Fortification of food

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What is Fortification of Food?

Fortification is the addition of key vitamins and minerals such as iron, iodine, zinc, Vitamin A & D to staple foods such as rice, milk and salt to improve their nutritional content. These nutrients may or may not have been originally present in the food before processing.

Why do we need Fortification of Food?

70% of people in India do not consume enough micronutrients such as vitamins and minerals. About 70 percent of pre-school children suffer from anaemia caused by Iron Deficiency and 57 percent of preschool children have sub–clinical Vitamin A deficiency. Neural Tube Defects (NTDs) are the most common congenital malformation with an incidence that varies between 0.5-8/1000 births. It is estimated that 50-70% of these birth defects are preventable. One of the major causes is deficiency of Folic Acid.

Thus, deficiency of micronutrients or micronutrient malnutrition, also known as “hidden hunger”, is a serious health risk. Unfortunately, those who are economically disadvantaged do not have access to safe and nutritious food. Others either do not

disadvantaged do not have access to safe and nutritious food. Others either do not consume a balanced diet or lack variety in the diet because of which they do not get adequate micronutrients. Often, there is considerable loss of nutrients during the processing of food. One of the strategies to address this problem is fortification of food. This method complements other ways to improve nutrition such as such as diversification of diet and supplementation of food.

What are the benefits of Fortification?

- Since the nutrients are added to staple foods that are widely consumed, this is an excellent method to improve the health of a large section of the population, all at once.
- Fortification is a safe method of improving nutrition among people. The addition of micronutrients to food does not pose a health risk to people. The quantity added is so small and so well regulated as per prescribed standards that likelihood of an overdose of nutrients is unlikely.
- It does not require any changes in food habits and patterns of people. It is a socio-culturally acceptable way to deliver nutrients to people.
- It does not alter the characteristics of the food—the taste, the feel, the look.
- It can be implemented quickly as well as show results in improvement of health in a relatively short period of time.
- This method is cost-effective especially if advantage is taken of the existing technology and delivery platforms.
- The Copenhagen Consensus estimates that every 1 Rupee spent on fortification results in 9 Rupees in benefits to the economy. It requires an initial investment to purchase both the equipment and the vitamin and mineral premix, but overall costs of fortification are extremely low. Even when all program costs are passed on to consumers, the price increase is approximately 1-2%, less than normal price variation. Thus it has a high benefit-to-cost ratio.

Source : Food Fortification Resource Centre of FSSAI

Related resources

1. FAQs on Food Fortification
2. Food Safety and Standards (Fortification of Foods) Regulations, 2017
3. FSSAI Standards for Food Fortification of commodities