

Eradicating Malnutrition by 2030: Dream or Reality?

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ABSTRACT

Post independence, India has made significant advancements in healthcare and technology. However, it remains concerning that malnutrition continues to affect approximately 14.3 percent of the population. This issue, particularly prevalent among young children, poses a significant challenge to both national and global public health efforts[1]. In fact, malnutrition is the primary cause of morbidity among children, contributing to nearly half of all child deaths. Asia bears the brunt of this crisis, with 52 percent of the malnourished population, while Africa also faces a substantial burden, accounting for 43 percent[2,3].

1. Introduction

Post independence, India has made significant advancements in healthcare and technology. However, it remains concerning that malnutrition continues to affect approximately 14.3 percent of the population. This issue, particularly prevalent among young children, poses a significant challenge to both national and global public health efforts[1]. In fact, malnutrition is the primary cause of morbidity among children, contributing to nearly half of all child deaths. Asia bears the brunt of this crisis, with 52 percent of the malnourished population, while Africa also faces a substantial burden, accounting for 43 percent[2,3].

Malnutrition encompasses deficiencies or excesses in nutrient intake, imbalances in essential nutrients, or impaired nutrient utilization, manifesting through key indicators such as stunting (low height for age), wasting (low weight for height), underweight (low weight for age), overweight, and deficiencies in essential micronutrients. According to data from the World Health Organization (WHO), approximately 149 million children under the age of five worldwide are affected by malnutrition, with 50 million suffering from wasting and 45 million from stunting. The consequences of malnutrition during early childhood can be profound, often resulting in permanent impacts on mental and physical development. This is primarily due to its adverse effects on cognitive development and weakened immunity [4,5].

Malnourished children often grow up to be less productive adults, facing limited opportunities in life, which in turn impacts India's overall human capital, perpetuates poverty, and exacerbates equity issues. Thus, malnutrition is also a significant economic burden for the country. According to the World Bank, for every single percent loss in adult height resulting from early childhood stunting, there is a corresponding 1.4 percent loss in economic productivity [6]. The pervasive nutritional inadequacies among children, as highlighted in the Global Nutrition Report, should be a pressing concern for policymakers. Failure to address these issues promptly could impede the swift improvement of nutritional indicators [7].

Prevalence of Malnutrition in India: The global prevalence of stunting in children under the age of 5 stands at 22.3 percent, with wasting at 6.8 percent (WHO). In contrast, the national prevalence in India is notably higher, with stunting affecting 38.4 percent and wasting at 21.0 percent. Despite these concerning figures, there has been a heartening decline in these indicators over the past five years [8]. According to the National Family Health Survey (NFHS) 5 survey, stunting has reduced to 35.5 percent, and wasting to 19.3 percent. Additionally, the prevalence of underweight children has dropped from 35.8 percent to 32.1 percent. Moreover, the countrywide prevalence of overweight children, at 2.8 percent, is lower than the global prevalence of 5.6 percent, signaling positive health trends. However, it is crucial to note a slight increase in the overall national overweight prevalence from 2.2 percent, which demands thorough attention [9]. Early intervention and comprehensive strategies are imperative to address this issue, as timely action can yield better outcomes in a short span of time.

India has taken pioneering steps towards eliminating all forms of child malnutrition by 2030, aligning with the United Nations' second Sustainable Development Goal, Zero Hunger. This goal aims to eradicate world hunger

and malnutrition by 2030 [10]. To achieve this ambitious target, India has implemented various nationwide programs such as the Pradhan Mantri Matru Vandana Yojana (PMMVY), Integrated Child Development Services (ICDS) Scheme, Nutrition Rehabilitation Centers, POSHAN Abhiyaan, and Midday Meal Scheme [11]. These initiatives are designed to comprehensively address the challenges of child malnutrition and contribute to the broader global effort to ensure food security and nutrition for all.

Initiatives of Tamil Nadu in mitigating Malnutrition: Over the years, Tamil Nadu's focus on nutrition and education has yielded significant results. According to the National Family Health Survey (NFHS) 5 survey, the state has seen remarkable progress in reducing malnutrition indicators. Stunting, wasting, and underweight prevalence rates have declined to 25 percent, 14.6 percent, and 22 percent respectively, all of which are well below the national average [9].

Tamil Nadu's Midday Meal Scheme: In 1956, Tamil Nadu became the first state in India to introduce the midday meal scheme for government school children [12]. This pioneering initiative aimed to provide nutritious meals to students, thereby improving attendance, retention rates, and overall health outcomes. The scheme was widely acclaimed and served as a model for other states and even garnered international recognition.

Introduction of Breakfast Scheme: Building upon the success of the midday meal scheme, Tamil Nadu continued to innovate in the field of child nutrition. In 2022, the state government introduced a breakfast scheme in addition to the existing midday meal scheme [13]. This move aimed to further enhance the nutritional support provided to school children, ensuring they receive adequate nourishment to support their learning and development.

Impact on School Children: As per data from the Unified District Information System for Education (UDISE), the implementation of both the breakfast and noon meal schemes has had a substantial impact on students' well-being. Currently, approximately 19 lakh children studying in classes I to V across all government and government-aided schools in Tamil Nadu are benefiting from these nutrition programs [14]. By prioritizing the nutritional needs of school children, Tamil Nadu continues to demonstrate its commitment to fostering healthy, thriving communities and improving educational outcomes.

There's still a long road ahead: Despite the Global Nutrition Report of 2022 indicating that only one-third of countries are progressing toward halving stunting by 2030, efforts to reduce stunting by 40 percent in children face challenges, and the report predicts a shortfall in achieving Zero Hunger by 2030, with at least 660 million people still at risk of hunger. Despite significant interventions at state and national levels to combat malnutrition, there remains a considerable gap between government actions and actual outcomes. This underscores the need for more robust efforts to reach the 2030 target [7,10]. Without such measures, the goal of eradicating hunger and malnutrition may remain out of reach, which is essential for global well-being. Drawing inspiration from successful initiatives such as those implemented by the Tamil Nadu government, it's crucial to replicate and integrate best practices from around the world to effectively tackle this social and economic challenge.

CONFLICT OF INTEREST : The authors declare no conflict of interest.

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