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NUTRITION AND HEALTH POLICIES FOR THE CHILDREN IN UTTAR PRADESH

Shivangi *¹

*¹ Research Scholar, Department of History, Babasaheb Bhimrao Ambedkar (Central) University, Lucknow, India



Abstract

Human resource is one of the greatest strength of our country. However, poverty and unemployment lead to an increase in health problems and diseases. Government's Health policy enables to direct the attention towards the key problem. Uttar Pradesh has the highest number of malnourished children, thus making the State most under-nourished state of the country. With the use of diverse sources i.e. government reports and records, newspapers etc, explore the state policies in eradicating under nutrition among the children and analyse the impact of these policies in improving the nutritional status and reducing the child mortality and morbidity in the State. Together with this, analysis of the nutrition programmes such as State's Nutrition Mission, Mid-day Meal scheme and its impact will also be studied here. The poor state of nutrition of children is due to lack of comprehensive policy, low nutrition budgeting but above all the gap in implementation of State's Nutrition Mission Program and other schemes at ground level.

Keywords: Child; Malnutrition; Mid- Day Meal; Government; Policy; Schools; Nutrition Programme.

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1. Introduction

Uttar Pradesh is the most populous state in India and has the highest rates of malnutrition in the country. A recent report of the National Nutrition Mission stated to have more than fifty lakh malnourished children in this State. Consequently, Azamgarh tops in the list of highest malnutrition with around 60 per cent children lead by Shahjahnapur with 54 per cent children. In Uttar Pradesh, half of all children under five years have stunted linear growth and 10 per cent are wasted [1]. Increased under-five mortality is an outcome of high rate of infectious diseases and neonatal deaths. Under nutrition is thus an important factor contributing to the death of young children.

A malnourished child not only lack the required amount of nutrients but are severely prone to infectious diseases and consequently leads to increased mortality from respiratory infections, diarrhoea, malaria, measles etc. Further, the lack of nutrients also affects the cognitive development of the child. The Annual Status of Education Report (ASER) came as a surprise, with the data unveiling the rural children in India. According to this, “nearly 40 per cent of the children at class V level cannot read a class II text, while around 60 per cent at that level are unable to carry out simple divisions. What should be more worrying though is the fact that in class II, only 9 per cent of children can read the text appropriate to them, and 60 per cent cannot even recognise numbers between 10 and 99” [2]. Similarly, a survey released in the annual report ASER in January 2017 on two thousand government schools. According to this survey, in the rural areas government schools of Uttar Pradesh, only 24.3 per cent students of Class five can read the class two books. Similarly, only 25.5 per cent students of the eighth standard can solve questions on Division in mathematics, which was 30.5 per cent in 2014. 7.9 per cent of government school children of the class third can do subtraction problems successfully. [3]

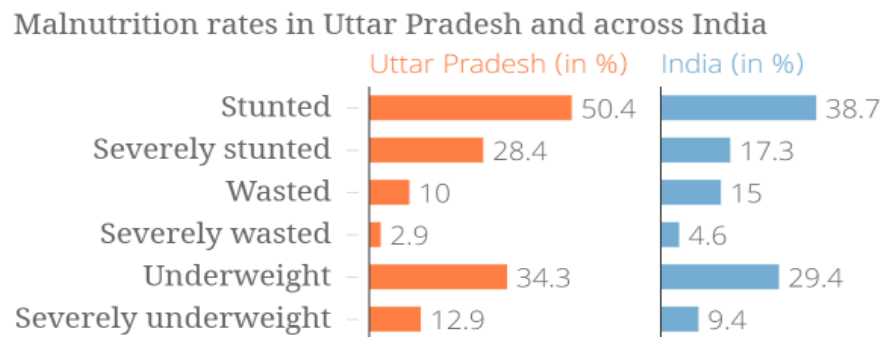


Figure 1: Malnutrition Rates in the country

In 2014, the UP State Nutrition Mission (SNM) was established in order to improve the child and maternal nutrition in the State. The SNM acts as a multi-sectoral coordinating body within the government with the objective to improve nutrition programming across sectors, especially within Integrated Child Development Services (ICDS) and the National Health Mission (NHM). Although ICDS was launched more than 40 years ago, and most children live within range of ICDS' Anganwadi Centres, the percentage of U.P. children receiving ICDS services remains relatively low. While 76 per cent of the state's children below the age of 6 lives within the coverage area of an Anganwadi Centre, only 22 per cent of these children reported receiving any service from the AWC in 2005 [4]. According to the more recent RSOC data, 23 per cent of children receive supplementary food from an AWC, only 38 per cent children were weighed at an AWC, and mothers of only 40 per cent of those children received any counselling after their child was weighed [5].

UNICEF [6] in its report highlighted the significant progress on nutrition was achieved when Uttar Pradesh launched its Nutrition Mission jointly with UNICEF India. In partnership with the Ministry of Home and Family Welfare, a Comprehensive Nutrition Survey was commissioned to quantify the true malnutrition burden, reorient policy, and serve as a baseline to evaluate the progress of recently launched initiatives. However, the reports and studies conducted by various organizations force us to ponder over the rising number of stunted and wasted children in this State.

The policymakers must take into account two significant factors. Firstly, direct interventions in nutrition can reduce stunting by 20 per cent; indirect interventions must focus the rest. Secondly, around fifty per cent of the poor growth of babies occurs due to poor nutrition of the mother. Thus, the present paper is an attempt to study the state of malnutrition and health of children in UP in the light of government policies and programmes.

Research Questions

The paper puts the question- how far the State which has most malnourished children in the country have been successful in its elimination? Does the government nutritional policies and programmes are able to provide adequate health facilities to its young ones?

Objectives

Further are the following objectives of the paper

- 1) To analyse the present nutritional status of children.
- 2) To explore government initiatives and plans to combat the rising malnutrition in the State.
- 3) To study the latest Nutrition programme and its impact on the nutritional health of the children.

2. Materials and Methodology

The methodology of the paper is, qualitative as well as exploratory. With the help of articles, government reports, web sources, newspapers, an attempt will be made to explore the nutritional status and health of the children in Uttar Pradesh. For primary data, an unstructured interview was carried out from the government school teachers of Agra, Badaun, Gonda, Maharajganj, Lucknow, Meerut, to understand the working of mid – day schemes in these areas. By using the secondary data, this paper attempts to enquire the policy structure of the government towards combating the growing number of hungry and undernourished children. The paper utilises the National Family Health Survey (NFHS) III and IV, which provides us with a diverse range of data source on child health and also helps us to overview the situation of paediatric medicine in the country. Apart from NFHS, UNICEF report on State Nutrition Mission, and other government data publication, used in the paper throws light on the health condition of children in Uttar Pradesh.

3. Findings and Discussion

Status of Child Health

Before exploring the policies and programmes of the government, first here we focus on the present condition of children's health in this area of study. The infant mortality rate in Uttar Pradesh is the highest of any state in the country. Infant mortality in NFHS-3 is estimated at 73 deaths per 1,000 live births, compared from the NFHS-2 estimate of 89 [7]. The under-five mortality rate, at 96 deaths per 1,000 live births, is also the highest in the country. This mortality declines significantly to 63 deaths in NFHS-4 [8]. Though the decline in mortality rates of children is evident in this state, however, there are other significant factors which play a dominant role in the poor health condition of a child.

In addition to its high child mortality rates, U.P.'s under-nutrition rates are highest in the world. Unfortunately, from 1998-2006, the prevalence of stunting in the state among children under - five declined by only nine per cent (from 61% to 52%), the prevalence of underweight by six per cent (from 48% to 42%), and finally the prevalence of wasting increased only by three per cent (from 17% to 20 %) [9]. Overall, forty-two per cent children in U.P. are underweight, comprising both chronic and acute under-nutrition. As well understood, children in rural areas are found to be more undernourished than the urban areas, but even in urban areas also about half of the children suffer from chronic under-nutrition (Table 1). The difference in nutritional status of children in rural-urban scenario is more due to eating habits and availability of adequate food.

Table 1: Nutritional Status of Children in Uttar Pradesh

CHILD NUTRITION	NFHS-4			RSOC	NFHS-3
	URBAN	RURAL	TOTAL		
Total children age 6-23 months receiving an adequate diet (%)	11.6	8.8	9.6	NA	NA
Children under 5 years who are stunted (height-for-age) %	31.0	41.2	38.4	50	48.0
Children under 5 years who are wasted (weight-for-height) %	20.0	21.5	21.0	10	19.8
Children under 5 years who are severely wasted(weight-for-height) %	7.5	7.4	7.5	NA	6.4
Children under 5 years who are underweight (weight-for-age) %	29.1	38.3	35.7	22	42.5

Source: NFHS (III, IV), RSOC (2015)

It came as a surprise that both girls and boys are equally under-nourished in Uttar Pradesh. But still, the number of girls in stunting and wasting category is higher than the boys. Thus, girl child suffers from acute under nutrition and underweight. Here responsibility of parents is much more important than that of government but this aspect is not focused here. Hopefully, awareness programmes on the part of government or by voluntary organizations will be helpful in overcoming this situation. Furthermore, Boys and girls are equally anaemic in the State, which is a question mark on the ICDS scheme of the government.

The challenges which require immediate attention to curb the rising malnutrition in the State comprise of the lack of home visits to newborn infants; low emphasis on feeding low birth weight infants; inadequate efforts to help vulnerable groups like girl child; inadequate convergence between the health and nutrition programmes and thus an approach to the management of severe acute malnutrition that is insufficiently robust in the state.

Table 2: Male and female Child Nutrition in Uttar Pradesh

Sex	Height for age			Weight for height				Weight for age			
	Percentage below	Percentage below	Mean Z score (SD)	Percentage below	Percentage below	Percentage above	Mean Z score (SD)	Percentage below	Percentage below	Percentage above	Mean Z score (SD)
	-3SD	-2SD		-3SD	-2SD	+2SD		-3SD	-2SD	+2SD	
Male	31.7	56.2	-2.2	5.1	15	1.4	-0.8	15.6	41.2	0.1	-1.8
Female	33.2	57.5	-2.2	5.1	14.6	1	-0.8	17.2	43.7	0.1	-1.9

Source: NFHS-3 Uttar Pradesh data.

Many studies establish the fact that under - five mortality is directly proportional to the high rate of malnourishment. Though in Uttar Pradesh the high level of child mortality cannot be simply be blamed on the problem of malnutrition, there are many other reasons which are too significant to make the State poor performer as far as child health concerned.

Budgeting Nutrition

In 2015-16, Uttar Pradesh Department of Health budget was Rs 241 crores for nutrition-specific interventions and ICDS programme, on the other hand, was allocated Rs 4,836 crores for nutrition-specific interventions. Thus, Rs 5,077 crore was for nutrition-specific activities across both departments. While for ICDS almost the entire budget of the department is directed to nutrition-related activities i.e. 73% of the total departmental budget is considered nutrition-specific, the opposite is true for the Department of Health, where 3.6% of NHM's Programme Implementation Plan in 2015-16 is directed towards nutrition-specific interventions.

The fig. 2 shows the budget breakdown for the year 2014-16, the core nutrition-specific activities delivered through the Health department: micronutrient supplementation, Rashtriya Bal Swasthya Karyakram (RBSK), Nutrition Rehabilitation Centre (NRC), Intensified Diarrhoea Control Fortnight (IDCF) and counselling for Infant and Young Child Feeding. Overall within the Health domain, micronutrient supplementation by far received the highest budget allocation compared with the other interventions by the State. In 2015-16, this category of interventions received Rs. 159 crore, and Rs. 78 for every child under-five aged. Around 60 per cent of the funding allocated to the IFA supplementation for all women registered under government facilities. However, the two consecutive years i.e. 2014-15 and 2015-16, nutrition budgeting cannot help us with analysing the trends. In these two fiscal years, the allocation for ICDS's nutrition-specific programmes decreased by one per cent. However, within health, one can assess an increase in almost all programmes. Budget allocations for micronutrients, Rsatriya Bal Swasthya Karaykram and Nutrition Rehabilitation Centre's increased by 1.2, 1.3 and 1.8 times, respectively.

Department	Thematic Area	2014-15		2015-16	
		Total budget allocation (Rs. Lakh)	Share of departmental budget (%)	Total budget allocation (Rs. Lakh)	Share of departmental budget (%)
Health	Micronutrients	13,118	3.6%	15,863	2.4%
	RBSK	4,428	1.2%	5,906	0.9%
	NRC	838	0.2%	1,473	0.2%
	IDCF	-	-	750	0.1%
	IYCF	269	0.1%	85	0.0%
	Activity under WIFS/MHS/RBSK	36	0.0%	13	0.0%
TOTAL nutrition-specific		18,689	5.1%	24,090	3.6%
ICDS	Supplementary Nutrition Programme	469,164	66.3%	465,675	70.1%
	Cooking logistics	11,625	1.6%	-	-
	Training	4,992	0.7%	14,023	2.1%
	Sneh Shivirs	3,202	0.5%	1,462	0.2%
	Infant and Young Child Feeding practice	471	0.1%	2,406	0.4%
	TOTAL nutrition-specific	489,454	69.2%	483,566	72.8%
Total nutrition-specific across ICDS and Health		508,143	NA	507,656	NA

Figure 2: Nutrition-specific approved budget allocations within Health and ICDS

For improving nutrition, there are various departments and their branches are to make investments in this task such as Health, Education, Agriculture, Rural Development, and Panchayati Raj Institutions. In 2014-15, the UP government budgeted Rs 7,721 crore and Rs 9,598 crore in 2015-16 for nutrition-sensitive programmes across all of these five departments. All these covers the entire area to check the Nutrition of the State’s children by taking care of infant feeding, mother’s well-being, mid - day meal scheme of the government. All these initiatives have no positive outcome, as can be seen above that the state has highest number of malnourished children not only in this country but in the world too. The lack of proper implementation of all policies and programmes and improper use of this funding and budgeting, calls for immediate action and attention from the government.

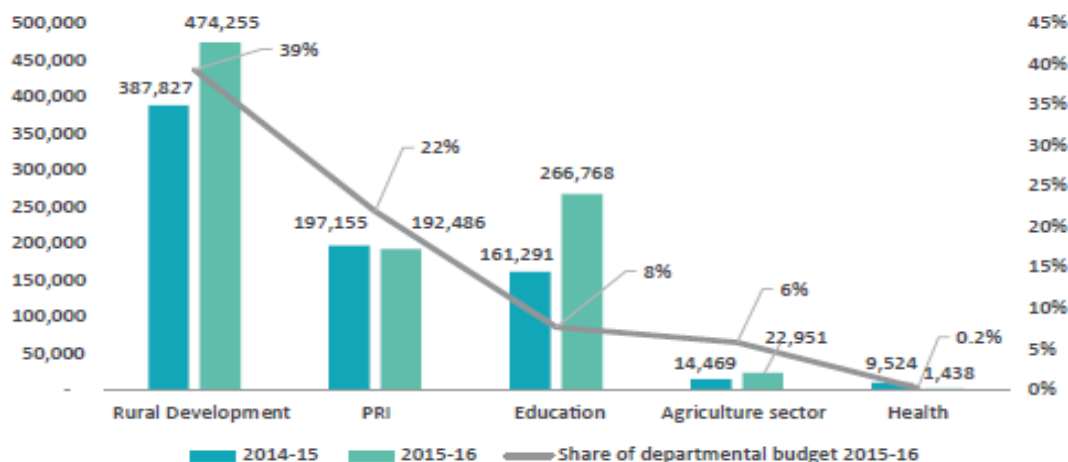


Figure 3: Multi-sectoral nutrition-sensitive budget allocations

Figure 3 shows total nutrition-sensitive budget allocations by departments. In both 2014-15 and 2015-16, the Rural Development Department contributed the highest amount i.e. Rs 4,743 crore. The Mid-Day Meal Scheme, implemented through the Department of Education, represents the largest nutrition-sensitive investment in 2015-16, all of the Department of Education's nutrition-sensitive budget allocations go to this programme. There is a steep rise in budget allocations for this programme between the two years. The agricultural department included 6 per cent of its budget as nutrition-sensitive and Health less than one per cent. Notably, most of Health's contributions go towards nutrition-specific interventions which, when combined with nutrition-sensitive investments, make up about 4 per cent of its budget. While this analysis provides a snapshot of nutrition-relevant budgeting across sectors, more work needs to be done to analyse the nutrition-relevant components within these programmes, and to assess where and how to leverage current budgets to make them more nutrition sensitive.

Mid Day Meals and School Children

The Mid-Day meal is an excellent programme to reach millions of children nutritional health. A responsible intervention in the scheme can shift the focus towards the nutrition of the children apart from providing food. The key objectives of the programme as highlighted by various studies is- to reduce malnutrition, protection of children from classroom hunger, increasing school enrolment and attendance, improving socialisation, etc [10]. The broad features of the programme are-

- 1) supplying food items providing 300 calories per day and 12-15 gm protein per child with coverage of primary school children in a phased manner;
- 2) expenditure per child per day including expenses on the administration to be sixty paise;
- 3) no elaborate administrative infrastructure to be built up;
- 4) funds required for the programme to come from provisions marked for poverty alleviation scheme;
- 5) at the regional level, states should evolve suitable logistics and make arrangements for cooks, helpers, administration, supervision and monitoring.

It was recognized that the scheme had some inherent problems which are not focused here. Mid-day meal scheme was initiated with the chief purpose of augmenting the children's enrolment and enhancing social equity in schools. But only 69 per cent of children age 6-17 years attend school in Uttar Pradesh, and this percentage is similar in urban and rural areas. Eighty per cent of primary school age children (6-10 years) attend school (78% in urban areas and 81% in rural areas). School attendance drops to 73 per cent for children age 11-14 years and is only 40 per cent for children age 15-17 years. The Performance Evaluation of -MDM (2010) gives data that shows a hundred percent enrolment in schools interestingly not because of school feeding programmes but due to the facilities of scholarships and school uniform.

As far as the attendance or enrolment of children in schools are concerned unfortunately though it has increased on paper yet the regularity is not evident. All children enrolled come to school on the day when school uniforms, scholarships are given or any private manufacturer comes for the promotion of their product [11]. Increasing enrolment is as important as increasing regularity and learning outcome. This can be done by spreading awareness and education learning oriented.

As per the nutrition and quantity parameters of the MDMS, a primary school student must get a minimum of 12 grams of protein and 450 calories per meal, while an upper primary student must get 20 gm of protein and 700 calories per meal. A meal should have 100 gm of grains (rice/wheat), 20 gm pulses, 50 gm vegetables, and 5 gm oil for primary students, and 150 gm grains (rice/wheat), 30 gm pulses, 75 gm vegetables, and 7.5 gm oil for upper primary students. The nutrition content should further be improved by using green leafy vegetables and double fortified salt. While there is no doubt in the regularity of serving the mid - day meal in the schools and the specified quantity of food grains is stored by the schools yet the studies show that the achievement of healthy nutritional health is a long way to go especially in remote areas. Menu chart prepared by the schools are followed but in some schools, soya bean and rice are served regularly and there are no green vegetables, the reason for the same is that government only provides wheat and rice and rest items of the menu are to be purchased from the market. Milk is not served regularly because the conversion cost on each child's diet is Rs. 3.86 thus a specific day is fixed for serving the milk [12]. Incidences that children fell ill due to the meal provided to them by the school is often. The reasons for such incidents are not focussed here but there should be a strict vigilance on the way meals are prepared, the ingredients used, persons preparing the food, the place, utensils used for the preparation. Recently, fruits and milk on regular basis to be provided in schools was ordered by the government yet its regularity is questionable.

It cannot be denied that MDM has been successful in attaining its objectives; still, the number of malnourished children is highest in Uttar Pradesh. The scheme stumbles in rural and remote areas, where there is no check and assessment of the scheme.

Government Initiatives and Nutrition Policy

Government introduced some scheme to fight against the hunger among children. One of these is Sabri Sankalp Yojna, where officers at District level would adopt two villages and would ensure the proper working of the National Nutrition Mission scheme.

Following the success of the '*Rajmata Jijau Mother-Child Health and Nutrition Mission*' in Maharashtra, UP government established 'the Nutrition Mission' in 2014. The chief objective of this programme was to strengthen the delivery structures and accelerate the efforts to reduce undernutrition [13]. The Mission aimed to improve five nutrition outcomes (Figure 4) over a 10-year period: the prevalence of underweight and wasting, prevalence of stunting, rates of exclusive breastfeeding and anaemia in women of reproductive age. Thus, the Mission is divided into the Ten- year period (2014 and 2024) into three phases and set specific targets to achieve across each nutrition outcome during each phase [14]. The Mission does not implement nutrition programmes but rather aims to review existing ones, assess gaps in implementation, recommend specific improvements, and work with departments to help them implement these improvements [15].

Undoubtedly, SNM has made remarkable progress since 2014, as its accomplishments are:

- A village adoption programme, which has increased ownership of the SNM mandate among district officials across departments and the accountability of frontline workers. As described above, adopting Gram Panchayat means assuming responsibility for improved nutrition outcomes.
- Increased convergence with multiple development sectors through increased coordination with multiple departments.

- Improved technical capacity of frontline workers to deliver nutrition services through enhanced training.
- Routine monitoring and reporting by SNM of the districts.

	Short term objectives Phase I (Three years)	Intermediate objectives Phase II (Two years)	Long term objectives Phase III (Five years)
Underweight	Reduce underweight prevalence by 5 percentage points	Reduce underweight prevalence by a further 4 percentage points	Reduce underweight prevalence by a further 10 percentage points
Wasting	Reduce wasting prevalence by 1.5 percentage points	Reduce wasting prevalence by a further 1.5 percentage points	Reduce wasting prevalence by a further 5 percentage points
Stunting	Reduce stunting prevalence by 5 percentage points	Reduce stunting prevalence by a further 5 percentage points	Reduce stunting prevalence by a further 5 percentage points
Exclusive breastfeeding	Increase exclusive breastfeeding rates by 4 percentage points	Increase exclusive breastfeeding rates by a further 3 percentage points	Increase exclusive breastfeeding rates by a further 10 percentage points
Anaemia	Reduce anaemia in women of reproductive age by 7 percentage points	Reduce anaemia in women of reproductive age by a further 5 percentage points	Reduce anaemia in women of reproductive age by a further 15 percentage points

Figure 4: UP Nutrition Mission Objectives and Phases (2014-2024)

SNM introduced the concept of “under nutrition-free gram sabhas” taking into consideration that at the Gram Sabha level, it would work towards achieving the state-wide nutrition objectives. Together with this, it will also create a model for districts to learn from them and replicate in future. The Adopted Village Model is a core component of SNM and a mechanism for increased ownership and monitoring of nutrition actions by government officials. Obviously, it is evident (fig. 5) that for both child and adult weighing i.e., adopted villages have more available and functional scales than non-adopted villages, which were more likely to have non-functional scales or no weighing machines at all. However, where functional weighing machines were available, adopted and non-adopted villages are equally offering weighing services, suggesting that availability of equipment was the main driver behind variance in service delivery capacity. Similarly, adopted villages prioritise providing haemoglobin testing (62% of villages compared to 43%) than non-adopted villages; however, both cater iron tablets to anaemic women (87% and 84%, respectively).

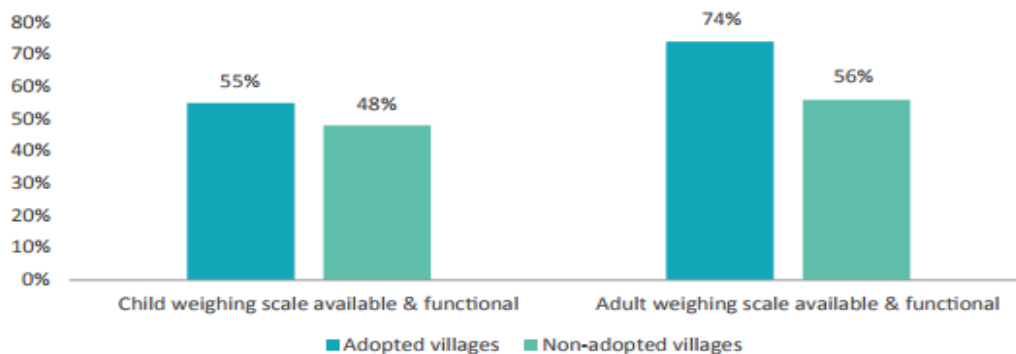


Figure 5: Weighing of Children by both Adopted and Non-Adopted villages

The key activities of the SNM are as follows-

- 1) Innovative and Adaptive Programme Responses to the complex causes of undernutrition
- 2) Building Human Capital to Support Programme Delivery
- 3) Supporting Convergence of Efforts Within the Public Sector
- 4) Supporting Convergence of Efforts Within the Public Sector
- 5) SNM helped advocate for the Spot Feeding Cum Counselling Scheme (Hausla Poshan Yojana), implemented through ICDS, and successfully helped leverage US \$76 million for ICDS to roll out the Scheme through state government funds.
- 6) At the district level, District Nutrition Committees with DMs and CDOs help to improve coordination, monitor progress, and build momentum among government officials.
- 7) The Adopted Village Model and monthly District Nutrition Committee meetings help spark healthy competition – or peer pressure – among officials, motivating them to improve nutrition.
- 8) At the village level, SNM encourages convergence between ICDS and NHM frontline workers through VHNDs and VHSNCs.
- 9) SNM establishes partnerships with non-governmental organisations –civil society, technical partners, and donors – to improve nutrition service delivery, advocacy, and coordination.

SNM through ICDS has encouraged the Spot Feeding Cum Counselling Scheme also known as Hausla Poshan Yojana by funding the programme with State governments funds as well as 76 million US dollar for ICDS to roll out the scheme at a fast pace. Overall, the SNM is a comprehensive effort on the part of the government, which targets the district level administration to check the advanced malnutrition in the state. Not only this, it also targets pregnant women and infant children. However, as the first section of the paper describes the numbers does not support it and thus, all these efforts are in vain as there is no structure for the multi-sectoral coordination which is essential in order to address the inter- generational and multifaceted nature of malnutrition. But the increasing efforts of the government can't be underrated as the State has progressed so far in achieving its aim and the hope rises with these that all our children would be healthy.

4. Conclusions and Recommendations

Despite high rates of economic growth of the country, when it comes to child malnutrition U.P. is ranked at the top among all in the country. Being malnourished imposes so many disadvantages on the children. It puts them at a greater risk of being vulnerable to diseases and also adversely affects their physical, cognitive and mental development. According to many studies such as Murray and Lopez (1997) [16], Tomkins and Watson (1989) [17] and Pelletier (1998) [18], establishes that eliminating malnutrition could cut child mortality by more than half and reduce the burden of diseases by around one-fifth. This brings into question the role of government's ICDS in the context of improving health outcomes of the children. Together with this State Nutrition Mission has not lived up to our expectations as NFHS-4 data reveals. However, it will not be justified to appreciate the decreased number in the last two decades of malnutrition rates in the states. Thus it's a long way to go to achieve our target of healthy children. The government further needs to consider an alternative policy initiative that can trigger a decline in nutritional intake, and hence leading to advances in child health. Such initiatives could target households with

young children or perhaps the expectant mothers. An alternative approach that can be suggested is to use, unlike conditional cash transfers as in Mexico with the Progressa/Oportunidades programme, Colombia (Familias en Accion) or Brazil (Bolsa Família). These are programmes aimed specifically at improving the health and nutritional outcomes of young children and those of pregnant women and young mothers in the most vulnerable sections of society.

Given the challenge of restricted budgets, the Government through SNM has made efforts to influence the budget management ICDS by advocating for the Hausla Poshan Yojna, which ultimately received funding approval. Challenges to improved health of the children especially their nutritional health include lack of accountability for nutrition outcomes, restricted budgets with little flexibility and problems of implementation of policy at a grass root level. Until and unless these hierarchical and structural obstacles do not overcome, the decline in the number of malnourished children would be a dream.

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*Corresponding author.

E-mail address: shivangi2win@ gmail.com