

Scenario of Nutritional Status for Indians and Globally

Jessie Suneetha W^{1*}, J. Hemantha Kumar², V. Chaitanya¹, K. Ravi Kumar¹ and P. S. M. Phanisri¹

¹Krishi Vigyan Kendra, PJTS Agricultural University, Wyrā 507165, Khammam Dt.

²Agricultural College, PJTS Agricultural University, Aswaraopet - 507301

ARTICLE ID: 52

Introduction:

Globally the prevalence of triple burden of malnutrition is alarming due to coexistence of over nutrition, under nutrition and hidden hunger (micronutrient deficiency). More than 1 in 3 children are not growing well. Children under five showing stunted growth, wasted muscle and overweight account for 149.0, 50.0 and 40.0 million respectively worldwide. At least 1 in 2 children are suffering from hidden hunger with over 340.0 million children exhibiting essential micronutrient deficiencies.

Malnutrition status:

Among 141 countries analysed universally, 88.0% (124 countries) experienced more than one form of malnutrition with high prevalence of all three forms in 29.0% (41 countries) populations. The prevalence of overweight and obesity among adults above 18 years showed considerable increase from 35.7 to 38.9 % and 11.2 to 13.1 % respectively from 2010 to 2016. The sheer numbers tell that 2.01 billion adults were overweight (almost a third of adults worldwide) of whom 0.68 billion were obese. This burden of non-communicable diseases has contributed significantly to obesity with alarming 0.42 and 1.10 billion respectively having diabetes and high blood pressure.

Collectively, all forms of malnutrition were responsible for more ill health than any other cause. Under nutrition caused 45.0% of deaths among children below five years mainly in low and middle-income countries. The health consequences of overweight and obesity contributed to an estimated 4.0 million deaths (7.1% of all deaths) and 120 million healthy years of life lost as disability-adjusted life years (DALYs) globally (4.9% of all DALYs among adults). The poor diets are the second-leading risk factor for deaths and DALYs globally contributing to 18.8% of deaths among which 50.0% due to cardiovascular diseases.

Although there is considerable economic growth and development in India, the prevalence of malnutrition has not decreased significantly. Recent NHFS-4 (2015-16) findings



highlighted nutrition transition with increased incidence of triple burden of malnutrition in India. Overweight has affected almost 20.7% women and 18.9% men, mostly in urban areas with wealthier households and older adults. Chandigarh and Lakshadweep indicated the highest prevalence of overweight in women by more than 40.0%. On the other hand, in rural India nearly every third child below five years is undernourished with 35.7% underweight, 38.4% stunted growth, 21.0% wasted muscle, and every second child is anemic (58.5%). About 22.9, 53.0% women and 23.0, 25.2% men showed low BMI and anemia respectively. Malnutrition is a universal problem that has many forms and no country is untouched affecting all geographies, age groups, all sexes, rich and poor people.

The 2019 Global Hunger Index (GHI) indicated that the world has made gradual progress in reducing hunger on a global scale since 2000 although uneven. Hunger persisted in many countries and level of hunger as well as under nutrition worldwide falls on the cusp of moderate to serious categories of 20.0. With a score of 30.3, India suffers from a serious level of hunger and was ranked 102 out of 117 nations with extreme muscle wasting rate of 20.8% than any of the other 117 countries.

Children develop malnutrition at critical period coinciding with the introduction of complementary foods due to nutritionally inadequate diets in many developing countries. India is home to 46.6 million stunted children, a third of world's total as per Global Nutrition Report, 2018. Nearly half of all under 5-year child mortality in India is attributed to under nutrition and 45.0% of deaths in low and middle-income countries is caused by it.

Children of today are citizens of tomorrow and improving the nutritional status of them is extremely important as childhood constitutes the most crucial period of life as foundation is laid for cognitive, social, emotional, language, physical / motor development is laid culminating into lifelong learning.

Malnourished children do not attain their optimum potential in terms of growth and development, physical capacity to work and economic productivity in later phase of life. It is commonly observed that school absenteeism is much higher in such child that leads to poor performance in the class. Cognitive impairment resulting from malnutrition may result in diminished productivity.

Apart from these, under nutrition increases the risk of infectious diseases like diarrhoea, measles, malaria and pneumonia and chronic malnutrition can impair a young child's physical

and mental development. As per estimates of World Bank, childhood stunting may result in a loss of height among adults by 1.0%, which may further lead to a reduction in individuals' economic productivity by 1.4%.

The consequences of malnutrition are increase in childhood death and future adult disability, including diet-related non-communicable diseases (NCDs), as well as enormous economic and human capital costs. According to UNICEF, one in three malnourished children in the world is Indian. It is estimated that reducing malnutrition could add some 3% to India's GDP.

Food consumption for children:

The food consumption of children between 1-3 years showed that, the average intake of cereals and pulses was 131.0 g, while recommended level was 175.0 g/day. Similarly, for 4-6-year children, the mean intake of cereals and pulses was 209g against recommended level of 270.0 g. The cereal intake can be improved by adding malt millet powder to diet of children below 6 years, thus improving the nutritional quality of diet, can be cost effective and easy to prepare also.

Approaches to combat malnutrition:

Historically, food security was a solution to India's nutritional problems. From the days of acute food shortage to famine, India embarked on a variety of agricultural technologies and is now self-sufficient. A proper diet is essential from very early stages of life for growth, development, and state of overall well-being. Food consumption which is largely depends on production and distribution, determines nutrition and health of the population. Apart from supplying nutrients, food provides other non-nutrient phytochemicals that have a positive impact on health.

Nutri-gardens:

The concept of farming and cultivation is not new to the rural and tribal communities of India. However, it has remained limited to cash crop cultivation and mostly used for revenue generation. The main objective of introducing the concept of nutri-gardens was to encourage rural and tribal women to cultivate healthy food crops in their backyards or on farm bunds. A nutri-garden ensures an inexpensive, regular and handy supply of fresh vegetables to provide micronutrients deficit in diet. Green vegetables are rich sources of vitamins and minerals along with antioxidants to fight against diseases. Tribal and rural communities have easy access to



all the essential resources like land and water but they lack knowledge about the nutritional value and scientific consumption pattern of the available and easily-cultivable nutritious food products. Hence, nutri-gardens can be simple but innovative option to bridge the gap between the available resources and its utilization in a sustainable manner for addressing the problems of hidden hunger and combat malnutrition. It also helps to create additional revenue-generating opportunities for farming communities especially women.

A well laid out nutri-garden can help to meet the entire requirements of fruits and vegetables for a family for the entire year. It is a low-cost sustainable approach for reducing malnutrition, increasing awareness of vegetable production increasing working hours and achieving food, nutrition and economic security. The nutrient dense plants consisting of minimum one tree (perennial) and three green leafy vegetable can be an ideal source for improving the consumption of greens in diet.

Nutri thali:

The traditional thali lack in nutrients by 50.0% in today's time. The most famous and very palatable Punjabi thali is topped with either extra litres of ghee or big chunks of butter resulting in extra intake of calories. The traditional Marathi food thali on the other hand, uses food ingredients that make the thali full of nutrition. But traditional Gujarati thali has lots of fat as more than 60.0% food in their thali is full of sweets. The traditional vegetarian and non-vegetarian thalis of south India are nutritionally significant. These include chakra pongal, sambar and vada, dal curry and appam, kebabs with veggies. The taste and variety in food matters but health should not be compromised. Adequate amount of protein along with salads should be there in the diet. The pulse to cereals combinations with vegetables and fruits can make a traditional thali more nutritious to meet the daily dietary requirements.