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Child Nutrition in Developmental Transition in Odisha, India

Digambar Chimankar[1*] and Jagannath Behera[2]
[1]Department of Population Studies, Fakir Mohan University, Balasore-756 020 Odisha, India
[2]SPM (Research, Monitoring & Evaluation), MAMTA-Health Institute for Mother and Child, New Delhi-110048, India
chims.2008@gmail.com

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Abstract

Achievement in progress of Nutritional status of children in Odisha is quite better than the national average in the last decade. The data from 1992 to 2012 reveals two phases of nutritional transition. The first phase (1992 to 1999) with frequent changes of rolling government, there was no decline in percentages of malnourished children. The second phase (2000 to 2012) with stable government, there was continuous decline in percentage of malnourished children. Despite drought and flood in some years, government achievement in the second phase is quite satisfactory. The rate of decline is slow and continuous as like better off states. However, the government can accelerate the process in different ways further. On the one hand the Integrated Child Development Scheme is the only major programme to improve the nutritional status of the children in the short run but the programme cannot achieve its goal. The focus should be given in the monitoring process for its best effectiveness. Most of the children use supplementary food as substitute to home food as evident from field survey and literature. Thus there is need to improve in the parental awareness regarding supplementary food. On the other hand sufficient production of varieties of food at the local level needs to be promoted for solving the problem in the medium and long run.

Keywords: Child, Nutrition, Transition, ICDS, Poverty, Development.

Introduction

For getting a healthy manpower in the country child health status needs to be improved in India. Malnutrition is the single most influential cause for poor child health, which is a major challenge for the nation. Children in the poorer sates are most affected in malnutrition. The poor state like Odisha tries to improve the nutritional status of its people particularly among children. Some people are healthy from childhood whereas some are chronically unhealthy. Malnutrition, morbidity and mortality among children belonging to deprived section are high as revealed from three rounds of National Family Health Surveys (NFHS)[1-3]. Under-nutrition is a major cause for morbidity and mortality, thus importance on it is given in this paper. The reason for a poor child malnourished is different from a rich child malnourished. Most of the children belonging to poor households are undernourished due to lack of food along with wrong feeding practice and persistence of disease, whereas children belonging to rich households are undernourished due to wrong feeding practice or persistence of disease. Therefore Integrated Child Development Scheme comes to light by covering all children with special emphasis on deprived section (SC/ST) in rural areas. But still under nutrition is high among children and disparity also exists by different socio-economic characteristics.

Article 47 of the Constitution of India states that, "the State shall regard raising the level of nutrition and standard of living of its people and improvement in public health among its primary duties". The Tenth Five Year Plan focused on comprehensive interventions aimed at improving food and nutrition security. Under the ICDS programme the guidelines envisage that children in the 6-72 months age group should get 500 Kcal and pregnant and lactating women should get 600 Kcal as supplements based on the Recommended Dietary Allowances (RDA) norm (ICMR, 2010). The ICDS scheme provides food supplements to bridge the energy gaps in pregnant and lactating women, and pre-school children[4].

Better child health leads to improve school performance and therefore post-school productivity[5]. According to the Global Strategy for Infant and Young Child Feeding, "Malnutrition has been responsible, directly or indirectly for 60 per cent of the 10.9 million deaths annually among children under five. Over two-thirds of these deaths, which are often associated with inappropriate feeding practices, occur during the first year of life [6]. In short, child mortality is closely linked with malnutrition and inappropriate feeding[7]. The child population under the age of six in India was 158.7 million according to the census 2011. A vast majority of these children live in poor socio-economic status which impedes their physical and mental development particularly due to under nutrition[8].

Availability of adequate amount of food for proper nutrition to its entire people particularly children is a major challenge for India. The hunger index calculated by the International Food Policy Research Institute covering 19 states in India shows tribal dominated states like Madhya Pradesh and Odisha are in

highly alarming stage of hunger[9]. The children are the most sufferer group due to hunger. For example, child mortality in Sri Lanka increased in 1974, a result of soaring international food grain prices in 1973-74 and consequent disruptions in the national programme of food subsidies[10]. After the green revolution, India has been able to ensure that food-grain production out-stripped population growth[11]. Despite the increasing food production, still high prevalence of child malnutrition exists in many states[3].

The objective of this paper is to examine the child nutrition transition in Odisha when populations in India modernize as a result of socio-economic development, urbanization, and globalization. It emphasizes on child under nutrition trends in the Odisha during last two decades when Odisha's progress in child nutrition quite satisfactory as compared to other states and national average.

Methodology

Secondary data from three rounds of National Family Health Surveys, Ministry of Women and Child Development (monitoring and information system data from 2006 to 2012 collected under the Integrated Child Development Scheme) as well as field survey data from Gajapati districts of Odisha are used in this study. Child weight below the -2 standard deviation of the reference population is considered as underweight child. In the analysis underweight children are considered as under nourished or malnourished children. Frequency distribution, graphs and logistic regression are used for the data analysis purpose.

About Odisha: Odisha state is vulnerable to repeated natural calamities like droughts, floods and cyclones. The recurrent visitation of natural calamities further exacerbates distress of the people, particularly small and marginal farmers and landless laborers. The level of human development, as measured by the HDI, has also been low. Its relative position in terms of HDI among the major states of India has not shown much improvement. Even though the absolute value of the human development index has improved between 1981 and 2001 by more than 50 per cent, Odisha still remains much lower than the national level and has the 11th position (the fifth lowest) among the 15 major states of India on the HDI[12]. Odisha is one among very few leading States with faster reduction of poverty ratio from 57.20 percent in 2004-05 to 32.59 percent in 2011-12. But still it remains a matter of concern for some parts of the State. The continuing poverty alleviation programmes and development approaches by the State Government expect to improve the standard of living of the poor people of the State[13].

Results and Discussion

Analysis: Transition from 1992 to 2005: Over the last two decades the transition of nutritional status of children shows Odisha performed better than average figure at all India level. But the transition is unequal in different phases over the period. From NFHS-1 to NFHS-2 i.e. 1992-93 to 1998-99, there was no decline in level of child under nutrition shown in Figure-1. But from NFHS-2 to NFHS-3 i.e. 1998-99 to 2005-06, the decline in the level of child under nutrition is much better than national average. The reason may be due to stable government in the state leads to the proper implementation of food distribution policy brought good results. The programme like rice subsidy (Rs. 2/- per Kilogram) is one of the major programme to reduce protein energy malnutrition. Infant mortality reduction mission started in Odisha under the Biju Janta Dal Government is unique in its kind. The new initiative like MAMATA scheme is helping to reduce the malnutrition among children. From the conception many children grow unhealthy due to many reasons. Food consumption of mothers at the time of conception and during pregnancy is the most crucial factor for child nutrition and to grow healthy. So the new MAMATA scheme gives financial help (Rs. 5000) to the mothers for taking required food and treatment, which leads to deliver a healthy baby.

Transition from 2006 to 2012: As the National Family Health Survey data is not available after 2005-06, data from Ministry of Women and Child Development is used here. From 2006 to 2012 the rate of decline is faster in Odisha than national average of India shown in Figure-2. Though there are flood and drought in Odisha in different years, government achieve quite good result in improvement of child nutrition. Nevertheless high under nutrition still prevails in the state as like other states which needs to be looked into for further reduction.

Inclusiveness in nutrition access among children: The pace of decline can be faster than the current rate of decline if government takes strong measure to effectively implement the Integrated Child Development Scheme (ICDS). There are some proportion of children in the coverage of ICDS centers still deprived of getting their entitled food due to invisible malpractices involved in the local area. There are also disparities in accessing of ICDS services by population belonging to different socio-economic background. The data from third round of National Family Health Survey gives some overview picture of the services accessed by children below six years from ICDS. Thirty three percent of children below six years were received any services from the ICDS/Anganwadi centers in India, whereas it is sixty percent in Odisha (IIPS and Macro International, 2007).

It is more or less doubled in Odisha as compare to the national level. Though overall access of services by children in Odisha is better than India, but it differs by socio-economic background of the children. The utilization of services for supplementary food and health check-ups is higher for poor households (scheduled tribe) compared to better off households as shown in Table-1. This may be because better off people do not prefer to take advantage of the government scheme rather they prefer to approach to private hospitals. Those who are poor cannot afford the private hospitals they are take benefits from ongoing

government schemes. However, the percentage of mothers getting counseling from Anganwadi centers after child was weighted does not differ much by wealth index. Though who are poor are utilizing the ICDS/Anganwadi services for both purposes i.e. food/health checkups and counseling but better off using it only for counseling. A large proportion of children belonging to SC and ST household utilize the ICDS service for supplementary food and health check-ups than children belonging to Non-SC/ST household. It is apparent because SC/ST households are from the lower socio-economic strata of the society and they do not have any other option besides taking advantage of the government schemes like ICDS. But the percentage of mothers getting counseling from Anganwadi centers after child was weighed almost similar across caste/tribe. The reason may be low level of education among the SC and ST women leads to less aware about the benefits of counseling. Virtually there is no gender disparity in access of ICDS services. More proportion of children in rural area is utilizing the service as compared to the children belonging to urban area. In urban area, health related services to be easily available and options are more than the rural area. The level of education and income of urban parents is higher than the rural counterparts. So, urban mothers may approach to private health centers instead of taking advantage of government schemes like ICDS.

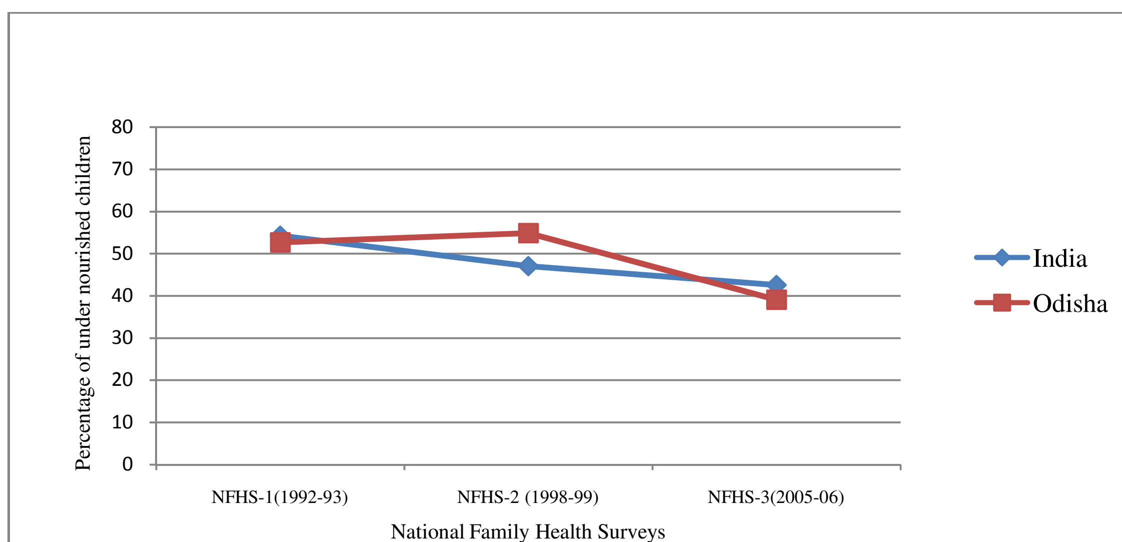
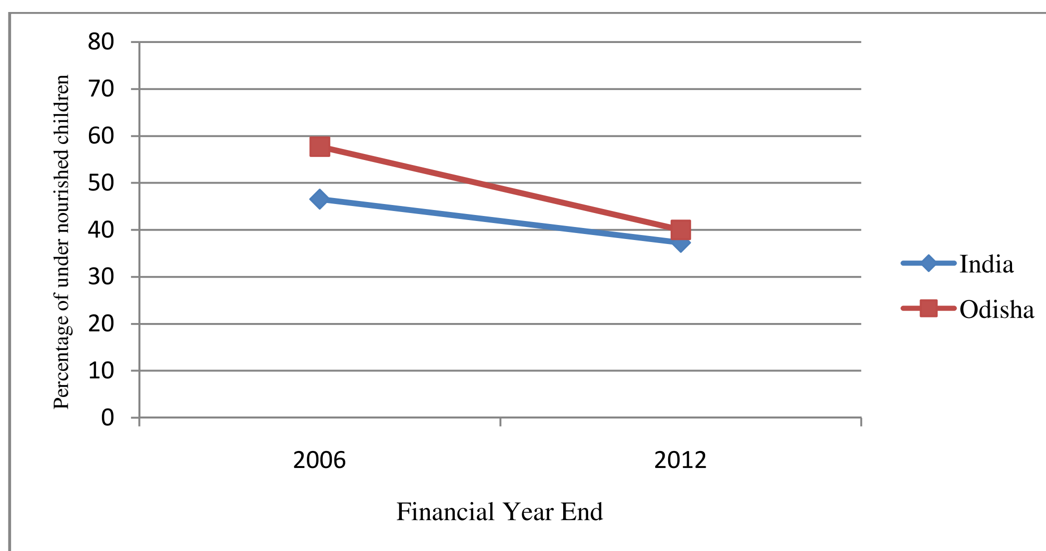


Figure-1
Declining under nourished children in Odisha and India



Source: Ministry of Women and Child Development, Govt. of India.

Figure-2
Declining under nourished children in Odisha and India

Table-1
Percentage of children age 0-71 months who received services from an AWC by socio-economic background in Odisha

Background Characteristics	Supplementary Food			Percent of children get Health check-ups	Percentage of children get Counseling after child (0-59 months) was weighed
	Percent of children access food	Gross Relative Access	Net Relative Access (Odds Ratio)		
Wealth Index Lowest	58.4	2.89	3.89***	47.7	27.0
Second	54.5	2.69	3.62***	44.8	35.1
Middle	49.7	2.46	3.12***	40.5	30.4
Fourth	37.9	1.87	1.99**	29.4	27.9
Highest®	20.2			26.0	NA
Caste/Tribe SC	58.3	1.31	1.43**	41.7	31.0
ST	62.2	1.40	1.74***	51.8	27.5
OBC	45.6	1.02	1.00	40.2	30.8
Others®	44.3			37.1	31.3
Residence Rural	53.5	1.98	2.55***	43.7	29.9
Urban®	26.9			26.9	18.2
Education level of Mother/women Illiterate	54.7	1.35	1.09	45.5	28.0
<5 years of schooling	60.8	1.50	1.64	45.7	31.3
5-9 years of schooling	49.8	1.23	1.40	41.8	30.7
10 or more years of schooling®	40.4			32.8	33.7
Sex of the child Female	52.4	0.99	0.97	45.0	33.2
Male®	52.7			41.3	26.2
Total	52.5		-2LL=2329.1 $NagR^2$=0.069 N=1446	43.1	30.2

Source: Computed from unit level data, NFHS-III (2005-06), Note: **, *** shows 5% and 1% level of significance respectively. 1= Accessed ICDS services, 0= Not accessed ICDS services. ®: Reference Category. NA: indicating not applicable due to less than 25 frequencies.

It is clear that the nutrition component of ICDS service is more utilized by the poor and deprived section of the society. But the goal of universal coverage is not achieved as more than 35 per cent poor children don't utilize any of the service from the ICDS. If the utilization of service improves over the years then the child malnutrition declines faster in the short run.

Seventy percent of households share the supplementary food among the family members given to their children through ICDS programme as shown in Table-2. So the children who get the supplementary food, he/she can't get it fully due to unawareness among the family members. More proportion of scheduled caste and scheduled tribe family members share the children's supplementary food compare to other backward caste

and others respectively. The reason is due to more proportion of households in poverty condition among scheduled caste and scheduled tribe than others. However there are substantial proportions of households share the children's supplementary food among all sections of society. Less percent of mothers belonging to scheduled caste and scheduled tribe satisfied with the quantity of food compared to other caste. It indicates food shortage arises in more proportion of scheduled caste and scheduled tribe households than others. Nevertheless among all sections there is more demand of supplementary food calls urgent action by the state or nation in this regard.

Table-2
Children 6 months to 3 years getting food from Anganwadi and problem involved in it by social groups

Social groups	Getting food	Satisfied with quantity of food	Other family member Share the food
SC and ST	94.5 (91)	57.0 (86)	83.7 (86)
OBC	93.1 (58)	66.7 (54)	70.4 (54)
Others	100.0 (21)	90.5 (21)	47.6 (21)
Total	94.7 (170)	64.6 (161)	74.5(161)

Source: Computed from Primary data (survey 2011-12).
Note: Number in parentheses indicates number of children

Discussion: The data from 1992 to 2012 reveals two phases of nutritional transition. The first phase (1992 to 1999) with frequent changes of rolling government, there was no decline in percentages of malnourished children. The second phase (2000 to 2012) with stable government, there was continuous decline in percentage of malnourished children. Despite drought and flood in some years, government achievement in the second phase is quite satisfactory. Proportion of children malnourished decline in Odisha is better in the last decade compared to national average. This possibly happens because of consistent government and new programmes and policies (Rice subsides at Rs. 2/- per KG, Infant Mortality reduction mission and MAMATA Scheme) to combat malnutrition as well as to improve child health. However child malnutrition level is not low and government needs to focus more on it. Overall the risk of malnutrition among children belonging to scheduled tribe and scheduled caste is high compared to others. Children belonging to poorest households and deprived sections are more accessing supplementary food than others within the ICDS coverage village. It means poor children have more demand for supplementary food.

In the field survey, it was observed that among rural households some have one to two acres of agricultural land and some landless; but all are in the below poverty line. Those households don't have land; they are in acute poverty than those have some land. Thus landless households should get more supplementary food as compared to those have some land which can bring more inclusiveness and capable to combat under nutrition quickly. Most of the mothers belonging to scheduled caste and scheduled tribe demands more supplementary food for their children as the food shortage arises in the household as revealed indirectly from the above Table-2 (Most of them not satisfied with the quantity of food). In the field survey it is observed that sufficient production of varieties of food like pulses and milk in tribal areas needs to be focused to solve the problem in the medium and long run. Affirmative action in this regard can give better input to combat under nutrition. The shortage of food in the inaccessible area can be fulfilled through public policy or government intervention only. Though Odisha government achieve the positive result to combat malnutrition in the last decade but still there is need of more rigorous intervention in this regard.

Conclusion

Nutritional transition in Odisha taken place during 1992-2012 with frequent changes in the political power of the political parties during first phase i.e. 1992-99 while the second phase 2000-12 was with stable and single handed party. As a result malnourished children declined more than that of the national average though the risk of the malnutrition was high among the SCs/STs than that of the other castes groups. The underprivileged castes groups like SCs/ STs were accessing ICDS services more than the others castes. Even from the primary data it ws evident that land less should get more attention than who has having some land and so affirmative action should be taken to win over malnutrition.

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