RESEARCH PAPER | Medical Science | Volume : 5 | Issue : 6 | June 2015 | ISSN - 2249-555X

# A study to assess effectiveness of Government nutrition programs to address child undernutrition

KEYWORDS: ICDS, AWCs, NRC, Food Supplementation

**Dr. Manohar Bhatia**

MBBS, MD Community Medicine, Deptt. Of PSM/Community Medicine, G. R. Medical College, Gwalior

**ABSTRACT** *Background: In 1975, the Indian government launched Integrated Child Development Services (ICDS) program to address child undernutrition. Even after 40 years, ICDS has been largely unsuccessful in improving child undernutrition. The aim of this study was to assess the perception of mothers and health staff regarding effectiveness of ICDS to combat child undernutrition. Methodology: This cross-sectional study was conducted in Gwalior District among doctors, Supporting Staff and Mothers using separate questionnaires. Results: 64% Doctors and 81% supporting staff believed that Private practitioners have no role in implementing nutritional component of Child Health Programs while 70% Doctors and 84% supporting staff believed the same for NGOs. 82.50% mothers recalled that there were no home visits by health workers in last two months. Only 59.50% mothers were satisfied with the quality of food provided at AWCs. Conclusion: Programs like ICDS are in need and efficient management and funding is required to run these programs.*

**Introduction**

Child under nutrition continues to be a major public health problem in India. Multi-faceted causes have been suggested for this problem and it cannot be solely blamed on a lack of government intervention. In 1975, the Indian government recognized the high prevalence of child under nutrition and began the Integrated Child Development Services (ICDS) program. ICDS implemented a network of anganwadi centers in communities across the country to improve under nutrition and overall child health. These centers primarily target undernutrition with supplementary feeding for children but also include some nutritional education for their mothers. Even though the yearly budget of ICDS has increased manyfold since it's inception, the programs have been largely unsuccessful in improving rates of child under nutrition[1]. This failure was highlighted in three studies that found almost no association between the presence of ICDS in a community and a child's nutritional status[2,3,4].

The first Millennium Development Goal is to halve the prevalence of underweight children younger than five years of age between the years 1990 and 2015. In order to do it's part, India needs to halve the prevalence of under nutrition from the level of 54% in 1990 to 27% by 2015[1]. Unfortunately, India's recent economic growth and long-standing government nutrition programs have had almost no affect on national child undernutrition rates and the prevalence of undernutrition remains close to its 1990 levels[5].

The present study was conducted to assess the perception of mothers and health staff regarding effectiveness of Govt. health programs (ICDS) to combat child undernutrition.

**Methodology**

The present study was a population based cross-sectional study carried out in Gwalior district for a period of 14 months from October 2012 to November 2013. Study was conducted in Government health centres in Gwalior District. Total 50 Government Doctors, 100 Supporting Staff (Anganwadi workers, ANM, Feeding Demonstrators) and 300 Mothers were included in the study.

Mothers were selected based on nutritional status of the child. Using the growth chart 'Normal', 'Moderately undernourished' and 'Severely Undernourished ' children were selected, 100 in each group. Mothers of these children were included in the study. As per NFHS-3, prevalence rate of underweight for age of below 60 months children in Madhya Pradesh is 60.4%[6]; thus the sample size calculated was 96 which was rounded off to 100; so 100 mothers were selected in each category.

All these above mentioned participants were selected across the district giving appropriate representation to the urban and rural areas. Doctors and Supporting Staff not willing to participate were not included in the study while mothers having child below 06 months or above 05yrs of age were not included.

Separate pre-designed, pre-tested, semistructured questionnaire for Doctors, Health Care Workers and Mothers were used for data collection. Data analysis was carried out by percentage, proportion, chi-square test and Odds ratio was calculated utilizing Odds Ratio calculator. The study received ethical approval from the Ethics Committee, Gajra Raja Medical College, Gwalior.

**Observations**

Table No.1 Effectiveness of special Programs focused on Nutrition of Mother and Child: Provider's Views

| S.No. | Programs/Schemes | Doctors (n=50) | Supporting Staff (AWW, ANM, FD) (n=100) |
|---|---|---|---|
| 1. | ICDS Strengthening (New AWC/strategies) | 42% (21) | 60% (60) |
| 2. | Preventive Care (Micronutrients) | 54% (27) | 68% (68) |
| 3. | ANC Strengthening (JSY Scheme) | 76% (38) | 85% (85) |
| 4. | Nutrition Rehabilitation Centre | 66% (33) | 72% (72) |
| 5. | Education & Counseling | 28% (14) | 39% (39) |

*Multiple Responses

Volume : 5 | Issue : 6 | June 2015 | ISSN - 2249-555X

**Table No.2 Provider's Views on the role of various groups in implementing nutritional component of Child Health Programs**

| S. No. | Programs/Schemes | Doctors (n=50) | Supporting Staff (AWW, ANM, FD) (n=100) | P value |
|---|---|---|---|---|
| **A.** | **PRIVATE PRACTITIONERS** | | | |
| 1. | No role | 64% (32) | 81% (81) | **p < 0.05** |
| 2. | Community mobilization/ Nutritional advice to parents | 36% (18) | 19% (19) | |
| **B.** | **NGOs/CBOs/SHGs** | | | |
| 1. | No role | 70% (35) | 84% (84) | |
| 2. | Community mobilization/ Nutritional advice to parents | 28% (12) | 11% (05) | **p < 0.05** |
| 3. | Distribution of Food Supplements | 06% (03) | 08% (11) | |
| **C.** | **COMMUNITY LEADERS/PRI** | | | |
| 1. | No role | 50% (25) | 27% (27) | |
| 2. | Community mobilization/ Nutritional advice to parents | 42% (21) | 63% (63) | **p < 0.05** |
| 3. | Supervise Food Distribution | 18% (09) | 36% (36) | |

**Table No.3 Mother's Views on Programs to improve Nutrition of Children**

| S. No. | Programs/Schemes | Normal Child (n=100) | Moderate Under nutrition (n=100) | Severe Under nutrition (n=100) | P value |
|---|---|---|---|---|---|
| **A.** | **RECALL OF ANGANWADI SERVICES** | | | | |
| 1. | Food Quality | 45% (45) | 63% (63) | 56% (56) | **p < 0.05** |
| 2. | Preschool Activities | 26% (26) | 42% (42) | 45% (45) | **p < 0.05** |
| 3. | Immunization | 46% (46) | 58% (58) | 68% (68) | **p < 0.05** |
| 4. | Weighing and Growth Monitoring | 18% (18) | 22% (22) | 23% (23) | **p> 0.05** |
| 5. | No Home visits | 71% (71) | 78% (78) | 87% (87) | **p < 0.05** |
| **B.** | **PARTICIPATION IN ICDS** | | | | |
| 1. | Availing AWC Services | 47% (47) | 65% (65) | 68% (68) | |
| **C.** | **REASONS FOR NON-PARTICIPATION** | | | | **p < 0.05** |
| 1. | Non-existence of ICDS | 06% (10) | 00 | 00 | |
| 2. | Fear of quality of services | 17% (17) | 05% (05) | 03% (03) | |
| 3. | Unsatisfactory services | 30% (30) | 30% (30) | 29% (29) | |

*Multiple Responses

**Results**

**As per Table No.1**, 60% (60) supporting staff believed that ICDS strengthening has helped in improving nutrition of mother and child while only 42% (21) Doctors believed the same. Many doctors said that most of the Anganwadi Centers were not functioning as per the guidelines. 68% (68) supporting staff and 54% (27) Doctors believed that micronutrient supplementation program (Iron & Folic Acid tablets) is effective in improving nutrition of mother and child.

85% (85) supporting staff and 76% (38) Doctors believed that ANC Strengthening (Janani Suraksha Yojana) has helped in improving health of mother and child. 66% (33) Doctors and 72% (72) supporting staff appreciated NRC (Nutrition Rehabilitation Centre) in improving nutrition of child. However many Doctors were of view that it is very difficult for mothers to stay for 14 days at NRC because there is no one to look after their house, family and cattle.

Programs focusing on Education & Counseling were found to be least effective in improving nutrition of mother and child. Only 28% (14) Doctors and 39% (39) supporting staff believed them to be effective in reducing undernutrition.

An important barrier towards success of nutrition programs appeared to be the lack of meaningful involvement of NGOs, SHGs, community leaders, PRIs and private practitioners. 64% (32) Doctors and 81% (81) supporting staff believed that Private practitioners have no role in implementing nutritional component of Child Health Programs. 70% (35) Doctors and 84% (84) supporting staff believed that NGOs/SHGs play no role in implementing nutritional component of child health programs like community mobilization and distribution of food supplements. 50% (25) Doctors and 27% (27) supporting staff believed the same

Volume : 5 | Issue : 6 | June 2015 | ISSN - 2249-555X

for community leaders. The above results were statistically significant (**p < 0.05**). **(Table No.2)**

**As shown in Table No.3,** out of 200 mothers of undernourished children, 82.50% (78+87) recalled that there were no home visits in last two months by health workers and only 22.50% (22+23) mothers approved that workers regularly weigh and monitor the growth of the child. 59.50% (63+56) mothers were satisfied with the quality of food. 43.50% (42+45) mothers participated in preschool activities; reasons for non-participation were lack of facilities, insufficient space etc. Only 63.00% (58+68) mothers utilized immunization services; rest of the mothers were either not informed or were out of village/locality or busy with their family/occupation. Only 67.50% (65+68) mothers were availing Anganwadi services. Most important reason of non-utilization was unsatisfactory quality of services.

Out of 100 mothers of normal nourished children, only 45% (45) were satisfied with food quality, 46% (46) availed immunization services and 26% (26) participated in preschool activities. Only 18% (18) said that child was regularly weighed and 71% (71) said that there were no home visits by health workers. Only 47% (47) were availing Anganwadi services. Reason for non-utilization was fear of quality of services (17%) and unsatisfactory services (30%). The results are statistically significant (**p < 0.05**). (Table no.3)

**Discussion**

NFHS-III data shows that 81 percent of children under-6 years were living in areas served by an AWC. The ICDS, a centrally sponsored intervention for children aged 0-72 months, provides nutrition, health and education services through a network of AWCs run by local women. AWWs with the assistance of an Anganwadi helper operate village based centres.

AWWs are expected to provide nutrition and education services. ICDS, often considered as the nation's main nutritional program, has not shown an impact on nutrition. From 30% country coverage of in 2000, its expansion to 80% population has occurred only during last 10 years. Hence the program impact has to be viewed in the context of its roll out plan and inherent structural weaknesses existing in its governance[7].

The relevance of the ICDS continues today, perhaps more than ever before, in the context of widespread malnutrition in the country. The multi-dimensional nature of malnutrition must be reflected in ICDS implementation; food intake is only one determinant of a child's nutritional status[8]. Despite much evidence that the ICDS is deeply flawed[9], success within the ICDS has clear implications for the fate of under-nutrition in India.

**Conclusion**

Indian community needs programs like ICDS to fight against longstanding problem of child undernutrition and efficient management and funding is required to run these programs. Common pantries/kitchens may be established which can cover various government schemes for providing cooked food to children. This will allow cost effectiveness and quality control. The amount and quality of food to be provided should be insulated from inflation and should be revised at regular intervals. Reorientation on nutrition related issues and increasing the honorarium at regular intervals will motivate Anganwadi workers for more effective communication and interaction with the mothers and the families.

**REFERENCE**

1. Gragnolati, Michele, Meera, Shekar, Monica Das Gupta, Caryn Bredenkamp, and Yi Kyong Lee. India's Undernourished Children: A Call for Reform and Action. The World Bank, Washington DC: 2005. | 2. Bredenkamp, Caryn and John S. Akin. "India's Integrated Child Development Services Scheme: Meeting the Health and Nutritional Needs of Children, Adolescent Girls and Women?" Unpublished background report, 2004. As cited in Gragnolati, et. al. 2005. | 3. Das Gupta, M., M. Lokshin, and O. Ivaschenko. "Improving Child Nutrition: The Integrated Child Development Services in India." Development and Change. 36.4 (2005): 613-640. | 4. World Bank, The. Attaining the Millennium Development Goals in India: How Likely and What Will it Take to reduce Infant Mortality, Child Malnutrition, Gender Disparities and Hunger-Poverty and to Increase School Enrollment and Completion. the World Bank, Washington DC: 2004. | 5. Svedberg, Peter. "Declining Child Malnutrition: A Reassessment." International Journal of Epidemiology. 35 (2006): 1336-1346. | 6. 16. National Family health Survey-3 Madhya Pradesh 2005-2006, International Institute for Population Sciences, Mumbai | 7. Lal S, Paul D. Towards Universilization of Integrated Child Development Services (ICDS). Indian Journal of Community Medicine; 2003, Vol XXVIII; No. 4. | 8. Saxena NC, Srivastava N. ICDS in India: Policy, Design and Delivery Issues, IDS Bulletin 2009; 40 (4), 45 - 52. | 9. Gragnolati M, Bredenkamp C, Gupta MD, Lee YK, Shekar M. ICDS and persistent under-nutrition strategies to enhance the impact, Economic and Political Weekly 2006; 1193-1201. | |