

Reducing malnutrition in India¹

N.C. Saxena

Despite high economic growth of more than eight per cent every year, malnutrition in the age group 0 to 6 years has declined only by one percentage point in the last eight years. The prevalence of child under-nutrition in India is among the highest in the world, nearly double that of Sub-Saharan Africa, with dire consequences for morbidity, mortality, productivity and economic growth. This paper discusses the impact of the MWCD run ICDS program on child malnutrition, and what needs to be done to make the program more effective.

Problems with ICDS

There is evidence to show that ICDS is not having any significant impact on infant malnutrition, for the following reasons:

1. It is not reaching enough children. According to the MWCD figures, it reaches 58 million out of the 164 million children in the age group 6 months to 6 years, although according to the 61st round of NSS this figure is only 12.5% (see Table 1 for state-wise breakup). As the Anganwadi Centre (AWC) is likely to be located in the richer part of the village, it may be out of reach for the vulnerable children of poorer households and lower castes and those living in remote areas.
2. Even when the older children have access to the AWC, the program does not focus on the critical under 3 years age group, the age window during which nutrition interventions can have the most effect. Malnutrition among children occurs almost entirely during first two years of life and is virtually irreversible after that. Obviously, it tremendously impacts development outcomes, as more than 90 per cent of the brain actually develops during the first two years. It impairs cognitive development, intelligence, strength, energy and productivity. The loss of social capital is tremendous, even amongst the survivors.
3. 25% of India's districts are responsible for more than 50% of malnourished children, and these districts are mostly located in the poorer states. Yet, the poorest states and those with the highest levels of under-nutrition have the lowest levels of program funding, supervisory staff, capacity to utilize funds and monitor progress, resulting in poor outcomes.
4. Child malnutrition is mostly the result of high levels of exposure to infection and inappropriate infant and young child feeding and caring practices, and has its origins almost entirely during the first two years of life. To prevent a recurrence and to overcome the effects of chronic malnutrition, these children need extra attention both during the early rehabilitation phase and over the longer term. However, there is no scheme in any of the states (except a few pilot ones supported by Unicef) for rehabilitation of severely malnourished children under medical attention.
5. Malnutrition often has its origin in inadequate or disrupted breastfeeding. NFHS-3 data shows that the percentage of infants who were breastfed within one hour of birth was only 23.4 in 2005-06, though it increased from 16% in 1998-99. The percentage of those who were exclusively breastfed for the first five months was only 46%. Overall in India, only one-third of children were offered any semi-solid food between six and nine months (NFHS-2) and in Uttar Pradesh, Bihar, Madhya Pradesh and Rajasthan it

¹ This paper does not discuss measures needed to improve the access of the poor to health services, potable water, hygiene and sanitation, or for that matter poverty alleviation programs, though these interventions are crucial for reduction in malnutrition. The paper concentrates on what the Ministry of Women and Child Development (MWCD) and its counterparts in the States can do, as reducing malnutrition amongst children is their responsibility.

varied between 15 per cent and 30 per cent. Even in prosperous Punjab, the figure was only 38.7 per cent and in Haryana 41.8 per cent. There is no concept of feeding the child modified family food. This is the beginning of malnutrition, which is worst between six months and one-and-a-half to two years, when the child is dependent on a caretaker to feed him/her. The component of behaviour change in ICDS is neither emphasized nor monitored.

6. ICDS also faces substantial operational challenges, such as lack of monitoring. Although on paper the program has several objectives, in actual practice only food distribution is monitored or emphasized by the seniors. For instance, growth monitoring activities are hampered by poor access to appropriate equipment, such as weighing scales, growth cards and wall or book charts. Often the equipment is nominally present, but not of sufficient quantity or quality. Even in AWCs with scales that are in working condition, many AWWs fail to weigh young children (under three) every month (as ICDS guidelines stipulate). Even with regular weighing, growth monitoring is effective only if accompanied by communication for behaviour change that results in the improved growth of the malnourished child. Previous studies of ICDS have noted that this does not often occur.
7. As already noted, ICDS suffers from food bias. This is evident in the time usage of the AWWs. They spend most of their time in supplemental nutrition-related activities or on preschool education, or on routine filling up of registers and reports, which does not leave much time for other important ICDS activities such as growth-promotion, health and nutrition education, home visits, referral services and meeting with the community.
8. Despite the large share of resources devoted to it, the supplemental nutrition programme (SNP) performs rather poorly. There are large gaps in distribution, often the food is not attractive or suitable and there is evidence of misappropriation. A World Bank study of Orissa in 2005 showed that on any given day, 30% ICDS centres do not function, of the rest one-third of the days there is no distribution, and when there is distribution, about 40% does not reach the entitled people.

Suggestions

The focus of ICDS should be health and nutrition education, encouraging women to breastfeed exclusively for six months and after that add semi-solid family food four to six times a day in appropriate quantities for the infant, which alone can improve his/her nutrition levels. We need to convert the ICDS into a true health, nutrition and development programme and not limit it to a food dole programme. For nutrition to improve, we have to strengthen proper breastfeeding and complementary feeding, together with complete immunisation and prompt management of any illness. Some of the specific suggestions are given below.

Restructure ICDS: The basic nature of the ICDS scheme should be changed from centre based to outreach based. In addition to supplementary food and pre-school education the emphasis in ICDS should now therefore be on the more difficult task of changing feeding behaviour and control and treatment of infectious diseases. Interventions to address good caring behaviours, which have been proven to be cost-effective in many places in India, require substantial development of the skills of grass-roots workers and an efficient management system, strengthening the quality of its implementation and monitoring in a way that increases its impact, improving mothers' feeding and caring behaviour, improving household water and sanitation, strengthening the referral to the health system and providing locally prepared wholesome food.

Shift focus to under two years: There should be increased spending on infant and young child nutrition during the first 24 months when malnutrition is frequent and disturbs the very foundation of life and development. Thus, malnutrition is more often due to the lack of care or poor health rather than the lack of food. Providing food to hungry people is important but is unlikely to reduce the worst forms of child malnutrition. The main source of confusion is that

while a lack of food can cause both hunger and malnutrition, malnutrition can be and is often caused by other things as well. It is often due to the lack of optimal breastfeeding during the first year, particularly the lack of exclusive breastfeeding during the first six months. Frequent childhood illnesses such as diarrhoea and respiratory infections, chronic diseases such as helminth infections, inadequate caring practices, and poor appetite contribute to malnutrition significantly.

As already stated, only 46 per cent of babies under the age of six months are exclusively breastfed, each AWC should be given a target to increase this percentage to 90-100 per cent, and this should be monitored by independent sources. At present Unicef is focusing behaviour change interventions in the 17 integrated districts. States should be asked to replicate this in other districts and provide more funding for IEC to improve the nutritional status of pre-school children, especially in the first two years of life.

Severe malnutrition: Rehabilitation facilities (e.g. Nutrition Rehabilitation Centres) should be available at the PHC level in each district for children suffering from Grade 3 or 4 malnutrition, and their mothers. Anganwadi workers should be responsible for identifying such children and referring them to rehabilitation facilities. Financial provision should be made to support these children's families during the period of rehabilitation. Also, these children and their care providers should be entitled to enhanced food rations under the Supplementary Nutrition Programme.

Disease control: Recognising that child growth and health can be enhanced by improving environmental hygiene and domestic health management practices, the ICDS programme has components for de-worming and iron supplementation. These interventions need reinforcing, and can be supported by additional training for anganwadi workers in how to implement them.

Two-worker norm: Each AWC should have two AWWs, and an "Anganwadi helper". The primary responsibility of the second Anganwadi worker should be to take care of children under three and pregnant or nursing mothers, in collaboration with the local Accredited Social Health Activist (ASHA). To begin with, the additional worker may be sanctioned in the most deprived 100 districts of India, and gradually the scheme may be expanded to the entire country.

Independent buildings: By the end of the 11th Plan, each Anganwadi centre in these 100 districts should have its own, independent concrete building. Construction grants should be made available for this purpose, and also for the maintenance of buildings. A specific proportion of ICDS funds could be ear-marked for construction (e.g. 30%, as with Sarva Shiksha Abhiyan).

Dovetailing with NREGA/SGRY: To facilitate large-scale construction of AWCs, "construction of AWCs" should be added to the list of permissible works under NREGA. Additional funds for the material component could be mobilized from the Backward Regions Grant Fund and related sources. In order to improve the motivation of panchayats to use NREGA/SGRY funds for this purpose, the state government may like to start an incentive scheme of rewarding such panchayats, or fixing a quota out of its own state contribution. These buildings should be constructed in villages/hamlets which are inhabited by poor and low caste people.

Minimum infrastructure: Each AWC should have the minimum infrastructure and equipment required for effective delivery of ICDS services. A checklist of minimum facilities (including weighing scales, storage arrangements, drinking water, cooking utensils, medicine kits, child-friendly toilets, a kitchen shed, toys, etc.) should be drawn up. In many AWCs, weighing scales were provided but are now out of operation, or need repairs.

Untied grants: Each AWC should receive an annual untied grant of Rs 10,000 (similar to the untied grant for primary schools under Sarva Shiksha Abhiyan), to facilitate local initiatives aimed at improving the AWC facilities and environment.

Involvement of women: Women should be better represented among supervisors, CDPOs and other ICDS staff above the Anganwadi level. In Rajasthan most CDPOs are men on deputation from other services, which reduces their sense of ownership with the ICDS. In most states, avenues for promotion for AWWs and Supervisors are limited, and stagnation sets in their mid-career. It would be better if all Supervisors are selected from eligible AWWs, whereas Supervisors can be promoted as ACDPOs.

Improve mobility: State governments should introduce a scheme for giving interest free loans to CDPOs and Supervisors to buy motor-bikes, provided they possess a license. State governments should introduce learning driving in training schools for women staff with a few free motor bikes donated by GOI for facilitating training. One should also consider holding annual competition at the district Police Lines where the best workers are given attractive prizes for riding skills. As a practical and long term solution government should encourage teaching riding bicycles for girls in upper primary schools, and scooters/mopeds in high schools as a part of their syllabus. This will not only improve their mobility and usefulness to their parents, but also give them more confidence in their ability. The sight of a woman riding a motorbike is also likely to inspire and empower all female adolescents.

Simplify procedures - GOI had increased the number of ICDS centres by 1.88 lakhs in December 2004, but it appears that the states took almost three years in completing the formalities and operationalising the new centres. The state governments could expedite the process and cut down on possible delays. Rather than do activities sequentially, state governments should do them in a parallel fashion. For instance, they can complete several steps (creation of posts, recruitment, selection of villages and sites, advance budget provision) simultaneously rather than do one activity at a time, so that much of the delay can be reduced.

Cooked food: For children aged 3-6 years, the supplementary nutrition programme (SNP) should consist of a hot cooked meal prepared at the Anganwadi, based on local foods and with some variation in the menu on different days of the week. ICDS should learn from the success of mid-day meals program that run fairly well even in states not known for efficiency, whereas the supply of packaged food even in efficient states is not popular with the children.

Take-home rations: For children below the age of three years, nutritious and carefully designed locally prepared take-home rations (THR) based on locally procured food should be the recommended option, but there could be centre specific variations. If fortified milk powder is to be provided, it must be manufactured by a well known manufacturer. Before inviting financial bids, states must invite technical bids in a transparent manner so that unscrupulous elements who get into the racket of supplying packaged food through bribes are eliminated.

In some states THR to children below age three is 80 gram dalia per day. Children don't get Gur (jaggery) in THR and oil supplies have been almost absent. As children are getting only wheat dalia and salt in THR, it does not fulfil the minimum calorie provision needed by them. In the absence of oil supplies, there is almost no fat content in the food being given whereas for children below three, almost 40% of their calorie requirement should come from fats. Children can eat only small quantities of food and therefore need fat rich food to obtain necessary calories. This aspect gets totally unfulfilled in the current SNP. As a result children are getting inadequate fat.

Nutrition counselling: Supplementary nutrition should always be combined with extensive nutrition counselling, nutrition and health education (NHE), and home-based interventions (such as boiling water before drinking) for both growth and development, particularly for children under three.

Ban packaged food for 3 to 6 years age group: This has led to massive corruption at the political and bureaucratic levels. This is often justified in the name of micronutrients. However, micronutrient supplements in the absence of adequate proteins and calories will not have the desired outcomes. Industrially packaged foods are not according to local taste, and are mostly rejected by children, and fed to cattle. This is also the experience of India Mix supplied by the

World Food Program in Rajasthan and Uttarakhand. In other states, the contract for preparing the packaged food is given to some non-descript contractor who gives the lowest tender, and then supplies non-palatable cheap stuff to the department. His continuation is ensured by the huge bribes that he offers to everyone in the loop from top to the bottom.

If the energy density or the amount of food per meal is low, more frequent meals may be required. India must refrain from recklessly expanding the fortification limb of nutrition. Instead attempts must be made to satisfy the calorie and protein needs of the children through locally prepared food, which may include eggs, vegetables, milk, fruits, etc. However, Vitamin A Programme may be continued in the present form. Centralised kitchens should be permitted in such urban cities where schools have no place for cooking, but the condition is that each child must get a hot cooked meal.

Medicine kits: Every AWC should have a medicine kit with basic drugs (including ORS and IFA tablets), to be distributed by the Anganwadi worker with appropriate training as well as guidance from the ANM (unless adequate provision has been made for the ASHA to provide this service).

Ensure timely utilisation of budget: During the 9th Plan only 70% of ICDS budget was utilised. It is suggested that ICDS funds may directly be sent to districts to avoid delay at the state level.

Increase the involvement of panchayats/ mothers' groups etc.: The scheme will succeed only when the panchayats and other community groups have sufficient involvement and control over the programme, including selection of workers. In some states, AWW is appointed by a committee headed by the local MLA. This must change, and powers be given to the gram sabha.

Shift from input controls to monitoring of outcomes: Being able to document what actually happens is absolutely critical to an outcome orientation. Without good information on what has happened, a focus on results is impossible. And for good information, one requires monitoring or tracking of progress in accordance with objectives and indicators, along with evaluation that can look at broader considerations.

In India, most states have a computerised ICDS monitoring system, but the available information is not used for taking corrective and remedial action or for analysis. For instance, each AWC reports on the number of malnourished children category wise, but these figures are neither verified independently nor being used for assessing the effectiveness of the programme.

Measure satisfaction: If the objective is to increase public satisfaction, one must begin by measuring it over a period of time. Even when people have physical access to a centre, they are largely dissatisfied with its quality. Hire the best professional bodies to submit six-monthly report on each of the 100 most backward districts. Frequent meetings of the collectors should be organised to ensure outcomes.

Measure absenteeism: While satisfaction may be subjective, and with economic progress people's aspirations for high quality services may have increased, quantitative data on absenteeism of both service providers and service receivers (number of children in centres, or women turning up for weekly meetings) throws a great deal of light on the quality of service. This should be measured by the professional third parties in each of the 100 most backward districts.

Rationalising the workload of AWWs: Reduce the number of registers maintained by her.

Grading AWCs: GoI should introduce accreditation of AWCs based on well defined and transparent criteria through a consultative process by involving panchayats, mothers' committees, and community groups. Some experiments have been done on HP and Orissa which recognise good performance and reward them.

Improve programme leadership at the district level: Close coordination between the RCH, NRHM and the ICDS programmes is critical for achieving the desired objectives. This can happen only when the district staff spends more time in improving convergence of various programmes. GoI may consider posting IIM graduates to help district Collectors in the most backward districts.

Adolescent girls: The programme components need to be expanded and sharply defined. First and foremost is the universal screening and weighing of adolescent girls. After screening, there is a need for gradation among adolescent girls such as 10-15 group, 16-19 group and pregnant girls among these groups. Every 12 months of the project, an evaluation should be conducted by an independent agency. Monitoring of NPAG should include data on 3-monthly weighing, off-take of food and the number of beneficiaries receiving food and crossing cut-off point.

Document Best Practices & Inter-state Studies: Despite the general atmosphere of pessimism prevailing in the country over deterioration in governance, some states have registered significant improvements in performance in child health and nutrition, or in some regions as a pilot. GoI should document some of such best practices so as to provide blueprints for similar efforts elsewhere. They will provide sources of encouragement to reformers, which is why cases of innovation in service delivery should always be well publicized.

Learn from International experience: Thailand has been one of the most outstanding success stories of reducing child malnutrition in the period 1980-1988 during which child malnutrition (underweight) rate was effectively reduced from 50% to 25%. This was achieved through a mix of interventions including intensive growth monitoring and nutrition education, strong supplementary feeding provision, high rates of coverage ensured by having high human resource intensity, Iron and Vitamin supplementation and salt Iodisation along with primary health care. The program used community volunteers on a huge scale (one per 20 children), and involved local people, so as to instil self-reliance and communicate effectively with target groups. Communities were involved in needs assessment, planning, program implementation, beneficiary selection, and seeking local financial contributions but central government control was kept over resource allocation, so as to ensure a coherent national program.

This has significance for nutrition programmes in India as the levels of per capita GDP, proportion of women in agricultural workforce and child malnutrition rates around 1980 in Thailand were similar to what we have in India in 2007.

Re-examine the role of the Ministry - When the new Ministry of Women & Child Development was set up it was expected that it would take a holistic view of the problems of women and children, and keep a watchful eye on the activities of all other Ministries, such as health, education, labour, drinking water and sanitation that deal with the subjects impinging on children's welfare. It would develop systems that inform GoI, for instance, how and why children are malnourished. On the other hand, it has been observed that the new Ministry took a minimalist view of its responsibility, and reduced itself to dealing with ICDS only without critically monitoring the lack of other inputs needed for reducing malnutrition. Such ostrich like attitude defeats the purpose for which the Ministry is created. It is suggested that the MWCD should generate field reports that look at the access of children to health, water and sanitation, and how it affects malnutrition. Continuous measurement of the critical inputs alone will put pressure on other Ministries and their field administration to improve all services holistically.

Summing up

It is absolutely crucial that the multidimensional nature of malnutrition be recognised and reflected in ICDS implementation: food intake is only one determinant of child nutritional status. It is however necessary, as it attracts children to other components of the programme. Therefore in addition to supplementary feeding, state resources should also be redirected towards effecting improvements in the delivery of other ICDS services. Supplementary feeding should be used strategically, i.e., as an incentive for poor and malnourished children and their mothers, so that they receive health and nutrition education interventions.

In the ultimate analysis, the constraints to child survival and well being are rooted in bad policies, faulty project design, lack of appropriate M & E, and poor governance. Action is needed on all the fronts. Economic growth alone is insufficient to bring about significant reductions in the prevalence of malnourishment among children. Without a major shake up in policy and an improvement in the effectiveness of its implementation, the attainment of the MDGs in this regard by India looks extremely unlikely.

Table 1: Benefit Incidence from ICDS scheme for Eligible Rural Households*

Sl.No.	State	Benefit incidence (%)						
		Extremely poor	Poor	Transient	All Poor	Rank	Not Poor	Total
1	Andhra Pradesh	30.2	30.1	17.4	22.7	7	10.3	14.3
2	Assam	19.6	18.1	15.9	17.3	10	11.2	14.3
3	Bihar	0.4	0.7	1.3	0.8	19	0.3	0.7
4	Gujarat	21.8	32.1	31.1	30.1	4	23.0	26.3
5	Haryana	29.2	26.9	24.5	26.0	5	19.5	21.6
6	Himachal Pradesh	11.9	18.5	16.8	16.9	12	16.9	16.9
7	Karnataka	16.4	20.5	14.2	17.0	11	11.2	14.3
8	Kerala	27.6	20.4	22.3	22.4	8	20.6	21.1
9	Madhya Pradesh	6.2	6.3	4.1	5.5	13	7.6	6.2
10	Maharashtra	40.3	38.1	37.5	38.5	1	26.7	33.1
11	Orissa	37.5	32.7	38.2	36.0	2	34.1	35.5
12	Punjab	0.0	5.1	0.6	2.1	16	1.5	1.7
13	Rajasthan	1.5	3.5	2.4	2.7	15	1.4	2.0
14	Tamil Nadu	24.3	18.5	21.2	20.5	9	21.4	20.9
15	Uttar Pradesh	0.5	0.6	1.7	1.0	18	1.2	1.1
16	West Bengal	27.8	28.2	16.9	23.7	6	20.6	22.5
17	Chhattisgarh	40.4	27.9	30.4	32.3	3	28.3	31.2
18	Jharkhand	0.3	0.7	2.6	1.2	17	1.2	1.2
19	Uttaranchal	4.4	2.7	3.3	3.3	14	1.1	2.7
20	India	15.4	12.7	12.2	13.1		11.7	12.5

Note: * - Household with children age 0-6 is targeted household for ICDS programme

Source: Estimated from NSSO 61st Round Sch.1.0