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RESEARCH ARTICLE

UNVEILING THE PRESENT LANDSCAPE OF MALNUTRITION IN INDIA: A COMPREHENSIVE ASSESSMENT

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Abstract

Achieving healthy diets and ending malnutrition, particularly among children, remains a formidable challenge, even as India, the world's second-most populous nation, has witnessed consistent economic growth and attained food grain self-sufficiency. Despite these advancements, high poverty levels, food insecurity, and malnutrition persist. This article highlights the pressing issues of malnutrition in India. Undernourished children are more susceptible to infectious diseases, leading to higher mortality rates and diminished productivity in adulthood, further perpetuating the cycle of undernutrition. Based on NFHS surveys, the article presents a detailed analysis of crucial malnutrition indicators, including stunting, wasting, and underweight children. It reveals that India's performance on global hunger indices remains a cause for concern, with the highest child-wasting rate globally and a "serious" hunger level. At the same time, some indicators have shown marginal improvement, but acute malnutrition in children under five remains challenging. The article emphasizes the role of non-economic factors such as gender discrimination, hygiene, and maternal education in perpetuating malnutrition. Additionally, it discusses the government's initiatives, including the Integrated Child Development Services (ICDS) and POSHAN Abhiyaan, in addressing the issue. The article calls for a renewed focus on the critical first 1000 days of a child's life and the effective promotion of intensive breastfeeding to combat malnutrition. It advocates for targeted interventions, improved data management, strengthened governance, and systematic monitoring to ensure a healthier future for India's children and address the pressing issue of malnutrition.

Introduction:-

Achieving healthy diets and ending malnutrition has become an even more significant challenge than before, particularly for children. India, the second-most populous nation in the world, has had consistent economic growth and has just attained food grain self-sufficiency. High poverty, food insecurity, and malnutrition continue despite this. India is a crucial area of focus for the fight against hunger on a global scale because it is a host to a quarter of the total malnourished individuals worldwide. Despite the minimal nutritional requirements decreased over the past 20 years, the average household income exceeded threefold (WFP). The rate of childhood obesity and overweight

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has been rising over the same time. Malnutrition has significant and long-lasting impacts on individuals, their families, communities, and nations regarding their development, economy, social, and medical conditions.

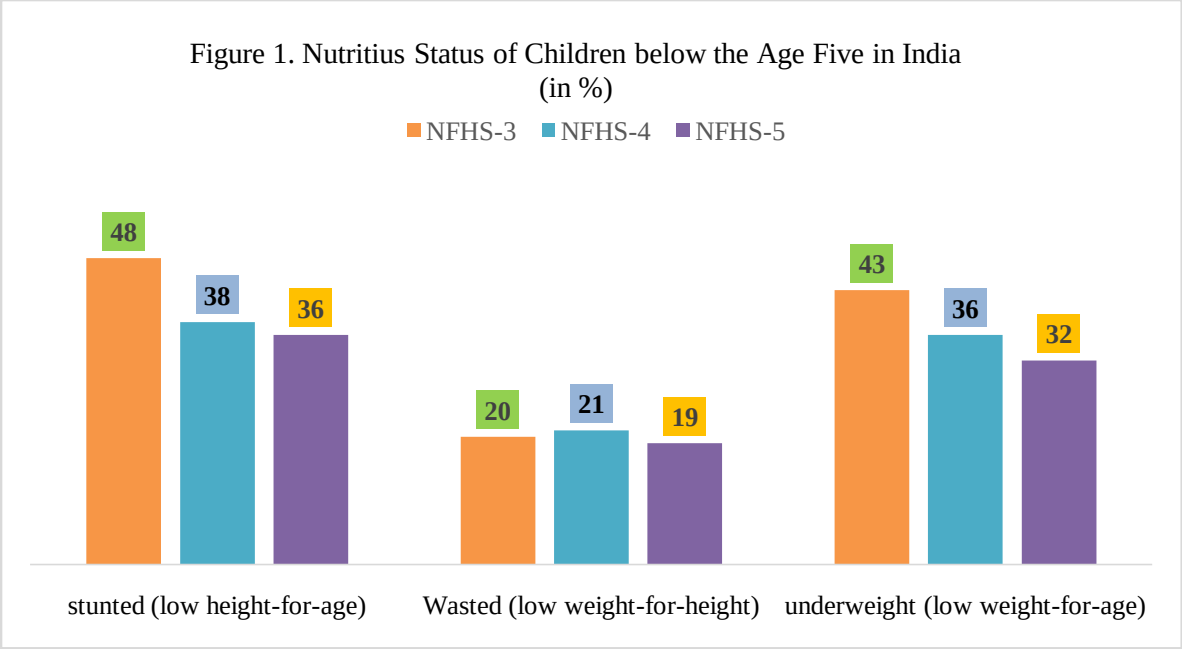
Some groups are significantly marginalized; therefore, their diets frequently need to be higher in quality and quantity. Malnourished women are less likely to give birth to healthy children. Nutrition deficiencies inflict long-term damage to both individuals and society. Compared with their better-fed peers, nutrition-deficient children are more likely to have infectious diseases, which lead to a higher mortality rate. Besides, nutrition-deficient people are less productive than expected. Low productivity gives them low pay that traps them in a vicious circle of undernutrition and brings inefficiency to society, especially in India, where labour is a significant factor of production. The mortality of children under five was about 59 out of every 1000 live births, one of the world's highest rates. It is mainly due to malnutrition of children. Poor nutrition within the first thousand days of a child's life can have many negative causes. It can lead to stunted growth, impaired cognitive ability, reduced school performance, and diseases like diarrhoea.

Undernutrition in India

India has the highest child-wasting rate in the world, 18.7%, and was placed 111 out of 125 nations on the Global Hunger Index 2023. India's hunger level is considered "serious", with a score of 28.7. Afghanistan (114), Haiti (115) and 12 sub-Saharan countries perform worse than India on the GHI.India's performance has fallen short of its neighbours Pakistan (102), Bangladesh (81), Nepal (69), and Sri Lanka (60). In India, the frequency of undernourishment increased from 14.6% in the years 2018–2020 to 16.3% in 2019-2021. It means 224.3 million people in India are undernourished out of 828 million globally.

The indicators of a child's nutrition are wasting (lowweight-for-height),stunting(low height-for-age), and underweight (low weight-for-age). Stunting is assessed via height-for-age. It serves as a gauge for both cumulative growth deficits and linear growth retardation. If a child's height-for-age Z-score is less than -2 SD (standard deviation) from the median of the sample population, they are considered stunted or chronically malnourished. Children below -3 SD are severely stunted. Weight-for-height is used to measure wasting in children. It determines current nutritional status by body mass and height. Children are deemed thin (wasted) or severely malnourished if their Z-score is below -2 SD from the reference population's median. Severely wasted children's weight-for-height Z-score will be less than -3 SD from the reference population's median. Considering weight-for-age, underweight is determined. It is an index that takes into account both weight and age. It considers both recent and ongoing malnutrition. Underweight children are those whose weight-for-age Z-score is less than -2 SD from the sample population's median. Children whose weight-for-age Z-score is below -3 SD from the median are severely underweight. Overweight people are those whose weight-for-age Z-score exceeds +2 SD over the reference population's median.

The fifth in the series of surveys, the National Family Health Survey (NFHS) 2019–21, shows that India's population's health and nutritional status have not significantly improved. The latest data shows acute malnutrition in children under the age of five. 7.7% of children are severely wasted, which was 7.5% in NFHS-4. The other child nutrition indicators have slightly improved between NFHS-4 (2015-2016) and NFHS-5 (2019-2021). The prevalence of stunting (short for their age) has reduced from 38.4% to 35.5%, Wasting (thin for their height) from 21.0% to 19.3% and underweight (thin for their age) from 35.8% to 32.1%. At the same time, 3.4% of children are overweight (heavy for their height), which was 2.1% in NFHS-4.



Source: NFHS 3,4 & 5

Anaemia among children under age five has become significantly worse, with the current prevalence at 67.1% compared to 58.6% in NFHS-4, and 57% of women in the country are anaemic. The two groups of children most likely to be underweight are those with low levels of affluence and those whose moms have no schooling. An accurate picture of undernourishment will only emerge if one considers the intensity and severity of undernutrition. In the Indian context, the prevalence of undernourishment varies among different states. For example, the widespread calorie inadequacy in Kerala is mild because the intensity is very low, though the prevalence level is high. On the other hand, in Orissa, calorie deprivation shows a lower prevalence, but the intensity and severity are pretty high. In Kerala, undernutrition in calorie terms is mild because most calorie-inadequate households consume near suggested norms. In contrast, in the case of Orissa, those who are consuming less are far below the standard. Therefore, Orissa is more disadvantageously positioned against Kerala regarding calorie deprivation. So, a rational intervention will focus more on Orissa than Kerala.

The state-wise data shows that 7.3% of stunted children live in rural areas, compared to 30.1% in urban areas. The states with the most significant rates of stunting are Meghalaya (46.5%), Bihar (42.9%), Uttar Pradesh (39.7%), and Jharkhand (39.6%), whereas the states with the lowest rates are Sikkim (22.3%) and Pondicherry (20%). The lowest rates of childhood stunting in the NFHS-4 (2015–16) were in Goa and Kerala, but these rates have dramatically increased in the NFHS-5 from 20.1% to 25.8% and from 19.7% to 23.4%, respectively.

Regarding the extent of wasting, 10 of the 21 states and union territories have reversed on the parameter, and the numbers are more in line with NFHS-3 levels (2005-06). the states like Nagaland and the union territories of Jammu and Kashmir show a gain of 6%. Karnataka was the top-performing state, with a decrease from 26.1% to 19.5%. Meghalaya and Goa have improvements over the previous survey. All five union territories and 11 states show an increase in underweight children. There was only a slight to moderate reduction in the levels in Bihar, Gujarat, and a few Northeastern states. However, the percentage of underweight children increased by approximately 3% in wealthier regions like Kerala and Telangana. In Kerala, the levels increased from 16.1% to 19.7%, and Telangana increased from 28.5% to 31.8%.

Relationship between Stunting and Background Characteristics

The outcome of nutrition deprivation depends upon various non-economic factors like gender discrimination, poor hygiene, higher morbidity risk, and widespread poverty. The prevalence of undernutrition is almost the same among girls and boys, although girls are slightly less well-nourished than boys on all three measures. The prevalence of stunting increases with a child's age from 6-8 months through 6-23 months, and it decreases slightly after that. Over two-fifths (44%) of children reported to be very small at birth are stunted, compared with 35 per cent of children of

average size or larger. Compared to children born to moms with a normal BMI or children whose mothers are overweight/obese, children born to thin mothers whose BMI is less than 18.5 kg/m^2 are more likely to be stunted, wasted, and underweight. Forty-six per cent of children born to mothers without schooling are stunted, compared with 26 per cent of children born to mothers with 12 or more years of education. The corresponding proportions of underweight children are 42 and 23 per cent, respectively. The prevalence of stunting decreases steadily with an increase in wealth quintiles, from 46 per cent of children in households in the lowest wealth quintile to 23 per cent of children in households in the highest wealth quintile. Chronic or recurring undernutrition throughout pregnancy, early childhood, and adolescence causes stunting. Stunted children may never grow to their fullest physical and intellectual potential. Wasting is a potentially fatal condition brought on by inadequate nutrient intake or illness. The cause of nearly half of all deaths in children under five is undernutrition. The fundamental nutritional deficiency among children should be viewed as a sign of significant concern by policymakers, without which the nutritional indicators will not improve quickly.

Nourishing the Nation: Government Initiatives to Combat Malnutrition.

The government of India has given the problem of malnutrition a top priority and implemented several programmes. The most crucial tool for tackling the issue of child malnutrition in India is the Integrated Child Development Services (ICDS). In addition to preschool education, it provides a supplemental nutrition programme, growth monitoring and promotion, nutrition and health education, immunization, health check-ups, and health referrals. Children under five and pregnant and nursing mothers are the primary beneficiaries. It serves 8.36 crore clients through a network of 1,012,374 Anganwadi Centers. The ICDS's Pradhan Mantri Matru Vandana Yojana (PMMVY) is a direct, targeted intervention to address the problem of childhood malnutrition. The government has established 'Nutrition Rehabilitation Centers' under the Ministry of Health and Family Welfare, where children with severe acute malnutrition are treated. India launched the POSHAN Abhiyaan in 2018 to attain the second Sustainable Development Goal (SDG) to eradicate hunger and enhance nutrition. The state of malnutrition and its effects can be partially linked to the lack of political attention to the budgetary provisions to address this problem. To achieve the "Swasth Bharat" goal, the Government of India also organizes intensive activities to increase nutrition awareness at the grassroots level through awareness drives, outreach programmes, and various camps and fairs targeted at women, children under the age of five, and adolescent girls.

Addressing Malnutrition: India's Journey Towards Global Nutrition Targets

In 2012, World Health Organization identified six global nutrition targets to be achieved by 2025 that included a 50% reduction of anaemia among women at reproductive age, a 30% reduction in low birth weight, an increase in the rate of first six months' exclusive breastfeeding up to at least 50%, 40% reduction of stunting among under age five children, reduce and maintain childhood wasting to less than 5%, no increase in under age five overweight, and seizing the rise in obesity and diabetes prevalence. Five out of six worldwide maternal, infant, and young child nutrition (MIYCN) targets to address wasting, stunting, anaemia, low birth weight, and childhood obesity are not being met, according to the 2021 Worldwide Nutrition Report (GNR 2021). The Global Nutrition Target (GNT), established to tackle the rising incidence of non-communicable diseases, must also meet its goals. Our health and the environment will suffer if we replace whole-food-based balanced meals with sugary drinks, highly processed foods, and processed red meat. Except for three MIYCN targets, India must catch up to achieve all other GNTs. India is 'on course' in meeting the stunting target, but 34.7% of children under age five are still impacted, much higher than the Asian average of 21.8%. There has yet to be progress achieved towards achieving the GNT for wasting. Compared to the Asian average (9.1%), India has 17.3% stunted children under five. Meanwhile, India reported some progress in ensuring exclusive breastfeeding, with 58.0% of infants aged 0 to 5 months exclusively breastfed. Poshan Abhiyaan 2018 could only reduce stunting among children aged 0 to 3 years by one percentage point, unlike its promise to reduce stunting by three percentage points per year.

The global nutrition targets lack the environmental impact of food and how to address micronutrient deficiency. Filling the gaps in the nutritional composition of the daily meal is the first step India must take to tackle the triple burden of malnutrition, nutrition disparity, and food insecurity. By including nutrient-dense, socially inclusive, and climate-smart crops like millets in the everyday diet of Indians, we can ensure sustainable eating and reduce the risk of nutritional deficiencies and diet-related issues. The food system needs to be transformed, requiring urgent policy measures involving all interested parties. To meet the global nutrition targets by 2030, India will also require improved data management, increased accountability in the food distribution system, effective resource management, adequate nutrition education, strengthened governance and accountability in the nutrition sector, reinforcement of human resources, and systematic monitoring.

Conclusion:-

The Integrated Child Development Scheme in India needs to prioritize the crucial first 1000 days of a child's life to address the issue of malnutrition effectively. Redirecting focus towards children under 0 to 3 years will ensure their optimal growth and overall well-being. Intensive breastfeeding plays a vital role in providing essential nutrients and immunity to the child. Efforts should be made to increase the availability of breast milk to children, and supplementary feeding should be emphasized in cases where it is not possible. Addressing the lack of breast milk availability can help to prevent deficiency syndromes and promote healthy development. By implementing these targeted interventions and emphasizing the importance of proper nutrition during the early years, India can make significant strides in combating malnutrition and securing a healthier future for its children.

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