Brief Report

Interactive Panel Discussion on Nutrition and Health for All - NAHA

International Life Sciences Institute India

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December 21, 2021

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A large section of population in the country suffers from under nutrition as well as overweight and obesity. A number of steps have been taken by Government and other organizations to improve the nutritional status and deal with related health issues. However, the health indicators indicate that there is a need to improve the nutrition profile further. To deliberate on the current nutritional status of the population as indicated by National Surveys including NFHS-5 survey and to discuss strategies to tackle the problems of malnutrition and other nutrition related issues, ILSI India organized a virtual **Interactive Panel Discussion on "Nutrition and Health for All"** on **Tuesday December 21, 2021.**

Prof. P. K. Seth, Chairman, ILSI India Chaired the Meeting. Lead presentation was made by **Dr. B. Sesikeran**, Scientific Trustees, ILSI India and Chairman, K-FFIG and the discussion was moderated by **Dr. B. K. Nandi**, Former Senior Food Safety and Nutrition Officer, FAO RAP.

Panel of Experts included senior nutrition and public health experts: **Dr. Pradeep Saxena**, Chief Medical Officer, ECDC, Ministry of Health and Family Welfare, Government of India; **Dr. Kamala Krishnaswamy**, Emeritus Medical Scientists, ICMR and Former Director, ICMR-NIN; **Dr. Madhavan Nair**, Senior Scientist, ICMR- NIN (retd); **Dr. A. Laxmaiah**, Scientist G (Director Grade Scientist) & Head, Division of Public Health Nutrition, ICMR-NIN; **Dr. Deepti Gulati**, Industry Chair Professor, NIFTEM; and **Dr. Neena Bhatia**, Senior Specialist (Joint Advisor) WCD vertical, NITI Ayog.

While welcoming the participants **Ms. Rekha Sinha,** Executive Director, ILSI India briefly mentioned that as a nonprofit scientific organization since 1999, ILSI India has done pioneering work in India and South Asian Region on scientific issues relating to nutrition, health and wellness. Through its workshops, conferences, training programs, research and publications it has addressed issues relating to malnutrition, nutrition for women and children; model for healthy aging; nutrition and hydration guidelines for excellence in sports performance; nutrition and bone health; nutrition and HIV AIDS; food fortification; nutrient risk assessment; functional foods; and overweight and obesity in children.

In his Opening Remarks Prof. Seth pointed out that Nutrition, Health and Food have great importance. Nutrition for health and well-being has been integral part of Indian Culture. He

was concerned that the problem of malnutrition exists in the country in spite of large quantity of food including grains, millets, pulses, milk, fruits and vegetables produced in the country and distributed through robust distribution system and many initiatives taken by Government of India. He requested the Panelists to deliberate on the reasons and provide recommendations for further actions.

Lead presentation on Health Indicators of NFHS-5 Survey was made by Dr. Sesikeran. He pointed out that:

- **A large section of the population in the country suffers from malnutrition as well as overweight and obesity. The latest round of National Family Health Survey – NFHS 5 showed increase in Anemia across all age group as also overweight and obesity compared to NFHS-4 (2015 – 16) in 14 state which were included in the Survey.**

- **Prevalence of Anemia among children increased from 58.6 % NFHS-4 (2015-16) to 67.1% in NFHS 5 (2020-21). However, at the same time there was an improvement in Stunting, Wasting and Underweight in Children under 5 years of age. Stunting declined from 38% to 36%, wasting from 21% to 19% and underweight from 36% to 32%. However, there was slight increase in the rate of Overweight among children i.e. from 2% to 3%.**

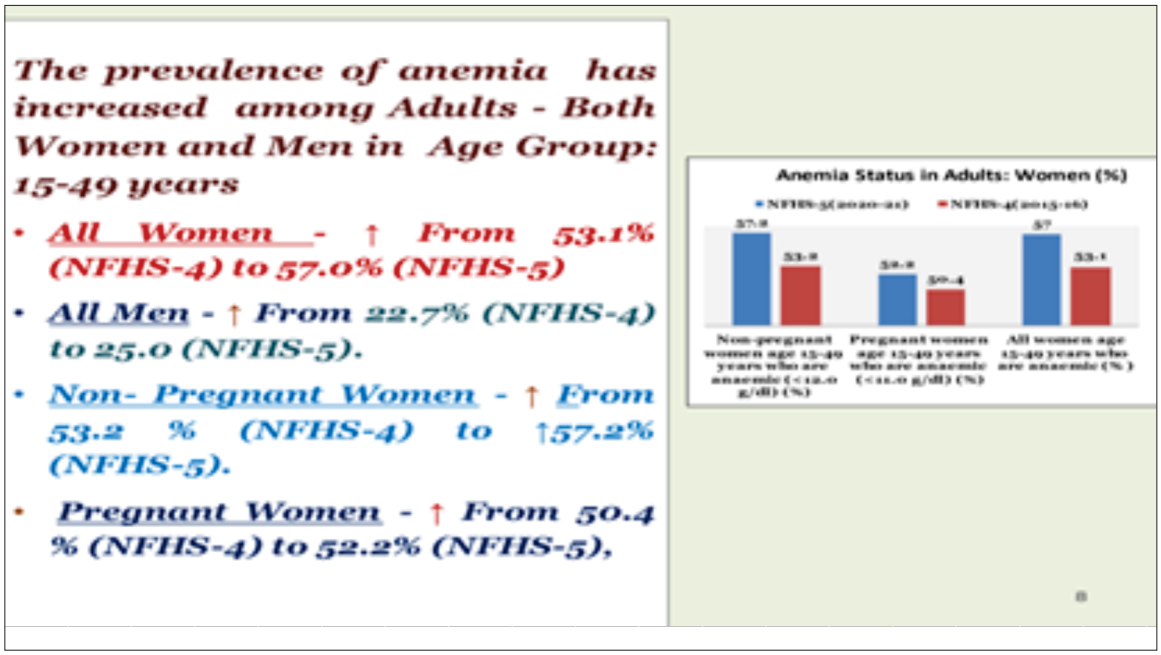
  Arunachal Pradesh has done very well in reducing Anemia. Only 5.7% of children suffer from Anemia. Whereas Chattisgarh experienced sharpest increase of more than 25% with around 67% children suffering from Anemia.

- **Anemia among adolescence increased from 54.1% to 59.1% among women and 29% to 31.1% among men. As regards adults, in the age group of 15-19 years, Anemia among women increased from 53.1% to 57% and among men from 22.7% to 25%. There was a decline in underweight in men as well as women but at the same time overweight and obesity increased from 20.6% (NFHS-4) to 24% (NFHS-5) among women and from 18.9% (NFHS-4) to 22.9% (NFHS-5) among men.**

  Some of the States and Union Territories experienced decline in Anemia in adolescent men and women as also adult men and women including pregnant women. These include Arunachal Pradesh, Uttarakhand, Chandigarh, Delhi and Puducherry whereas the situation deteriorated in some States like Chhattisgarh with 60.8% of women in age group 15-49 years suffering from Anemia.

- **For the first time NFHS-5 measured the blood sugar level in both men and women and the average high or very high (>140 mg/dl) blood sugar levels for the women and men between 15-19 years was13.5% in women and 15.6% in men.**

- **At the same time blood pressure level, also measured for the first time, for those taking medicines to control blood pressure (Systolic ⩾ 140 mm of Hg and/or Diastolic ⩾90 mm of Hg) was measured at 21.3% in women and 24% in men.**



Source: Presentation by Dr B. Sesikeran

Presentation is available at : http://www.ilsiindia.org/PDF/Lead_Presentationon_Some_Health_Indicators_of_NFHS5_Survey_by_Dr.B.Sesikeran.pdf

In his initial observations as moderator Dr. B. K. Nandi informed about the recent 2020 Global Nutrition Report with key headline "Action to Equity through Malnutrition". This implies all time physical access to food which enables achievement of food and nutrition security, finally accomplishing realization of SDG goals, besides nutrition and health for all. He also informed about the findings of the recent Global Health Security Index brought out by 3 Institutions namely: Nuclear Threat Initiatives; Economist Impact; and John Hopkins Centre for Health Security. India was ranked at number 66 position out of 195 countries.

Against the above background the Panelists discussed in depth the reason for increases in malnutrition levels in spite of very useful Government Programs including Mega Programs

like Public Distribution System, ICDS and MDM and suggested steps to be taken to improve the situation regarding malnutrition and overweight and obesity. It was pointed out that a number of factors affect the nutrition status including: Diet, Lifestyle and Eating Habits, Bioavailability of Nutrients, Environmental issues including Climate Change, Soil Health, and even Microbiome. The major observations made by the Panelists are mentioned below.

Suggestions Made by Panel of Experts / Participants

Food Distribution

- **The entire food chain should be strengthened.**
- **The Public Distribution System can distribute fortified foods (oils, wheat flour and rice). Further, food basket can be diversified. Millets and Pulses can be added to the food basket.**
- **Government Programs are well designed and have shown good results in districts where they have been implemented properly e.g., some districts in Himachal Pradesh have performed well. Such districts can serve as models and implementation can be strengthened.**
- **The best practices at state level should be looked at. These include Millets Mission launched by Orissa and Finger Millet Ladoos (sweet balls made with Ragi) distributed in Karnataka. Different practices can be evolved depending on the dietary habits.**

Dietary Diversification& Healthy Diets

- **Dietary diversification should be encouraged. Three to Four Diet Plans can be evolved keeping in mind locally available products and eating habits. A system should be evolved for distributing nutrient rich fruits and vegetables. While there is lot of wastage of fruits and vegetables, they are beyond reach of a large segment of population. Cold chains should be set up. Perishable item should be distributed through cold chain and through weekly market. National Program for Supply**

Chain can be evolved. The industry can supplement Government's efforts by devoting part of the CSR fund for investing in infrastructure and distributing nutrient rich fruits and vegetables.

- A chart of fruits and vegetables with dense nutrients, which are locally available can be prepared for each state.
- Ministry of Health and Family Welfare, Government of India Task Force on Healthy Diets has published a Report on "Healthy Diets" for short- term, mid-term and long-term. ILSI India has also prepared "Eat Right For Healthy You". These can be looked for reference for recommending healthy diet.
- Consumption of salt, Sugar and Fats should be within limits prescribed by WHO.

Nutrition Literacy and Media Campaign

- Improvement is required in nutrition literacy and media campaign should be launched for this.

Micronutrient Requirements

- While micronutrients are required in small quantities by the body for health at the same time excess intake can lead to health issues. Tolerable Upper Levels using Nutrient Risk Assessment have been laid down by different countries including India. This is a science-based approach. Based on TUL countries lay down the maximum amount of micronutrient that can be safely consumed by the population from diverse sources including foods, supplements, nutraceuticals, fortified foods etc. The limit for fortification and supplementation has to be fixed keeping TUL in view to avoid any excess consumption and at the same time ensuring adequate intake by the population.

Nutrient Absorption

- The contaminants in foods and water lead to difficulties in absorption of nutrients. For example, lead can hamper iron absorption. Ground water is contaminated at certain places with Fluoride and Arsenic. This water is used for drinking. Efforts are being made by the Government to solve the problem. The Drinking water Mission which aims to provide safe drinking water to all households by 2024 will deal with the issues.

- **Furthermore, crops and perishables also get contaminated if they are grown near river beds or near drainage system of industrial plants. Farmers grow crops in such places because of easy accessibility of water. Good agriculture practices should be adopted. Farmers should be discouraged from growing crops, fruits and vegetables near the river banks and also near the places where effluents are discharged by the industrial plants because they may be contaminated with fluoride, arsenic and lead etc.**

- **Phytoremediation can be adopted. Plants can be grown which mop up pollutants.**

- **Fruits rich in folic acid can deal with the problem of iron absorption due to environment pollution.**

- **Exposure to sun should be encouraged, however, the sun exposure levels may also not be very effective with respect to synthesis of Vitamin D by the body in spite of India being a sunshine country due to air pollution which hampers UV rays penetration.**

Genetic Factors

- **Genetic factors are not very important as regards malnutrition problems; however, they do have an impact on overweight and obesity.**

Gut Microbiome

- **Gut Microbiome plays a major role in health maintenance. While doing any studies on supplementation impact on Gut Microbiome should be looked at.**

Lifestyle and Physical Activity

- **Maintaining healthy weight is important and people of all age groups should be encouraged to undertake physical activity at least for 30 minutes. Government has launched various programs like Fit India Movement, Khelo India Movement and Yoga. These have to be developed into Jan Andolan (mass movement).**

In his concluding remarks Dr. Nandi emphasized the need of healthy eating and adequate physical activity across all the age group. **Ms. Rekha Sinha,** Executive Director, ILSI India addressed Vote of Thanks to the Participants.

About ILSI India

International Life Sciences Institute India

www.ilsi-india.org

ILSI India is an entity of the International Life Sciences Institute (ILSI), headquartered in Washington DC. ILSI India provides scientific inputs and secretariat assistance to the South Asian Region, which includes Bangladesh, Bhutan, India, Maldives, Nepal, Pakistan and Sri Lanka.

ILSI India activities primarily focus on local and regional issues and involve leading national and international experts in the deliberations. ILSI India is the leader in the region in focusing attention and devoting resources on critical areas is food and water safety, nutrition, risk assessment, harmonization of food regulations, improvement in the health profile of malnourished children and women, and agriculture sustainability including biotechnology and new plant breeding technologies. The overall objective is improving public health. Special attention is given to the food fortification. All activities follow Principles of Scientific Integrity which are part of ILSI Mandatory Policies.

ILSI India carries out its mission through sponsoring workshops, symposia, conferences, seminars, training programs, research projects, and publications.

ILSI India works closely with government, industry, research institutions, academia, and international organizations. ILSI India's Board of Trustees is comprised of individuals from industry, academia, government and research organizations who bring a range of expertise, experience, and perspective to their work defining and achieving ILSI India's goals. These individuals are unpaid volunteers who take their scientific and fiduciary responsibilities to the organization seriously. They serve on ILSI India's Board of Trustees as individuals and do not represent their employers. Country Committees have been established in the South Asian Region for management of country programs.

Founded in 1978, ILSI is a non-profit, worldwide organization whose mission is to provide science that improves human health and well-being and safeguards the environment. ILSI entities design programs to foster multi-sector collaboration conducting, summarizing, and disseminating science related to the world's most pressing health issues. ILSI strategy encourages global action on identifying and then resolving outstanding scientific questions in four thematic areas that capture the core of ILSI's work:

- **Food Safety**
- **Risk Science and Toxicology**
- **Nutrition and Health**
- **Sustainable Agriculture and Nutrition Security**

These focus areas provide structure for responding to and raising awareness of the pressing issues society faces. They also help elucidate new opportunities for driving scientific progress. ***ILSI's work is guided by its Code of Ethics, Scientific Integrity and Organizational Standards of Conduct.***

ILSI accomplishes this work through its worldwide network of ILSI Entities. ILSI's scientific publications are duly recognized all over the world. They include the journal Nutrition Reviews and the book Present Knowledge in Nutrition. Please visit www.ilsi.org for more information on ILSI and its network.

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New Delhi, India
Email: info@ilsi-india.org Website: http//www.ilsi-india.org