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# YOJANA

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## Nutrition

Creating Mass Movement to Address Malnutrition

Rakesh Srivastava

Role of Health Services in Nutrition

Prema Ramachandran

Transforming India

Financial Inclusion in India : Challenges and Way Forward

Charan Singh

Boosting Infrastructure to Fuel Development

Hiranmoy Roy



May 2018

Volume-62

**YOJANA**  
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*Let noble thoughts come to us from all sides  
Rig Veda*

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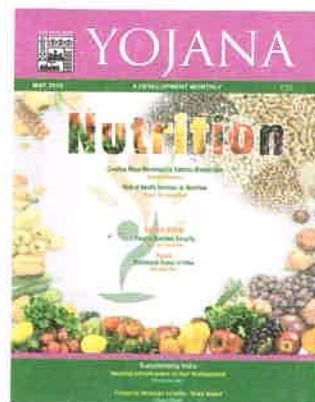
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## NUTRITION: KEY TO DEVELOPMENT

**W**ith a population of about 1.2 billion as per 2011 census, India is likely to be the most populous country on this planet by 2030 with 1.6 billion people. It currently accounts for more than 17 per cent of the global population. Thus ensuring food and nutrition security is a challenge for India. A healthy workforce is a prerequisite to any nation's development. Recognising this fact, improvement of the health and nutritional status of the population has always been given high priority. Article 47 of the Constitution of India states that "the State shall regard raising the level of nutrition and standard of living of its people and improvement in public health among its primary duties".



Indian policymakers have always given priority to ensuring health and food safety. Successive five-year plans have laid policies and multi-pronged strategies to improve food security and nutritional status of the population in a specified time frame while also providing requisite funds. The government has been giving extensive importance to universal access to efficient and basic health services in both urban and rural areas. As a result, famines and severe food insecurity are no longer a threat though seasonal food insecurity continues to raise its head in different pockets of the country. There has been a substantial improvement in nutritional status of all the segments of the population with a substantial reduction in cases of undernutrition and micronutrient deficiencies.

The challenge of maternal and child undernutrition remains a national public health concern and a policy priority for the current government. India is home to over 40 million stunted and 17 million wasted children (under-five years). Undernutrition is a condition resulting from inadequate intake of food or more essential nutrients resulting in deterioration of physical and mental health. Regional disparities in the availability of food and varying food habits lead to the differential status of undernutrition which is substantially higher in rural than in urban areas. This demands a region-specific action plan with significant investments in human resources with critical health investments at the local levels.

The announcement of the National Nutrition Mission (NNM) is a very significant development on this front. It has introduced a central nodal agency with extensive financial resources to coordinate various central and state government schemes and imbue them with additional financial resources. The programme will cover all states and districts in a phased manner. The total outlay for the nutrition mission has been set at over Rs. 9,000 crore for a period of three years. The core strategy of the mission is to create decentralized governance system with flexibility given to states, districts and local level with robust monitoring, accountability and incentive frameworks that will encourage local solutions. The programme, through well-defined targets, strives to reduce the level of stunting, under-nutrition, anaemia and low birth weight babies. More than 10 crore people are likely to be benefitted by this programme.

Healthy eating practices are akin to behavioural change. Government interventions and large-scale participation of communities are must to motivate the people towards the right practices. NNM proposes to cover all the States and districts in a phased manner i.e. 315 districts in 2017-18, 235 districts in 2018-19 and remaining districts in 2019-20. The main emphasis is on creating synergy, ensuring better monitoring and encouraging States/UTs to achieve the targeted goals. With such clear operating roadmap, the NNM is perhaps the most ambitious programme of the government.

Healthy people can contribute to the nation's growth only when supported by adequate infrastructure and facilities. Thus while taking steps to ensure healthy India, the government has also taken extensive measures to ensure the financial and social security of the citizens. This clubbed with moves to create strong infrastructure and missions like swachh bharat, skill India and digital India campaigns are sure to put India in the forefront on the world map.

## Creating Mass Movement to Address Malnutrition

*Rakesh Srivastava*



*In order to achieve its true potential and play the role as a global superpower India will need to focus on eradication of malnutrition so as to ensure that the coming generations are healthy, enabling higher intellectual potential, leading to enhanced work productivity. This one factor will enable us to connect the dots between schemes like Make in India, Digital India, Skill India and grow to our desired potential as a Nation*

**I**t is a known fact that undernutrition is an outcome of not one but multiple detrimental factors. These factors play their role in helping sustain this continuous burden of undernutrition; leading to our inability to achieve our desired human resource potential, generation after another. In order to achieve its true potential and play the role as a global superpower India will need to focus on eradication of malnutrition so as to ensure that the coming generations are healthy, enabling higher intellectual potential, leading to enhanced work productivity. This one factor will enable us to connect the dots between schemes like Make in India, Digital India, Skill India and grow to our desired potential as a Nation.

On March 8, 2018; the Prime Minister launched POSHAN Abhiyaan – PM's Overarching Scheme for Holistic Nourishment from Jhunjhunu in Rajasthan. The programme through use of technology, a targeted approach and convergence strives to reduce the level of stunting, under-nutrition, anemia and low birthweight in children, as also, focus on adolescent girls, pregnant women and lactating mothers, thus holistically addressing malnutrition. The programme aims to ensure service delivery and interventions by use of technology, behavioral change

through convergence and lays-down specific targets to be achieved across different monitoring parameters over the next few years. To ensure a holistic approach, all 36 States/UTs and districts will be covered in a phased manner i.e. 315 districts in 2017-18, 235 districts in 2018-19 and remaining districts in 2019-20. More than 10 crore people will be benefitted by this programme. Never before has nutrition got so much prominence at the highest level in the country.

Different Ministries/Departments at the Centre and States/UTs deal with varied interventions required for reduction of malnutrition in a stand-alone manner. State/UT being the highest implementing agency for all such schemes, it is pertinent to achieve synergy of all interventions to effectively target malnutrition. POSHAN will provide the required convergence platform for all such schemes and thus augment a synergized approach towards Nutrition. Convergence at centre is being achieved through formation of the National Council for Nutrition and the Executive Committee for POSHAN Abhiyaan. Both these draw members from all the stakeholders of the Abhiyaan. Similarly, the Convergence Action Plan at State, district and block level define the implementation

The author is Secretary, Ministry of Women and Child Development, Government of India. He has vast experience in the area of nutrition, women welfare and implementing large scale governmental programmes.



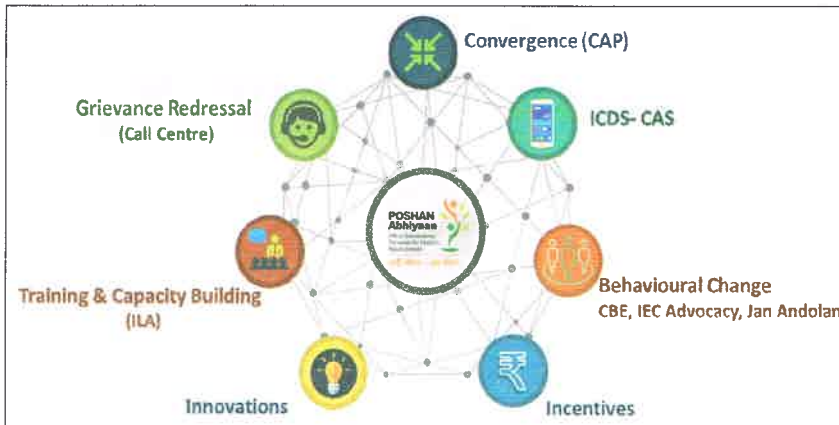


Figure 1: Components of POSHAN Abhiyaan

and monitoring mechanisms for the *Abhiyaan*. The Very High Speed Network (VHSN) day provides the

convergence platform at village level, for participation of all frontline functionaries.



Figure 2: Convergence Matrix

The *Abhiyaan* empowers the frontline functionaries i.e. Anganwadi

workers and Lady Supervisors by providing them with smartphones.

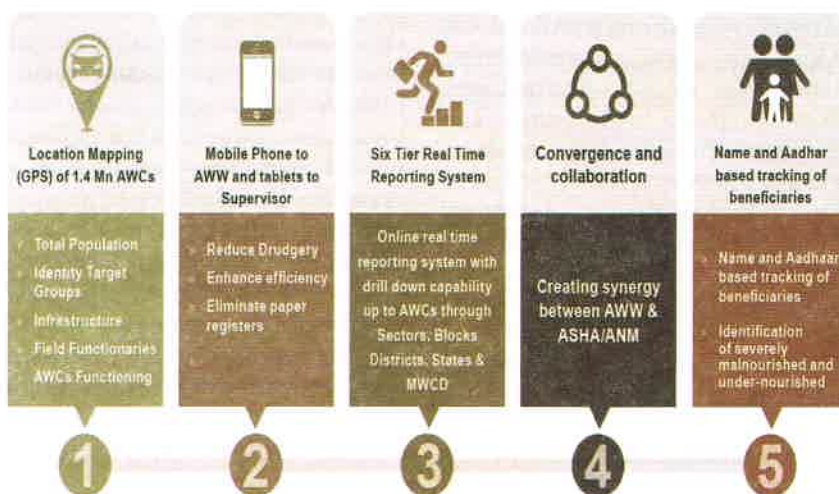


Figure 3: ICDS- Common Application Software

The software application, ICDS-Common application Software especially developed for this purpose enables data capture, ensures assigned service delivery and prompts for interventions wherever required. This data is then available in near real time to the supervisory staff from Block, District, State to National level through a Dashboard, for monitoring. The procurement and distribution of mobile devices is a part of the project. The application is aimed to augment system strengthening in ICDS service delivery and looks at improving the nutrition outcomes through effective monitoring and timely intervention. The software allows the capture of data from the field on electronic devices (mobile/tablet). It enables collection of information on ICDS service delivery and its impact on nutrition outcomes in beneficiaries on a regular basis. This information is available to the States and MWCD on real time basis on web-based dashboards. It is aimed to improve the ICDS service delivery and also enable the Mission to effectively plan and take fact-based decision making.

The problem of malnutrition is inter-generational and is dependent on multiple factors which, inter-alia, include optimal Infant & Young Child Feeding (IYCF) practices, Immunization, Institutional Delivery, Early Childhood Development, Food Fortification, Deworming, access to safe drinking water and proper sanitation (WASH), Dietary diversification, and other related factors. Therefore, to address the problem of stunting, under-weight and wasting, especially in children, there is a need to take-up sustained efforts requiring multi-pronged approach and bring grass-root synergy and convergence. The problem can finally only be addressed through a socio-behavioural change. This aspect of POSHAN looks at deploying a multi-pronged approach to mobilise the masses towards creating a nutritionally aware






society. Community based events at ananganwadicentres to engage the beneficiaries and their families towards nutritional awareness; sustained mass media, multimedia, outdoor campaigns; and synergized mobilization of all frontline functionaries, self-help groups and volunteers towards nutrition, are the methods to be adopted. The aim is to generate a Jan Andolan towards Nutrition.

Ministry of Women and Child Development is the nodal Ministry for anchoring overall implementation; as described above, the vision is for all these Ministries to work together for addressing undernutrition. Never before has so many programmes been pulled together for addressing undernutrition at national level in India. The Prime Minister Office will review the progress every six months and similar review is expected at state level; and this process will be augmented by nutrition specific review in every district by the District Magistrate on a quarterly basis every 10<sup>th</sup> January, April, July and October. As the National Family Health Survey (NFHS-4) highlights that inter-state and inter-district variability for undernutrition is very high, so every state/district needs to develop its Convergence Action Plan which includes their specific constraints and bottlenecks and what can they address in short, mid or long term. It is very important that we put all the necessary processes in place before we start expecting miraculous changes in the undernutrition burden across the country. This *Abhiyaan* is going to be linked with incentives for the front line workers like Anganwadi workers for better service delivery, for the team based incentives for Anganwadi workers, ASHA and ANM for achieving targets together; and for early achiever states and UTs. For the non-performing states/UTs/districts/blocks/Anganwadi centers there would be focused support and hand holding to make them start performing better.

Thus, the POSHAN *Abhiyaan* is to bring all of us together, put accountability and responsibilities on all stakeholders, to help the Country accomplish its desired potential in terms of its demographic dividend of 130 Crore human resource.

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I would like to thank AAI in general and Alok Sir and Amit Sir in particular for their invaluable guidance and personal support throughout my entire journey.

I owe my success to AAI and wish the best so that it produces better results in years to come.

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## Food to Nutrition Security

M S Swaminathan



*Government has approved a National Nutrition Mission with a three year budget of Rs. 9,000 crore. This is government's response to the widespread malnutrition resulting in children with impaired cognitive abilities. The Nutrition Mission to be successful should be designed on a mission mode with symbiotic interaction among components and with a Mission Director who has the requisite authority coupled with accountability*

Since 1947, achieving food security has been a major goal of our country. This was because the Bengal Famine created awareness of the need for paying priority attention to the elimination of hunger. Our Food Security Act 2013 specially mentions the need for nutritional security (*An Act to provide for food and nutritional security in human life cycle approach, by ensuring access to adequate quantity of quality food at affordable prices to people to live a life with dignity and for matters connected therewith or incidental thereto*).

I would like to briefly indicate how this can be achieved by harnessing the tools of agriculture, nutrition and health in an integrated manner. Both food and non-food factors will have to receive concurrent attention. Some of the steps needed for this purpose are briefly indicated below.

### Food to Nutrition Security

In 1986, both in my lecture at FAO and in a book on "Global Aspects of Food Production" I stressed the need for a change in emphasis from food security to nutrition security. I also defined nutrition security as "physical economic and social access to balanced diet, clean drinking water, sanitation

and primary healthcare". Further I stressed the need for a food based approach to nutrition security and not a drug based one. Now after 30 years, the concept of nutrition security is gaining ground. MSSRF is planning to demonstrate how agriculture, health and nutrition can enter into a symbiotic relationship. In the area of nutrition security, it is important to look at food adequacy, protein deficiency and deficiency of micronutrients like iron, iodine, zinc, vitamin A etc. The Farming System for Nutrition (FSN) developed by me provides a methodology for achieving such symbiotic linkages. Above all, a global grid of genetic gardens of biofortified plants will be an important tool for fighting hidden hunger. MSSRF plans to demonstrate the power of food based approach in some high malnutrition burden districts such as Thane in Maharashtra, Gorakhpur in Uttar Pradesh, Koraput in Odisha and parts of Tamil Nadu.

### National Nutrition Week

It will be worthwhile to spend National Nutrition Week and other such events in generating awareness of the implications of malnutrition particularly with reference to brain development in the child. As an action programme, it will be useful to launch a National Grid of Genetic Garden of Biofortified Plants. It will help us to

The author is Founder Chairman, M S Swaminathan Research Foundation. He has been described as "the Father of Economic Ecology". He has held many posts in international and national committees like Chairman of the UN Science Advisory Committee Independent Chairman of the FAO Council, Chairman, National Commission on Farmers and Director General, International Rice Research Institute, the Philippines. He has won many awards like the Ramon Magsaysay Award for Community Leadership, the first World Food Prize in 1987, the Mahatma Gandhi Prize of UNESCO. He is the recipient of Padma Shri (1967), Padma Bhushan (1972) and Padma Vibushan (1989). Professor Swaminathan is a Fellow of many of the leading scientific academies of India and the world, including the Royal Society of London and the U S National Academy of Sciences.

provide agriculture remedies to major nutrition problems particularly affecting the poor. These events provide a great opportunity to launch a programme for the nutritional well being of our population.

### Making National Nutrition Mission a Success

Government has approved a National Nutrition Mission with a three year budget of Rs. 9,000 crore. This is government's response to the widespread malnutrition resulting in children with impaired cognitive abilities. The Nutrition Mission to be successful should be designed on a mission mode with symbiotic interaction among components and with a Mission Director who has the requisite authority coupled with accountability. Earlier Missions were not successful because the concept of the Mission was not fully operationalised. For example the Nutrition Mission should have the following interactive components to make it a success:

- Overcoming undernutrition through the effective use of the provisions of the Food Security Act and also taking advantage of the enlarged food basket which includes millets in addition to rice and wheat.
- Assuring enough protein intake through increased pulses production and increased consumption of milk and poultry products.
- Overcoming the hidden hunger caused by micronutrient malnutrition through the establishment of genetic gardens of biofortified plants.
- Ensuring food quality and safety through steps for the adoption



of improved post-harvest management.

In addition to the above, there is need within the mission for provision of clean drinking water, sanitation, primary health care and nutrition literacy. Further we must ensure that Community Hunger Fighters well versed in the methods of applying agricultural remedies to nutritional maladies are trained with the help of agriculture universities. The Nutrition Mission should have proper monitoring tools so that the efficacy of the intervention can be judged. Thus the term Mission should not only be in terms of a project title but more importantly in the procedure of implementation through synergy and symbiosis among different components of balanced nutrition.

### National Nutrition Mission

On the occasion of the International Women's Day on March 8, 2018 the



Prime Minister launched a pan India National Nutrition Mission covering all the 640 districts of the country. To achieve the goals of the National Nutrition Mission, the following five areas need concurrent attention.

1. Overcoming calorie deficiency through the effective use of the provisions of the National Food Security Act 2013
2. Overcoming protein hunger through the increased production and consumption of pulses and milk and poultry products.
3. Overcoming hidden hunger caused by micro nutrient deficiency through the establishment of genetic gardens of biofortified plants and promoting a Farming System for Nutrition programme.
4. Ensuring the availability of clean drinking water, sanitation and primary health care.
5. Developing a cadre of Community Hunger Fighters who are well versed with the art and science of malnutrition eradication.

If all the above five areas are attended to concurrently, we can achieve the goal of the National Nutrition Mission.

### Endnote

Ref: Swaminathan, M.S. and S.K. Sinha (1985). *Global aspects of Food Production*. Tycooly International Publishing Company, Dublin. □

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## Role of Health Services in Nutrition

Prema Ramachandran



*In the dual nutrition and health burden era, assessment of nutritional status is an important component of both public health interventions and care of individuals seeking health care. Ideally, nutritional assessment should be carried out periodically in all individuals and more often in vulnerable segments of the population such as children, adolescents, pregnant and lactating women and elderly citizens. Neither nutrition and health services nor our population, are geared for such routine periodic assessment for early detection, appropriate counseling and effective management of nutritional deficiencies and excesses before clinical problems arise*

**W**hen India became independent, the country faced two major nutritional problems: a threat of famine and the resultant acute starvation due to low food production and the lack of an appropriate food distribution system. The other was chronic under-nutrition due to poverty, food insecurity and inadequate food intake. Famine and starvation hit the headlines because they were acute, localised, caused profound suffering and fatalities. But chronic low food intake was a widespread silent problem leading to under-nutrition, ill health and many more deaths than starvation. Mutually reinforcing adverse consequences of under-nutrition and ill health resulted in high morbidity and mortality in all age groups and the longevity at birth was only 35 years. Recognising that optimal health and nutrition were essential for human development and human resources were the engines driving national development, Article 47 of the Constitution of India states “the State shall regard raising the level of nutrition and standard of living of its people and improvement in public health among its primary duties”. The country adopted multi-sectoral, multi-pronged strategies to improve the nutritional and health status of the population. Successive Five-Year Plans documented the policies, strategies and intervention

programmes, provided the needed funds and laid down targets to be achieved in the defined time frame. Progress was monitored through the national surveys.

All the national nutrition and health surveys carried out over the last four decades have documented that there have been steady but a slow decline in under-nutrition and micro-nutrient deficiencies, morbidity and mortality due to severe infections. Because of the synergistic interactions between nutrition and health, some health interventions resulted in improving both health and nutritional status and vice versa. In the last two decades, there has been a slow but steady increase in the prevalence of over-nutrition and non-communicable diseases (NCD). The population is not fully aware of the adverse health consequences of over-nutrition and tends to ignore obesity. NCDs are asymptomatic in the initial phase; only after symptoms due to complications arise do patients seek health care. It is essential to improve awareness regarding health consequences of adiposity and initiate programmes for prevention and management of adiposity. Simultaneously interventions for regaining normal nutritional status in those with NCD will have to be initiated as a part of the management of NCD. This article will briefly review the role of health services in addressing

The author has worked for 25 years in Indian Council of Medical Research. She joined Planning Commission as Adviser (Health, Nutrition and Family Welfare). At present, she is Director, Nutrition Foundation of India, New Delhi.

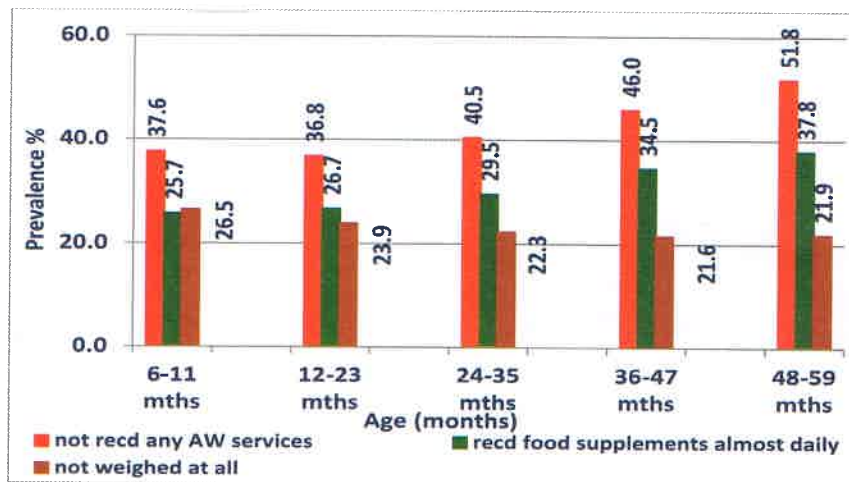


Figure 1. Coverage under ICDS (NFHS4)

the nutrition challenges in the dual nutrition burden era.

### A decline of under-nutrition

Pre-school children were recognized as the vulnerable group prone to under-nutrition and ill health. Under-nutrition in pre-school children renders them susceptible to infections; infections aggravate under-nutrition and micro-nutrient deficiencies. Severe or repeated infections in under-nourished children if left untreated could result in death. Therefore high priority was accorded to reducing under-nutrition in pre-school children. The Integrated Child Development Services (ICDS) was aimed at providing food supplements to children from poor and marginalized sections to bridge the gap between requirement and actual

dietary intake. Another component of ICDS programme was weighing children for early detection of growth faltering and under-nutrition and initiating appropriate management of under-nourished children. Though initiated in the seventies, ICDS was universalised only in the first decade of the new century. Over decades there has been an improvement in the coverage under both components of ICDS but data from the National Family Health Survey (NFHS)-4 showed that even in 2015 coverage under both the components still remains suboptimal (Figure 1). Data from surveys carried out by the National Nutrition Monitoring Bureau (NNMB) indicated that despite poor coverage under ICDS, there has been a slow but steady reduction in the prevalence of under-nutrition

in pre-school children (Figure 2). Data from NFHS 2, 3, and 4 showed similar trends between 1990 and 2015 (Figure 3). During this period there was sustained a reduction in infant mortality rate (IMR) and under-five mortality rate (U5MR) (Figure 4). Infections were the major causes of U5MR; the steady decline in U5MR between 1970 and 2015 was due to substantial improvement in access to health services for immunization and treatment of infections in under-five children. Prevention and treatment of infections reduced energy loss due to infection and prevented deterioration in nutritional status. Thus, improved access to healthcare played an important role in achieving a steady reduction in the under-nutrition rates in pre-school children in the last four decades.

### Optimal nutrition in childhood

Indian children are short and underweight right from birth. As birth weight is a major determinant of growth, low birth weight children grow along a lower trajectory of growth during infancy, childhood and adolescence. As a result, nearly half of the children are classified as stunted and underweight. Height, weight and BMI are three parameters widely used for assessing nutritional status. Of the three, BMI Body Mass Index which is the indicator of current energy adequacy has long been accepted as the indicator for

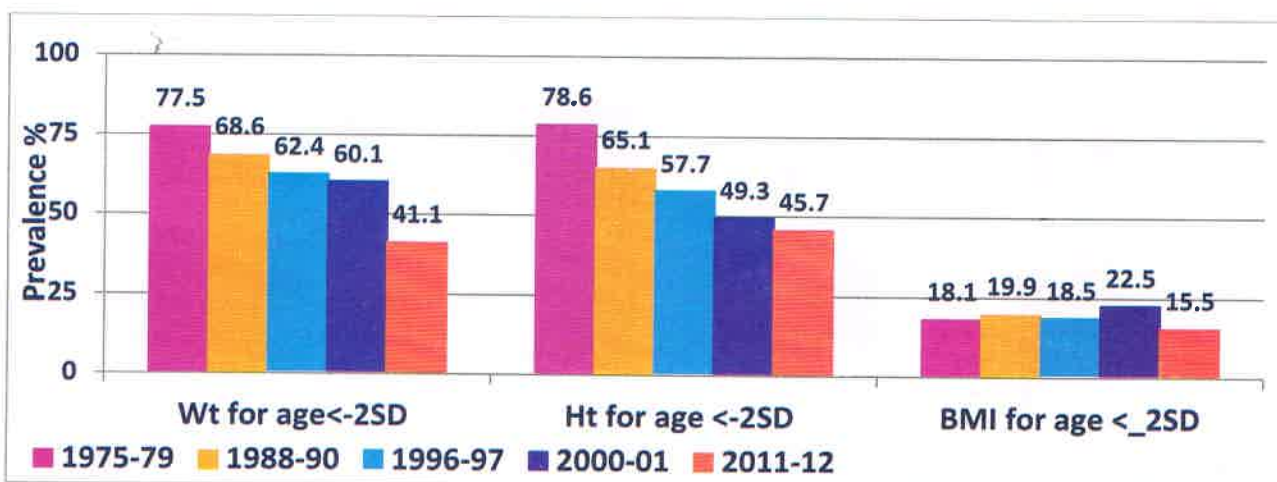


Figure 2. Prevalence of under-nutrition in pre-school children (NNMB surveys)



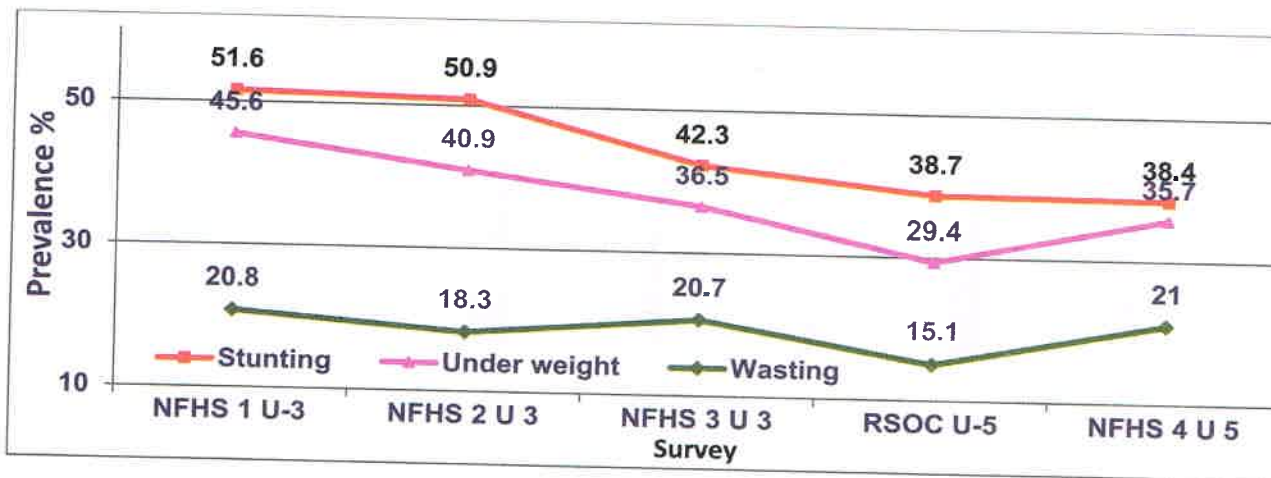


Figure 3. Prevalence of under-nutrition in pre-school children (NFHS2, 3,4 & RSOC)

assessment of nutritional status in adults. However, WHO standards for BMI-for-age for children became available only in 2006 (0-5 years) and 2007 (5-18 years). Analysis of data from NFHS 4 using WHO

standards showed that if BMI for age is used as the criterion for under-nutrition only 18.4 per cent of the under-five children were under-nourished and 2.6 per cent were over-nourished (Fig 5). Data from

research studies in India indicate that under-five children, who gain undue weight during childhood and adolescence, were more prone to become adipose and develop hypertension and diabetes in adult life. At present, there is very little awareness on the use of BMI-for-age for assessment of nutritional status in Indian children and providing appropriate nutrition education.

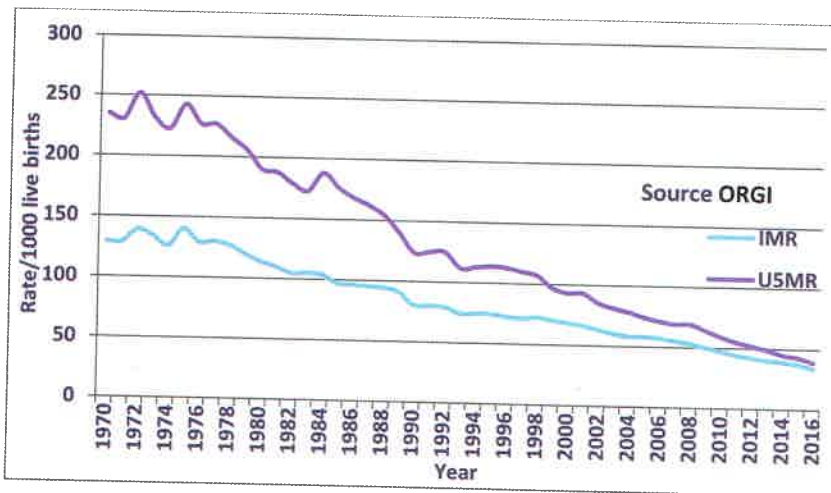


Figure 4. Time trends in IMR & U5MR

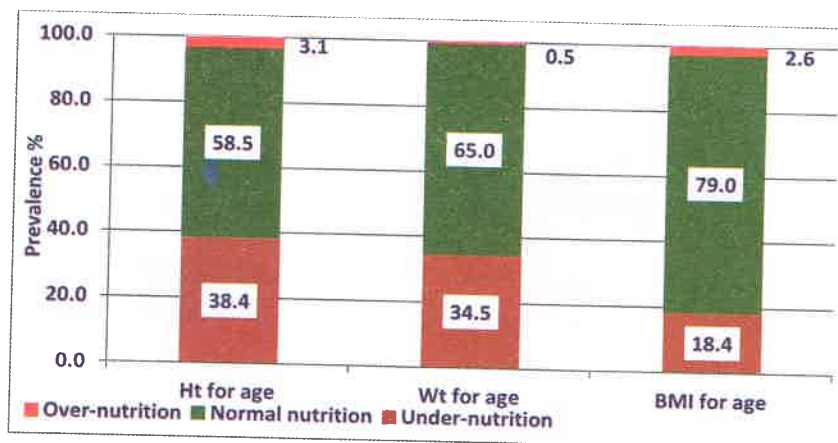


Figure 5. Assessment of nutritional status using BMI in children (NFHS 4)

### Elimination of blindness

During the 1960s poverty, household food insecurity and hunger were widespread among poorer segments of the population. Dietary intake of all nutrients was low and moderate and severe under-nutrition in young children were common. Poor green and yellow vegetable intake led to widespread vitamin A deficiency. Prevalence of respiratory infection and measles was high in young children living in overcrowded households. The primary health care infrastructure for treating infections was poor in urban areas and non-existent in rural areas. Untreated severe infections, especially measles, in the already severely under-nourished young children, led to keratomalacia; those who survived the infections were often left with nutritional blindness. Studies carried out by the National Institute of Nutrition showed that massive dose Vitamin A (200,000 units) administered once in six months to children between one and three years of

age, reduced xerophthalmia by 80 per cent. Based on these findings, Massive Dose Vitamin A Supplementation (MDVAS) once every six months for 1-5-year-old children was initiated in 1970; but coverage under the programme was low (<10 per cent). During the eighties there was a steep reduction in keratomalacia; over the next decade blindness due to vitamin A deficiency was not reported by major hospitals. Analysis of data from large-scale studies showed that the coverage under MDVAS was still quite low; but the primary health care infrastructure in urban and rural areas had been established and access to immunization, treatment of infections and severe grades of under-nutrition had improved substantially. The elimination of keratomalacia was, therefore, an example of health care interventions helping in achieving nutritional goals.



### Universal salt iodization

Iodine deficiency disorders (IDD) have been recognised as a public health problem in India since the 1920s. Unlike other micro-nutrient deficiencies, iodine deficiency disorders

are due to deficiency of iodine in water, soil and foodstuffs and affect all socio-economic groups living in defined geographic areas. IDD during pregnancy was associated with high abortion and foetal wastage rates; some infants born to these mothers suffered from cretinism and mental retardation. In adults, IDD include hypothyroidism and goitre. Universal use of iodised salt is a simple, inexpensive method of preventing iodine deficiency disorders.

Initially, IDD in India was thought to be a problem in the sub-Himalayan region. The National Goitre Control Programme initiated in 1962, focused on supplying iodised salt to those living in goitre belt. Research studies carried out over the next two decades showed that in areas where iodised salt was used there was a decline in cretinism and mental retardation in children and some reduction in the prevalence of goitre in 6-12-year-old children. Surveys carried out in the eighties showed that IDD existed in pockets in all states in India. Taking this into account National Iodine Deficiency Disorders Control Programme (NIDDCP) was initiated in 1992 with the goal that all salt for human consumption will be iodised to ensure universal household access to iodised salt. However, over the next fifteen years, the household access to adequately iodised salt remained

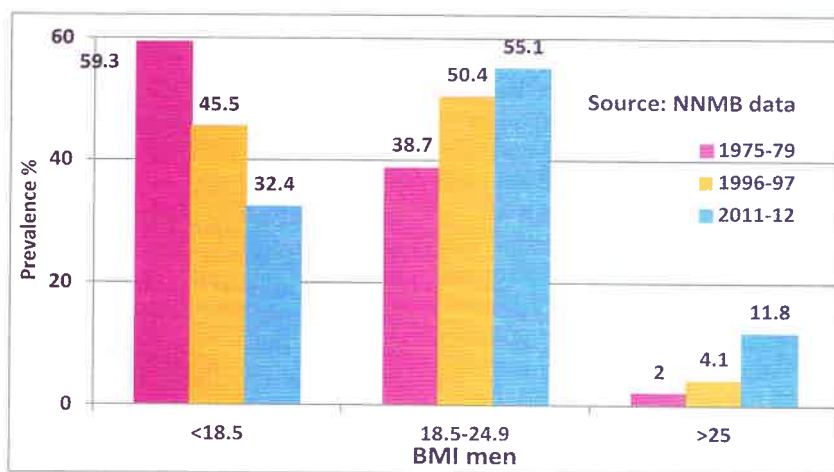


Figure 6. Time trends in over-nutrition in men (NNMB surveys)

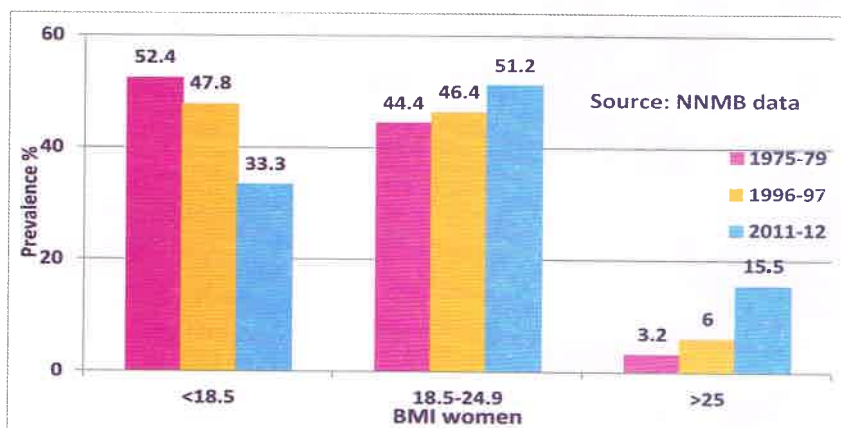


Figure 7. Time trends in over-nutrition in women (NNMB surveys)



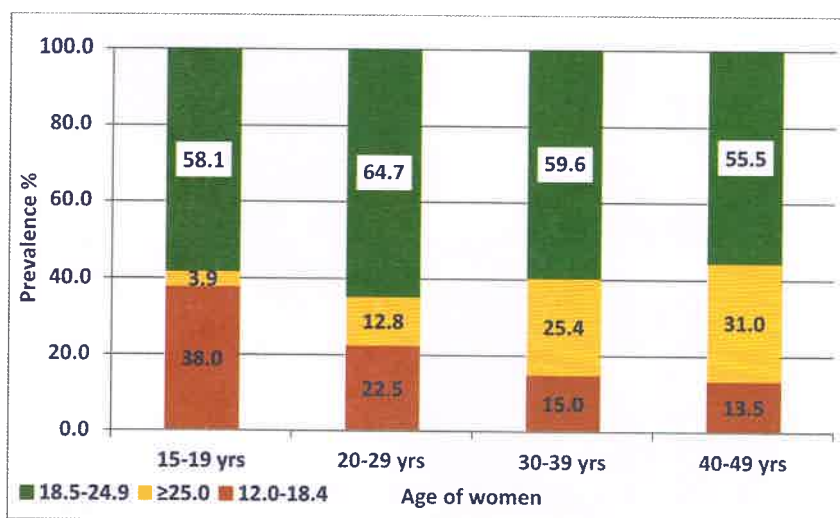


Figure 8. Effect of age on nutritional status in women (NFHS 4)

below 50 per cent. This was partly because persons living in coastal states with a low prevalence of IDD were not aware of the health benefits of the use of iodised salt and bought and used cheaper non-iodised salt. In 2007 mandatory fortification of all salt for human consumption with iodine was notified. Concurrently, an awareness campaign on health benefits of the use of iodised salt was mounted through all media of communication. These initiatives paid rich dividends. Data from the NHS 4 showed that in 2015, over 90 per cent of the households accessed and used iodised salt. Universal salt iodization programme is an example of a nutrition programme not only achieving nutritional goals but

also preventing mental retardation in children and IDD related health problems in adults.

#### Dual nutrition and health burden

Over the last three decades, there has been increasing mechanization of the transport, occupation and household work related activities. As a result, there has been a steep reduction in the physical activity and majority of Indian have become sedentary. There has been some reduction in food intake but this was not commensurate with the reduction in physical activity. As a result, there has been a progressive rise in over-nutrition. The data from surveys carried out by the NNMB had shown that there has been a progressive



increase in the over-nutrition rates both in men and in women in the last four decades. The increase in over-nutrition rates was steeper between the mid-nineties and 2012 (Figure 6 and Figure 7). Over-nutrition rates in women were higher than over-nutrition rates in men. Data from NFHS 4 showed that with increasing age, over-nutrition rates increased (Figure 8). Women ignore such weight gain and do not seek any nutrition or health advice and incur the risk of NCD and their complications. To reduce the health hazards associated with obesity, it is essential to screen men and women for over-nutrition and provide appropriate health and nutrition counselling to over-nourished persons.

Whenever data on time trends in the prevalence of under- and over-nutrition are presented some in the audience feel that changes in BMI had occurred only in a small proportion of women. But overtime BMI in most women has increased. As a result, the proportion of women whose BMI was below the cut-off for under-nutrition had decreased and proportion of women whose BMI was above cut off for over-nutrition has increased (Figure 9). For optimal nutrition, those with BMI <18.5 should gain weight so that they become normally nourished; but normally nourished persons should not gain weight and become over-nourished. Moderate physical activity is essential for optimal nutrition and health. Health education message (through all media of communication) that at least 30 minutes of sustainable discretionary physical activity (such as walking) per day is essential for



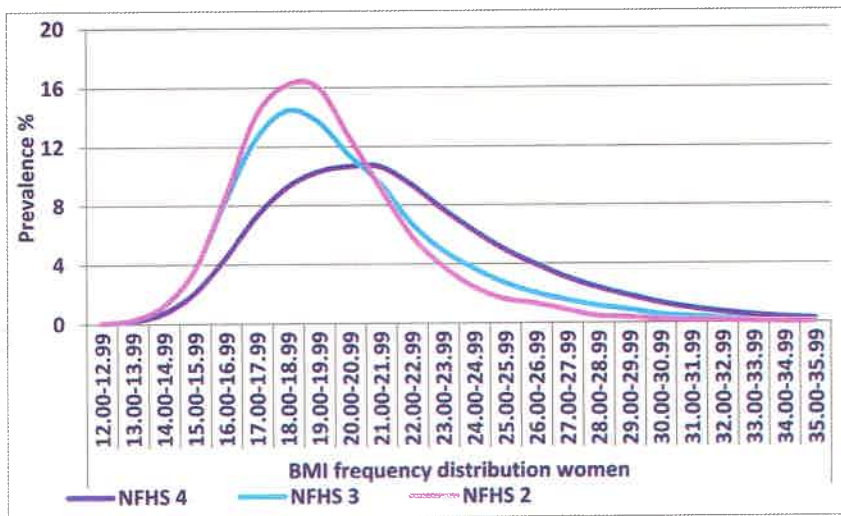


Figure 9. Time trends of Frequency distribution of BMI in women (NFHS 2, 3 & 4)

optimal nutrition and health may go a long way in halting the rise in over-nutrition and NCD rates in adults.

### Conclusion

India's health system was built up with focus on early detection and effective treatment of under-nutrition, infections and maternal child health problems. Most of these health problems are symptomatic and acute. Ill persons do access health care and under-nutrition and infections can be readily treated. Over years utilization of health care had improved and this led to sustained reduction in under-nutrition, ill health and mortality rates.

In last two decades, over-nutrition and associated non-communicable diseases are emerging as major public health problems. Majority of Indians

do not worry about over-nutrition because it does not interfere with their day-to-day life. They do not realize that adiposity predisposes to NCD. Most of the NCDs are asymptomatic in the initial phases and so the majority of persons with NCD seek care only when symptoms due to complications arise. NCD management requires lifestyle modification and lifelong medication. In the coming years, Indians and Indian health system have to reorient and gear themselves for successfully managing the prevention, early detection and effective management of dual nutrition and disease burden.

In the dual nutrition and health burden era, assessment of nutritional status is an important component of both public health interventions and care of individuals seeking



health care. Ideally, nutritional assessment should be carried out periodically in all individuals and more often in vulnerable segments of the population such as children, adolescents, pregnant and lactating women and elderly citizens. Neither nutrition and health services nor our population, are geared for such routine periodic assessment for early detection, appropriate counseling and effective management of nutritional deficiencies and excesses before clinical problems arise. Therefore we should begin with an assessment of nutritional status as when any person seeks health or nutrition care.

Once the assessment is done appropriate advice should be given depending upon their nutritional status:

- normally nourished persons - protect their current lifestyles and provide support for continued normal nutrition and health status;
- those who are under- or over-nourished and are at risk of health problems - provide counselling regarding appropriate food intake and physical activity, if required provide nutritional supplementation and monitor for improvement;
- those with illness- identify nutritional problems, provide appropriate health and nutrition therapy to restore normal health and nutrition and monitor response.

Nutritionists and physicians have to play a critical role in combating the dual nutrition and disease burden by appropriate nutrition and lifestyle counselling and nutrition and health care. Promoting synergy between health and nutrition services will enable the country to successfully face the nutrition challenges and achieve rapid improvement in health and nutritional status of the population. □

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## Accountability for Nutrition Outcomes

*Chinmaya Goyal*



*The national nutrition mission is an ambitious attempt to create large momentum along with innovations in the governance mechanisms for programme implementation to credibly tackle the problem of malnutrition in the country. Now is the time for all stakeholders to combine their energies to make the mission a success*

**I**n the 70 years since independence, India has made great progress in all fields, be it economic, social or political. And yet there is much more to be achieved. The Prime Minister has given a clarion call towards creating a transformative movement towards “New India” by the 75th year of the country’s independence, i.e., in 2022.

One of the most important areas that should be targeted is nutrition. It is the most basic facets of human life. Foundations of long-term economic development are based on a well-nourished society. Battling malnourishment is also one of the most effective tools to empower people left behind to participate in the growth process. The economic benefits of investing in proper nutrition are several: improving nutritional outcomes would help in controlling diseases, reduce infant and maternal mortality, empower women, break the vicious intergenerational cycle of malnutrition, improve worker productivity, and even improve learning outcomes for students. An international study has ascribed the overall benefits to cost ratio to be 16:1 for low and middle-income countries. Therefore the government, which works on the principle of “sabka saath, sabka vikaas”, has made improving

nutrition status in India an immediate priority.

In early years of independence, the principal challenge was to be self-sufficient in food production. Due to the green-revolution, this particular challenge was largely met. Now, while adequate intake of calories in specific segments of the society does remain a challenge, there are several also other determinants for nutrition outcomes. These include, for example, the status of water supply, sanitation, and hygiene. It is estimated that the illnesses such as chronic diarrhea, often caused due to the lack of proper sanitation facilities, is responsible of about half of cases of malnutrition. The status of girl child and mothers is also important as their nutritional status influences the status of the child. The Swachh Bharat Mission (SBM) and the Beti Bachao Beti Padhao missions by the government have been launched to tackle these very problems.

In addition, a number of existing programs target nutrition outcomes, directly or indirectly. These include the Integrated Child Development Services (ICDS), National Health Mission-, Janani Suraksha Yojana, the National Rural Drinking Water Programme, Matritva Sahyog Yojana, SABLA for adolescent girls, Mid-

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Day Meals Scheme, Targeted Public Distribution System, National Food Security Mission, Mahatma Gandhi National Rural Employment Guarantee Scheme and the National Rural Livelihood Mission among others.

Given the number of undergoing schemes, one may ask why there is need for a specific mission for nutrition. A national mission for nutrition is required for four reasons. First, the current efforts are fragmented. There is a need to bring together all the relevant stakeholders on a single platform to enable a synergistic and holistic response to the issue. Second, the mission sets specific targets related to nutritional outcomes and a timeline in which those are to be achieved. This brings urgency in tackling the problem of malnutrition while demonstrating political commitment towards it. Third, the mission encompasses a targeted strategy consisting of a plan of actions and interventions. These are designed to help accelerate the improvement in nutritional outcomes. Fourth, the nutrition mission targets behavioral change through social awareness, and by creating a mass movement through a partnership between government, the private sector, and the public.

These elements would be further clear on basis of the following discussion on what the nutrition mission aims to achieve, and how.

#### What does the nutrition mission aim for?

Led by economic growth in the last 15 years, the nutritional outcomes have steadily improved. According to the national family health survey (NFHS) between 2005-06 to 2015-16: stunting in children declined from 48 to 38 per cent, proportion of underweight children gone down from 42.5 to 35.7 per cent, proportion of women with low body mass index has gone down from 35.5 per cent to 22.9 per cent, and anemia in women



declined marginally from 55.3 per cent to 53 per cent.

The national nutrition mission aims to accelerate this progress. For example, the decline in stunting in children is aimed at 2 per cent per annum, in comparison to about 1 per cent per annum achieved in the last decade. By 2022 though, a goal of reducing child stunting to 25 per cent has been laid. The reductions are targeted for under-nutrition; anemia and low birth weights are 2 per cent, 3 per cent and 2 per cent per annum respectively. The programme will cover all states and districts in a phased manner. The total outlay for the nutrition mission has been set at over Rs. 9,000 crores for a period of three years.

The nutrition strategy prepared by NITI Aayog envisages several interventions to achieve these targets. One is to target improvement in nutrition and health during the first three years in the child's life. Under-nutrition during that period creates an irreversible decline in child's cognitive functions, undermining their ability to achieve their potential in life. Other interventions are related to nutrition and healthcare for mothers, and adolescents, control of micronutrient deficiencies, and community nutrition.

#### Key implementation strategy

At a broad level, the core strategy of the national nutrition mission is creating decentralized governance

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system with flexibility given to states, districts and local level with robust monitoring, accountability and incentive frameworks that will encourage local solutions.

*Outcome orientation:* One of the biggest changes proposed through the nutrition strategy is to orient the system towards achievements of outcomes. It will promote accountability at the ground level. This would be done through universal monitoring of parameters of the beneficiaries, and real-time tracking of the progress made. Measurement at the ground level allows stakeholders to consider which strategies are working and which aren't, and allows for quick adjustment and scaling up of successful strategies across different geographic areas. Furthermore, rankings based on improvement allows for competition between different villages, districts, and states to do better than each other and come out on top.

*Incentives based on outcomes:* The strategy envisages that the states, districts and panchayats showing the largest improvement would be incentivised. The incentives could be monetary, or non-monetary, by way of recognition and awards.

*Data collection and monitoring:* The bedrock will be an information and communication technology

(ICT) driven data collection and visualization system. This is based on digitization of the manual data generated under ICDS, revamping of existing information systems, and integration of data generated from ICDS, national health mission (NHM) and Swachh Bharat Abhiyan. Besides providing real-time information, this will allow tracking and monitoring of individual severely malnourished child. A joint ICDS and NHM mother and child protection card will also be used for health, maternity and nutrition support to the mother and the child.

Monitoring of the outcomes is being done through a six-layered dashboard which shows aggregate outcome performance at the level of Anganwadi centres, sectors, blocks, districts, state and national. This will be supplemented with a frequent independent nutrition survey.

*Coordination between different programmes:* The schemes tackling nutrition were fragmented and were being run by different departments. To achieve coordination across these programmes, a national council has been set up under NITI Aayog with participation by the ministers from all the relevant ministries. This council will be responsible for overall policy direction in relation to the nutrition mission and will report to the Prime

Minister. Another executive committee of national nutrition mission has been set up at the secretary level. The design of these institutions also promotes cooperative federalism since they include representation from 5 states on a rotation basis. One would expect that the national council will play a similar role as the GST council has played in bringing the centre and the states together to formulate policy in the area of nutrition. Similarly, states and districts would be encouraged to formulate their own nutrition plans.

*Geographical convergence:* Given the widespread disparities in nutritional outcomes geographically, it is logical to target districts that have been performing the worst. In parallel to another flagship programme of the government, namely the aspirational districts programme, attempts would be made to uplift the worst-performing districts. This will improve aggregate outcomes at a faster rate. The national council would also invite district collectors from 10 worst-performing districts.

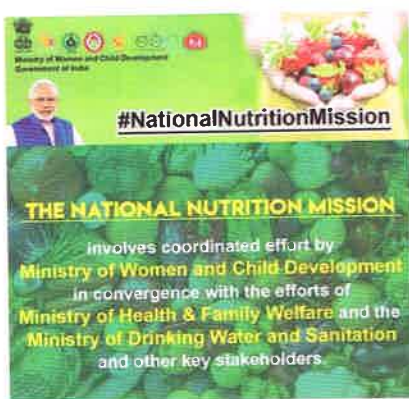
*Jan Andolan:* Success in the nutrition mission requires participation from communities. This is more so because several aspects of changes are behavioural, and the government interventions are to 'nudge' the individual/families/communities towards the right practices. Community based events targeted to improve social awareness on nutrition, and nutrition resource centres would be set up for this purpose. Participation of people in the programme would be important to develop the required commitment to bring about lasting change at the ground level.

The national nutrition mission is an ambitious attempt to create large momentum along with innovations in the governance mechanisms for programme implementation to credibly tackle the problem of malnutrition in the country. Now is the time for all stakeholders to combine their energies to make the mission a success. □

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## Nutritional Status in India

Shamika Ravi



*Given the ever-increasing weight of the country's economic ambitions, prioritizing nutrition in an integrated health agenda and realigning nutrition policy to target the first 1,000 days of a child's life are crucial first steps towards ensuring India's development rests on steady shoulders. India has made a promising commitment in the form of the National Nutrition Mission which will help us tackle the problem of malnutrition in children and mothers of the country. We need to ensure effective implementation of its strategy to achieve our nutrition goals*

**A**lthough India has made sizeable economic and social gains over the last two decades, the challenge of maternal and child undernutrition remains a national public health concern and a policy priority for the current government. India is home to over 40 million stunted and 17 million wasted children (under-five years). Despite a marked trend of improvement in a variety of anthropometric measures of nutrition over the last 10 years, child undernutrition rates persist as among the highest in the world. This inequality is accentuated by stark disparities across states. Future improvements in nutritional status of Indian children and mothers will require significant investments into human resources with critical health investments at the local levels.

The announcement of the National Nutrition Mission (NNM) is a very significant development on this front. It has introduced a central nodal agency with extensive financial resources to coordinate various central and state government schemes and imbue them with additional financial resources. With momentum on the side of the reformers, this brief urges additional policy reforms to combat malnutrition in India.

Policy-makers must account for two key facts: (1) direct nutrition interventions can reduce stunting only by 20 per cent; indirect interventions (for example, access to Water and Sanitation) must tackle the remaining 80 per cent, and (2) 50 per cent of the growth failure of babies accrued by two years of age occurs in the womb owing to poor nutrition of the mother. A lack of nutrition in the first 1,000 days of a child's conception causes irreversible damage to a child's cognitive functions. Hence, there exist significant policy returns from investing in this critical stage, that is, from the period of the conception of the child to the two-year post-natal period.

### Key Nutrition Metrics

Malnutrition indicators in India remain among the highest in the world, despite a declining trend since the early 1990s. The recent figures from NFHS 4 are more encouraging showing further improvements on most indicators.

Key Centrally Sponsored Schemes (CSSs) with a focus on health have seen budgetary cuts over the last two years, with central allocations to the ICDS has declined almost 10 per cent from Rs. 15,502 crore (in FY 2015-16) to Rs.14,000 crore (in FY 2016-17). AWCs require investment in vital infrastructure (close to half of AWCs do not have functional adult weight scales), and Anganwadi Workers

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**Table 1: Nutritional Status of Children**

Indicator	%*
Children (under-five years) who are stunted	38.7
Children (under-five years) who are wasted	15.1
Children (under-five years) who are underweight	29.4
Children (6-59 months) with anaemia <sup>1</sup>	69.5

Source: Rapid Survey on Children (RSoC), 2014; <sup>1</sup>National Family Health Survey (NFHS-3), 2006.

Note: \*Percentage of relevant population

It is also worth highlighting that females suffer from malnutrition significantly more than men.

**Table 2: Nutritional Status of Women and Adolescent Girls**

Indicator	%*
Pregnant women (15-49 years) with anaemia <sup>1</sup>	58.7
Women (of reproductive age) who are undernourished <sup>2</sup>	33.3
Women (20-24 years) who were married before the age of 18 <sup>3</sup>	30.3
Indian women who are underweight when they begin pregnancy <sup>4</sup>	42.2

Source: <sup>1</sup>National Family Health Survey (NFHS-3), 2006; <sup>2</sup>UNICEF, 2015; <sup>3</sup>Rapid Survey on Children (RSoC), 2014; <sup>4</sup>Coffey, 2014.

Note: \*Percentage of relevant population

**Table 3: Nutrition-specific interventions (ICDS and NRHM<sup>11</sup>)**

Indicator	%*
Pregnant women who availed supplementary food under ICDS	40.7
Mothers (of children under-36 months) who received 3+ antenatal check-ups prior to delivery	63.4
Children (12-23 months) who are fully immunised	65.3
Anganwadi Centres (AWCs) without functional adult weight scales	48.4

Source: Rapid Survey on Children (RSoC), 2014.

Note: \*Percentage of relevant population

(AWWs) require monitoring to ensure that they are encouraging target groups to avail supplementary nutrition. A complimentary public intervention is the provision of school meals as part of the Mid Day Meal programme. Field studies highlight the link between the provision of school meals and improved cognition. Furthermore, the provision of school meals has been found to lead to improved learning outcomes for children.

### Existing Policy Framework

The most prominent government nutrition interventions include the ICDS programme led by the Ministry of Women and Child Development (MWCD), and the NHRM led by the Ministry of Health and Family Welfare (MHFW). Both CSSs prioritise the role of community-level organisations – AWCs and AWWs under the ICDS and Accredited Social Health Activists (ASHAs) under the NHRM – for the delivery of nutrition interventions to the target groups of pregnant and lactating mothers, and infants.

These programmes are supplemented by the PDS, which is used to provide subsidised food grains to large sections of the country's poor. In addition, more than six states, including Maharashtra, Madhya Pradesh, Uttar Pradesh, Odisha, Gujarat, Karnataka, and most recently



Jharkhand have also established state nutrition missions. An overview of the interventions directly relevant to the first 1,000 days of a child's life is provided in Table 5.

The National Nutrition Mission (NNM) has been set up with a three year budget of Rs.9046.17 crore commencing from 2017-18. The NNM will comprise mapping of various Schemes contributing towards addressing malnutrition, including a very robust convergence mechanism, ICT based Real Time Monitoring system, incentivizing States/UTs for meeting the targets, incentivizing Anganwadi Workers (AWWs) for using IT-based tools, eliminating registers used by AWWs, introducing measurement of height of children at the Anganwadi Centres (AWCs), Social Audits, setting-up Nutrition Resource Centres, involving masses through *Jan Andolan* for their participation on nutrition through various activities, among others. It will be a central nodal agency that helps coordinate central and state government programmes and infuse them with additional funds/resources

### Policy Recommendations

In response to the persistence of the undernutrition challenge in India, and taking note of the evidence evaluating current policy approaches,



key lessons for nutrition-specific policy interventions are as follows:

#### 1. Strengthen and restructure ICDS, and leverage PDS

ICDS needs to be in mission mode, with a sanction of adequate financial resources (from the central government) and decision-making authority. Last-mile delivery of ICDS interventions needs to standardise the nutritional component of supplementary food, prioritise educational outreach to pregnant and lactating mothers, improve programme targeting, and streamline operations of AWCs through better infrastructure provision and training for AWWs.

#### 2. Extend coverage of food fortification of staples

Currently, fortification of staples is limited to the mandatory iodisation of salt. However, the Food Safety and Standards Authority of India (FSSAI) is in the process of formulating draft standards for the fortification of food grains which will add to the nutrient value. Additional proposals under consideration include making the double fortification of salt (with iodine and iron), and the fortification of edible oils mandatory. The standards of the hot cooked meal should also be changed to using only fortified inputs. This would help in providing sufficient calories and micronutrients to a large number of children under-five.

#### 3. Target multiple contributing factors, for example, WASH

The underlying drivers for India's 'hidden hunger' challenges are complex and go beyond direct nutritional inputs. The significant push by the present government since 2014 on sanitation under the *Swachh Bharat Abhiyan* has increased access to toilets throughout the country. However, the push for toilet construction must be combined with a strategy for behavioural change.

#### 4. Align agricultural policy with national nutritional objectives

Agriculture policy must be brought in tune with nutrition policy, with incentives provided for encouraging

### Significant state-level disparities in nutritional status and progress on reducing stunting

Table 4: State-level disparities in nutritional status

Indicator	India Avg.*	Best Performers	Worst Performers
Children (under-five) who are stunted	38.7%	Kerala: 19.4% Goa: 21.3% Tamil Nadu: 23.3%	Uttar Pradesh: 50.4% Bihar: 49.4% Jharkhand: 47.4%
Children (under-five) who are wasted	15.1%	Sikkim: 5.1% Manipur: 7.1% Jammu & Kashmir: 7.1%	Andhra Pradesh: 19.0% Tamil Nadu: 19.0% Gujarat: 18.7%
Children (under-five) who are underweight	29.4%	Manipur: 14.1% Mizoram: 14.8% Jammu & Kashmir: 15.6%	Jharkhand: 42.1% Bihar: 37.1% Madhya Pradesh: 36.1%

Source: Rapid Survey on Children (RSOC), 2014.

Note: \*Percentage of relevant population



**Table 5: Nutrition-specific interventions  
(relevant to the first 1,000 days of a child's life)**

Target Group	Schemes	Key Interventions
Pregnant and Lactating Mothers	ICDS	ICDS: Supplementary nutrition, counselling on diet, rest and breastfeeding, health and nutrition education
	Indira Gandhi Matritva Sahyog Yojana (IGMSY)	Conditional Maternity Benefit
	Reproductive Child Health (RCH-II), National Rural Health Mission (NRHM), Janani Suraksha Yojana (JSY)	NRHM: Antenatal care, counselling, iron supplementation, immunisation, transportation for institutional delivery, institutional delivery, cash benefit, post-natal care, counselling for breastfeeding and spacing of children etc.
Children (0-3 years)	ICDS	ICDS: Supplementary nutrition, growth monitoring, counselling health education of mothers on child care, promotion of infant and young child feeding, home-based counselling for early childhood stimulation, referral and follow-up of undernourished and sick children
	RCH-II, NRHM	NRHM: Home-based newborn care, immunisation, micronutrient supplementation, deworming, health check-up, management of childhood illness and severe undernutrition, referral and cashless treatment for the first month of life, care of sick newborns, facility-based management of severe acute malnutrition and follow-up
	Rajiv Gandhi National Creche Scheme	Rajiv Gandhi National Creche Scheme: Support for the care of children of working mothers



the production of nutrient-rich and local crops for self-consumption. Efforts should also be made to reduce current distortions in agricultural incentives and to discourage the cultivation of resource-rich cash crops with no nutrient value, such as sugarcane and cotton. Agriculture should be focused on securing diet quality for infants and young children.

### 5. Boost private sector engagement in nutrition interventions

Private sector collaboration in the form of public-private partnerships (PPPs) has the potential to leverage the appropriate technology for scaling-up food fortification interventions and to develop and distribute nutrient-rich foods to improve maternal and infant nutrition. The government should facilitate PPPs in the sector that can leverage technological solutions for scaling up food fortification initiatives and complement the government's outreach efforts through mass awareness.

### Conclusion

A healthy population is a precondition for sustainable development, and India faces significant challenges in harnessing long-term dividends from its young population. The success of the government's numerous programmes is dependent on the availability of a trained workforce. India has the world's highest number of children at risk of poor development: as of 2010, 52 per cent of the country's 121 million children (under-five) were at risk. Given the ever-increasing weight of the country's economic ambitions, prioritizing nutrition in an integrated health agenda and realigning nutrition policy to target the first 1,000 days of a child's life are crucial first steps towards ensuring India's development rests on steady shoulders. India has made a promising commitment in the form of the National Nutrition Mission which will help us tackle the problem of malnutrition in children and mothers of the country. We need to ensure effective implementation of its strategy to achieve our nutrition goals. □

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## Financial Inclusion in India: Challenges and Way Forward

Charan Singh



PMJDY

*In view of the success of PMJDY, a new gap clearly emerged and that is regulation of the micro and rural sector. The RBI, set up in 1934 regulates and supervises the banking system. In addition, though financial inclusion has been pursued by commercial banks for many decades, the focused approach has been missing. It may now be necessary to assign the regulation and supervision of financial inclusion to NABARD, with experience of more than four decades, with clear accountability and responsibility*

**F**inancial inclusion is a process that enables improved and better sustainable economic and social development of the country. It focuses on raising the standard of living of the underprivileged people in the society with the objective of making them self-sufficient and well informed to make better financial decisions. Also, it acknowledges the participation of the low-income groups based on the extent of their access to financial services in economic growth.

The Committee on Financial Inclusion (Government of India, 2008) defined financial inclusion as the process of ensuring access to financial services and timely and adequate credit where needed by vulnerable groups at an affordable cost. The aim of financial inclusion is delivery of financial services to low-income groups with the provision of equal opportunities. The Committee suggested that financial inclusion must be taken up in a mission mode to achieve universal financial inclusion within a specific time frame and constitution of two dedicated funds focused on development and technology for better credit absorption by poor.

### Historical Developments

In fact, contrary to general belief, historically, India is a pioneer in

financial inclusion. The Cooperative Credit Societies Act, 1904 gave an impetus to cooperative movement in India. The objective of cooperative banks was to extend banking facilities, mainly availability of credit on easy terms compared to money lenders who were well known to charge high rates of interest. In India, financial inclusion exercise explicitly started with the nationalization of State Bank of India in 1955. In 1967, there emerged a debate on social banking and consequently, 14 private sector banks were nationalised in 1969 to serve the unbanked population, mainly weaker sections of society as well as rural areas. The concept of priority sector lending became important by 1974 which implied directed lending to unbanked areas, and in 1980, eight more private banks were nationalized to extend banking in rural and remote areas. Since then, there has been a considerable reorientation of bank lending to accelerate the process of development, especially of the priority sector, which had not previously received sufficient attention.

Since 2005, Government of India along with the Reserve Bank of India (RBI) and National Bank for Agriculture and Rural Development (NABARD) has been initiating a number of concerted measures to

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enhance financial inclusion in India. These measures include Self Help Group-bank linkage programme, use of business facilitators and correspondents, easing of 'Know-Your-Customer' (KYC) norms, electronic benefits transfer, use of mobile technology, opening 'no-frill accounts' and emphasis on financial literacy. Other measures initiated by the Government to support financial inclusion include opening customer service centres, credit counselling centers, Kisan Credit Card, National Pension Scheme-Like, Mahatma Gandhi National Rural Employment Guarantee Scheme and Aadhaar scheme. The banking penetration, despite concerted efforts, was low.

In this context, to ensure a banking account in every household, the Prime Minister, in his maiden speech from the Red Fort on August 15, 2014, announced the need for focused efforts. The objective of Pradhan Mantri Jan Dhan Yojana (PMJDY) was widening access to various basic financial services like basic savings bank account, need-based credit, remittances facility, and insurance and pension to excluded sections, mainly weaker sections and low-income

groups. The Government continued its efforts towards achieving financial inclusion by introducing Micro Units Development Refinance Agency (MUDRA) to focus on providing credit to small entrepreneurs. Similarly, having successfully achieved the distinction of ensuring that more than 95 percent of Indian households have bank accounts through the PMJDY by 2015, in a logical and well-sequenced step, the Central government extended social security to the masses. The flagship scheme, Atal Pension Yojana (APY) aims to provide old age income security to the working poor in the unorganized sector; Jeevan Jyothi insurance scheme providing a one year cover, renewable annually, offering life insurance; and Suraksha insurance scheme, renewable annually, providing insurance to cover death or disability on account of an accident.

The PMJDY has made significant progress since its launch and as on April 10, 2018, a total of 31.4 crore accounts had been opened of which 18.5 crores were in rural areas, 12.9 crores in urban areas and 16.6 crores were female account holders. The number of Rupay cards have also increased to 23.7 crores. The progress has been impressive, considering that

total amount of bank deposits with commercial banks was Rs.\*79,012.1 crore as on April 10, 2018.

### Challenges

The key challenges in extensively extending financial inclusion are-

1. Some Accounts under PMJDY are not operative—In some cases, bank accounts are not operative due to lack of funds with account holders. The cost-effectiveness aspect, given low balances in accounts, in implementing technological advancements is a matter of concern.
2. Lack of financial literacy - The rural households do not have adequate financial literacy resulting in lack of awareness of many financial services provided by financial institutions.
3. Too large volumes of Accounts—There is a need for technical and institutional infrastructure for e-payment systems to service a large number of new and existing accounts.
4. Need for Manpower planning—There is a requirement of sufficient technical skill development and training for banks and institutional staff.



5. Secure Environment - The security of electronic transactions is a matter of concern especially with a large number of new accounts, in remote parts of India.
6. Ease of transaction- Lack of ease in transaction related activities in banks is clearly demonstrated by the repetitive behavior of rural households' persistence in taking loans from the money lenders.
7. Need for greater use of technology - On the operational side, despite the convenience offered by ATMs in providing banking services, the debit card penetration continued to be low with only 30 per cent of deposit account holders having a debit card.
8. Demand Side Factor -Factors such as lower income or asset holdings, lack of awareness about the financial products, perceivably unaffordable products, high transaction costs, products which are not convenient, inflexible, and not customized to the rural sector income pattern are a major barrier for gaining access to the financial system.
9. Costs and risks in using technology- Costs in terms of increasing expenditure on IT deployment and risks in terms of monetary loss, data theft and breach of privacy are a concern. Thus, banks need to be extremely cognizant of such risks.
10. Cyber Security- Nearly 31 crore new accounts have been opened in previous 3 years under PMJDY and nearly 80 percent of these are first time users. This can be a threat to cyber security especially when

know-your-customer norms have been diluted.

### Road Ahead

In the last two decades, substantial changes have taken place in the banking and financial industry, in India and abroad. The commercial viability of financial inclusion has been established and the governments, globally, have been making efforts to extend financial services to large segments of the population because financial inclusion promotes economic equality and economic growth. Formal financial institutions provide low-cost access to banking facilities, safeguarding funds and providing a convenient accounting in addition to rewarding depositors with interest payment. Banks intermediate between savers and investors and thereby provide resources for growth. Therefore, people may not have savings to place as deposits but may have a need for resources which can be used for generating employment as well as stirring activity in the economy.



In India, the scenario for the next few decades may have to take into account the following –

- a) Indian economy is closely associated with agriculture and rural activities because nearly 66 percent of the population still resides in rural areas.
- b) India accounts for 16 percent of world population and only 4 per cent of water resources. The critical shortage of water would become apparent for the agriculture sector especially with rising population.
- c) The scarcity of land, because of rising population as well as increasing urbanization and industrialization would imply a higher cost of producing food grains and agricultural production.
- d) As on March 31, 2014, there was 123 crore deposit accounts. In addition, Post Offices held 28 crore accounts. PMJDY has resulted in creating nearly 31 crore new accounts in banks. In addition, the Prime Minister has announced social security schemes which will operate through the banking system. Further MUDRA bank will also encourage banking activity at the lower end of the economic spectrum.
- e) The new accounts under Jan Dhan as well as other schemes that have recently been announced would result in massive banking operations and expectations of banking services at places which do not have bank branches. This would imply a higher cost



of serving at remote places by commercial banks.

- f) The government has announced that it would directly transfer resources to the people using technology as well as bank accounts. The direct benefit transfers would imply additional financial resources to the public, generally low-income group. The higher food prices are also leading to increase in purchasing power of rural areas. The PM has also promised to double of farmer's income by 2022. The proportion of the population that would emerge out of poverty would need to be estimated.

### Conclusion and Recommendations

The objective of financial inclusion is to provide financial resources to the consumers at affordable rates. In view of the increasing complexity of financial inclusion, there may be a need to consider a roadmap as well as a regulator.

The issue of digitization, necessary for achieving higher financial inclusion, is serious and needs analysis. India is a very diverse country in terms of languages and scripts. Also, the country

has a low level of literacy of about 70 per cent, with English literacy of not more than 10 per cent of the population. Given the fact that all electronic devices have English numerals and all communication on digital banking is also in English, there is the natural barrier to completely digitalize Indian economy during the immediate period. India continues to have 30 per cent of its population or nearly 40 crore people below the poverty line and 90 percent operating in the informal sector. These people could also be slow in embracing digital economy. In addition, low volume of business in rural shops, shopping sheds, rural makeshift kiosks may not justify the cost of installing equipment to read and safely secure the data on plastic money. The cost of providing equipment in remote parts of the country and ensuring seamless connectivity at the affordable cost would be another challenge that would need to be addressed. The use of e-money, at present, is largely restricted to urban areas, and more educated youth from rural areas. Even if there are smartphones in the rural areas, these are restricted to only one member of the family which implies that banking activities, private in nature, would be restricted. Therefore, it may be

helpful if a long-term plan with cost implications and a stipulated timeline is prepared to decide on various aspects of building a digital economy. To rapidly digitalize India, probably, there is a need for a Committee to understand the problem, become aware of the challenges, and then prepare a roadmap to achieve success. As the government has addressed the issue of smart cities by announcing a list of select 100 cities where technological amenities would be provided in a phased manner, a similar strategy, pilot based projects, and operations, could be adopted for digitalization.

In view of the success of PMJDY, a new gap clearly emerged and that is regulation of the micro and rural sector. The RBI, set up in 1934 regulates and supervises the banking system. In addition, though financial inclusion has been pursued by commercial banks for many decades, the focused approach has been missing. It may now be necessary to assign the regulation and supervision of financial inclusion to NABARD, with experience of more than four decades, with clear accountability and responsibility. □

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### BASELINE RANKING OF ASPIRATIONAL DISTRICTS

The NITI Aayog launched the baseline ranking for the Aspirational Districts recently. These ranking are to be based on published data of 49 indicators (81 data points) across five developmental areas of Health and Nutrition, Education, Agriculture and Water Resources, Financial Inclusion and Skill Development, and Basic Infrastructure. The ranking was released by Shri Amitabh Kant, CEO of NITI Aayog. The 'Champions of Change' Dashboard for real-time data collection and monitoring was open for public viewing from April 1. The dashboard facilitates District Collectors of all the aspirational districts to input the latest available data of their respective districts. Districts can learn from each other's experiences using the "Best Practices" document that NITI Aayog has prepared and circulated to the district collectors.

Launched by the Prime Minister in January, the 'Transformation of Aspirational Districts' programme aims to quickly and effectively transform some of the most underdeveloped districts of the country. The broad contours of the programme are Convergence (of Central and State Schemes), Collaboration (of Central, State level 'Prabhari' Officers and District Collectors), and Competition among districts driven by a Mass Movement or a Jan Andolan. With States as the main drivers, this program will focus on the strength of each district, identify low-hanging fruits for immediate improvement, measure progress, and rank districts.

To enable optimum utilization of their potential, this program focusses closely on improving people's ability to participate fully in the burgeoning economy. Health and Nutrition, Education, Agriculture and Water Resources, Financial Inclusion and Skill Development, and Basic Infrastructure are this programme's core areas of focus. After several rounds of consultations with various stakeholders, 49 key performance indicators have been chosen to measure progress of the districts. Districts are prodded and encouraged to first catch-up with the best district within their state, and subsequently aspire to become one of the best in the country, by competing with, and learning from others in the spirit of competitive and cooperative federalism.

## Boosting Infrastructure to fuel Development

Hiranmoy Roy



*The growth drivers for infrastructure in India are Government Initiatives, Infrastructure Need, Housing Development, International Investment, and Public-Private Partnerships.... Infrastructure provision in Union Budget 2018-19 is supposed to increase GDP growth, strengthen connectivity, especially the border areas that are strategic to be connected to the mainland, boost health services, education, agriculture, transportation, tourism and overall infrastructure sector*

**T**he Government has announced commitments to build large infrastructure projects through significant public expenditure and with the help of private partners – including foreign investors. There are some areas in infrastructure where the externalities caused by projects cannot be captured by project revenues alone. Therefore, the Government has created a Viability Gap Funding arrangement through a window in the Finance Ministry.

Urbanization is an opportunity and priority so the government has rolled out two inter-linked programmes – Smart Cities Mission and the AMRUT. Smart Cities Mission aims at building 100 Smart Cities with state-of-the-art amenities. 99 Cities have been selected with an outlay of 2.04 lakh crore. These Cities have started implementing various projects like Smart Command and Control Centre, Smart Roads, Solar Rooftops, Intelligent Transport Systems, Smart Parks. Projects worth Rs. 2350 crore have been completed and works of Rs. 20,852 crore are under progress. To preserve and revitalize soul of the heritage cities in India, National Heritage City Development and Augmentation Yojana (HRIDAY) has been taken up in a major way. The AMRUT programme focuses on providing water supply to all households in 500 cities. State level plans of Rs.77,640 crore for 500

cities have been approved. Water supply contracts for 494 projects worth Rs.19,428 crore and sewerage work contract for 272 projects costing Rs.12,429 crore have been awarded. The government also ensured to leverage the India Infrastructure Finance Corporation Limited (IIFCL) to help finance major infrastructure projects, including investments in education and health infrastructure, on strategic and larger societal benefit considerations.

The government has scaled new heights in development of Road Infrastructure sector. It is confident to complete National Highways exceeding 9000 kilometers length during 2017-18. Ambitious BharatmalaPariyojana has have been approved for providing seamless connectivity of interior and backward areas and borders of the country to develop about 35000 km in Phase-I at an estimated cost of Rs.5.35 lakh crore.

### Power Sector

In the power sector the government is working towards changing the law so that power purchase agreements (PPAs) are enforced. The PPAs would seek to cover 100 per cent of the annual average demand of a particular state or a discom. The government's strategy is aimed at improving India's per capita power consumption, which is around 1000 kWh among the lowest in the

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world. In comparison, China has a per capita consumption of around 4,000 kWh, with developed nations averaging around 15,000kWh per capita. The government also talked about a radical plan to separate the so-called carriage and content operations of existing power distribution companies. Carriage refers to the distribution aspect and content to electricity itself. In industry parlance, these are known as “wire” and “supply”. The separation will allow people and companies in India buy electricity from a power company of their choice, and have it supplied to them by the distribution network that services the neighborhood in which they live. The result, apart from the choice for consumers, would be lower tariffs because of the competition. This will help in reduction of cross-subsidies borne by the industry, and make tariffs more competitive for businesses thereby pushing the government’s ‘Make in India’ drive. With an eye on better targeting of subsidies, the government is also exploring the use of direct benefits transfer (DBT) scheme in the electricity sector. Government’s policy think-tank NITI Aayog has pitched for DBT in the electricity sector with its draft national energy policy.

### Housing

In the field of housing, Low Income Group (LIG) housing was provided through Basic Services for Urban Poor (BSUP) and Integrated Housing and Slum Development Programme

(IHS DP) components later Rajiv Awas Yojana (RAY) of JNNURM. The biggest challenge that this program faced was the scarcity of suitable land, which the Planning Commission of India (2012–2017) attributes to the suboptimal land-use patterns, largely induced by the regulatory regime in place, the lack of long-term urban planning, and the lack of a participatory planning process to determine the most efficient use of parcels of land. Delays in implementing such programs led to cost escalations, which, in turn, meant housing was not delivered on the required scale and became unaffordable to the target demographic. Projects funded under the Urban Infrastructure and Governance (UIG) submission required the possible eviction of slum dwellers, in which case clear policies on their rehabilitation were necessary. The RAY program had a short implementation span before a new program, Housing for All (Urban) Mission, which was launched in 2015, replaced it. According to the Ministry of Housing and Urban Poverty Alleviation (MHUPA) summary statement on the RAY, between 2013 and 2015, 117,707 houses were sanctioned and only 3,378 were completed (MHUPA 2015). The Housing for All Mission aims to build on RAY and fully address the housing shortage by 2022. However, the initial budget allocation by the central government for the program for 2015–2016 is Rs.40 billion, which is too small to have any major impact (MHUPA 2015).



### Transport

In the transport sector, the framing of an integrated transport policy to fasten the development of infrastructure for the sector is recommended by a study of GoI. The objective of the study was primarily to look into the projected traffic flow, freight transport and the investment required for the development of infrastructure in transport sector during the next two decades. The major findings of the study suggested a transport system must cut across modes of transport, administrative geographies, and integrate capital investment with regulatory and policy for development.

Some of the specific actions taken by Government include the development of inland waterways, coastal shipping, dedicated freight corridors in railways, electronic tolling system, development of public transport including metro, bus rapid common ticketing for urban transport etc. The policy had stated that it is necessary to create a policy environment that encourages competitive pricing and coordination between alternative modes in order to provide an integrated transport system that assures the mobility of goods and people at maximum efficiency and minimum cost.

Union Budget 2018 is a game changer for infrastructure sector as the government of India is taking a lot of initiatives in the field of infrastructure. Due to the strategic importance of this sector, an in-depth analysis is needed to evaluate the opportunities and growth drivers of infrastructure development in India of new initiatives taken in Union Budget 2018.

Recent trend and pattern of Indian infrastructure sector are characterized by the high budgetary allocation for the sector, rising infrastructure deals, increasing private sector investment, improvement in logistics and raising FDI in the sector.

The strong advantages of infrastructure development in India are governed by huge demand as it has a requirement of investment worth Rs.50 trillion (US\$ 777.73 billion) in infrastructure by 2022 to have

sustainable development in the country. Sectors like power transmission, roads and highways and renewable energy will drive the investments in the coming years. Attractive opportunities in India such as favorable valuation and earnings, the Regional Connectivity Scheme and immense scope for improvement as only 24 percent of the National Highways are four lanes. The competitive advantages such as attracting the major global players like China Harbour Engineering and Mizuho Financial Group and the sector received huge FDI inflows in 2017.

Interestingly strong policy support like the one 'Housing for All' and 'Smart Cities Mission' the Government of India is working on reducing bottlenecks pushing growth in the infrastructure sector. With the UDAY Scheme, that will help in financial turnaround and revival of electricity distribution companies of India, the power sector has been registering strong growth. Also 100 per cent FDI is permitted under the various infrastructure sectors.

A strong momentum is also observed in the expansion of roadways. Value of total roads and bridges infrastructure in India is estimated to have expanded at a CAGR of 13.6 per cent over FY09-17 to US\$ 19.2 billion.

The eight core infrastructure industries include coal, crude oil, natural gas, refinery products, fertilizers, steel,



cement and electricity. The overall index grew by 4.8 per cent during FY 2016-17. Electricity (10 per cent), steel (9 per cent), refinery products (8.9 per cent), cement (5.8 per cent) and fertilizers (3.3 per cent) led the growth in the index. The cumulative growth of the index between April-October 2017 was 3.5 per cent.

The growth drivers for infrastructure in India are Government Initiatives, Infrastructure Need, Housing Development, International Investment, and Public-Private Partnerships. The total allocation for infrastructure in Budget of 2017-18 stands at US\$ 61.48 billion and major sectors covered are Railways and Metro Rail, Construction, Telecom and Energy, Roads and Airport.

### Public Private Partnership

The opportunities in infrastructure sector are broadly coming through Government Initiatives, International Associations and Urban Indian Real Estate. The Government is attempting to revive and give a boost to Public-Private Partnerships. To make India a global hub for electronics manufacturing, a provision of the total allocation for infrastructure in Budget of 2017-18 stands at US\$ 61.48 billion. Japanese investment has played a significant role in India's growth story. Japan has pledged investments of around US\$35 billion for the period of 2014-19 to boost India's manufacturing and infrastructure sectors. The Japanese government is constantly looking for investment opportunities in India. Asian Development Bank will provide US\$ 275 million loans for a piped water supply project for rapidly urbanizing small towns, covering 3 lakh households, in Madhya Pradesh. India will need to construct 43,000 houses every day until 2022 to achieve the vision of Housing for All by 2022. Hundreds of new cities need to be developed over the next decade under the smart city programme. This has the potential for catapulting India to third largest construction market globally. The sector is expected to contribute 15 per cent to the Indian economy by 2030. The recent policy reforms such as the Real Estate Act, GST, REITs, steps to reduce approval delays etc. are only going to strengthen the real estate and construction sector.

**Table 1: Summary of Infrastructure Projects Completed During the 12th Five-Year Plan**

Sector	Number of Projects	Cumulative Expenditure (US\$)
Road Transport and Highways	91	8.7 billion
Power	73	16.63 billion
Petroleum	65	19.48 billion
Railways	33	3.81 billion
Steel	20	8.13 billion
Shipping and Ports	20	1.78 billion
Telecommunications	14	463.62 million
Coal	9	2.26 billion
Fertilizers	6	596.24 million
Civil Aviation	5	861.16 million
Urban Development	5	678.83 million
Atomic Energy	1	168.93 million

Source: Ministry of Statistics and Programme Implementation (MoSPI)



## Capital Outlay on Infrastructure Sector: Union Budget 2018

	RE 2017-18 (Crore)	BE 2018-19 (Crore)	Per Change
1 Ministry of Coal	14478	15799	9.124188
2 Ministry of Development of North Eastern Region (for infra.)	330	600	81.81818
3 Ministry of New and Renewable Energy	9466	10317	8.99007
4 Ministry of Petroleum and Natural Gas	87319	89210	2.165623
5 Ministry of Power	64318	53469	-16.8678
6 Ministry of Civil Aviation	2543	4086	60.67637
7 Department of Telecommunication	9786	16986	73.57449
8 Ministry of Railways	80000	93440	16.8
9 Ministry of Housing And Urban Affairs	15193	39937	162.8645
10 Ministry of Road Transport and Highways	59279	62000	4.590158
11 Ministry of Shipping	3165	4042	27.70932
12 Ministry of Steel	11428	11294	-1.17256
<b>Grand Total</b>	<b>357305</b>	<b>401180</b>	<b>12.27943</b>

Source: Union Budget 2018.

### Recent Budget Provisions

The Govt. has set aside Rs. 21,000 crore for building 5.1 million rural houses in FY 19 apart from the 5.1 million being constructed this year under the Prime Minister AwasYojana (PMAY). Sectors including cement, steel, paints, sanitary ware and electricals could benefit from the Government's decision to step up its affordable housing drive. The Govt. will create a dedicated Affordable Housing Fund in National Housing Bank. An interest subsidy will be provided to rural households that are not covered under PMAY.

India will invest as much as Rs. 5.95 lakh crore in creating and upgrading infrastructure in the next financial year, said the Finance Minister. He said, "Our country needs massive investments estimated to be in excess of Rs. 50 lakh crore in infrastructure to increase the growth of GDP, connect and integrate nation with a network of roads, airports, railways, ports and inland waterways to provide good quality services to our people". To raise resources, state-owned firms would access the equity and bond markets. The budget also levied a Rs.

8 per litre road and infrastructure cess on imported petrol and diesel. The government and market regulators also have taken necessary measures for development of monetizing vehicles like infrastructure Investment Trust (InvIT) and Real Investment Trust (ReITS). The Govt. would initiate monetizing select Central Public Sector Enterprises (CPSE) assets using InvITs from next year.

As a part of new integrated infrastructure planning model the NDA government unveiled the largest – ever rail and road budget of Rs. 1.48 lakh crore and 1.21 lakh crore, respectively in 2018-19. India needs to fund for ambitious plans such as Sagarmala (ports) and Bharatmala to improve its transport infrastructure through raising equity from the market. To raise equity from the market for its mature road assets, NHAI will consider organizing its road assets in to Special Purpose Vehicle (SPV) and innovating monetizing structure like Toll Operate and Transfer (TOT) and InvIT. The total investment estimated for Bharatmala is Rs. 10 lakh crore – the largest outlay for a Govt. road construction scheme – an additional Rs. 8 lakh crore will

be needed for Sagarmala until 2035. The Govt. is confident of completing National Highways exceeding 9000 km length during 2017-18, Jaitley said. The country has a road network of 3.3 million km, the second largest globally.

Plan outlay for Indian Railways in next fiscal has been pegged at 1.48 lakh crore, highest ever outlay for national transporter. Track renewal of 3,999 km, procurement of 12,000 wagons, safety fund of Rs.20, 000 crore, and electrification of 6,000 km planned. The national transporter will raise 28,500 crore from extra-budgetary support from extra-budgetary resources such as IRFC bond and 26,440 crore through other borrowings. Vinayak Chatterjee, Chairman of Feedback Infra, an integrated infrastructure company, said that Railways capital expenditure plan lays focus on electrification, safety and modernization. Passenger safety and amenities are the prime focus and raising non-fare revenue to boost efficiency.

Budgetary allocation for Ministry of Housing and Ministry of Development of North Eastern Region (for infrastructure) has the highest increase in 2018-19 as compared to 2017-18 and an overall increase in allocation for infrastructure sector is 12.27 per cent.

Thus, the Union Budget 2018 has identified infrastructure sector as the growth drivers of Indian economy and essential for further economic development. Infrastructure provision in Union Budget 2018-19 is supposed to increase GDP growth, strengthen connectivity, especially the border areas that are strategic to be connected to the mainland, boost health services, education, agriculture, transportation, tourism and overall infrastructure sector. The Finance Minister also mentioned smart cities mission to provide smart solutions to the technological and digital problems of urban India, AMRUT to provide basic services to urban India and HRIDAY to protect heritage cities and to promote tourism and sustainable development of heritage sites. □

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## Stretching a Hand to the Vulnerable

V Srinivas



*India's Social Inclusion programmes are comprehensive and their implementation supervised by a number of independent Ministries with adequate resource allocations. Not only have statutory legal provisions been enacted, autonomous National Commissions have been established to protect the rights envisaged by the Indian Constitution to the vulnerable sections. There are economic empowerment programmes envisaged under the policies of Government implemented through the apex Finance and Development Corporations. The comprehensive implementation of national policies will enable India to greatly empower her vulnerable population*

**S**ocial Inclusion refers to access to favourable opportunities in society to enhance one's life chances. Such opportunities comprise of education, employment, social services and social protection. The absence of these opportunities is social exclusion, which results in marginalization, poverty and material deprivation. This article deals with the programmes and policies of the government towards improving the lives of the vulnerable like the girl child, women, weaker sections and elderly.

### Constitutional Provisions

The Constitution of India through its Preamble seeks to secure to all its citizens- justice, social, economic and political; liberty of thought, expression, belief, faith and worship; and equality of status and of opportunity.

The Indian Constitution has outlined through the Fundamental Rights and the Directive the State's policies for Social Inclusion. Part III of the Indian Constitution provides for 6 Fundamental Rights for Social Inclusion. These include Right to Equality, Right to Freedom, Right against Exploitation, Right to Freedom of Religion, Cultural and Educational Rights and Right to Constitutional Remedies. These Rights are also available to persons with disabilities.

Article 15 (3) empowers the State to make special provisions for women and children in educational institutions and employment opportunities. This provision has been widely invoked by Government for providing exclusive reservation of certain categories of posts for women and for reservation of women in local bodies and educational institutions. Article 15 (4) seeks to promote the educational advancement of socially and educationally backward classes of citizens, i.e. the OBCs, the Scheduled Castes and Scheduled Tribes in matters of admission of students belonging to these categories in unaided educational institutions. Article 17 abolishes untouchability and its practice in any form. The enforcement of any disability arising out of untouchability shall be an offence in accordance with the law.

The Directive Principles of State Policy are enshrined in Part IV of the Indian Constitution. Article 38 says that the State shall strive to promote the welfare of the people by securing and protecting effectively as it may a social order in which justice, social, economic and political shall inform all the institutions of the national life. Article 39 provides for the abolition of child labour and for equal pay for equal work for both men and women. Article 41 provides for Right to Work, to education, to public assistance in case of unemployment, old age, sickness and disablement and in other cases of

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undeserved want. Article 42 provides for just and humane conditions of work and for maternity relief. The 11<sup>th</sup> Schedule to Article 243 G says that Social Welfare including the welfare of the handicapped and mentally retarded, and the 12<sup>th</sup> Schedule to Article 243 W says that safeguarding the Interests of Weaker Sections of Society including the handicapped and the mentally retarded.

### Governance Structures

The Government of India's Social Inclusion programmes is implemented by the Ministries of Social Justice & Empowerment, Tribal Affairs, Women and Child Development and Minority Affairs.

### Ministry of Social Justice and Empowerment

The Ministry of Social Justice and Empowerment implement 42 schemes for the welfare of Scheduled Castes. The Ministry seeks educational empowerment, economic empowerment and social empowerment under its various schemes. The Ministry is the custodian of 2 Acts, specifically aimed at curbing (i) untouchability and (ii) atrocities against Scheduled Castes and Scheduled Tribes. These are the Protection of Civil Rights Act 1955 and the Scheduled Castes and Scheduled Tribes (Prevention of Atrocities) Act 1989. The National Commission for Scheduled Castes was set up under Article 383 of the Constitution in 1990, to investigate and monitor all matters relating to the safeguards provided for Scheduled Castes under the Constitution and all Laws in force and to inquire into specific complaints with respect to deprivation of rights and safeguards of the Scheduled Castes.

The educational empowerment of scheduled castes is through Post Matric Scholarships for Scheduled Caste Students that provide for financial assistance to scheduled caste students studying at post-matriculation and post-secondary stage to enable them to complete their education. The financial assistance includes maintenance allowance, fee reimbursement, book-bank facility and other allowances. The Babu Jagjivan Ram Chhatrawas Yojana



provides hostel facilities for Scheduled Caste boys and girls in middle schools, higher secondary schools, colleges and universities. For post-graduate SC students, the Government is providing fellowships for M.Phil and PhD programmes through the University Grants Commission. The Central Government is also implementing National Overseas Scholarship programme for SC students for Masters and PhD programmes in specified fields of study.

The economic empowerment of Scheduled Castes is through the special central assistance to the scheduled castes sub-plan (SCSP). Assistance is provided by the State Scheduled Caste Development Corporations, which implement economic development schemes with the equity transferred by the central government. The State Scheduled Caste Development Corporations provide credit and inputs by way of margin money loans and subsidy. India established the National Scheduled Castes Finance and Development Corporation to provide concessional loans to Scheduled Castes families and skill cum entrepreneurial training to the youth of the target group living below double the poverty line. The National Safai Karmacharis Finance and Development Corporation has been established for economic empowerment of scavengers and manual scavengers.

### Department for Empowerment of Persons with Disabilities (Divyangjan)

The Department for Empowerment

of Persons with Disabilities deals with the legislation governing different aspects of disability and welfare and empowerment of persons with disabilities. These are the Rehabilitation Council of India Act 1992, The Persons with Disabilities (Equal Opportunities, Protection of Rights and Full Participation) Act 1995 and the National Trust for the Welfare of Persons with Autism, Cerebral Palsy, Mental Retardation and Multiple Disabilities Act 1999.

There are 3 Statutory bodies under the Department. The Rehabilitation Council of India is responsible for regulating training policies and programmes for various categories of professionals in the area of rehabilitation and special education. The Chief Commissioner for Persons with Disabilities is the statutory functionary under the Act of 1955 to coordinate work of State Commissioners for persons with disabilities. The National Trust is a statutory body, which enables and empowers persons with disabilities to live independently as fully as possible and to extend support to registered organizations providing need-based services. India has set up 6 National Institutes / Apex Level Institutes to deal with the multi-dimensional problem of disabled population in each major area of disability. The National Handicapped Finance and Development Corporation is the apex level financial institution for extending credit facilities to persons with disabilities for their economic development.

The Accessible India campaign is a nationwide flagship campaign to



ensure a barrier-free and conducive environment for Divyangjans all over the country, launched by the Prime Minister on December 31, 2015, for creating universal accessibility for persons with Disabilities.

### Ministry of Tribal Affairs

The Ministry of Tribal Affairs was established with the objective of providing a focused approach to the integrated socio-economic development of the Scheduled Tribes, in a coordinated and planned manner. The scheduled areas are notified under Article 244 (1) of the Constitution. Article 244 (2) relates to those areas in the States of Assam, Meghalaya, Tripura and Mizoram which are declared Tribal Areas and provides for District Councils/ Regional Councils for such areas.

The Ministry administers grants to states comprising of special central assistance to tribal sub-plan schemes, grants under Article 275 (1) of the Constitution of India, grants for the Eklavya Model Residential Schools; education grants for vocational training centers in tribal areas, establishment of ashram schools in Tribal Sub-Plan areas, and livelihood support grants for minimum support price for minor forest produce. The Ministry also provides equity support to the Tribal Cooperative and Marketing Federation of India and the State-Tribal Cooperative and Marketing Federations. The National Scheduled Tribes Finance and Development Corporation provides

financial assistance to empower tribals for undertaking self-employment ventures. The National Commission for Scheduled Tribes was established under Article 338 A of the Constitution as an independent body to safeguard the rights of tribals.

### National Policy for Older Persons

India's National Policy for Older Persons seeks to encourage individuals to make provisions for their own as well as their spouse's old age; to encourage families to take care of their older family members and to promote research and training facilities to train geriatric caregivers and organizers of services for the elderly. The Government has constituted the National Council for Older Persons to advise and aid the

Government in developing policies for older persons.

### Ministry of Women and Child Development

The Ministry of Women and Child Development was established in 2006 with the responsibility to advance the rights and concerns of women and children and to promote their survival, protection, development and participation in a holistic manner. It was also expected to bring about inter-ministerial and inter-state convergence with regard to women and child programmes. The National Policy for Empowerment of Women lays down detailed prescriptions to address discrimination against women, strengthen existing institutions, provide better access to health care, equal opportunities for women's participation in decision making and mainstreaming gender concerns in developmental processes. The policies and programmes of government have been formulated on the lines of the broader vision laid down by the National Policy for Empowerment of Women.

The Ministry of Women and Child Development is the custodian of several Acts relating to women and children. Prominent among these is the Dowry Prohibition Act, the Prohibition of Child Marriage Act,





the Sexual Harassment of Women at Workplace (Prevention, Prohibition and Redressal) Act, and the Juvenile Justice (Care & Protection of Children) Amendment Act 2011.

The National Commission of Women and the National Commission for Protection of Child Rights have been established under the aegis of Ministry of Women and Child Development to safeguard the rights of women and protect children's rights respectively. The National Commission on Women took up the "Violence Free Home – A Women's Right" campaign for awareness generation in Delhi. The Protection of Children from Sexual Offences Act 2012 came into force on 14<sup>th</sup> November 2012, as a comprehensive piece of legislation that provides protection to all children under the age of 18 years from offences of sexual assault and sexual harassment.

Amongst the flagship schemes implemented by the Ministry of Women and Child Development are the Umbrella ICDS, Women Empowerment Schemes like Beti Bachao Beti Padhao and a series of grant in aid schemes in the field of

women and child development. The umbrella ICDS comprises of 6 sub-components namely the Anganwadi services scheme, the Pradhan Mantri Matru Vandana Yojana, the National Creche Scheme, the Poshan Abhiyan, the Scheme for Adolescent Girls and Child Protection Scheme. The ICDS is aimed at improving the nutritional and child health status of children below the age of six years and pregnant and lactating mothers as also to reduce the mortality, morbidity and malnutrition. The Beti Bachao Beti Padhao scheme is to celebrate the girl child and enable her education. The main objectives of the scheme are to prevent gender-based sex-selective elimination, to ensure survival and protection of the girl child and to ensure education and participation of the girl child. The scheme seeks to improve sex ratio at birth in selected gender critical districts by 2 points a year.

On International Women's Day dated March 8, 2018, the Prime Minister launched the National Nutrition Mission and pan India expansion of Beti Bachao Beti Padhao at Jhunjhunu in Rajasthan. The Prime Minister said that there was

no question of discrimination based on gender and stressed the importance of girls getting access to quality education just like boys. Emphasizing that a daughter is not a burden, the Prime Minister said that girls are bringing pride and glory to the Nation excelling in several fields.

### Conclusion

India's Social Inclusion programmes are comprehensive and their implementation supervised by a number of independent Ministries with adequate resource allocations. Not only have statutory legal provisions been enacted, autonomous National Commissions have been established to protect the rights envisaged by the Indian Constitution to the vulnerable sections. There are economic empowerment programmes envisaged under the policies of Government implemented through the apex Finance and Development Corporations. The comprehensive implementation of National Policies will enable India to greatly empower her vulnerable population. □

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## THE MANTRA OF 3R – REDUCE, REUSE AND RECYCLE - IS AT THE HEART OF ANY VISION TOWARDS THE SUSTAINABLE DEVELOPMENT OF MANKIND

The Eighth Regional 3R Forum in Asia and the Pacific was held at Indore in April 2018 with an overall theme of "Achieving Clean Water, Clean Land and Clean Air through 3R and Resource Efficiency – A 21st Century Vision for Asia-Pacific Communities".

In a message to the participants of the 'Eighth Regional 3R Forum in Asia and the Pacific', the Prime Minister said, "The mantra of 3R – Reduce, Reuse and Recycle- is at the heart of any vision towards the sustainable development of mankind. All stakeholders –producers, consumers and the State alike must adhere to this golden principle which can contribute significantly in solving the twin challenges of waste management as well as the sustainable development".

### 3R FORUM : Aims and Objectives

The Forum aims to address how 3R and resource efficiency measures can provide complementary benefits in making cities and countries clean, smart, liveable and resilient. The Forum also aims to generate policy-level, institutional level and technological insights towards effective implementation of 3R and resource efficiency to foster circular economic development, sustainable change in current use of natural resources and ultimately achieve a zero waste society.

In addition, the Forum seeks to engage the public and private sector to explore various partnership opportunities in areas of 3R and waste management for moving towards a zero waste society. The Forum further provides an opportunity to establish insightful linkages between the principles of 3R and resource efficiency and the objectives of Swachh Bharat Mission (Clean India Mission). Through this Forum, India aims to strengthen this focus through its 'Mission Zero Waste' approach thereby encouraging cities, industries and other diverse stakeholders to see look at waste as a resource.

The Eighth Regional 3R Forum in Asia and the Pacific is hosted by the Ministry of Housing and Urban Affairs, Government of India, and co-organized by the Ministry of the Environment, Government of Japan, and the United Nations Centre for Regional Development of the Division for Sustainable Development /United Nations Department of Economic and Social Affairs. The Indore Municipal Corporation, Government of Madhya Pradesh, and Confederation of Indian Industry (CII) have been designated as the City Partner, Organizing State Partner and Industry Partner respectively.

## Expanding Universal Health Coverage

Manisha Verma



*There has been a sharpened focus towards providing affordable, accessible quality healthcare through various strategic interventions. These have covered a whole gamut of health services, manpower strengthening initiatives and steps to meet infrastructure demands. The efforts are in the direction of achieving Swastha Bharat, Samruddh Bharat*

**T**he past four years have seen immense strides in the health scenario of the country. Be it policy changes, new programs or schemes, be it a financial push or global goals, considerable achievements in each facet of healthcare have been made. The Government is committed to the holistic development and thus health has been a focus area under its 'Sabka Saath, Sabka Vikas' mandate. The mandate of Ministry of Health and Family Welfare (MoHFW) is to ensure that the health services reach the most vulnerable and the unserved populations. To fulfil this, the Ministry has taken up initiatives to ensure and expand Universal Health Coverage (UHC).

On the policy front, one of the significant steps has been the announcement of the National Health Policy 2017, after a gap of 15 years, to address the current and emerging challenges necessitated by the changing socio-economic and epidemiological landscapes of the country. While the Policy touched all components of healthcare in the country, it has brought focus to preventive and promotive health, primary health care and ensuring access, affordability and quality of health services. The other policy initiatives have been the Mental Healthcare Act, 2017, HIV and AIDS (Prevention and Control) Act- 2017 and amendment of the Indian Medical

Council Act, 1956 for a uniform entrance examination for admission to all medical seats in the country. For the first time under National Eligibility cum Entrance Test (NEET), there is a uniform entrance examination across the country including private colleges and deemed universities. Also, annual sanctioned intake capacity has been increased from 3 per cent to 5 per cent for persons with benchmark disabilities in accordance with the provisions of the Rights of Persons with Disabilities Act, 2016, based on the merit list of National Eligibility-Cum-Entrance Test for admission to Medical Courses.

Another landmark initiative to expand the universal health coverage across the country is- *Ayushman Bharat*. With its two components viz. Comprehensive Primary Health Care (CPHC) through 1.5 lakh Health and Wellness Centres (HWCs) and the National Health Protection Mission (NHPM), it is a huge step towards UHC. The Prime Minister launched the HWCs at Jangla, district Bijapur (Chhattisgarh) on April 14, 2018 embarking India on its journey towards UHC. The NHPM is poised to be the largest public funded health insurance scheme in the world. It will cater to the unmet needs of the population which remained hidden due to lack of financial resources. It aims to protect the poorest from catastrophic healthcare spending. Health insurance cover of Rs. 5,00,000/- per family/

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per year will be provided to 50 crore people (from about 10 crore families). This shall benefit nearly 40 per cent of the population, covering almost all secondary and many tertiary hospitalizations.

The Health Ministry has been persistently working on ensuring accessibility, affordability and quality of health services with special focus on reducing the Out Of Pocket Expenditures (OOPE) of the beneficiary. Under the flagship program National Health Mission (NHM), free essential drugs and diagnostics are provided at all public facilities across 29 States/UTs through the Free Drugs and Diagnostics program. Another innovative initiative is the Affordable Medicines and Reliable Implants For Treatment (AMRIT). Through 124 AMRIT Pharmacies spreads across 22 States, more than 5200 drugs (including cardiovascular, cancer, diabetes, stents, etc), implants, surgical disposables and other consumables are sold at a significant discount of up to 50 per cent on market rates. Drugs having MRP Value of Rs. 566.34 Crores have been dispensed at Rs. 254.36 Crores, resulting in saving of Rs. 311.99 Crores to the patients. The Pradhan Mantri National Dialysis Program (PM-NDP) has served 2,37,139 patients, conducted 22,84,353 free dialysis session through the 497 dialysis operational units/centres and 3330 total operational dialysis machines under it.

Also, as part of its maternal health programs, 388.65 lakhs mothers have been benefitted under the Janani Sishu Yojana (JSY) with an expenditure of Rs. 6485.17 crore. This has brought the institutional delivery in the country to 78.9 per cent (NFHS-4, 2015-16) from 47 per cent (DLHS-3, 2007-08). The new program Pradhan Mantri Surakshit Matritva Abhiyan has helped identify more than 6 lakh high-risk pregnancies through more than 1.16 crore antenatal check-ups. Another new initiative has been LaQshya – ‘Labour room Quality improvement Initiative’ launched on December 11, 2017. It is a focused and targeted approach to strengthen

key processes related to the labour rooms and maternity operation theatres.

To ensure accessibility, under NHM, there are at present 1416 Mobile Medical units (MMUs) and 24276 ambulances (104/108) operational across the country. In order to strengthen the infrastructure of the public health systems, 7990 constructions and 9615 renovations have been completed, 73879 ASHAs selected across the country and provided 76283 health kits and 8149 AYUSH doctors have been engaged.

A singular and landmark achievement has been-India was validated for Maternal and Neonatal Tetanus Elimination (MNTE) in April 2015, much ahead of the global target date of December 2015. What is perhaps noteworthy is that India’s Under-five Mortality Rate and Maternal Mortality Ratio declined at a higher pace than the global average. The percentage annual compound rate of decline in IMR during the period of the National Health Mission also accelerated from 2.1 per cent to 4.5 per cent. The Total Fertility Rate (TFR) of the country has declined from 3.8 in 1990 to 2.9 in 2005 to 2.3 in the year 2013 and 24 States/UTs have already achieved replacement level of less than 2.1.

A significant accomplishment has been an expansion of the world’s biggest public health intervention i.e. Universal Immunization Program (UIP), by launching five new vaccines (Measles-Rubella, Pneumococcal, Rotavirus, Inactivated Polio and Japanese Encephalitis), bringing total to 12 vaccines. Mission Indra dhanush (MI) was an important component of UIP and has completed its 4 phases in 528 districts. Under this Mission



mode scheme, 2.55 crore children have been vaccinated and 66.57 lakh fully immunized along with 68.78 lakh pregnant females being immunized. The first two phases of MI alone have led to an increase of 6.7 per cent in full immunization coverage in one year as compared to the 1 per cent annual increase in the past. Not only this, the target to achieve 90 per cent full immunization has been advanced by the Prime Minister in December 2019. To achieve this, the Intensified Mission Indra dhanush was launched by Prime Minister on October 8, 2017 at Vadnagar, Gujarat to be carried out in 121 districts, 17 urban areas and 52 districts of NE states (total 190 districts/urban areas across 24 states).

Not just immunization, MoHFW implements several programs to cater to each life stage of a child i.e. antenatal to adolescent and thereunto family planning and pregnancy. The MAA-Mother’s Absolute Affection has enhanced the focus on breastfeeding. Through Intensified Diarrhoea Control Fortnight (IDCF) to combat mortality in children due to childhood diarrhoea, more than 22.3 crore under-5 children were reached since 2014. More than 97 Crore doses of Albendazole have been administered to children in the 1-19 year group, since 2014 as part of the National Deworming Day (NDD) to combat Soil-Transmitted Helminth (STH) infections. Also, 1150 Nutritional Rehabilitation Centres (NRCs) have been established for the management of severe acute malnutrition in under-5 children all across the country. The Rashtriya Bal

Swasthya Karyakram (RBSK) entails provision for child health screening and early intervention services through early detection and management of 4 Ds i.e. Defects at birth, Diseases, Deficiencies, Development delays and free management of 30 identified health conditions including surgery at tertiary health facilities. Until September 2017, a total of 1.55 Crore children have received treatment under the programme. With a high focus on the adolescent health, the Rashtriya Kishor Swasthya Karyakram (RKSK) was launched. Under this, 7516 Adolescent Friendly Health Clinics (AFHCs) have been established across the States to provide Adolescent Friendly Health Services. Approximately, 60 lakh adolescents receive counselling and clinical services at these clinics in a year.

The Ministry has accorded priority to population stabilisation. Mission Parivar Vikas programme was launched in 2016 for increasing access to contraceptives and family planning services in 146 high fertility districts with key initiatives. Under this, new contraceptives are made available till the Sub-Centre Level. As part of *NayiPehel*, family planning kit is provided by the ASHAs to the newlyweds. Saas Bahu Sammelan are held to encourage young married women and their mothers-in-law to freely discuss matters related to family planning and reproductive health. Beyond this program, three new contraceptives are added to the basket of family planning choices: injectable Contraceptive MPA (Medroxy Progesterone Acetate) under Antara Programme, Centch roman (Chhaya) and Progesterone Only Pills and injectable and Centchroman rolled out across the country.

To strengthen and augment the medial infrastructure in the country, under Pradhan Mantri Swasthya Suraksha Yojana (PMSSY), new AIIMS have been announced and medical colleges set up in various districts. The program aims at correcting regional imbalances in the availability of affordable/reliable tertiary healthcare

services. Since July 2014, 1675 hospital beds have been added in the six functional AIIMS (including 850 beds added in the last one year) and 2 new AIIMS announced for Jharkhand and Gujarat in 2017-18. Basket of services in six AIIMS have been expanded and presently, on an average, about 1663 major surgeries are getting performed every month. Also, construction of Super Specialty Block in four GMCs completed, adding up to 902 hospital beds, six Super Specialty Departments and three Trauma Centres and Cabinet approval obtained for 13 more GMC up-gradation projects. In the sphere of medical education, total 92 Medical College (46 Govt. and 46 Pvt.) have been set up in the last four years. This has resulted in an increase of 15354 MBBS seats (6519 in Government Colleges and 8835 in Private Colleges) and total 12646 PG Seats (Broad and Super Specialty Course) in last four years.

The Prime Minister has announced the achievement of a TB Free India by 2025. In order to make this a reality, as part of Revised National Tuberculosis Control Program (RNTCP), treatment for drug-sensitive TB is provided through a network of more than 400,000 DOT Centres, diagnosis of drug-resistant TB drug susceptibility testing at 74 culture and drug susceptibility testing (C-DST) laboratories. Also, the steps include quality diagnosis through more than 14000 designated microscopy centres and house to house screening of TB symptoms covering 5.5 crore population under Active Case Finding. Acknowledging that nutrition plays a very crucial role in the treatment of TB patients, the Government has approved Rs. 500 per month for nutritional support to all TB patients for the duration of TB treatment through DBT (as announced in Union Budget 2018-19).

As a visionary step, under the National AIDS Control Program (NACP), Test and Treat' Policy has been



rolled out. It covers all patients with Anti Retro Viral (ARV) irrespective of CD count or clinical stage. This has brought more than 1 lakh additional HIV infected people under the ambit of ARV treatment. This also means that more than 11.75 lakh people infected with HIV are on ARV treatment; 54 per cent higher than the March'14.

The NHP 2017 clearly states tapping of IT for healthcare, and MoHFW has several IT initiatives including development of "inter-operable Electronic Health Records (EHR) system, telemedicine services, public health IT solutions (Mother and Child Tracking System (MCTS) / Reproductive Child Health (RCH) application, Kilkari App, Mobile Academy, ANM on Line (ANMOL), Drugs and Vaccines Distribution Management System (DVDMS) ('e-Aushadhi'), TB Patient Monitoring System "Nikshay", SUGAM by Central Drugs Standards Control Organisation (CDSCO) and eRaktKosh etc.) and web portals and mobile applications (National Health Portal (NHP), PMSMA Portal, MeraAspataal (My Hospital), mDiabetes Program, India Fights Dengue App etc.)

There has been a sharpened focus towards providing affordable, accessible quality healthcare through various strategic interventions. These have covered a whole gamut of health services, manpower strengthening initiatives and steps to meet infrastructure demands. The efforts are in the direction of achieving *Swastha Bharat, Samruddh Bharat*. □

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## Decentralised Approach to Tackling Nutrition

Avani Kapur



*On September 20, 2017, the Government of India committed to investing Rs. 12,000 crores over the next 3 years for improving maternal and child health and increasing the cost norms of the Supplementary Nutrition Programme. This was accompanied by the launch last month of National Nutrition Mission (NNM) with a three-year budget of Rs. 9046.17 crore commencing from 2017-18 with a vow to make India free from malnutrition by making Poshan Abhiyan the next "Jan Andolan"*

**W**here should the government invest if it wants to maximise India's long-run economic growth, given fiscal and capacity constraints? This was the question posed in the 2015-16 Economic Survey. The short answer – "the highest economic returns to public investment in human capital in India lie in maternal and early-life health and nutrition interventions" (Ministry of Finance, 2016).

It is a well-recognised fact that globally, nutrition-related factors contribute to about 45 percent of child deaths under age 5. India is no exception- 33 per cent of the total disease burden was caused by maternal, neonatal and nutritional diseases. (Institute for Health Metrics and Evaluation, Public Health Foundation of India, and Indian Council for Medical Research, 2017)

However, increasingly a large body of evidence from epidemiology and economics has shown that that mortality aside, poor nutrition in the first 1000 days – from a woman's pregnancy to the child's second birthday - can lead to stunted growth, impaired cognitive ability, poor performance in schools and a negative impact on the country's workforce development. (World Bank, 2018). Tomorrow's workforce

is today's child or foetus and events occurring while the child is in the womb or at a very young age can cause irreparable damage which lasts into adulthood. Possibly, the most striking visual representation of the impact that poor nutrition can have on deprivation in the brain can be found in the latest World Development Report. Focussed on the global learning crisis, the report shows significant differences in the magnetic resonance imaging (MRI) scan of the brain of two infants aged 2-3-month olds – one who stunted while another that wasn't.

Then there is also the pure economics of nutrition. On the one hand, several billion dollars are lost annually in terms of lost gross domestic product (GDP) due to malnutrition. These losses include both direct losses in physical productivity due to mortality but also indirect losses from poor cognitive skills, loss of schooling or due to increased health care costs. Concurrently, the returns on investments preventing malnutrition are extremely high. The 2016 Global Nutrition Report estimated that for every one dollar invested in nutrition could yield a return of 16 dollars. (International Food Policy Research Institute, 2016)

Tackling malnutrition, however, is no easy task. Nutritional interventions

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for children in isolation can have only a modest impact. Instead, what is required is a holistic and comprehensive plan – with multiple interventions ranging from increased access to health services right from adolescent stages, improved diet and supplements such as fortification, counselling and improved sanitation. Moreover, given the different forms of malnutrition, the timing and type of nutritional interventions can also make a significant difference. While wasting or low weight for height is usually the symptom of acute undernutrition due to insufficient food intake or diseases such as diarrhoea; Stunting or low height for age refers to chronic malnutrition which occurs over time (generally occur before age two) and its effects are largely irreversible.

Till date, India has seen mixed results in past approaches to tackling malnutrition. Despite over 4 decades of the Integrated Child Development Services (ICDS) scheme and a host of other programmes tackling nutrition, between 2005-2015, as per the third and fourth round of the National Family Health Survey (NFHS), while the percentage of children under 5 who were underweight decreased from 43 per cent to 36 per cent, the percentage of children who were wasted, increased by 1 percentage point, while those that were severely wasted increased by 2 percentage points. These findings are consistent with the official reported number of ICDS beneficiaries. As



of March 2015, 15 per cent of total ICDS beneficiaries were malnourished. This increased to 22 per cent as of March 2016 and 25 per cent as of September 2017. (Accountability Initiative, 2018)

While these numbers are worrying, over the last year, momentum around nutrition has been steadily building. Union and State governments along with other stakeholders have acknowledged nutrition as a key component of development. On September 20, 2017, the Government of India committed to investing Rs. 12,000 crores over the next 3 years for improving maternal and child health and increasing the cost norms of the Supplementary Nutrition Programme (Press Information Bureau, 2017). This was accompanied by the launch last month of National Nutrition Mission (NNM) with a three-year

budget of Rs. 9046.17 crore commencing from 2017-18 with a vow to make India free from malnutrition by making POSHAN Abhiyan the next “Jan Andolan”. (Press Information Bureau, 2018)

On paper and policy – the recent interventions on nutrition have all the right ingredients. Funds have been set aside, the need for a

comprehensive approach is specified, institutional structures such as the National Council on India’s Nutritional Challenges and Executive Committees have been set up; nutrition specific and sensitive schemes have been mapped and access to sanitation facilities has simultaneously improved.

The NNM has set itself a steep target of reducing stunting by 2 per cent, anaemia by 3 per cent and low birth weight by 2 per cent every year. However, given the complexity and diversity of the issue, a routine centralised, target driven approach towards implementing the programme may not work. Instead, for the mission to succeed, a decentralised approach with a focus on the first principles – namely the 3 Fs – funds, functions and functionaries will be critical.

### Flexible Financing

The first step in ensuring the success of the programme is to get the financing right. Not only are costs of delivering nutrition interventions different across states and districts, but analysis undertaken of the NFHS at both the state and district level, as well as the previous Rapid Survey of Children (RSOC), have highlighted significant inter-state and intra-state variation on achievement in nutritional outcomes. (Chakrabarti, Kapur, Vaid, and Menon, 2017; NITI Aayog, n.d.). For instance, while less than 17 per cent of children under 5 are stunted in Kerala, the proportion is over 40 per cent in Uttar Pradesh and Madhya







Pradesh. Similarly, while districts in Bihar and Jharkhand have the highest prevalence of wasting, districts in Uttar Pradesh and Madhya Pradesh topped the list in terms of high levels of stunting. (NITI Aayog, n.d.)

Centrally Sponsored Schemes (CSSs) are designed and funded primarily by the Union Government whilst states and local governments are responsible for the implementation and execution of the scheme. Despite an endeavour to ensure flexibility in design through decentralised planning, most often uniform fixed norms mean that states and local level functionaries have limited flexibility in implementation. Added to this is the common problem of inadequate fund flows to the last mile. For proper implementation of schemes smooth flow of funds needs to be ensured.

The government has already announced incentivising states through finances by providing performance incentives. Additionally, however, it will be essential to also provide enhanced flexibility such that states or even districts can choose from a basket of interventions based on their current level of nutritional development. This, in turn, may even require pooling resources across ministries or departments. Given the multidimensionality of nutrition, it would probably do more good if relevant ministries/departments could set aside a proportion of their budgets to tackle nutrition. As previously

mentioned, there is no real point in spending resources on skill development if our children do not have the cognitive ability or productivity developed in the early years.

We have detailed district-level information on different aspects of malnutrition from NFHS-4. The NITI Aayog has also put up disaggregated data on the current status of nutrition, available for public view. (NITI Aayog, n.d.)

Moreover, through the implementation of a common platform for real-time monitoring at the last mile will further enable the ability to use the data to make local decisions. Thus, if for instance a state or a district or even a panchayat wants to tackle nutrition by focusing on ending open defecation, it should have the flexibility to determine its own roadmap.

### Clearly Defined Functions

With funds in place, functions should follow. Despite attempts at convergence in the past, evidence from the field suggests that the integrated approach to nutrition services have not been able to achieve desired results. Each department usually implements programmes through a unique planning, budgeting and management system that holds officers accountable upward to the individual department. The multi-dimensional nature of nutrition, however, requires not just coordination amongst a host of ministries – water, sanitation, health, education, but most

critically the ability to create a holistic plan focussed right from adolescent care to maternal and child health care. In order to strengthen coordination across Ministries and have clear lines of accountability, roles and responsibilities and accountabilities of each member within the bureaucracy will need to be clearly defined and articulated. Essential thus to the success of India's nutrition strategy will be clearly defined institutional arrangements not just at the National level and state level (as already envisaged in the nutrition missions) but also in the districts that allow multiple levels of jurisdiction to work together. This further needs a clear and detailed articulation of roles and responsibilities across different layers of government and efforts to enhance capacity.

### Focus on the Functionaries

Finally, lower and mid-level bureaucrats and front-line workers at the last mile are critical resources in the implementation of government schemes and can make or break the state's ability to deliver on its promises. For nutrition, the Triple A – AWWs, ASHAs and ANMs are the key implementers, responsible for the delivery of essential services on the ground. Yet, for many years, the government have been grappling with acute shortage of staff. In such a scenario, the short-staffed delivery systems are only able to focus on routine activities such as supplementary nutrition and staff



salaries and expenditure on, and implementation of, softer items such as innovation, counselling and training, etc. are neglected. While endeavour to equip AWWs with smartphones and tablets will reduce administrative costs and time in filling multiple registers is excellent, technology can only do so much. Long-term, sustainable efforts at behavioural change will require fixing these capacity constraints urgently.

The recent policy and political push for nutrition have already defined a number of these steps. (NITI Aayog). However, experience has shown us, implementation is usually India's Achilles heel. The journey ahead is long and arduous but in order to address the multidimensionality of malnutrition and the long-term effects it can have on economic and cognitive development, multiple stakeholders and local service delivery models will need to be tried in a decentralised manner.

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## Shaping Food Consumption

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*When the same households are compared over time, the trends in food expenditure and food consumption vary between households that experience income growth vis-à-vis those that experience income declines. Regardless of access to PDS, food expenditure among households that suffer economic distress does not change substantially, possibly because they economise in other areas. However, food expenditure for households experiencing income growth increases. This suggests that food expenditure has a sticky floor. Growth in incomes leads to a higher increase in food expenditure by households without BPL/AAY cards than for those with these cards, even after implicit food subsidies are taken into account*

**T**he National Food Security Act primarily focuses on providing food security via expansion of the PDS. However, the extent to which this would lead to nutritional security depends on how households respond to the availability of cheap cereals. There are two potential effects that PDS subsidies may have on household consumption decisions. Households continually try to balance their various needs including ensuring adequate caloric consumption, enhancing the quality of their diets, improving living conditions and investing in the health and education of household members. For households that value dietary diversity, being able to buy cheap cereals will free up money to purchase other foods such as milk, fruits, nuts, and perhaps eggs and meat (income effect). For households that have other dominating consumption needs, money saved by purchasing subsidized cereals may be devoted to those needs and diverted from food expenditure (substitution effect). Which effect dominates remains an empirical question.

The Global Nutrition Report 2017 shows that, despite the significant steps the world has taken towards improving nutrition and associated health burdens over recent decades, nutrition is still a large-scale and universal problem.

According to the report, India is facing a serious burden of

undernutrition, which shows that more than half the women of reproductive age in the country suffer from anaemia. The Global Nutrition Report 2017, which looked at 140 countries including India, found 'significant burdens' of three important forms of malnutrition used as an indicator of broader trends. The report tracks global nutrition targets on maternal, infant and young child nutrition and on diet-related Non-Communicable Diseases adopted by member states of the World Health Organization as well as governments' delivery against their commitments. It aims to make it easier for governments and other stakeholders to make - and deliver on - high impact commitments to end malnutrition in all its forms. The Global Nutrition Report highlights that the double burden of undernutrition and obesity needs to be tackled as part of India's national nutrition strategy.

### Public Distribution System

The Public Distribution System (PDS) in the country facilitates the supply of food grains and distribution of essential commodities to a large number of poor people through a network of Fair Price Shops (FPSs) at a subsidized price on a recurring basis. With a network of more than 4.9 lakh fair price shops claiming to distribute annually commodities worth more than Rs. 40,000 crore to about 190 million families, the PDS in India is perhaps the largest distribution network of its type in the world. The Public

distribution system (PDS) is an Indian food Security System for the poor people established by the Government of India under the Ministry of Consumer Affairs, Food, and Public Distribution. While the Central government is responsible for procurement, storage, transportation, and bulk allocation of food grains, the State governments hold the responsibility for distributing the same to the consumers through the established network of approximately 5 lakh Fair Price Shops. Major commodities distributed include wheat, rice, sugar, and kerosene.



The role of PDS in Shaping the Household and Nutritional Security was carried out by the erstwhile Independent Evaluation Office, now the Development Monitoring and Evaluation Office, on a request received from the Ministry of Agriculture, Government of India. The study was designed with an objective to explore the effectiveness of PDS in ensuring food and nutritional security to the beneficiaries. The other aspects explored were efficiency in PDS, the importance of food grains provided to the beneficiaries, balancing between cereal and non-cereal and food and non-food expenditures, effects of change in income on food expenditure/consumption patterns, etc.

### Motivation

It has been observed that even though the Indian economy has achieved remarkable economic growth along with a decline in poverty over the last two decades, improvements in nutritional status have not kept pace with this economic growth. The National Sample Survey (NSS) data also documents that the per capita cereal consumption steadily declined for both the rural and urban population between 1993-94 and 2011-12. The reasons for the disjunction between economic advancement and nutritional improvement in India by analysing the role and performance of the Public Distribution System (PDS) in determining food consumption patterns and nutritional outcomes over a period of time. The PDS, conceptualized as one

of the largest safety net programmes in the country, was envisaged as a means of dealing with nutritional deficiency by supplying rice, wheat, sugar and kerosene at highly subsidized prices to the poor. It was launched as a universal programme in the context of food shortages during the early years after Independence. However, since it was widely criticised for its urban bias, it was subsequently streamlined through the launch of the Targeted PDS (TPDS) in June 1997, which aimed at providing very poor families access to food grains at reasonably low costs to help them improve their nutrition standards and attain food security. The National Food Security Act also focuses on providing food security via expansion of the PDS. In this context, greater access to subsidized grains for the poor was expected to reduce malnutrition, leading to a concomitant fall in the number of underweight children.

### Income, Food and Nutrition Puzzles

Although we must rely on the National Family Health Survey of 2005-06 (International Institute for Population Sciences and Macro International, 2007) for national data on nutrition, the results from a variety of other surveys suggest only a modest improvement in the proportion of underweight children the poverty decline against trends in underweight children from the National Family Health Surveys 1, 2 and 3; surveys from the National Institute of Nutrition

(National Nutrition Monitoring Bureau, 2012) and those from the National Council of Applied Economic Research and University of Maryland (Thorat and Desai, 2016).

The National Sample Survey (NSS) data, presented in view of the steady decline in poverty over this period, the decline in cereal consumption is puzzling. Caloric consumption also seems to have fallen. As suggested by Deaton and Drèze (2009), disaggregated analysis shows that most of this decline took place at the upper-income levels, which may be due to a reduction in physical activity and the resultant caloric demands.

### Coverage of TPDS

PDS cards are ubiquitous with households that do not own any card declining from 19 per cent to 14 per cent of the total households between 2004-05 and 2011-12. Bureaucratic difficulties are seen as being the single most important reason for households not having a card. The proportion of households holding Below Poverty Line (BPL) or Antyodaya Anna Yojana (AAY) cards increased from 36 per cent of all households to 42 per cent between 2004-05 and 2011-12. Much of this increase comes from the expansion of the AAY programme. Although BPL and AAY card holders come from the poorer sections of the society, this concordance is not perfect. The use of the consumption-based poverty line cut-off suggested by the Tendulkar



Committee indicates that only 29 per cent of the BPL cardholders are poor while 71 per cent are not poor. In contrast, about 13 per cent of the APL cardholders are poor while 87 per cent are not poor. Thus, many non-poor have BPL cards while some of the poor are excluded from the ownership of BPL cards.

### Access and Use of the TPDS

There was a striking rise in PDS use between 2004-05 and 2011-12. In 2011-12, about 27 per cent of all households purchased cereals from the PDS whereas, by 2011-12, this proportion had risen to 52.3 per cent. Every category of cardholders has recorded a growth in PDS use during the period under study. While almost all the BPL and AAY cardholders are seen to purchase PDS grains, as many as 32 per cent of the Above Poverty Line (APL) cardholders also use the PDS. Despite the increase in the use of PDS by the purchasing households, the amount of purchase or the share of PDS grain to the total grain consumed has remained more or less stable.

PDS use increased not just for food grains but also for kerosene, with 79 per cent of the PDS card holders purchasing kerosene from PDS shops. Although the use of kerosene as a primary cooking fuel is negligible, nearly 28 per cent of the households uses kerosene in conjunction with biomass (e.g. firewood) and LPG.

### Targeting Efficiency

Exclusion errors in PDS targeting have declined between 2004-05 and 2011-12 while inclusion errors have increased. However, both types of errors remain high. This change can be attributed both to a decrease in the poverty levels as well as a slight increase in the number of cards being distributed to the whole population. Inclusion errors increased across all regions between 2004-05 and 2011-12 and were particularly high for the Southern states. While exclusion errors are decreasing, they remain highest for the marginalized groups.



### Use of Propensity Score Matching as an Analytical Technique

In order to examine if the TPDS is the best way of enhancing food security for all households, it is important to compare households with access to food subsidies to those without such access, while holding income constant. However, this is a difficult proposition due to the general lack of availability of data on household income. The India Human Development Surveys I and II contain detailed data on household income as well as a brief consumption expenditure module that allows for an analysis of different aspects of consumption.

### Role of BPL/AAY Subsidies in Shaping Food Expenditure

Application of the Propensity Score Matching (PSM) techniques highlights notable distinctions between consumption patterns of households with BPL/AAY cards and those not having access to these cards. The results show that at any given income level, households with BPL/AAY cards are more likely to buy cereals from PDS shops than those with APL cards. Since only BPL cardholders are eligible for subsidized cereals, this is not surprising. The expenditure incurred on food by households with BPL/AAY cards is less than the corresponding expenditure incurred by their counterparts who do not have these cards. Once implicit subsidies via PDS transfers are factored in, this difference is smaller but remains

statistically significant. Households with BPL/AAY cards are ostensibly trying to obtain their caloric needs from cheaper cereals rather than from more expensive items like dairy, fruits, nuts and meats. Rising incomes lead to greater dietary diversification for households without BPL cards than the matched households with BPL cards.

### Shaping Food Consumption

When the same households are compared over time, the trends in food expenditure and food consumption vary between households that experience income growth vis-à-vis those that experience income declines. Regardless of access to PDS, food expenditure among households that suffer economic distress does not change substantially, possibly because they economize in other areas. However, food expenditure for households experiencing income growth increases. This suggests that food expenditure has a sticky floor. Growth in incomes leads to a higher increase in food expenditure by households without BPL/AAY cards than for those with these cards, even after implicit food subsidies are taken into account. While all households experiencing substantial income growth increase their cereal consumption, this increase is lower for households without BPL/AAY cards as compared to those with these cards.

### National Food Security Act, 2013

The National Food Security Act, 2013 (NFSA) was enacted by the Government in the year 2013 to



provide for food and nutritional security in human life cycle approach, by ensuring access to adequate quantity of quality food at affordable prices to people to live a life with dignity. The Act inter alia entitles up to 75 per cent of the rural population and up to 50 per cent of the urban population for receiving subsidized food grains under TPDS, thus covering about two-thirds of the population. Eligible households comprise of priority households and Antyodaya Anna Yojana (AAY) households. Persons belonging to priority households are entitled to receive 5 kg of foodgrains per person per month at subsidized prices of ₹3/2/1 per kg. for rice/wheat/coarse grains. AAY households, which constitute the poorest of the poor, will continue to receive 35 kg. of food grains per household per month @ ₹3/2/1 per kg., for rice/wheat/coarse grains.

The PDS needs to be effectively monitored and there is a need to

explore the possibility of introducing innovative ideas such as smart cards, food credit/debit cards, food stamps and decentralized procurement, to eliminate hunger and make food available to the poor wherever they may be in a cost-effective manner.

The results presented in this status thus paint a complex picture of the TPDS programmed. While on the one hand, the rising proportion of the Indian population relying on the TPDS for procuring subsidised cereals points to the ubiquity of the TPDS, it also has alarming implications in terms of skewing the dietary composition of households by increasing their cereal consumption. This poses a critical problem particularly for a society facing an epidemiological transition from the dominance of communicable diseases to the rise in non-communicable diseases (NCDs) like cardiovascular diseases, strokes, diabetes and cancer, the four leading NCDs in India. The country also has

the highest number of people with diabetes in the world, and this burden has been rising over time, which is why it is sometimes referred to as the 'diabetic capital of the world'. At least some of this increase in the occurrence of the disease could be due to the rising consumption of processed foods and refined foodgrains as unprocessed foods and healthier cereals like small millets are considered inferior foods that households abandon as they get rich. Nutrition challenges continue throughout the life cycle, particularly for girls and women. A woman with poor nutritional status, as indicated by a low body mass index, short nature anaemia, or other micronutrient deficiencies, has a greater risk of obstructed labour, having a baby with a low birth weight, having adverse pregnancy outcomes, adversely lactation, death due to postpartum hemorrhage, and illness for herself and her baby. □

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### SWACHH BHARAT GRAMIN CONFIRMS 93 PER CENT USAGE OF TOILETS

The National Annual Rural Sanitation Survey (NARSS) 2017-18, conducted by an Independent Verification Agency (IVA) under the World Bank support project to the Swachh Bharat Mission Gramin (SBM-G), has found that 93.4 per cent of the households in rural India who have access to a toilet use it. The NARSS also re-confirmed the Open Defecation Free (ODF) status of 95.6 per cent of villages which were previously declared and verified as ODF by various districts/states. The survey was conducted between mid-November 2017 and mid-March 2018 and covered 92040 households in 6136 villages across States and UTs of India.



The key findings of NARSS 2017-18 are as follows:

- 77 per cent of households were found to have access to toilets during the survey period
- 93.4 per cent of the people who had access to toilets used them
- 95.6 per cent of villages which were previously declared and verified as ODF were confirmed to be ODF. The remaining 4.4 per cent villages also had sanitation coverage of over 95 per cent 70 per cent of the villages surveyed found to have minimal litter and minimal stagnant water

The IVA presented their findings to the Expert Working Group (EWG) constituted for oversight of NARSS. The EWG noted the satisfactory completion of the survey. Since its launch in October 2014, the SBM, the world's largest sanitation program, has changed the behaviour of hundreds of millions of people with respect to toilet access and usage. 300 million people have stopped defecating in the open since the SBM began, down from 550 million at the beginning of the programme to about 200 million today. Over 6.5 crore toilets have been built across rural India under the Mission. Over 3.38 lakh villages and 338 districts have been declared ODF, along with 9 ODF States and 3 Union Territories, namely Sikkim, Himachal Pradesh, Kerala, Haryana, Uttarakhand, Gujarat, Arunachal Pradesh, Chhattisgarh, Meghalaya, Chandigarh, Daman & Diu and Dadra and Nagar Haveli.