



Reducing Anaemia through Large Scale Food Fortification

Micronutrients are essential to sustain life and for optimal physiological functions. High prevalence of micronutrient deficiency is affecting the lives of more than 2 billion people in the world despite substantial efforts to decrease its prevalence for the past few decades. Iron deficiency is the major cause of micronutrient deficiency, which has long-ranging effects on health, learning ability and productivity. It is also negatively impacting health care costs and gross domestic product. Iron deficiency is mainly caused by suboptimal dietary intake and many of these affected individuals live in the developing world with high frequency and severity among disadvantaged populations.

Shri Arun Singhal, CEO, FSSAI.

It has been observed that the nutritional iron deficiency is highest in population segments that are at peak rates of growth, namely, infants, young children, and pregnant women. India accounts for approximately a quarter of all cases of anaemia globally. Recently released National Family Health Survey (NFHS) 5, 2019-21 data

of Indian States/UTs is concerning and points towards a trend reversal-anaemia prevalence. The anaemia prevalence in children and women is 67.1% and 57.2% respectively. There is also a substantial increase in anaemia rate among men aged 15–54 years from 23.2% (NFHS-4) to 25% (NFHS-5).

What is the solution?

Enriching diets of masses with iron is a globally adopted solution and in India, various policies and programs have been implemented to ensure adequate supply of iron. These interventions are complementary rather than mutually exclusive and a multi-sectoral approach involving health, food security and agriculture is, therefore, of prime importance. There are three strategies to combat micronutrient malnutrition (i) Supplementation (ii) Food Fortification and (iii) Dietary Diversification. Even though iron and folic acid supplementation provides the fastest improvement in the iron status but it focuses on targeted population. Increasing dietary diversity and utilizing local food resources takes the longest to create an impact, however it is the most desirable and sustainable solution.

Box 1 : Benefits of Fortified Staples

- Health
 - ✓ Iron essential for fighting against anaemia.
 - ✓ Folic acid and vitamin B12 help in maintaining normal functioning of the vital body systems and blood formation.
 - ✓ Improve overall health and immunity and help fight against diseases.
- Economic
 - ✓ Increased cognitive ability of children and productive capacity of adults
 - ✓ Less burden on health care system
- Social
 - ✓ Food security
 - ✓ Positive impacts on nutrition, public health and overall social welfare

Box 2: Staples and Micronutrients for Food Fortification



FORTIFIED
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Website: www.ffrc.gov.in

Staples	Nutrients	Benefits
Double Fortified Salt	Iodine	Ensures proper thyroid function.
	Iron	Fights Anaemia
Fortified Rice & Wheat Flour	Iron	Fights Anaemia
	Vitamin B12	Maintains normal functioning of Nervous system & blood formation
	Folic Acid	Important for fetal development & blood formation.

Why is fortification necessary?

It is a scientifically proven, sustainable and cost-effective solution with no change in habit/dietary practice. Global evidence also showcases a vast success of improving public health by fortifying staples. In India three staples are fortified with iron namely wheat flour, rice and salt. These act as a good vehicle as these are most commonly consumed (refer to box 1 & 2).

Fortification of rice, wheat flour and salt act as a complementary strategy to address the problem of anaemia in the country and is a safe and cost-effective strategy requiring no behavioural change by the consumer.

MYTH BUSTERS



No change in taste



No change in colour and odour as compared to ordinary rice



No difference in storage



No change in cooking method

What work has been done?

Under the regulatory framework, the Standards for fortification of staples were gazette notified on 2nd August, 2018 by the Food Safety and Standards Authority of India (FSSAI). Currently, wheat flour and rice are fortified with iron, Vitamin B12 and folate with bioavailable plant base sources of nutrients. Double fortified salt has added iodine and iron. The levels of micronutrients have been adjusted to provide 30-50% of Recommended Dietary Allowance (RDA). A dedicated website www.ffrc.fssai.gov.in is functional as a one stop resource provider on food fortification. A unique identification logo +F is developed for easy identification of fortified foods by the consumers and provides assurance that FSSAI standards are being followed for fortification by these products. Currently, fortified staples are available in Integrated Child Development Scheme (ICDS), PM-Poshan Scheme and Public Distribution Scheme (PDS) in some of the States/UTs in India. Recently, on the occasion of 75th Independence, Hon'ble Prime Minister Sh. Narendra Modi announced fortified rice to be distributed under various government schemes by 2024. Central Government has taken an initiative to supply fortified rice throughout the Public Distribution System (PDS), Integrated Child Development Services (ICDS) and PM-POSHAN scheme in all states/UTs to the beneficiaries in a phased manner to address anaemia and micronutrient deficiency in the country.

To create awareness on the importance and use of fortified staples and scale-up rice

Box3 : Role Of Fssai In Scaling-Up Food Fortification/can this be redesigned to be more visible – font size and colour also please show +F logo here

Standards	Review Standards, Create +F Logo
Advocacy	Advocacy - Industry & State Consultations
Ensuring Supply	Ensuring open market availability
Creating Demand	Building Consumer Awareness
Training	of all stakeholders on food fortification
Surveillance	Compliance with Standards



fortification, FSSAI has conducted various communication campaigns on radio, TV, social media, publications, etc. In collaboration with development partners, FSSAI is conducting a cooking and tasting demonstration of fortified rice at district level across states to build assurance and trust among people. FSSAI is focussing on working towards converging an effective approach to combat dietary iron deficiency anaemia, especially in vulnerable population.