

Scenario of Nutritional Status for Indians And Globally

Dr. Jessie Suneetha W1*, Dr. V. Chaitanya1, Dr. K. Ravi Kumar1 and Mrs. P. S. M. Phanisril

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

*Corresponding author: wjsuneetha@yahoo.com

Manuscript No: KN-V2-07/007

Introduction: The triple burden of malnutrition is alarming due to the coexistence of over nutrition, under nutrition and hidden hunger which is micronutrient deficiency worldwide. More than 1 in 3 children are not growing as desired. About 149.0, 50.0 and 40.0 million children under age five are showing stunted growth, wasted muscles and overweight account universally. About 1 in 2 children are suffering from hidden hunger which is 340.0 million and these children are exhibiting essential micronutrient deficiencies as their diets are majorly cereal based.

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. The diets deficit in micro nutrient foods caused 45.0% of deaths among children below five years of age mostly 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 which is 4.9% of all DALYs among adults. The poor diets are the second-leading risk factor for deaths and DALYs globally contributed to 18.8% of deaths.

There is considerable economic growth and development in India, but the prevalence of malnutrition index has not decreased significantly in recent years. The NHFS-4 findings of 2015-16 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 due to lack of exercise and surplus finances. The cities like Chandigarh and Lakshadweep showed highest prevalence of overweight in women with 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 muscles and every second child is anemic (58.5%). Around 22.9 and 53.0 percent women as well as 23.0 and 25.2 percent men showed low BMI and anemia respectively. The incidence of anemia is no longer a phenomenon observed in women as was the perception. Malnutrition is a universal problem that is prevalent in many forms and no country is untouched by it. It is 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 persists 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. The score of 30.3 showed that India suffered from a serious level of hunger and was ranked 102 out of 117 nations with extreme muscle wasting rate of 20.8% among preschool children which was more than any of the other 117 countries. Children developed 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 five 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 progenies do not attain their optimal growth and development potential which influences their physical capacity to work and economic productivity in later phases of life. It is commonly observed that school absenteeism is much higher in such children leading to poor performance in the classes. The cognitive impairment due to malnutrition may result in reduced productivity.

Apart from these, under nutrition upsurgues the risk of infectious diseases like diarrhoea, measles, malaria and pneumonia and chronic malnutrition can impaired children's physical and mental growth. 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 are Indian. It is estimated that reducing malnutrition could add up to 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/day while recommended daily allowance was 175.0 g. Similarly, for 4-6-year children, the mean intake of cereals and pulses was 209.0g/day against RDA of 270.0 g. The cereal intake can be improved by adding malted millet powders to diet of children below 6 years of age, thus improving the diet quality, 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 and famine, India embarked on diverse agricultural practices and technologies that made it self-sufficient now. A proper diet is essential from very early stages of life for growth, development and complete well-being. The food consumption depends largely on production and distribution determining the nutrition and health of the people. Apart from supplying nutrients, food provides other non-nutrient phytochemicals with antioxidant potential that has positive impact on health.

Nutrigardens: The concept of farming and cultivation is not new to the rural or tribal populations of India. However, it was restricted to cultivation of cash crop and was mostly used for revenue generation. The main objective of introducing the idea of nutrigardens or kitchen gardens was to encourage farm women to cultivate healthy foods in their backyards or on their farm bunds. A nutrigarden provides low-cost, regular and convenient supply of fresh vegetables to provide micronutrients that are otherwise deficit in diets.

Green leafy vegetables are rich sources of vitamins and minerals along with antioxidants to combat various diseases. The farming 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 cultivatable nourishing produce. Hence, nutrigardens can be simple but pioneering option to bridge the gap

between the available resources and its utilization in a sustainable manner for combating the deficiencies due to hidden hunger and malnutrition. It also helps to create new avenues for income generation to farm women at their household level.

A well laid out nutri garden can provide the dietary requirements of fruits and vegetables for a family for the entire year. It is a low-cost sustainable approach for overcoming malnutrition through improved vegetable cultivation at household level for providing food, nutrition and economic security. The nutrient abundant plants should consist of minimum one tree (perennial) and three green leafy vegetable with the idea for enhancing the consumption of greens in diet.

Nutri thali: The traditional thali lacked 50.0% nutrients in today's time. The most famous and very palatable Punjabi thali is topped with either excess amount of ghee or large portion of butter resulting in additional 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 sweets. The traditional vegetarian and non-vegetarian thalis of south India are nutritionally significant. These include chakkara pongal, sambar and vada, dal curry and appam, kebabs with veggies. The taste and variety in food matters the most but nutrition should not be ignored. The adequate amount of proteins and salads rich in fiber should be included in the diets daily. The pulses to cereals combinations for fulfilling the amino acid profile with vegetables and fruits can make a traditional thali more nutritious to meet the recommended dietary requirements on day to day basis.