

Food fortification: Nourishing moms can prevent infant deaths

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Most of the 104 babies who died at JK Lon Hospital in Kota in Rajasthan since December 1 2019 were sick, premature and underweight newborns who did not get the medical support they needed for critical functions such as breathing and staying warm. Prematurity made them vulnerable to infections and illnesses that they would have survived if they were full-term healthy babies.

Underweight and premature newborns are mostly born to malnourished and anaemic mothers whose bodies are not physically fit to nourish a healthy pregnancy to its full nine-month term. Anaemic and undernourished women are at a higher risk of maternal and child death from pregnancy and childbirth complications, such as preterm birth and babies with birth defects and low birthweight.

Iron-deficiency anaemia affects 58.6% women and 22.7% men in the 15-49 year age group in India, according to the National Family Health Survey 4. It is among the top 10 causes of poor health in women, according to the Global Burden of Disease Study 2016. Like most nutritional deficiencies, it produces no signs or symptoms until it becomes acute.

Iron supplement given free to pregnant women has led to a decrease in acute anaemia numbers over the past 15 years, but the gains can be accelerated by increasing food diversity by promoting locally sourced nutritious foods, and introducing large-scale food fortification, which involves adding essential vitamins, minerals and nutrients to staples eaten every day.

Dose of health

Nutritionally packed fruits, vegetables and protein-rich legumes, seeds, nuts, milk and animal foods essential to stay healthy are often unaffordable and inaccessible to millions across urban and rural India. As a result, at least one in three persons in the country suffers from some form of undernutrition that lowers their physical and mental growth and development potential and productivity.

Nutrition programmes to keep the population healthy boost economy, with every \$1 spent by donors on basic nutrition programmes returning \$16 to the local economy, according to the WHO 2019 report, Essential Nutrition Actions: mainstreaming nutrition throughout the life-course.

“It is not enough for nutrition science to state what healthy diets are. Agriculture and food systems must deliver those diets without distortions that damage health. Ultra-processed foods in particular pose a great danger. They must be eliminated while promoting healthy foods through policies ranging from crop diversity to price subsidies,” said Dr K. Srinath Reddy, president, Public Health Foundation of India (PHFI).

Food fortification

Globally, food fortification has helped lower malnutrition and acute deficiencies that cut across age, gender, income and geography. Salt iodisation, which is one of the most common forms of fortification that has been adopted in at least 160 countries, for example, is estimated to have prevented at least 750 million cases of goitre in the past 25 years.

Iron, folic acid, vitamin A, and iodine are the three most common forms of micronutrient malnutrition.

“Following wide fortification of salt, fortification of packaged oil and packaged milk in India has gone up substantially over the past five years. Close to 50% of all packaged edible oil and 60% of all fortifiable milk (only 30% of all milk consumed is processed and fortifiable) is

fortified, but double fortified salt (salt fortified with iron and iodine) and rice fortification account for a minuscule percentage of the total consumed,” said Rajan Sankar, programme director, nutrition, Tata Trusts, which is working closely with government to increase essential fortification.

By December, 2019, 7.94 million metric tonnes of fortified oil was reaching 661 million people, while 165 lakh litres of packaged fortified milk with vitamin D and E was reaching 110 million people.

But this is not enough. “Despite evidence of health benefits of food fortification, including from India, the growth rate of fortification has plateaued because it is voluntary. All early adopters have already begun to do so,” said Sankar.

Sankar cites 18 studies that have been done over two decades, including five from India conducted on infants, children and women demonstrating the efficacy and effectiveness of fortified rice in improving micronutrient status. These showed reduction in anaemia, increased blood haemoglobin levels, and improved Vitamin B12, zinc and multiple micronutrient stores. One study from India found a significant improvement in the physical endurance of the children who consumed high iron fortified rice for six months.

With children, adolescents and women of the reproductive age are more likely to be deficit in essential vitamins and minerals needed to thrive, with a malnourished mother’s deficiencies putting her own and her unborn children’s health, growth and development at risk, a policy push is essential to promote mass adaptation of food fortification to improve population health.