

Child Nutrition and Early Childhood Development in Assam

Dr. Mrityunjay Kr.Singh

Assistant professor(Stage-3) , Department of Social Work, Assam University: Silchar (A Central University)

Abstract

In India 35.7% children are underweight, 38.4 % are stunted and 79% children suffer from anaemia (NFHS-4, 2015-16). In Assam Nearly half of children (47%) under age five years are stunted, or too short for their age, which indicates that they have been undernourished for some time. Fourteen percent are wasted, or too thin for their height, which may result from inadequate recent food intake or a recent illness. More than one-third (36%) are underweight, which takes into account both chronic and acute under nutrition . In Assam there is high incidence of Stunting and anaemia among children in their early childhood which are negatively impacting their development. Prevalence of Anaemia among women in Assam is the highest in the country. Infant Mortality rate in Assam is 66 which is the fifth highest in the country (NFHS-3). When one analyses the functioning of ICDS in Assam, it is far from satisfactory.NFHS-3 data brings out that only 30% children in Assam receive some kind of services from a centre. Only 5 percent of children each received health check-ups and growth monitoring services at an anganwadi centre. Among children under age six years in areas covered by an anganwadi centre, only 13 percent had mothers who received any service from a centre during pregnancy and the same proportion had mothers who received any service when breastfeeding. This paper argues that from rights based perspective, there is a need to increase the funding for nutrition to children under ICDS and there is an urgent need to streamline and strengthen the functioning of ICDS centres in Assam by regular training of AWW so that proper growth monitoring of children is done. There is also need for convergence of ICDS with MGNREGA for construction of independent buildings with toilet facilities for children as well as convergence with women self help groups and Backward region grant fund and MPLAD Scheme so that adequate fund and facilities are available to tackle the rising incidence of stunting and anaemia among children in their early childhood in Assam.

Key words- Child Malnutrition,Early Childhood Development,ICDS,IMR,MMR,Anaemia,Development Goals.

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I. Introduction

The Millennium Development Goals number one emphasized reduction of poverty and Hunger from the world. Though poverty has been halved but hunger continues to plague large number of population in India and mostly children (IIPS, 2005-06). Therefore on 25th September, 2015 the UN adopted Sustainable Development Goals to be achieved by the year 2030. The Sustainable development goal number one focuses on No Poverty and Goal number two emphasizes the need to reduce hunger by naming the goal as Zero Hunger. For the last two decades the reduction of hunger and malnutrition from Sub-Saharan Africa and South Asia has been on global agenda and lots of efforts have been made by different actors towards this goal.

It is no surprise that continuing with this emphasis on Nutrition, Nobel Prize for Economics for the year 2015 has been given to Angus Deaton for his work on Consumption and the way poverty is measured notably in India. Deaton (2015) "Poverty is more than lack of money and my work with Jean Drèze has documented the improving, but still dreadful, state of nutrition in India. Former Prime Minister Manmohan Singh called stunting among Indian children a "national shame" and so it is. Our work highlighted that malnutrition is not just about a lack of calories, and certainly not about a lack of cereal calories, but is more about the lack of variety in the diet—the absence of things like leafy vegetables, eggs, and fruit. It is also crucially linked to inadequate sanitation, to the fact that women often do not get enough to eat when they are pregnant, and to (in many areas) poor maternal and infant health services".

Deaton (2015) has highlighted in his work about the need to bring about variety and diversity in the diet of the people and that nutrition and malnutrition is a holistic concept and should not be looked upon as just lack of calorie consumption. He also critiques the idea of using cash transfers instead of the Public Distribution

System, arguing that one has to consider all the subsequent changes, what would happen to procurement and storage, and what would happen to the free market prices of grains. He argues that such experiments are technical solutions to political problems, that really ought to be decided by democratic discussion; that experiments are often done on the poor and not by the poor is hardly an encouraging sign.

Status of Child Nutrition in India

According to Human Development Report 2005, only two countries (Bangladesh and Nepal) have a higher proportion of underweight children than India, and another two (Sudan and Yemen) have a higher proportion of infants with low birthweight. Even after taking into account various gaps and inaccuracies in the international data, there is no doubt that under nutrition levels in India are among the highest in the world. In India, the nutritional status of children deteriorates sharply between the ages of six months and two years, and this “early childhood dip”, which is very hard to reverse, has a lasting impact on nutrition and health achievements. Yet, little effort has been made to reach out to this crucial age group. There are well-known means of doing so, notably by expanding and revamping the Integrated Child Development Services – a national programme of integrated health, nutrition and pre-school education services for children under the age of six years (Drèze, 2006).

In India 35.7 % children are underweight, 38% are stunted and 79% children suffer from anaemia (NFHS-4, 2015-16). The per capita consumption of calories and of protein is falling in rural India, and shows no trend in urban India. In rural India, household per capita calorie consumption was 2,240 calories in 1983, 2,233 in 1987-88, and had fallen to 2,047 calories per head in 2004-05, a decline of 8.6% from 1983; urban per capita calorie consumption was only 49 calories (2.4%) lower in 2004-05 than in 1983. Over the same period, rural (urban) per capita protein consumption fell by 12.1% (4.6%). Only per capita fat consumption, moves in the same direction as household expenditures, growing at 1.2% and 1.1% a year in rural and urban India, respectively (Dreze and Deaton, 2009).

Approximately 30% of children in India are born with low birth weight; and the rest of the damage happens during the first two years of life. By the age of two years most growth retardation has already taken place and the linear growth retardation appears to be irreversible (UN, 2004).

However, the message that exclusive breast-feeding up to six months and gradual introduction of semisolids from six months are critical for the prevention of undernutrition in infancy has not been as effectively communicated. Exclusive breast-feeding among infants in the age group of 0-6 months continues to be low.

NFHS-3 shows that in spite of the all IEC efforts on the need for timely introduction of complementary food, only about half the children in the age group of 6-9 months receive semisolid food. As a result undernutrition rates continue to be high in the 0-3 year age group.

As a result of the faulty infant and young child feeding practices, there is a steep increase in the prevalence of under nutrition from 15.4 % at less than 6 months to 52.6 % in the 12- 23 months age group. Correction of these faulty infant feeding practices through nutrition education will prevent the steep increase in under nutrition in the critical 6-24 months age group (Planning Commission, 2007).

Status of Child Nutrition in Assam

In Assam Nearly half of children (47%) under age five years are stunted, or too short for their age, which indicates that they have been undernourished for some time. Fourteen percent are wasted, or too thin for their height, which may result from inadequate recent food intake or a recent illness. More than one-third (36%) are underweight, which takes into account both chronic and acute under nutrition. Even during the first six months of life, when most babies are breastfed, 30 percent of children are stunted, 22 percent are wasted, and 30 percent are underweight. Children in rural areas are more likely to be stunted, but even in urban areas, 36 percent of the children suffer from chronic under nutrition (IIPS, 2009).

Among children between the ages of 6 and 59 months, a great majority, 70 percent, are anaemic. This includes 29 percent who are mildly anaemic, 39 percent who are moderately anaemic, and 2 percent who suffer from severe anaemia. Boys and girls are about equally likely to have anaemia. Children whose mothers are anaemic are more likely to be anaemic than those whose mothers are not anaemic. Seventy percent of women in Assam have anaemia, including 45 percent with mild anaemia, 21 percent with moderate anaemia, and 3 percent with severe anaemia. The prevalence of anaemia among women is the highest in Assam (along with Jharkhand) than in all other states in India. Anaemia is slightly higher among pregnant and breastfeeding women (73%) than among women who are not pregnant or breastfeeding (68%). Nonetheless, the prevalence of anaemia varies little by background characteristics. With the exception of Muslim women, at least 65 percent of women in every population subgroup are anaemic. Anaemia is more widespread among children age 6-35 months than it was seven years ago at the time of NFHS-2, having risen 14 percentage points since then. Early detection and effective management of maternal undernutrition will go a long way in reducing current high low birth weight rates (IIPS, 2009).

Integrated Child Development Services (ICDS) is India's response to the problem of malnutrition. In Assam, the functioning of ICDS is far from satisfactory. Only 30 percent receive some kind of services from a centre. The most common services children receive are supplementary food (28% of children under six) and early childhood care or preschool services (15% of children age 3-5 years). Seven percent of children age 0-71 months received any immunization from a centre. Only 5 percent of children each received health check-ups and growth monitoring services at an anganwadi centre. Among children under age six years in areas covered by an anganwadi centre, only 13 percent had mothers who received any service from a centre during pregnancy and the same proportion had mothers who received any service when breastfeeding (IIPS,2009).

In Assam, only 31 percent of children age 12-23 months is fully vaccinated against the six major childhood illnesses: tuberculosis, diphtheria, pertussis, tetanus, polio, and measles. The proportion of children fully vaccinated in Assam is below the national average of 44 percent.

With 66 deaths before the age of one year per 1,000 live births in the five-year period preceding the survey, the infant mortality rate in Assam is the fifth highest in the country (IIPS, 2005-06).

Maternal mortality rate in Assam in 2012 was 328 which is the highest in the country and 73% women in Assam suffer from Anaemia which is the highest in the country(IIPS,2009). As per Annual Health Survey, 2011 child marriages are rampant in the state and 40% girls are married before they reach the age of 18 years . Assam has the largest number of people living below poverty line in the north-east (Planning commission report) where 32% of its population lives below poverty line. According to the Planning Commission report, the state's average monthly per capita expenditure as per mixed reference period for 2011-12 is Rs 1,056.98 in rural areas and Rs 2,090.18 in urban areas; both the figures are lower than national averages of Rs 1287.17 (rural) and Rs 2,477.02 (urban).

In Assam as preceding discussion indicates that the prevalence of high level of poverty, high incidence of child malnutrition and Anaemia and high levels of child marriages lead to a vicious cycle where these child mothers who suffer from malnutrition and anaemia give birth to low birth weight babies who again are prone and vulnerable to malnutrition and in the absence of adequate nutrition and health services leads to high infant mortality rates in the state. Assam has high rate of child marriage which stands at 39.4% and Dhubri district in Assam has very high rate of child marriage which is 60.6%(Annual Health Survey,2010). So a campaign should be launched to stop child marriages in the state.

UNICEF is working in Assam and as the lead development partner under the Call to Action scheme, UNICEF supported the Government of Assam in rolling out this special the Reproductive, Maternal, Newborn, Child and Adolescent Health (RMNCH+A) strategy in the six High Priority Districts(HPDs) of Assam, Dhubri, Golaghat, Hailakandi, Karimganj, Kokrajhar, Nagaon. These districts, which constitute 28 per cent of the state's population, experience 26 per cent of its maternal deaths, 34 per cent of under-5 deaths and 45 per cent of neonatal deaths. The national Ministry of Health and Family Welfare (MoHFW) has launched the Call to Action, as part of an international campaign , through the National Health Mission (unicef.in).

The field study done by the author in Cachar district also corroborates NFHS-3 findings and further finds that nutrition to children is very irregular and erratic. Nutrition is not provided to adolescent girls and pregnant mothers. Weighing machine were not found at ICDS centres and they do not keep growth charts. Growth monitoring of children is not done.

The shortfall in growth monitoring of children indicates that system of identification of target for intervention to mitigate the incidence of malnutrition among children is not adequate. This study also finds that there is lack of adequate training to Anganwadi Worker which affects the growth monitoring of children.

Analysis and Discussion

Preschool children are one of the most nutritionally vulnerable segments of the population. Nutrition during the first five years has an impact not only on growth and morbidity during childhood, but also acts as a determinant of nutritional status in adolescent and adult life. Global comparative data indicate that contrary to common perception, prevalence of underweight and stunting is highest in South Asian children (IIPS, DLHS,2007). This also brings out that in South Asia, especially India there will be a substantial reduction in undernutrition rates; but Asia and India will continue to have by far the largest number of underweight children in the world in 2015.

Since the causes for malnutrition are same in the country this paper analyses the ground situation in the country for the leading reasons for prevalence of child malnutrition. Too early introduction of milk substitutes and too late introduction of complementary food are associated with increased risk of infection. If infections are not detected and treated effectively in the primary health care settings, they will result in undernutrition; severe infection may lead to death. It is computed that exclusive breast-feeding and appropriate complementary feeding will lead to a 20% reduction in IMR . Improvement in IYCF through coordinated efforts of ICDS and NRHM can thus result in substantial improvement in nutrition and health status and survival during the critical first year of life (Planning commission,2008).

Data on energy intake in children, adolescents and adults in the same families from NNMB survey done in 2005-06 indicates that mean energy consumption, as %age of RDA is the least among the preschool children; inspite of the fact that their requirement is the lowest. The gap between RDA and actual intake is widest in preschool children. It would appear that the problems in feeding a young child with predominantly adult food with low energy and nutrient density rather than poverty is the major factor responsible for low dietary intake in preschool children.

However, the proportion of families where the preschool children receive inadequate intake while adults have adequate intake has nearly doubled. This is in spite of the fact that the RDA for preschool children forms a very small proportion (on an average 1300 kcal/day) of the family's total intake of around 11000 kcal/day (assuming a family size of 5). These data confirm that in the last decade more than poverty, poor young child feeding and caring practices are responsible for inadequate dietary intake in preschool children (NNMB, 2006).

This data can serve as a very useful tool for advocacy and awareness building so that there is focused attention on two critical interventions to improve young child nutrition namely nutrition education to ensure appropriate infant and child feeding and health education to improve timely access to health care.

There is a second peak in under nutrition rates around two years of age when the child shifts totally to adult food; this is perhaps related to inadequate intake of food because of poor child feeding practices. Nutrition education that young children have small stomach capacity and therefore should be fed 5-6 times in order to receive adequate quantity of food may help in improving the dietary intake and nutritional status of children in this age group. Thus use of WHO (2006) growth standards can make an important contribution in clearly bringing into focus the importance of increasing investment in nutrition and health education and healthcare to improve infant and young child feeding and caring practices in the critical period of 0-36 months and can result in substantial reduction in under nutrition rates in preschool children.

Recommendations for Policy

“The evidence gathered by research on nutrition among children in India suggests that recent improvements in nutrition indicators have little to do with increases in cereal consumption. And there is a real possibility that further improvements depend overwhelmingly on food and non-food factors other than cereal intake. This does not detract from the usefulness of (say) subsidising cereal consumption through the public distribution system, as a form of income support or social security. But it does suggest that the sharp focus on cereal intake as a means of nutritional improvement may be misplaced, and that more attention needs to be paid to other means of removing malnutrition: qualitative dietary improvements, better ante-natal care, the promotion of effective breastfeeding, the prevention of infectious diseases, to cite a few examples” (Dreze,2004). Therefore Bringing young children (and their mothers) closer to the centre of attention would be a major step towards more effective nutrition policy in India.

There is a need for a “rights approach” to food and nutrition policies in India . The ability of the rights approach to bring about practical change in this field has been well demonstrated in recent years, notably with the mandatory introduction of mid-day meals in primary schools, the enactment of the National Rural Employment Guarantee Act, and (more recently) the gradual “universalization” of ICDS. There is much scope for further extension of this approach, especially by putting in place legal safeguards for children's right to food.

Arguably, the ICDS has historically been too focused on food security, not on (a) improving feeding and educating parents on how to improve nutrition within the family food budget, or (b) linkages with health sector. This reflects the fact that it only has one worker for both centre-based and community-based activities. More emphasis on under-threes and infant and young child feeding practices.

- More focus on linking different services up locally eg, RCH and NRHM.
- More decentralisation and local accountability.

There is no streamlined targeting of nutrition-related programmes for pregnant women and children under two – both critical periods to avoid undernutrition.

There is a need to universalise and ensure inclusiveness in all nutrition-related state schemes with commitment to ‘universalisation with quality for all’. Implementing authorities should engage and involve local bodies like the Gram Sabha, female self-help groups and community-based organizations . A drive should be launched to bring access of nutrition services to the poorest people and scale up the Antyodaya Scheme, especially provision of standard, state-of-the art feeding and care for children with severe acute malnutrition. Coverage and funding of central schemes in poor performing states should be increased and expanded. Service delivery and management of ICDS should be decentralized so that food can be procured locally and this will solve the problem of irregular supply of food to ICDS centres. There is a need to encourage community ownership of management and monitoring of schemes, involve Panchayati Raj Institutions and other village-level committees, and promote participatory planning. Efforts should be made to Strengthen the knowledge and

skills, as well as support systems, for community-level workers (especially Anganwadi Workers, Accredited Social Health Activists, Auxiliary Nurse Midwives and teachers) and primary-level providers and counsellors. A campaign should be launched to stop child marriage in Assam which is very high and which also contributes to the high rate of child malnutrition and has intergenerational effects.

II. Conclusion

What works in India is less well established, but there is a coherent argument that educating mothers on nutrition improves their feeding practices. The NGO, Children in Need Institute (CINI) reduced low birthweight by one third in West Bengal through a combination of getting community health workers to counsel mothers and families (especially husbands and mothers-in-law) and working through panchayats (village councils) and women's groups. General principles of effective programmes include sensitivity to local context (for example, understanding cultural beliefs), using multiple channels (from local workers to folk media) and a comprehensive approach (practical support, not just information; and making sure health services are available).

Undernutrition cannot be tackled without addressing factors other than nutrition and disease (such as care, maternal and antenatal factors). Programmes need to be designed to address long-term 'intergenerational' issues.

Nutrition is primarily a problem of under-two with interventions making little difference after 36 months. Tamil Nadu scores very well on a number of different child development indicators. So why has Tamil Nadu been able to overcome implementation problems when other states have not? NGOs cite political commitment to the social sector. Nutrition is one of its political priorities, and it has been for decades, irrespective of the party in power.

The below poverty line targeting model practised in some schemes like the Public Distribution System does not encompass a large percentage of poor people due to opaque bureaucratic enrolment procedures, inadequate selection criteria and lack of consideration of the seasonality of poverty.

The model promotes a 'management' rather than 'prevention' approach to nutrition, and is detrimental to social inclusion and solidarity. Those who are most marginalised (women, Dalits, Adivasis, landless or displaced rural poor, migrant workers, urban slum-dwellers and people who are homeless or displaced, women-headed households, children under two) are still largely excluded.

Despite a series of progressive welfare schemes, these are marred by misappropriation or under-utilisation of financial assistance. Service delivery mechanisms are weak and inefficient (eg, irregular cereal-stock delivery to Public Distribution System outlets or Anganwadi centres, rotting grain in state warehouses). Lack of coordination between various central, state and local departments and bodies mean that links across the health, education, water, sanitation and agriculture sectors, which could improve the implementation of many schemes, do not exist. Grassroot-level workers are overburdened, under-trained, underpaid, demotivated and ill-equipped. Bureaucrats lack adequate understanding of the issues and there is no specialised nutrition post at the central ministry level. The current approach to reducing undernutrition thus fails to take into account the complex and multifaceted nature of the issue, which is dependent on a host of economic, environmental, agricultural, health, cultural, political and administrative determinants.

In Assam, currently there is universal access to ICDS services and essential primary health care; efforts are under way to improve content, coverage and quality of services available to the poorest and the marginalized segments. During the current decade, poor infant and young child feeding and poor utilization of health care are emerging as important determinants of undernutrition in children. Nutrition and health education and improved access to and utilization of health and nutrition care can be very effective interventions, which could result in substantial reduction in undernutrition in children over the next decade. The Eleventh Plan sub group on ICDS and Nutrition has recommended that the core objective for ICDS in the 11th Plan should be "Universalisation with quality". This would involve ensuring that every hamlet has a functional Anganwadi. Each AWC should have the minimum infrastructure and equipment required for effective good quality services can be provided. These include weighing scales, storage arrangements, and drinking water, cooking utensils, medicine kits, childfriendly toilets, a kitchen shed and toys. Early detection and effective management of maternal undernutrition will go a long way in reducing current high low birth weight rates. Nutritious take-home rations (THR) should be provided to pregnant and nursing mothers every month, on "health and nutrition day". Anganwadi workers should ensure that THRs also reach mothers who may have missed the "health and nutrition day". The "health and nutrition day" can also act as a meeting point for the Anganwadi worker, ASHA and ANM, and an entry point for the involvement of PRIs. It is recommended that all children under six and all the eligible women have access to all ICDS services. There should be no eligibility criteria other than age (and especially no restriction of ICDS to "BPL" families), and no ceiling on the number of children to be enrolled in a particular Anganwadi. A major effort should be made to extend ICDS services to all children under the age of three years, involving giving much greater attention to "infant and young child feeding" and nutrition counselling. For children below the age of three years, nutritious and carefully designed take-home rations

(THR) based on locally procured food should be provided every week. For children aged 3-6 years, the supplementary nutrition programme (SNP) should consist of a cooked meal prepared at the Anganwadi, based on local foods and with some variation in the menu on different days of the week. Supplementary nutrition should always be combined with extensive nutrition counselling, nutrition and health education (NHE), and home-based interventions for both growth and development. All children should be weighed at least once in three months and children with growth faltering and under nutrition should be identified. Those with grade one and two under nutrition should be counselled and provided with supplements regularly and monitored for improvement. Children with grade 3 and 4 under nutrition should be referred to PHC for care and counselling. Effective implementation of these recommendations and convergence between health and nutrition services will result in rapid reduction in under nutrition in children.

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