

# FOOD FORTIFICATION: THE KEY FOR IMPROVING MATERNAL AND CHILD NUTRITION



**AUTHOR**

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Development Association of India (PFND AI) conducted on 19th November 2021 a webinar in association with Hexagon Nutrition on the topic "Food Fortification: The Key For Improving Maternal and Child Nutrition". Many experts from the field were invited as speakers and panellists for enlightening our participants about

the role of food fortification in improving maternal and child nutrition.

The Webinar was Chaired By Dr. B Sesikeran (Former Director. – National Institute of Nutrition (ICMR), Hyd, Chairman Sci. Advisory Committee, PFND AI). The Speakers were Dr. Yeshwant K Amdekar (Former Professor of Pediatrics & President of the Indian Academy Of Pediatrics), Ms. Megha Mandke (Lead- Technical Marketing, Hexagon Nutrition), Ms. Richa Mattu (Nutrition Lead, Hindustan Unilever). On The Panel, We Had Ms. Sukhada Bhatte (Registered Dietitian, IDA-India), Dr. Bhavna Sharma (Head - Nutrition Science, ITC Foods), Ms. Nadiya Merchant (Sr Manager - Nutrition, Kellogg India), Ms. Zamurrud Patel (HOD, Chief Dietician, Global Hospitals, Mumbai), Dr. Madhavi Marathe (Sr Manager, Healthcare Nutrition Science, Danone.), Ms. Sheryl Salis (Founder & Director, Nurture Health Solutions).

The webinar started with the welcome address by Dr. J. S. Pai (Executive Director, PFND AI). This was followed by opening remarks from Dr. Sesikeran. In his remarks, he explained how fortification is important and about its potential of becoming a profitable investment. Though a diversified diet is the best choice for acquiring all the essential micronutrients, still we lack in this aspect. So, fortification can be a great option for getting all the required nutrition irrespective of one's socioeconomic status.



**Dr Jagadish Pai**



**Dr B Sesikeran**



**Dr Yeshwant Krishna Amdekar**



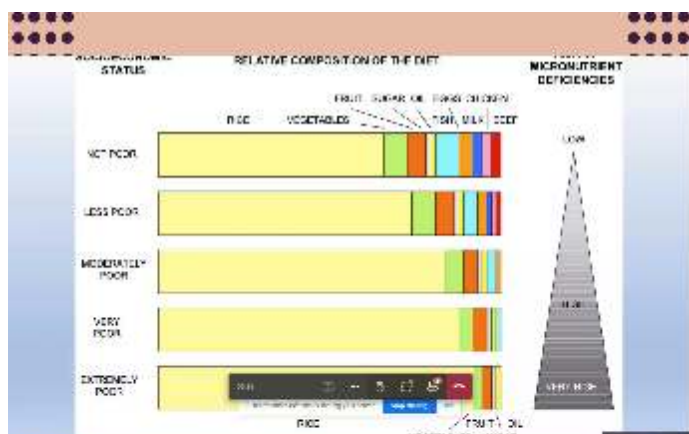
**Ms Richa Mattu**



**Ms Megha Mandke**

**SPEAKERS**





the free radicals can be negated by the protective foods. Protective foods have a significant amount of antioxidants, which largely come from micronutrients and protein.

- There are gaps in the understanding of the micronutrient deficiencies. Clinical deficiencies may not be evident that often but the subclinical deficiencies are always around. These deficiencies are highly prevalent in all socioeconomic groups.

- Data on morbidity and mortality due to micronutrients indicate that nearly

5% of deaths of children below 5 years can be attributed to micronutrient deficiencies. As micronutrients look after cellular function and are important for

## DR YESHWANT KRISHNA AMDEKAR

Pediatrician,  
President of Indian Academy  
of Pediatrics



Ms. Dolly Soni (Executive-Marketing & Digital, PFNDAI & Convener of Webinar), introduced all the speakers before their respective presentations. There were three presentations followed by a panel discussion.

The event proceeded as follows-

1. Micronutrient deficiencies among children during growth

The first speaker for the webinar was Dr. Amdekar. He emphasized the understanding and perspective of healthcare professionals/ physicians regarding micronutrient and their deficiencies. Here are some of the highlights from his presentation-

- Clinical nutrition addresses to prevention, diagnosis, and management of nutritional deficiencies of essential micronutrients like vitamins and minerals.
- Cellular damage caused by

immune-protection. Many other factors like bioavailability, digestion, absorption, utilization, the balance between increased needs and losses may contribute to the ultimate nutritional deficiencies.

- In widely prevalent PEM the micronutrient deficiencies are hidden.
- Understanding the genesis of micronutrient deficiencies is of prime importance. Hence doctors need to change from disease managers to health providers. He concluded his presentation by highlighting the importance of the effective application of knowledge in order to overcome these deficiencies. It is important to have a budget-oriented nutritional management system in order to provide adequate information to achieve nutritional requirements within their financial limits.

2. Food fortification of Different Food Products  
The second speaker for the webinar was Ms. Mandke. She explained the fortification of different Food products. Here are some highlights from her presentation-

- Food fortification is nothing but enrichment of foods with vitamins and minerals. According to the global hunger index report, 2021 India scores 27.5% which indicates serious hunger. The ongoing pandemic may lead to 10% more growth in hunger levels.
- India is the major producer of important crops in the world but



## MS MEGHA MANDKE

Lead- Technical Marketing,  
Hexagon Nutrition





despite this, we are not able to provide enough food and nutrition to the majority of the population. Malnutrition is the major contributor to diseases in the world. Fortification can be an investment for the future as it contributes to a healthier society.

- The major populations consume more cereals than the protective foods like milk, meat, vegetables, and fruits. Hence fortifying staple foods can be a good option.
- Rice is a staple in almost 65% of households. Its fortification can fill up the gap of staple fortification. Extrusion can be used in the preparation of fortified rice. So, the rice can be fortified with iron, vitamin B12, and folic acid according to FSSAI. Retention of nutrients is better in fortified rice upon cooking than the non-fortified one.
- Wheat flour can be fortified with Vit E, iron, and folic acid. This could help in reducing micronutrient deficiencies like anemia and birth defects in children.
- Fortifying the salt with iodine and iron will help in combating its deficiency.
- Four categories of processed food can be fortified - breakfast foods, instant noodles, bakery products, fruit juice.

Ms. Mandke concluded her presentation by stating the importance of a diversified diet and



the need for a universal approach.

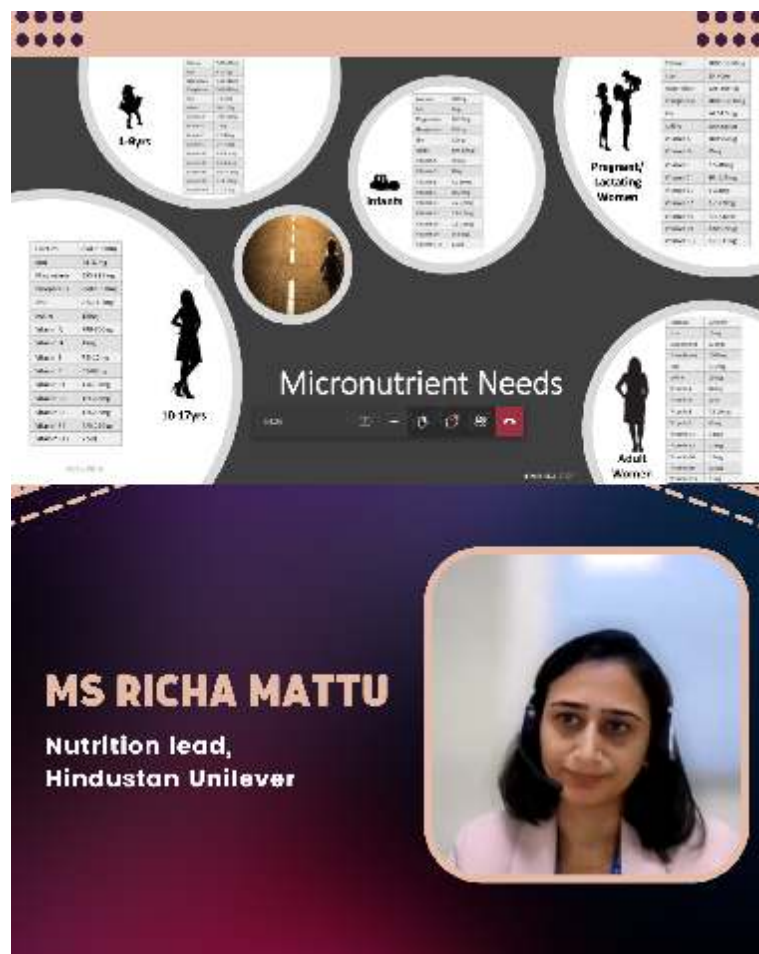
### 3. Women's Micronutrient Needs

The last speaker for the webinar

was Ms. Richa Mattu, she highlighted the micronutrient needs of women at different stages of growth.

Following are some of the main points from her presentation-

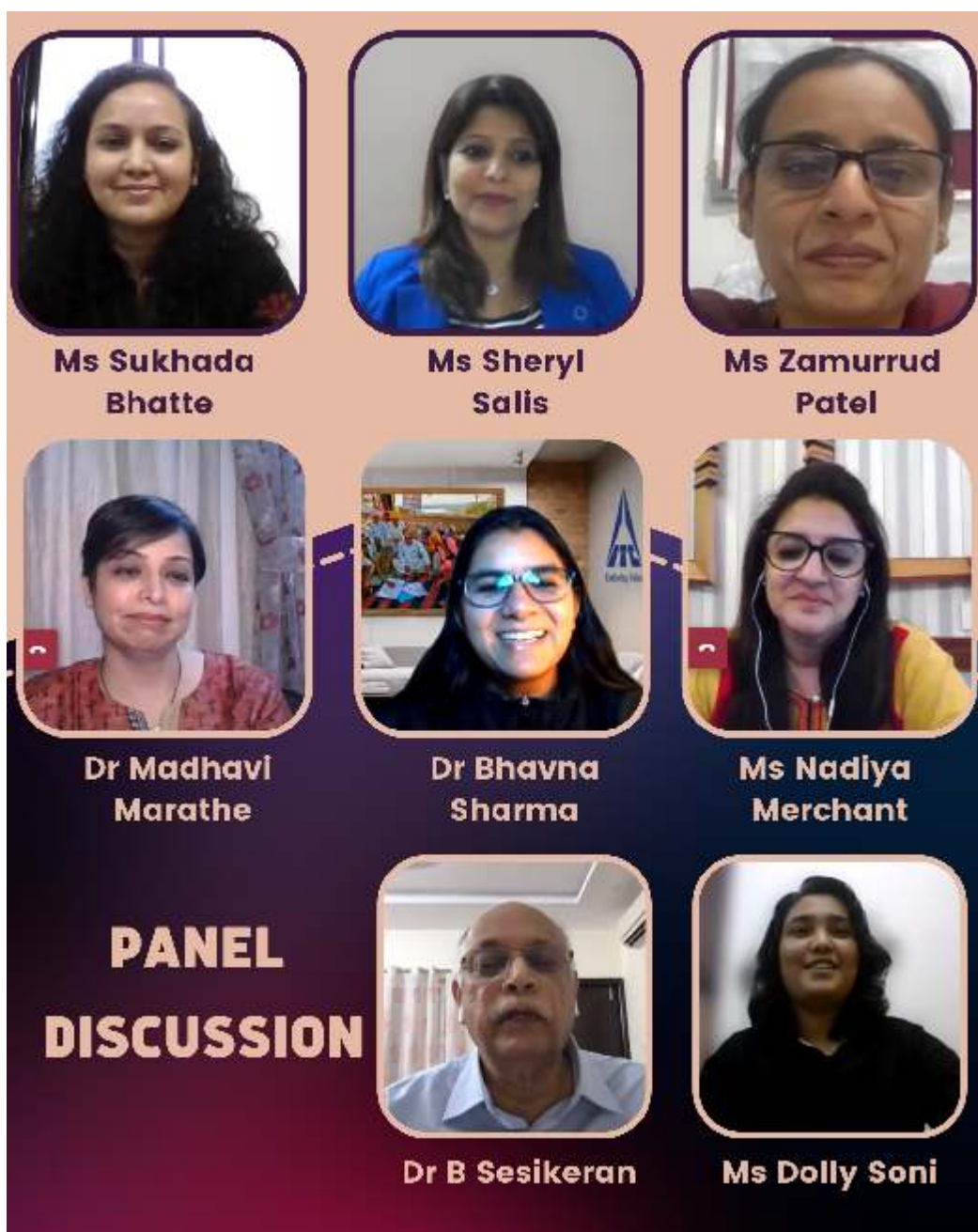
- According to the United Nation Food Summit- Women are up to 11% more likely than men to suffer consequences of food insecurities.
- Meeting the global nutrition target remains a challenge. In 2019, the percentage of anemia was 29%, which is supposed to be taken down to 14%.
- If the weight of a girl child is less then it can face a higher mortality rate, increased risk of chronic diseases, and impaired development.
- Adolescent girl nutrition is important. As rapid growth is achieved in this stage.
- Maternal nutritional status affects the infant's birth weight. Low-birth-weight babies are likely to suffer from diabetes, hypertension, and heart diseases.
- As the height of the mother increases the rate of mortality, stunting, and low birth weight decrease significantly.
- Maternal micronutrient deficiency can lead to hormonal adaptation and restricted fetal growth, which will



eventually lead to chronic diseases. She concluded by stating that it is important to invest in the health of children and adolescents as it is linked to the health of a future generation. The intergenerational cycle of low birth weight and under-nutrition can be broken down by investing in the nutritional needs of the adolescent group. Also, the maternal diet can have a huge impact on the development of chronic diseases.







Each presentation was followed by a question and answer session where the respective speaker answered the questions raised by the audience. After the completion of all the expert talks, a panel discussion on the various aspects of food

fortification and maternal and child nutrition was conducted. Panel's discussion was moderated by Dr. Sesikaran. In this panel discussion, the panel members shared their views about food fortification and the importance of maternal and



child nutrition. Here are some of the topics, which were discussed-

- Traditional foods like ragi, sattu for children and expectant mothers in comparison to the new products that we get from the shelf.
  - Vegetarian or non-vegetarian diet for pregnant and lactating women
  - Are tonics good for women and children
  - Factors responsible for the growing interest in plant protein
  - Dietary requirements of diabetic women and children
  - The importance and ways of including millets in the children's diet
  - Higher needs of children and the capability of a vegan diet to provide that nutrition
- The webinar concluded with the vote of thanks by Ms. Dolly Soni.

