

# **ANALYSIS OF THE BENEFITS OF NUTRITIONAL SUPPLEMENT MARKET TOWARDS CHALLENGES OF MALNUTRITION AT LOW SOCIO-ECONOMIC BACKGROUND**

*Nandhika Kamalakannan*

## **Introduction**

The research deals with the analysis of the benefits of the nutritional supplement market towards the low socio-economic population who face intense challenges of malnutrition and inappropriate nutritional diet patterns.

According to the World Health Organization, Malnutrition is defined as the **deficiencies, excesses or imbalances in a person's intake of energy and/or nutrients**. The term malnutrition covers 2 broad groups of conditions. One is 'undernutrition'—which includes stunting (low height for age), wasting (low weight for height), underweight (low weight for age) and micronutrient deficiencies or insufficiencies (a lack of important vitamins and minerals). The other is overweight, obesity and diet-related noncommunicable diseases (such as heart disease, stroke, diabetes and cancer).

According to the National Cancer Institute, Nutritional Supplement is defined as **a product added to the diet**. A nutritional supplement is consumed through oral contact and usually contains one or more dietary ingredients such as vitamin, amino acids, minerals, herbs and enzymes.

According to the report "India Protein and Herbal Supplement Market Overview, 2018-2023", **India Nutraceuticals Market is projected to reach up to CAGR of more than 18% from 2017-18 to 2022-23**. More than 60% market is accounted by Dietary Supplements market which includes Protein and Herbal Supplements. India Dietary Supplement Market is expected to grow with a CAGR of more than 15% in forecasted period 2022-23.

India is considered to be a diverse nation with mixed socio-economic background population and diverse essentialities. In accordance to the theories of basic essentialities, humanitarian population requires three vital essentialities such as food, clothing and shelter. Due to rapid urbanization and increased lifestyle adaptations, the Indian population has developed highest standards of living and lifestyle at all aspects such as economical and social existence.

According to the reports of Global Hunger Index, India is ranked on the highest levels of malnutrition cases with highest effect on infants. With contrary to the highest cases of malnutrition, we could state and analyse the evident development of the nutritional supplement market in the nation which progresses the economic standard of the nation. As a matter of discussion, it is essential to analyse the beneficial aspects of the nutritional supplements across the low socio-economic population, as we could not witness any significant decrease in the levels of malnutritional cases.

This research would provide evident statistics and data to study the relationship between the challenges of malnutrition in India and the levels of beneficiaries of nutritional supplements across the low socio-economic background.

The research provides an evident explanation to the economical growth of products in the nation and its rate of utilization among the lower-class population in the nation. The research is proposed with the explanation of the hypotheses,

- The increased productivity of the nutritional supplement market and its utilization across the population
- The nutritional supplement market does not show much progress in the decreased rate of malnutrition cases in India

### **Content**

India has the maximum number of malnourished children in the world – 1 in every 3 children are malnourished. The situation is quite intense as the effects of malnourishment are irreversible if they occur at a very young age. It leads to permanent disabilities that render the children ill and weak throughout lifetime.

Among the 472 million children (as per 2011 census), nearly 97 million children are anaemic and undernourished. From the age categories of five years or younger, nearly 40% are stunted, 19.8% are wasted and 42.4% are underweight. The statistics revealed by the NFHS-4, nine states amongst 11 of the nations could not reduce the rate of Infant Mortality even at 2 points in a year. While Malnutrition and Infancy Mortality Rates rule the attention as a national crisis, the budget and policies reserved for the minors and least socio-economic population remains at a margin of 4%. With accordance to the public review of the minority population, they work for daily wages and do not receive his/her salary at the right period, and doesn't open the centre due to lack of food and medicines hence resulting malnourishment and suffrage.



A sound foundation for the overall development of a human being is critically required. 90% of the brain development occurs within 5-6 years of age. Thus, to ensure and progress the right to life, early childhood care and learning is important. The Integrated Child Development Scheme is one of the largest public service schemes provided by the Indian

Governance that provides the needs of children and infants below the age of 6 years. The ICDS has the potential to have the most comprehensive coverage. The ICDS scheme allocates a budget of 19,427.75 Cr while the Poshan Abhiyan has received an allocation of Rs.3400 Cr- a substantial increase from last year's sum of Rs.2928.7 Cr. It is strongly suggested that the allocation needs to be increased after being nearly stagnant for years towards children as their rights and aspirations continue to languish in priority.

According to the 2017 Global Burden of Disease Study by the University of Washington, Malnutrition was considered to be the top reason of death and disability in India in 2017, followed by poor dietary diseases and risks. At recent years, India has shown exemplary progress in the increase in GDP, but has a consistent higher levels of malnourishment cases contradicting to the developmental aspects of the nation. With accordance to the Global Hunger Index of 2018, India ranks as 103 out of 119 countries on the basis of three leading indicators – the prevalence of wasting and stunting in children under 5 years, child mortality rate under 5 years and the proportion of undernourished in the population. The statistics evidentially proves that India is suffering from serious crisis of hunger and malnutrition. Stunting, or low height for age is defined as a sub-type of malnourishment caused by long-term insufficient nutrient intake and frequent infections. According to the Global Nutrition Report of 2018, Indian population comprises of 46.6 million stunted children out of a total of 150.8 million stunted children in the world. Wasting, or low weight for height, is a strong predictor of mortality among children under five years and is usually the result of acute significant food shortage and/or disease. With accordance to the Global Nutrition Report of 2018, India comprises of 25.5 million children out of the 50.5 million children who are wasted globally, or half of the global wasting burden, followed by Nigeria and Indonesia respectively. India has more than a million overweight children according to the Global Nutrition Report 2018. A joint study by Assocham and EY states that apart from facing undernutrition challenge, Urban India is also suffering from overnutrition. The “Global, regional, and national prevalence of overweight and obesity in children and adults during 1980-2013: a systematic analysis for the Global Burden of Disease Study 2013” report ranks India as the third most obese nation in the world after the US and China. Also, India is the diabetes capital of the world, with about 69.2 million people living with it as per the 2015 data by World Health Organisation. The National Family Health Survey (NFHS)-4 2015-2016, India's biggest survey on the status of health, shows that 48.3 per cent of Bihar's children under five years are 'stunted' owing to poor nutrition. In comparison to this, only 31.3 per cent children in Africa are found to be stunted, as per the reports of WHO. The global economic impact of malnutrition could be a staggering \$125 billion by 2030, with India accounting for nearly \$46 billion, according to the first international study of its kind in four countries done by a British charity, 'Save the Children'.

With respect to the Nutritional Supplement Market in India, the Indian population is quite conscious and focused in the improvement of self-nourishment and health care. The prominent factor fuelling the nutrition supplement market is the increase in GDP and rise in disposable income. The Vitamin supplements dominate the dietary supplements market in India. Amway India Enterprises Limited is the market leader in the vitamins and dietary supplements segment, with ~33.8% market share, followed by Pfizer Limited, Merk, Bayer,

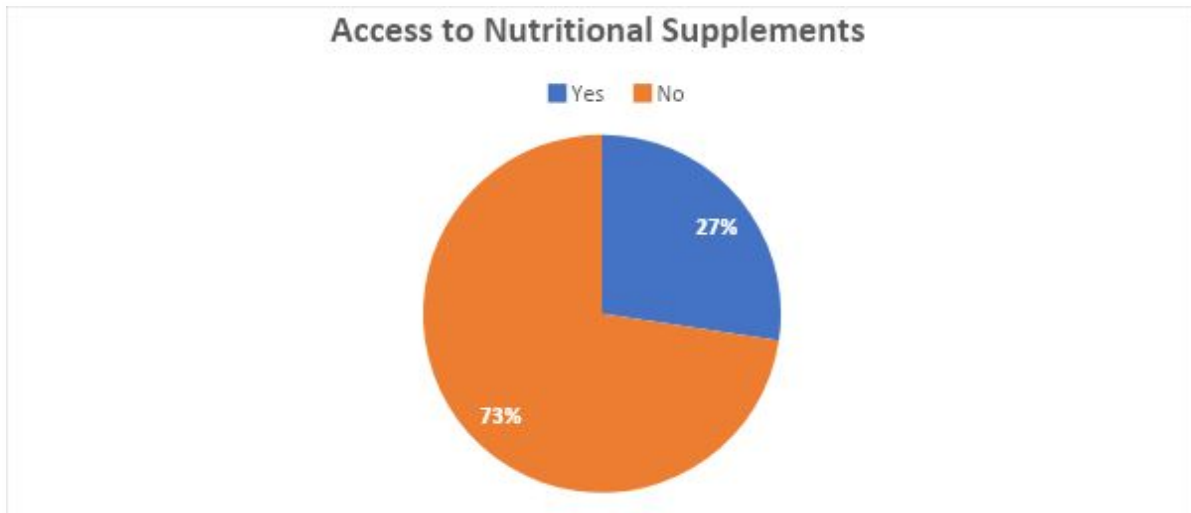
and Abbott. The probiotic drugs and dietary supplements segment are dominated by Dr. Reddy's Laboratories, Tablets India, and USV India. The ultimate target of the nutritional supplement market is relatively biased with more preference and access to the higher urban areas and dominantly the upper-class population. The key challenge of the nutritional supplement market is that protein supplements are priced high, making it quite expensive for consumption on a regular basis by the lower middle class and rural population of the country.

With accordance to the existing research evidences and conclusions, according to the paper – *the economic cost of a poor start to life* published by Harold Alderman, various economic models have produced estimates of the economic costs of malnutrition as a combination of the impact of malnutrition on mortality, on health care costs for the survivors, including those that manifest in adult years, and on the costs of early mortality and are sensitive to assumptions to place a dollar cost on mortality. This study argues with the productivity impact of malnutrition and the economic consequences of malnutrition are substantial. With the essence of this existing research performed, my analysis was processed with certain self-explained questionnaire and criterion.

The research was performed in the Survey Method and was studied as an analytic case study. The theoretical explanations of the research were interrogated as a public review to the lower class and middle-class population and the responses were considered. The survey was performed using a 10-item self-developed questionnaire that deals with the awareness and utilization of the nutritional supplements. In most cases of interrogation, we could witness specific data as follows,

1. The lower-class population residing in areas of urban and deeper parts of the region do not have adequate access to health care and additional essentialities of nourishment
2. They had inadequate medical assistance and personal care from the welfare boards of the government and the rural welfare was given less importance in certain deep regions of the state studied
3. They were unaware about the allocation budget towards the ICDS Scheme
4. At most cases studied, extreme minor population at deep regions of the state did not intake any kind of nutritional supplements such as protein tablets, vitamins pills etc. At deeper urban areas and villages, pregnancy challenges and infancy malnourishment are highly witnessed due to inadequate nutrition and diet patterns
5. They were not aware of alternative diet patterns and did not have much exposure to the advancements of nutritional supplements
6. They lacked access to standard hospitals and hence felt new to the term of nutritional supplements like pills etc.
7. As a note of suggestion, the population insisted the fact to offer and provide the nutritional supplements for free of cost as they do play a role as our essentialities. They also encouraged high investment in mid-day meal programme and the government should set nutritional standards for the BPL ration as providing cheap food is not sufficient but the quality of the food also plays a vital role. They also stated the essential need to provide incentives with subsidies and high MSPs to

farmers at deep regions of the country. The productivity and availability of the supplements should be readily accessible to all socio-economic population.



**As an observation of the research,**

- The lower class and middle-class population require more adequate education and knowledge about the advanced technological developments and productions of nutritional supplements.
- They require more awareness about the beneficiaries of the dietary supplements
- It is evidentially witnessed that urban areas and villages of the deep regional parts of the country, do not much possess the access to advanced nutritional supplements.
- The minority population could not access more of health care and nourishment as they lack awareness and exposure to the supplements such as protein pills, vitamin tablets, amino acids and so on
- The supplements are available at higher costs and as India is a nation with mixed economy, the benefits of the supplements do not profit the entire population and is quite difficult to access for the lower class and minor population.
- The economy of the nutritional supplement market mainly targets the higher-class population as this population do require lifestyle ailments. This stereotypical target of the market does affect the widespread usage of the supplement across all socio-economic population.
- The main reason of the crisis in low socio-economic background population is because of the insufficient education and knowledge about nutrition patterns and supplements.
- Development of schemes towards malnutrition and hunger requires stronger budget allocations and support from the governance irrespective of race and socio-economic backgrounds.
- The low socio-economic population find it difficult to access the healthcare centres and though accessed, the infrastructure and medications are not provided in an effective manner.

**Measures to eradicate malnutrition irrespective of nutritional supplements**

With respect to the measures to be taken towards malnutrition, after identifying the optimum nutrient mix, it is essential to ensure the delivery to the children. Mothers and workers should be educated with the proper nutrition diets and patterns, right measures of nutrients to be intaken. It is also essential to encourage the intake of right amount of calorified foods for better health.

The Mid-day meal scheme has provided daily meal to nearly 10 crores over 12 to 15 schools from the age categories of 6-13 years. The scheme suffers with two key issues:

### **Hygiene:**

There have been incidents of unhygienic supply of meals with pests and other unhealthy patterns. Prevalence of pests have been witnessed, year-on-year, in meals. Reports of low maintainence and testing issues of water testing, no use of gloves and violation of prescribed menus in the daily meal are petitioned often but not brought unto proper concern.

### **Fortification:**

Nearly 85% of the Indian children between the age categories of 7 to 12 suffer from deficiencies of iron, folic acid and Vitamin A, which results to cognitive impairment, impaired concentration that causes school absenteeism and even illness in children. Mid-day meals such as rice and wheat can be fortified with micronutrients and other essentialities of dietary enrichment, with premixes. The schematic implementation of fortification is witnessed only in some states of the nation.

With respect to the social concepts of development and support, child rights organisations such as Save the Children, works to enhance the nutritional status of children in India's most backward communities and population under poverty. They are provided with nutritional rehabilitation and other healthcare services, with trained health workers of the NGOs. It also initiates awareness campaigns amongst the communities. Malnourished children are migrated and taken care to government health care centres. This also supplements WASH programmes that deals with the water, sanitation and hygiene welfare, improving the community hygiene and sanitation to prevent diarrhoea that is considered as the leading cause of malnutrition. States such as Kerala, Tamil Nadu and Himachal Pradesh achieve good nutrition indicators and have extended a wide range of healthcare services, clean water, social security and infrastructure. Implementation of pioneering schemes in maternity entitlements, community kitchens and nursing rooms at bus stands raise a high effect in the state and this could be carried out by the disadvantaged groups who actively participate to raise their voice about support for social development.

A study conducted by UNICEF in 2014 confirmed loss of their land and displacement without adequate rehabilitation as the key causes for tribal impoverishment. Apart from poor utilisation of funds, the tribals have suffered due to poor quality of governance. It is witnessed that the welfare delivery mechanisms has to be improved as tribe population of the nation suffers from acute disorders and malnourishment and inefficient delivery mechanisms of nutritional supplements and medications do not reach the population in the appropriate

manner. So it is essential that the delivery mechanisms needs to be improved and developed in order to reach diverse populations irrespective of economy and race.

Undernutrition among adolescent girls requires immediate attention. More than 44% of India's adolescent girls are underweight, that's they have a body mass index of less than 18.5. In most states, the proportion of adolescent girls with anaemia is alarmingly high, ranging between 76% and 92.9%. "The nexus between gender discrimination and nutrition cannot be ignored. Malnourished girls become malnourished adolescents who marry early and have children who become malnourished, and so the cycle continues," the report points out. Yet, the focus on these girls and cases remains limited and mostly unreported. Schemes such as the National Programme for Adolescent Girls provides underweight adolescent girls 6 kg of free food grain per month - and Sabla needs to be expanded beyond the 51 and 200 districts, respectively, they have been rolled out in.

The MGNREGA scheme plays a vital role in mitigation of disastrous effects of droughts in rural areas. This rural job guarantee programme has great potential for improving food security on the whole and it essentially requires stronger budgetary support on it. This provides stronger impact to fight malnutrition cases in the rural parts of nation irrespective of political and economic impact towards the rate of malnourishment.

Revival and development of forests for sustainable food paves the foundation for food production and yield. At the months of April to September, it is difficult for most of Indian villagers when it comes to the aspect of food security. They neither get full-time employment nor take up daily wages owing to extreme heat. A substantial part of the household food stocks goes into sowing the fields. The subsidised rice from the PDS meets the food needs of a family for about 5-6 days. As a result of the aspect, forest foods are critical source for the communities. Hence, it is essential to the sustainability of forest foods as they play a vital role of food source for the rural communities.

Encouragement of education and social works that develop the crisis would be the best way to eradicate the crisis of malnourishment in India. Being a developing country, it is essential to work and support more of the social well-being and infrastructure at the same time for the better upliftment of the nation. According to the statistics of India, the nation witnessed a dramatic fall in underweight and stunted children from the 48% to 39%, translating to a 14.5 million fewer stunted children, a big achievement for India, home to the shortest kids in the world. It was witnessed that the nation meets with a decent progress of development in less malnourishment cases, it is essentially required to implement various new trends and techniques to enhance nutritional supplements and rate of nutrition.

### **Suggestions towards the crisis**

As a special note of concern with the obtained results of the research study, we could improve the standards of nutrition and yield across all regions of the country. India, being a country of mixed socio-economic background, should provide equal essentialities at the same standards without any bias. The concerns and schemes proposed by the government towards the cases of malnourishment and hunger challenges should provide equal benefits both materially and economically maintaining good standards of yield and productivity. The governance should focus on the accessibility of the nutritional supplements and it should never be an instance of economic development only. The market should target equal

availability and utilization rather than a specific population utilization. Transformation of lifestyle is witnessed across all regions of the country and hence the advancements progressed towards the transformation should be beneficial at all scales of pay and population. Hence, it is essential to make the nutritional supplements readily accessible and free at cost as they do become as our alternatives later as essentialities.

### **Conclusion**

The research proves the provided hypothesis that

- The increased productivity of the nutritional supplement market and its utilization across the population is relatively less and the relationship between the two variables are quite lessen
- The nutritional supplement market does not show much progress in the decreased rate of malnutrition cases in India. Hence though the nutritional supplement market rates show massive increase in productivity and economy, the rate of malnourishment and inadequate welfare concerns remain to be the same and does need more attention.

The nutritional supplements target certain population and has to be provided in a widespread manner. Minor population of the deep regions of the country do require accessibility and awareness of advanced alternatives of nutrition.

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