

Nutritional inefficiency of India's public distribution system: A missed opportunity of

food fortification?

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An adequate nutritional diet is imperative for people to lead an active, healthy life. As per The State of Food Security and Nutrition in the World 2018 report, almost 195.9 million people in the country (comprising 14.8% of India's population) are undernourished. What's worse, malnourishment among women and girls in the reproductive age triggers a cycle of malnutrition going down generations via the reproduction of unhealthy babies. Moreover, malnourishment among children leads to a higher risk of death from common childhood ailments such as pneumonia, malaria and diarrhoea. Furthermore, by restricting physical growth, it causes mental retardation, blindness, spinal and brain birth defects.

Nutritional Inefficiency of India's PDS

The nation spends nearly 1% of its GDP on implementing the Food Security Act and provisioning of food grains (rice and wheat) through the Public Distribution System (PDS). Therefore, the above efforts should have led to improved nutritional outcomes in India. But empirical studies have failed to provide conclusive evidence in this regard.

Much of this can be attributed to a nutrition-deficient diet among a large number of Indian households, due to lack of or minimal consumption of fruits, vegetables, meat and eggs, which are considered as rich sources of vitamins and minerals. The prevalence of nutritional anaemia among India's women (53.1%) and men (22.7%) can be attributed to the deficiency of micronutrients, primarily iron and others like folic acid and vitamin B12.

The Shift towards Food Fortification

The history of food fortification in India goes back to the 1950s when Vanaspati was fortified with vitamin A. Thereafter, in 1986, there was universal iodization of salt. In recent years, some states such as Punjab, Haryana, Gujarat, and Rajasthan distributed fortified wheat under various social security schemes as an experiment. In order to resolve the issue of micronutrient malnutrition, 'food fortification' has been identified as an effective means by the World Health Organization, the Copenhagen Consensus and the Food and Agriculture Organization. This is a method of adding vitamins and minerals to commonly consumed foods to potentially address the faltering nutritional public health indicators.

In 2016, the Food Safety Standards Authority of India (FSSAI) led multiple stakeholders and issued a joint declaration whereby they noted food fortification to be a 'realistic and sustainable complementary strategy' for dietary diversification and food supplementation to eliminate micronutrient deficiencies in India. In February this year, the Government of India approved the Centrally Sponsored Pilot Scheme on 'Fortification of rice and its distribution under PDS' in 15 districts, for a period of three years.

An Answer to Malnutrition?

In understanding the usefulness and effectiveness of single or multiple micronutrient (MMN) food fortification in India, a literature review analyzed 47 published studies conducted across 13 Indian states. Of the total publications reviewed in the above paper, 76.9% of them had reported an improvement in one or more biological markers, and an improvement was illustrated by 91.3% of the papers that were specifically on MMN fortification. Food fortification is a globally proven intervention to address the much prevalent micronutrient deficiencies in the population. Though the Government of India is moving towards fortifying food via various pilot programs, especially through PDS in some districts, it is insufficient.

Since PDS is one of the world's largest food security programs, the non-provision of fortified food under it appears to be a missed opportunity.

In potentially targeting 100 million children aged between 0 and 6 years of age, of which 48 million would be girls – and an overall total of 800 million people at the household level across India – interventions such as provision of fortified food grains, instead of non-fortified ones, should be pursued actively through the ongoing PDS program. This will further lead to potential long-term benefits by reducing the percentage of malnourishment among households in India, particularly women and children. A nation of healthy people will ensure better outcomes in all walks of life even as India strives to join the comity of fully-developed countries.