

Milk fortification in India: The journey so far

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In India alone, 185 million people don't get enough nutrients. This hidden hunger is especially pervasive among children. as more than 70 percent of India's children under five are deficient in Vitamin D, and 57 percent of all children in the country lack adequate levels of Vitamin A. Credit: NDDBGlobally, more than two billion people are deficient in key micronutrients, which are essential to their good health. In India alone, 185 million people don't get enough nutrients.

This hidden hunger is especially pervasive among children. More than 70 percent of India's children under five are deficient in Vitamin D, and 57 percent of all children in the country lack adequate levels of Vitamin A.

These deficiencies have contributed to high levels of stunting, wasting and underweight



children.

Global micronutrient deficiency (as a percentage of the population). Two billion people in the world lack key micronutrients such as Vitamin A or iron. South Asia has the most critical malnutrition levels. Source: UNICEF

Micronutrient availability can make or break a balanced diet

If accessible and affordable, nutritional supplements taken in the form of capsules or tablets can mitigate the symptoms of hidden hunger. 🐦 But they can become toxic if consumed in large amounts.

Unlike supplements, food fortification is a simple, preventive and low-cost approach to curb micronutrient deficiencies.

But except for mandatory iodine fortification of salt, India lags in adopting food fortification as a scalable public health intervention.

This is a missed opportunity as a glass of fortified milk (320g) can provide approximately 34 percent of the recommended daily allowance of Vitamin A and 47 percent of Vitamin D.

In 2016, the [Food Safety and Standards Authority of India](#) released standards for the fortification of five staple food items: rice, wheat, salt, oil, and milk. Further to that, regulations are now in place to fortify milk variants such as low fat, skimmed, and whole milk with Vitamin A and D.

But despite its significant health benefits, and while established for more than three decades by companies such as [Mother Dairy](#), a subsidiary of the [National Dairy Development Board](#) (NDDB), milk fortification is not yet common practice across the Indian milk industry.

To fill that gap, NDDB partnered in 2017 with the [South Asia Food and Nutrition Security Initiative](#) (SAFANSI), the [World Bank](#), and [The India Nutrition Initiative](#), [Tata Trusts](#) to explore the possibilities of large-scale milk fortification in India.

Over the last twelve months, this collaboration has enabled ten milk federations, dairy producer companies, and milk unions across the country to pilot milk fortification for their consumers. Fifteen others have initiated the process.



On-site training in milk fortification. Credit: NDDBMilk fortification in Jharkhand

The state of Jharkhand is one of the worst affected in India with acute Vitamin A and D deficiencies.

Now, the Jharkhand Milk Federation is a pioneer in taking up milk fortification. In May 2017, the Federation started daily fortification of 13,000 liters of milk. Within one year, the Federation expanded daily fortification to 80,000 liters.

About six million consumers across the state now access fortified milk. In the long run, this initiative will likely improve the health and wellbeing of people of Jharkhand and serve as a showcase for other States wishing to accelerate their efforts in milk fortification.

The way forward for milk fortification in India

Even though India is the world's largest dairy producer and one of the largest consumers of milk, only 35 to 40 percent of the marketed milk pass through organized channels such as milk unions, dairy producer companies, and the private sector.

The challenge remains to convert more milk in the unorganized sector to processed and packaged milk and eventually to fortified milk.

Also, there are other variants of milk such as cow milk and full cream milk available in the market for which fortification standards are not yet in place.

The progress achieved in scaling up milk fortification in India through the SAFANSI Milk Fortification Project has set up the base for dairy industry readiness for widespread milk fortification across India.