

# Health Supplements and Nutraceuticals



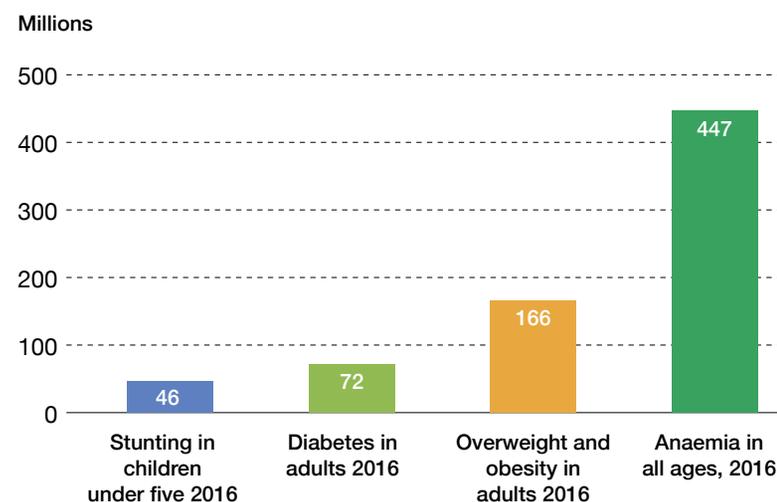
# Actionable Area

## Supplement and retain nutrition through health supplements and nutraceuticals.

### Issue

- Recent National level surveys have shown the lack of vital micronutrients in the Indian diet. This is no longer limited to any particular geographical area, socio-economic section, gender, or age group. The daily, diversified, balanced diet is required to provide appropriate macro & micronutrients and critical non-nutritive components as phytochemicals, antioxidants to enable healthy growth & development of individuals. The changing lifestyles, especially during the pandemic, has resulted in poor eating habits and thus impacted the overall intake of vitamins and minerals essential for a healthy life. With the growing need for convenient foods, it is becoming essential to include certain specialised products that can take care of the missed nutrients and important ingredients to achieve a healthy lifestyle and avoid long term deficiencies and disorders.
- Dietary and nutritional approaches are of paramount importance in managing non-communicable diseases (NCDs), especially diet-related NCDs. A diet lacking in micronutrients is a key risk factor for NCDs.
- ICMR's Hyderabad-based National Institute of Nutrition (NIN) conducted a study in 2017 on 'Diet and Nutritional Status of the urban population in India and prevalence of obesity, hypertension, diabetes and hyperlipidaemia in urban men and women.'

### The burden of malnutrition among children and adults in India (presented in millions)



Source: Stunting - Joint Child Malnutrition Estimates, 2019; Diabetes - IDF DIABETES ATLAS, Eighth edition, 2017; Overweight and obesity - Global Health Observatory (GHO) data, 2018; Anaemia - The Global Burden of Anaemia, 2016 and Global Burden of Disease Study, 2013.

It concluded that:

a. In the Indian urban population, the average intake of micronutrients like iron, thiamine and niacin were observed to be below Recommended Dietary Allowance (RDA), whereas the intake of vitamin A and Riboflavin are grossly inadequate and Vitamin C and total folate were meeting the RDAs.

b. The proportion of pre-school children and pregnant women consuming less than 50% of RDA of vitamins and minerals was very high.

- RDA is the average daily dietary intake level that suffices to meet the nutrient requirements of nearly all (97–98%) healthy persons of a specific sex, age, life stage, or physiological condition (such as pregnancy or lactation). ICMR has devised new RDAs 2020 as per the Indian Population.
- However, the nutrient requirement of individuals can vary considerably. In this regard, to derive a single value for the requirement, ICMR has also defined Estimated Average Requirement (EAR), which is the nutrient requirement used in public health nutrition to evaluate the nutrient intakes of a population. Also, sometimes nutrients can be ingested at high dosages. Hence, the Tolerable Upper Limits (TUL) for every nutrient is also defined.
- In addition to the consumption of a balanced nutritious diet, vitamins and minerals deficiency can be addressed successfully in a holistic manner through supplementation. Health supplements, nutraceuticals, probiotics provide essential vitamins and minerals in the right dosage in accordance with the RDA requirements and address the concerns of low nutrition. They can become a part of our daily health regime and help to achieve better nutrition and improved immunity. Also, vitamins and minerals show potential benefits in viral infections by showing immune-modulatory effects and playing a role in preventive healthcare.

- Effective implementation of supplementation programs largely depends on appropriate interventions based on public-private partnerships. Additionally, supported by a conducive regulatory framework and strengthening of the supply chain to bridge gaps on accessibility and availability of quality food to the population at large and specifically to the targeted groups.

## Status

### Government Initiatives

- To regulate the increasing demand of consumers for healthy foods like health supplements and nutraceuticals, the government brought in regulations on such products as the FSS (Health Supplements, Nutraceuticals, Food for Special Dietary Use, Food for Special Medical Purpose, Functional Food and Novel Food) Regulations, 2016.
- These foods, besides containing vitamins and minerals, also contain ingredients traditionally used as medicines. The functionality of healthy foods can be linked to the ingredients present or with the whole product formulated. Their benefit is beyond basic nutrition and plays a role in reducing the risk of certain diseases & other health conditions.
- The regulation defines the dosage format, formulation specifications, safety, and efficacy parameters that need to be considered for the delivery of these products.
- Collaboration of professionals in the field of nutrition and health can provide a credible source of evidence-based knowledge and influences policies and programmes in the food value chain.



- In alignment with the National Health Policy 2017, Eat Right India programme was launched with its focus on preventive and promotive healthcare.
- Under the National Health Mission, The Ministry of Health and Family Welfare has launched the 'Weekly Iron and Folic Acid Supplementation (WIFS)' Programme to meet the challenge of high prevalence and incidence of anaemia amongst adolescent girls and boys through supervised weekly ingestion of IFA supplementation and biannual helminthic control. Its long-term goal is to break the intergenerational cycle of anaemia whereas, the short-term benefit is of nutritionally improved human capital.

### Private Sector Initiatives

- Several initiatives have been undertaken by the private sector, in partnership with FSSAI, under the EAT right initiative to spread awareness about daily nutritional requirements.
- There is a great focus on health solutions and innovations focused on heart health, gut health, eye health, brain health, immunity and mobility, which are all growing concerns, especially in the context of a growing and ageing world population by a company like DSM.
- Companies are also focused on sustainable agriculture through a strong emphasis on innovative health and wellness solutions based on organic ingredients. Companies like Herbalife are also diving into the vast knowledge of Ayurveda with a focus on blending the goodness of Ayurveda and modern science. Amway engages with over 520+ farmers and their families ploughing in 1500+ acres of

farm spread in the states of Karnataka, Gujarat, Maharashtra, Kerala & Madhya Pradesh. ITC has invested in around 100 acres of demo farms for medicinal and aromatic plants in Madhya Pradesh and is doing crop development through a cluster development approach and educating farmers in at least 500 villages on the cultivation of these important (Ayurvedic valued) medicinal plants. They have partnered with NITI AYOJ under the aspirational district's program to train 2.5 million farmers in 27 backward districts in India.

- Extensive work is also being undertaken by the Resource Centre on Health Supplements and Nutraceuticals (RECHAN) that works on strengthening science and the ecosystem. Under this training and capacity building of point of sale personnel at pharmacies, direct selling agents and sellers on e-commerce platforms are underway. Companies such as Amway conducted 25,000 digital training programs spanning over 20 lakh direct sellers and their consumers. In addition, other companies like Abbot, Danone are also actively involved in various sustainable and nutrition initiatives.

## Vision 2030

- **Strengthen immunity of the population as a 'preventive health care' mechanism. Reduce the death threat of non-communicable diseases.**

# Pathways



**Training and capacity building** by working collectively with an integrated and proactive approach across all government departments, agencies, public bodies, educational institutions, private sector etc., in a supplemented diet consisting of health supplements, prebiotics or foods rich in vitamins and minerals as part of a healthy regime.

**Enable a streamlined plan** to develop the full value chain involved in the development of these supplements, i.e., from raw material to final products. This can support a more holistic agri-product ecosystem.

**Institutionalise surveys** on consumption /dietary patterns to assess nutrient intake versus RDAs.

**Collate data on absorption** and potential losses of nutrients in the Gastrointestinal tract and also, for improving gut health by appropriate absorption and retention of nutrients, the focus should be on supplements herbal in nature.

**Conduct impact analysis studies** to develop mechanisms at each step to assess whether the interventional strategies are working or not, what dosage format is best suitable, and the consumption rate. These mechanisms should follow up at intervals of five to 10 years to make necessary changes in the current programmes and devise future strategies.

# Pathways

## POLICY



**Strengthen the regulatory framework on dietary supplements.**

**Establish appropriate administrative controls to monitor the progress.**

**Programs must be based on a regionalised approach by identifying the regions where the requirement of supplementation is high.**

## IMPLEMENTATION



**Develop institutional mechanisms/programs to create awareness about diet diversity and supplementation with emphasis on the consumption of nutrients to meet daily RDA requirements.**

**Develop and Integrate supplementation programmes with public health policies to manage non-communicable diseases.**

**Experts like nutritionists/ dieticians should be approached for guiding consumers to focus on the quality of food instead of quantity and prioritising proteins, seasonal vegetables as a part of a balanced nutritious diet.**

**Develop credible websites to guide consumers to choose the right foods under the guidance of nutritionists/ dieticians.**

**Industries CSR projects can be initiated in line with the state, national government and the local panchayat policies so that these projects can get absorbed into the government plans.**

**Identify underlying causes of micronutrient malnutrition across age groups and specifically in early childhood and adolescents.**