linkages of ICDS with other development programmes and their role in improving the quality of services. The present study covered a total of 15 ICDS projects from rural, tribal and urban areas of the state. A total of 75 AWCs were selected for data collection. Mothers in the reproductive age group from 15-45 were selected for data collection so that in all AWCs the total number of respondents become 23. In each AWC, 6 randomly selected children in the age group 3-6 years were administered Child Learning Competence Test (CLCT).

Only 149 community leaders could actually be interviewed and MPWs data could be collected from 12 Medical Officers and 28 MPWs. Scheduled tribes constituted 30 percent of beneficiary population followed by scheduled caste (23.1 percent), other backward classes (20.9 percent) and others (25.9 percent). 99 percent of children in the age group of 6 months – 3 years of the Anganwadi areas were registered for supplementary feeding and about 75 percent of these children were availing the food at the AWCs in all the districts. In case of 3 – 6 years of children, about 98 percent of the children had been registered 2 of them about 75 percent were receiving the food. Around 70 percent of the pregnant women (63 percent) of the nursing mothers, actually came for receiving the food, almost all the mothers of beneficiary children (98 percent) opined that Khicdi was appropriate for their children. ICDS programme mandates that feeding of supplementary food at the Anganwadis should take place for 300 days in a year. However in nearly 63 percent of the AWCs covered under this study faced interruptions in supplementary nutrition programme. In about 60 percent cases AWWs took the birth weight of the new born. While only 40 percent of the AWWs in urban project were taking the birth weight, it is significant that about 80 percent of the AWWs in tribal projects and 62 percent AWWs in rural projects took birth weight of the new born. On an average, 22 children in the age group 3 – 6 years were registered for pre-school education, of which about 16 children on an average attended the pre-school sessions. Amongst the 4 districts, in Dhalai district the attendance was lowest (65 percent). Children in the age group 6 months – 3 years showed that coverage of BCG vaccine (84.5 percent), OPV (77 percent) and DPT (65 percent). Health check –up was carried out in the large majority of the AWCs (80 percent) in Tripura. While in most cases 72 percent health check-up was carried out once in every month on Village Health and Nutrition Day (VHND) in a small section of the AWC and health check-up took place quarterly or half yearly only. Highest consumption of IFA tablets was found in South district (87 percent) followed by Dhalai (77 percent), West (71 percent) and North (64 percent). ICDS services should be available to the people closest possible, Nodal Department adopts various available recipes developed by Food and Nutrition Board, CINI, etc, to be used as therapeutic food in consultation with experts on nutrition, skills of AWWs in conducting pre-school activities needed to be enhanced and intensive awareness generation activities need to be taken up to sensitise the people about the importance of immunisation of children and pregnant women.

**Key Words:** 1.ICDS 2.EVALUATION OF ICDS 3.EVALUATION OF ICDS TRIPURA 4.FUNCTIONING OF ANGANWADIS 5.ICDS FUNCTIONARIES 6.TRIPURA.

## NUTRITION

14. Agarwal, Madhu et al. (2010).  
A Study on impact of iron folic acid along with vitamin C on the haemoglobin status of adolescent girls in an ICDS block. Lucknow: NIPCCD Regional Centre. 77 p.

**Abstract :** Adolescence proves to be the most vulnerable phase in the path of human life cycle after infancy. It is characterised by rapid growth and development with a transition from childhood to adulthood. They gain 50 percent of their adult weight and skeletal mass and more than 20 percent of their adult height, where, nutrition plays development and a vital role in determining the growth, development and survival of an individual. Adolescent girls, at this stage needs, protein, iron and other micro nutrients to support the adolescent increased demand for iron during identified in adolescents are micro nutrient deficiencies in general and iron deficiency anaemia. Objectives are to study the prevalence of anaemia in adolescent girls, to assure the impact of administration of Iron Folic Acid (IFA) supplementation with and without Vitamin C on haemoglobin levels of adolescent girls for different duration, to assess the impact of HHED on practices pertaining to diet and hygiene. Four hundred adolescent girls in the age group of 13-18 years participated in the study. They were selected at Barabanki district in Uttar Pradesh. Haemoglobin status, height and weight of adolescent girls and impact of HHED were assessed in 3 phases. Majority of the adolescent girls (87.6%) were educated, (66.2%) had education (9.5 %), Matriculate (85%) only 3.8 percent knew how to read and write and 12 percent were illiterate. SC and OBC comprised of 44.5, 3.8 percent ST and 3.2 percent were from general caste. 77.2 percent adolescent girls were found anaemic with severe (3.5%) moderate (28.2%) and mild (45.5%) only 22.8 percent were observed non anaemic with their haemoglobin levels 12g/dl. All four groups had shown improvement in the haemoglobin level due to the impact of IFA supplementation. Third phase of the study, showed prevalence of anaemia in Group B (moderate), C (mild) and D (severe). A positive impact of HHED was observed among the respondents in the practice of maintaining cleanliness of houses from 62.5 percent to 84.6 percent in (6 months) 58.5 percent subjects were aware of healthy personal hygienic practices, by the end 99.6 percent

respondents had started practicing them. Adolescent girls may be supplemented with iron folic acid along with Vitamin C bi-weekly for a period of three months with parallel support of intensive nutrition and health education counseling to adolescent girls. National Rural Health Mission or ICDS or Sarva Shiksha Abhiyan covers maximum rural adolescent population.

**Key Words:** 1.NUTRITION 2.ANAEMIA ADOLESCENT GIRLS 3.PREVALENCE OF ANAEMIA 4.ADOLESCENT GIRLS 5.IRON AND FOLIC ACID 6.VITAMIN C HAEMOGLOBIN STATUS 7.NINDURA ICDS BLOCK 8.IMPACT OF NHED 9.LITERATURE REVIEW.

15. Anand, K., Kant, S. and Kapoor, S.K. (1999).  
Nutritional status of adolescent school children in rural north India. New Delhi: All India Institute of Medical Sciences, Centre for Community Medicine. 5 p.

**Abstract :** Adolescence, a period of transition between childhood and adulthood, occupies a crucial position in the life of human beings. Recent studies have shown that the prevalence of malnutrition and anaemia is high in the age groups 3-5years. The present study was done with the objective of assessing the nutritional status of adolescent children attending a school in rural north India. The study was conducted in the Government Senior Secondary School in village Chandawli of District Faridabad in Haryana among students of classes 6 -12. All children attending school at the time of the survey were included. The study was done in the month of September 1998. Only those children who were listed in the register to be in the age group of 12 to 18 years were included. A total of 505 school children were present during the visit and full information was available for 494 students. Among boys, prevalence of stunting shows a declining trend from 56 percent at 12 years of age to 25 percent at 17 years of age. The prevalence of stunting drops down sharply at 14 years of age. This is likely due to the pubertal growth. The increase in mean height is about 8 cm per year among boys and 5 cm per year among girls in the age below 15 years. Prevalence of thinness among boys varies between 31 percent to 52 percent without any clear trend. In girls, it varies between 4 percent to 59 percent. Though, the number of girls are less in each age group, it appears that prevalence of thinness in girls is lower than in boys. The prevalence of anaemia was 27.8 percent in young boys (12 -14 yrs; n = 79) compared to 41.3 percent in older boys (15 -18 yrs; n = 92). Anaemia

was present in 51 percent of young girls (n = 68) compared to 38.5 percent (n = 39) in older girls. The mean haemoglobin was higher in boys as compared to girls in both the age groups. None of the subjects had hemoglobin level below 9 gm/dl. The prevalence in the 12-18 year age group was 37.2 percent among girls and 41.0 percent among boys. School-based mid day meal programme and iron supplementation should receive priority in rural areas. A beginning has been made by inclusion of adolescent girls as beneficiaries of iron tablets (once a week) under the Integrated Child Development Services (ICDS) scheme. Also in 1995, the Government of India launched the National Programme of Nutritional Support to Primary Education (NSPE). However, much more needs to be done to address the issue of adolescent malnutrition at the national level.

**Key Words:** 1.NUTRITION 2.NUTRITIONAL STATUS-ADOLESCENT 3.ADOLESCENT 4.SCHOOL CHILDREN 5.RURAL NORTH INDIA.

16. Chugh, Sunita. (2008).

The Government primary school mid-day meals scheme : a study of best practices in the implementation of mid day meal programme in Punjab. New Delhi: National University of Educational Planning and Administration. 30 p.

**Abstract :** The Government of India launched a countrywide scheme, 'National Programme of Nutritional Support to Primary Education (Mid-Day Meal Scheme)' on 15 August 1995 (effective from 2-10-1995). Under this Scheme, students of primary classes were to be provided wheat @ 3 kg per student per month (for 10 months in a year) subject to 80 percent attendance and later on the states were to switch over to cooked meal scheme within 2 years. Punjab did not switch over to cooked meal scheme due to paucity of funds involved in the conversion of food grains to cooked meal. Children are given Dal roti, salted rice and sweet cooked meal (Halwa) 5 days in a week. Iodised salt is used for cooking of food. The food grains are supplied free of cost by Food Corporation of India. Conversion Cost including the cost of oil, pulses, condiments, fuel etc. is given at the rate of Rs.1.50 per child per day by Government of India and Rs.0.50 per child per day has been provided by the State Government. The field study focused on the experiences of 10 schools in 5 blocks of 4 districts which were implementing the Mid-Day Meals Scheme. These blocks belonged to 4 districts of SAS Nagar (popularly known as Mohali), RupaNagar (Ropar), Jalandhar and

Amritsar. 10 schools from 4 districts and 5 blocks were selected for the study. Some of the schools reported that the children are more regular after the introduction of mid day meal. In 5 schools a helper was also hired and in rest of the 5 schools only the cook managed the cooking and washing of utensils. The food was served by the cooks under the supervision of the teacher responsible for mid day meal. Bags of wheat/rice were generally stored in a corner of one of the kitchen/store room. In four schools the meals were prepared over wood fire either in the open area or in kitchen, and in 6 schools the meal was prepared on the gas chullah. It was also observed that only four schools had dishes for all the primary school children but in rest of the schools the children brought their own dishes from home. Teachers and cooks in all the schools said that wheat and rice was delivered on time but funding was often late. Teachers in all the sampled schools reported that the school meal scheme had increased their workload significantly. The teachers are expected to keep detailed account of the receipt of wheat and funding, daily attendance and quantity of meal prepared. In few cases the parents come to supervise the quality of the food served to children. They ask their wards as to what was given to them in the school and if they find that the children do not like food their parents visit the school and talk to the teacher. It was pointed out by most of the schools that the cooking should take place at cluster level and then the food may be distributed to all schools situated within the cluster. The funds do not reach to school on time. So, in order to avoid delay advance payment for two months may be given to the head teacher. Additional staff like peon may be provided to help in the smooth implementation of the mid day meal scheme.

**Key Words:** 1.NUTRITION 2.MID DAY MEAL 3.BEST PRACTICES 4.MID DAY MEAL SCHEME 5.IMPLEMENTATION MID DAY MEAL PROGRAMME 6.EDUCATIONAL PROFILE 7.PRIMARY SCHOOL 8.SCHOOL MEAL PROGRAMME 9.READY TO EAT MEALS 10.CASE STUDIES 11.PUNJAB.

17. Chugh, Sunita. (2008).

The Government primary school mid-day meals scheme: a study of best practices in the implementation of mid day meal programme in Maharashtra. New Delhi: National University of Educational Planning and Administration. 35 p.

**Abstract :** Maharashtra is situated in the Western part of India. National Programme of Nutritional Support to Primary Education (commonly known as the



Mid-Day Meal Scheme) was launched as a Centrally-Sponsored Scheme on 15 August, 1995. Its objective was to boost 'universalisation of primary education' in order to increase enrolment, retention and attendance, and simultaneously impact on nutrition of students in primary classes. The school education department has suggested a variety of cooked food derived from rice i.e. Khichdi, Dal Rice, Idali Sambar, Rice Kheer, tomato Rice, Vegetable Rice etc. It is also suggested that once in a week, biscuits, bananas or eggs should be given to students. Visit to 12 schools in 9 blocks i.e. Maval, Velha, Bhor, Wai, Mahabaleshwar, Poladpur, Karjat (Tribal), Alibagh, and MNC Thane and 4 districts of the state were Pune, Satara, Raigad and Thane made to look at the implementation of Mid Day Meal practices. 3 blocks that were selected were having large proportion of tribal population. 12 schools from 4 districts and 9 blocks were selected for the study. The schools visited were having varying enrolment ranging from 31 to 426 in the primary sections. The attendance was short of actual enrolment in all the sampled schools except for one. In most of the schools attendance was around 90 percent except for two. The school attendance has an impact on the mid day meal as the food is to be cooked for those children who attend school on that particular day. In each of the schools visited, interviews with a variety of people (teachers, parents and students) as well as personal observation confirmed that the school normally provided cooked mid-day meals on a daily basis (6 days per week). Around 8.1 million children in Maharashtra are being served the cooked meal regularly in the working days of the session. All the children are made to sit together and served food without the discrimination of caste, religion, gender or disability. Teachers help in the purchase of food items, supervise the quality of ingredients and also the cook. They help in the distribution of midday meal and give special attention to those children who are from poor socio-economic background and to girls as well. They also maintain the record and displays information displays related to mid day meal. Numbers of NGOs are also contributing in the implementation of scheme by donating utensils, and also helping in the cooking and delivery of cooked food in few schools. The main objective of the scheme is being accomplished as it has been able to improve the enrolment and retention of children.

**Key Words:** 1.NUTRITION 2.MID DAY MEAL 3.BEST PRACTICES 4.MID DAY MEAL SCHEME 5.IMPLEMENTATION MID DAY MEAL PROGRAMME 6.EDUCATIONAL PROFILE 7.PRIMARY SCHOOL 8.SCHOOL MEAL PROGRAMME 9.READY TO EAT MEALS 10.CASE STUDIES 11.MAHARASHTRA.

18. Gawande, Sharda S. (2011).

Need of education and awareness : a study of locally made therapeutic food for treatment of malnutrition in Melghat region of Amravati district (Maharashtra). Maharashtra: SGB Amravati Univ, BSP College, Dep of Home Science. 8 p.

**Abstract** : Nutrition and health are the 2 faces of the same coin. Nutrition is in fact fundamental pillar of human life. Malnutrition-related diseases are therefore, unacceptable in the 21<sup>st</sup> century, this research study has been done on the Melghat tribe residing in the Manbhang and Nilkheda villages situated at a distance of 60 km from the district headquarter of Amravati. In this study, 50 families (25 from each village) are selected on random sample basis. The food habits of the people from both villages Manbhang and Belkheda of this region are very simple and majority of the population (nearly 67 percent) takes mixed diet (vegetarian and non-vegetarian both). 95 percent people have stated that they get 2 full meals every day. However, 5 percent people do not get it. About 89 percent children, even after attaining the age of 6 to 7 months, were not given supplementary food. Only 11 percent mothers were found to be aware about this. Similarly only 57 percent children were given supplementary food even after attaining the age of 8 to 12 months. The monitoring after the demonstration within a week's period revealed that 465 children were given supplementary food on attaining the age of 6 months. Also 82 percent children of the age of 8 to 12 months were given supplementary food. The implementation of the above experiment was monitored for about 6 months, after 6 months the survey revealed that 71 percent mothers supplemented the breastfeeding to their children after 6 months of age and 82 percent started the supplementary food to their children after 8 months of age. percentage of the pregnant women taking nutritious food was found to change from 10 percent to 81 percent and the lactating mothers taking nutritious food changed from 11 percent to 82 percent within a week's period to 86 percent after 6 months. The remaining 14 percent didn't respond to the awareness campaign and were found to resort to their earlier food habits of taking corn, roti and locally available vegetables only. As the nutrient intake among the male and female Korku is very low than recommended dietary allowances (RDA) values, it is necessary to take immediate steps in this direction. Not only Government and private institutions, but local inhabitants should also participate for preventing these tribes from the dangers of malnutrition. Along with higher preparation of food products, proper inter family distribution and better selection of food items are also essential to

ensure balanced diet for the members of the households. Only through nutrition education, these tribes will be able to select highly nutritious food to ensure balanced diet for their family. Only through imparting nutrition knowledge malnutrition can be brought under control among the tribal population particularly since protective and body building foods are in scarce supply and beyond the reach of the poor.

**Key Words:** 1.NUTRITION 2.MALNUTRITION 3.NUTRITION EDUCATION  
4.TREATMENT THERAPEUTIC NUTRITION 5.AMRAVATI 6.MAHARASHTRA.

19. Josephine, Yazali. (2008).

A Study of best practices in the implementation of mid-meal programme in Arunachal Pradesh. New Delhi: National University of Educational Planning and Administration. 40 p.

**Abstract :** The Karnataka government began its mid-day meals scheme in June 2002. Initially, the programme was limited to seven backward districts of the state- Raichur, Koppala, Gulbarga, Bidar, Bellary, Bagalakote and Bijapur. Later, in 2003 under the ambitious "Akshara Dasoha" programme, the remaining 20 districts were also included in the scheme. The study was taken up with the following objectives: to present the rationale of the Midday Meals Programme in the state of Karnataka, to document best practices in the implementation of Mid day Meals Programme in the State of Karnataka and to give profiles of some primary schools having good practices. The primary data was collected after visiting 6 districts and 24 schools with the State and District Education officials (MMS). The hot cooked meal provided under the akshara dasoha programme contains about 490 calories and 12 grams of protein for primary school children and 728 calories and 17.30 gms of protein for high school children. Maintenance of Proper records is a must for the success of the programme like Mid Day Meals. All the schools are properly maintaining records and registers for daily attendance of children, food grains, funds received for MDM, conversion cost and cooking cost, items of food brought and served etc. Teachers taste the meal before serving it to the children. They are ensuring that the children wash their plates and keep it clean and also educating the children about the cleanliness and hygiene. The best practices followed in the State are : to maintain social equality at the grass root level one cook appointed in every center necessarily belongs to SC/ST communities, Only women are appointed as cooks with

preference given to widows, single mothers and destitute women, LPG is used in the preparation of food to reduce air pollution and also protecting the women's health and cleanliness, SDMC and other civil amenities committees are giving good quality vegetables/fruits/sweets to children on National festival and other special occasions, all children are served food by making them sit in rows irrespective of caste and creed, pucca kitchen sheds are provided to the schools out of various schemes of Zilla Panchayath and State Funds and old students are very active and contributing to MDM. To improve the public satisfaction on MDM Programme the government of Karnataka is providing the hot cooked meal to the children at their local taste, they are also allowing the NGOs in the implementation of MDM at the rural/urban areas. The parents are allowed to check the quality of the food grains. To strengthen monitoring, assessment and evaluation of MDM programme, strengthening the SDMCs/parents by giving full powers is very much essential, opportunity should be given to the external agencies to evaluate the MDM programme. Also there need to have a regular meeting to discuss the issues of effective implementation of MDM programme.

**Key Words:** 1.NUTRITION 2.MID DAY MEAL 3.BEST PRACTICES 4.MID DAY MEAL PROGRAMME 5.IMPLEMENTATION MID DAY MEAL PROGRAMME 6. EDUCATIONAL PROFILE 7.SCHOOL MEAL PROGRAMME 8.READY TO EAT MEALS 9.ARUNACHAL PRADESH.

20. Kaushal, Savita. (2009).

A Study of best practices in the implementation of mid-day meal programme in Rajasthan. New Delhi: National University of Educational Planning and Administration. 61 p.

**Abstract :** The Scheme 'National Programme of Nutritional Support to Primary Education' commonly known as Mid-Day Meal Scheme was launched on the 15th August, 1995 on nation wide scale by the Department of Elementary Education and Literacy, Ministry of Human Resource Development, Government of India. However, the scheme was implemented in Rajasthan with effect from 2002 in compliance with the Supreme Court orders. The objectives are to study the status of Mid-day meal (MDM) scheme in the state of Rajasthan, to identify best practices in the implementation of MDM programme in the state and to document good practices implementing at the school level. The field study was based on the observations of 11 primary/upper primary government schools in

Jaipur in which MDM Scheme was functional. 10 schools were situated in rural area while 1 was in urban area. The government is continuing to increase both the funding and the quality requirements for the MDM Scheme, with a trend towards replacing the daily ghogri with more nutritious and appetizing menus. The appointment of cooks has ensured that the preparation of the MDM does not interfere with classroom activity. In selecting the cook, the State Government had issued guidelines whereby destitute women (especially widows) from the village were to be given priority. Several teachers also credited the MDM with putting an end to classroom hunger and thus improving the students' academic performance. Many teachers believed that the meal programme was responsible for increasing enrolment and attendance at their schools, though most of them explained that the meals mainly attracted younger children. The advantages of the scheme are: the Government, NGOs and the public private partnership organisations have made schools in Rajasthan a place of attraction for children who were not able to afford decent meal in their homes. It has been successful in developing good food habits among children. A sustainable means of livelihood has been provided to more than 1.5 lakh persons to effectively implement the scheme vide appointment of cooks, backward women, destitute /widow women etc. All children were treated equally irrespective of their differences and the participation of community members in MDM of the school.

**Key Words:** 1.NUTRITION 2.MID DAY MEAL 3.BEST PRACTICES 4.MID DAY MEAL SCHEME 5.IMPLEMENTATION MID DAY MEAL PROGRAMME 6.EDUCATIONAL PROFILE 7.PRIMARY SCHOOL 8.SCHOOL MEAL PROGRAMME 9.READY TO EAT MEALS 9.RAJASTHAN.

21. Narasimhan, Vidya and John, Sheila. (2008).  
Impact of breakfast pattern on the nutrient intake, physical, cognitive and academic performance of school children. Chennai: Women's Christian College, Dep of Home Science. 9 p.

**Abstract :** Children who eat breakfast early in the day tend to be better off in terms of overall nutrition. This boosts cognitive functions and school performance, improves behaviour and grades, controls weight, provides vitamin & improves physical strength and reduces risk of heart attacks. The objective is to study the impact of breakfast pattern on the nutrient intake, physical cognitive and academic performance of school children. The study was carried out in 3

different schools in Chennai and the sample constituted 500 girl students from eight and ninth grades (11-14 years). Quota sampling was used to select a sub-sample of 100 students. 50 students who were regular breakfast consumers and 50 students who were habitual breakfast skippers constituted the study group. 16% of the students skip breakfast rarely, 14% skip breakfast often (2-4 days), 14% of them skip daily, while 13% of the students have reported to skip breakfast very often (4-6 days). 59% of high school students indicated that they skip breakfast more than 3 times a week. 42% of 12-13 year old children indicated that they do not eat breakfast every day. The nutrient intake of breakfast consumers and breakfast skippers were: Recommended dietary allowances (RDA) was a significant difference in the intake of riboflavin at 5% level and energy protein, calcium, iron, retinol, folic acid and vitamin C at one percent level for the breakfast skippers whereas for the breakfast consumers there was no significant difference in the intake of calorie, protein, calcium, retinol, thiamine, riboflavin, folic acid and vitamin C. there was a significant difference in the intake of iron and fat at 5% for the breakfast consumers. Nutrients like iron and prevent the onset of anaemia in young children and adolescents. Breakfast consumption in school aged children reported benefits of sustaining perceived energy level throughout the morning, enhancing physical activity and improving both energy expenditure capacities for self control while breakfast skipping has been associated with lower levels of physical activity in adolescents which affects energy balance and contribute to excess body weight. There is a beneficial effect of breakfast consumption on academic performance and achievement test scores grades and school attendance.

**Key Words:** 1.NUTRITION 2.SCHOOL CHILDREN 3.HEALTH STATUS SCHOOL CHILDREN 4.BREAKFAST PATTERN 5.NUTRIENT INTAKE 6.COGNITIVE DEVELOPMENT 7.SCHOOL PERFORMANCE.

22. Narayanasamy, Sangeetha and Premakumari, S. (2010).  
Effect of micronutrient supplementation on the nutritional and immune status of school going children with upper and lower respiratory tract infections. Coimbatore: Avinashilingam University for Women. 11 p.

**Abstract :** The objective is to formulate a micronutrient rich supplement to combat anaemia with URI/LRI and to study the impact of implementation of the formulated micronutrient rich balls in terms of nutritional status and immune

profile of school children suffering from micronutrient deficiencies and URI/LRI. The children in the age group of 7 to 10 years from 8 corporation primary schools located in the urban areas of Chennai city were targeted for the study. All the available 1675 children were elicited for socio-economic background, dietary details, nutrition knowledge of the mothers and children and health practices of children using a pre-tested questionnaire. Initially the mean height ranged from 116.7 to 120.4 cm in male children and the female children recorded 115.6 to 120.3 cm. The mean initial weight of the male children ranged from 17.4 to 17.5 kg and 17.0 to 17.3 kg for the female children which was much lower than the standard values. The children in the food supplemented group recorded greater increases than the group supplemented with tablet and the control group children. The children in the control group recorded negligible increase in their nutrient content. The mean initial haemoglobin values of the children ranged between 9.3 and 11.9 mg/dl. At the end of the supplementation study, iron supplement in the form of food recorded the highest increments of 2.9 mg/dl which was significant at 1 percent level followed by the groups receiving the tablets which were significant at 5 percent level changes in the IgA level of the URI/LRI children belonging to the UD and US groups were 54.5 to 12.5 mg/dl and 55.5 to 104.7 mg/dl respectively which were significant at 1 and 5 percent levels respectively. Significant increment was seen in the children receiving the food based supplement when compared with other groups ( $p < 0.01$ ).

**Key Words:** 1.NUTRITION 2.MICRONUTRIENT 3.SUPPLEMENTARY NUTRITION 4.NUTRITIONAL STATUS 5.IMMUNE STATUS 6.SCHOOL CHILDREN 7.MICRONUTRIENT DEFICIENCIES.

23. Narula, Manju. (2008).

Best practices adopted in mid-day meal scheme : case study of Haryana. New Delhi : National University of Educational Planning and Administration. 38 p.

**Abstract :** The universe of the study undertaken is the state of Haryana. Two districts namely Ambala and Faridabad were selected, and the primary aim of the study is to document best practices of mid-day-meal programme in the state. From Ambala district, four schools that were in Ambala Cantonment block were chosen. From Faridabad district two blocks were selected i.e. Faridabad block and Ballabgarh block. The mid day meal committee is responsible for purchase

and supply of food grains and for monitoring and supervision of mid day meal scheme. The Committee ensures that food grain (wheat and rice) is purchased timely through Food Corporation of India (FCI), for all the primary schools once in a month. The purchased food is supplied through CONFED at BPL rate. Mid day meal programme in the state has helped in ensuring greater enrolment and retention of girls at primary level. After introduction of mid day meal programme in the state, the enrollment of girls has increased. With the efforts of the state government, ISKCON Food Relief Foundation- a voluntary organisation agreed to supply food in two blocks of Faridabad district mainly in urban areas. In 76 schools the ready meal is being supplied. In one of the district 'Sirsa', nutritive health programme is being implemented through Community participation. The Primary Health Centre every year conducts free check-up of all the children up to primary level. They are given micronutrient supplementation and de-worming tablets through administering six monthly doses for de-worming and vitamin-A supplementation with the assistance of Health Department. The average cost of mid day meal (excluding food grains) was Rs.2 per child per day as per the government norm. Out of it, central assistance was Rs.1.50 and the state share was Rs.0.50 per child, per school day on mid day meal programme. The Haryana Government decided to spend additional amount of Rs. 00.07 per child, per school day on the mid day meal programme. Involvement of private partners in the MDM scheme needs to be implemented in the other districts of the state. The idea of centralized kitchen should be promoted. The accelerated efforts of mid day meal, have already showing results, and firmly set the state to achieve better quality of life for its people. The other benefit is, bringing and retaining more and more children in schools especially girls and thus reducing gender gap.

**Key Words:** 1.NUTRITION 2.MID DAY MEAL 3.BEST PRACTICES 4.MID DAY MEAL SCHEME 5.IMPLEMENTATION MID DAY MEAL PROGRAMME 6.EDUCATIONAL PROFILE 7.SCHOOL MEAL PROGRAMME 8.READY TO EAT MEALS 9.CASE STUDIES 10.HARYANA.

24. Narula, Manju. (2009).

National Programme of nutritional support in government primary and upper primary schools : a case study of Jharkhand : best practices adopted in mid-day meal scheme. New Delhi : National University of Educational Planning and Administration. 40 p.

**Abstract :** In Jharkhand, the Mid-day Meal (MDM) scheme has important implications as around 59 percent of the children are malnourished and 21.45



lakh children who are of the age group 6-14 years continue to be out of school. The drop out rate is very high, particularly for dalits and adivasis. In the state (united Bihar) the MDM programme commenced in August 1995 as a National Programme of Nutritional Support to Primary Education. The basic aim was to prevent malnutrition that was widely prevalent among the growing children. Jharkhand started providing MDM from 2003 on a pilot basis in 3140 government primary schools in 19 districts and 3.34 lakh children availed the facility. In a phased manner it has been extended to all the government primary schools, EGS centres and government-aided schools including minority schools and AIE centres. Both the teachers and community members reported that the attendance has particularly increased after introduction of MDM in the schools, the level of supplementation to children in MDM was examined, to help in improving their health, weighing machines has been provided to all schools to monitor the outcome of MDM Scheme. The Menu is designed in such a manner that balanced diet is provided to children and no item is repeated in a week. Observations were also made to understand the discipline and hygiene levels maintained during the serving & eating of food and that all the cooks (Sanyojikas) follow norms of food safety with security measures in the provision of hygienic cooked food. No discrimination was observed in serving of the food between communities and gender. Initiatives to be taken were : to keep a strict vigil on quality of food served to children, all officers at the District and Block levels have to visit every month 15 schools to observe the MDM programme and see children are getting nutritious and hygienic food; children should be asked to wash their hands with soap before taking meal; to increase the access and retention of children of the age group 6-14years , the state government has made provision of giving chance for 'Glider Udan' for 10 children from each class. The minimum requirement is at least 80 percent of the attendance (Annexure VII). And for managing the programme more effectively and efficiently the state government is planning to create separate department for MDM.

**Key Words:** 1.NUTRITION 2.MID DAY MEAL 3.BEST PRACTICES 4.MID DAY MEAL PROGRAMME 5.IMPLEMENTATION MID DAY MEAL SCHEME 6.EDUCATIONAL PROFILE 7.SCHOOL MEAL PROGRAMME 8.READY TO EAT MEALS 9.JHARKHAND.

25. Raju, Vetukuri P.S. (2009).  
Best practices in the implementation of mid-day meal scheme in Assam.  
New Delhi: National University of Educational Planning and  
Administration. 75 p.

**Abstract :** Assam is located in the northeastern part of the country and has an area of 30,285 sq miles (78,438 sq km). National Programme of Nutritional Support to Primary Education (known as the Mid-day Meal Scheme) MDM was launched as a CSS on 15th August 1995 for the children studying at primary stage of education in Government, provincial primary schools and primary section of M. V. Schools in Assam. Weekly Menu of rice, dal, Vegetables is displayed by School Management Committee (SMC) of school. The involvement of SMC, Village Education Committee, Kitchen Garden Committee and Mothers Group is very crucial in the implementation of the scheme. The village women (mother's committee members) are involved in bulk cooking and serving the food to children. The objectives are: to study the status of Mid-day meal scheme in the state of Assam, to identify best practices in the implementation of Mid-day Meal programme in the state and to document good practices implementing at the school level. Out of 27 districts in Assam, 4 sample districts i.e. Golaghat, Jorhat, Dibrugarh and Nagaon were identified. The investigator as well as the staff of MDM scheme identified 13 sample schools from 4 districts with the help of local education officers. In Golaghat, all the communities are working together for the development of the school. There is no social discrimination in this village. School is maintaining hygienic conditions in the kitchen and school; education officers, teachers, SMC and Mother's group are working together; one member of the Mother's group visiting the school every day for food quality monitoring and serving the mid day meal and primary health centre staff is visiting the school every month and distributing vitamin tablets. In Balijan L.P. school, Golaghat the weekly MDM menu is : Monday - rice, dal and mixed vegetables; Tuesday - khichdi and vegetables; Wednesday - sweet, rice with milk; Thursday - rice, dal and seasonal vegetables; Friday - khichdi and mixed vegetables and Saturday - sweet rice with milk. Best practices observed in the schools of Jorhat are: best urban school with good infrastructure facilities like teachers, buildings, furniture, drinking water etc. are there; SMC members are taking keen interest in school activities and conducting monthly meetings; mother's group is very active and dedicated for the development of the school; head teacher is maintaining all the records regarding MDM and providing quality food under MDM scheme; maintaining the hygienic condition in the kitchen by the cook; using water filter for drinking water purpose and teachers are contributing money for providing vegetables for mid day meal. The weekly menu of the Nakani Adarsha L.P.

School, Jorhat is as follows: Monday- rice, dal, vegetable and egg; Tuesday-rice, dal, vegetable; Wednesday-khisiri with vegetable; Thursday-kheer (sweet); Friday-rice, dal, vegetable and Saturday-rice, dal, vegetable. In Krisilaya LP school, Jorhat the weekly menu is as follows: Monday-dal, rice, vegetable and soyabean ;Tuesday-dal, rice, vegetable and soyabean; Wednesday-dal, rice, vegetable, soyabean and egg; Thursday- khichdi/kheer; Friday-dal, rice, vegetable and soyabean and Saturday-khichdi. In Chanimari L P School, Dibrugarh, The weekly menu of the school is as follows: Monday-rice and Dal; Tuesday-potato and rice; Wednesday-green vegetable and rice; Thursday-soy bean and rice; Friday-potato and rice. In Mazbam L.P. School, Dibrugarh the weekly menu of the school is as follows: Monday-rice and dal, potato and soya bean; Tuesday-potato, dal and soya bean and rice; Wednesday-green vegetable and rice, Thursday-green vegetable and rice and Friday -khichdi. In Puberun Nigam L.P. School, Dibrugarh weekly menu of the mid day meal is as follows: Monday-rice and dal, potato and soya bean; Tuesday-green vegetable and rice; Wednesday -green vegetable, dal and rice; Thursday –khichdi; Friday -rice and dal, potato and soya bean. In Nagaon, majority of the children attend the school because of mid day meal scheme. They are getting nutritious hot cooked meal so the average attendance of the student in school is 85 percent, school Managing Committee president and members are giving support for providing mid day meal in the school.

**Key Words:** 1.NUTRITION 2.MID DAY MEAL 3.BEST PRACTICES 4.MID DAY MEAL SCHEME 5.IMPLEMENTATION MID DAY MEAL PROGRAMME 6.EDUCATIONAL PROFILE 7.PRIMARY SCHOOL 8.SCHOOL MEAL PROGRAMME 9.READY TO EAT MEALS 10.CASE STUDIES 11.ASSAM.

26. Srinivas, K. (2008).

A Study of best practices in the implementation of mid-day meal programme in Karnataka. New Delhi: National University of Educational Planning and Administration. 43 p.

**Abstract :** The Karnataka government began its mid-day meals scheme in June 2002. Initially, the programme was limited to seven backward districts of the state- Raichur, Koppala, Gulbarga, Bidar, Bellary, Bagalakote and Bijapur. Later, in 2003 under the ambitious "Akshara Dasoha" programme, the remaining 20 districts were also included in the scheme. The study was taken up with the

following objectives: to present the rationale of the Midday Meals Programme in the state of Karnataka, to document best practices in the implementation of Mid day Meals Programme in the State of Karnataka and to give profiles of some primary schools having good practices. The primary data was collected after visiting 6 districts and 24 schools with the State and District Education officials (MMS). The hot cooked meal provided under the akshara dasoha programme contains about 490 calories and 12 grams of protein for primary school children and 728 calories and 17.30 gms of protein for high school children. Maintenance of Proper records is a must for the success of the programme like Mid Day Meals. All the schools are properly maintaining records and registers for daily attendance of children, food grains, funds received for MDM, conversion cost and cooking cost, items of food brought and served etc. Teachers taste the meal before serving it to the children. They are ensuring that the children wash their plates and keep it clean and also educating the children about the cleanliness and hygiene. The best practices followed in the State are : to maintain social equality at the grass root level one cook appointed in every center necessarily belongs to SC/ST communities, Only women are appointed as cooks with preference given to widows, single mothers and destitute women, LPG is used in the preparation of food to reduce air pollution and also protecting the women's health and cleanliness, SDMC and other civil amenities committees are giving good quality vegetables/fruits/sweets to children on National festival and other special occasions, all children are served food by making them sit in rows irrespective of caste and creed, pucca kitchen sheds are provided to the schools out of various schemes of Zilla Panchayath and State Funds and old students are very active and contributing to MDM. To improve the public satisfaction on MDM Programme the government of Karnataka is providing the hot cooked meal to the children at their local taste, hey are also allowing the NGOs in the implementation of MDM at the rural/urban areas. The parents are allowed to check the quality of the food grains. To strengthen monitoring, assessment and evaluation of MDM programme, strengthening the SDMCs/parents by giving full powers is very much essential, opportunity should be given to the external agencies to evaluate the MDM programme. Also there need to have a regular meeting to discuss the issues of effective implementation of MDM programme.

**Key Words:** 1.NUTRITION 2.MID DAY MEAL 3.BEST PRACTICES 4.MID DAY MEAL PROGRAMME 5.IMPLEMENTATION MID DAY MEAL PROGRAMME 6.EDUCATIONAL PROFILE 7.SCHOOL MEAL PROGRAMME 8.READY TO EAT MEALS 9.CASE STUDIES 10.KARNATAKA.

27. Tara, M.S. (2011).  
Nutritional status of children in Karnataka : a study. Bangalore: NIPCCD  
Regional Centre. 133 p.

**Abstract :** Nutrition is a 'power source' for child's survival, growth and development, which is also foundation for human endurance. Objective is to understand the nutritional status among children of age 0-5 years. The study, conducted in Karnataka, covered 4 zones/divisions namely Bangalore, Mysore, Gulbarga and Belgaum. Within the respective division, 2 districts were selected from each division, where only 1 district was selected. Thus, 7 districts were selected for the study. From each of the selected districts, 3 blocks were selected randomly, thus the study covered totally 21 blocks from 7 districts. Further, from each of the selected block, 4 villages were selected randomly. This was considered on the basis of prevalence of under nutrition among children below 6 years in Karnataka based on NFHS-3. Overall 885 boys and 926 girls in the age group of 0-5 years formed the sample size. Thus, a total of 1811 children formed the sample size. Prevalence of under nutrition among children (0-6 years) in the surveyed area is 28.7 percent however the situation seems to have improved when compared to findings of NFHS-3 (38 %). The prevalence of underweight was found to be less in children below 18 months. When children were classified according to height for Age, the data revealed that 51.2 percent of children (0-6) years were normal. Moderately stunted children were 25.7 percent and severely stunted were 23.1 percent. Thus the prevalence of stunting was 48.8 percent who are short for their age which indicates that they have been under nourished for some time. Prevalence of underweight, stunting and wasting in children below 6 years are 28.7 percent, 48.8 percent and 15.3 percent. Prevalence of underweight was found to be high in Bellary district (39.8%), followed by Shimoga (32.5%) and Mysore (31.6%). Lowest prevalence of underweight was found in Bangalore district (20.7%). With regards to stunting, Bellary district was found to be high (68.8%) followed by Bidar (63.5%) and Shimoga (62.7 %). Prevalence of underweight among children from nuclear families (32.8%) followed by Joint families (27.7%) and extended families (23.4%). Children living in "Kutcha houses" had high prevalence of (38.9 %) underweight and stunting (69.5%) followed by children living in "Semi Pucca" and Pucca houses. The existing growth monitoring can be used as a tracking mechanism to identify the early signs of under nutrition and can be checked to prevent further decline. There should be compliance for a concrete system to ensure the consumption of

health foods, which are age-specific in order to ensure the consumption of health foods, which are age specific in order to tackle the problem of under nutrition in these children.

**Key Words:** 1.NUTRITION 2.NUTRITIONAL STATUS 3.YOUNG CHILD FEEDING PRACTICE 4.INFANT FEEDING 5.SOCIO-ECONOMIC FACTOR 6.ICDS IN KARNATAKA 7.KARNATAKA.

28. Unisa, Sayeed, et al. (2010).  
Causes of anaemia among women in the eastern region of India: a study of West Bengal. Mumbai: International Institute for Population Sciences. 21 p.

**Abstract :** In India, anaemia is particularly predominant in the eastern regions of India, which included Bihar, Orissa and West Bengal. As the prevalence of anaemia was found universal in most of the districts which were in the proximity with each other had been purposively selected for logistic convenience. From each selected district, one high prevalence village (>40% women in reproductive ages suffering from any degree of anaemia) and one low prevalence village ( $\leq$  40% women in reproductive ages suffering from any degree of anaemia) were selected. From each selected village, 50 households were selected by systematic sampling. From each selected household, all the women in the reproductive ages (15-49) were interviewed. A total of 529 households were covered and a total of 559 ever married women in the age-group of 50% of the study women were suffering from severe or moderate anaemia and another 50% women were with normal or mild anaemia. Women in the younger ages as well as the older ages were suffering from severe or moderate anaemia whereas women in the age group 30-34 either had normal or mild anaemia. Women with low workload did not show notable difference with levels of anaemia. Among women with medium workload around 48% suffered from severe anaemia and 52% suffered from mild or normal anaemia. Among women with heavy workload, 58% women suffered from severe or moderate anaemia and 42% from mild or normal anaemia. Around 53% malnourished women were severely or moderately anaemic whereas it was around 30% among women who were overweight or obese. Similarly for predicted proliabilities, women who were malnourished normal and overweight or obese are 50, 51 and 34% likely to be severly or moderately anaemic. 49% women who had normal delivery and 525 women who

had cesarian delivery were severely or moderately anaemic. Women with no births (58%) or above three births (55%) were severely or moderately anemic whereas it was 48% among women with 1-3 births. Among women who were breastfeeding at the time of the survey, 56% were more severely or moderately anaemic as compared to women who were not breastfeeding (46%). 54% of women who did not have regular menstruation were severely or moderately anaemic as compared to those who had regular menstruation (49%). Women with heavy menstruation per cycle (5 days or more) were severely or moderately anaemic (515) women who felt tired or had lower abdominal pain or had blood clots during menstruation were severely anaemic compared their counterparts. It is necessary to have basic pathological testing facility at every Primary Health Center. Anaemia can be prevented if proper knowledge is disseminated to all the members in the family at the household level.

**Key Words:** 1.NUTRITION 2.ANAEMIA WOMEN 3.ANAEMIA 4.CAUSES OF ANAEMIA 5.WEST BENGAL

29. Yegammai, C. and Swarnalatha, A. (2006).  
Impact of iron, vitamin A and vitamin C supplementation on anaemic adolescent girls. Coimbatore: Avinashilingam Deemed University, Dep of Food Science and Nutrition. 8 p.

**Abstract :** The adolescence is the period between childhood and adulthood with accelerated physical, biochemical and emotional development. The objective is to study the impact of iron, vitamin A and vitamin C supplementation on anaemic adolescent girls. 100 girls in the age group of 13-15 years studying in the Corporation Government High School, Ramalingam Colony, Coimbatore who attained menarche before 6 months of the study, having regular menstrual period and had hemoglobin level below 12 g/dl were selected. The selected girls were divided into 4 groups (A, B, C and D) of 25 each for supplementation. An adolescent needs 25 mg of iron per day. Iron intake of the experiment groups was found to be surplus by 46-54 percent. The vitamin C in group B and group C was noticed to be surplus by 110 percent and 228 percent respectively. The folic acid intake was surplus in group (1 %) and groups (11.1 %) whereas deficit was group D (4 %). Prevalence of pale conjunctiva was greater when compared to other symptoms in both the experimental noted in the control group and group C succeeded by group A (48 percent) and group B (40 percent). The positive

impact of vitamin A and C supplementation along with iron is a successful approach for combating iron deficiency anaemia.

**Key Words:** 1.NUTRITION 2.ANAEMIA 3.ADOLESCENT GIRL 4.ANAEMIA ADOLESCENT 5.ADOLESCENT HEALTH 6.PREVENTION ANAEMIA 7.IRON 8.VITAMIN A 9.VITAMIN C.

## **WOMEN WELFARE**

30. Jagadeswari, V and Reddy, P. Adinarayana. (2011).  
A Study on legal awareness among women in the areas of marriage, dowry and divorce. New Delhi: Indian Adult Education Association. 19 p.

**Abstract :** Women constitute almost half of the population of the world. A survey conducted by 'National Commission for Women (NCW)' discloses the fact that more than 40% married women are suffering with Domestic Violence. In India, 6.7 million abortions are done in unhygienic conditions thereby risking the women to a lost of infections which may turn fatal. Objectives of the study are :- to study the legal awareness possessed by the women in the areas of Marriage, Dowry and Divorce, to understand and find out the association between personal characteristics of the women and their legal awareness and to suggest appropriate measures for legal empowerment of women. The study was conducted in the Chittoor district of Rayalseema region of Andhra Pradesh. It has 3 revenue divisions and 66 revenue mandals. For the purpose of the study 3 mandals i.e., Tirupati-urban, Tirupati-rural and Ramapuram as urban, semi-urban and rural mandals respectively were purposively selected. Further a sample of 300 women were chosen i.e. a sample of 100 women from each mandal were selected purposively from rural, urban and semi-urban areas. According to the age women within 15-30 years were tested with 68% of the sample consists of more awareness relating to marriage, dowry and divorce followed by moderate awareness (53%) and low awareness (44%). In 30-45 years, 29% of them have low awareness (27%) and moderate awareness (25%). However the sample with 45-60 years, 27% of them have low awareness in the area of marriage, dowry and divorce followed by moderate awareness (23%) and more awareness (5%). The women with up to 5<sup>th</sup> class (44%) has low awareness relating to marriage, dowry and divorce followed by moderate awareness (39%) and more awareness



(15%). In case of women with 6<sup>th</sup> to 10<sup>th</sup> class majority of them (29%) has low awareness followed by more awareness (18%) in the area of marriage, dowry and divorce. 65% have more awareness relating to marriage, dowry and divorce. Further 44% have moderate awareness and 27% have low awareness. From the legal awareness point view among the married 76% of them have low awareness on marriage, dowry and divorce. Further 70 and 66% of them possessed moderate awareness and more awareness respectively. In case of unmarried group 34% of the sample have more awareness followed by moderate awareness (30%) and low awareness (24%) relating to marriage dowry and divorce. According to the marital status of the women, the unmarried women have more legal awareness in marriage, dowry and divorce and dowry with a mean of 5.19 followed by the other group i.e. married women (4.96).

**Key Words:** 1.WOMEN WELFARE 2.LEGAL AWARENESS 3.WOMEN EMPOWERMENT 4.AWARENESS OF WOMEN 5.MARRIAGE 6.DOWRY 7.DIVORCE 8.LEGAL RIGHT.

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