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Partnerships and Opportunities to Strengthen and Harmonize Actions for Nutrition in India
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Achieving the 2025 World Health Assembly Targets for Nutrition in India: What Will It Cost?

KEY MESSAGES:

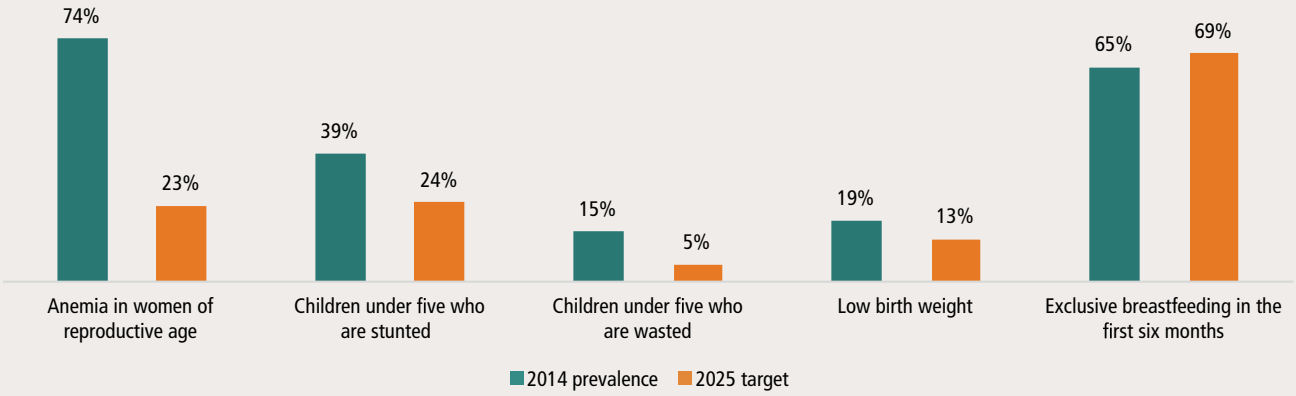
- *India should **consider investing 43,000 crore INR annually**–across Union and State budgets, and across ministries– to fully finance the delivery of the recommended set of nutrition interventions, at scale. This cost implies a thumb rule of 9,336 INR per year per child (0–24 months) for interventions covered in this framework.*
- *Where finances are limited, we recommend that states should be given flexibility to prioritize from a basket of interventions depending on their specific needs and implementation capability.*
- *States should prioritize rapid scale-up of low-cost interventions such as counseling for breastfeeding, iron-folic acid supplements for pregnant women, vitamin A supplementation, deworming and insecticide-treated nets for pregnant women in malaria-endemic areas, to take advantage of high benefit-cost ratios.*
- *The Centre should regularly track and monitor investments in nutrition, to allow for prioritization, planning and informed decision-making on allocations and expenditures by key actors.*
- *The launch of the Maternity Benefit Program (MBP) on December 31, 2016 (PIB 2017), in accordance with the National Food Security Act (NFSA), is a unique opportunity to expand coverage and funding for maternal health and nutrition.*

INTRODUCTION

The prevalence of nutritional outcomes such as stunting, anemia, wasting and low birth weight is persistently high in India. In 2012, India committed to achieving the six World Health Assembly (WHA) targets[1] for nutrition. Figure 1 shows the levels of five of the six target indicators in India, in 2014. It is clear that substantial improvements are required across India, if it is to meet its commitment by 2025. Thus, resources need to be prioritized and synergized to deliver fully for nutrition in the coming decade.

Numerous interventions – nutrition-specific and nutrition-sensitive – have been identified to help accelerate progress in nutrition in India; these interventions are already encompassed in India's national policy frameworks for nutrition. The nutrition-specific interventions include a set of broadly agreed upon interventions such as iron and folic acid (IFA) supplementation during pregnancy, breastfeeding (BF) promotion, complementary feeding (CF) education, vitamin A supplementation in early childhood, and food supplementation. Two national programmes in India – the Integrated Child Development Services (ICDS) and the National Health Mission (NHM) – are largely designed to deliver these interventions, however, coverage of these interventions remains low, due to implementation challenges, and capacity and financing gaps (Menon et al. 2016).

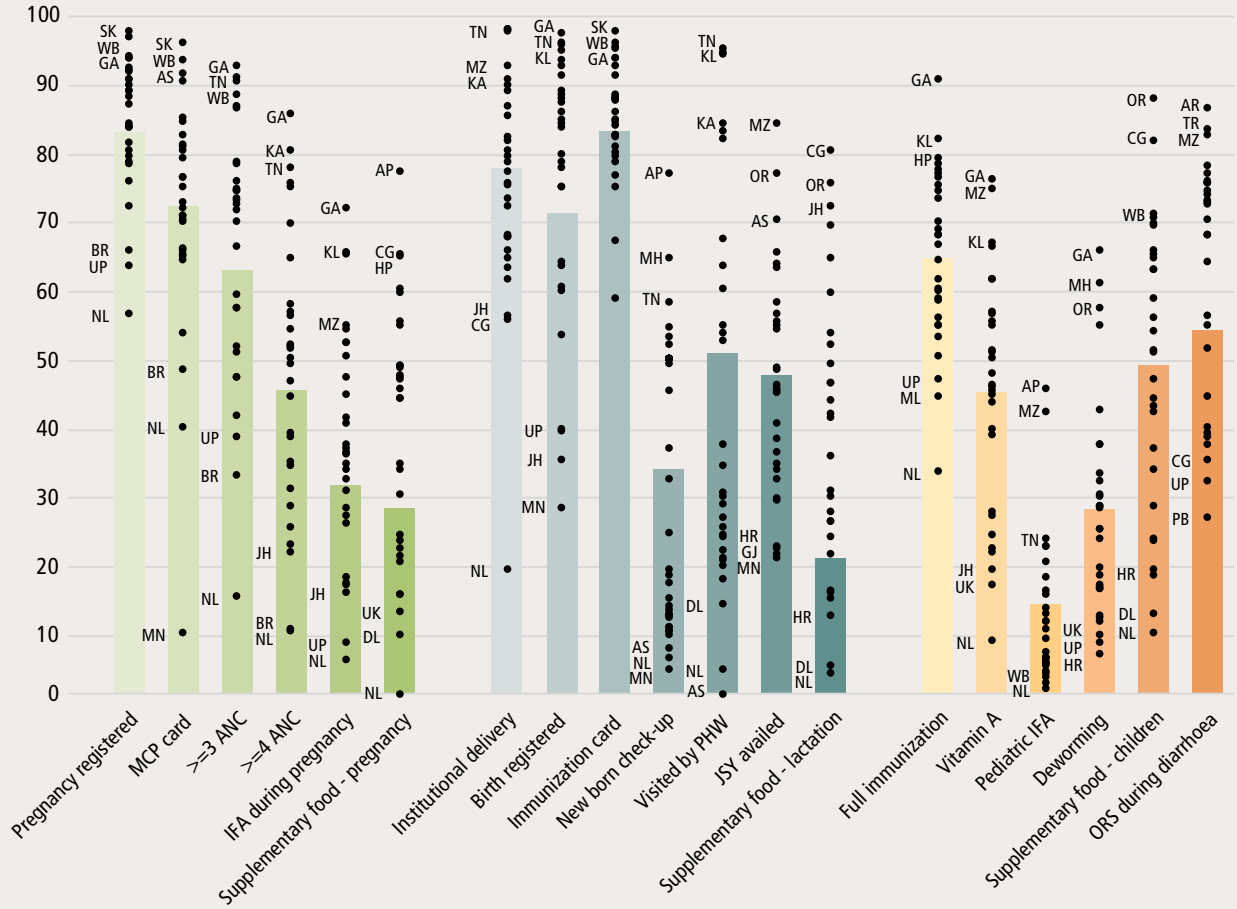
FIGURE 1 World Health Assembly (WHA) nutrition targets for 2025 - India



Source: Rapid Survey on Children (2014), Ministry of Women and Child Development (MoWCD), Government of India, District Level Household Survey (DLHS) Round 4 (2013), Clinical, Anthropometric and Biochemical (CAB) Survey (2014).

Notes: All figures are reported in percentages. Anemia data was pooled from DLHS 4 (2013) and CAB (2014). National averages for anemia were derived using a weighted mean of women aged 18–49 years. Population weights were taken from Census (2011) data. Columns in teal represent all India average in 2014. Targets (orange columns) are based on WHO Global Targets Tracking Tool.

FIGURE 2 Coverage of essential nutrition interventions



Source: Rapid Survey on Children (2014), Ministry of Women and Child Development, Government of India.

Notes: Coverage is reported in percentages. ANC= Antenatal care, AP= Andhra Pradesh, AR= Arunachal Pradesh, AS= Assam, BR= Bihar, CG= Chhattisgarh, DL= Delhi, GA= Goa, GJ= Gujarat, HR= Haryana, HP= Himachal Pradesh, JK= Jammu & Kashmir, JH= Jharkhand, JSY= Janani Suraksha Yojana, KA= Karnataka, KL= Kerala, MCP= Mother and child protection, MP= Madhya Pradesh, MH= Maharashtra, MN= Manipur, ML= Meghalaya, MZ= Mizoram, NL= Nagaland, OR= Orissa, ORS= Oral rehydration salts, PB= Punjab, RJ= Rajasthan, SK= Sikkim, TN= Tamil Nadu, TR= Tripura, UK= Uttarakhand, UP= Uttar Pradesh, WB= West Bengal. Columns represent national coverage and dots represent coverage in individual states.

Figure 2 shows the status of a set of nutrition interventions[2] in India (see columns) and in its individual states (see dots) across the 'continuum of care'. There are large interstate differences in the delivery of interventions across India. While states like Sikkim, West Bengal, Goa, Tamil Nadu, Kerala, Mizoram, Odisha, and Maharashtra, among others, emerged as front runners; Nagaland, Uttar Pradesh, Bihar, Manipur, and Jharkhand were laggards. While over 70 percent of India's pregnant women possess a Mother and Child Protection (MCP) card, coverage of other interventions during pregnancy was inadequate. Less than half of pregnant women reported receiving more than four antenatal care (ANC) assessments, and less than a third reported consuming IFA tablets or receiving supplementary food during pregnancy. Although over 70 percent of the population was covered, in the first six months after delivery, in terms of institutional delivery, birth registration and obtaining an immunization card, coverage of other core interventions ranged from 20 to 50 percent. Likewise, there are large gaps in the coverage of interventions delivered after six months, where coverage is below 50 percent for a majority of the nutrition interventions.

This *Policy Note* summarizes the costs of delivering this set of essential nutrition interventions at scale, in India, and highlights a few key challenges in current implementation.

METHODS

We used costing methods in Menon et al. (2016) with updates[3] to determine prevalence rates of underweight and severe wasting among children under five. To calculate the cost of providing interventions at full coverage, the team adopted the approach used by the World Bank in *Scaling Up Nutrition: What Will It Cost?* (Horton et al 2010) and did the following:

- Described each intervention to be costed.
- Defined the target population of each intervention.
- Estimated the size of the target population in 2017 for each intervention.
- Specified the platform or channel(s) through which each intervention or activity would be delivered.
- Obtained local unit cost data for the nutrition interventions from relevant sources within India or from comparable programmatic settings in South Asia. Unit costs, however, are not uniform across states, and state-level data on unit costs is scarce, if at all available. We therefore applied a standard all-India unit cost for specific interventions costed in this study. For assumptions and components of unit costs see Menon et. al. 2016.
- For each intervention, multiplied the size of the target population by the unit cost to arrive at a total cost of implementing each intervention at full coverage; and performed necessary adjustments for inflation. The researchers defined "full coverage" as 100 percent of the target population, except in the case of treatment of severe acute malnutrition, which was set to 80 percent[4].

In addition to estimating total and intervention-specific costs as detailed above, we also assessed potential funding gaps by comparing estimated costs to current program expenditures, where available.

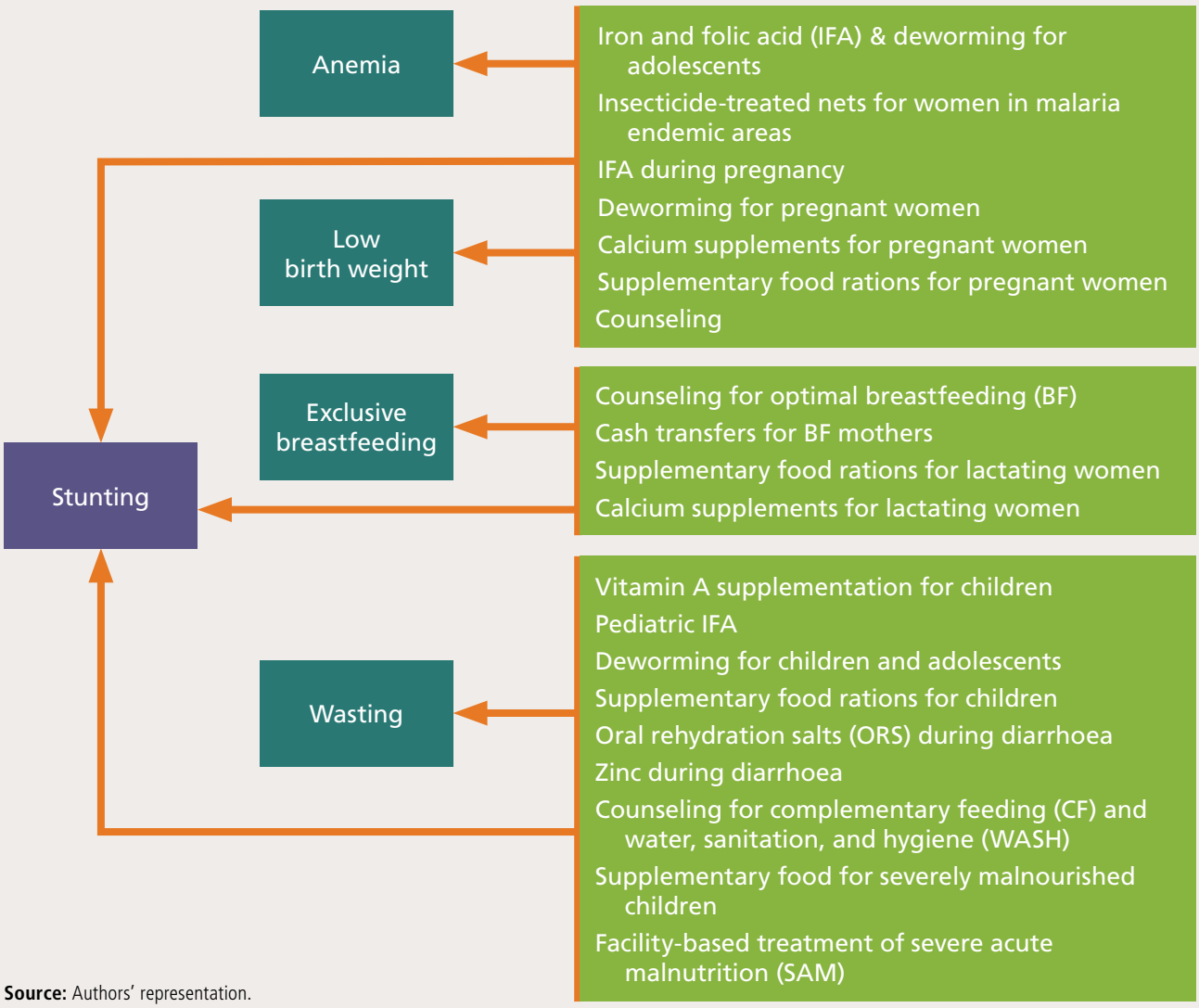
Figure 3 shows how the interventions costed in this note align with the different WHA targets.

FINDINGS

Total costs

Estimates show that at 2017 target population levels, it would cost approximately **43,000 crore INR (6.6 billion USD)** annually to deliver the core set of nutrition interventions in India (see Table 1). These costs are split into three crucial intervention periods vis-à-vis the continuum of care approach. We estimate that 5,200 crore INR (0.8 billion USD) are required for interventions during pregnancy, which include iron and folic acid (IFA) *and* deworming for adolescents, and insecticide-treated nets, counseling, IFA, deworming, calcium supplements and supplementary food for pregnant women. We estimate that 21,800 crore INR (3.4 billion USD) are required in the first six months

FIGURE 3 Alignment of costed interventions to WHA targets



Source: Authors' representation.

TABLE 1 Total costs of delivering a set of core nutrition actions at scale in India

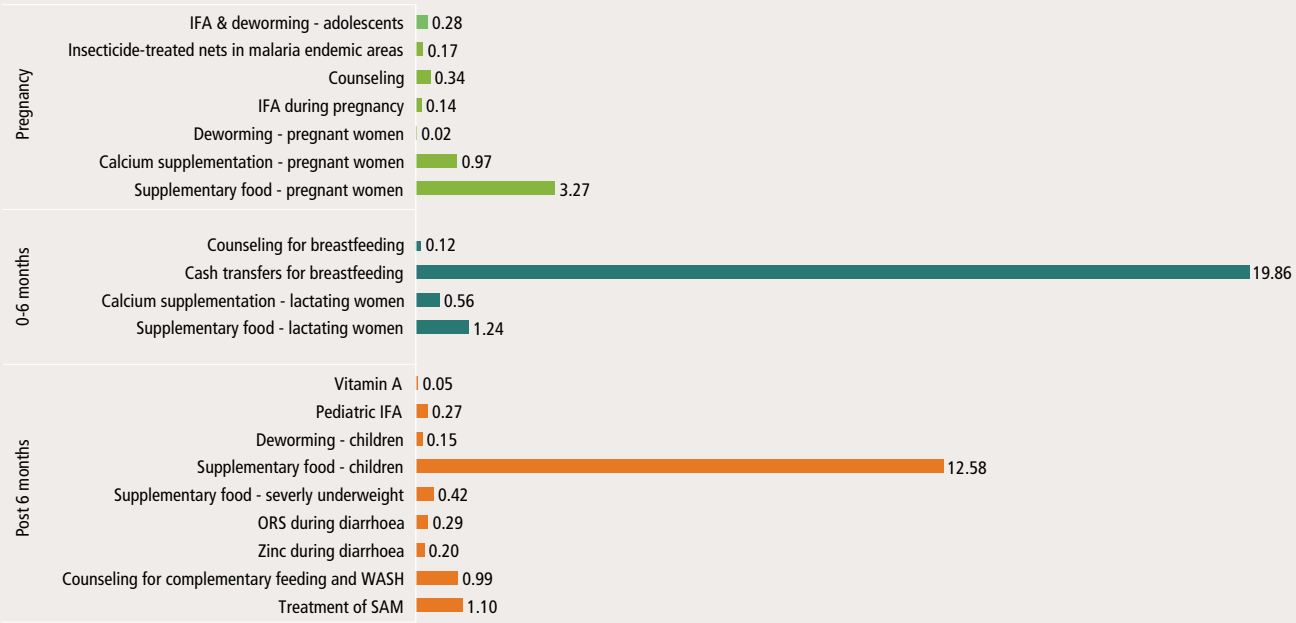
Nutrition intervention costs in thousand crore INR/per year (1 USD= 65 INR)			
During pregnancy	First 6 months after delivery	After 6 months	**Total**
5.2 (0.8 USD bn)	21.8 (3.4 USD bn)	16.0 (2.5 USD bn)	**43.0 (6.6 USD bn)**

postpartum, to deliver counseling for breastfeeding, cash transfers to enable breastfeeding[5] and calcium supplements and supplementary food for lactating women. Finally, 16,000 crore INR (2.5 billion USD) are required after the child has reached the age of six months, to deliver vitamin A, pediatric IFA, deworming, supplementary food for children, supplementary food for children severely underweight, oral rehydration salts (ORS) and zinc during diarrhoea, counseling for complementary feeding *and* water, hygiene and sanitation (WASH), and for the treatment of severe acute malnutrition (SAM).

Detailed costs of delivering the core set of nutrition interventions are shown in Figure 4.

There is considerable variability in the estimated costs of delivering all nutrition interventions at scale across India (see Figure 5), which is primarily driven by differences in target populations. For example,

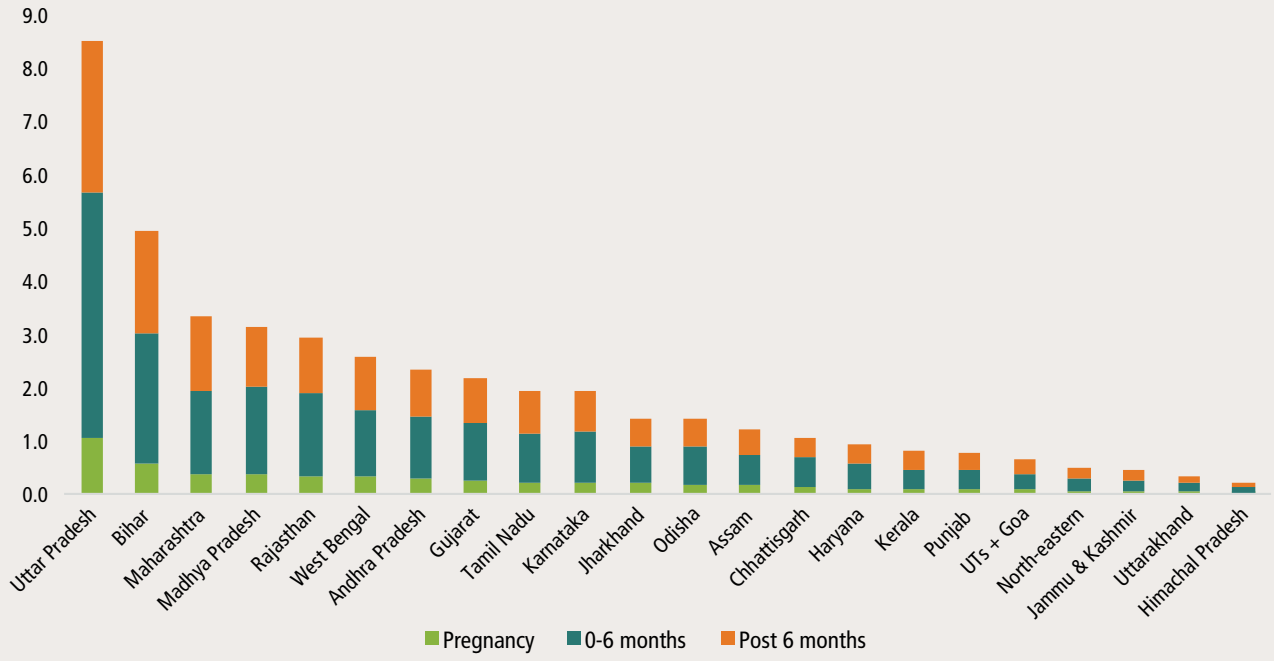
FIGURE 4 Costs of nutrition interventions, in thousand crore INR/year



Source: Authors' estimates using methodology used by Menon et al (2016) and undernutrition prevalence from the Rapid Survey on Children (2014). Guidelines for Calcium (assumes 360 tablets per pregnant woman between second and third trimester, and 360 tablets during lactation) and Deworming (assumes 1 tablet of albendazole per woman) for Pregnant and Lactating Women from MoHFW (2014).

Note: Costs are reported in thousand crore INR/year. Unit costs for all interventions excluding calcium for pregnant and lactating women obtained from Menon et. al (2016). Unit cost estimates for maternal calcium obtained from WHO (2013). Target population obtained from Census of India (2011) and Sample Registration System Bulletin, Census of India (2012), and projected to 2017. IFA= Iron and folic acid, ORS= Oral rehydration salts, SAM= Severe acute malnutrition, WASH= Water, sanitation and hygiene.

FIGURE 5 Costs of nutrition interventions by state, in thousand crore INR/year



Source: Authors' estimates using methodology used by Menon et al (2016) and undernutrition prevalence from the Rapid Survey on Children (2014). MoHFW (2014) and WHO (2013) for deworming for pregnant women, and calcium supplementation indicators.

Notes: Costs are reported in thousand crore INR/year. North-eastern includes Arunachal Pradesh, Mizoram, Meghalaya, Manipur, Nagaland, Sikkim, Tripura. Union territories include Chandigarh, NCR Delhi, Puducherry, Andaman and Nicobar Islands, Daman and Diu, Dadra and Nagar Haveli, Lakshwadeep.

TABLE 2 Mapping costed interventions to ministries that deliver them

Ministry of Women and Child Development (MoWCD)	Ministry of Health and Family Welfare (MoHFW)	Both MoWCD and MoHFW
Supplementary food - pregnant women	IFA and deworming - adolescents	Counseling during pregnancy
Supplementary food - lactating women	Insecticide-treated nets	Counseling for BF
Supplementary food - children	IFA during pregnancy	Cash transfers for BF
Supplementary food - severely underweight	Vitamin A	Counseling for CF and WASH
MBP (formerly known as IGMSY)	Pediatric IFA	Treatment of SAM
	Deworming	
	ORS during diarrhoea	
	Zinc during diarrhoea	

Notes: BF= Breastfeeding, CF= Complementary feeding, IGMSY= Indira Gandhi Matritva Sahyog Yojana, IFA= Iron and folic acid, MBP= Maternity Benefit Program, ORS= Oral rehydration salts, SAM= Severe acute malnutrition, WASH= Water, sanitation and hygiene.

Uttar Pradesh's high population density, coupled with high fertility rates, amplifies the costs for treatment of SAM. The cost of implementing all interventions in the state of Uttar Pradesh will, in fact, amount to over 8,000 crore INR, which is one fifth of the total cost estimate of 43,000 crore INR. Similar is the case in Bihar, Madhya Pradesh, Rajasthan and Maharashtra, where costs of delivering these interventions at scale range between 3,000 and 5,000 crore INR per year.

Finally, our estimates lead to an average cost of 9,336 INR (140 USD)[6] per child (0–24 months of age).

Government allocations and expenditures

The interventions costed in this note are currently delivered through two ministries in India, either solely or jointly, depending on the intervention being delivered. Table 2 shows that food supplementation interventions are currently in the domain of the Ministry of Women and Child Development (MoWCD) whereas counseling, cash transfers and treatment of SAM are jointly delivered by the MoWCD and the Ministry of Health & Family Welfare (MoHFW). The remaining interventions are delivered by the MoHFW alone.

Recognising the importance of tackling malnutrition, both Union and State Governments have launched a number of schemes that focus on addressing poor nutrition outcomes though focused interventions (see Table 2). The ICDS, the NHM, the *Janani Suraksha Yojana* (JSY), the Rajiv Gandhi Scheme for Empowerment of Adolescent Girls (RGSEAG-Sabla), and the *Indira Gandhi Matritva Sahyog Yojana* (IGMSY)[7], are a handful of the Centrally-Sponsored Schemes (CSSs) that are either designed to target malnutrition or that have significant nutrition-related components.

A review of the budgets of the Union Ministries responsible for delivering these interventions reveals that whilst the MoHFW budget has increased by 26 percent, from 31,500 crore INR in 2014–15 to 39.7 thousand crore INR in 2016–17 (revised estimates), the MoWCD's budget decreased between 2014–15 and 2015–16, increasing marginally in 2016–17 (see Figure 6, Panel A). Figure 6 (Panel B) also shows a breakdown of the ministry expenditure and allocation numbers by some of the key schemes. As with the ministry allocations, ICDS allocations in 2016–17 were significantly lower than 2014–15 actual expenditures and have been declining over time.

However, examining Union Government figures alone does not give a complete picture of funds allocated and spent for nutrition related interventions. Implementation of social sector programmes, including nutrition, has traditionally been, and continues to be, the primary responsibility of the states (see Figure 7).

In February 2015, following the recommendations of the 14th Finance Commission, the Union Government increased the share of taxes going to the states and decreased central assistance provided by the Union Government through specific purpose fund transfers such as CSSs. In October 2015, the fund-sharing ratio of a number of CSSs was

FIGURE 6 Union Government allocations and expenditure

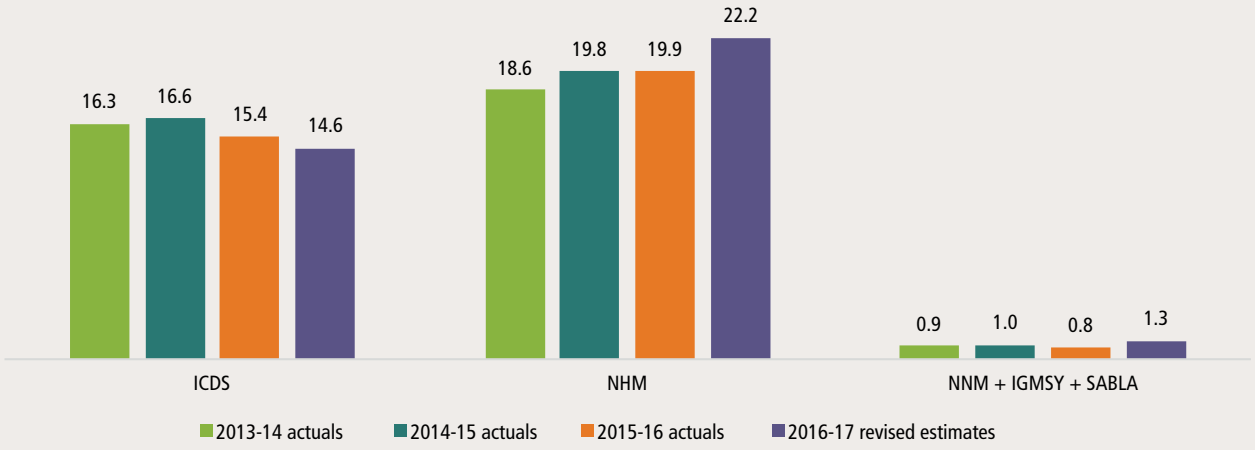
PANEL (A) Ministry expenditures, in thousand crore INR/year

Ministry	2014–15 actuals	2015–16 actuals	2016–17 RE	Change between 2014–2015 and 2015–2016	Change between 2015–2016 and 2016–2017
MoWCD	18.5	17.2	17.6	-7 %	2 %
MoHFW	31.5	34.1	39.7	8 %	16 %

Source: India Budget (2016–17 and 2017–18). Available online at: http://indiabudget.nic.in/ub2016-17/eb/allsbe.pdf and http://indiabudget.nic.in/ub2017-18/eb/allsbe.pdf.

Note: RE= Revised estimates.

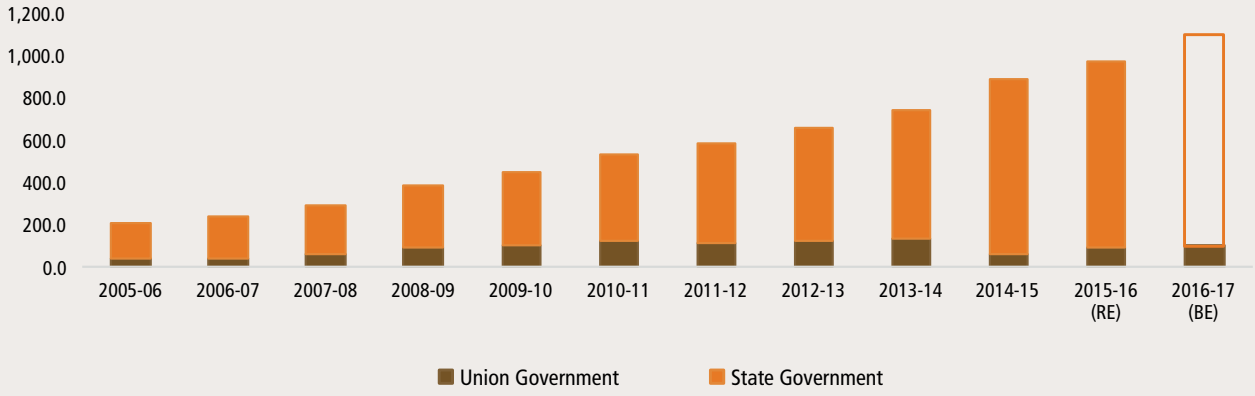
PANEL (B) Total Union Government spending on nutrition-specific interventions, in thousand crore INR/year



Source: India Budget (2015–16, 2016–17 and 2017–18). Available online at: http://indiabudget.nic.in/ub2015-16/eb/allsbe.pdf, http://indiabudget.nic.in/ub2016-17/eb/allsbe.pdf and http://indiabudget.nic.in/ub2017-18/eb/allsbe.pdf. Allocations for ICDS were obtained directly from the Ministry of Women and Child Development (MoWCD) till 2014–15.

Notes: Expenditure is reported in thousand crore INR/year. Figures for 2013–14, 2014–15 and 2015-16 are actual expenditures. Allocations for NHM only include the NHM component of the umbrella programme "NHM including AYUSH NACO and Medical Research" and do not include "Human Resources in Health & Medical Education", "National Mission on AYUSH including Mission on Medicinal Plants" and "National AIDS & STD Control Programme". ICDS= Integrated Child Development Services, NHM= National Health Mission, NNM= National Nutrition Mission, IGMSY= Indira Gandhi Matritva Sahyog Yojana.

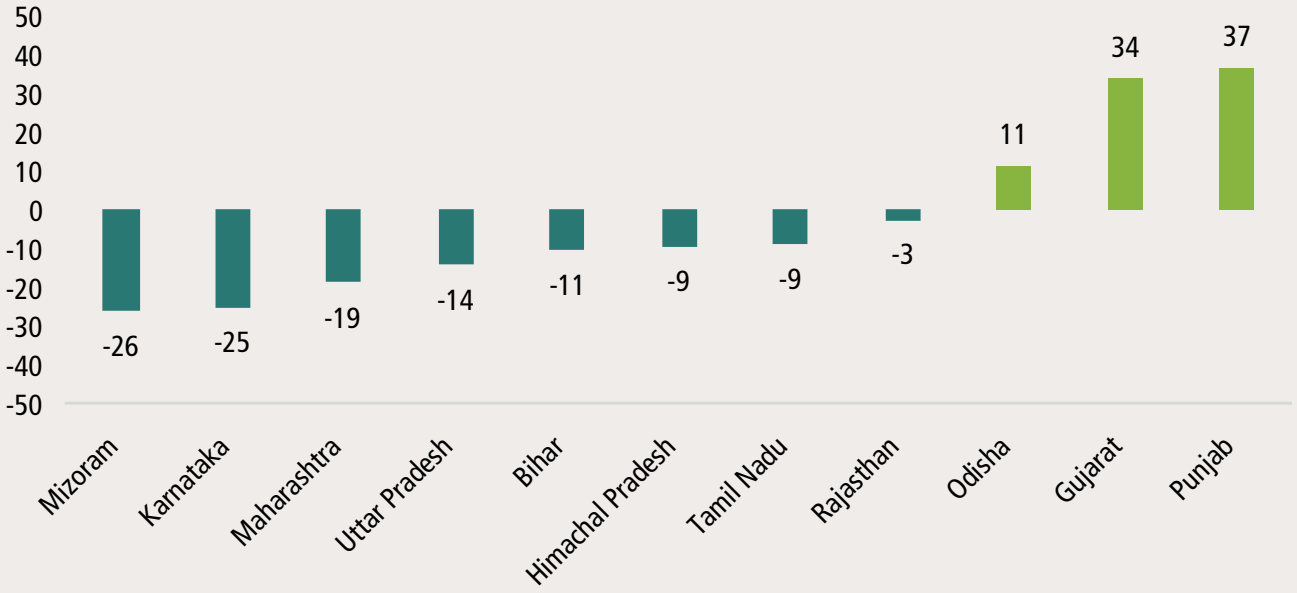
FIGURE 7 Social sector expenditure, in thousand crore INR/year



Source: Reserve Bank of India, Database of Indian Economy, Yearly Public Finance Statistics, Union and State Finances. Available online at: https://dbie.rbi.org.in/DBIE/dbie.rbi?site=statistics.

Notes: Expenditure is reported in thousand crore INR/year. Data for 2015–16 are revised estimates (RE) and data for 2016–17 are budget estimates (BE). State government figures for 2016–17 are currently unavailable. Empty column for 2016–17 indicates no available BE.

FIGURE 8 Changes in Union and State expenditures on the ICDS's Supplementary Nutrition Program (between 2014–15 and 2015–16)



Source: RTI filed for supplementary nutrition expenditure figures and Lok Sabha, Question No. 2272. Available online at: http://164.100.47.190/loksabhaquestions/annex/8/AU2272.pdf

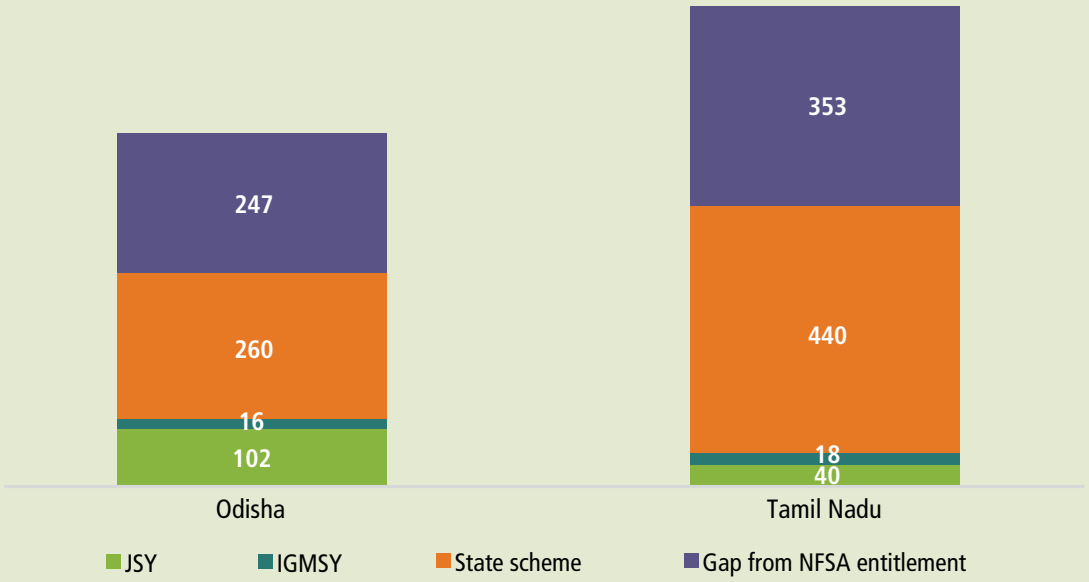
Note: Changes in expenditures are reported in percentages.

also revised, with states expected to contribute a higher share. Consequently, state governments now have an even greater responsibility both in terms of funding and implementation of many of these schemes. It is also important to note that other resources available at state level, such as the schemes under the Scheduled Castes Sub Plan (SCSP), the Tribal Sub Plan (TSP), and research development funds, are also utilized where inter-sectoral coordination mechanisms are available for schemes in high burden/food-insecure pockets. In this changed scenario, it is important to track not just Union Government allocations but also State Government allocations and expenditures in CSSs and other state schemes.

Figure 8 shows the total expenditures (including both Central and State shares) under the Supplementary Nutrition Program (SNP) of the ICDS in 2015–16 as compared to 2014–15. Whilst 2014–15 was already a year of expenditure contraction, for a number of states, the total expenditure in 2015–16 was even lower than in 2014–15. For instance, Mizoram and Karnataka spent 26 and 25 percent less, respectively, in 2015–16 compared to the previous year. Uttar Pradesh and Bihar also spent 14 percent and 11 percent less, respectively. Gujarat and Odisha, on the other hand, spent 34 and 11 percent more respectively, in 2015–16.

On December 31, 2016, the Union Government expanded the IGMSY into the Maternity Benefit Program (MBP)– a conditional cash transfer of 6,000 INR per beneficiary per year to pregnant and lactating women to provide compensation for wage loss, adequate nutrition and rest, before and after delivery. According to Union Government estimates, the total cost of the proposal for the period between January 2017 and 2019–20, including Centre and State shares, is expected to be 12,700 crore INR for an estimated 51.7 lakh beneficiaries (PIB 2017). Whilst the exact calculations behind this proposal are unclear, initial evidence suggests that the finances proposed would be inadequate to cover a majority of the population. For instance, in 2015–16, the number of JSY beneficiaries, as per government data stood at 75 lakh. The financial

Box 1 Cash transfers for pregnant and lactating women, crore INR/year



Source: State scheme estimates are based on authors' estimates from coverage rates obtained from the District Level Household Survey (2012–13) for Tamil Nadu and Outcome Budget (2016–17) for Odisha. Allocations for JSY from Press Information Bureau, Beneficiaries under Janani Suraksha Yojana (2015). Available online at: http://pib.nic.in/newsite/PrintRelease.aspx?relid=133709. Allocations for IGMSY from Lok Sabha, Question No. 2253. Available online at: http://164.100.47.190/loksabhaquestions/annex/9/AU2253.pdf

Notes: All figures are reported in crore INR/year. For IGMSY, releases have been used as a proxy for allocations as there are no state-wise allocations reported by the government. IGMSY= Indira Gandhi Matritva Sahyog Yojana, JSY= Janani Suraksha Yojana, NFSA= National Food Security Act. Gap= Funding required to fulfil maternity benefit norms of the (NFSA). State scheme= Mamata Scheme in Odisha, and the Muthulakshmi Reddy Maternity Benefit Scheme in Tamil Nadu.

proposal for MBP however stands at 6,000 INR per women per year for 51.7 lakh beneficiaries. Our estimates for cash transfers to support breast-feeding also suggest that the current allocation for the MBP will likely fall well short of what is required to deliver this intervention at scale[8].

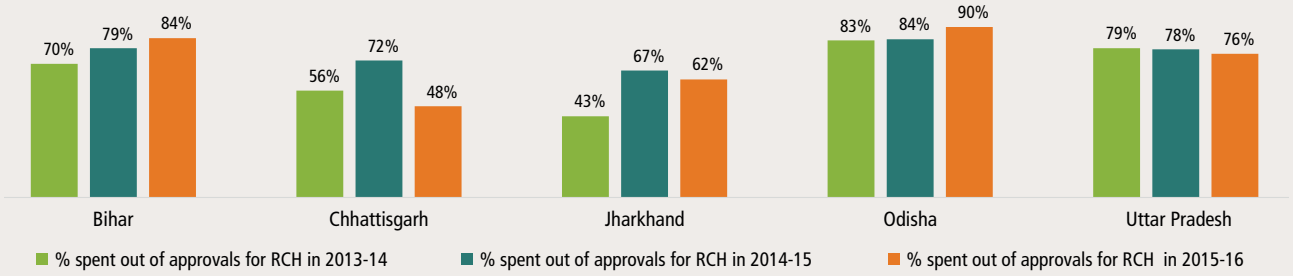
As mentioned earlier, states are responsible for implementing many nutrition-related schemes. For instance, in Odisha, the Mamata Scheme is a conditional cash transfer that aims to enhance the demand for nutrition interventions by providing cash at critical windows for pregnant and lactating women. Under the Mamata Scheme, women receive 5,000 INR in four instalments. Similarly, the Muthulakshmi Reddy Maternity Benefit Scheme in Tamil Nadu targets Below Poverty Line[9] women and provides a total of 12,000 INR, once a set of soft conditions[10] is met. Cash transfers comprise 50 percent of the total cost of delivering the set of nutrition interventions and therefore are a crucial component to enhance the demand for nutrition interventions as well as provide an enabling environment to improve breastfeeding. Case studies on such state-sponsored schemes would provide valuable lessons for deploying the power of cash transfers to effectively enhance demand for nutrition interventions. Box 1 illustrates the existing gaps in the cash transfer entitlements under the NFSA in Odisha and Tamil Nadu. Although both these schemes differ slightly from the NFSA norms that were costed in our study, they do show that individual states can also prioritize nutrition using their own funds.

State capacity: A mismatch between allocations and utilisations

Finally, it is important to recognise that there are gaps in the states' ability to utilise funds due to a number of reasons including delayed release of funds, mismatch between proposed funds and those approved, complicated approval processes, administrative inefficiencies, and state capacity.

FIGURE 9 State capacity: Allocations and utilisations

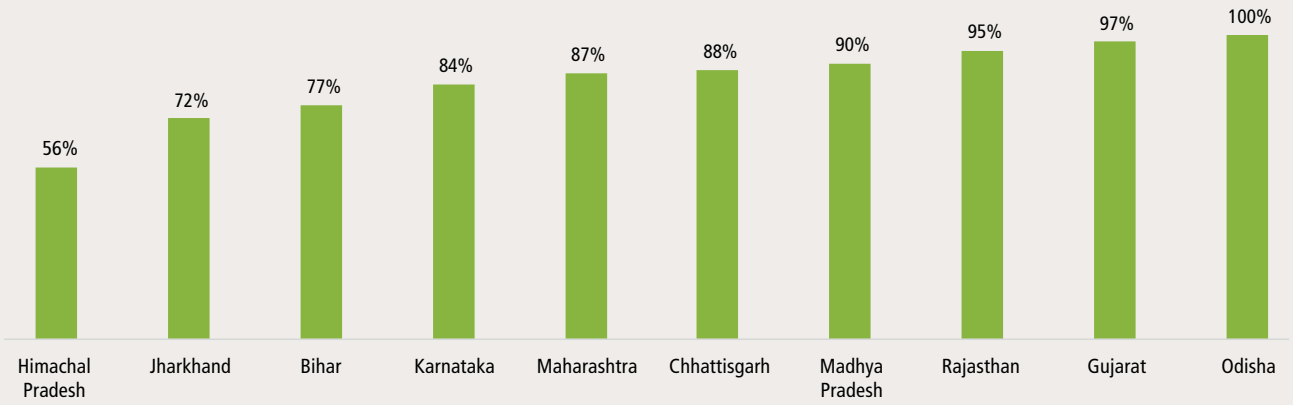
PANEL (A) Percentage spent out of RCH flexi-pool approved budget (2015–16)



Source: Lok Sabha, Question AS 291 and Ministry of Health and Family Welfare, NRHM Portal, State Implementation Plans. Available online at: http://164.100.47.190/loksabhaquestions/annex/6/AS291.pdf and http://nrhm.gov.in/nrhm-in-state/state-program-implementation-plans-pips.html. For expenditures, the Quarterly NRHM MIS Report as on March 2016 has been used. Available online at: http://nrhm.gov.in/component/content/article.html?id=405

Note: RCH= Reproductive and child health.

PANEL (B) Percentage spent on JSY out of approved Project Implementation Plan for JSY (2014–15)



Source: Press Information Bureau, Ministry of Women and Child Development, Government of India (2015). Available online at: http://pib.nic.in/newsite/PrintRelease.aspx?relid=133709

Note: Latest year for complete data on the Janani Suraksha Yojana (JSY) is 2014–15.

Between 2013 and 2016, few states spent the total amount of approved funds for the reproductive and child health (RCH) flexi-pool[11] (see Figure 9, Panel A), despite a decrease in the total amount of funds approved for some states and a significant portion of RCH flexi-pool money being for salaries. For example, for a high burden state like Bihar, only 777 crore INR of an approved 1,104 crore INR were spent in the year 2013–14. Further, in 2014–15, only 765 crore INR were spent out of an approved 972 crore INR. Overall, less than 80 percent of the total funds approved for India were spent between 2013 and 2016. Similarly, few states spent the entire approved amount on the JSY (see Figure 9, Panel B).

IMPLICATIONS & RECOMMENDATIONS

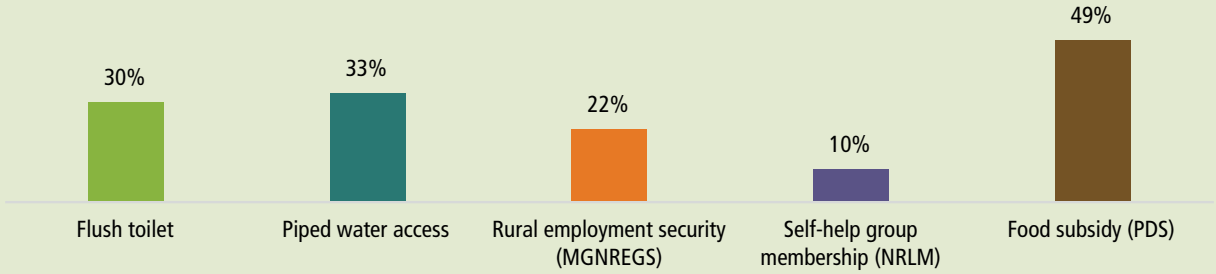
Our analysis indicates that there are large interstate differences in the delivery of essential nutrition interventions across India, and considerable variability in the estimated costs of delivering these interventions at scale. Additionally, allocations to key ministries, such as the MoHFW and the MoWCD, for nutrition, have been stagnant or have declined over the years. Furthermore, budget allocations for

Box 2 The role of nutrition-sensitive interventions

Discussions on nutrition financing are incomplete without touching upon large scale programmes that are designed to improve underlying conditions that affect nutrition. While we do not cost these nutrition-sensitive interventions (e.g. nutrition-sensitive social protection programmes, programmes to improve agricultural productivity in a nutrition-sensitive manner or to improve sanitation), there is agreement that such interventions can help improve nutrition outcomes in the long run. However, the evidence base is weaker in comparison with nutrition-specific interventions, delivery platforms are less clear and costing data is scant. In Panel A we show that access to a few key programmes that aim to improve underlying determinants of undernutrition is quite low. It is crucial that the Union Government continues to enhance and improve supportive home-based environments. In Panel B we show that the centre continues to spend very large sums on the fiscally burdensome Public Distribution System (PDS) and the Mahatma Gandhi Rural Employment Guarantee Scheme (MGNREGS). Yet, investments on sanitation and access to clean water are still quite low in comparison and thus need to be prioritized as critical public health actions.

Coverage and expenditure on nutrition-sensitive interventions

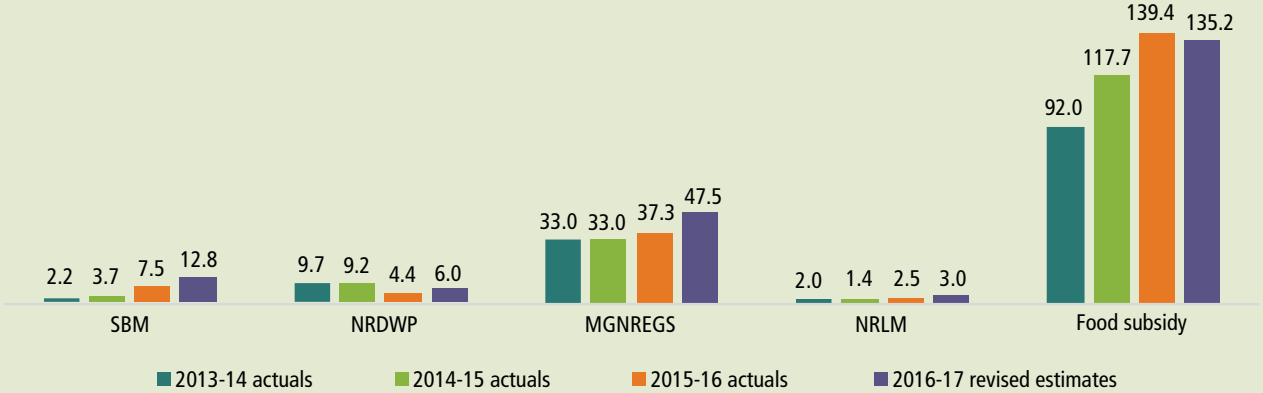
PANEL (A) Coverage of nutrition-sensitive interventions



Source: Indian Human Development Survey (2011–12).

Note: Authors' estimates from unit level data. Figures calculated from a subsample of households with children less than five years. For the purposes of external validation we crossed checked these figures with the Census (2011). We find that 35% of all households have a flush toilet and 32% have access to piped water from treated source. MGNREGS= Mahatma Gandhi Rural Employment Guarantee Scheme, NRLM= National Rural Livelihood Mission, PDS= Public Distribution System.

PANEL (B) Union Government expenditure trends, in thousand crore INR/year



Source: India Budget (2015–16, 2016–17 and 2017-18). Available online at: http://indiabudget.nic.in/ub2015-16/eb/allsbe.pdf, http://indiabudget.nic.in/ub2016-17/eb/allsbe.pdf and http://indiabudget.nic.in/ub2017-18/eb/allsbe.pdf.

Notes: Expenditure is reported in thousand crore INR/year. Figures for 2013–14, 2014–15 and 2015–16 are actual expenditures. NRDWS= National Rural Drinking Water Scheme, NRLM= National Rural Livelihood Mission, MGNREGS= Mahatma Gandhi National Rural Employment Guarantee Scheme, PDS= Public Distribution System, SBM= Swachh Bharat Mission (rural and urban). Figures for PDS refer to the entire food subsidy budget.

critical public health interventions such as toilets and piped water, are still quite low and will likely be inadequate to cover all families.

Based on our findings, we offer the following policy-focused considerations:

1. Consider an investment of 43,000 crore INR annually – across Union and State budgets, and across ministries – to fully finance the delivery of the recommended set of essential nutrition interventions, at scale, in India. This cost implies a thumb rule of 9,336 INR per year per child (0–24 months) for interventions covered in this framework.
2. Invest in further research on unit costs of several interventions as current unit cost estimates for India are either dated or potentially unreliable.
3. Where finances are limited, we recommend that states should be given flexibility to prioritize from a basket of interventions depending on their specific needs and implementation capability .
4. Prioritize rapid scale-up of low-cost interventions such as counselling for breastfeeding, iron-folic acid supplements for pregnant and breastfeeding women, vitamin A supplementation, deworming and insecticide-treated nets for pregnant women in malaria-endemic areas.
5. Regularly track and monitor investments in nutrition, to allow for prioritization, planning and informed decision-making on allocations and expenditures by key actors.
6. Given that nutrition-specific spending is still largely through CSSs, it is important to maintain existing investments and ensure that bottlenecks in fund flows to states, and consequently on expenditures, are reduced.
7. Utilize the 25 percent flexi-funds component within CSSs such as the ICDS, to target specific interventions, based on state needs and priorities.
8. Document and share state innovations such as those from the cash transfer schemes in Odisha and Tamil Nadu, through case studies and evaluations.
9. Prioritize investments in sanitation and access to clean water, to provide supportive home-based environments for improved nutrition.

Beyond financial outlays, India's federal structure should consider convergence in implementation and needs greater accountability. Additionally, the parliament, which is signatory to the WHA resolution on global nutrition targets, is responsible for ensuring that India meets its targets. It is therefore imperative to collect data regularly through national family health surveys every three years in order to track India's status on the WHA targets and to ensure accountability at the national level.

NOTES

1. In 2012, the World Health Assembly (the decision-making body of the World Health Organization which is governed by 194 member states) unanimously endorsed a set of six global nutrition targets (for stunting, anemia, low birth weight, childhood overweight, breastfeeding, and wasting) to be achieved by 2025.
2. Nutrition interventions studied: Counseling during pregnancy, counseling for optimal breastfeeding, and counseling for complementary feeding and hand washing, vitamin A supplementation for children, oral rehydration salts (ORS) and therapeutic zinc supplements for treatment of diarrhea, deworming for children, adolescents and pregnant women, iron supplements for children, iron-folic acid (IFA) supplements for adolescents, IFA and calcium supplements for pregnant and lactating women, complementary food supplements, supplementary food rations, additional food rations for severely malnourished children, facility-based treatment of severe acute malnutrition (SAM) children, insecticide-treated nets for pregnant women in malaria endemic areas, and maternity benefit for breastfeeding mothers.

3. In Menon et al (2016) the secondary data source was the National Family Health Survey 2005. However, data from the Rapid Survey on Children (2014) was released recently, and provided more recent estimates of undernutrition prevalence. In addition, we also added estimates for two recent nationally mandated interventions that weren't costed in Menon et. al (2016). These include calcium supplements for pregnant and lactating women, and deworming for pregnant women. Assumptions are available in the notes under Figure 4.
4. Unit costs in Menon et al (2016) are expressed in 2012–13 USD (1 USD= 60 INR). After estimating total costs in dollar terms for all interventions, we convert them to 2016 INR using an exchange rate of 1 USD= 65 INR .
5. Unit cost for cash transfers in Menon et al (2016) was 103.22 USD using a dollar exchange of 1 USD= 60 INR. However, the value of the INR to dollar has depreciated since then (see note 6). This has implications for the total cost estimates for cash transfers. To adjust estimates for sensitivity to exchange rate fluctuations, when we use the 1 USD= 60 INR exchange rate, the estimate for cash transfers is INR 18,335 crore per annum to cover an estimated 29.7 million pregnant and lactating women.
6. 1 USD= 68 INR. Source: www.oanda.com/currency/converter/. Dated: January 15, 2017.
7. The IGMSY was recently expanded into the Maternity Benefit Program (MBP), and is now operational across all districts in India.
8. In fact, in 2013, the 27th Report of the Standing Committee on Food, Consumer Affairs and Public Distribution had estimated 14,512 crore INR to cover 22.5 million pregnant and lactating women. Although this estimate is outdated, it is still much higher than the current allocation for the MBP. According to Ministry of Health and Family Welfare's 2016 MIS Report, there were 29.6 million pregnancies in India in 2016 which implies that significantly higher outlays are required to deliver this intervention at scale.
9. Poverty line is taken from the Tendulkar estimates of the Planning Commission (2011).
10. Conditions range from obtaining ANC to attending a Village Health and Nutrition Day (VHND).
11. Financing for NHM is provided through 5 windows. These include: RCH Flexi-pool, Mission-Flexipool, Flexible Pool for Control of Communicable Diseases, Flexible Pool for Control of Non Communicable Diseases (NCD) and Infrastructure Maintenance. Funds under RCH Flexipool are to be utilised for maternal and child health interventions, the Janani Suraksha Yojana, programmes for tribal and vulnerable groups, family planning, Rashtriya Bal Swasthya Karyakram, Rashtriya Kishor Swasthya Karyakram, human resources, training and programme management.
12. Given that nutrition-specific spending is still largely through Centrally-Sponsored Schemes (CSSs), it is important to recognise that there are limitations in the current design of CSSs. States are at different outcome levels, and have variations in state capacities and administrative efficiency. By design, however, most CSSs including the Integrated Child Development Services (ICDS) and the National Health Mission (NHM) fail to take into account this diversity. The same norms exist across states irrespective of the underlying financing and service provision capacity, resulting in a lack of flexibility. The adoption of the NITI Aayog Chief Minister Sub-Group on Restructuring Centrally-Sponsored Schemes is a unique opportunity to redesign CSSs and ensure greater flexibility to states.

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ABOUT POLICY NOTES

POSHAN Policy Notes aim to provide evidence-based guidance to support policy and program actions for nutrition in India.

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