

# Delivering Nutrition for Children



# Actionable Area

Promote consumption of safe and nutritious foods among children of all age groups.

## Issue

Partial results from the National Family Health Survey round 5 (NFHS-5) were released to draw attention to the crisis of malnutrition in the country. There is a slight improvement in some indicators in some states, but overall, in most states, there is a worsening in indicators such as childhood stunting has increased in 13 out of 22 states, wasting has increased in 12 out of 22 states, and underweight has also increased in 16 out of 22 states. There is also an increase in the prevalence of anemia among young children. Given that the second phase of the NFHS-5 has been carried out during the pandemic and the lockdown, the situation may be even worse in the remaining states.

Also, lately, the **Triple Burden of Malnutrition** is coming into focus with micronutrient deficiencies such as iron, iodine, zinc and Vitamin A adding to the dual nutrition burden, affecting more than 40% of children in the age group of 1-4 years (MOHFW, GOI, 2019).

National Institute of Nutrition (ICMR-NIN) has been the nodal agency for recommending the dietary allowances and nutrient requirements for Indians. The report 'Nutrient Requirements for Indians' was launched last year specifying guidelines for different age groups and life stages such as for Infants & Young Children (0- 24 months) focusing on appropriate breastfeeding practices and timely introduction of complementary foods to prevent undernutrition;

### According to the CNNS, 2016-18 report:

- **Stagnation or worsening of child anthropometric outcomes across several states**
  - 33% U-5 children, 35.2% are underweight
  - 35% U-5 children are stunted
  - 17% U-5 children are wasted
- **Steady increase in the number of overweight/obese children with an increasing trend in lifestyle-related disorders like diabetes (10%)**
- **Anaemia, the most common form of micronutrient deficiency itself takes account into 50-60% population especially preschoolers and women**
  - 40.6% pre-school children
  - 23.5% school-aged children
  - 28.4% adolescents

Promoting a balanced diet and healthy meals ensuring adequate intake of macro and micronutrients among children. Additionally, when it comes to policy or strategic planning, the focus has largely been placed around nutrition-specific interventions during the 1000-day period from conception till two years of age. With the impact of the intergenerational cycle on nutrition outcomes, it is very important to understand the investments across multiple life periods to address the underlying determinants. Therefore, an attempt is required to look at the issue comprehensively and holistically to deliver nutrition on an ongoing basis. Interventions may work directly through the biological pathways (mother-child) or indirectly through the socioeconomic system.

## Status

### Government Initiatives

Several initiatives like the Midday Meal Scheme is a school meal program in India designed to better the nutritional standing of school-age children nationwide. The program supplies free lunches on working days for children in primary and upper primary classes in government, government-aided, local body, Education Guarantee Scheme, and alternate innovative education centers, Madarsa and Maqtabs supported under Sarva Shiksha Abhiyan, and National Child Labour Project schools run by the ministry of labour. 11.59 Crore children are enrolled under the Mid-Day Meals scheme & 25.95 lakh Cook cum Helpers have been engaged to provide MDM meals to children; it is the largest of its kind in the world (Gol, 2021). In support to MDM, findings from secondary data analysis on national representative datasets of mothers and children from 1993-2016 assessing intergenerational nutrition benefits of India's national school feeding program revealed that

supplementary nutrition programs as school meals programs are linked to better growth outcomes in children, with greater height-for-age z-score (HAZ) among children born to mothers with full MDM exposure compared to the children born to non-exposed mothers, indicating the need to include these programs in the global agenda addressing stunting in children (IFPRI, 2021).

Salient Features of MDM Rules, 2015 includes each child from class 1-8 within the age group of six to fourteen years is eligible for a cooked nutritious meal every day except school holidays; with the following nutritional requirements, For Primary school children, the Calories Intake is Energy of 450 Calories, Protein of 12 g & food intake of food grains 100 g, pulses 20 g, vegetable 50 g, oil & fats 5g. For upper primary children, the calorie intake is Energy of 700 Calories, proteins of 20 g& food intake of food grains 150 g, pulses 30 g, vegetables -75 g, oils & fats 7.5 g.

The Akshaya Patra Foundation, which was successfully implementing its school lunch program in Karnataka since 2000, was called in to give testimonies for verifying the efficacy of the scheme, following which the mandate to implement Mid-Day Meal Scheme was passed. To successfully carry out this mandate, each State Government started its own Mid-Day Meal Program, with Akshara Dasoha being initiated by the Government of Karnataka in 2002. This pioneering move by the Government of Karnataka to make NGOs the implementing arm of the Government has been one of the major reasons for its success in reaching the program's goals. The achievements of several private-public partnerships have even influenced the Central Government. By setting up and encouraging private-public partnerships, the Government is successfully leveraging the skills and resources of the private sector for the greater good. The mid-Day meals

scheme has considerable opportunity for social entrepreneurs and public-private partnerships to include large corporates and ensure the quality of food is maintained during the distribution.

Apart from MDM, interventions such as the Eat Right India movement were also launched by the FSSAI, focusing on eating right, safe and sustainable and promoting awareness about a balanced and healthy diet. The Eat Right School program under the ERI movement was launched in September 2016 as Safe and Nutritious Food (SNF) at School program, with the objective to create awareness about 'Eating Healthy', 'Eating Safe', and 'Eating Sustainably' among school children and through them in the community at large. Under this, the school will run the program through Health and Wellness Ambassadors and teams who will conduct both curricular and co-curricular activities. As part of the progress, 53,043 schools have registered, and 48,058 school activities have been completed across different schools.

Several activities like the Eat Right Creativity Challenge in the form of poster making and photography competitions have been organized under the Eat Right India movement to encourage the creative talent of school children with rewards and appreciation enabling them to develop healthy eating patterns and consumption of nutritious meals on a daily basis.

To adopt a comprehensive program aiming to convert school campus into 'Eat Right Campus' promoting safe food and balanced diets amongst children, the FSSAI has also issued gazette notification regarding restriction of food marketing, advertisement and selling of unhealthy foods products high in saturated fat/trans-fat/added sugar/sodium in and around school campus (within fifty meters from the school gate in any direction), ensuring food safety by regular inspection and monitoring.

## Private sector Interventions

Under the 'The Eat Right India Movement' launched by FSSAI to improve nutrition scenarios in India and combat malnutrition and lifestyle-related disorders, food businesses are being encouraged to reformulate their products by providing appropriate nutritional information to consumers and making investments towards healthy food items. As part of the initiative, twenty companies from the food industry had signed up with voluntary commitments to reduce fat, salt and sugar in their products to address issues related to the triple burden of malnutrition in India. FSSAI has also capped the amount of trans fatty acids (TFA) in oils and fats to 3% for 2021, and 2% by 2022 from the current permissible limit of 5% through an amendment to the Food Safety and Standards (Prohibition and Restriction on Sales) Regulations as trans fats are associated with increased risk of heart attacks and death from coronary heart disease.

Several companies like Infosys have been the flag-bearer of improving education standards in the country. The dropout rates in primary schools are very high as children from low-income families need to earn to feed themselves. Infosys foundation collaborated with Sri Ramakrishna Vidya Kendra in the Bannerghatta Forest area in Bengaluru to provide free meals to children belonging to BPL (Below Poverty Line) families and hence promote education among them.

Another instance includes PepsiCo India that has successfully adopted FSSAI's Eat Right School (Safe and Nutritious Food, at School) program, in line with the company's commitment towards creating awareness about safe food, healthy and sustainable diets. The adopted modules were rolled out in leading home science colleges across the country where

volunteering students were trained as “Safe and Nutritious Food (SNF) Fellows”. These SNF fellows later implemented the program across schools in Delhi, Gurugram and Mumbai. In 2018-2019, the SNF Fellows facilitated informative sessions on Iron Deficiency Anemia across schools impacting over 4.5 lakh children.

There are several other examples of private sector collaboration to strengthen the ecosystem.

## Vision 2030

-  Reduce underweight from 33.4% (0-4 years), 35.2% (5–9 years) and 24.1% (10-19 years)- Comprehensive National Nutrition Survey (CNNS), 2016-18 in line with the Global targets and end-all malnutrition-related adverse outcomes by 2030 towards meeting the SDG of Zero Hunger and Good Health and Well-being
-  Reduce Stunting from 38.4% (NFHS-4) to 25% by 2022 (Mission 25 by 2022) and end all forms of malnutrition by 2030
-  Reduce overweight/obesity prevalence among children from 3.7% (5-9 years) and 4.8% (10-19 years)- MOHFW, GOI, 2019, in line with the global targets and Track 3 of the SDG ensuring good health and wellbeing.

# Pathways



There is a need to recognize that nutrition needs a life cycle approach, going beyond specific targeted vulnerable age groups.

In line with the vision, the overall aim is to work on the health and wellbeing of children by providing a health-promoting, safe environment to every child, ensuring adequacy in their nutritional status as well as access to safe food by children both at household as well as at the community level.

**Ensure convergence of multiple government programs** and schemes and strengthen coordination between various departments, NGOs and other groups to avoid redundancy and increase efficacy. Create the necessary institutional mechanisms by setting up a Nutrition Authority to strengthen the delivery of nutrition with a strong implementation and monitoring framework. This will require a participatory framework and could be done in a public-private partnership model

**Revisit the mid-day meal design principles** that are calorie and protein-centric, to include diversity and guidelines around fat and sugar, to ensure there is no compromise on the nutritional quality of the meals provided.

**Ensure taste and texture considerations** are addressed as part of the design to ensure that there is the consumption of the meals provided

**The transition from cereals as the predominant source** of calories to include greater diversity Distribution of food as part of supplementary feeding under ICDS/MDM and dry ration under PDS needs reformulation ensuring protein adequacy and diet diversity at both household and community level.

# Pathways

## **Research, Action & Policy Framework (Contd)**

Create a provision for breakfast and /snacks to meet caloric and nutritional requirements.

Create the ecosystem for delivering nutrition to children by promoting fortified staples and distributing nutritious/fortified foods through PDS/TPDS.

**Development/Innovation of Nutritious Food Menu items** as a part of supplementary nutrition feeding in ICDS and MDM, covering aspects of Food Safety, Hygiene, Nutrition, Fortified Products, Regional food choices including “Eat Right Movement” initiated by FSSAI promoting healthy eating approach and address nutrients of concern by reducing the intake of High Fat, Salt and Sugar in the foods making right food choices.

**Integrate food safety and hygiene as integral parts of the MDM program**, given their impact on nutrient absorption and gut health over time. Ensure compliance to all regulatory norms by MDM kitchen facilities with FSSAI. Inspection & Monitoring by State Food Safety officers on MDM Kitchens must be done at regular intervals. There needs to be guidance for MDM Kitchens to obtain third party certification on Food Safety Management System.

**Nutrition intervention and supplementation programs** need to be implemented throughout the year, including vacations/break time towards ensuring continuous nutrition delivery minimizing the reversal in the nutritional status post the vacation period.

**Cultural and regional aspects** of malnutrition must be taken into consideration towards ensuring maximum outreach and nutrition quality delivery.

**Ensure access to quality**, timely healthcare with monitoring of physical activity and morbidity profile as part of the assessment of the nutritional status of the children.

**To get children to aspire to good nutrition**, it is important that nutrition campaigning and communication targeted to children include aspirational health and nutrition influencers/celebrities as role models/icons they could relate with.

# Pathways

## **Research, Action & Policy Framework (Contd)**

**Encourage Educational Institutions (EIs), School Management Committees and Parent-Teacher Associations (PTAs) to ensure the provision of healthy/balanced food options in canteens and mess through:**

Appointing a school level “Nutrition and Health Committee” trained on principles of healthy diets and closely monitors healthy eating among the students.

Introducing “Nutrition Report Cards” in tune with the Hon’ble Prime Minister’s suggestions to help track the nutritional status of children from time to time and opening possibilities of addressing specific nutritional concerns and enabling targeted actions.

Curriculum to have all aspects of nutrition & healthy diets with practical training on planning & preparing healthy diets (basics) and even on development of kitchen/balcony/terrace gardens wherever possible.

Introduce Societies/ Committees in a school, Students’ Nutrition Clubs such as “Sehat Club” of Eat Right School Program run by FSSAI may be formed in each school to conduct various activities related to promoting “Balanced and Healthy Diets”.

### INFRASTRUCTURE AND DELIVERY



**Scale-up programs and build the infrastructure for meaningful interactions leveraging the delivery mechanism of the model of large-scale kitchens, decentralised self-help groups to maximise local community participation, and ensure delivery of high-quality, safe food to all. Pilot innovative distribution models to test efficacy, reduce variability and delivery solutions.**

**Encourage local women by integrating SHGs who can work towards the provision of “Easy to deliver” nutritious meals to nearby schools/AWCs as a long-term commitment ensuring good nutrition delivery to children with better outreach.**

**Address the gaps existing at a systems level in terms of pooling well-equipped and non-equipped schools- sharing resources, building communication etc. to be done wisely to narrow down the existing gaps among different social classes**

**Strengthen Capacity Building and Infrastructure on Food Safety, Good Hygiene Practices, Good Storage Practices, Good Manufacturing Practices, Integrated Pest Management, Food Nutrition at regular intervals.**

# Pathways

## ***Infrastructure and Delivery (Contd)***

**Co-opt children in building awareness and knowledge dissemination** of nutrition Leverage technology to create training aids that can be leveraged for education and amplification of messaging.

**Leverage the private sector to strengthen the supply** of services and invest in R and D and product formulations to meet nutritional requirements in compliance with defined nutritional guidelines.

**Create open collaboration formats** where demonstrations and pilots have done through public-private sector partnerships can be taken to scale by the government

**Amplify public health and nutrition messaging /communication leveraging private sector –collateral /messages need to be common and agreed to ensure responsible communication.**

## MEASUREMENT SYSTEMS



**In addition to key innovations and models**, measurement is another key component in the form of Periodic diet and nutritional assessment, using formats like school health cards and growth monitoring cards at block/community level to track the actual progress vs the present status redirect better policies and decisions.

**Leverage data analytics** to customize nutrition interventions needed in schools.