RESULTS FOR DEVELOPMENT

Tracking Nutrition Financing in Rajasthan

Analysing past and current financing allocations for malnutrition in Rajasthan and comparing against resource needs to conduct a gap assessment

Rifaiyat Mahbub, Tess Ryckman, Anupama Dathan, Robert Hecht

Results for Development Institute

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Table of Contents

Executive Summary

Over the past year, the government of the Indian state of Rajasthan has declared nutrition to be a key priority and has been translating that commitment into action through activities such as working with partners to roll out a new Community-based Management of Acute Malnutrition (CMAM) programme in the state. However, a lack of analysis on total nutrition financing in the state has limited the Rajasthan government's ability to incorporate an evidence-based understanding of nutrition funding into its budgeting and planning process. Before the analysis in this paper was conducted, existing budget and finance documents had not been synthesised and analysed to generate an estimate of the total funding going towards nutrition programmes in Rajasthan. Meanwhile, the need to provide clarity around the financing situation has grown even greater in light of the ongoing fiscal devolution, in which the central Indian government will increase the share of untied transfers to states while reducing the share of funding tied to Centrally Sponsored Schemes (CSS) through which most nutrition financing has historically flowed.

The Results for Development Institute (R4D) has developed a comprehensive analysis of financing for nutrition in Rajasthan. We have combined this financing analysis with a costing exercise to estimate the gap between resource needs and available funding.

Our financing analysis shows that ₹ 52.0 billion was originally budgeted for nutrition-relevant programmes in Rajasthan in 2014–2015 (this was revised downwards to ₹ 42.1 billion halfway through 2014–2015) and ₹ 46.2 billion was budgeted for the current fiscal year (2015–2016). Out of these totals, funding for the Integrated Child Development Services (ICDS) made up between 21% and 24% of total financing, the National Health Mission (NHM) budget accounted for 3%-8%, and Mid-Day Meals (MDM) made up approximately 8%. Other major streams of funding came through food security schemes, such as the Public Distribution System (PDS) and the National Food Security Mission, water, sanitation, and hygiene (WASH) schemes, and the agriculture sector. Development partner spending in 2013 amounted to an almost-negligible ₹ 150.1 million, 64% of which came through health projects.

Our gap analysis shows that only 31% of total nutrition-specific resource needs are being met in Rajasthan.[1] Areas like Infant and Young Child Feeding (IYCF) and micronutrient supplementation are particularly under-funded. A resource gap also exists for severe acute malnutrition (SAM) management despite the government having significantly increased funding for this area in recent years. This area will become increasingly critical as the new CMAM pilot scales up. Meanwhile, the government devotes significant funding to poorly-targeted food schemes, such as MDM. Such schemes do not focus on children under five, an age after which reversing malnutrition becomes much more difficult; most interventions have maximum impact during the first thousand days of life (conception to age two).

The findings of our financing and gap analyses indicate that the government could consider reallocating funding to programmes that focus better on key target populations including babies in the first one thousand days of life and women of reproductive age; give greater priority to certain high-impact, cost-effective programmes; and leverage more funding from other nutrition-sensitive sectors, especially if social sector funding is constrained in the coming years as a result of devolution. An increased transfer of untied funds to the states presents an opportunity to optimise spending: states may be able to design new schemes and restructure existing ones to better fit their respective nutritional needs and contexts. That being said, devolution also represents a risk; states will have to actively prioritise nutrition and social sector funding to prevent cuts in these areas. A nutrition coordinating body at the state level could provide the information necessary for policymakers to appropriately prioritise and target nutrition financing, monitor funding and progress under devolution, leverage more nutrition-targeted funding from nutrition-sensitive sectors, and hold nutrition-relevant departments accountable for success.

[1] This analysis is somewhat preliminary because further disaggregation of programmes and other specific activities described in the report are required to precisely match costed interventions with Indian schemes.

Introduction

Despite rapid economic growth over the last decade, India continues to struggle to provide access to basic food and healthcare to large sections of its population. The state of nutrition is particularly dire. The prevalence of underweight children in India is twice that of Sub-Saharan Africa; in fact, more than a third of the world's low birth weight infants live in India.[2] Even with large increases in financial allocations to programmes that tackle hunger and poor health, India is home to 43% of the world's malnourished, amounting to 191 million people – 16% of its population.[3]

According to India's third National Family Health Survey (NFHS-3), 43.7% of children under five in Rajasthan were stunted and 22.5% were wasted in 2005–2006. The more recent Rapid Survey of Children (RSOC) indicates that in 2013–2014, 36.4% of children under five were stunted and 14.1% wasted. Although both stunting and wasting rates have declined over time, significant efforts remain necessary to combat malnutrition in Rajasthan.

Recognising the importance of tackling malnutrition, the central and state governments have launched schemes that attempt to address the burden of poor nutritional outcomes in Rajasthan. Mid-Day Meals (MDM), Integrated Child Development Services (ICDS), Rajiv Gandhi Scheme for Empowerment of Adolescent Girls (RGSEAG - Sabla), Indira Gandhi Matritva Sahyog Yojana (IGMSY), Janani Suraksha Yojana (JSY), and National Health Mission (NHM) are a handful of the Centrally Sponsored Schemes (CSS) designed to target malnutrition or have significant nutrition-related components. *More information about these CSS is available in Annex I, and a table showing all schemes included in our analysis is available in Annex V.* However, even with a strong political mandate, estimates of total budget allocations and expenditures for nutrition in Rajasthan (and in India more broadly) have yet to be collated across programmes and are, therefore, not readily available.

Tracking, mapping, and analysing nutrition financing in Rajasthan becomes particularly difficult given its multi-sectoral nature. The definition of what constitutes a "nutrition-relevant" programme is not always clear. In addition to describing ten different interventions that have a direct and measurable impact on nutritional outcomes (known as "nutrition-specific"), a 2013 *Lancet* article[4] identifies several interventions outside of the nutrition and health sectors that may indirectly affect nutrition. These interventions are known as "nutrition-sensitive" and fall under sectors such as water, sanitation, and hygiene (WASH), food security, and women's empowerment, to name a few.

It can also be challenging to determine the degree to which some of the programmes in these sectors should be included in a nutrition financing analysis. Although evidence suggests that nutrition programmes must be targeted towards the first thousand days to five years of a child's lifecycle to generate maximum impact (depending on the intervention), many countries, including India, have food supplementation programmes that do not target the key age groups and, therefore, have less impact on stunting and wasting.

In order for policymakers to effectively prioritise, plan, and make informed decisions about nutrition programmes, it is essential to develop reliable monitoring mechanisms. Regularly tracking these investments will enable policymakers to accurately estimate the total amount of funds going to key nutrition interventions and schemes, monitor the efficiency and efficacy of nutrition spending, and facilitate an informed public discourse on how best to tackle the problem of malnutrition.

Tracking nutrition budgets in India gained even more significance in light of the 14th Finance Commission recommendations for increased devolution to the states. In February 2015, the Union Government increased the share of untied tax revenues going to

[2] The Hungry Tide: Billions Spent and Millions still Malnourished, Avani Kapur, Accountability Initiative October 2010.

[3] FAO Hunger Map 2015.

[4] Evidence-based interventions for improvement of maternal and child nutrition: what can be done and at what cost?, Bhutta et al, Lancet, June 2013.

the states from 31.5% to 42%. To allow for this increase, a large fraction of resources previously tied to CSS were reallocated to the relatively untied state funding pools. With the reduction of central funding for CSS, state governments now have a greater responsibility to fund many of these schemes themselves – a responsibility that was historically borne by the centre.[5] Under these changing circumstances, budget and expenditure tracking becomes an especially effective tool that can be used to determine whether the future of CSS – particularly those with important nutrition components, such as ICDS and NHM – is jeopardised, as well as to assess the degree to which states like Rajasthan prioritise nutrition.

A major focus of the Results for Development Institute's (R4D) engagement with the Children's Investment Fund Foundation (CIFF) has been to conduct such an analysis of financing for nutrition in Rajasthan. In addition to accounting for government spending at the state level, we have attempted to capture the extent to which development partner expenditure contributes to improving nutritional outcomes in the state. We have also began to look at out-of-pocket expenditure and built upon an estimate of resources required to scale up a set of core interventions in Rajasthan.[6] We then conducted a gap analysis using these resource needs estimates alongside our analysis of total financing available for nutrition interventions in Rajasthan in order to quantify the additional amount of resources needed to deliver the recommended nutrition interventions to all target populations.

Findings from this budget and expenditure analysis can inform CIFF's engagement in nutrition in Rajasthan and enable CIFF, its partners, and the state government to start a dialogue about more effective financing for nutrition. Eventually, this work could also be used to identify ways of increasing funds for nutrition, and/or leveraging them more efficiently, in order to maximise impact. It must be noted, however, that further research is necessary to derive a more comprehensive estimate of the funding gap.

We acknowledge the support of Avani Kapur, from Accountability Initiative, and of Lawrence Haddad, Suman Chakrabarti and Purnima Menon, from the International Food Policy Research Institute (IFPRI), for providing us with guidance as we drafted this report. Our analysis on nutrition financing builds upon Kapur and Haddad's work, "Costing of Nutrition in India: Study of Three States", a study commissioned by the Institute of Development Studies (IDS). Our gap analysis builds on Menon, Chakrabarti, and Christine McDonald's preliminary work, "Estimating the Cost of Delivering Direct Nutrition Interventions at Scale: National and Subnational Level Insights from India." We also acknowledge the significant contributions of the Budget Analysis Rajasthan Centre (BARC) in providing us with additional 2014-2015 and 2015-2016 state budget data and data on actual annual expenditures. We would also like to thank Bailey McWilliams, from R4D, for her support in editing and proofreading this analysis. Finally, we are grateful to Coalition for Food and Nutrition Security, India for their insightful comments and to CIFF for their financial support of this work.

[5] Refer to R4D's note on India's Budgetary Processes for further details on implications of devolution.

[6] The India Plus interventions is a set of fourteen nutrition interventions that are encompassed in India's policy framework and are supported by recommendations from a large network of stakeholders in India, including the Coalition for Food and Nutrition Security.

Methodologies Used for Budget Analysis

This section provides an overview of how we derived estimates for nutrition financing from the government and development partners using the Rajasthan state budget, CSS Programme Implementation Plans (PIPs), and the Organisation for Economic Co-operation and Development's Development Assistance Committee (OECD-DAC) database, in addition to building upon the analysis of Kapur and Haddad. We also tried to estimate household expenditures on nutrition through out-of-pocket (OOP) spending. It is important to note that private sector financing has not been captured, as research and conversations with key nutrition actors in Rajasthan[7] indicated that private sector contributions are fairly insignificant in addressing nutritional outcomes in the state. Nevertheless, an analysis of financing from the private sector could be a potential next step to further this work.

Estimating Government Nutrition Financing Using State Budgets

Our exercise of estimating government funds available for nutrition in Rajasthan builds upon Kapur and Haddad's analysis of Rajasthan's nutrition budget. In their work, Kapur and Haddad used state budget documents to obtain data on resource allocations that were disaggregated by schemes, programmes and the implementing department. The data the authors used included budget estimates (BE) data from 2014–2015 and 2015–2016, and revised estimates (RE) data from 2014–2015.[8] Because expenditures are officially reported with a delay, we used the RE figures from Kapur and Haddad's analysis as a proxy for expenditure. The BE is adjusted based on an analysis of expenditures over the first six months of a fiscal year to generate the RE, so the RE is a reasonable proxy for expenditures. Nevertheless, we provide some analysis of reported expenditures in *Annex II*.

Kapur and Haddad classified nutrition programmes as either nutrition-specific or nutrition-sensitive. Nutrition-specific programmes are those that have a direct impact on nutrition. The Scaling Up Nutrition (SUN) movement guidelines – which provide a widely accepted methodology for tracking nutrition financing – state that nutrition-specific interventions must clearly mention a nutrition objective, outcome and/or action as part of an integrated programme or a department mandate.[9] For instance, provision of iron folic acid (IFA) tablets to adolescent girls to prevent anaemia would be classified as nutrition-specific. Nutrition-sensitive interventions, on the other hand, are programmes that address the underlying causes of foetal and child malnutrition and, therefore, indirectly affect nutritional outcomes. For example, women's empowerment schemes are usually classified as nutrition-sensitive; although these schemes do not have a direct effect on stunting or wasting rates, greater female empowerment has been associated with improved nutritional choices for women and their children and allows for an improved enabling environment to address malnutrition.[10] In order to generate a comprehensive list of nutrition-specific and –sensitive government programmes, Kapur and Haddad reviewed the budget heads of all of Rajasthan's relevant programmes. Through this exercise, they identified the programmes and schemes that could be classified as nutrition-specific and -sensitive. *A list of nutrition-specific and -sensitive*

[7] Jacob, Sangita. former Nutrition Specialist, UNICEF-Jaipur. Personal Interview, July 2015.

[8] Although the Indian budgeting process operates on an annual basis, it reports on three different indicators, each with a different reporting cycle. The first estimate is reported at the beginning of the fiscal year (April 1) and is referred to as the Budget Estimates (BE). The BE are the budgetary allocations made for each line department. The Ministry of Finance (MoF) releases funds to line departments on the basis of BE. The line departments then transfer funds to relevant state departments. The next reported estimate is referred to as the Revised Estimates (RE). Between September-December, line ministries revise their budgetary allocations based on fiscal performance till December and likely projected expenditure till the end of the fiscal year in March. REs also include any additional grants that might be given to state governments over and above the BEs. Finally, the third reported estimate is known as the Actual Estimate (AE) and refers to actual audited expenditures. Due to the auditing process, actual estimates (AE) have a two-year lag and have not been included in Kapur and Haddad's analysis. Since we have relied heavily on the data synthesised by Kapur and Haddad for our analysis, we have not included AE estimates for the time being.

[9] Guidance Note: Step 2 (Categorisation) and Step 3 (Weighting); SUN Guidelines.

[10] What Dimensions of Women's Empowerment Matter Most for Child Nutrition?, Bhagowalia et al, IFPRI, June 2012.

programmes compiled by Kapur and Haddad is provided in Annex III.

The authors assumed that 100% of financing for nutrition-specific interventions could be counted towards contributing to improved nutritional outcomes in this analysis, in line with the SUN guidelines. However, an important limitation of the latest version of Kapur and Haddad's study is that, despite attempting to disaggregate the financial estimates for nutrition-sensitive interventions, the authors did not weight the spending on nutrition-sensitive interventions in a way that accurately represents the share of resources that would actually contribute to improving nutritional outcomes in the state. Weighting is a particularly important step – and one included in SUN guidance[11] – since all resources allocated to nutrition-sensitive interventions (such as women's empowerment programmes) cannot be attributed to improving nutritional outcomes. Rather, improved nutrition is generally one of the indirect effects of empowering women in Rajasthan; these programmes usually focus on increasing female literacy, female income, and female bargaining power in the household as their primary aims. WASH interventions, which have also been classified as nutrition-sensitive, seek to increase access to clean water and improved sanitation. Like women's empowerment initiatives, improving nutrition is not a primary goal, but a positive externality. While such programmes are important for improving nutritional outcomes, we cannot assume that one rupee going towards micronutrients has the same impact on stunting and wasting rates as one rupee going to female empowerment programmes or WASH interventions. Therefore, it would be inaccurate to assume 100% of the resources allocated to WASH or women's empowerment can be attributed to improving the state of nutrition in Rajasthan. Weighting is an important tool for estimating the share of financing going to nutrition programmes, particularly for programmes that consist of multiple components, of which some may be nutrition-specific or -sensitive.

In our analysis, R4D used the SUN guidelines to develop a methodology that consistently weights budgetary allocations for nutrition interventions. Financial allocations for most nutrition-specific interventions have been weighted at 100%, which is directly in line with SUN guidelines.[12,13] This means that 100% of the resources allocated to nutrition-specific interventions, like the National Iodine Deficiency Programme, the Multi-sectoral Nutrition Scheme, and Infant and Young Child Feeding (IYCF) programmes, should be counted towards improving nutritional outcomes in the state since they directly address the problem of malnutrition.

To weight nutrition-sensitive interventions, we divided the interventions across several SUN sectors (e.g. WASH, social protection, and agriculture) and categorised them by focus area (e.g. for health, focus areas include reproductive health, family planning, immunisation, infectious diseases, etc.) and whether they were intended specifically for an important nutrition target population (e.g. children under five or in the first thousand days of life, adolescent girls, women of reproductive age), a non-target population, or the general population. We then assigned weight ranges to each sector-focus area-population combination (e.g. WASH-sanitation for the general population, WASH-sanitation for children under five, WASH-water supply for the general population, etc.) For example, nutrition-sensitive social protection interventions such as employment programmes targeted towards the general population were weighted between 0% and 25%. Meanwhile, employment programmes targeted towards women of reproductive age were weighted between 25% and 50%. We weight employment programmes targeted towards women of reproductive age more heavily since they may have a greater effect on nutritional outcomes in Rajasthan through granting mothers the financial capacity to adopt better feeding practices for themselves and their children. *A detailed description of how nutrition interventions have been weighted in this analysis is provided in Annex IV.*

In addition to weighting the BE and RE used by Kapur and Haddad, R4D further strengthened their budget analysis by attempting to estimate the share of integrated programmes going towards nutrition. Our estimate involved disaggregating the financial allocations for NHM and ICDS. Although Kapur and

[11] The SUN guidelines are currently being revised based on country experiences and in an attempt to standardise multiple methodologies. The revised methodology will include more guidance on how to weight programmes and when weighting is most useful in a policy context. Early versions of these revisions have been incorporated into R4D's methodology.

[12] Guidance Note: Step 2 (Categorisation) and Step 3 (Weighting); SUN Guidelines.

[13] However, we did attempt to disaggregate the share of nutrition-specific programmes that targeted key populations (children under five or in the first thousand days of life, pregnant or lactating mothers, women of reproductive age), which resulted in weights being applied to programmes like SNP, since these programmes provide supplementary food to more than just these target populations. This is explained in greater detail later in this section.

Haddad's analysis accounted for the total budgetary allocations to these CSS, ICDS and NHM have several nutrition-sensitive components in addition to their nutrition-specific components. Therefore, in order to more accurately weight each of these components, R4D used the PIPs to obtain detailed budgets of these programmes.[14] As an example, we broke down the NHM budget to show financial allocations to JSY, micronutrient supplementation, and management of children with SAM, among other components, and weighted each of these schemes accordingly. NHM's nutrition-specific components were weighted at 100%, while JSY – a nutrition-sensitive scheme promoting institutional delivery to reduce maternal and neonatal deaths – was weighted at 50%. Instead of assigning a blanket weight across all components of the NHM, breaking down the NHM budget allowed us to more accurately weight each of its nutrition-relevant schemes to ensure more precision in our estimates.

We applied a similar method to analyse other parts of Kapur and Haddad's initial list of schemes and budget lines. We were strict in defining which schemes were nutrition-relevant and removed others, mainly those related to unemployment that were not directly targeting key demographics. Furthermore, we broke down two budget heads – 2215 - Water and Sanitation and 2401 - Crop Husbandry – into greater detail. Even though these initiatives are nutrition-sensitive, Kapur and Haddad did not break these sections down in their original analysis. By removing less relevant components of nutrition-sensitive schemes and assigning weights to others, we were able to generate more accurate figures that allowed for more robust estimates of nutrition financing in Rajasthan.

To further improve the quality of our analysis, R4D developed different financing scenarios in which we weighted some CSS differently. For example, since supplementary feeding is most effective in combating stunting and wasting if received within the first thousand days of a child's lifecycle, it can be argued that the Supplementary Nutrition Programme (SNP) that falls under ICDS is most effective when geared towards pregnant and lactating mothers, and children of up to two years of age. Similarly, one could argue that MDM generates the greatest impact when prioritised to feed adolescent girls of reproductive age. As SNP and MDM are considered core nutrition programmes in India, we developed two weighting scenarios for MDM and SNP that take these arguments into consideration and illustrate how these interventions may have a differential impact across different age groups.

In scenario 1, we assumed that 100% of the resources allocated to SNP and MDM contribute to improving nutritional outcomes in Rajasthan and that these programmes have a homogeneous impact across populations of all age groups. In scenario 2, we took into consideration the fact that SNP and MDM may have differential impacts across different age groups and weighted the resources accordingly. For instance, through supplementary feeding in Rajasthan, SNP serves a population of 1,748,123 children between 6 months and 3 years; 1,111,533 children between 3 and 6 years; and 861,861 pregnant and lactating mothers. We used the calculation below to assign 100% weight to portions of the programme assumed to go towards children under two years of age and pregnant and lactating mothers, and 50% weight to the remaining populations:

$$\frac{\left[\left(\frac{2}{3} * \text{population of children between 6 months and 3 years}\right) + \left(\frac{1}{3} * \frac{1}{2} * \text{population of children between 6 months and 3 years}\right) + \left(\frac{1}{2} * \text{children between 3 years and 6 years}\right) + (\text{pregnant and lactating mothers})\right]}{\text{total SNP population}}$$

This calculation grants a greater weight to nutrition interventions that are directed towards populations most in need of SNP (e.g. pregnant and lactating mothers, and children under the age of two).

We use a similar calculation to derive a weight for MDM in scenario 2:

$$\frac{\left[\left(\frac{3}{4} * \text{population of adolescent females in upper primary schools}\right) + \left(\frac{1}{2} * \text{population of children in lower primary school}\right) + \left(\frac{1}{2} * \text{adolescent males in upper primary schools}\right)\right]}{\text{total MDM population}}$$

The calculation above grants a greater weight to nutrition interventions that are directed towards populations most in need of MDM (e.g. adolescent females).

[14] State PIPs for ICDS were not available and therefore detailed disaggregated budget estimates were provided by the Women and Child Department (WCD) of Rajasthan.

It must also be noted that all student feeding programmes included in our analysis have been assigned the same weight as MDM in each of the two scenarios. These include state-specific line items, such as distribution of nutrition among hostel students, food in ashram hostels, and food in Eklavya model residential schools, to name a few.

The results of our analysis are presented in the next section on "Estimates of Nutrition Financing and Expenditure."

Estimating Development Partner Nutrition Financing Using the OECD-DAC Database

We estimated nutrition spending by development partners in Rajasthan using the OECD-DAC database. Calculating development partner spending for nutrition is a complicated process since there is no single database that comprehensively tracks all flows of international aid; however, the OECD-DAC database comes closest to capturing and quantifying international aid flows. This database compiles bilateral assistance provided by OECD countries and other donors – such as development banks, United Nations (UN) agencies, and select foundations – to developing nations, entire regions, and other development partners. The aid-flow figures in the OECD-DAC database are categorised by sector, sub-sector, and by specific recipients and donors. Information on sub-national aid transfers is not available.

The database is compiled through donor self-reporting, with each expenditure coded by purpose and sector. Expenditures are uploaded to the database with a one-year lag, meaning 2013 expenditure data becomes available at the end of 2014, 2014 data becomes available at the end of 2015, and so forth.

R4D used the purpose codes and project descriptions from the OECD-DAC database to identify approximately 250 donor-funded nutrition projects relevant for Rajasthan. These included basic nutrition projects (the coding given by the database to nutrition-specific projects), as well as nutrition-sensitive projects related to water, sanitation, agriculture, women's empowerment, social protection, governance, and education. The process of determining each project's weight was two-fold. We first weighted these projects based on their relevance to Rajasthan. We then weighted each project again based on the nutrition-relevance weighting methodology that we utilised for the government financing analysis. To illustrate this, consider the example of a $1 million sanitation project that is being implemented nationally across India. Since 5.67% of India's population lives in Rajasthan – and centre-state budget transfers are largely based on population, we assumed that 5.67% of the resources are allocated to Rajasthan. Since we have assigned a weight of 50% to most nutrition-sensitive WASH interventions in the government analysis, we then weighted this sanitation project an additional 50%. Therefore, we included $28,350 of this $1 million national sanitation project (e.g. $1 million * 5.67% * 50%) in the overall analysis. We discuss the limitations of this methodology in the next section on "Estimates of Nutrition Financing and Expenditure."

Estimating Out-of-Pocket Nutrition Financing

R4D pursued several approaches to estimate the out-of-pocket (OOP) expenditure for nutrition in Rajasthan, all of which were ultimately unsuccessful. Our first approach was to examine OOP expenditure for health in Rajasthan, in other states, and in India as a whole. We hoped that investigating the breakdown of OOP health expenditure would enable us to derive the proportion that is spent on nutrition. We assumed that consumption of nutrition-specific goods, such as Vitamin A or IFA tablets, would be captured through OOP expenditure on health.

Unfortunately, examining OOP expenditure composition for health in India did not disaggregate data in a way that identified spending on additional nutrition supplements. We then examined the National Sample Surveys (NSS) of India to track food consumption and expenditure across the states in India. We considered this a next best step since much of household consumption of nutrients is likely to be demonstrated through its consumption of food. The NSS on Nutrition Intake indicated that 50.5% of rural household expenditure and 44.8% of urban household expenditure is spent on food in Rajasthan. Of this, rural households spend 8.1% to purchase cereals, while urban households spend 6%.

The table below demonstrates how monthly per capita consumer expenditure (MPCE) is broken down across households in India.

Table 1: Break-up of MPCE by 20 broad item groups: All-India, 2011-2012

Item group	Monthly per capita exp (₹)	
	Rural	Urban
Cereals & cereal substitutes	154	175
Pulses and their products*	42	54
Milk & milk products	115	184
Edible oil	53	70
Egg, fish & meat	68	96
Vegetables	95	122
Fruits	41	90
Sugar, salt & spices	76	94
Beverages, refreshments & processed food**	113	236
Food total	756	1121
Pan, tobacco & intoxicants	46	42
Fuel & light	114	176
Clothing & footwear***	100	167
Education	50	182
Medical	95	146
Conveyance	60	171
Other consumer services	57	147
Misc. goods, entertainment	76	152
Rent	7	164
Taxes & cesses	4	139
Durable goods	65	139
Non-food total	673	1509
All items	**1430**	**2630**

*includes gram

**includes purchased cooked meals

***excludes tailoring charges

Despite the fact that household MPCE does not provide the information required to calculate OOP spending on nutrition, identifying the breakdown of household food consumption across several categories is a key first step. That being said, although all households must consume food as a necessity, not all foods provide significant nutritional impact. Instead of counting all expenditures made for food, it may be more effective to analyse information on micronutrient expenditures and extra household money spent on fortified foods. In order to derive crude estimates of OOP nutrition spending using household food consumption, we would have to identify the nutrient content of items in each food group, assign a weight to the reported monthly food expenditure based on this nutrient content, and aggregate these estimates across food groups. That said, this would be a significant undertaking that could yield imprecise and incomplete results. Therefore, given our time constraints, we chose not to undergo this line of research.

Estimates of Nutrition Financing and Expenditure

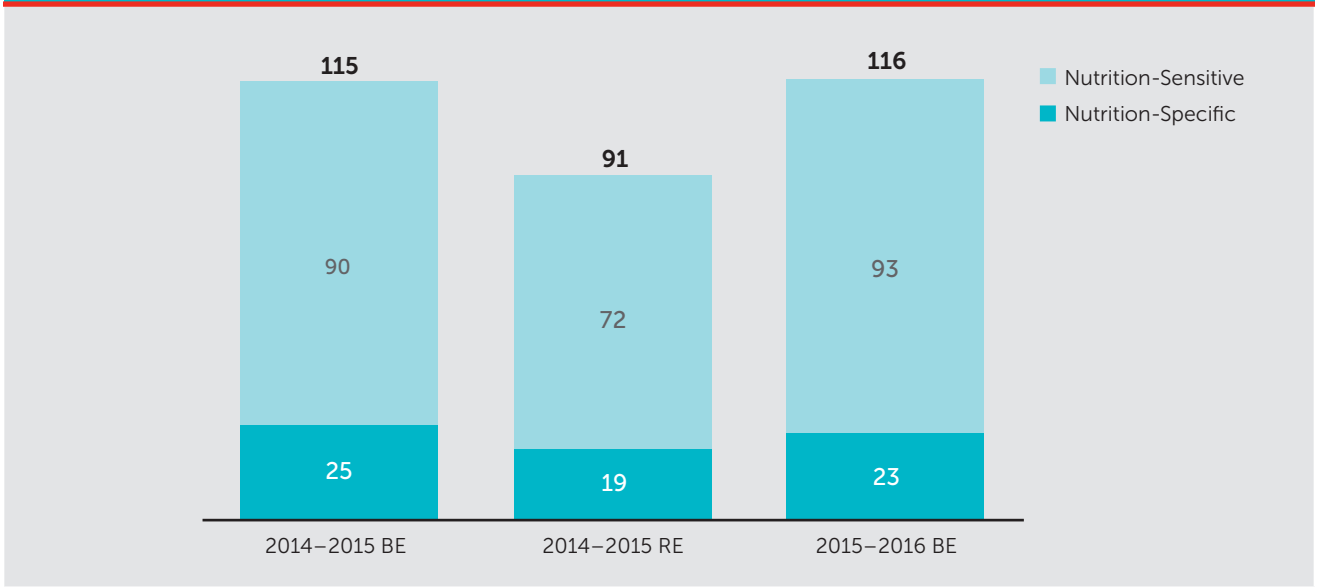
This section provides estimates of total funding for nutrition in Rajasthan made available through government and development partners.

Nutrition Funding Available through State Budget

To identify the degree of state funding for nutrition, we first examined the total amount of government funding for nutrition-relevant programmes (both nutrition-specific and nutrition-sensitive) in Rajasthan. This analysis, shown in Figure 1, contains unweighted results. Although these *unweighted results* are concrete, they are an inflated estimate: many of the state programmes included in this analysis are neither directly linked to nutritional outcomes nor designed with nutritional goals in mind. We cannot accurately assume that a rupee going towards each of these programmes is equivalent to a rupee going to improve nutrition in the state. However, beginning our analysis with unweighted results provides a base comparison to illustrate the vital impact of weighting particular components. Figure 1 shows that the ₹ 115.0 billion (BE) and ₹ 115.9 billion (BE) were allocated from government sources to nutrition-related programmes in 2014–2015 and 2015–2016, respectively. Based on revised estimates, ₹ 90.8 billion (RE) was spent in 2014–2015.

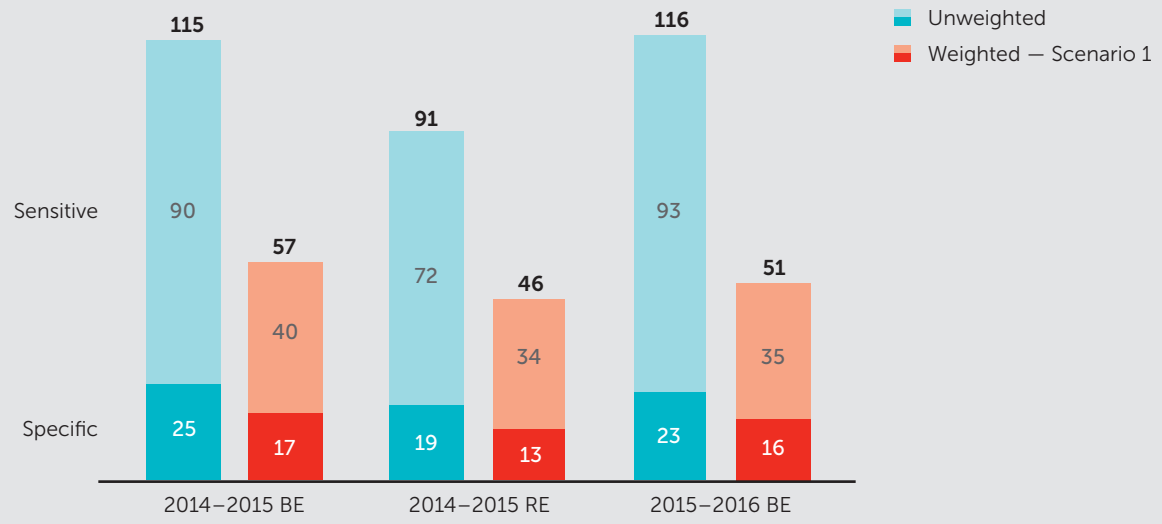
As mentioned in the methodologies section, R4D developed two funding scenarios in which key schemes, such as SNP and MDM, were assigned different weightings. For scenario 1, we assumed 100% of the SNP and MDM resources as well as resources for similar supplementary food programmes contributed to improving nutritional outcomes. Using the equation in the methodologies section, R4D estimated that ₹ 57.4 billion (BE) and ₹ 51.0 billion (BE) were allocated to nutrition in Rajasthan in 2014–2015 and 2015–2016, respectively. In 2014–2015, ₹ 46.4 billion (RE) was spent, representing 81% of the allocated amount.[15] When implementing our

Figure 1: Unweighted estimates of total government nutrition financing in Rajasthan (in billions of rupees)



[15] As mentioned earlier, RE does not reflect true spending. In December of every fiscal year, the government proposes RE based on expenditure between April and December and/or receipt of additional grants. AE captures expenditure more accurately, but since there is a two-year lag in reported AE, RE is the next best proxy.

Figure 2: Scenario 1 weighted estimates of total government nutrition financing in Rajasthan (in billions of rupees)



weighted estimates of government nutrition financing in Rajasthan (methodologies section, scenario 1), we found that they account for approximately 48% of the unweighted estimates. Scenario 1 estimates compared to unweighted estimates are shown in Figure 2.

In scenario 2, we assigned secondary weights to SNP and MDM, based on the impact we expected these schemes to have on target populations. Based on the calculations shown in the methodologies section, SNP was weighted at 89% and MDM (as well as other school and hostel feeding programmes) was weighted at 54%. In scenario 2, R4D estimated that Rajasthan allocated ₹ 52.0 billion (BE) and ₹ 46.2 billion (BE) to nutrition in 2014–2015 and 2015–2016 respectively. In 2014–2015, Rajasthan spent ₹ 42.1 billion (RE) on nutrition, representing 81% of the allocated amount. In scenario 2, our weighted estimates of nutrition financing in Rajasthan account for approximately 44% of the unweighted estimates. Figure 3 compares the two scenarios and the unweighted estimates.

Figure 3: Scenario 2 weighted estimates of total government nutrition financing in Rajasthan (in billions of rupees)

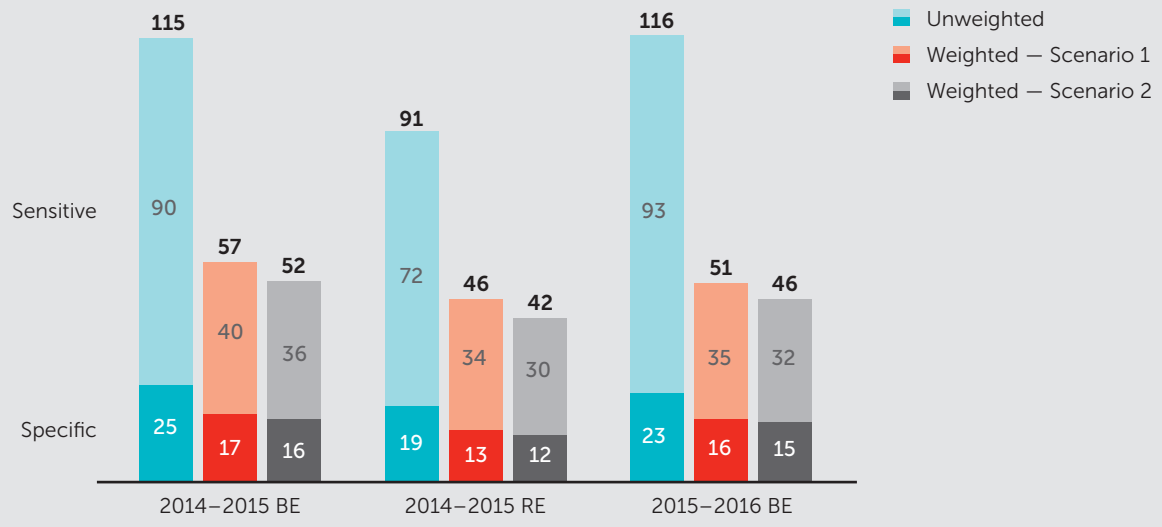


Table 2: Nutrition financing indicators for Rajasthan under scenario 2

Types and Years of Financing Estimates		Financing p.c. (₹)	Financing as a share of GSDP (%)	Financing as a share of total budget (%)
Nutrition-Specific & Nutrition-Sensitive	2014-2015 BE	712	0.91	3.96
	2014-2015 RE	576	0.73	3.34
	2015-2016 BE	630	0.67	3.35
Nutrition-Specific Only	2014-2015 BE	217	0.28	1.21
	2014-2015 RE	161	0.20	0.93
	2015-2016 BE	198	0.21	1.06

Within scenario 2, total nutrition-relevant RE was ₹ 576 per capita (p.c.) in 2014–2015. This accounts for 0.73% of Rajasthan's Gross State Domestic Product (GSDP) and 3.3% of total RE in the state. However, nutrition-specific spending in 2014–2015 (RE) was much lower, only representing 28% of the total and coming to ₹ 161 p.c., 0.2% of GSDP, and 0.9% of total RE. Table 2 shows Rajasthan's BE and RE for nutrition in p.c. terms, as a share of GSDP, and as a share of total budget (BE or RE) for multiple years.

Scenario 2 used weights based on interventions that were directed towards population of interest, which we believe provides a more accurate estimate of financing that is likely to impact nutritional outcomes (stunting and wasting). In the following sub-section, we provide breakdowns of nutrition financing by sector and by some of the key nutrition schemes (ICDS, NHM, and MDM); scenario 2 weightings are used.

Breakdown by Sector

In our analysis, we broke down total nutrition spending by sector and scheme. A breakdown of total financing by sector is shown in Figure 4. The largest amount of funding for nutrition-relevant programmes came from nutrition-specific programmes (including

Figure 4: Breakdown of Rajasthan nutrition financing by sector (in billions of rupees) — weighted

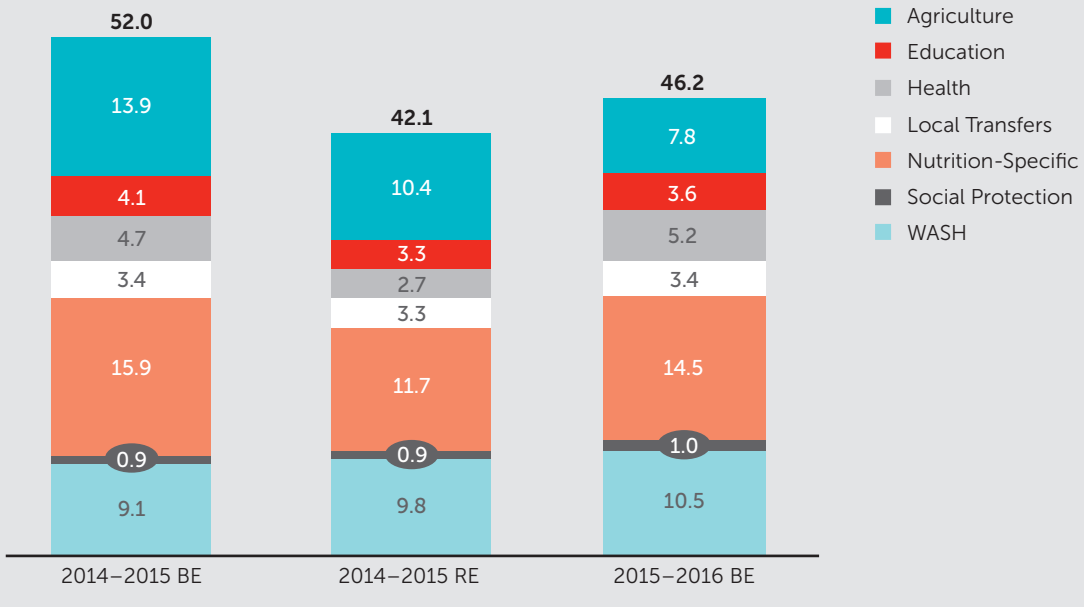
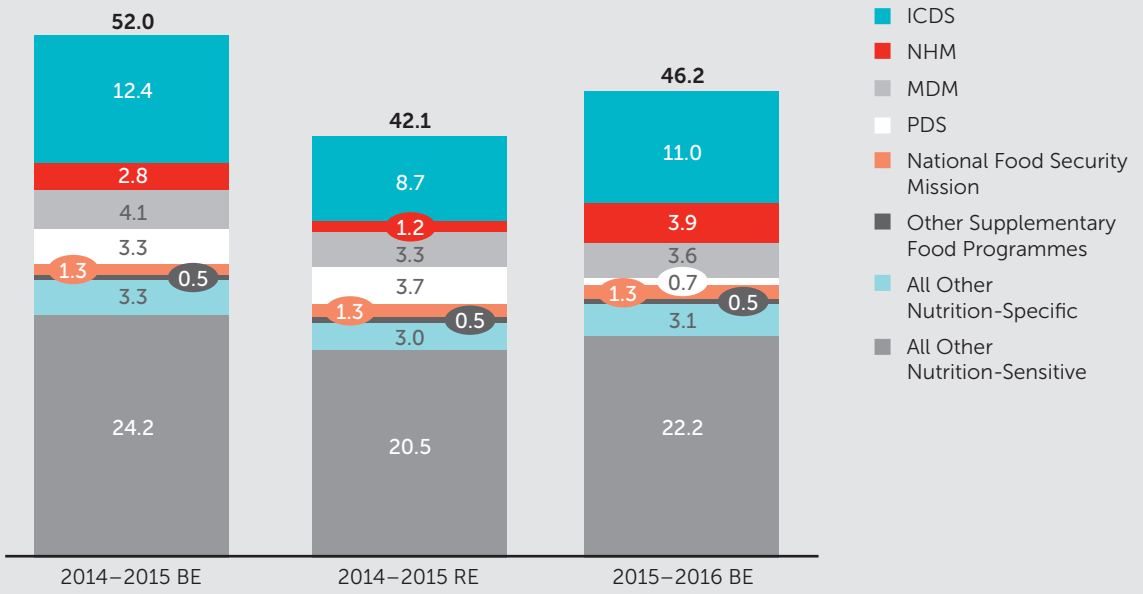


Figure 5: Breakdown of the nutrition budget in Rajasthan by major cost drivers – both programmes and sectors (in billions of rupees) — weighted



ICDS and some components of NHM), which made up between 28% and 32% of the total BE (depending on the year). These were followed by agriculture schemes (between 17% and 27%) and WASH schemes (between 18% and 23%). *Annex V shows the different schemes that we included in our analysis under each sector.*

Figure 5 breaks down weighted nutrition financing totals for some of the key schemes and sectors. On average, ICDS was allocated 23% of total weighted nutrition financing, MDM was allocated 8%, and NHM and PDS were each allotted 6% of the total.

Figures 4 and 5 show that a significant portion of nutrition funding comes from nutrition-sensitive schemes and sectors as well, such as Agriculture and WASH, even after weights are applied. However, it is important to note that these results are, in part, due to the weighting. For example, since we weighted many schemes in Agriculture and WASH at 75% or 50%, and many in Social Protection at 25%, financing from Social Protection looks smaller. *Annex VI provides tables showing the weighted and unweighted numbers behind Figure 4 and Figure 5 and gives the percent difference between BE and RE for 2014–2015.*

Breakdown by Scheme

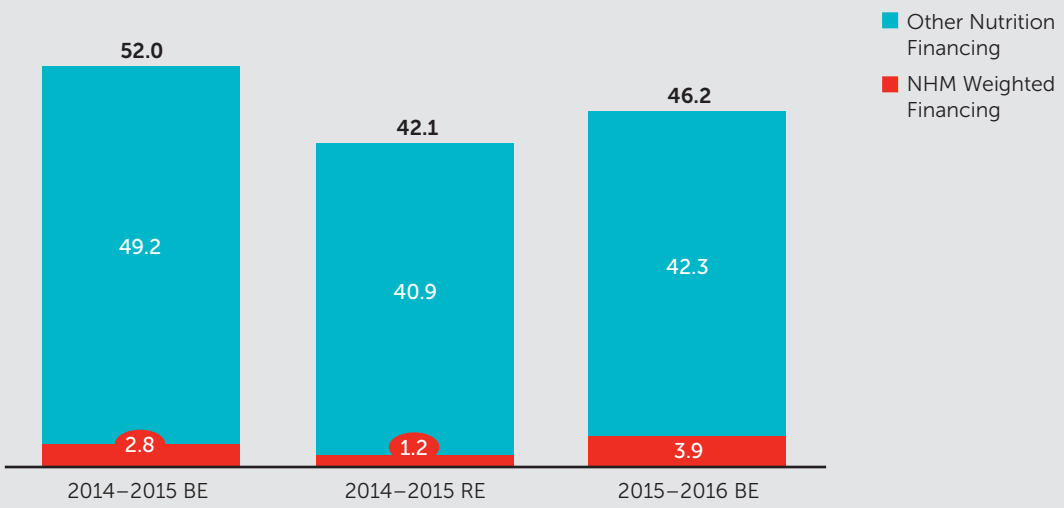
NHM, ICDS, and MDM are considered important nutrition schemes in India and, as shown in Figure 5, contribute significantly to nutrition-relevant financing in Rajasthan. In this section, we provide more details on funding for these three schemes. In order to more easily compare how much funding is allocated to components within each of these schemes, we use unweighted figures for this part of the analysis. It is difficult to interpret financing for a single scheme when certain components are weighted differently.

NHM

Rajasthan allocated ₹ 21.9 billion (BE) in all for NHM in 2014–2015, but ultimately spent ₹ 10.1 billion (RE), representing less than half of the allocated funds. NHM's RE of funding for that year shows alarmingly low rates of fund utilisation, even when compared to other schemes in our analysis. Despite the evident under-utilisation of funds, the government raised NHM's allocation to ₹ 31.5 billion (BE) in 2015–2016.

Out of the total amount of funding allocated to NHM, we considered 12%-13% to be relevant to nutrition: from the overall allocations mentioned above, that would equate to ₹ 2.8 billion in 2014–2015 (BE) and ₹ 3.9 billion

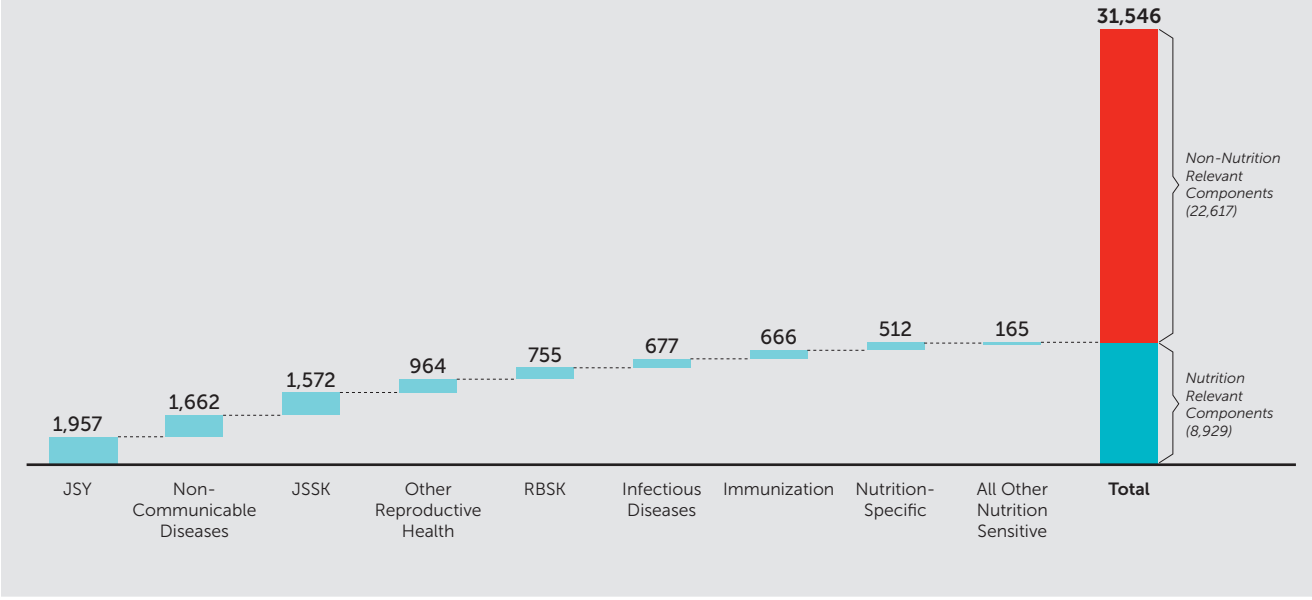
Figure 6: NHM's share of total government nutrition financing in Rajasthan (in billions of rupees) — weighted



in 2015–2016 (BE). We considered a similar proportion relevant for spending (RE) in 2014–2015: ₹ 1.2 billion out of the ₹ 10.1 billion in total NHM spending (12%). This weighted total represented between 3% and 8% of total nutrition financing in Rajasthan. These proportions are depicted in Figure 6, above.

Figure 7 shows an unweighted breakdown of the nutrition-relevant components of NHM. In 2015–2016, the largest portions and third-largest portions of BE were allocated to JSY and Janani Shishu Suraksha Karyakram (JSSK), respectively, both of which are nutrition-sensitive, cash benefit schemes. Non-communicable diseases received the second-largest portion. Nutrition-specific spending, by comparison, was quite small (only 6% of the total nutrition-relevant components and only 2% of total NHM financing).

Figure 7: Major programmes financed by NHM, 2015–2016 (in thousands of rupees) — unweighted



The "Nutrition-Specific" category in Figure 7 includes SAM management and facility-based newborn care management, the Weekly Iron Folic Supplementation (WIFS) programme, the Home-Based Newborn Care (HBNC) programme, line listing and follow-up of anaemic women and low birth weight babies, micronutrient supplementation, and IYCF. While the integrated line item for "SAM management and facility-based newborn care management" was the highest-funded nutrition-specific programme within NHM (with a BE of ₹ 0.39 billion), micronutrient supplementation and IYCF received no funding allocation in the 2015–2016 budget. This leads us to hope funding for these important nutrition-direct interventions will come from another source, or perhaps from leftover funding of the previous years. Nevertheless, it certainly raises questions about the level of prioritisation for these programmes.[16]

On the other hand, there are some encouraging findings from our analysis of NHM. The budget for "SAM management and facility-based new born care management" has been raised significantly from ₹ 59.5 million in 2014–2015 to ₹ 389.4 million in 2015–2016 – a six-fold increase. The new CMAM programme that the government of Rajasthan is rolling out also demonstrates their commitment to addressing wasting in the state. It will be important to ensure that similar commitments are made towards addressing stunting, which is also a significant problem in Rajasthan.

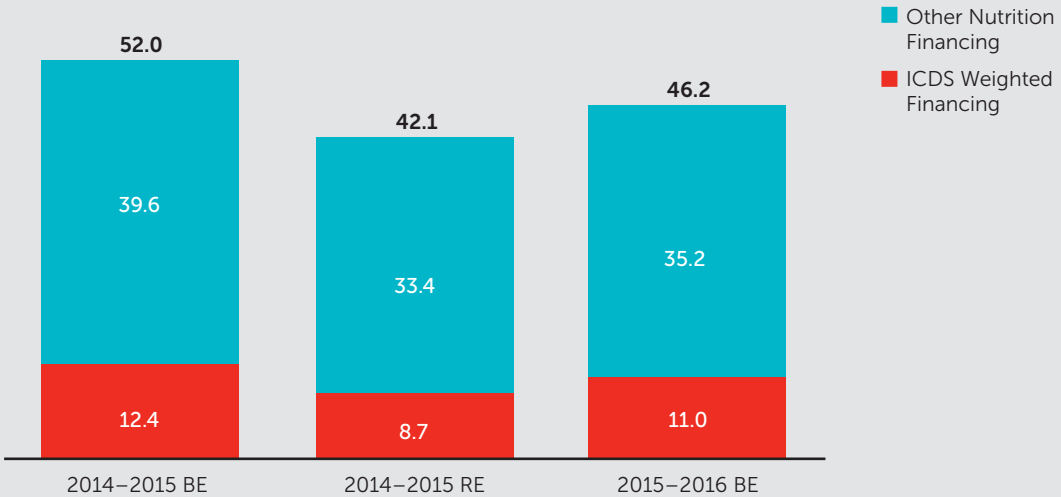
ICDS

Rajasthan allocated a total of ₹ 19.2 billion (BE) in 2014–2015 for ICDS, including programmes such as Sabla that fall under ICDS. In 2014–2015, the government spent ₹ 13.6 billion (RE) on ICDS, representing 71% of the allocated amount. The next year, 2015–2016, Rajasthan allocated ₹ 17.4 billion (BE) to these programmes, decreasing the BE by 10%.

Out of the total amount of funding allocated to ICDS, we considered 63%– 65% to be relevant for nutrition: from the total allocations mentioned above, that would equate to ₹ 12.4 billion (BE) in 2014–2015 and ₹ 11.0 billion (BE) in 2015–2016. We considered a similar proportion relevant for spending (RE) in 2014–2015: ₹ 8.7 billion (RE) out of the ₹ 13.6 billion in total ICDS spending. This weighted total represented between 21% and 24% of total nutrition financing in Rajasthan. These proportions are depicted in Figure 8, below.

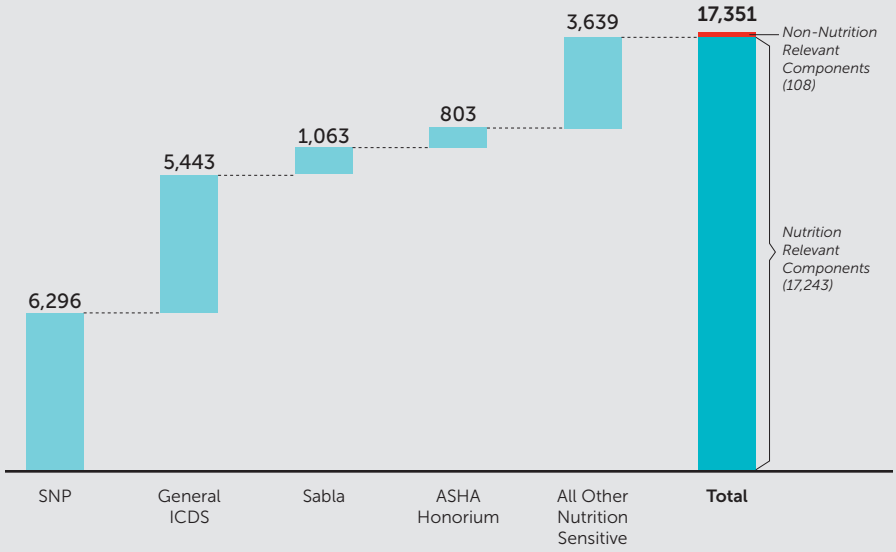
We also broke down unweighted ICDS financing to examine how it was split across ICDS' various components. For 2015–2016 BE, approximately ₹ 17.4 billion was allocated to nutrition-related activities (unweighted). Of this amount, the largest portion of funds (₹ 6.3 billion) was allocated to SNP, a nutrition-specific programme. The general component of ICDS was allocated ₹ 5.4 billion, while Sabla was allocated ₹ 1.1 billion.

Figure 8: ICDS' share of total government nutrition financing in Rajasthan (in billions of rupees) – weighted



[16] Sometimes line items will not receive funding allocations for a new fiscal year if they have an unspent balance from the previous years because funding from the previous year can be carried over and new budget allocations are not needed. However this is probably not the case for IYCF since according to the NHM PIP, IYCF has not received any funding in either 2014-2015 or 2015-2016.

Figure 9: Major programmes financed by ICDS, 2015–2016 (in billions of rupees) – unweighted



MDM

Rajasthan allocated a total of ₹ 7.7 billion (BE) to MDM in 2014–2015 and spent ₹ 6.0 billion (RE), representing 78% of the allocated amount. The following year (2015–2016), Rajasthan allotted ₹ 6.6 billion (BE) for MDM, a budget decrease of 14%. MDM's share of total government nutrition financing can be seen in Figure 10, below. It is important to note that since we weighted MDM at 100% in scenario 1, its unweighted amounts are the same as its scenario 1 amounts.

Out of the total amount of funding allocated to MDM, we considered 54% to be relevant for nutrition. Applying this 54% weighting to unweighted MDM totals yields the scenario 2 totals of ₹ 4.1 billion (BE) in 2014–2015 and ₹ 3.6 billion (BE) in 2015–2016. Weighted spending for MDM in 2014–2015 was ₹ 3.3

Figure 10: MDM's share of total government nutrition financing in Rajasthan under scenario 1 (in billions of rupees)

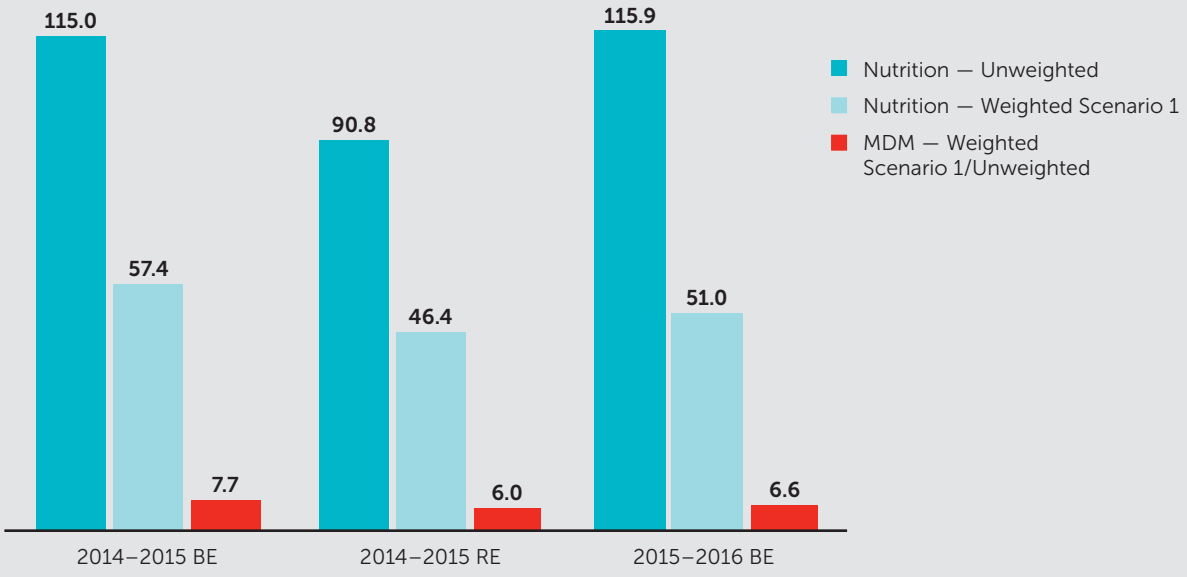
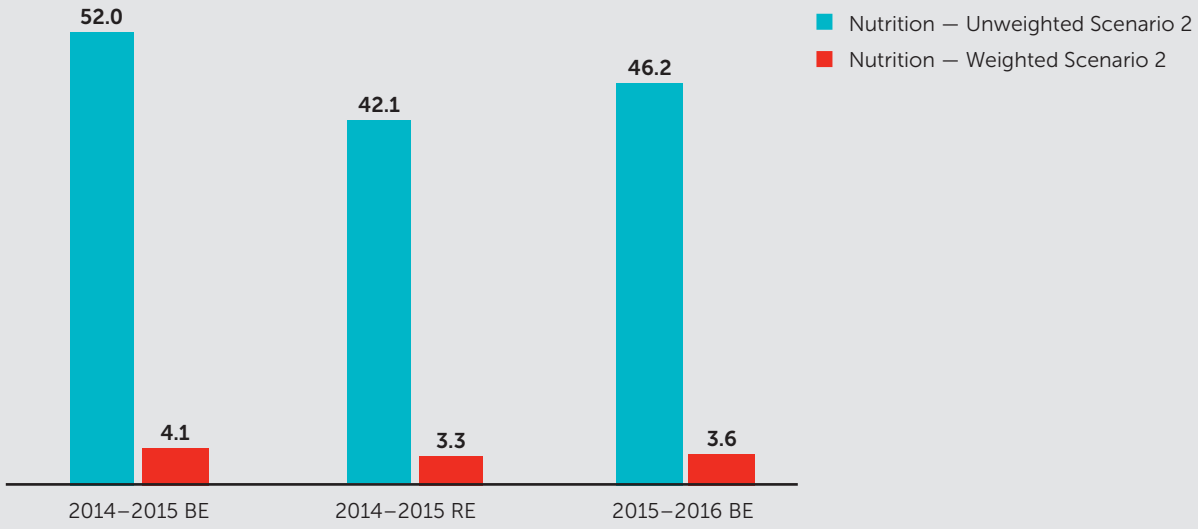


Figure 11: MDM's share of total government nutrition financing in Rajasthan under scenario 2 (in billions of rupees)



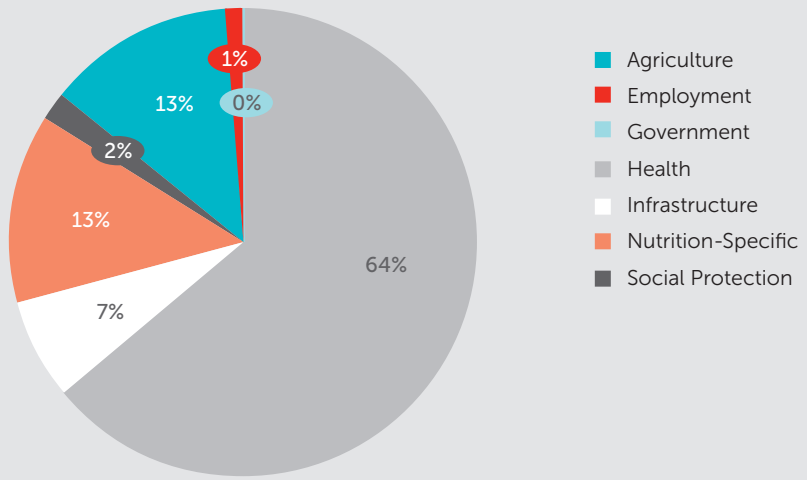
billion (RE). These weighted totals represented 8% of total nutrition financing in Rajasthan. This can also be seen in Figure 11, above.

Nutrition Funding from Development Partners

The total off-budget development partner funding for nutrition-relevant programmes and projects in 2013 amounted to ₹ 150.1 million. This accounted for approximately 0.4% of total funding available for nutrition from both the government and donors (scenario 2 RE for 2014–2015). The majority of this expenditure (64%) came through the health sector, followed by the agriculture sector (13%), nutrition-specific programmes (13%), infrastructure (7%), and social protection (2%). A full breakdown of expenditure by sector is provided in Figure 12.

The vast majority of assistance from development partners comes in the form of budget support. In 2013, development partners provided more than ₹ 2 billion in budget support for nutrition-relevant programmes, a total that should be captured in the

Figure 12: Breakdown of development partner allocation across nutrition programmes, 2013



government spending analysis. However, this section of our analysis only includes off-budget transfers – from development partners to Rajasthan – in order to avoid double counting since this funding may have already been accounted for within the state budget. It is also important to note that this approach does not account for nutrition funding that may have been transferred directly to the government without inclusion in their budgets. These caveats undoubtedly affected our estimates of development partner spending for nutrition in Rajasthan, as presented in this section, and may explain why our estimates are so low.

Furthermore, this analysis is missing key financing data. As of this writing, the latest expenditure data available from the OECD-DAC database is for 2013, but there were several programmes that did not start in earnest until 2014 or later. One of these key programmes is the ICDS Systems Strengthening and Nutrition Improvement Project (ISSNIP), a large project funded by the World Bank that has been implemented in Rajasthan and seven other states. Since the programme did not truly begin until 2014, disbursements for ISSNIP in 2013 were listed as zero in the OECD-DAC database.

After accounting for weighting (based on their relevance to Rajasthan and nutrition) and considering the caveats described above, the top funders of off-budget nutrition-related programmes in 2013 were Norway, the United States, and the Bill & Melinda Gates Foundation. To develop a more robust analysis, an important next step would be to interview the key nutrition partners in Rajasthan to better understand their spending on nutrition projects in the state. Analysing this financing data could validate the information we already have and help to add missing pieces of information. It could also give us a more up-to-date estimate of development partner nutrition financing in the state as a number of new projects have been launched since 2013.

Combined Nutrition Financing from the Government and Development Partners

If the 2013 development partner nutrition financing estimates are used as a proxy for 2014–2015 nutrition spending estimates, then the total funding available for nutrition in Rajasthan would be ₹ 42.3 billion. (We derived this using 2014–2015 RE from the government, since this more closely corresponds to spending than BE). Table 3 shows that over 99% of the total nutrition funding would come from the government, with less than 1% of total funding for nutrition in the state coming from development partners.

Table 3: Total government and development partner nutrition financing (in billions of rupees)

	Estimated Financing	% of Total
Government	42.1	99.65%
Development Partners	0.15	0.35%
Total	**42.25**	**100.0%**

Resource Needs Analysis and Gap Assessment

This section provides an overview of how we derived estimates for the resources needed to scale up a set of core, India-specific nutrition interventions. Menon, Chakrabarti, and McDonald's work, "Estimating the Cost of Delivering Direct Nutrition Interventions at Scale: National and Subnational Level Insights from India," heavily informed our analysis in this section. We added to their costing study by updating the information on target population and then comparing this updated resource needs estimate with our financing estimates presented in the previous section to construct a gap analysis.

These India Plus interventions are a set of fourteen nutrition interventions[17] that are encompassed in India's policy framework and are supported by recommendations from a large network of stakeholders in the country, including the Coalition for Food and Nutrition Security (CFNS). The table below provides a description of all the interventions.

Detailed information on the India Plus interventions, their estimated unit costs, and the size of their target population is also provided in Annex VII.

Table 4 – India Plus interventions

Intervention	Description	Target Population
COUNSELLING ACTIONS		
Counselling during pregnancy	Promotion of optimal nutrition during pregnancy through an average of 3.5 individual/group contacts during pregnancy	Pregnant women
Counselling for breastfeeding	Promotion of optimal breastfeeding practices through an average of 11.7 individual/group contacts between 0-6 months of age	Caregivers of children 0-6 months of age
Counselling for complementary feeding and handwashing	Promotion of optimal IYCF and handwashing practices through an average of 11.6 individual/group contacts between 6-12 months of age, and 13.5 contacts between 12-24 months of age	Caregivers of children 6-24 months of age
SUPPLEMENTATION		
Complementary food supplements	Daily food supplements between 6-36 months of age	Children 6-36 months of age
Supplementary food rations	Daily food supplements for the second and third trimesters of pregnancy and the first 6 months of lactation	Pregnant and lactating women up to 6 months after delivery
Additional food rations for severely malnourished children	Provision of an additional daily food supplements for 3 months for children who are severely malnourished	Children 6-59 months of age with WAZ < -3
MICRONUTRIENTS AND DEWORMING		
IFA supplements for pregnant and breastfeeding women	Provision of IFA supplements for women	Pregnant and lactating women for up to 6 months after delivery
IFA supplements and deworming for adolescents	Provision of IFA supplements through the school system	Adolescents 11-18 years of age

[17] The provision of insecticide-treated nets for pregnant women to prevent malaria was also included by IFPRI in the India Plus interventions, so that there were originally fifteen interventions, but this was not included in our analysis as it is only targeted towards malaria endemic states in northeastern India.

Table 4 – India Plus interventions (continued)		
Intervention	**Description**	**Target Population**
MICRONUTRIENTS AND DEWORMING (CONTINUED)		
Iron supplements for children	Provision of daily iron supplements for children 6-59 months of age	Children 6-59 months of age
Vitamin A	Supplements for children	Children 6-59 months of age
ORS and therapeutic zinc supplements for treatment of diarrhoea	Daily ORS and zinc for 14 days during/ following an episode of diarrhoea	Children 2-59 months of age with diarrhoea
Deworming	Deworming tablets for children	Children 12-59 months of age
HEALTH INTERVENTIONS		
Treatment of severe acute malnutrition	Facility-based treatment for children with severe acute malnutrition	Children 6-59 months of age with a WHZ <-3
MISCELLANEOUS INTERVENTIONS		
Maternity benefit for breastfeeding mothers	Monthly cash stipend provided to breastfeeding mothers	Breastfeeding mothers after the first 6 months of delivery

The Menon et al. paper provides preliminary estimates of resources required to scale up the India Plus interventions to achieve full coverage of target populations. The authors define full coverage as reaching 100% of the target population, except in the case of SAM treatment in which they defined full coverage as covering 80%. We adopted the same definition of full coverage in updating the resource estimates provided by Menon et al. to reflect the needs of 2015-2016.

Calculating the total cost of implementing these interventions required data on unit costs and the size of the target population to be covered. Unit cost data was available from Menon et al. We then used the average population growth rate for Rajasthan and data from the 2011 Rajasthan census to generate size estimates for each India Plus intervention's 2015 target population group. We also used data on the stunted and wasted populations from NFHS-3 and RSOC to calculate the size of the SAM population in Rajasthan.

Using RSOC data, our calculations show that the total funding needed to scale up the India Plus interventions in 2015–2016 is ₹ 26.1 billion. Using NFHS-3 data, the total resource needs estimate is ₹ 27.7 billion. Menon et al.'s original estimate of 2014-2015 resource needs for the fourteen India Plus interventions (presented in their preliminary analysis) was approximately ₹ 25 billion.

To generate an estimate of the additional resources required to meet these needs, we matched each India Plus intervention with existing nutrition interventions run by the government of India, as shown in Table 5. We estimate that approximately 31% of the resource needs for the fourteen India Plus interventions are currently covered with existing resources,[18] leaving a financing gap of approximately ₹ 18.1 billion. This gap represents 0.26% of Rajasthan's GSDP. In order to close the financing gap, Rajasthan needs to spend an additional ₹ 247 p.c. for nutrition-specific interventions. The intervention-specific results of this gap analysis are shown in Table 5.

[18] Using the RSOC target population data.

Table 5 – Matching nutrition financing with nutrition costing to conduct gap analysis

Interventions	Description	Corresponding Government Interventions	Available Financing BE 2015-2016 (1000 ₹)	Resource Needs 2015-2016 (1000 ₹)	% Financed
COUNSELLING ACTIONS					
Counselling during pregnancy	Promotion of optimal nutrition during pregnancy through an average of 3.5 individual/group contacts during pregnancy	ICDS (IEC component), JSSK mothers ("diet" component), ASHA Honorarium (from WCD)	1,112,158	213,231	
Counselling for breastfeeding	Promotion of optimal breastfeeding practices through an average of 11.7 individual/group contacts between 0-6 months of age			75,045	
Counselling for complementary feeding and handwashing	Promotion of optimal IYCF and handwashing practices through an average of 11.6 individual/group contacts between 6-12 months of age, and 13.5 contacts between 12-24 months of age	IYCF - NHM, Swachh Bharat Abhiyan/Mission (IEC component)		335,681 253,993	
Total			**1,112,158**	**877,951**	**127%**
SUPPLEMENTATION					
Complementary food supplements	Daily food supplements between 6-36 months of age	SNP, ASHA incentive for post-MTC follow-up	6,295,896	6,260,231	
Supplementary food rations	Daily food supplements for the second and third trimesters (i.e. approx. 6 months) of pregnancy and the first 6 months of lactation			2,051,141 760,788	
Additional food rations for severely malnourished children	Provision of an additional daily food supplements for 3 months for children who are severely malnourished			813,353	
Total			**6,297,396**	**9,885,513**	**64%**
MICRONUTRIENTS AND DEWORMING					
IFA supplements for pregnant and breastfeeding women	Provision of IFA supplements for pregnant and lactating women	WIFs and Micronutrient – NHM, IFA for pregnant and lactating women, WIFs (Albendazole, IFA, supplementary programme activities), Sabla (non-nutrition component), IFA syrups (6 months-60 months), Vitamin A procurement, ORS + zinc procurement, Albendazole (6 months–60 months)	0	110,149	
IFA supplements and deworming for adolescents	Provision of IFA supplements through the school system		88,195	156,110	
Iron supplements for children	Provision of daily iron supplements for children 6-59 months of age		0	162,274	
Vitamin A	Supplements for children		16,000	30,700	
ORS and therapeutic zinc supplements for treatment of diarrhoea	Daily ORS and zinc for 14 days during/following an episode of diarrhoea		70,500	280,690	
Deworming	Deworming tablets for children		15,406	90,537	
Total			**190,101**	**830,461**	**23%**

Table 5 – Matching nutrition financing with nutrition costing to conduct gap analysis (continued)

Interventions	Description	Corresponding Government Interventions	Available Financing BE 2015-2016 (1000 ₹)	Resource Needs 2015-2016 (1000 ₹)	% Financed
HEALTH INTERVENTIONS					
Treatment of severe acute malnutrition	Facility-based treatment for children with severe acute malnutrition	Facility-Based Newborn Care (SNCU, NBSU, NBCC) and Management of children with SAM (NRC, CDNC, Community Based Programme - incl. Human Resources, Training, and New Construction) - NHM	389,431	2,006,228	
Insecticide treated nets	Provision of insecticide treated bed nets to pregnant women for prevention of malaria in malaria-endemic areas				
Total			**389,431**	**2,006,228**	**19%**
MISCELLANEOUS INTERVENTIONS					
Maternity benefit for breastfeeding mothers	Monthly cash stipend provided to breastfeeding mothers	IGMSY	3	12,465,524	
Total			**3**	**12,465,524**	**0.000024%**
ALL INTERVENTIONS					
Total			**7,989,086**	**26,065,677**	**31%**

While this analysis gives a sense of the investments required to ensure adequate coverage of key nutrition services, there are a number of limitations. First, our estimates for resource needs are only for a subset of the programmes covered in our financing analysis since we included many nutrition-sensitive and food supplementation schemes beyond the fourteen core India Plus interventions that are strictly nutrition-specific. Additionally, in order to match the funding available for each of the India Plus interventions with the resource needs estimate for each intervention, we needed to disaggregate the financing data available for the nutrition schemes we analysed in the earlier sections and parse out financing by intervention. However, doing so was difficult. Some of the nutrition-specific interventions recommended in India Plus, such as counselling during pregnancy or counselling for breastfeeding, match well with components of broader schemes that also provide several services, some of which are nutrition-specific and others nutrition-sensitive. In these instances, we attempted to disaggregate by including only certain components (such as the IEC budget line for a particular scheme or sub-programme); however, these components may likely include some elements beyond those interventions specified, and may not fully capture certain shared health system or programme spending.

Similarly, it was difficult to parse information on budget allocations for handwashing interventions from the WASH budget. In light of Swachh Bharat Abhiyan, both the centre and states have made large allocations to water and sanitation schemes, and much of it may not be focussed towards handwashing interventions. Analysis of previous expenditure data showed us that only 1.1% of the budget for Swachh Bharat was used for IEC. Therefore, in order to calculate available financing for counselling activities for handwashing, we considered only 1.1% of the budget for Swachh Bharat Abhiyan.

Our analysis on available financing for interventions focussed on Counselling Activities is likely an overestimate, as it includes the entire ASHA Honorarium funded by Women and Child Development. Although ASHAs provide counselling often relating to nutrition and child development services, the portion of their payments funded by WCD likely funds many other services as well.

Interventions such as maternity benefits in the form of monthly cash stipends for breastfeeding mothers fall under IGMSY. However, provision of IGMSY incentives is also conditional on proper immunisation, birth registration, and pre-natal care; these incentives are not just restricted to breastfeeding. In our financing analysis, we weighted IGMSY at 75%, but we included 100% of IGMSY financing in constructing our gap analysis as we were unable to identify the portion of the IGMSY budget aimed strictly at improving rates of exclusive breastfeeding.

To estimate available financing for all other interventions, we included financing available for the whole programme (instead of attempting to estimate the portion that went to a specific intervention). Generally, matching schemes and budget lines from our financing analysis to interventions costed by Menon et al. was challenging.

The results of this exercise raised some serious concerns about the extent to which key nutrition interventions are prioritised by the government. According to descriptions of the programme, a number of the core India Plus interventions should be covered under NHM, but line items for these interventions in the NHM PIP showed zero rupees budgeted in 2014-2015 and 2015-2016. These line items include IYCF, follow-up of low birth weight babies and severely anaemic women, micronutrient supplementation, IFA supplements for pregnant and lactating women, IFA syrups for children below six years, and non-commodity costs for diarrhoea management. Although our gap analysis is preliminary, it also indicates severe underinvestment in micronutrient interventions, deworming interventions, and SAM treatment (even though the latter has received recent increases in funding allocations). It also shows some underinvestment in food supplementation and maternity benefits for breastfeeding mothers (the latter of which may be more of an indication that programmes (like IGMSY) have not yet been fully scaled up in Rajasthan, and that universalising these schemes will be difficult).

Policy Implications

This paper tracks budget allocations and expenditure estimates for nutrition-relevant programmes in Rajasthan between 2013 and 2016, focusing mostly on government financing in 2014–2015 and 2015–2016, since our estimates of off-budget development partner spending constitute less than 1% of total financing. Our estimates of government nutrition financing indicate that funding allocations in Rajasthan have decreased in absolute terms between fiscal years 2014–2015 and 2015–2016.

As previously mentioned, the central government has agreed to transfer a 42% share of tax revenues to states, meaning that Indian states are expected to receive an additional $29 billion in untied funds in 2015–2016. However, these benefits come at a cost: in order to create fiscal space for more untied state funding, the government must reduce tied central grants to states that are typically distributed in the form of CSS. Since CSS have been the primary source of funds for social sector programmes in the last decade, the proposed changes could be a cause for concern, especially if states do not adequately prioritise health, nutrition, and other social sector schemes. That being said, increased devolution will grant states greater autonomy in addressing development challenges, identifying priorities, as well as in designing and implementing programmes to fit their own state needs and contexts, without the many conditions and restrictions often associated with CSS programmes.

Still, the impact of a greater quantum of untied funds on social sectors such as health and nutrition will depend on the degree to which states choose to prioritise these areas. Although the funding in Rajasthan for CSS (such as ICDS) has decreased this fiscal year, a greater share of untied funds could have been used to address the problem of malnutrition in the state if the government had chosen to do so. This is indeed worrisome for nutrition advocates in Rajasthan since, despite being a verbal priority, the state government has not shown increased financial commitment to tackling the problem of malnutrition.

Constrained funding as a result of devolution is neither unique to ICDS nor to nutrition-specific schemes. Other nutrition-sensitive CSS that were included in our analysis – and contribute significantly to nutrition financing – are also faced with similar funding concerns.

Spending for nutrition programmes may be further jeopardised due to uncertainties around the revised cost-sharing pattern of CSS. Historically, CSS have been jointly financed on a cost-sharing basis by the centre and the state. For instance, funds for NHM were previously shared in a 75:25 ratio between centre and state, and funds for ICDS were shared in a 90:10 ratio (except for funds designated to SNP, which were shared in a 50:50 ratio). The cost-sharing patterns are being revised following devolution, and some CSS will likely lose central funding entirely. It is likely that state governments may be (justifiably) less willing to contribute significant funding for programmes without knowing the proportion of the costs that the centre will cover. Additionally, anecdotal evidence suggests that in the past, the central government has failed to transfer money to the state for social sector programmes, despite having fixed cost-sharing patterns in place. This further hinders state willingness to spend more on CSS implementation.

To further exacerbate the uncertainty, state governments have already passed (and are almost finished with executing) their 2015–2016 budgets without knowing which CSS will be discontinued and how much funding will come from the centre for CSS implementation. It will be important to monitor the 2015–2016 RE when it is released in tandem with the 2016-2017 budget to track whether the BEs have been significantly affected. Additionally, in response to recent public resistance to CSS budget cuts, the central government has sought parliamentary approval to allocate an extra ₹ 190 billion to several social sector schemes, including ICDS and Sabla.[19] Tracking how this change affects nutrition RE for 2015–2016 should also be prioritised. It is possible

[19] Govt to spend ₹ 19,000 cr more on social sector over Budget estimates, Mukherjee and Dhasmana, SmartInvestor, 03 Aug 2015.

that social sector spending may not be adversely affected during fiscal year 2015-2016, despite lower budget allocations, since many states are still using leftover funds from previous years to cushion the blow of decreased CSS funding. These leftover funds do not usually appear in budget documents (BE, RE, or AE). Therefore, as states deplete their reserves of leftover funds, tracking budgets over the next few years will allow us to accurately capture the degree to which devolution has affected resource allocation. Public financing experts in India also expect there to be stronger guidance and less uncertainty around devolution, CSS, and cost-sharing by the time 2016–2017 budgets are finalised.[20]

While concerns regarding lower funding in the wake of devolution are valid, the reality is that most states have found it difficult to utilise the funds allocated to them in any given year, resulting in leftover funds. Our analysis indicates that less than half of the funds allocated to NHM through BE in 2014–2015 were employed (i.e. translated to RE), and slightly over two thirds of ICDS and MDM 2014–2015 funds were used. The utilisation rates may further decrease once AEs are considered. The centre often places significant conditions on states that dictate the ways in which CSS must be implemented. Such conditions, if they align poorly with state needs or priorities, can greatly contribute to fund underutilisation in states.[21] Devolution could push states like Rajasthan to take the lead on prioritising health and nutrition and to better customise programmes to state context while the centre begins to play a less prescriptive role in programme design. The key policy questions then become, would Rajasthan be willing to prioritise nutrition funding to the extent required for generating the desired improvements? If so, how should nutrition be prioritised and how can the government ensure that allocated funds are fully utilised? Another important consideration is whether policymakers in Rajasthan would have adequate capacity to design, modify, and implement programmes that are effective and fit with state contexts and needs.

The results of our preliminary gap analysis indicate that the government of Rajasthan may want to consider increasing financing for some under-funded nutrition-specific interventions, such as micronutrients, SAM management, supplementary feeding, and maternity benefits for breastfeeding mothers. In particular, key interventions, such as IYCF, follow-up of low birth weight babies and severely anaemic women, micronutrient supplementation, and IFA supplementation for children and pregnant and lactating women, received no budget allocations for 2014–2015 or 2015–2016. Even those areas that did receive significant budget increases in recent years, such as SAM management, are underfunded compared to overall resource needs. However, the latter could be a result of the conditions tied to NHM's design.

Additionally, costing and financing of SAM management is one component that is important to highlight in light of the new Community Management of Acute Malnutrition (CMAM) pilot being rolled out in select areas of thirteen districts in Rajasthan. IFPRI's costing of SAM management assumes that 80% of all complicated and uncomplicated SAM cases are treated in a facility (e.g. Malnutrition Treatment Centre, or MTC). However, with the rollout of CMAM, uncomplicated cases can be managed at the community-level, and future incidence of complicated SAM can also be lowered. Therefore, the scale up of CMAM has important cost implications; in fact, global evidence suggests that community-based SAM management is less costly per child than facility-based SAM management.[22] Community-based programmes may also be able to cover more children than their facility-based equivalents because of the more broad-based access at the community level, which could potentially increase actual resource needs. Therefore, estimating the costs of the new CMAM programme as it is scaled up, and comparing these costs to past and current MTC resource allocations and expenditures, will be an important analysis to feed into NHM and broader nutrition budgeting decisions in Rajasthan.

Even with the existing envelope of funds available for nutrition programmes, the government could better prioritise interventions according to state-specific contexts, and consider retargeting available funds towards sections of the population where the impact of nutrition interventions would be most felt. For instance, MDM – which makes up 8%-9% of total nutrition funding – provides food to school-going children older than five years. To better address

[20] Conversations with Avani Kapur, Accountability Initiative, Nesar Ahmed, BARC, and Anit Mukherjee, CGD.

[21] Review of Intergovernmental Fiscal Transfers for Health, Fan et al, May 2015.

[22] Puett et al. "Cost-effectiveness of the community-based management of severe acute malnutrition by community health workers in southern Bangladesh." 2012.

stunting and wasting in the state, the government could target its resources more towards pregnant women, women of reproductive age, and children under five years, particularly those within the first thousand days of life. ICDS, too, could better target children within the one thousand days window.

Another strategy the government could take to increase allocation and utilisation of funds intended to address malnutrition is to facilitate greater collaboration across state departments and garner support for nutrition programming from departments other than those implementing ICDS and NHM (Women and Child Development and Health and Family Welfare). While there have been ongoing discussions about a multi-sectoral Rajasthan nutrition mission – which would act as a coordinating body to organise nutrition activities across multiple departments – few steps have been taken in recent months to set up such a mission. Our analysis indicates a large share of total nutrition financing came from nutrition-sensitive sectors, such as agriculture and WASH. Although we know that programmes in these sectors can have positive effects on nutritional outcomes, only a limited number of these schemes have identified reducing the malnutrition burden as one of their primary purposes and we know little about the impact they generate. Existing schemes in these sectors could be redesigned to better target nutrition, and new programmes could also be instituted with nutritional outcomes in mind. Examples of more targeted nutrition programmes that could occur under some of these nutrition-sensitive sectors include agricultural initiatives, such as for home gardens and small livestock; nutrition education programmes in schools; and food security schemes that focus more on nutritionally-dense and/or fortified foods. The government and its partners could consider which of these programmes may make the most sense in the Rajasthan context, and how to involve other sectors more directly, whether through some sort of mission, coordinating body, or other means.

Another responsibility of a nutrition mission or coordinating body could be to monitor nutrition performance and financing. Despite having a strong political mandate to tackle undernutrition, both the government of Rajasthan and the central government of India are yet to make a significant effort to track financing for nutrition. In order for policymakers to prioritise, plan, and make informed decisions about nutrition programmes, it is essential that more information on the former, current, and future amounts of financing for nutrition be made available on a continuous basis and frequently compared to an estimate of total financial needs for nutrition programmes. The uncertainties of devolution make analysing budgets and expenditures even more important, since we currently know very little about what financing for nutrition will look like going forward. Funding for schemes like ICDS, NHM, and others may be in jeopardy if state governments choose to deprioritise these sectors when faced with cuts in central transfers for CSS. Furthermore, current efforts to track nutrition financing are haphazard and ad-hoc. The central government mandates that all nutrition programmes should fall under the budget head 2236, but neither the states nor the centre are consistent about which schemes are included under 2236 in their budget documents (and, therefore, which are classified as nutrition programmes). As a result, the way nutrition allocations are accounted for is not uniform across states and comprehensive estimates of total financing for nutrition are not available. Consistent decision making mechanisms that classify programmes conducted by all departments as nutrition-relevant could facilitate accurate estimates of the amount of resources being allocated to nutrition.

Our work shows that regular monitoring of nutrition spending is possible. We provide a basis for setting up and institutionalising a system for continuous monitoring and analysis of nutrition financing, which could possibly become part of a larger effort at monitoring state performance to reduce malnutrition. Such a system would be most effective if it were overseen by a high-level, multi-sectoral body, such as a nutrition mission. While establishing such a system could be challenging in the immediate future, the system would be likely to have palpable long-term benefits by conducting an annual analysis of spending for nutrition-specific and -sensitive programmes. These results would thereby provide the government and other stakeholders with concrete evidence to inform their budgeting and planning processes.

Moving Forward

This paper presents a preliminary assessment of spending on nutrition in Rajasthan, estimates of the resources needed to adequately fund key nutrition interventions, and gap assessment for how much additional investment is required to provide adequate nutrition services. It also exposes some limitations of the current analysis, and identifies a number of areas that can be further explored.

Our analysis could be strengthened by incorporating information on actual spending, or actual estimates (AE). Currently, our exercise of tracking nutrition financing focusses heavily on budget allocations (BE) and revised budget allocations (RE) that serve as proxies for AE. However, it is expected that AE will vary from RE. Given the concerns about fund utilisation that we highlighted in our analysis, it is important to look at AE. Generating an updated round of analysis that uses budget documents from 2016–2017 is a desirable next step. These documents would include AE for 2014–2015, RE for 2015–2016 and BE for 2016–2017. Adding 2016–2017 BE and 2015–2016 RE to our analysis would also allow us to track the degree to which increased devolution has affected allocation to nutrition in Rajasthan.

We also see value in conducting district-level studies in Rajasthan to better understand how nutrition resources are channelled to the lower administrative levels (such as districts and blocks). District and local transfers labelled as "nutrition" made up about 7% of total financing in our data sources, but there is little information available about where this money goes, how it is used, and whether additional funds might be targeted to nutrition through other transfers and sources as well.

There is also room to improve the off-budget expenditure estimates of development partner contributions. The OECD-DAC database provides data with a one-year lag and only contains data for a selected group of donors. The most recent data available was from 2013 and, therefore, information about recent contributions by key donors may be missing, not to mention important programmes implemented after 2013 have been omitted altogether. The OECD-DAC database also fails to account for nutrition financing provided by local, private foundations and trusts, such as the Tata Trust. Additionally, the database only lists contributions to India as a whole (rather than specifying receiving states or organisations), making it difficult to estimate how much financing goes to Rajasthan specifically. In the coming months, we plan to speak with key nutrition development partners in Rajasthan to better understand their contributions towards improving nutrition in the state. Furthermore, we could strengthen our estimates of development partners' support by further investigating whether on-budget funds are fully included in the government budget documents that we analysed.

On the costing side, a key drawback is that we, like IFPRI, assume that the unit costs incurred to roll out the India Plus interventions will be uniform across states. However, it is very likely that different states will have different costs of delivery, and the current dearth of data makes state-specific costing analysis difficult to pursue. This could be another area in which our analysis presented in this paper could be strengthened. Additionally, it was difficult to parse specific interventions (e.g. counselling for breastfeeding) out of large schemes (e.g. ICDS, NHM), which is a severe limitation of our gap analysis. Efforts could be made to further break down financing for these schemes, although this will likely be difficult given the information available in existing budget documents. Another important next step will be to incorporate CMAM cost estimates into the gap analysis.

Finally, it will be important to continue to track nutrition budgets and expenditures to ascertain whether the state government of Rajasthan is prioritising nutrition adequately, especially the core nutrition interventions included in India Plus that have proven efficacy in reducing rates of stunting and wasting. We plan to examine the upcoming state budget for fiscal year 2016–2017 and track the extent to which devolution may bring about

change in spending among the various departments that conduct nutrition-relevant programming. Additionally, in the absence of tied funding for CSS, it will be important to monitor whether the state government is maintaining its focus on nutrition consistent with its rhetoric of commitment. Given the uncertainty that comes with fiscal devolution, it is possible that actual allocations, transfers, and expenditures will differ significantly from the budgets that were approved in early 2015, making it more important than ever to continue to track progress going forward.

RESULTS FOR DEVELOPMENT

Annexes

Annexes

Annex I – Description of CSS

Indira Gandhi Matritva Sahyog Yojana (IGMSY)

IGMSY is a conditional cash transfer scheme that is given to pregnant and lactating women for their first two live births to compensate for wage-loss and ensure safe delivery, proper childcare, and good nutrition and feeding practices. It is run by the Ministry of Women and Child Development (MoWCD) at the centre and was piloted in two districts in Rajasthan in 2014-2015, with goals of expanding coverage in 2015-2016.

Integrated Child Development Services (ICDS)

Also run by MoWCD, ICDS is designed to provide services to children, pregnant women, lactating mothers and adolescent girls. The primary goal of ICDS is to break the intergenerational cycle of malnutrition and reduce morbidity and mortality caused by nutritional deficiencies by providing a package of supplementary nutrition (SNP), non-formal pre-school education (PSE), immunisation, health check-ups, referral services, and nutrition and health education through the network of Anganwadi Centres (AWCs). ICDS has been universalised across all of India.

Mahatma Gandhi National Rural Employment Guarantee Act (MNREGA, MGNREGA or NREGA)

MNREGA is a universal employment scheme in India that aims to guarantee the "right to work" to rural populations. It provides livelihood security in rural areas by guaranteeing at least a hundred days of paid employment each year to each household for unskilled manual work. MNREGA serves a dual purpose of creating infrastructure in rural areas, since much of the manual labour includes the construction of roads, canals, ponds, and wells. MNREGA is implemented by gram panchayats.

Mid-Day Meals (MDM)

The Mid-Day Meal scheme was introduced in educational institutions participating in the Sarva Shiksha Abhiyan (Education for All) to enhance enrolment, retention, and attendance, while simultaneously improving nutritional levels among children. It is the largest school-based feeding programme in the world and has been universalised across India. At the central level, it is run by the Ministry of Human Resource Development through the Department of Mid-Day Meal.

National Food Security Mission (NFSM)

The National Food Security Mission focuses on increasing the production of rice, wheat, pulses, coarse cereals, and commercial crops through assistance to farmers. Assistance is provided in the form of demonstrations, distribution of high-yielding and hybrid seeds, farm machinery (including tools for more efficient water storage and use), plant protection, and micronutrients, as well as context-specific local initiatives. It is run by the Ministry of Agriculture and Farmers Welfare and is active in all 33 districts in Rajasthan.

National Health Mission (NHM)

Run by the Ministry of Health and Family Welfare (MoHFW), The National Health Mission, comprising of the National Rural Health Mission (NRHM) and National Urban Health Mission (NUHM), is India's flagship Centrally Sponsored Scheme that focusses on improving health outcomes. NHM also includes:

- Janani Suraksha Yojana (JSY), a cash transfer scheme that provides incentives for institutional deliveries

- Janani Shishu Suraksha Karyakram (JSSK), an initiative that provides free delivery services and diet to pregnant women
- Rashtriya Bal Swathya Karyakram (RBSK), an initiative that aims to identify defects, deficiencies, and diseases at birth and provide support

All these schemes and initiatives housed within NHM have both nutrition-specific and nutrition-sensitive interventions. Specific interventions falling under NHM include micronutrient supplementation, SAM management, and counselling on breastfeeding and IYCF practices.

Public Distribution System (PDS)

PDS – sometimes called Targeted Public Distribution System (or TPDS) – is a food security scheme that distributes food grains, kerosene, and other food items to India's poor at subsidised prices. Although most of the food provided through PDS in India is unfortified, some fortified foods (e.g. wheat, salt, and oil), are starting to be distributed through PDS in Rajasthan. Under PDS, below-poverty-line (BPL) families are eligible for 35 kg of grains (wheat or rice) per month, while above-poverty-line (APL) families are eligible for 15 kg. The Department of Food & Public Distribution, which falls under the Ministry of Consumer Affairs Food & Public Distribution, is responsible for PDS at the central level, with responsibilities split between the centre and state governments.

Rajiv Gandhi Scheme for Empowerment of Adolescent Girls (RGSEAG - Sabla)

Run by MoWCD, Sabla is designed to empower adolescent girls between the ages of eleven and eighteen; improve their nutrition and health status; promote their awareness about health, hygiene, nutrition, reproductive and sexual health; and upgrade their home-based skills and life skills. It also provides them with information about existing public services of which they can avail. Sabla has both nutrition and non-nutrition components.

Swachh Bharat Abhiyan

Swachh Bharat is national sanitation campaign aimed to accomplish the vision of a 'Clean India' through the elimination of open defecation and conversation of toilets, among other objectives. Its components include construction of sanitation infrastructure (such as toilets, latrines, village sanitary complexes for women, and village drains and pits for waste disposal), as well as an awareness campaign to generate demand for improved sanitation. Swachh Bharat was launched in 2014 and is being rolled out in over 4000 towns and villages across India.

Annex Table 1: CSS and relevant departments

Name	Acronym	Relevant Department
Indira Gandhi Matritva Sahyog Yojana	IGMSY	Women and Child Development
Integrated Child Development Services	ICDS	Women and Child Development
Mahatma Gandhi National Rural Employment Guarantee Act	MNREGA	Gram Panchayat
Mid-Day Meals	MDM	Human Resource Development
National Food Security Mission	NFSM	Agriculture and Farmers' Welfare
National Health Mission	NHM	Health and Family Welfare
Public Distribution System	PDS	Food and Public Distribution
Rajiv Gandhi Scheme for Empowerment of Adolescent Girls	RGSEAG – Sabla	Women and Child Development
Swachh Bharat Abhiyan	SBA	Ministry of Urban Development

Annex II – 2014–2015 BE, RE, and Reported Expenditure for Key CSS

Throughout this report, we have used RE as a proxy for expenditure due to the unavailability of verified expenditure data. The BE is adjusted based on an analysis of expenditures over the first six months of a fiscal year to generate the RE. Assuming expenditure trends hold over the remaining six months, the RE is a reasonable proxy for expenditures.

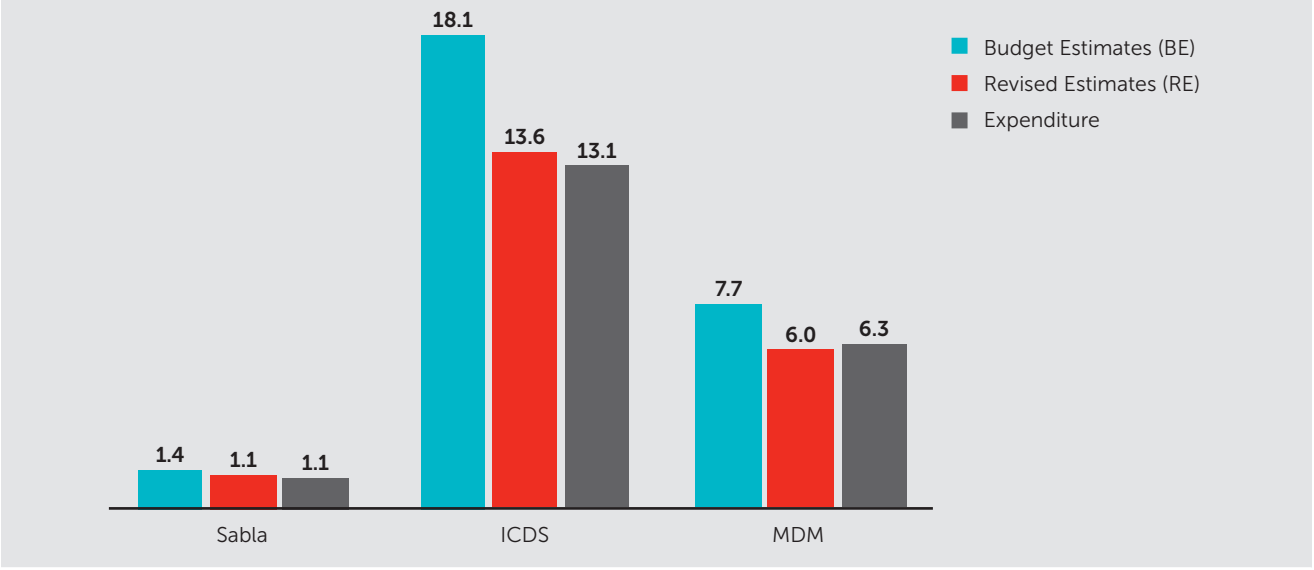
Nevertheless, it is useful to analyse expenditure data when available to gain a more robust understanding of budget utilisation rates and funding flows for various programmes and interventions. In this section, we examine the 2014–2015 expenditures reported for four key nutrition-relevant schemes: Sabla, ICDS (minus the Sabla component, which we analyse separately), NHM, and MDM. Because of the delay in reporting of AE, we used expenditure as reported by the relevant department for this analysis. Annex Figure 1 shows BE, RE, and reported expenditure for each of the CSS.

It must also be noted that the budget utilisation rates reported in this analysis are almost certainly inflated due to the presence of leftover funds. These are unused allocations from previous years that carry over into the next fiscal year as leftover funds that can be used by departments to fund programmes. Reported expenditures for 2014–2015 may include money allocated in previous fiscal years. Because we lack data on the magnitude of funds that are being transferred from previous years, it is difficult to parse to what degree funds from this year's allocation are being utilised. Therefore, these utilisation rates are a snapshot in time and may also not be representative of historical trends, but they do provide us with the best possible sense of how much funding was actually spent on a given scheme in a given year, regardless of where that funding came from.

Finally, we are unable to calculate NHM utilisation rates because expenditures reported by the Department of Health and Family Welfare include different components from what is included in BE and RE. This renders meaningless a comparison between expenditures and BE or RE. As a result, we have omitted NHM from Annex Figure 1 below and do not discuss its utilisation rate in this section.

- Sabla had an utilisation rate of 81%, as ₹ 1.1 billion was spent out of a BE of ₹ 1.4 billion. The RE to BE ratio was 82%; BE allocations were revised downwards by ₹ 239 million for an RE of ₹ 1.1 billion.
- ICDS' BE, which does not include the Sabla component, was ₹ 18.1 billion. It was revised downwards to an RE of ₹ 13.6 billion, yielding an RE to BE ratio of 75%. With a reported expenditure of ₹ 13.1 billion, ICDS' utilisation rate was 72%.

Annex Figure 1: 2014–2015 BE, RE, and expenditure for Sabla, ICDS, and MDM (in billions of rupees)

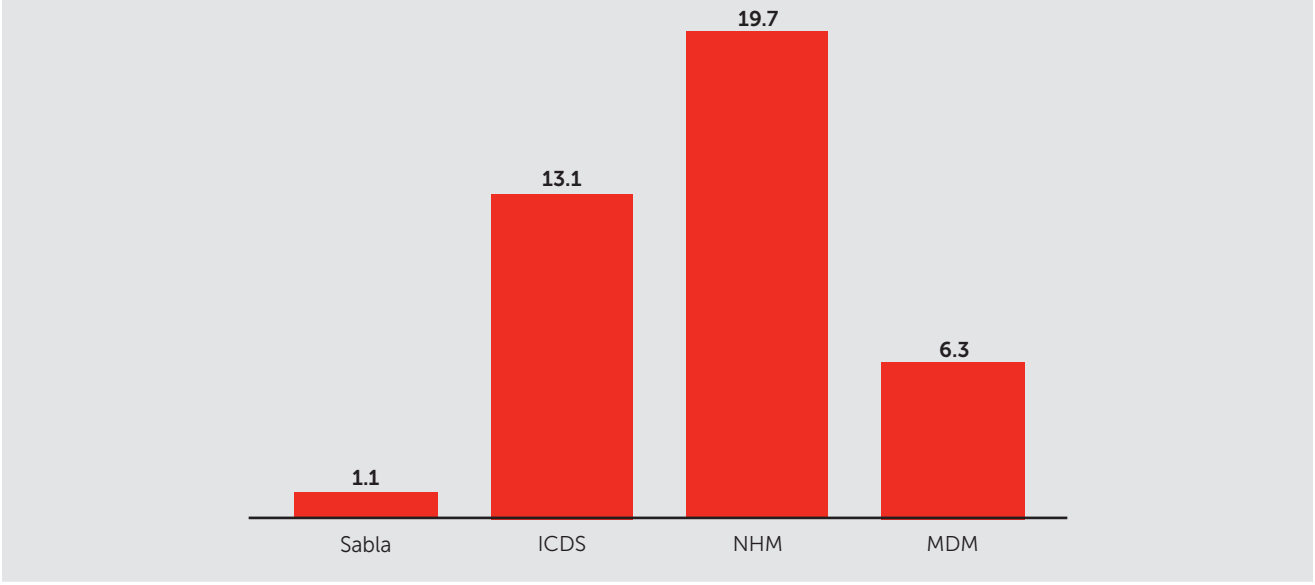


- MDM was initially allocated ₹ 7.7 billion in its BE, which was revised to an RE of ₹ 6.0 billion. However, at ₹ 6.3 billion, MDM's overall expenditure exceeded the RE, likely due to the presence of leftover funds from previous years. The scheme's RE to BE ratio was 78%, and its utilisation rate was 83%.

Overall expenditures for all schemes, including NHM, are shown in Annex Figure 2 below.

Of the three schemes with comparable utilisation rates, ICDS came in third with an utilisation rate of 72%. Its 2014-2015 RE-to-BE ratio of 75% was lower than that of the other schemes, and its expenditure-to-RE ratio of 97% was also slightly lower than those of Sabla and MDM (NHM expenditure figures cannot be compared with its BE and RE). Sabla spent about 98% of the RE, and MDM, likely due in large part to leftover funds, spent 106% of RE. These results are shown in Annex Table 2 below.

Annex Figure 2: Overall expenditure by scheme (in billions of rupees)



Annex Table 2: BE, RE, and expenditure calculations for all schemes (in billions of rupees)

Scheme	Budget Estimate	Revised Estimate	Reported Expenditure	RE to BE Ratio	Expenditure to RE Ratio	Utilisation Rate
Sabla	1.4	1.1	1.1	82%	98%	81%
ICDS	18.1	13.6	13.1	75%	97%	72%
NHM	21.0	16.5	19.7	79%	–	–
MDM	7.7	6.0	6.3	78%	106%	83%

Annex III – Kapur and Haddad Classification of Nutrition-Specific and -Sensitive Programmes

Department	Budget Heads	Schemes/Programmes	Categorisation
Education, Sports, Art and Culture	2202	MDM Food in Residential Schools or Hostels	nutrition-specific
Medical and Public Health and Family Welfare	2210 and 2211	School health Reproductive and Child Health National Health Mission Diseases such as Iodine Deficiency, Filariasis, Anaemia Women's Hospitals	nutrition-sensitive
Water Supply and Sanitation	2215	Entire Head included	nutrition-sensitive
Welfare of Scheduled Castes / Scheduled Tribes / Other Backward Classes and Minorities	2225	Schemes for agriculture or health or women and child welfare schemes for SCs/STs/Minorities	nutrition-sensitive
		Food in Residential Hostels or Schools for SCs/STs/ Minorities	nutrition-specific
Nutrition	2236	Entire budget head included	nutrition-specific
Food, Storage and Warehousing	2408	National Food Security Mission and TPDS	nutrition-specific
		Food Procurement, Supply and Distribution	nutrition-sensitive
Civil Supplies	3456	TPDS	nutrition-specific
		Food Procurement, Supply and Distribution	nutrition-sensitive
Minor Irrigation	2702	Schemes related to water supply and sanitation	nutrition-sensitive
Panchayati Raj	2515	Schemes related to water supply and sanitation	nutrition-sensitive
		Schemes related to Employment	nutrition-sensitive
		Expenditure related to implementation of other schemes by local bodies (example MDM in Rajasthan)	nutrition-specific
Special Programmes For Rural Development	2501	Employment Schemes	nutrition-sensitive
Rural Development	2505	Employment Schemes	nutrition-sensitive
Social Security and Welfare	2235	RCH, ICDS, SABLA, IGMSY, Food in residential schools and hostels	nutrition-specific
		Women development schemes	nutrition-sensitive
Crop Husbandry	2401	National Food Security Mission	nutrition-specific
		Everything else under Crop Husbandry	nutrition-sensitive

Annex IV – Proposed R4D Methodology to Weight Nutrition Interventions

SCHEME			WEIGHTING SCALE RANGE	
Sector	**Sub-sector**	**Focus**	**High** *(Nutrition relevant)*	**Low** *(Not nutrition relevant)*
Agriculture	Production	Food security/nutrition-focused	75%	25%
		Non-food security/nutrition-focused	25%	0%
	Innovation/research	Food security/nutrition-focused	50%	0%
		Non-food security/nutrition-focused	25%	0%
	Food safety/security	General population/target & non-target groups together	75%	25%
		Any non-target demographic	25%	0%
		Children under 5	100%	50%
		Adolescent girls	100%	50%
		Women of reproductive age	100%	50%
Education	Supplementary Feeding	Target demographic (e.g. children under 5, adolescent girls)	75%	75%
		Non-target demographic	50%	50%
	Targeted primary school attendance	Boys over 5	25%	0%
		Girls over 5	50%	0%
		Children under 5	50%	0%
	Targeted secondary school attendance	Adolescent girls	50%	0%
		General population/target & non-target groups together	25%	0%
		Non-target demographic	0%	0%
	Tertiary school/skills training attendance	Women of reproductive age	50%	0%
		General population/target & non-target groups together	25%	0%
		Adolescent girls	50%	0%
		Non-target demographic	0%	0%
Health	Child health	Any	75%	0%
	General health	Administrative Costs	0%	0%
		General population/target & non-target groups together	25%	0%
		Any non-target demographic	25%	0%
		Children under 5	75%	25%
		Adolescent girls	75%	25%
		Women of reproductive age	75%	0%
		Outreach	75%	25%
	Immunisation	Any	75%	75%
	Infectious diseases	HIV/TB/Malaria	25%	25%
		Not HIV/TB/Malaria	0%	0%
	Maternal health	Any	75%	0%
	Non-Communicable diseases	Any	25%	25%
	Other	Other	50%	0%
	Reproductive health	Non-Family Planning	75%	50%
		Family Planning	25%	25%

Annex IV, continued

SCHEME			WEIGHTING SCALE RANGE	
Sector	**Sub-sector**	**Focus**	**High** *(Nutrition relevant)*	**Low** *(Not nutrition relevant)*
Infrastructure	Non-sectoral development	General infrastructure	0%	0%
Social protection	Child Welfare/Protection	Includes nutrition & non-nutrition element (e.g. AWCs, feeding)	25%	25%
		General	5%	0%
		Supplementary feeding (outside of education)	75%	50%
	Employment	Any	25%	0%
	Poverty reduction	General population/target & non-target groups together	5%	0%
		Any non-target demographic	25%	0%
		Children under 5	50%	5%
		Adolescent girls	50%	5%
		Women of reproductive age	50%	5%
	Rural development	Any	0%	5%
	Urban development	Any	0%	5%
	Women's empowerment	Adolescent girls	75%	25%
		General	50%	0%
		Nutrition element	75%	25%
		Nutrition element, adolescent girls	75%	50%
WASH	Sanitation	Sanitation	75%	25%
	Water Supply	Water Supply	50%	0%
	Other	Other	50%	0%

Annex V – Mapping of all Schemes Included in Financing Analysis to Sectors

Sector	Schemes and Programmes
Agriculture	Krishi Vikas Yojana, all schemes falling under Crop Husbandry
Education	Chief Minister's Hunar Vikas Yojana, MDM
Employment	Chief Minister's Urban Employment Scheme, National Rural Employment Guarantee Scheme (MNREGA), Women Employment Schemes
Food Security	PDS, National Food Security Mission
Health	parts of NHM, IGMSY, assistance for first delivery to BPL families
Nutrition-Specific	ICDS, SABLA, parts of NHM, Nutrition Creche Programme, National Iodine Deficiency Programme, Multi-Sectoral Nutrition Scheme
Other	Block Local Bodies, District Local Bodies
Social Protection	Balika Smridhi Yojana, Chief Minister's Women Empowerment Scheme, Dhan Laxmi Women Safety Cell, Integrated Women Empowerment Scheme, Jyoti Scheme, Kishori Shakti Yojana (KSY), Package Programme for Women, Palanhaar Scheme, Shubh Laxmi Yojana, Scheme for Minors (Girls), Women Development, Women Development Fund, Women Empowerment, Women Welfare Fund, schemes for food in hostels, residential schools, homes, public schools
Water and Sanitation	Bulk Water Supply, Cheap Flush, Mud Sanitation, Public Water Scheme, Sampurna Swachhta Abhiyan, Sewage Treatment Plant, Swachh Bharat Abhiyan, all other schemes falling under Water and Sanitation (budget head 2215)

Annex VI – Sector and Scheme Breakdowns of Nutrition Financing in Rajasthan

Annex Table 3A: Breakdown of Rajasthan nutrition financing by sector (in billions of rupees) — unweighted					
Sector	**2014-2015 BE**	**2014-2015 RE**	**% Change BE to RE 2014-2015**	**2015-2016 BE**	**% Change RE 2014-2015 to BE 2015-2016**
Agriculture	22.8	17.4	-24%	13.4	-23%
Education	7.7	6.0	-22%	6.6	10%
Health	24.8	12.5	-49%	33.9	171%
Local Transfers	5.4	5.3	-2%	5.5	4%
Nutrition-Specific	25.5	19.0	-26%	23.5	24%
Social Protection	2.4	2.4	2%	2.8	17%
WASH	26.4	28.3	7%	30.3	7%
Total	**115.0**	**90.8**	**-21%**	**115.9**	**28%**

Annex Table 3B: Breakdown of Rajasthan nutrition financing by sector (in billions of rupees) — weighted					
Sector	**2014-2015 BE**	**2014-2015 RE**	**% Change BE to RE 2014-2015**	**2015-2016 BE**	**% Change RE 2014-2015 to BE 2015-2016**
Agriculture	13.9	10.4	-25%	7.8	-25%
Education	4.1	3.3	-22%	3.6	9%
Health	4.7	2.7	-42%	5.2	93%
Local Transfers	3.4	3.3	-2%	3.4	3%
Nutrition-Specific	15.9	11.7	-26%	14.5	24%
Social Protection	0.9	0.9	1%	1.0	11%
WASH	9.1	9.8	7%	10.5	7%
Total	**52.0**	**42.1**	**-19%**	**46.2**	**10%**

Annex Table 4A: Breakdown of the nutrition budget in Rajasthan by major cost drivers — both programmes and sectors (in billions of rupees) — unweighted

Sector	2014-2015 BE	2014-2015 RE	% Change BE to RE 2014-2015	2015-2016 BE	% Change RE 2014-2015 to BE 2015-2016
ICDS	19.2	13.6	-29%	17.4	28%
NHM	21.9	10.1	-54%	31.5	212%
MDM	7.7	6.0	-22%	6.6	10%
PDS	4.9	5.5	11%	1.2	-78%
National Food Security Mission	2.6	2.6	2%	2.5	-4%
Other Supplementary Food Programmes	0.9	0.9	3%	1.0	11%
All Other Nutrition-Specific	6.1	5.4	-12%	5.6	4%
All Other Nutrition-Sensitive	51.7	46.8	-10%	50.1	7%
Total	**115.0**	**90.8**	**-21%**	**115.9**	**28%**

Annex Table 4B: Breakdown of the nutrition budget in Rajasthan by major cost drivers — both programmes and sectors (in billions of rupees) — weighted

Sector	2014-2015 BE	2014-2015 RE	% Change BE to RE 2014-2015	2015-2016 BE	% Change RE 2014-2015 to BE 2015-2016
ICDS	12.4	8.7	-30%	11.0	26%
NHM	2.8	1.2	-58%	3.9	225%
MDM	4.1	3.3	-22%	3.6	9%
PDS	3.3	3.7	10%	0.7	-81%
National Food Security Mission	1.3	1.3	2%	1.3	0%
Other Supplementary Food Programmes	0.5	0.5	3%	0.5	0%
All Other Nutrition-Specific	3.3	3.0	-9%	3.1	3%
All Other Nutrition-Sensitive	24.2	20.5	-15%	22.2	8%
Total	**52.0**	**42.1**	**-19%**	**46.2**	**10%**

Annex VII – Description, Target Populations and Unit Costs of India Plus Interventions

Intervention	Description	Assumptions	Target Population	Unit cost (US$)	Target Population 2014 (IFPRI)	Target Population 2015 (R4D)
COUNSELLING ACTIONS						
Counselling during pregnancy	Promotion of optimal nutrition during pregnancy through an average of 3.5 individual/ group contacts during pregnancy	Assumes an average of 4.1 face-to-face visits per pregnant woman at $0.43 per visit.	Pregnant women	$1.76 per pregnant woman per year	1,949,928	1,954,101
Counselling for breastfeeding	Promotion of optimal breastfeeding practices through an average of 11.7 individual/group contacts between 0-6 months of age	Assumes an average of 15.2 face-to-face visits between 0-6 months at $0.11 per visit.	Caregivers of children 0-6 months of age	$1.67 per child 0-6 months of age per year	723,247	724,795
Counselling for complementary feeding and handwashing	Promotion of optimal IYCF and handwashing practices through an average of 11.6 individual/group contacts between 6-12 months of age, and 13.5 contacts between 12-24 months of age	Assumes an average of 13.3 face-to-face visits per child between 6-12 months of age at $0.56 per visit, and an average of 12.2 face-to-face visits per child between 12-24 months of age at $0.23 per visit.	Caregivers of children 6-24 months of age	$7.47 per child 6-12 months of age per year	723,247	724,795
				$2.80 per child 12-24 months of age per year	1,459,968	1,463,092
SUPPLEMENTATION						
Complementary food supplements	Daily food supplements between 6-36 months of age	Assumes provision of a daily ration at ₹ 6 ($0.097) per day.	Children 6-36 months of age	$14.52 per child 6-12 months of age per year	723,247	724,795
				$29.03 per child 12-36 months of age per year	3,109,001	3,115,654
Supplementary food rations	Daily food supplements for the second and third trimesters (i.e. approx. 6 months) of pregnancy and the first 6 months of lactation	Assumes provision of a daily ration for 6 months during pregnancy and 6 months after birth at ₹ 7 ($0.11) per day.	Pregnant and lactating women up to 6 months after delivery	$16.93 per pregnant woman per year;	1,949,928	1,954,101
				$16.93 per mother of a child 0-6 months of age per year	723,247	724,794.75
Additional food rations for severely malnourished children	Provision of an additional daily food supplements for 3 months for children who are severely malnourished	Assumes provision of a daily ration for 3 months at ₹ 9 (US$0.145) per day.	Children 6-59 months of age with WAZ < -3	$13.06 per severely underweight child 6-36 months of age per year	1,588,217	1,591,615.51

Intervention	Description	Assumptions	Target Population	Unit cost (US$)	Target Population 2014 (IFPRI)	Target Population 2015 (R4D)
Additional food rations for severely malnourished children	Provision of an additional daily food supplements for 3 months for children who are severely malnourished	Assumes provision of a daily ration for 3 months at ₹ 9 (US$0.145) per day.	Children 6-59 months of age with WAZ < -4	$13.06 per severely underweight child 6-36 months of age per year	1,002,341	1,004,486.23
MICRONUTRIENTS AND DEWORMING						
IFA supplements for pregnant and breastfeeding women	Provision of IFA supplements for women	Provision of daily IFA supplements for women during the second and third trimesters of pregnancy and for 6 months after delivery.	Pregnant and lactating women up to 6 months after delivery	$0.72 per pregnant woman per year;	1,949,928	1,954,101
				$0.51 per mother of a child 0-6 months of age per year	723,247	724,795
IFA supplements and deworming for adolescents	Provision of IFA supplements through the school system	Assumes weekly provision of IFA tablets and semi-annual deworming prophylaxis.	Adolescents 11-18 years of age	$0.40 per adolescent 11-18 years of age per year	6,281,299	6,294,741
Iron supplements for children	Provision of daily iron supplements for children 6-59 months of age	This is the GOI's current expenditure on iron supplementation per beneficiary.	Children 6-59 months of age	$0.37 per child 6-36 months of age per year	7,058,741	7,073,847
Vitamin A	Supplements for children	Assumes 2 rounds of vitamin A supplementation per child per year.	Children 6-59 months of age	$0.07 per child 6-59 months of age per year	7,058,741	7,073,847
ORS and therapeutic zinc supplements for treatment of diarrhoea	Daily ORS and zinc for 14 days during/following an episode of diarrhoea	Assumes each child 2-59 months of age has an average of 3 episodes of diarrhoea per year, 2 ORS sachets are required to treat each episode of diarrhoea, zinc is provided for 14 days per episode.	Children 2-59 months of age with diarrhoea	$0.64 per child 2-59 months of age per year	7,058,741	7,073,847
Deworming	Deworming tablets for children	Assumes 2 rounds of deworming per child per year.	Children 12-59 months of age	$0.23 per child 12-59 months of age per year	6,335,494	6,349,052

Intervention	Description	Assumptions	Target Population	Unit cost (US$)	Target Population 2014 (IFPRI)	Target Population 2015 (R4D)
HEALTH INTERVENTIONS						
Treatment of severe acute malnutrition	Facility-based treatment for children with severe acute malnutrition	Assumes that the incident cases of SAM per year is twice the prevalence of severe wasting; 15% of these children will receive inpatient treatment; average duration of treatment is 12.5 days	Children 6-59 months of age with a WHZ <-3	$107.38 per case treated per year	476,465	477,484.65
Treatment of severe acute malnutrition	Facility-based treatment for children with severe acute malnutrition	Assumes that the incident cases of SAM per year is twice the prevalence of severe wasting; 15% of these children will receive inpatient treatment; average duration of treatment is 12.5 days	Children 6-59 months of age with a WHZ <-4	$107.38 per case treated per year	300,702	301,345.87
MISCELLANEOUS INTERVENTIONS						
Maternity benefit for breastfeeding mothers	Monthly cash stipend provided to breastfeeding mothers	Includes the cost of the benefit and incentives. The benefit is provided for 6 months after delivery. Excludes women working in the government sector per year	Breastfeeding mothers after the first 6 months of delivery	$103.22 per eligible woman	1,943,688.23	1,947,847.72

Source: R4D and IFPRI Calculations. Data used from "Estimating the Cost of Delivering Direct Nutrition Interventions at Scale: National and Subnational Level Insights from India;" RSOC, NFHS-3

Information in the light blue shaded rows represent estimates calculated by R4D using RSOC data

1111 19th Street, N.W., Suite #700
Washington, DC 20036

Tel: (202) 470.5711 | Fax: (202) 470.5712

info@r4d.org | www.r4d.org

RESULTS FOR DEVELOPMENT