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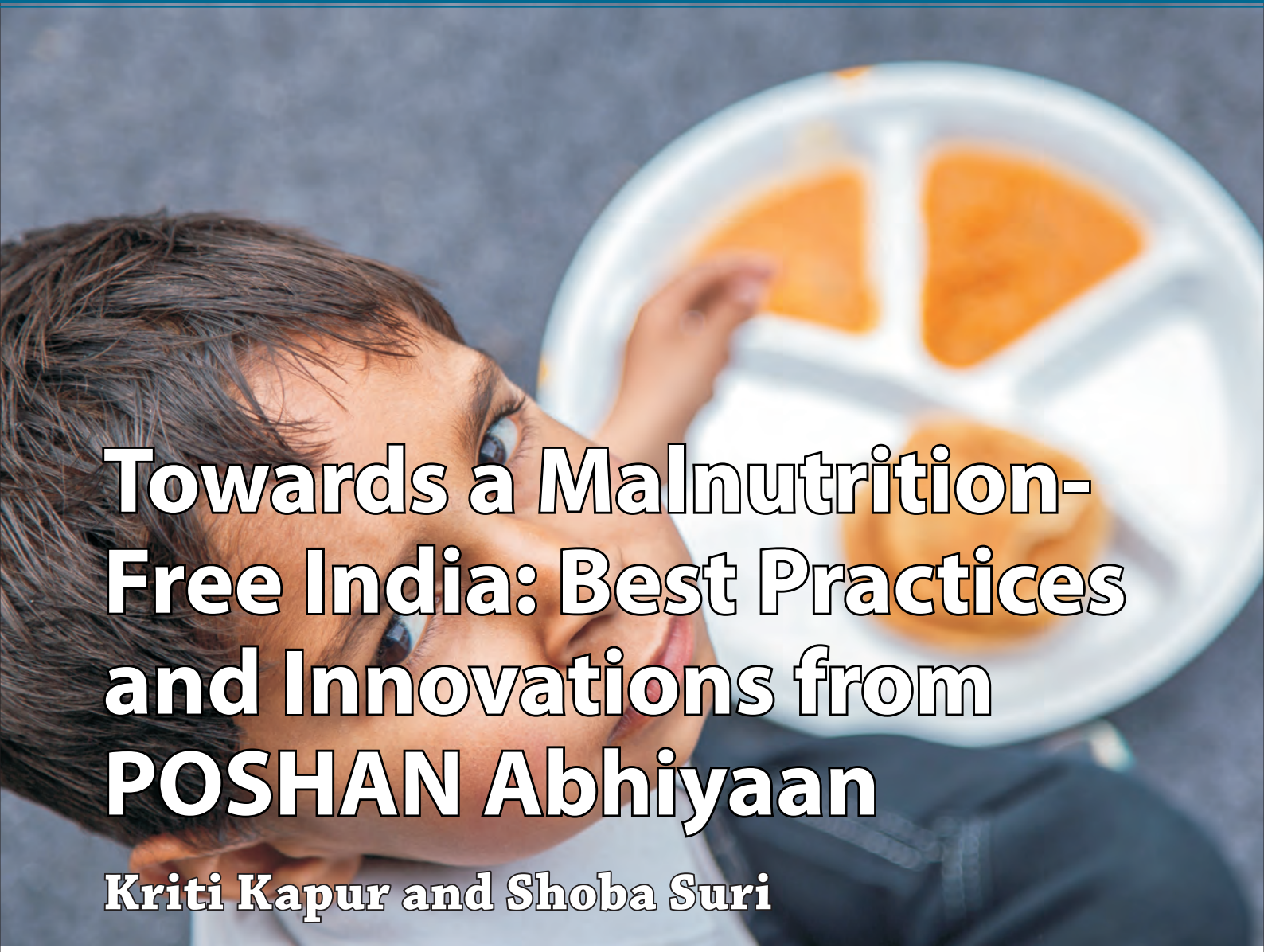

Towards a Malnutrition-Free India: Best Practices and Innovations from POSHAN Abhiyaan

Kriti Kapur and Shoba Suri

A child takes his mid-day meal at a government school in Haryana. / Photo: Getty Images

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ABSTRACT

While India's malnutrition rates have dropped dramatically, the country is still home to the largest number of stunted and wasted children in the world. Owing to the cultural and geographical variance across states, combatting malnutrition requires a granular approach. POSHAN Abhiyaan, the government's national nutrition mission launched in 2017, aims to provide a convergence mechanism for the country's response to malnutrition. This special report maps India's nutritional journey, describing past and current nutrition programmes and exploring their successes and weaknesses. It highlights the experiences of India's northern states in implementing POSHAN Abhiyaan so far, with the aim of finding ways to scale-up innovative techniques adopted by the states. The report concludes with specific recommendations towards reaching the 2030 SDG of eliminating malnutrition.

INTRODUCTION

Amongst India's most serious yet marginally addressed development challenges is malnutrition, which contributes significantly to the country's disease burden. Even as NFHS-4 data shows that the country's malnutrition rates have gone down, half of all children from families in the lowest income quintile are still stunted (51 percent) or underweight (49 percent).[1] Today India is home to the largest number of stunted children (46.6 million) and wasted children (25.5 million) in the world.[2]

In 2017, the government of India launched POSHAN Abhiyaan or its flagship National Nutrition Mission that aims to improve nutrition amongst children, pregnant women, and lactating mothers. The Observer Research Foundation (ORF), in collaboration with the Ministry of Women and Child Development in November 2019 organised a workshop that gathered stakeholders from the central and state governments, United Nations (UN) agencies, multilateral organisations like the World Bank, eminent scholars, and members of civil society organisations to share their experiences implementing POSHAN Abhiyaan. The aim was to facilitate conversations and exchange success stories and learnings from the country's northern region, and explore potential to scale-up nutrition innovations.

This special report builds on the ideas shared during the ORF event. The report is structured as follows: the next section provides an overview of India's nutrition challenges; followed by describing the nutrition programmes and

outlining their successes and achievements; the report then reiterates the aims of POSHAN Abhiyaan as the current government's flagship nutrition programme and highlights the experiences of the country's northern states in implementing the programme. Finally, the report closes with recommendations to ensure the success of POSHAN Abhiyaan by the scaling-up of innovative approaches adopted by different states.

INDIA'S NUTRITION CHALLENGES: AN OVERVIEW

India has attempted several nutrition programmes over the last 40 years, with the formulation of the Integrated Child Development Services (ICDS) and the nationwide execution of the mid-day meal scheme. However, nutrition and stunting continue to persist as roadblocks for the country. Stunting has wide-ranging repercussions on human capital, poverty alleviation and the promotion of equity. It also significantly diminishes educational potential, resulting in fewer professional opportunities. The return on investment[3] in reducing stunting and wasting is manifold (US$18) on every US$1 invested. India continues to have the largest share of the world's undernourished population, and in the 2019 Global Hunger Index[4] (GHI), the country ranked 102 amongst 117 countries.

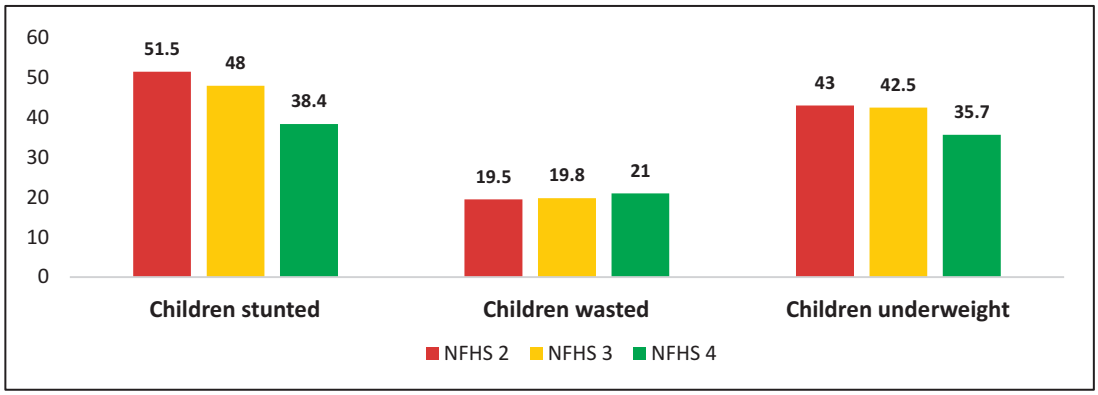
Indeed, India ranks 115 out of 157 countries on the human capital index.[5] The historical lack of adequate investment in health and education has led to slower economic growth. The World Bank[6] states, "A 1% loss in adult height due to childhood stunting is associated with a 1.4% loss in economic productivity." Stunting also has lasting effects on future generations. Moreover, the high rate of anaemia amongst women (53.1 percent in 2015-16)[7] has a negative impact on their future pregnancies, leading to the birth of potentially anaemic children. The situation worsens when these infants also receive inadequate diets.

Stunting and Wasting in India

India has the world's largest number of stunted (46.6 million) and wasted children (25.5 million).[8] Twenty-three percent of women and 20 percent of men aged 15-49 are underweight, and almost the same proportion are overweight or obese (21 percent of women and 19 percent of men).

According to the National Family Health Survey 4[9] (NFHS-4) 2015-16, India has unacceptably high levels of stunting (Figure 1), despite marginal improvement over the years. India has nearly halved the proportion of its

Figure 1: Malnutrition Trends in India



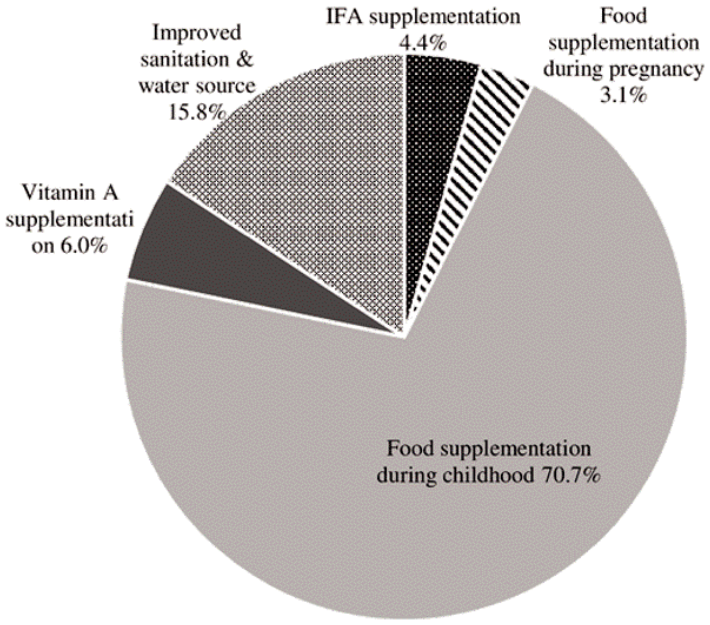
Source: National Family Health Survey 4, 2015-16 @Observer Research Foundation's India Data Labs

stunted children (38.4 percent) from what it was in the late 1980s (66.2 percent). The percentage of under-five children who are stunted declined to 38.4 percent from 48 percent a decade ago. Barring Puducherry, Delhi, Kerala and Lakshadweep, all other states have a higher proportion of stunted children in rural areas than in urban. Meanwhile, the percentage of children under-five who are wasted *increased* over the last ten years, from 19.8 percent in 2005-06 to 21 percent in 2015-16. The proportion of children who are severely wasted also increased from 6.4 percent to 7.5 percent between 2005-06 and 2015-16, respectively.

The survey data shows increased prevalence of stunting with age, peaking at 18-23 months. Timely interventions of breastfeeding, age-appropriate complementary feeding, full immunisation, and vitamin A supplementation have been deemed essential in enhancing nutrition outcomes in children.[10] However, data shows that only 41.6 percent of children are breastfed within one hour of birth, 54.9 percent are exclusively breastfed for six months, 42.7 percent are given timely complementary foods, and only 9.6 percent of children below two years of age receive an adequate diet.[11] Lack of Vitamin A can increase risk for infections like measles and diarrhoeal diseases. This comes in the light of another alarming finding that about 40 percent of children do not get access to full immunisation and Vitamin A supplementation.[12]

Research[13] has found that 4.6 million cases (between 2006 and 2016) of stunted children under five years could be avoided by scaling up several interventions (Figure 2). The model predicted that supplementary food provision during childhood coupled with improved sanitation & water source could prevent 86.5 percent of the stunting cases.

Figure 2: The LiST tool based interventions contributing to preventing stunting in under-fives



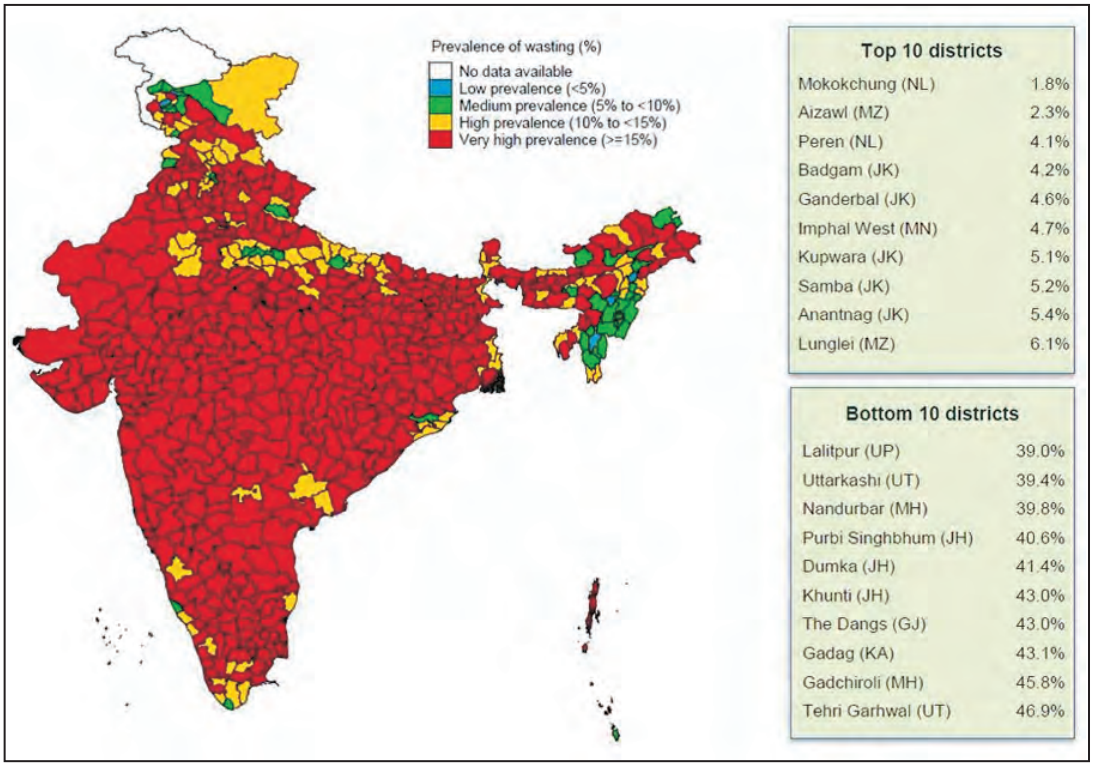
Source: Alderman H et al, Health Policy and Planning 2019, 34: 667-675

Wasting, meanwhile, has not declined and remains at the level it was three decades ago (21 percent). Wasting is widespread in India (Figure 3) and multiple interventions have not managed to improve in the situation in the last 10 years (20 percent to 21 percent). India accounts for the largest number of wasted children in the world (25.5 million)—this proportion is almost half of the total 49.5 million. Wasting prevalence does not show significant variation across rural and urban areas, nor by gender. However, higher rates have been observed among the Adivasi (27.4 percent) community and the "Other" category of religion (29.16 percent). The poorest income quintile households show highest wasting (23.5 percent) which is at least two percentage points above the national average.

In terms of underweight, more than one-third (35.7 percent) of children fall in the category. In the past decade since the last survey in 2015, a slow decline has been observed in underweight children which was at 42.5 percent in 2005.

Anaemia is a cause of worry in children as well as in women in the reproductive age group. Between 2005 and 2015, the proportion of children and pregnant women who were anaemic across India declined by 11.1 and 8.5 percentage points, respectively. For anaemia among women, the range is from nine percent to 83.2 percent. Data shows that 13 out of 36 states and UTs in India have more than 60 percent anaemic children, and 14 have more than 50 percent pregnant anaemic women.

Figure 3: Wasting Prevalence across India



Source: IFPRI 2017 http://ebrary.ifpri.org/cdm/ref/collection/p15738coll2/id/131162

PAST AND PRESENT NUTRITION PROGRAMMES: LESSONS LEARNT

In the last decade, careful thought has been given towards formulating strategies to achieve the World Health Organization (WHO) 2025[14] nutrition targets and, subsequently, the Sustainable Development Goals' (SGD)-Goal 2[15] of ending all forms of malnutrition by 2030. While India has taken strides in reducing malnutrition, much still needs to be done before the country can reach the global targets.

India's primary nutritional and child development scheme, ICDS, has expanded steadily across the country during the 45 years of its existence. Launched in 1975, today the scheme covers almost all development blocks of the country and has addressed some of the most important underlying causes of undernutrition. The programme adopts a multi-faceted approach to children's well-being by integrating health, educational and nutritional interventions through a community network of Anganwadi centres (AWCs). These measures include Supplementary Nutrition Programme, growth monitoring and promotion, nutrition and health education, immunisation, health checkup and health referral, as well as preschool education. The primary beneficiaries have been children below six years, as well as pregnant and lactating women. In 2006, ICDS became the flagship programme of the

Ministry of Women and Child Development in addressing India's fight with malnutrition. The Anganwadi Services[16] Scheme today operates through a network of some 7,075 fully operational projects and 1.37 million AWCs.

A study by WHO[17] that maps the extent and equity of coverage of ICDS between 2006 and 2016, shows the increase in the mean proportion of pregnant and lactating women and their children aged 0 to 59 months who used the programme services from 2006 to 2016. The use of supplementary food under ICDS saw an increase from 9.6 percent to 37.9 percent; health and nutrition education increased from 3.2 percent to 21.0 percent; health checkups saw a surge from 4.5 percent to 28 percent; and child-specific services grew from 10.4 percent to 24.2 percent (e.g. immunisation and growth monitoring).[18] The expansive coverage of ICDS has been well credited, given the challenges associated with the geographical landscape and population diversity across the country. However, research has shown stark variations in the availability of services across geographic and sociodemographic factors.[19]

Historically, poorer states with higher levels of undernutrition saw lower coverage by ICDS and inadequate budgetary allocations per malnourished child.[20] The exclusion of the poorest income quintile from the weak states has been mainly attributed to the frail performance in terms of service delivery implementation in these states. Furthermore, while the ICDS was designed to address the multiple determinants of undernutrition—namely, food security and health services—there is a wide gap in the actual implementation. The programme has mostly focused on supplementary food provision, in the process neglecting coordination with the health systems and parent counselling.[21] Lastly, the vast, heterogenous landscape of the country requires a diversified approach rather than a standardised design, which has been inherently followed over the years.

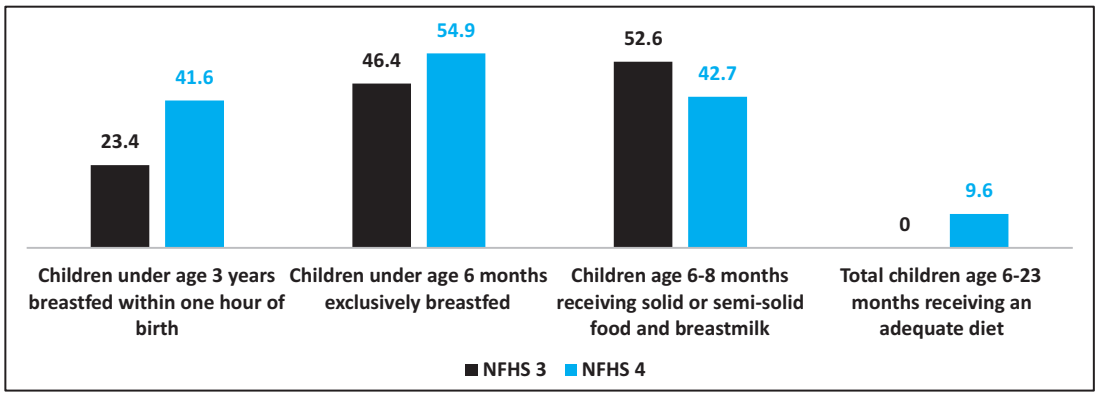
Under the ICDS umbrella, multiple schemes such as Anganwadi services, schemes for Adolescent Girls, and *Pradhan Mantri Matru Vandana Yojna* (PMMVY) have been initiated. Additionally, Nutritional Rehabilitation Centres were established by the Ministry of Health and Family Welfare to treat severe malnutrition in children.

The PMMVY,[22] which falls under the National Food Security Act 2013, is the maternity benefit programme that provides partial wage compensation to pregnant and lactating women. The scheme was introduced in 2016 as a conditional cash transfer of INR 5,000 to pregnant and lactating women to

provide conditions for safe delivery and good nutrition and feeding practices. While the scheme was disseminated in only 52 districts at the time of its launch, in 2016, the PMMVY was dispersed nationally with the aim to scale up to 650 districts covering 5.17 million beneficiaries. Coupled with the *Janani Suraksha Yojana* (JSY), beneficiaries are also eligible to receive a cash incentive after institutional delivery, thereby increasing the benefit to INR 6,000. While the scheme saw increased positive awareness amongst beneficiaries, the coverage of the programme remained limited specifically due to conditional selection of beneficiaries. Pregnant and lactating women over 19 years were deemed eligible for the scheme for their first living child. This has led to the exclusion of teenage mothers and poor women who birth more than one child, thereby abetting the intergenerational cycle of undernutrition.

Despite a gamut of programmes and schemes targeting maternal and child health and nutrition, the uptake of nutrition services by beneficiaries has been meagre. According to the NFHS-4 data,[23] only 51 percent of pregnant women attended the minimum four antenatal services and only 30 percent of women consumed IFA supplements. The number of beneficiaries receiving take-home rations under the Supplementary Nutrition Programme varies from 14 to 75 percent for children, 51 percent for pregnant women, and 47.5 percent for lactating women. Although sanitation facilities have improved over the decade, less than 50 percent of households report using them. Only about 50 percent of pregnant and lactating women are enrolled in the maternity benefit scheme across states. Despite having institutional delivery at 79 percent, the early initiation of breastfeeding remains low at 42 percent and exclusive breastfeeding at 55 percent (Figure 4). The timely introduction of complementary feeding has gone down over the last decade from 52.6 percent to 42.7, with only 9.6 percent of children receiving a minimum acceptable diet.

Figure 4: Infant and Young Child Feeding Practices



Source: National Family Health Survey 4, 2015-16 @Observer Research Foundation's India Data Labs

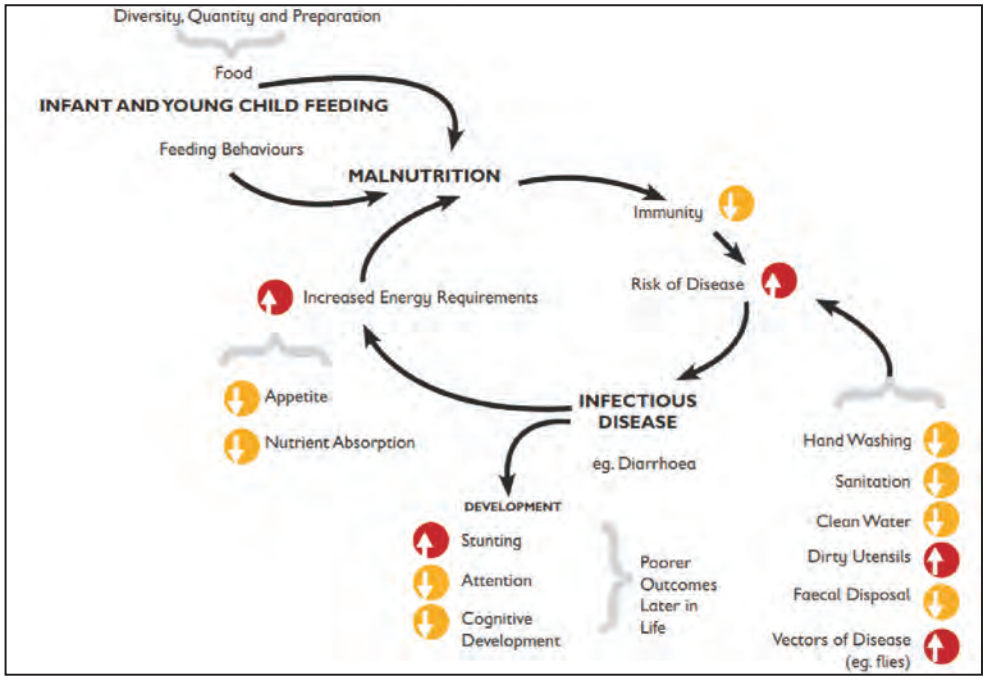
REITERATING THE CHALLENGE: BREAKING THE INTERGENERATIONAL CYCLE OF UNDERNUTRITION

With a renewed focus towards eliminating malnutrition from the country, three key pillars have been highlighted: Behavioural change, infection management, and the intergenerational cycle of undernutrition (Figure 5). While multiple initiatives have been set up, the last mile rests with the child, mother and the family, thus prompting a need for understanding the significance of malnutrition and its impact on oneself and the future generations. The second pillar, infection management, focuses on preventing infections linked to lack of safe and clean drinking water and sanitation, as well as absence of regular immunisation. The government launched the *Mission Indradhanush* in 2014 with the goal of achieving full immunisation for pregnant women and children up to two years of age. While earlier, the full immunisation coverage was at one percent per year, it saw a rise to 6.7 percent per year after the completion of the first two phases of the mission.[24] To further boost the coverage, the recently launched *Intensified Mission Indradhanush 2.0* aims to achieve full immunisation in 272 districts in 27 states and at a block level in weaker states like Uttar Pradesh and Bihar, among the hard-to-reach and tribal populations.[25]

The last pillar—breaking the intergenerational cycle of undernutrition—has seen a history of neglect. New initiatives and policies aim to change this. Intergenerational influences are defined as "conditions, exposures, and environments experienced by one generation relate to the health, growth and development of the next generation."[26] While the incidence of underweight has gone down from 43 percent in NFHS-3 to 36 percent in NFHS-4,[27] the rate remains high at the absolute levels.

With an adolescent population of more than 243 million,[28] India faces unique demographic challenges, on one hand, and opportunities on the other. While this large adolescent population may yet be later reaped as economic dividend, a growing body of work has suggested a wide array of challenges pertaining to adolescent health and development including nutrition deficits, exclusion from livelihood choice, social engagement and health services, and unequal gender norms inside and outside the home.[29] Investment in adolescents not only have a high cost-to-benefit ratio but also yield a triple dividend on the health and well-being of the current and future generations.[30]

Figure 5: Feeding, Malnutrition & Infection Linkage



Source: Save the Children, https://www.savethechildren.in/sci-in/files/9a/9a96dc91-f518-4613-901d-1f1f230b2a9d.pdf

Significant incidence of early marriage and childbearing have been found as amongst the important causes of nutrition issues facing the country today, due to the adverse intergenerational bearing on health, education and employment.[31] To be sure, India has seen impressive gains in eliminating marriages in children below 18, and much of this progress can be attributed to socio-economic development. There has been a 51-percent decline in child marriages since 2000 and 63 percent since 1990.[32] This can be credited to increased access to education and empowerment for girls, as well as improved sexual and reproductive health services. According to the National Family Health Survey,[33] child marriages in India were pegged at 27 percent in 2016, prompting concern over potential ill effects including early pregnancies due to an increased fertility span, which may in turn lead to complications at birth, low birth weight, higher maternal and child mortality rates.[34] Current evidence suggests that continued investment in areas with high levels of early marriage and childbearing, and the subsequent eradication of adolescent pregnancy, will lead to a reduced burden of undernutrition in India.[35]

The Granular Solution to Malnutrition

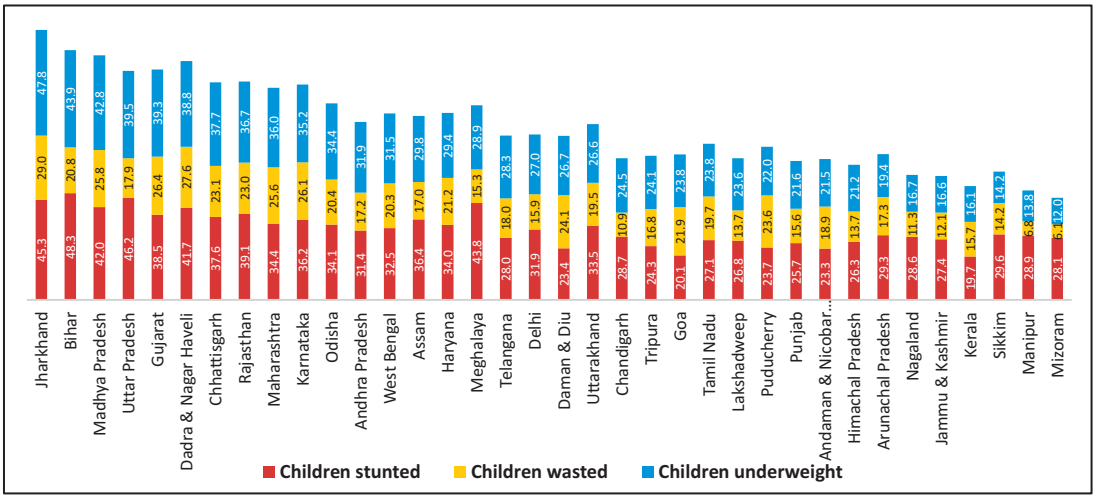
A key inference after investing in a range of initiatives and programmes to fight malnutrition has been the importance of a micro-level approach with needs-based additions in order to reach and influence each individual. High levels of variation have long existed amongst the states and Union Territories while evaluating the

prevalence of malnutrition. These variations have suggested a need to develop and guide interventions in harmony with the unique circumstances of each region, rather than continuing with a single national approach.[36]

TRACKING THE PERFORMANCE OF INDIAN STATES

According to NFHS-4 data, India has more stunted children in rural areas as compared to urban, possibly due to the lower socio-economic status of households in those areas. Almost double the prevalence of stunting is found in children born to mothers with no schooling as compared to those with 12 or more years of schooling. Stunting shows a steady decline with increase in household income/wealth quintile. The intergenerational cycle of malnutrition can be combatted through robust interventions for both mother (pre- and post-pregnancy) and child, thereby addressing the high burden of stunting, especially in rural areas.[37]

Figure 6: Malnutrition Trends in States and UTs of India



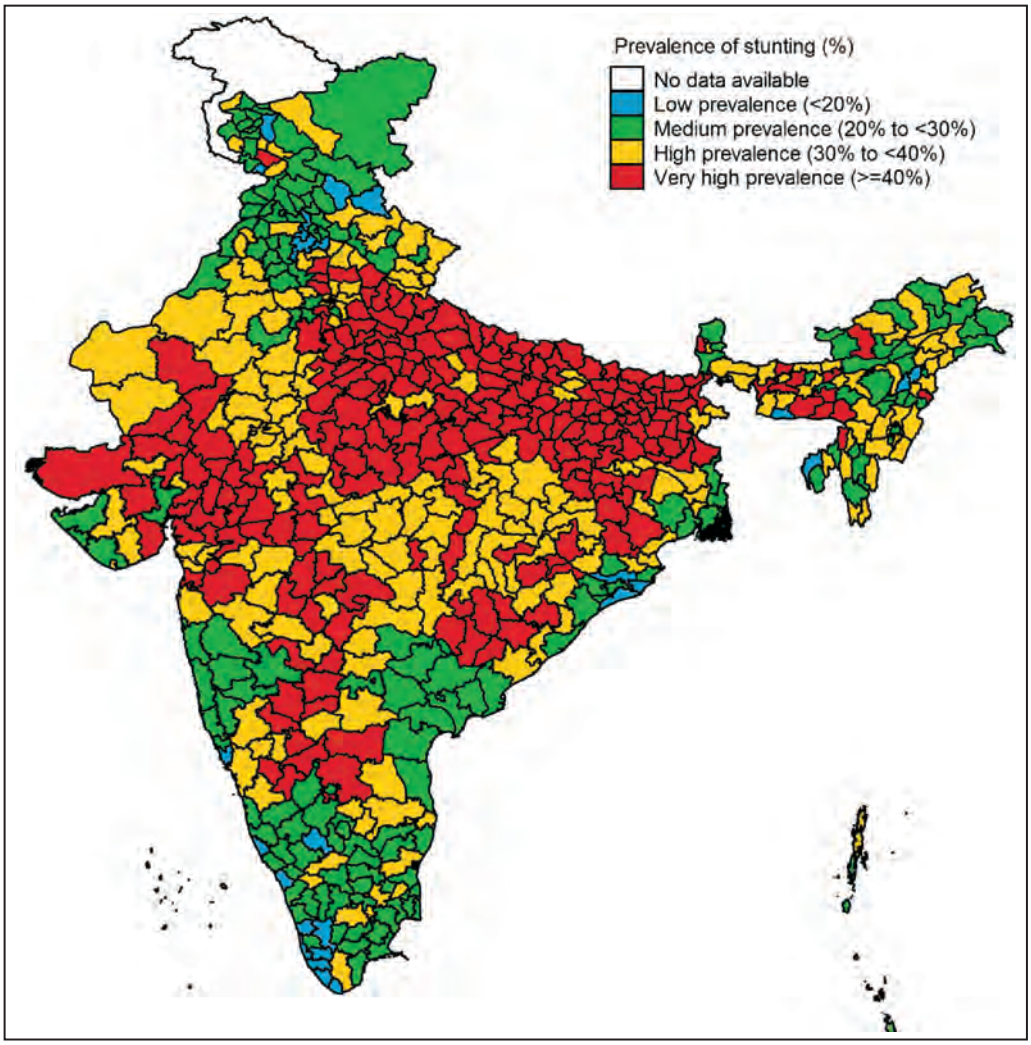
Source: NFHS-4, 2015-16 @Observer Research Foundation's India Data Labs

Moreover, stunting is more prevalent in children from Hindu and Muslim backgrounds than those from Christian, Sikh or other religions. Stunting was equally prevalent in Adivasi (Schedule Tribes) and Dalit (Schedule Castes) communities.[38]

In terms of geographical regions (Figure 6), Bihar (48 percent), Uttar Pradesh (46 percent) and Jharkhand (45 percent) have very high rates of stunting; states with the lowest rates include Kerala and Goa (20 percent). While nutrition has improved across all states, inter-state variabilities remain extremely high. The most significant decline has been noted in Chhattisgarh (a 15-percent point drop in the last decade). Tamil Nadu has made the least progress.

Insights from the NFHS-4 on maternal and infant and young child nutrition by the International Food Policy Research Institute[39] (IFPRI) have shown that 239 districts in India have stunting rates above 40 percent. Stunting shows wide regional differences (Figure 7) as well: the best performing district in India has only 12.4 percent of children stunted, but on the other end, there is a district with a proportion of 65.1 percent stunted children. Almost 40 percent of the country's districts have stunting levels above 40 percent. Similarly, while India has a district with only 1.8 percent of children wasted; there are at least seven districts where the proportion is more than 40 percent. The India average is 21 percent (as depicted in Figure 3).

Figure 7: Stunting Prevalence across India



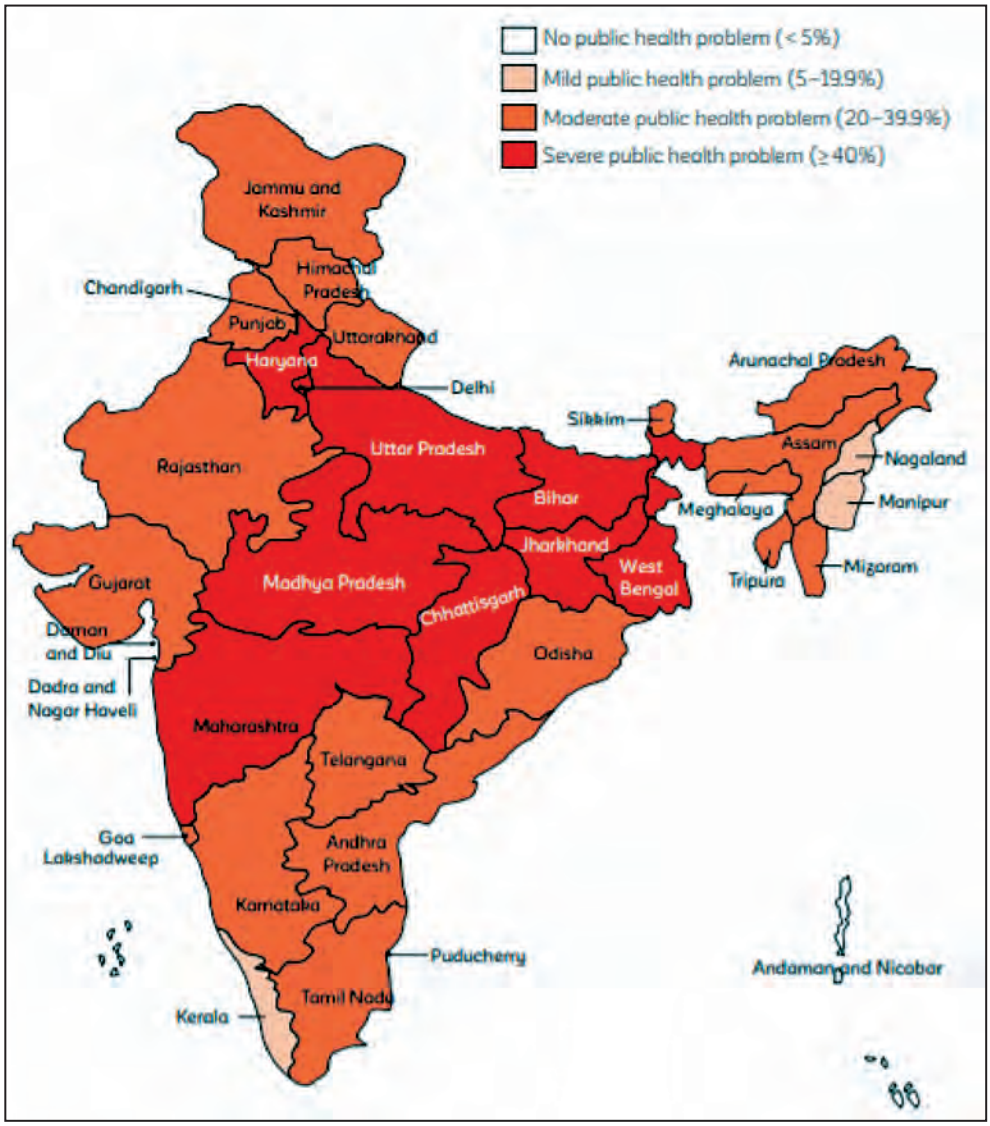
Source: IFPRI 2017 http://ebrary.ifpri.org/cdm/ref/collection/p15738coll2/id/131162

The recent Comprehensive National Nutrition Survey 2016-18[40] (CNNS) on micronutrient deficiency and non-communicable diseases in children and adolescents, showed the co-existence of obesity and undernutrition. The prevalence of stunting, wasting and underweight at 34.7 percent, 17 percent,

and 33.4 percent, respectively, amongst children under five, indicated reduction as compared to NFHS-4. The states of Bihar, Madhya Pradesh, Rajasthan and Uttar Pradesh had high rates of stunting prevalence ranging from 37 to 42 percent; the lowest rates were recorded in Goa and Jammu & Kashmir.

Forty-one percent of children under five, 24 percent of school-age children, and 28 percent of adolescents were anaemic. The prevalence of anaemia was twice in females (31 percent) as compared to males (12 percent). The prevalence was highest among Scheduled Tribes and Scheduled Castes communities and was inversely correlated with household wealth. The prevalence of anaemia across states can be seen in figure 8. The highest prevalence was seen in Madhya Pradesh at 54 percent, and the lowest in Nagaland at 8 percent. Children and adolescents in urban areas had a higher prevalence of anaemia as compared to their rural counterparts.

Figure 8: Anemia Prevalence across India



Source: CNNS 2016-18 https://www.theweek.in/news/health/2019/10/09/indias-record-micronutrient-study-shows-extent-of-malnutrition.html

AIMING HIGHER WITH POSHAN ABHIYAAN

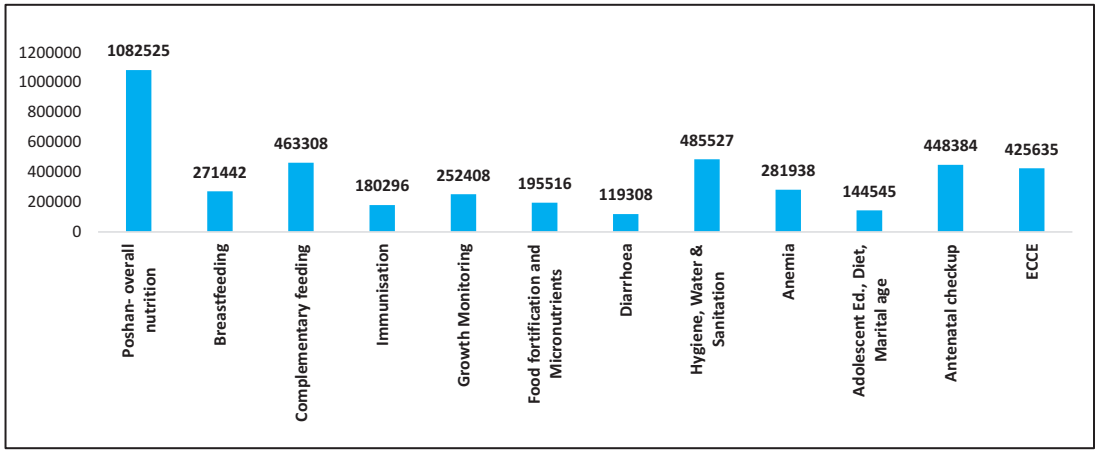
With the objective of enhancing inclusion and increasing the quality and quantity of services, the Ministry of Women and Child Development launched the National Nutrition Mission (POSHAN Abhiyaan) in 2017. The principal goal of POSHAN Abhiyaan[41] is improving the nutritional status of children from 0-6 years, adolescent girls, pregnant women, and lactating mothers. POSHAN Abhiyaan is a three-year programme established to ensure a holistic approach, covering all 36 States and Union Territories. The strategy presents a unique opportunity to the eradication of undernutrition in the grassroots. It is an overarching multi-ministerial convergence mission that is working towards a malnutrition-free India by 2022. The mission is a conjunction of various schemes/programmes, including the PMMVY, Anganwadi Services, Scheme for Adolescent Girls of Ministry of Women and Child Development (MWCD), National Health Mission (NHM) of Ministry of Health & Family Welfare, Swachh Bharat Mission of Ministry of Drinking Water & Sanitation (DW&S), Public Distribution System (PDS) of Ministry of Consumer Affairs, Drinking Water & Toilets with Ministry of Panchayati Raj, Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS) of Ministry of Rural Development (MoRD), Food & Public Distribution (CAF&PD), and other Urban local bodies through relevant Ministries.[42]

The Abhiyaan aims to target the unique 1,000-day window of child-birth, pre- and post- delivery support to mothers to reduce malnutrition. The implementation of the POSHAN Abhiyaan is hinged on the key pillars of supporting the development of services for the vulnerable populations: Technology (ICDS- Computer application software), Convergence Action Planning, Behavioral Change Communication, and Capacity building.[43]

The POSHAN Abhiyaan programme aims to provide a platform for convergence of the three pillars discussed above. With the slogan '*Jan Andolan* (people's movement)', the Abhiyaan intends to make the fight against malnutrition a national goal for each citizen. Currently, the programme has seen the participation of 2.51 billion people in the country with more than 36 million activities.[44] A higher proportion of activities have been focused on overall nutrition, anaemia, hygiene (water & sanitation), breastfeeding, growth monitoring and immunisation.

Figure-9 shows the concentration of activities of the POSHAN across key parameters and focus areas.

Figure 9: POSHAN Abhiyaan Dashboard



Source: Ministry of Women and child Development, http://dashboard.poshanabhiyaan.gov.in/janandolan/#/

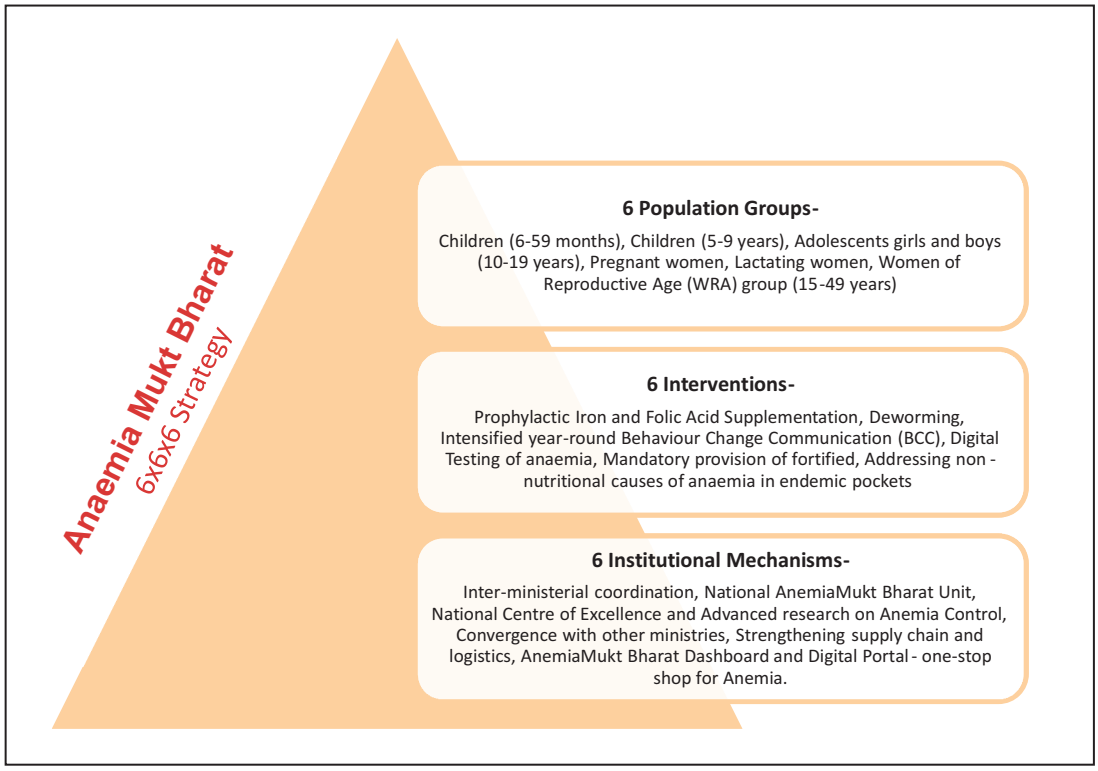
These activities aim to fill the knowledge gap and reduce infections by providing information, supplements & vaccines, thereby helping break the intergenerational cycle of undernutrition. To further reach out to the people, there have been numerous initiatives such as the Food Fortification Resource Centre, the Eat Right India Movement, Anemia Mukt Bharat programme, and the School Health Programme under Ayushman Bharat.

The Food Fortification Resource Centre[45] (FFRC) was set up to provide information to the various Ministries of the government to fortify the five staples—rice, wheat, oil, milk and salt—and provide assistance to the states on how these can be disseminated through Public Distribution System, Mid-Day Meals or the ICDS. One of the greatest benefits of having fortified staples is that without tablet distribution or monitoring, staples containing essential micronutrients can be provided to the people.

Similarly, the Eat Right India movement[46] by the FSSAI focuses on eating right, safe and sustainable. It focuses on promoting awareness about a balanced and healthy diet. The initiative, in association with POSHAN Abhiyaan, has penetrated schools, homes and hospitals to educate and promote quality diets, with a strong focus on well-being. Furthermore, the development of Eat Right Toolkits will further enable the goals by providing a method of digital counseling on how to improve their nutrition and diet.[47]

The Anemia Mukt Bharat Initiative (Anemia Control Programme), under the overarching scheme of POSHAN Abhiyaan, targets to reduce anaemia by three percent per year, higher than the historical trend of one percent reduction from 2005 to 2015. Developed by the Ministry of Health and Family Welfare, it is a 6x6x6 strategy implying 6 age groups, 6 interventions and 6 institutional

Figure 10: Anaemia Mukt Bharat 6x6x6 Strategy



Source: Operational Guidelines for Intensified National Iron Plus Initiative 2018.
Ministry of Health and Family Welfare @Observer Research Foundation's India Data Labs

mechanisms.[48] The strategy focuses on ensuring supply chain, demand generation and strong monitoring to address the nutritional and non-nutritional causes of anaemia.[49]

The School Health Programme under Ayushman Bharat, initiated by the Ministry of Health and Family Welfare, aims to educate school children about health and nutrition. It inculcates habits of healthy living, wellness, menstrual hygiene, and the importance of safe drinking water. The interactive initiative promotes teachers as 'Health and Wellness Ambassadors' to enhance age-appropriate health discussions amongst their students. The programme also promotes national-level and state-level coordination amongst ministries and organisations to ensure horizontal and vertical reach.

Innovative State Strategies

The *Northern Regional Workshop on POSHAN Abhiyaan* organised by ORF in November 2019 provided a platform for an insightful conversation about the initiatives and schemes that have been introduced by the regions and states, with the idea of scaling-up potential innovations at the national level to reach targets.

One of the most successful designs has been the idea of a community-led project. Prior examples have shown that strategic planning at a micro level, along with community motivation, has driven transformation. Rather than pushing campaigns with a top-to-bottom approach, allowing people to 'own' the campaign will lead to long-term impact. The district of Shahjahanpur in Uttar Pradesh, for example, has initiated an Information, Education and Communication (IEC) activity, where in crowded public areas such as railway stations, officials installed a wall art with messages of nutrition, early care for the mother and the child, the first 1000 days, WASH, and sanitation. It has helped increase awareness and has generated a sense of ownership amongst the people towards resolving their health issues. Other states have also come up with Participatory Learning and Action (PLA)-based interventions such as *Jeevika Self Help Groups (SHG)* in Bihar, *Shakti* in Orissa, *Anganwadi* in Madhya Pradesh, and *Asha Workers* in Jharkhand. Aligning themselves with the *Jan Andolan* Strategy, these initiatives have created a consensus around nutrition at the community level and raised awareness about malnutrition as a problem that the community must collectively act on.

Uttarakhand, for its part, has introduced an initiative wherein one can adopt a Severe Acute Malnutrition (SAM)Child. This adoption signifies taking care of the child in the early phase of their life by aiding the child's family or organisation in providing for their health and education. The initiative aims to encourage a sense of responsibility in the political representatives, industrialists, private organisations and the community towards reaching the goal of a malnutrition-free India.

In Odisha, meanwhile, the Department of Women and Child Development has institutionalised community-level monitoring by introducing *Jaanch Committee* & *Mothers Committee* at the village level.[50] The committees have a dual objective of strengthening involvement of the people as well as monitoring the services provided by the ICDS programme. Mothers Committees ensure proper quality of home-cooked meals distributed at AWCs, and Jaanch Samitis ensure the feeding programmes uphold quality and quantity accreditation. This structure strengthens the accountability of SHGs who are cooking the meals or distributing rations, and increases the trust amongst the women and families regarding the safety of the food they provide.

The *PANChSHEEL*[51] *study* explores the impact of developing an interactive and integrated socio-cultural intervention focusing on Health, Education, Engineering and Environment to strengthen nutrition in children. It further tested the acceptance rate of the community towards nutrition programmes

like the Anganwadi centres. The study adopted a community participatory approach to customise interventions for the Banswara district of Rajasthan. This has aided in achieving an in-depth understanding of the gaps and recommendations of the ICYF practices. This study brings to light the importance of a community-led approach and how engagement with the people can aid in designing successful interventions.

Since connectivity has been a major challenge for the POSHAN Abhiyaan, schemes aimed at boosting reach are desirable. Chandigarh, for instance, has developed a *POSHAN Helpline*. The helpline provides remote access to the Anganwadi worker and also gives the opportunity to book a home visit of the Anganwadi worker/Auxiliary Nurse Midwife. The *Rajpusht* programme in Udaipur, Rajasthan involves a 360-degree approach that provides cash incentives to women in order to enhance the nutritional status of children and delivers on-ground communication on social and behavioural change.[52] The programme not only targets children, pregnant and lactating women, but also reaches out to community members, husbands and family members to improve dietary patterns, health-seeking behaviours and nutritional practices. The *Mamata* programme[53] in Odisha provides a cash benefit scheme to pregnant and lactating women to improve nutrition and promote health-seeking behaviours. An extended version of the PMMVY programme provides benefits to mothers and lactating women of the second child as well—this is a feature that is absent in PMMVY. Additionally, the Particularly Vulnerable Tribal Women have been provided with a cash incentive for all children, in order to incentivise them to pursue a healthy lifestyle.

Project UDAAN in Rajasthan aims to prevent early marriages and early pregnancies, and galvanise government leadership by bringing together key departments to demonstrate a scalable model for effectively transforming the lives of adolescent girls and boys.[54] The initiative has four-fold objectives: educating girls to prevent early marriage, pregnancy and childbearing; building a social network under RKSK to ensure comprehensive sexual and reproductive education, and using technology to equip adolescent boys and girls with correct knowledge; changing social norms to ensure that girls remain in school, delay marriage to at least 18 and first birth at 20, and promote contraceptive use; and, lastly, supporting married adolescents to delay first birth, space subsequent births and thereby prevent low-birth weight.

Another important component of fighting malnutrition is the quality of nutrients, their availability, and combatting ill-informed or regressive social beliefs or norms. As state governments attempt to provide nutritious food and

supplements such as IFA tablets, they are sometimes faced with the challenge of navigating belief systems that hamper their efforts. For example, there are health workers in Odisha and Rajasthan who tell stories of how they have encountered families who correlate the intake of IFA tables (iron supplements) with physical appearance and characteristics of the child, or the consumption of papaya with abortion. In Odisha, the government has introduced innovative but healthy food such as Badam Laddoo to provide essential nutrients to mothers and children, at the same time removing the stigma associated with them. In Haryana, Anganwadi centres provide meals cooked in iron utensils and using iron cutlery. The AWWs also encourage use of iron utensils and kitchenware in households. This has enhanced the nutrition value of the food being consumed, reducing the prevalence of anaemia.

The nutrition community has expended a large amount of energy on generating demand for better dietary diversity practices across the country. Initiatives in Rajasthan show a promising future. By analysing agro-climatic zones across the State, health officials have identified the components of a nutritious diet vis-à-vis the availability and cost in each zone. The practice determines the possibility of having a suitably nutritious diet with a limited amount of money. Furthermore, in an effort to generate the demand for this type of food and lifestyle amongst mothers, mothers-to-be and family members, the platform has identified qualitative approaches such as the *Champion ki Maa*. Therefore, the programme communication in Rajasthan is aspirational rather than educational, thereby inducing the women to actively participate in it.

Finally, there is a consensus amongst the northern states who participated in ORF's event that key to running an effective nutrition programme is proper monitoring and supervision. An initiative called *Aao Chaliye Anganwadi (ACA)* in Punjab, for instance, involves regular visits to Anganwadi centres. The government professionals are advised to visit the centres and communicate with the people as well as the service providers to understand the needs and challenges they face at the grassroots.

CONCLUSION AND RECOMMENDATIONS

Health experts agree[55] that undernutrition typically sets in during the first two years of life, at a time when the brain develops about 85 percent of its full capacity. Undernutrition, if not tackled in time, can cause irreversible damage to a child's physical growth and brain development. The first 1,000 days (from the start of women's pregnancy until her child's second birthday) is a critical

window of opportunity for preventing malnutrition.[56] It also helps break the intergenerational cycle of malnutrition, otherwise undernourished girls will become undernourished women who will give birth to low-birthweight infants.

The POSHAN Abhiyaan programme strives to achieve the SDG-2 of eliminating all forms of malnutrition by 2030, including the internationally agreed 2025 target of stunting and wasting in children under 5 years. This is a tall goal given that the decadal decline in stunting, from 48 percent in 2006 to 38.4 percent in 2016, is only one percentage point a year. It warrants an immediate alignment amongst ministries, the proper juxtaposition of health and nutrition programmes right from pregnancy until the child reaches five years of age, and critical monitoring of progress made over the course of the programme.

Between 2005 and 2015, the rate of decrease of malnutrition stagnated at one percent per annum.[57] While the National Nutrition Mission has achieved feats, in order to reach its target of reducing stunting, undernutrition, anaemia and low birth weight to two percent, two percent, three percent and two percent, respectively, the initiative requires strengthening at several levels, from the state to the individual.[58]

In a study by Lancet in 2013, researchers found that scaling up proven nutritional interventions could reduce global stunting by 20 percent and child mortality by 15 percent.[59] While most research has been focused on estimating the impact of scaling up key interventions on economic growth, few studies have assessed the extent to which certain programmes reach the vulnerable sections of our society. As explained by Lancet**:** "It is the juxtaposition of coverage and efficacy that explains progress in reducing malnutrition or its absence."

This special report makes the following recommendations.

1. Enhance Programme Effectiveness and Reach

Malnutrition has received much-needed attention and has become, at least officially, a policy priority. Its implementation has been weak, however. As of March 2019, the states reported using only INR 5.69 billion of the INR 31.42 billion funds released to the states under the POSHAN Abhiyaan.[60] There are states like Karnataka and Goa that have had zero utilisation of funds. The variance in utilisation of funds is a serious concern, specifically due to higher

than national average stunting of children under 5 years in 267 districts across 22 states.[61] This has prompted further study into the reasons for ineffective programme spending. The Programme warrants evidence-based research and planning at a grassroots level in order to employ resources on a need-based framework.

A corollary issue that was repeatedly highlighted in ORF's conference is the low reach of the ICDS services, specifically in tribal areas which have, to begin with, historically contributed higher malnutrition statistics. Since the Anganwadi centres are at the heart of POSHAN Abhiyaan, it is imperative for the communities and individuals to have easy access to them. In Angul district of Odisha, where people have had difficulty reaching the Anganwadi centres, a grievance redressal mechanism was set up in 2019 to resolve such issues.[62] This has led to higher penetration in the district and increased the horizontal coverage of the programme, resulting in a more efficient consumption of the budget. Another possible solution could be setting up mini Anganwadi centres so that children, pregnant and lactating women who may not be able to travel longer distances, have easier access to them.

2. Broaden the POSHAN Horizon to include Psychological Impact

While food is an essential component, eradicating malnutrition requires holistic solutions and not only food-based ones.[63] Children who may have access to the required quality and quantity of food may also show signs of malnutrition, prompting the need for a well-rounded approach to nutrition to meet yearly targets. It is imperative to provide psychological support to the pregnant and lactating women through thorough counselling. An area requiring amplified counselling is the practice of breastfeeding and complementary feeding. The programmes tend to mostly focus on supplementary feeding through hot cooked meals and take-home meals, but the stagnating trend of low birth weight amongst children shows the need for advanced and rigorous interventions with respect to infant and young child feeding practices (IYCF).

The current spectrum of POSHAN needs to rise from the current thought process of AAA (Anganwadi worker, Auxiliary nurse/midwife, and Asha), and nurture the five As:[64] adding the Agricultural worker, and the Aayi and Appa. The contribution of the agriculture worker is important to tackle the issues pertaining to food security in the villages; and the parents (Aayi-Aapa) is the last-mile aspect.

3. Strengthen Coordination

POSHAN Abhiyaan calls for cross-sectoral convergence, reflected in the blueprint of its implementation strategy.[65] The mission acknowledges the need for better coordination amongst the centre, state, various departments, NGOs and other groups to avoid redundancy and increase efficacy. So far, however, decision-making and implementation has been sluggish. The current scenario of malnutrition calls for a 3N approach:[66] *Niti* (policy), *Niyati* (intent), *and Netritva* (leadership) to reach the ambitious target of reducing malnutrition by three percent annually.

4. Leverage Data and Technology

There is tremendous scope for technology-driven innovations which can improve the operations of the POSHAN Abhiyaan. The ICDS-Common Application Software (CAS) has shown incredible results in collecting data from the Anganwadi centres including weight, height, supplementary nutrition provided, and home visits. At present, the ICDS-CAS system covers 530,000 AWCs and is set to cover the remaining 1.37 million AWCs by March 2020. The disaggregated data will be critical in strengthening the monitoring and evaluation mechanism to ensure that each child, pregnant or lactating woman and mother is being treated with optimum care. The monitoring mechanisms can be geo-tagged with added support of date/time stamped pictures to enable the efficiency of on-ground workers as well as supervisors.[67] The data can further aid innovations through Big Data analytics and Artificial Intelligence in the future.

5. Institutionalise Capacity Building

Regular trainings for Anganwadi workers will go a long way in improving the efficacy of the POSHAN Abhiyaan programme, along with better supervision, rational and equitable distribution of work, and improved logistics. While some sections have seen outstanding improvement, others have been lacking. The programme requires an objective assessment to strengthen the weaker links. Availability of basic amenities such as electricity, growth monitors, supplies are imperative for proper functioning of the AWCs and the effective provision of services.

6. Nurture Community Approach

A prerequisite for successful development programmes is the concept of '*Panchshila Partnership*'.[68] The principle brings together the state and federal

government; academic institutions and universities; private sector; international, bilateral and multilateral agencies; and civil society. Despite strong efforts, community involvement in POSHAN Abhiyaan has been substandard. Programmes intended to have a significant impact can only produce meaningful results when embedded into the societal framework that addresses the diversity and intersectionality of the society which in turn affects the utilisation of nutritional programmes.[69] Intra-family dynamics and social inequities must be considered to successfully run a programme and address the root causes of nutritional inequalities. ORF

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APPENDIX

List of Speakers

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S. K. Singh, Deputy Director, Department of Women & Child Development, Uttarakhand

Sajjan Singh Yadav, Joint Secretary, Ministry of Women & Child Development, Government of India

Sandhya Venkateswaran, Deputy Director, Bill & Melinda Gates Foundation

Shiela C Vir, Director, Public Health Nutrition and Development Centre

Shweta Khandelwal, Head, Nutrition Research and Associate Professor, Public Health Foundation of India

Smriti Irani, Minister, Ministry of Women & Child Development, Government of India

Srikanth Kulkarni, Deputy Director, Dharwad District, Department of Women & Child Development, Karnataka

Sujeet Ranjan, Executive Director, The Coalition for Food and Nutrition Security

Tarun Vij, Country Director, The Global Alliance for Improved Nutrition

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