

Malnutrition in Indian Children: Challenges Ahead

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Abstract: The entire world eagerly looking at India for its growth as a result of having high Demographic Dividend. The most vulnerable period next to infancy is the age of 1 to 5 years which constitute 14 percent of the Indian population. This is a huge human resource which needs to be developed and nurtured for the country to progress. But India has one of the poorest records in the world when it comes to nutrition among children. Around 70 percent children are anemic and 1.83 million under 5 years of age die every year. Of these over a million deaths caused by under nutrition and hunger. India reports among the highest levels of child under nutrition in the world have been rightly termed by our Prime Minister Dr.Manmohan Singh as a “National Shame”. Under nutrition is classified into three types according to three anthropometric indices of nutritional status: height-for-age (stunted), weight-for-height (wasted) and weight-for-age (underweight) by residence, India. Causes for difference in nutritional outcomes are; low birth weight, access to and reach of health services, lack of breast feeding, mother’s illiteracy. To reduce the malnutrition the government has to take steps like improve the breast feeding practices, feeding practices, provision of micronutrients, implementing UNICEF identified programs and make arrangements for institutional frame work.

Keywords: Malnutrition, Demographic Dividend, stunted, wasted, underweight, Nutrition, Breast Feeding, ICDS, PDS, and NRHM.

Introduction:

The entire world eagerly looking at India for its growth as a result of having high Demographic Dividend. The most vulnerable period next to infancy is the age of 1 to 5 years which constitute 14 percent of the Indian population. This is a huge human resource which needs to be developed and nurtured for the country to progress. But India has one of the poorest records in the world when it comes to nutrition among children. Around 70 percent children are anemic and 1.83 million under 5 years of age die every year. Of these over a million deaths caused by under nutrition and hunger. Protein energy malnutrition was commonly observed in Indian

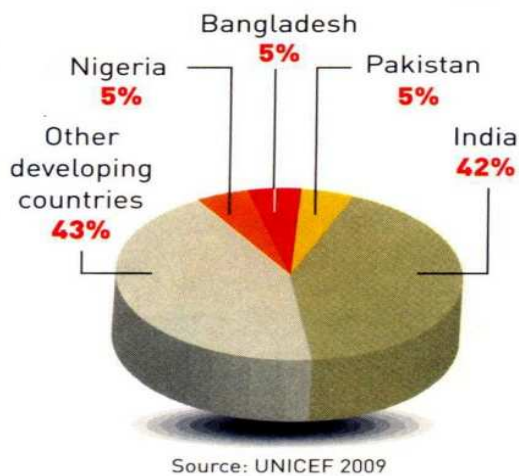
population where as in case of children under the age of 5 years it is micronutrient deficiency.

Under nutrition as a silent emergency which hunts the lives of millions of Indian children several reports of UNICEF, NFHS’s and WHO reveals the magnitude and severity of the nutritional crisis which India facing. India reports among the highest levels of child under nutrition in the world have been rightly termed by our Prime Minister Dr.Manmohan Singh as a “National -Shame”. The Hunga Ma Survey 2011 on Hunger and Malnutrition in 100 focused districts in six states of Bihar, Jharkhand, Madhya Pradesh, Orissa, Rajasthan and Uttar Pradesh reveals that 42 percent children under 5 years of age are under

weight and 59 percent are stunted. Of which half are severely stunted.

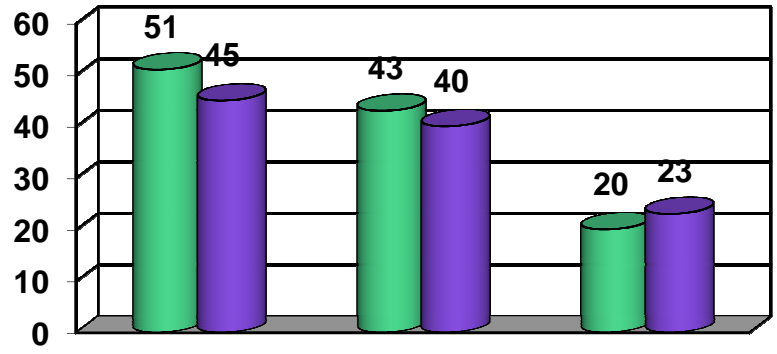
Under nutrition is classified into three types according to three anthropometric indices of nutritional status: height-for-age (stunted), weight-for-height (wasted) and weight-for-age (underweight) by residence, India. According to UNICEF- 2009 report stunting (deficiency in height for age) affects about 195 million children under 5 years of age in the developing world. Of these, around 61 million (31.28 percent) the largest number live in India. Wasting (deficiency in weight for height) affects about 71 million children under five in the developing world. Of these, some 25 million (35.21 percent) are in India and underweight (deficiency in weight for age-composite measure of stunting and wasting) affects around 129 million children under five in the developing world. Of these close to 54 million (41.86 percent) are in India. See Fig-1

Fig:1 - India's Contribution to the underweight burden (Children under 5 years of age)



The high proportion of child under nutrition, combined with the large population base, has made India the country with the largest number of stunted, wasted and underweight children in the World. The

percentage of stunted and underweight decreased and percentage of wasted children under the age of 3 years increased from NFHS-2 to NFHS-3 see fig-2



STUNTED UNDERWEIGHT WASTED
(Note; Figures rounded)

(Source;NFHS-2&3) NFHS-2 NFHS-3

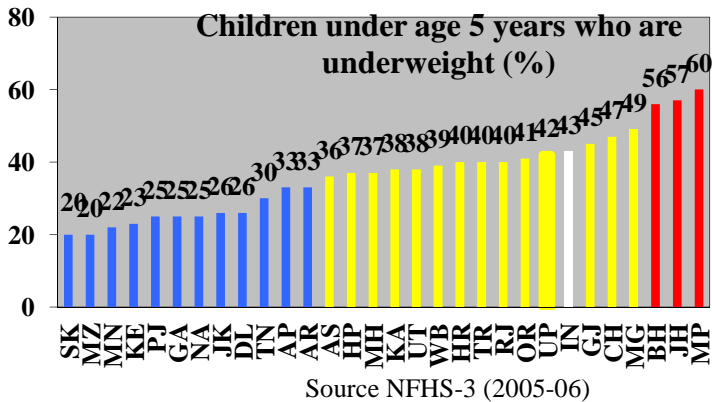
Table; 1-Nutritional Status of Indian Children under 3 years of age

Nutritional Indicators	NFHS-2 (1998-99)			NFHS-3 (2005-06)		
	Urban	Rural	Total	Urban	Rural	Total
	Stunted (Height for age)	41.1	54.0	51.0	37.4	47.2
Wasted (Weight for height)	16.3	20.7	19.7	19.0	24.1	22.9
Under Weight (Weight for age)	34.1	45.3	42.7	30.1	43.7	40.4

[Source;NFHS-2&3]

Equally unjust are the levels of inequality that characterize the nutrition situation. Levels of child under nutrition vary widely across the country. In general, in India, under nourishment is higher among the rural than the urban children. For instance, in 2005-06, the proportion of underweight children in urban areas was 30.1 percent as against 43.7 percent in rural areas. Similarly levels of stunting and wasting are higher in rural than in urban areas (see

table-1) Levels of child under nutrition vary widely across Indian States. For instance 20 percent of children below 5 years are underweight in Sikkim whereas the proportion is 57 percent in Jharkhand and 60 percent in Madhya Pradesh. See fig;3



The proportion of underweight children is 55 percent and it is highest among scheduled tribes, 48 percent among scheduled castes, 43 percent among other backward class children and 34 percent among others. The levels of under nutrition is not same between boys and girls in case of boys it was 42 percent and in case of girls it was 43 percent, it is well established that girls are discriminated against when it comes to access to food, nutrition, health and care.

Causes for difference in nutritional outcomes

Low Birth Weight

20 to 30 percent of babies weigh less than 2,500 grams at birth in India; Only 10 to 13 percent of children are born of low birth weight in Sikkim and Manipur, the proportion is as high as 19 percent in Jharkhand and 23 percent in Madhya Pradesh. The intergenerational transfer of under-nutrition: The intergenerational transfer of under nutrition from mother to child in the womb is also causes under nutrition in infants. According to NFHS-3 (2005-06) report. 35.6 percent women have low Body Mass Index (BMI). The proportion of women with BMI

less than 18.5 Kg/M² is 10 percent in Sikkim and 13 percent in Manipur, it is as high as 42 percent in Madhya Pradesh and 43 percent in Jharkhand.

Access to and Reach of Health Services

Access to and reach of health services is also one of the causes for under nutrition in children. The proportion of fully immunized children is 70 percent in Sikkim where child nutritional levels are high and only 40 percent children were fully immunized in Madhya Pradesh where child nutritional levels are low.

Breast Feeding

Initiation of breast feeding immediately after birth makes a big difference in developing nutritional levels among children. 43 percent of children in Sikkim and 57 percent in Manipur Start breast feeding within half an hour of birth. The proportion is only 10 percent in Jharkhand and 15 percent in Madhya Pradesh.

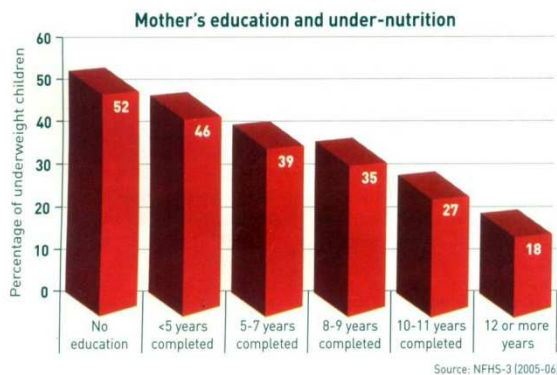
Lack of proper Supplementary Foods

Breast milk alone is not sufficient. The energy and calories needed for healthy growth can come only from additional food. After 6th month of age infants must be given solid foods to supplement breast milk. NFHS 's reveals that nationally only 21 percent of the children in age group of 6-23 months are fed as per the Infant and Young Child Feeding (IYCF) recommendations. The proportion is 49 percent in Sikkim and 41 percent in Manipur. It is only 17 and 18 percent in Jharkhand and Madhya Pradesh respectively.

Mother's Literacy

Mother's literacy levels are also one of the factors which influence the nutritional levels in Children. In

Sikkim female literacy rate is 62 percent where under nutrition is less. In Madhya Pradesh it is only 50 percent where under nutrition is high for example proportion of underweight children is as high as 52 percent in case of mother with no education and the proportion is diminishing with the increase in mother's education level. See figure-4.



Steps to be taken

The Government of India has started a programme called Integrated Child Development Services (ICDS) in the year 1975. ICDS has been instrument in improving the health of mothers and the children under age of six years, by providing health and nutrition education, health services, supplementary food, and pre-school education. The ICDS National Development Programme is one of the largest Programme in the world. It reaches more than 34 million children aged 0-6 years and 7 million pregnant and lactating mothers. Other programmes impacting on under- nutrition includes the National Mid day meal scheme is the world's largest N.G.O. run program -me by AkshyaPatra Foundation Public Distribution System (PDS), National plan of action for children, United Nations Children's Fund and National Rural Health Mission to prevent and eliminate under-nutrition. But several expert groups have offered valuable suggestions on how best to

tackle the problem of malnutrition in children they are.

Breast Feeding Practices

All newborn should get breast feeding within one hour after birth. All newborns are fed with nutrient rich colostrum in the first 3 to 4 days, and all infants are fed only breast milk in first 6 months and avoid solid or liquid.

Feeding Practices

Infants are fed complementary foods from 6 months of age which are rich in energy, protein and micronutrients like Vitamins and Minerals.

Provision of Micronutrients

Infants must be provided Vitamin "A" supplements twice a year. Provide dewarming tablets twice a year to the children aged in between 1 to 5 years and children with diarrhea receive proper treatment with Zinc supplements and Oral Rehydration Solution (ORS).

UNICEF Identified Programs:

The Government authorities should understand and analyze local nutritional situation, its determinants' and deficient nutrients with the assistance of expertise teachers in local universities at first and then prepare cropping pattern in that local area with the help of agricultural higher learning institutions to grow food and other crops which are helpful in fulfilling the founded nutritional deficiencies in that particular local area.

- Ensure better household food security through strengthened agricultural and social protection along with relevant health, water, and sanitation.

- Integrated, and clear government ownership, leadership, commitment, co-ordination and clarity of roles and responsibilities of several departments is needed.
- To promote breast feeding, home visits by community health workers, immunization and weighing sessions should be conducted and prevent mother-to-child transmission of HIV.
- In all these things large scale communication and community involvement is needed.

Institutional Frame Work

A micro level committee must be appointed to see the malnutrition aspects at the local body level. A state level food security department as a part of revenue ministry should be emerged to look after the malnutrition aspects and to co-ordinate and monitor local body committees chaired by the chief minister. All minister's, media are the members of the state level food security department. A permanent food security department or wing as a part of ministry of human resource chaired by the prime minister and central agriculture minister and human resource minister as a deputy chairman's at the national level which will provide funds to committees at local body level.

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