

Women's collective action for combating malnutrition: Strategies and solutions

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India's performance on the nutrition front in comparison to the neighbouring countries and other developed economies is quite disturbing. In order to meet the UNSDG goals (Table 1). India has to take serious measures for improving on its nutrition outcomes for all the vulnerable groups across all its states.

The National Family Health Survey-4 (2015-16) indicates that 53.1 per cent women between the age 15-49 years are anaemic and only 55 per cent had exclusively breast fed the children less than 6 months and for these two indicators India is faring very low with a rank of 170/185 countries and 48/141 for breastfeeding indicator. This is a cause of serious concern and concentrated efforts are needed from several stakeholders to pull up the country on these indicators as children are the most vital human resource of a country. Women and children today face the consequences of malnutrition which has a bearing on the present and future generations.

Women workers in child health and nutrition services: Women are crucial to improving the nutrition status of the family and society. For a sustainable nutrition revolution, women need to be aggressively involved, educated and empowered to take control of this spiralling situation of malnutrition. Empowering women, the primary caretakers in households, through these can strengthen their role in ensuring nutritional needs of their families, increased discretionary income, improving women's

access to extension services, financial services, technology, inputs, markets and information, avoiding harm to their ability to care for children, investing in labour and time-saving technologies targeted to women, adding programme components to enable high-quality child care and advocating for policies to support women's rights to land, education and employment.

Under National Rural Livelihood Mission (NRLM), 5 million women self-help groups (SHGs), mobilising around 56 million women SHG members, are changing life and livelihoods. Organisations like project concern international (PCI) in Bihar and Kudumbashree programme in Kerala have demonstrated result at scale on nutrition using SHG platforms. These SHG leaders, 3 million women farmers, can join hands with millions of elected women local government leaders to steer the evergreen revolution transforming the food system and through climate smart and nutrition sensitive agriculture (Kar, 2019).

The ICDS in India is the world's largest integrated early childhood programme, with over 40,000 centres nationwide (Kar, 2019). The programme offers health, nutrition and hygiene education to mothers; informal pre-school education to children aged three to six years; supplementary feeding for all children and pregnant and lactating women (PLW); growth monitoring and promotion and links to primary healthcare services such as immunisation and vitamin A supplements. These services

Table 1: Status of India in comparison to other countries on key indicators

Key indicators (%)	India (Rank)	Best performers		India
Stunting	114/132	Germany	1.3	38.0
Wasting	120/130	Australia	0	21.0
Anaemia in women in reproductive age	170/185	USA	11.9	53.0
Exclusive breastfeeding for 6 months	48/141	Rwanda	87	46.0
South Asia				
Key indicators (%)	India	Sri Lanka	Bangladesh	Bhutan
Stunting	38.4	14.7	36.1	33.6
Wasting	21.0	21.4	14.3	5.9
Anaemia in women in reproductive age	53.0	25.7	43.5	43.7
Exclusive breastfeeding for 6 months	55.0	75.8	55.3	51.4

Table 2: Indicators and what they mean

Indicator name	Definition		
	Numerator	Denominator	Colloquial definition
Stunting	Number of under-fives falling below minus 2 standard deviations (moderate and severe) and minus 3 standard deviations (severe) from the median height-for-age of the reference* population	Children under 5 years of age in the surveyed population	Stunting refers to a child who is too short for his or her age. These children can suffer severe irreversible physical and cognitive damage that accompanies stunted growth. The devastating effects of stunting can last a lifetime and even affect the next generation
Wasting	Number of under-fives falling below minus 2 standard deviations (moderate and severe) and minus 3 standard deviations (severe) from the median weight-for-height of the reference* population	Children under 5 years of age in the surveyed population	Wasting refers to a child who is too thin for his or her height. Wasting is the result of recent rapid weight loss or the failure to gain weight. A child who is moderately or severely wasted has an increased risk of death, but treatment is possible
Overweight	Number of under-fives above 2 standard deviations from the median weight-for-height of the reference* population	Children under 5 years of age in the surveyed population	Overweight refers to a child who is too heavy for his or her height. This form of malnutrition results from energy intakes from food and beverages that exceed children's energy requirements. Overweight increases the risk of diet-related non communicable diseases later in life

*The reference population is based on the WHO Child Growth Standards, 2006

are provided at anganwadi centres (AWCs); each run by one Anganwadi worker (AWW) and one helper. Given the decentralised structure of the ICDS and the proximity of AWCs to the community, this has the potential to be an ideal platform for community-based management of acute malnutrition (CMAM).

Three different groups of female workers— Accredited social health activist (ASHA), Anganwadi worker (AWW) and auxiliary nurse midwife (ANM)— are responsible for driving health and nutrition service delivery in India's villages. While ASHAs and AWWs typically cater for 1,000 people each, the ANMs serve 5,000 people across several villages. Each of the female worker categories has a distinct role:

- ASHAs are the first point of contact for the community. They counsel the community via home visits and mobilise attendance at events like village health and nutrition days;

- AWWs run Anganwadi Centres (AWCs), through which they provide nutrition services to pregnant and lactating women (PLW) and young children, including mid-day meals for children aged 3-6 years old; take-home

rations for children aged six months to three years and PLWs and nutrition counselling on Infant and young child feeding (IYCF) to pregnant women and mothers and

- ANMs provide basic diagnosis, treatment and referral to health centres for pregnant women.

Although they should serve the same beneficiaries and their roles should be complementary, co-ordination is often lacking between the three cadres of staff. This is mainly because they work for different government ministries: AWWs and ANMs are employed by the women and child development (WCD) and health ministries, respectively. Therefore, a co-ordination mechanism is to be in place as demonstrated by the AAA (a combination of ASHA, AWW and ANM) platform the successful getting together of the three frontline workers together under one platform. The impact has indicated that the three female cadres working together can improve nutrition outcomes at the village level.

The sanitation-nutrition nexus: educating mothers and caregivers: Multiple connections exist between sanitation and nutritional outcomes. There are three identified direct pathways through which poor sanitation

may adversely affect nutritional outcomes in children, diarrhoeal diseases, environmental enteropathy and nematode infections. The lack of water, sanitation, and hygiene (WASH) education and essential WASH services frequently contributes to malnourishment (WASH 2014). WASH can affect child development through inflammation, stunting and anemia. The World Health Organization (WHO) estimates that 50 per cent of malnutrition is associated with recurrent bouts of diarrhoea, which often result from unsafe water, insufficient sanitation, and inadequate hygiene.

Safe drinking water, adequate sanitation and proper hygiene can prevent undernutrition and stunting in children by inhibiting environmental enteropathy and diarrheal diseases. Repeated infection with diarrhoeal diseases contributes to chronic malnutrition by inhibiting intestinal absorption of nutrients and is strongly correlated with stunting. Under nutrition in turn increases susceptibility to infectious diseases, such as diarrhoea, thus, perpetuating a vicious circle (Mara *et al.*, 2010). Evidence has shown that sanitation can prevent and reduce stunting, therefore, improving the family's access to safe drinking water, clean surroundings and instructions on hygiene to mothers and

caregivers is highly essential.

Collaboration between ministries for addressing the sanitation –nutrition outcomes: Greater collaboration between the Government of India's Ministry of Women and Child Development, as the body responsible for nutritional outcomes in children under the age of five, and the Ministry of drinking water and sanitation would be valuable for addressing the sanitation-nutrition nexus.

Agriculture-nutrition linkage: role of women collectives: Diversification of production and livelihoods for improved access to food and dietary diversification is highly essential. The women farmers need to be motivated to increase production of nutrient-dense foods, particularly locally-adapted varieties rich in micronutrients and protein, Horticultural crops are highly recommended, to improve micronutrient intakes and dietary diversity which also help to increase income. The good old practice of small ruminants and backyard poultry needs to be revived to provide proteins and micronutrients to the family.

Biofortified crop varieties to combat malnutrition: Biofortification provides a feasible means of reaching undernourished populations in relatively remote rural areas, delivering naturally fortified foods to people with limited

Table 3 : Sanitation indicators: pointers to affecting nutrition outcomes

Indicators	Percentage
Proportion of population using basic sanitation services	40.0
Proportion of population using limited sanitation services	10.0
Proportion of population using unimproved sanitation services	6.0
Proportion of population practising open defecation	44.0

Source: WHO/UNICEF JMP progress on drinking water, sanitation and hygiene: 2017 Update and SDG baseline

Table 4: Foundations of nutrition for agricultural extension services

Topic area	Example activity/competency
Good nutrition = getting the right amount of the nutrients needed	Like crops and livestock, people also require the right balance of nutrients to be as healthy and productive as possible Eating a balanced, diverse diet is the best way to ensure getting the right amount of nutrients
Promote good nutrition for all, especially the most vulnerable	Extension staff know who in their area is most at risk for undernutrition
Produce more diverse, nutritious foods	Farmers are supported to diversify out of staple crop production into livestock, horticulture, etc. which yields more nutritious
Ensure year-round access to diverse, nutritious foods	Reduce postharvest loss, promote food preservation (drying, canning, etc.) to make more foods available for longer periods
Minimize any harm that agriculture can cause to nutrition	Promote practices that safeguard water resources, encourage safe application of pesticides and fertilizers, encourage pregnant and lactating women to take breaks as needed for their good and that of their babies

Source: Kuyper and Davis (2016)

access to commercially marketed fortified foods that are more readily available in urban areas (Penelope *et al.*, 2006). The biofortified varieties not only provide enough calories but also deliver essential nutrient (s) needed for adequate growth and development (Yadava *et al.*, 2018). The major cereals, rice and wheat and millets, pearl millet and sorghum have already been biofortified to provide enhanced contents of iron, protein and zinc vital to the nutritional and developmental needs of children. Awareness generation and promotion for cultivation of biofortified crops to meet the nutritional needs of family is urgently needed. Special training programmes, demonstrations are to be organised for women farmers. Most importantly the timely supply of seeds of biofortified crops is to be given a priority. With technical support the SHGs can take up seed production of these biofortified varieties to ensure adequate supply of seed and also as an income generating source for SHGs.

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