

Revised Nutrition And Feeding Norms For Supplementary Nutrition In ICDS Scheme

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Abstract

As a serious public health issue in India, childhood malnutrition is the primary cause of morbidity and mortality among children. Many youngsters are undernourished because they lack information about how to properly feed them. An efficient method of educating Indians about the need of a healthy diet would be beneficial. As a result, research into how nutrition education and supplementary nutrition affected the nutritional status of malnourished children aged 2 to 6 was crucial. To choose rural anganwadi centres for an interventional trial, cluster sampling was used. ICDS supplement nutrition education was employed as an intervention based on better nutritional and feeding criteria for supplement nutrition. Every three months, the weight of study participants was recorded for a year. Anganwadi Centres are part of the ICDS programme in rural regions and provide supplemental nutrition. The Supplementary Nutrition Program, which provides food assistance to pregnant and nursing mothers, as well as adolescent females from low-income families, is available.

Keywords: Protein Energy Mal-nutrition, Positive Deviance Approach, Supplement Nutrition, Angan-Wadi Centres, ICDS.

Introduction

Nutrition is critical for overall health, and kids aged 1 to 6 make up 15% of India's population.

In India, 43% of kids under the age of five are malnourished (two standard deviations), with 15.8% severely underweight (three standard deviations).

A child's risk of death increases if he or she is malnourished. A lack of food is not the only element that causes malnutrition. No one knows how much, how often, or what kind of food to feed their kids because there is a lack of knowledge in this area. Anganwadi food delivery is often erratic, which leads to irregular feeding, and poor supervision is another reason why ICDS regions have made little progress in improving their nutritional condition. This study looked into the influence of ICDS nutrition instruction, monitoring, and supplementary nutrition on the nutrients intake of two to six year olds enrolled in the ICDS programme, as well as the reasons why their nutritional status did not improve.

Increases in the cost of supplementary nutrition for youngsters, pregnant women, and breastfeeding mothers have been approved by the government. For kids aged six months to three years, the Union Cabinet increased the daily cost per beneficiary for pregnant women and breastfeeding mothers from Rupees 6 to Rupees 8 per beneficiary a day. The price for chronically malnourished kids has gone up from Rs 9 to Rs 12.50.

Pregnant women, breastfeeding mothers, and very malnourished children who are unable to walk to an anganwadi centre are given a take-home ration, a part of the Indian government's Integrated Child Development Scheme.

"The rates were established in 2012, despite the fact that the CPI has subsequently increased. Because the cost of raw materials has gone up, it will be easier for us to provide meals." Rakesh Srivastava, the secretary of the Ministry of Women and Child Development, made the announcement during a press conference. As a result of the tariff hike, an additional Rs 12,000 crore will be spent over the next three years.

To allow for future rate hikes, the Cabinet also approved an annual cost indexation.

Supplemental nutrition, referral services, vaccines, health checks, non-formal pre-school education, and health and nutrition education are all given through the ICDS's anganwadi centres.

Over 13.55 million people now have access to health care in the country. The benefit is available to about 880,000 kids under the age of six, as well as 182 million pregnant ladies and nursing mothers.

The Ministry of Women and Child Development (WCD) is also expected to release dietary guidelines for anganwadis and schools, outlining the right composition of a noon meal.

Think tank Niti Aayog recommends starting trial programmes to substitute take-home meals with monetary incentives to reduce theft.

According to a WCD official, a request has been made to start a trial operation in 100 districts.

The suggestion has been rebuffed by Union Minister Maneka Gandhi who claims that cash transfers "do not make sense."

Her other ideas include replacing hot meals with calorie-dense nutrition packs.

Review Of Literature

Agriculture provides fundamental necessities for a huge portion of India's and South Asia's population. The amount of food consumed has a significant impact on nutritional results. Both producers and consumers rely on non-home food production or markets to supply a portion or all of their food needs. Beyond the farm gate, the influence of agri-food value chains on consumers must be investigated.

To combat hunger and its underlying causes in the post-2015 development agenda, social protection is widely acknowledged as a powerful strategy. Food safety nets necessitate

government support and subsidies for agriculture. Cash, vouchers, or direct food aid, as well as nutrition education, might be used to accomplish a specific purpose.

Food prices are rising, making it difficult for low-income families to afford healthy foods. According to a study, increased food costs hampered poor countries' ability to feed their citizens during the global financial crisis from 2006 to 2010. When food prices rise, even if just briefly, it has a long-term influence on malnutrition rates. This highlights the value of food handling networks (Brinkman et al. 2009). Public food distribution, such as school meal programmes and programmes for nutritionally sensitive populations such as pregnant ladies and young kids living in low-income households, is an essential source of nutritious food for the poor in developing countries. According to the study, investing in early childhood development programmes that target the poorest children can result in long-term economic benefits. (Lake 2011; Gowani et al. 2014). If society's most vulnerable individuals are to receive proper nourishment, programmes like SNP must be sponsored by the government. According to a study conducted in India, children who live in areas where ICDS centres have been created are less likely to be malnourished (Saxena and Srivastava 2009).

Supplementary Nutrition Programme (SNP)

The Umbrella Integrated Child Development Services (ICDS) Program is implementing the Supplementary Nutrition Program for Anganwadi Services and Adolescent Girls to help pregnant ladies, nursing mothers, and out-of-school Teenage Girls. A list of specifics is provided:

Table 1

S. No.	Categories	Types of food	Nutrition Norms
Supplementary Nutrition under Anganwadi Services			
1.	Kids (6-36 months)	Take Home Ration	Energy – 0500.0 Kcal Protein – 012.0 to 015.0 g
2.	Kids (3-6 years)	Morning snack - Hot cooked Meal	Energy – 0500.0 Kcal Protein – 012.0 to 015.0 g
3.	Severely Malnourished Kids (3-6 years)	Take Ration Home	Energy – 0800.0 Kcal Protein – 020.0 to 025.0 g
4.	Pregnant ladies & Nursing mothers	Take Ration Home	Energy – 0600.0 Kcal Protein – 018.0 to 020.0 g
Supplementary Nutrition under Scheme for Adolescent Girls			
5.	Out-of-School Girls (11-14 years)	Teenage Take Ration Home	Energy – 0600.0 Kcal Protein – 018.0 to 020.0 g

Note: *Breastfeeding is strongly encouraged for infants aged six months and under.*

For the current fiscal year, Rs. 20532.38 crore and Rs. 250 crore were allocated for Supplementary Nutrition under Anganwadi Services and the Scheme for Adolescent Girls, respectively (2020-21).

The following are the beneficiaries of these programmes during the 2018-19 fiscal year:

Table 2

Scheme	Beneficiary	Number of Beneficiaries
Anganwadi Services	Kids below six years of age	703.74 Lakhs
	Pregnant ladies and Lactating Mothers	171.86 Lakhs
Scheme for Teenage Girls	Teenage Girls (11-14 years)	14.15 Lakhs

Note: *Smriti Zubin Irani, the Minister of Women and Child Development, responded to a question in Parliament with this information.*

In order to combat malnutrition, the Supplementary Nutrition Program is an integral aspect of the ICDS (SNP). Women who are pregnant or breastfeeding, as well as children aged 7 months to 6 years, can access SNP services. The Supplementary Nutrition Program was revised by the Govt. of India under "Restructured" Indian Child Development Services (ICDS) (SNP).

Table 3

Target Group	Revised Norms (per beneficiary per day)
(i) Kids (7-72 months)	Rs. 06.00
(ii) Severely Malnourished Kids (7-72 months)	Rs. 09.00
(iii) Pregnant and Lactating women	Rs. 07.00

GOI's nutritional standards for supplementary nutrition are as follows:

Table 4

S.No	Category	Nutritive values	
		Calories (K Cal)	Protein (g)
1.	Kids (7-72 Months)	500.0	12.0-15.0
2.	Severely underweight Kids (7-72 Months)	800.0	20.0-25.0
3.	Pregnant & Lactating Female	600.0	18.0-20.0

Food models were adjusted in consultation through stakeholders in response to the change in cost rules to guarantee that Supplementary food was acceptable to the target populations. Here, we've analysed the facts and checks of some states:

Supplementary nutrition is provided to several target groups in the state of Telangana as follows:

- Every day, Arogyalaxmi provides "one full meal" to expectant and nursing mothers. Rice, dal, and veggies are served alongside an egg and 200 mL of milk in this hearty dish. For children aged seven months to three years, the weaning meal consists of a two-and-a-half-kilogram Balamrutham packet and sixteen eggs. Every month, new mothers receive this as a THREE gift (i.e on NHD-1)
- Rice, vegetables, eggs, and Nutri Snacks/chana dal are all nutritious foods served to students aged three to six. The Anganwadi centre provides malnourished children aged 7 months to 3 years with one egg, 100 ml milk, a simple lunch, and more oil every day.
- SUW/SAM/MAM At the Anganwadi centre, children aged 3 to 6 are provided one egg, hundred mL milk, oil (along a hot meal) and 50 gm Balamrutham every day.

- Some starving children are fed by the AWC, which also supervises feedings for kids aged seven months to three years and three to six years. As a result, diets of undernourished youngsters are improving. The Model Menus' "Special care and supervised feeding" of malnourished children under the age of five covers Slightly Under-weight (SUW), Severe Acute Mal-nutrition (SAM), and Moderate Acute Mal-nutrition (MAM).

Table 5: Food Model for spot feeding of 3-6 years Children

S. No.	Item	Rice+Dal with leafy vegetables/ Rice + Sambar with vegetables or same as "IAH" menu			Nutritive-Value	
		Quantity perday	Tentative Rateper KG/L (Rs)	Tentative Costper day (Rs)	Energy (Kcal)	Protein (g)
1.	2	3	4	5	6	7
A. MainMeal						
1.	Rice	75.0 g	04.00	0.300	258.780	5.100
2.	Dal (RedGram)	15.0 g	070.00	1.050	52.200	3.630
3.	Vegetables	25.0g	028.00	0.700	26.250	0.900
4.	Condiments			0.250		
5.	Egg (30 eggs per month)	50.0 g	03.50/egg	3.500	86.500	6.650
6.	Oil	5.0g	059.00	0.330	45.000	00
7.	Transport			0.100		
8.	Fuel			0.200		
B. Snack Food						
9.	Telangana Food–Nutri snacks (20gm) / Channa-Dal (15gm)			0.830	080.000	2.400
TOTAL				07.260	0548.730	018.680

Table 5: Supplementation for the SAM/MAM Food Model AWC provides supplemental nutrition and supervised feeding for children aged 3–6 years old, in addition to the meal model used in III for normal children (per beneficiary)

S.No.	Item	Tentative Cost (Rs)	Additional Quantity per day	Nutritive-Value		
				Protein (g)	Calcium(mg)	Calories(kcal)
1.	Eggs	1.26	18.00 g per-day (9 eggs Additional per-month)	2.39	10.80	31.14
2.	Milk	3.20	100 ml	4.30	210.00	117.00
3.	Extra oil	0.33	5 g	0	0	45.00
4.	Balamrutham	2.29	50 g	5.50	183.50	207.00
TOTAL		7.08		12.19	404.30	400.14

Table 6: Model Menu for SUW/ SAM/ MAM kids of 3-6 years

S. No.	Feeding Time	Venue for feeding	Item	Tentative cost (Rs. per day)	Quantity per day	Nutritive-Value		
						Calcium (mg)	Energy (Kcal)	Protein (g)
1.	07:30 am	Home	Tiffin + Extra Oil or Ghee(5g)	by family	0100 g	20.00	325.00	7.00
2.	9:30 am	AWC	Egg	3.50	50g	30.00	86.50	6.65
3.	11:30am	AWC	Milk	3.20	100 ml	210.00	117.00	4.30
4.	12:15-1:00 pm	AWC	Meal +Extra oil (5g)*	2.96	125g	26.78	427.23	9.63
5.	3:00 pm	AWC	Snack	0.83	15-20g	3.40	80.00	2.40
6.	4:00 pm	AWC	Balamrutham (made into Laddoo/Java)	2.29	50.0g	183.50	207.0	5.500
7.	5:30 pm	Home	Fruit + Snack	by family	50g	20.00	200.00	3.00
8.	7:30 pm	Home	Meal + Extra Oil/Ghee(5g)	by family	125g	26.78	427.230	9.630
			Transport	0.100				
			Fuel	0.200				
			Total	13.080		520.46	1869.96	48.11

Supplementary Nutrition Programme in the context of Meghalaya

It is the responsibility of the state's social welfare department to implement the Supplementary Nutrition Program. Supplemental feeding programmes are conducted by the Social Welfare Department under two different headings:



1. Anganwadi Centres provide supplemental nutrition for ICDS projects in rural regions.

Children under the age of six and low-income adolescent females are all eligible for the Supplementary Nutrition Program, which provides food assistance (SNP). Through an Anganwadi network and non-governmental organisations (NGOs), the state's seven district offices in metropolitan regions receive 300 feeding days each year from Anganwadi staff and NGOs.

Coverage of beneficiaries

Coverage of beneficiaries		Food	No. of feeding days
G. Total	428606		
0 – 6 years kids	353528	Bengal gram, ground nut, eggs, rice chali, sweet potato, atta, soya-bean, rajma, kabuli, jaggery.	300 days yearly
Pregnant and Nursing Mothers	61135	Bengal gram, ground nut, biscuits/ milk	300 days in a yearly
Teenage Girls	13943	Bengal gram, ground nut, biscuits/ milk	300 days in yearly

2. Provision of supplemental nutrition in urban slum areas by non-governmental organisations

Shillong and Tura's newly developed Urban ICDS initiatives have been merged into SNP ICDS.

Centres and their beneficiaries

Districts	Number of Centres	Numbers of beneficiaries	
		Children	Expectant and Nursing Mothers
G.Total	42	7535	1275

3. National Nutritional Mission (Nutrition Programme for Teenage Girls)

When India's government launched its National Nutrition Mission in 2002-03, it sought to help undernourished teenage girls and pregnant and nursing mothers from low-income families by providing them with subsidised food grains. Goals include reducing chronic energy insufficiency and reducing malnutrition by eliminating micronutrient deficiencies such as iron and iodine as well as other inadequacies. It has been determined that the seven ICDS initiatives in Meghalaya would take place in the East Khasi Hills District. By giving six kilogrammes of dietary grains (wheat/rice) every child, the programme will be implemented in accordance with growth monitoring, weighing, and the identification of undernourished children through the Public Distribution System. Scale acquisition is also being examined in addition to growth monitoring and weighing training, health and nutritional educational programmes as well as referral services and the implementation of an IEC programme. We'll be using a convergence approach in conjunction with DFCS and the district's deputy commissioner to coordinate food grain procurement and distribution through the Public Distribution System. As of September 2008, the government reported that 2750 teenage girls had received food aid.

Methodology

Researchers, who developed the conceptual framework for this study, examine what public and private measures are required to increase the nutritional benefits of agri-food value chains for human health and nutrition. The main goal of this project is to increase low-income people's access to and intake of nutrient-dense foods. These clients are crucial to the evaluation since their spending and demand preferences, as well as their "nutritional interests," "drive the system." This analysis considers the role of consumers in the supply chain. Because of their impact on the supply chain, consumers are considered in this research.

- I) Food that is consumed on a daily basis must be safe for consumption;
- II) At the instant of consumption, food should be nutrient-dense;
- III) To get the intended nutritional outcomes, food should be ingested in sufficient quantities on a regular basis.

According to the report, there are ten additional requirements for the success of market-based, nutrient-dense agri-food value chains: accessibility, affordability, acceptability, value capture, incentives along the chain, coordination and governance, risk management and uncertainty, and an appropriate institutional environment.

SNP was picked as a case study among the 40 initiatives assessed in the India Country Review of agri-food value chain interventions as an example of a pro-nutrition value chain (Parasar and Bhavani, 2016). After a brief introduction to the SNP, an evaluation of the program's operational features in many Indian states is carried out using the conceptual framework provided. As part of this investigation, the essay examines how the SNP's value chain in the two states can be used to help impoverished households in particular, those with women and children.

The participants in this study were chosen after conducting a literature review, secondary data analysis, and interviews with state government officials and other key players in the value chain. Our final goal necessitated an on-the-ground evaluation of the program's efficacy. As part of a desk study, secondary sources were used to gather information about the ICDS and the SNP under its authority and the value chain actors, including the Ministry's website and linked internet resources. A complete breakdown of the value chain was supplied to those in charge of organising the state-level endeavour. Following that, with their agreement, a qualitative examination of food distribution value chains in two states participating in the Sustainable Nutrition Program was carried out. Accordingly, interviews were conducted with ICDS project officers, anganwadi workers² (AWWs), helper/cum-cookers at ICDS or AWCs, pregnant women, as well as mothers of children who went to the AWCs, to conduct this research.

Conclusion

Because of its government funding, SNP has the potential to have a significant impact on the worldwide nutritional situation. New ideas in this field of study could come from public-private partnerships and the business sector's involvement in improving nutrition outcomes.

Undernutrition in Asia can be addressed by government food distribution programmes that combine the efforts of the public, private, and cooperative sectors, as well as the private-cooperative sector partnership model in Indian enterprises that produce pronutrition agri-foods in the country. As part of the nationally mandated food distribution programme, each state has significant lessons to teach that other states might apply to their own food distribution programmes.

When compared to the conceptual frameworks, it can be concluded that the current programme is capable of providing the three goals of i) sustained and safe food, ii) nutrient-dense food, and enough food to low-income ladies and kids. The first two characteristics, on the other hand, can be improved.

Before it reaches women, the premix's food safety concerns have been handled to the fullest extent possible (mothers of children, pregnant and nursing women). A lack of monitoring means it's impossible to know if consumption is adequate. Despite the fact that India's infrastructure was found to be in good functioning order, the lack of sealed packets for the women may raise concerns about cleanliness and food safety.

Box 1: Nutritional premix value chains under SNP

Some jurisdictions allow the AWC to provide additional nutritional premix. Food distribution, however, differs by state, despite the fact that all states aim to provide nutrient-dense food to specific demographic groups. The value chain, on the other hand, varies.

The following are some of the most important characteristics of each: administration at the national and regional levels:

- 1. Reaches:** The SNP premix is produced by women's cooperatives that are dispersed throughout the state.
- 2. The risk associated with public investment:** Public food distribution necessitates the use of massive production capacities. When operating in a dynamic and uncertain policy environment, a public enterprise runs the danger of losing a significant amount of public money. There is an underutilization of capacity in Telangana as a result of the Supreme Court decision prohibiting the distribution of ready-to-eat (RTE) meals in auxiliary work centres. Furthermore, following the state's bifurcation (from what was formerly Andhra Pradesh into Telangana and Andhra Pradesh), Telangana Foods is functioning at less than 100% of its capacity.
- 2. Economic development** of the state is important because a state with lesser economic prosperity or with high policy uncertainty may have a difficult time attracting significant private investment for a public food distribution effort. Furthermore, because of the small number of private participants in less developed economies, it will be difficult for them to avoid becoming a victim of a monopoly position. As a result, the state-owned firm has a significant impact on the expansion of production capacity.
- 4. Women's cooperatives and social welfare:** Women's cooperatives, in addition to being participants in the food distribution chain, also work to improve the economic well-being of the women who join them. It is a well-known fact that Tamil Nadu selects women from low-income and socially disadvantaged backgrounds for membership in cooperatives. It was discovered that the ladies involved were satisfied with their jobs and incomes. The initiative contributes to increased societal welfare by enhancing the value chain of premixes.

5. The importance of a mixed value chain: Initially, Tamil Nadu was dominated by women's cooperatives and had no private actors. Private enterprise participation has boosted the efficiency of the value chain while also assisting women's cooperative members in increasing their profits. The lesson is that while a state can have cooperatives, the restricted economies of scale can limit the production and earnings of the producer; therefore, critical innovation in this area is required.

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