Analysing nutritional outcomes from Rajasthan Nutrition Project's gender based ground level approach

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Abstract

One of the key facets to development is ensuring adequate health and nutrition for the entire population of the country. The centre's recently announced National Nutrition Mission (NNM) is a step in that direction, which brings together a number of existing programmes under a common umbrella. Initiatives like the Rajasthan Nutrition Project, which was conducted in two tribal districts of Rajasthan have important learnings, which can be used to drive future programmes under the NNM. A women's empowerment based approach was the underlying difference in the implementation of RNP, compared to other developmental projects. The RNP saw women as change agents, who could actively drive better nutritional outcomes for themselves and their families. It reached out to them through well-defined methods of creating inclusive participation among women, the RNP was able to ensure better standards of health and nutrition in the two identified districts. Further, learnings were gained from the project, which can be implemented in the future.

Key words

Malnutrition, health, development, women empowerment

Introduction

Malnutrition remains a persistent challenge for the world today, despite numerous concerted efforts at ensuring that healthy food is available for all. The United Nations' Sustainable Development Goals (SDGs) aim to achieve zero hunger by 2030. This requires sustained focus towards addressing the problem, considering that there are as many as 815 million undernourished people in the world today.

Targeting India alone, can make a substantial difference, since it is home to 1.2 billion people and accounts for around 25 per cent of global undernourishment. While a number of states in India have taken the lead in health and nutritional development, other states lag behind to a significant degree.

One state in the latter category is the western desert state of Rajasthan. As per the report 'India: Health of Nation's States' brought out together by the Department of Health Research, Ministry of Health and Family Welfare, Government of India and its partners, the Disability Adjusted Life Years (DALYs) rate attributable to child and maternal malnutrition in Rajasthan stands at 7,331; which is well over the 5,169 level for India as a whole. The latest National Family Health Survey (NFHS), too, shows that Rajasthan lags behind the India average on a number of parameters of maternal and child care. For instance, for India as a whole, 21per cent of mothers received full ante-natal care, while for Rajasthan the number was at a far lower 9.7per cent. Similarly, the

percentage of children who were fully immunised stood at 62per cent for all India, but at a lower 54.8per cent for Rajasthan.

Freedom from Hunger India Trust (FFHIT), along with its partners, zeroed in on two districts in the state in order to ensure better nutritional outcomes for them. The two districts – Banswara and Sirohi – have high concentration of scheduled tribe (ST) populations, which have been historically isolated and low on growth and development parameters. A total of 8.6 per cent population of India is tribal, with Rajasthan accounting for a higher than average percentage of 13.4 per cent of tribal population. The proportion increases for tribal populations of both Banswara and Sirohi. 76.4 per cent of population in Banswara belongs to a tribe, while the percentage is at 24.8per cent for Sirohi.

Two surveys conducted prior to the start of the programme and at the end, show significant improvements in health and nutrition related parameters, which can be leveraged for replication across other districts in the country in the future.

This paper focuses on the FFHIT's experience with the supporting this aspect of development in Banswara and Sirohi. Part I underlines the global malnutrition problem, building a case for the urgent need to address it. Part II drills down to the extent of the malnutrition problem for India. Part III outlines FFHIT's work in Banswara and Sirohi in detail. This includes a background on the need for supportive interventions in Rajasthan, the approach employed by FFHIT, targets set and the improvements observed in key parameters. Part IV lays out recommendations for NGOs, the government and other key stakeholders in order to enable advanced implementation of the strategies developed and the knowledge gained from on the ground social work.

I. Global Malnutrition Problem

Despite much progress over the decades on reducing the extent of malnutrition in the world, it cannot be taken for granted. In 2016, the percentage of undernourished actually increased after an entire decade of steady decline. The percentage now stands at 11per cent, up from 10.6per cent in 2015. Further, the absolute number of undernourished people has increased for the second consecutive year. In 2016, there were 815 million in the world, up from 777 million in 2015 as per estimates by the Food and Agriculture Organization. This is on account of multiple reasons. Violent conflicts are on the rise. Economic growth has slowed down. Climatic disturbances are rising.

No part of the world has been left untouched by nutritional challenges like childhood stunting, anaemia among women of reproductive age and overweight women as per the Global Nutrition Report, 2017. Of the total of 140 countries covered under the report, malnutrition in the form of anaemia among women of reproductive age is witnessed in 125 countries, which accounts for 33per cent of the population under coverage and childhood stunting is observed in 72 countries, amounting to 23per cent of the total reference population. 38 of these countries face both these challenges. In terms of geographical spreads, Africa remains the worst affected region both for childhood stunting and for anaemic women in the reproductive age, followed by Asia and Latin America.

The United Nations' has laid out 17 sustainable development goals to be achieved by 2030. One of these is 'Zero Hunger'. Given the reversal in progress on malnourishment reduction in the past year, there is now a more urgent need to step up concerted efforts towards addressing nutrition challenges as such, and the problem of malnutrition in particular. It is now widely recognised that in order to address the nutrition challenge, a holistic approach is required, that ties in with all the other sustainable development goals of poverty reduction, quality education, gender equality, clean water and sanitation, affordable and clean energy, decent work and economic growth, industry, innovation and infrastructure, reduced inequalities, sustainable cities and communities, responsible consumption and production, climate action, protection of life below water, protection of life on land, peace, justice and strong institutions and partnerships for achieving these goals.

II. Malnutrition challenge in India

Reducing the number of malnourished in a country like India, can be particularly pivotal, since it has the largest concentration of people after China and 25per cent of world's undernourished today live in India. Consider IFPRI's Global Hunger Index, which ranks 119 countries across a composite index of nutritional parameters, namely, undernourishment, child wasting, child stunting and child mortality.

India ranks at 100, where the ranks are accorded from lowest to highest hunger levels. Even as it is, the poor rank indicates the level of malnutrition prevalent in India. However, in light of fact that the index has dropped in ranking from 97 in 2016, indicates that India is not being able to keep pace with other countries in countering malnutrition despite the fact that the index value for India has actually declined from 46.2 in the year 2000 to 31.4 in 2017. The acuteness of the problem is highlighted even more by the fact that malnutrition rates in India are actually higher than those in some countries in sub-Saharan Africa (See Table 1).

Indian enigma and its causes

Undernutrition and poverty rates remain high in India despite much economic progress. In the last two decades, India's economy has multiplied in size. It is widely quoted referenced as one of the fastest growing large economies in the world and has briefly even been the fastest growing economy in the world (See Chart 1). Yet, it has lagged behind on nourishment, a phenomenon that has widely come to be known as the 'Indian Enigma'.

Geographical concentration of economic growth and development is one of the key reasons for the gaps in nutrition intake. For instance, consider the figures related to child and maternal malnutrition, which is the leading risk factor in determining the DALYs rate. For the country as a whole, the rate stands at a value of 5,169 for this risk factor, with the next most significant risk factor (air pollution) at a fair distance of a rate of 3,469. The rate is concentrated at high levels in only 7 states i.e. where the rate is significantly higher than the national mean, while for the rest it is either indistinguishable from the national mean or significantly lesser than the national mean. The most affected six states are Bihar, Chhattisgarh, Jharkhand, Madhya Pradesh, Rajasthan, Uttar Pradesh and Assam. At the other end of the spectrum, 18 states show significantly lower DALYs for child and maternal malnutrition compared to the national mean. Most notable among these

are: Kerala, Tamil Nadu, Goa, Himachal Pradesh, Union Territories (except Delhi), Manipur and Nagaland. (See Table 2).

Persistence of patriarchal systems that provide women little agency in decision making, and the fact that women themselves, prioritise men's health over their own, are other key reasons for malnutrition. Both women and children suffer disproportionately from worse health indicators than men. Anaemia rates for women in the reproductive age are at 53per cent, while for men they are less than half at 22.7per cent. Children (6-59 months) have the highest levels of anaemia at almost 58.5per cent. Below normal Body Mass Index (BMI) is also higher for women than for men.

Lack of adequate investments in countering malnutrition also has a role to play, which remain low despite the significant benefits from a healthy population. According to the Global Nutrition Report, 2015, the benefit-cost ratio is 16:1 for 40 of the low and middle-income countries. And an estimated 2-3per cent of global GDP is said to be lost due to undernutrition.

It thus follows, that greater efforts are thus required to counter the challenge of malnutrition in India. It is not a foregone conclusion from high economic growth, and socio-cultural barriers are preventing progress. A multi-sectoral approach is thus required, which covers both food and non-food conditions, since there are many drivers that need to work together for enabling a person to not only achieve a desirable nutritional status but also maintain it and move beyond an episodic achievement.

An individual must consume food with adequate energy, protein, and micronutrients and have access to safe water and hygiene. A study has observed that in households without adequate levels of food, hygiene, or health care, stunting was 30 percentage points higher compared to households which had access to all these. Even if one aspect of the three was addressed by a household then, stunting declined significantly.
A multi-sector intervention ensures that policies, programs, resources, and actions focus at the same time and place on the same child or an individual.

III. Rajasthan Case Study

In particular, it has been widely recognised that empowered, aware and healthy women are able to make better nutritional decisions for the family and impact the overall health and wellbeing of the family, it is essential to target women for effecting positive changes in the direction.

The western desert state of Rajasthan has lagged behind in both growth and development indicators compared to the rest of India. For instance, during the 2012-16 period, while India grew at 6.4per cent, Rajasthan grew by 5.9per cent. Data from the Census of India, 2011 clearly shows that there is glaring gender inequality in the state. Its sex ratio is well below India's average sex ratio of 940, at 926. The number is even worse with respect to the child sex ratio, which stands at 883, compared to 914 for India.

Avenues for women's advancement are also limited, as female literacy rate lags behind male literacy rate by a significant margin. While the former stands at 52.7per cent, the latter is at 80.5per cent. Female literacy rate in Rajasthan also lags behind the 65.5per cent level for India as a whole, a far bigger lag than the 2-percentage point difference for men. (See Table 3) The state also falls below the national average on indicators related to infant and maternal mortality.

The National Family Health Survey, 2015-16 (NFHS-4), also shows that Rajasthan lags behind on critical maternal and child health indicators. Percentage of children who are stunting and wasting is slightly higher for Rajasthan than for the rest of India, percentage of babies breastfed in the first hour of their birth is also wanting, as is the percentage of women who receive antenatal care.

The good news, however, is that there has been significant improvement in the state's indicators from NFHS-3 to NFHS-4. This indicates room for progress in relatively short periods of time. Consider this:

- Infant mortality rates have dropped to 41 per 1,000 births from 65 in the last decade, as per the latest NFHS figures.
- Under 5 mortality rates has also dropped to 51 per 1,000 births from 85, 10 years ago.
- Almost 82 per cent women now report that they participate in household decision making, up from 65per cent in 2005-06.
- The percentage of women reporting spousal violence has dropped from 46.3per cent to 25.1per cent in the last 10 years.

(See Table 4)

It needs to be noted however, that rural areas have shown lesser progress than urban areas, creating a need for focused development interventions in the latter. In this context, the case of scheduled tribes deserves special mention. Scheduled Tribes constitute approximately 13 percent of the total population in Rajasthan. This makes Rajasthan one of the top four states in terms of the concentration of the Scheduled Tribe (ST) population in India. STs which are often defined by their historic geographic isolation from the general population in India, which has manifested in relative as well as absolute deprivation. As a result, they generally face the greatest poverty and hunger, lowest levels of education attainment, and the poorest health outcomes.

Government services for nutrition in more remote areas of India are often not delivered as intended, in part due to lack of awareness on the part of local communities about their eligibility for services and a perceived lack of demand on the part of government providers. This has led to recognition by civil society groups that they have a role to play in advocating and building accountability for effective health and nutrition service delivery.

In light of this, FFHIT zeroed in on two districts – Banswara and Sirohi in the state of Rajasthan in order to improve nutritional outcomes. The two target districts of Banswara and Sirohi were chosen for their large tribal populations. The Bhil Tribe is the second largest tribe in Rajasthan (2,805,948, Census 2001), and its members live mainly in the southern parts of Rajasthan (which includes the two target districts of Banswara and Sirohi). Seventy-six percent of Rajasthan's scheduled tribe population is in Banswara district, making it the district with the highest concentration of scheduled tribes in the state.

Data from NFHS-4 underlines the need for interventions in the districts. For instance, the percentage of women in the 15-49 age group with anaemia stands at 47per cent in Rajasthan, while the corresponding figures are at 76.3per cent and 59.8per cent for Banswara and Sirohi respectively. Similarly, the percentage of children under 5 years of age who are stunted stands at 39.1per cent for Rajasthan, but the figure of Banswara stands at 50per cent and at 42.3per cent for Sirohi. For children under 5 years of age that are wasted, the figure stands at 23per cent for Rajasthan but the corresponding for Banswara is at 30.8per cent and at 36.6per cent for Sirohi.

Rajasthan Nutrition project

The Rajasthan Nutrition Project aimed at improving nutrition intake of poor, rural women, adolescent girls and young children in these two districts of Banswara and Sirohi by reaching at least 8,000 women and their households (an additional 28,000 family members). FFHIT conceptualised, designed and delivered the project, bringing together four other organisations for the purpose as well - Freedom from Hunger, (Now a part of Grameen Foundation); the Centre for Health, Education, Training and Nutrition Awareness (CHETNA); and two Indian implementing non-governmental organizations (NGO) - the Voluntary Association of Agricultural General Development Health (VAAGDHARA) and Professional Assistance for Development Action (PRADAN).

Self-help groups (SHGs) of women supported by PRADAN and VAAGDHARA were the anchor through which these activities were integrated. Prior to RNP, both organizations were growing their SHG strategy by starting new groups as well as supporting their existing groups with agricultural programming, such as support to raise livestock, grow home gardens, providing irrigation technologies as well as hosting community events to engage men in a learning agenda around gender, combating alcoholism, etc. FFH and FFHIT expanded their SHG platform to new groups and were able to develop a more holistic approach to achieve specific nutrition and health targets.

At the strategic level, FFHIT shifted the strategic perspective of social change programmes from a 'Deficiency Paradigm' to a new paradigm of 'Women centric/Gendered rights approach to address additional nutritional needs'. This paradigm recognises that by empowering and uplifting women can better developmental outcomes be reached (See Table 5), thus allowing for mainstreaming of the gender discussion in developmental activities. It also provided the framework for implementation of the approach with a step wise focused approach to imparting education through the SHGs (Table 6). This allowed for both rigorous and consistent application of FFHIT's approach to the project.

More specifically, the Rajasthan Nutrition Project (RNP) was designed as a cross-sectoral project that aimed to build on these existing women's self-help group (SHG) movement to supplement standard savings and livelihood activities with vital health and nutrition knowledge, budgeting/ planning skills, nutrition-sensitive agriculture techniques, improved gender awareness and linkages to nutrition-related services and advocacy for improved service delivery. The project's strategic approach was to build upon the existing SHG movement whereby voluntary groups of 10 to 20

women meet periodically to collect savings and provide small loans to their members, and occasionally receive health care and livelihood support services.

Termed as Community Nutrition Advocates (CNAs), a strong community of 1,280 such volunteers was developed to deliver health Behaviour Change Communication (BCC) to all the SHG members. Specifically, the BHC focussed on the following messages:

1. **Nutrition and Health:** Formative research, conducted prior to project design, was used to understand the local contexts within target districts and assess health behaviors, seasonality patterns, services provided by local health providers, etc. While the topics of inquiry focused on diarrhoea, breastfeeding, child feeding practices, and gender roles within each of those, the formative research also revealed additional topics such as prenatal care were needed to complement an agenda focused on household nutrition. Thus, CNAs were also trained to deliver education, or BCC messaging, to SHG members on basic nutrition and hygiene, infant and child nutrition, maternal and adolescent health, health services linkages as well as financial literacy that could enable both saving and planning for health and nutrition needs.

2. **Gender Sensitization and Dialogues:** Gender messages and dialogues on the importance of supporting women during pregnancy with additional nutritious foods and support in chores and labor were also built into the BCC. Men were also engaged in topics regarding household decision-making for supporting food and nutritional security. For example, breaking tradition, husbands and wives and their families were encouraged to eat at least one meal per day together so as to visually see the portions and foods on each other's plates.

3. **Linkages to Health and Nutrition Services:** PRADAN and VAAGDHARA were both trained in a community score-card approach which mapped and assessed the health and nutrition services (such as the Integrated Child Development System and Public Distribution System) being provided in their communities and the gaps in those services. Through this process, approximately 50 out of the total 330 villages reached with RNP participated in the mapping exercises.

4. **Nutrition-sensitive agriculture:** While agriculture extension services were already integral to the role of the NGOs engaged in the district, emphasis was put on promotion of locally-grown, drought-tolerant nutritious foods and linking the foods being grown in kitchen gardens to the nutrients they provide for vulnerable members of households. These foods included promotion of tomatoes, green and black gram (lentils), pomegranate, dates, mangos, spinach and eggplant, etc.

Realising that there is a critical window of opportunity to prevent under-nutrition by targeting children in the first two years of life, girls during adolescence and mothers during pregnancy and lactation, health and nutritional outcomes for women and children were specifically targeted. The following specific health goals by FFHIT were established for RNP in assessing how its approach will impact the target districts:

1. To raise the rate of infants breastfed within first hour after birth and exclusively for six months to the Rajasthan average rate.
2. To raise the rate of use of oral rehydration solution (ORS) and increased fluids in treating diarrhoea to the Rajasthan average rate.
3. To improve household food security upon the baseline rate by the end line.
4. To improve linkages and use of local health and nutrition services, such as the ICDS program, an Indian government welfare program which provides food, pre-school education, and primary healthcare to children under 6 years of age and their mothers upon the baseline rate by the endline.

While a target was not set regarding a change in social norms, intra-household decision-making dynamics, women's mobility, and self-perception were also measured to understand changes of these gender dynamics during the project period.

A baseline assessment was conducted by FFH in May–June 2015 with 403 women belonging to SHGs in Banswara and Sirohi districts of Rajasthan. A simple representative random sample was applied, stratified to include at least 20 percent of currently pregnant women, with the remaining sample consisting of mothers with children between the ages of 0-2 years.

FFH conducted the end line assessment between March and April 2017, with 470 women, 409 of which were SHG members and 61 of which were community nutrition advocates. 82 percent of the respondents in the sample at end line were also participants in the baseline, which ensured comparability between the two survey rounds. Where an original participant was unable to participate in the end line survey, they were substituted with a woman who fit the criteria set out at baseline i.e. the alternate had to be a mother with a child less than 2 year of age or be pregnant. Where possible, she was randomly selected from the same group to which, the original respondent belonged.

Focus group discussions and key informant interviews with project staff, SHG members and their husbands as well as women who were not members of SHGs and their husbands were also undertaken. Further, the team that conducted the baseline data collection was maintained to collect the endline data as well. They also supported in the analysis of comparing baseline to endline data.

At the time of the baseline survey, statistics for both Banswara and Sirohi districts were already better across a number of parameters compared to the Rajasthan average figure. In some cases, betterment was seen in parameter performance compared to Rajasthan by endline, and there was a significant improvement across parameters on an inter-temporal basis.

As per the baseline survey, the percentage of babies breastfed within one hour of birth was at 47.1per cent for Rajasthan. While Banswara district lagged behind (42per cent), Sirohi district was already slightly ahead (48per cent). The pattern continued at the endline survey as well, with vast improvements visible in both Rajasthan statistics as well as those for the two districts. For Rajasthan, the figures stand at 82.7per cent, and at 73.9per cent and 84.6per cent for Banswara and Sirohi districts respectively.

For percentage of babies exclusively breastfed for the first 6 months, the RNP baseline survey showed a 27.1per cent level for Rajasthan, with Banswara and Sirohi districts around the same number as well at 27per cent and 28per cent respectively. There was also some improvement in this parameter's performance by the endline survey. The proportion for Rajasthan improved to 36.2per cent. Banswara outdid the state average at 39.1per cent, while Sirohi district, which was earlier slightly ahead of Rajasthan average lagged behind at 35.6per cent. (See Table 7)

There was also vast improvement in the percentage of children with diarrhoea who used ORS from the baseline to endline survey. While the Rajasthan average stood at 34.1per cent at the baseline survey, Banswara district was ahead at 42per cent while Sirohi district was slightly behind at 33per cent. By the endline survey, the numbers had jumped to over 80per cent for all three geographies, while maintaining the same relative patterns.

On the percentage of food secure population, there was a more than doubling seen between the two survey timelines, with Banswara district showing a significant leap above the Rajasthan average. Here, food secure households were those who answered, "had enough food and of the kinds of nutritious foods we want to eat" and food insecure households combined the food insecure with no hunger, with moderate hunger, and with severe hunger categories into one category. The percentage population using ICDS services in the past 12 months showed even more heartening results, with 100per cent population using them in Banswara district by the endline survey. More than 90per cent population was using them in both Rajasthan and Sirohi districts.

Women also reported greater intra-household decision-making, reduced fear of their husbands, and more confidence and satisfaction with their lives. A key reported impact of the project by beneficiaries was that they increased the number of meals they consumed with their husbands which resulted in them eating a greater share of the meals they prepared as well as improved communication with their spouses. Specific areas in which progress was noted are as follows:

- diversifying what they sow in their fields like intercropping of pulses with main food crop.
- to use the 'adjacent unused lands' to grow green vegetables and medicinal plants for their own consumption
- to send their children to ICDS centers to 'sit and eat' and not to 'go and bring'
- to fight out their rights (collectively) at the PDS even if it means to go to the district level to resolve the matter
- to ensure that a new mother is breastfeeding the child within the first hour of the childbirth
- to cook a separate meal for their small children, and not give them a piece of a chapatti and let them be on their own
- to go buy an iron cooking pot in groups of women from the same vendor at a cheaper price to count a few of them

IV. Recommendations

The Government of India has recently underlined the need for better nutritional outcomes with the launch of National Nutrition Mission (NNM) in December 2017. While a number of programmes are currently underway, which address nutritional outcomes like the ICDS, Midday Meal Scheme, National Food Security Mission among others, the NNM is envisaged as an apex

body to monitor and fix targets for nutritional interventions that will involve joint efforts by three ministries: Ministry of Women and Child Development, Ministry of Health and Family Welfare and Ministry of Drinking Water and Sanitation. With a three-year budget allocation of INR 9046cr, the NNM aims at on the ground results, for which 315 districts, which are highly affected by malnutrition, have already been identified.

Given the fact that FFHIT has already successfully implemented the RNP, its findings can be used as inputs for the NNM in developing a targeted strategy for better health and nutrition. This is particularly so, since the indicator level goals tracked by RNP are closely related to those mentioned under the NNM. The mission aims at reducing the number of underweight children under 5 years of age to 20.7per cent of the total by 2022 compared to 35.7per cent at present. Further, it aims at reducing the prevalence of anaemia among children (6-59 months) to 19.5per cent from the present 58.4per cent levels and the prevalence of anaemia among women and girls (15-49 years) to 17.7per cent from the present 53.1per cent levels.

Specifically, the following key guiding principles of RNP can be utilised for developing programmes aimed at creating better health and nutrition awareness to enable better outcomes:

1. **Community Nutrition Advocates (CNAs):** CNAs are the backbone for effective implementation of ground level programmes. Building community based cadres help in transferring capacities either through replicability or upscaling, which reduce cost of hiring external staff. Further, it ensures sustainability in knowledge as there is now community knowledge about the programme. Under RNP, 1,280 community volunteers, or CNAs were recruited and trained to deliver the health Behaviour Change Communication (BCC) to SHG members.
2. **Evidence based programming:** The RNP evolved its theory of change, project and approach from evidences and research done globally. The evidence also came from FFH's own work in other geographies informing the multi-sectoral approach of this project. A key instance is FFH's food security survey, which was adapted from US Household Food Security Scale Module developed by the US Department of Agriculture, which helps to quantitatively measure the level of food security. The food security survey is a 17-question survey instrument that measures household "access" to food through available resources to purchase or barter for food. The principal nine questions measure the occurrence or prevalence of food insecurity (considered the "prevalence score") and the remaining questions measures the intensity of food insecurity in term of how often a phenomenon occurred ("rarely," "sometimes," or "often'). From these responses, an assessment of the degree to which respondents experienced food insecurity at any time of the year on a chronic basis (considered the "chronic score") was made.
3. **Tailored dialogue based educational approach (Technical Learning Conversation):** FFHIT designed education modules using adult learning principles in implementing the RNP, which allowed the facilitators to easily communicate on subjects that are otherwise technical in content. This means of imparting education has been termed Technical Learning Conversation (TLC). In order to develop these modules, careful market research was conducted that allowed an assessment of learners' needs, existing knowledge about the subjects and the resources available with the community. The research enabled an identification of

knowledge, skills and attitude gaps, which was endeavoured to be met through the dialogue based education modules. It was ensured that the modules had the following essential features:

- **Relevance for the chronically hungry poor:** The content reflected the needs and concerns of the target group and participants were encouraged to share their personal experiences for greater relatability.
- **Focus on change in practice or behavior:** The content was simple yet essential and the desired practices and behaviors were kept as both attainable and measurable. Learning tasks were designed to start from making participants understand recommended practices and up to a successful adaptation of a new habit or skill. It has been seen that after the interventions, individuals and groups have changed their actions and consequently their lives because of new insights gained from participating in TLCs. Facilitators should thus ensure that participants understand and enjoy the learning, consider it time well-spent and take action on the basis of the discussions.
- **Enjoyability:** The methods used familiar and safe techniques that encouraged discussions, stories and games. They were developed in a manner that participants who could not read or write could still engage fully.
- **Ease of Use:** Materials needed were minimal and available in immediate environment, while the sessions were simple, and facilitators had a guide for all the instructions they need. The conversations can produce results—even for groups that are not strong, with low levels of communication, understanding and solidarity.
- **Inclusive participation:** The sessions allowed for collaborative problem solving among participants and the facilitators, which encouraged experimentation with new approaches and led to sharing of challenges and successes with both peers and the broader community. TLCs are designed as 30-minute group discussions designed to meet the learning needs of poor women, the vast majority of whom are illiterate, and who have little time to spend on self-education. They are simple and generate discussion even among the quietest of participants. Through the discussions, participants gain important information and skills relevant to their lives—information and skills they are encouraged to use and share at home. In the process, participants also get to value their own ideas. Technical Learning Conversations are a non-threatening way to encourage participants to talk, take action, solve problems and bond around common solutions.

4. **Focus on vulnerable groups:** Focus of the project was decisively on the more vulnerable groups within the families, viz. girl-child, adolescent girls and women who are comparatively more insecure in terms of access to food and nutrition and are often left out in emergencies like a drought or food shortage.
5. **Women's empowerment:** Based on the evidence on the importance of women's empowerment for an effective nutrition program, the issue was kept central to the program approach. As catalysts of change on the ground, the project's foremost aim/method was to empower women by investing in group based programming, and strengthening the local women's leadership. Specifically, the following areas were highlighted:
    - Underlining the need for savings among women, especially for their health requirements
    - Imparting education on nutritional behavioural changes through creating awareness about growing the right vegetables, drying vegetables for later use, following a balanced diet, fortification of meals and methods of healthy cooking.

- Encouraging behavioural changes like the family eating together, which also goes towards creating greater gender parity.
- Creating awareness about government services like PDS and ICDS

6. **Strengthening self-help groups:** Strengthening SHGs towards more independent functioning and diversifying the issues that these groups could address, was a priority for this intervention. Capacities of member women and women leaders were built to utilize SHGs as social platforms and undertake common actions towards improving aspects of nutrition-security.
7. **Local partnerships:** The focus of FFHIT's interventions has been on leveraging the strength of the local partners, as they are rooted in the context and understand the needs of the people better. Building on the strength of the partners, FFHIT has built their capacity on nutrition and other aspects specific to the intervention. It ensured sustainability of the skills and information being used by the community in a cost-effective manner.
8. **Cost Effective Model:** The objective of getting nutrition on the agenda – of partners and of the community- was done through a cost-effective model capitalizing the available spaces for a collective action within the community and building upon the strength of the partners.
9. **Establishing linkages with the Government:** The RNP was implemented in the context of the initiatives by Government for improved nutritional outcomes. RNP built linkages with these initiatives and built capacity of community to access their entitlements.
10. **Simple information and greater results:** As most of the women in the project were not formally literate information based on local context, practices and locally available food was capsuled in ways that it was actionable, usable and enabled easy recall. The result was better on account of this.
11. **Sustainability:** A core aspect of the intervention was on sustainability. By working with the community and partners, it ensured that nutrition became an agenda in the other interventions of the partners and of the community as well.

While a number of positive improvements measured in the end line assessment of the RNP, a number of points were noted for even better implementation in the future. These include:

1. **Involve men more:** One key reflection is that the SHG members' husbands should have been directly invited to participate in the education provided by the CNAs as this could have promoted behaviour changed among the husbands as well as their wives, and likely improved the changes among the SHG members. This recommendation is consistent with the research that shows that male involvement in health education increases the benefits among primary targets of many health interventions. The fact that men are made more aware also ensures that the entire onus of negotiation is not on women, thus preventing intra-household conflicts. It is essential that instead of gender theories, men are communicated with in such a way that it they are able to relate with the ideas, rather than frustrated by them. For instance, encouraging them to participate in household work when women are pregnant or lactating, encouraging them to accompany women for regular check-ups to ensure good health of the woman and involving them in decisions on agriculture produce to be grown, assessment of how much to keep for self-consumption.

2. **Simplify the health messages, provide Frequently Asked Questions:** While the CNAs used flip books that were picture-based to help both remind them of the key messages they should share as well as to help them facilitate the session, there were a lot of topics to cover in the short 18-

month period. Future replications of this project should prioritize the topics to be covered to avoid overloading the CNAs with their own trainings and those they facilitate. In addition, possible frequently asked questions should be discussed to further build the confidence of the CNAs to respond to questions from their SHG members.

3. **Continue to develop linkages with the government, health and food security services:** Despite improved reported use of ICDS services by SHG members, there remains the perception that not all ICDS services are viewed positively due to inconsistent availability and quality of services. NGOs such as PRADAN and VAAGDHARA can make members more aware of services, promote usage of services and support their financial capability to access those services, however, the services equally have to be reliable and of quality once a person arrives to ensure their use and benefit of those services. This requires deeper collaboration between such organizations to ensure greater reliability and accountability –as linking SHG members to poor services can only create risks for them.

V. Conclusions

It is thus clear that RNP has been able to drive positive outcomes for the communities of Banswara and Sirohi, not just allowing for more awareness of health and nutrition but also empowering women in the process. The project itself has also shown the way for even better implementation in the future, particularly through allowing for better negotiation of gender related questions in a non-threatening way. Programmes like the NNM as well as the work of non-profits can stand to gain from the learnings from this on the ground study derived from the RNP.

Tables and Charts

Table 1: Global Hunger Index for Select Countries

Rank	Country	GHI	
		2008	2017
119	Central African Republic	47	50.9
100	India	35.6	31.4
55	South Africa	16.6	13.2
29	China	11.2	7.5
22	Russian Federation	6.8	6.2

Source: Global Hunger Index Report, 2017

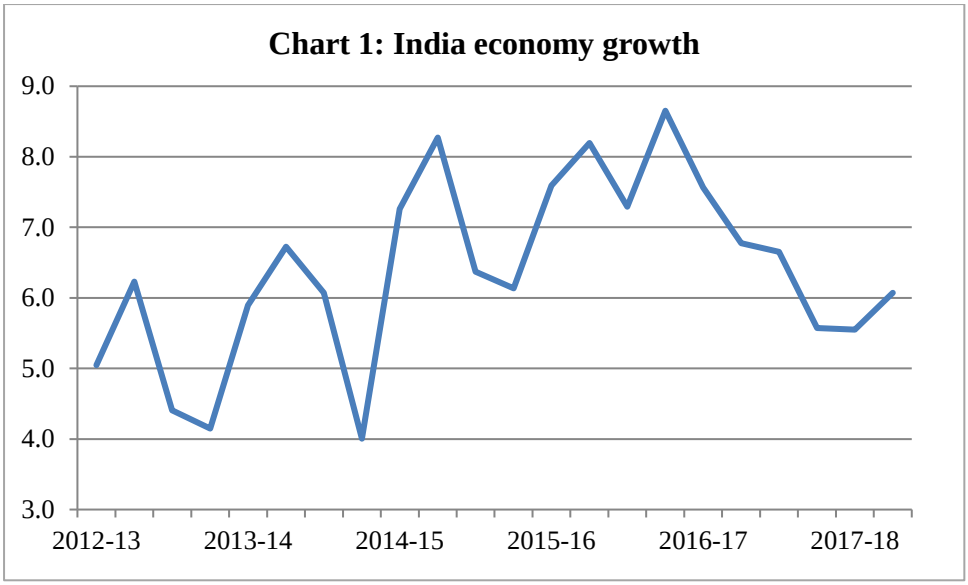

Table 2: DALYs rate attributable to child and maternal malnutrition in the states of India, 2016	
India (Average)	**5169**
Bihar	8045
Rajasthan	7331
Uttar Pradesh	7195
Assam	6928
Madhya Pradesh	6663
Chhattisgarh	6364
Jharkhand	6005
Tripura	5131
Gujarat	5013
Odisha	4960
Uttarakhand	4818
Meghalaya	4720
Haryana	4603
Arunachal Pradesh	4139
Andhra Pradesh	4050
Karnataka	3766

Sikkim	3703
Telangana	3596
Delhi	3473
West Bengal	3445
Mizoram	3408
Maharashtra	3382
Jammu and Kashmir	3296
Punjab	3016
Union Territories other than Delhi	2760
Tamil Nadu	2676
Himachal Pradesh	2614
Nagaland	2607
Manipur	2494
Goa	1945
Kerala	1212
Source: India: Health of the Nation's States Report	

Table 3: Major development parameters		
	India	**Rajasthan**
Sex Ratio	940	926
Child Sex Ratio	914	883
Literacy rate	74	67.1
Male	82.2	80.5
Female	65.5	52.7
Source: NFHS-4, Census of India, 2011		

Table 4: Major maternal and child health indicators (India and Rajasthan)				
	India		**Rajasthan**	
	NFHS 3	**NFHS 4**	**NFHS 3**	**NFHS 4**
Maternal and Child Health				
Mothers who had full antenatal care	11.6	21.0	6.3	9.7
Children born at home who were taken to a health facility for check-up within 24 hours of birth (per cent)	0.3	2.5	0.1	1.2
Delivery care				

Institutional births	38.7	78.9	29.6	84
Child immunization and Vitamin A Supplementation				
Children age 12-23 months fully immunised	43.5	62	26.5	54.8
Child feeding practices and nutritional status of children				
Children less than 3 breastfed within one hour of birth	23.4	41.6	13.3	28.4
Children under 6 months exclusively breastfed	46.4	54.9	33.2	58.2
Children under 5 who are stunted	48	38.4	43.7	39.1
Children under 5 who are wasted	19.8	21	20.4	23
Source: National Family Health Survey, 4				

Table 5: FFHIT's new approach to social change	
Old paradigm: deficiency paradigm	**New paradigm: women-centric/gendered rights approach to address nutritional needs**
Views women as passive recipients/ "bundles" of needs	Women as "agents of change"—such an approach recognizes the profound effect women have when they are involved in decision making in nutrition programs
Views women as caretakers and thus men's roles are ignored	Seeks to improve women's economic and social status. In improving women's skills and abilities, involves men and youth to reorient them about their roles within the family
Considers "packages" delivered will improve the nutrition of women and children	Recognizes that women's education/knowledge (43%) and women's status (11%) play a significant role (up to 54%) in improving nutrition requirements of the family
Believes that one-to-one counselling and education will bring change	Group-based approach—whereby the learning reflects and has a multiplier effect within and across communities—effective and scalable
Focuses only on health messages and is health- and disease-centric	Looks at nutrition education as a strategy for overall development not an end in itself. Hence, long-lasting change and sustainability are ensured by focusing on gender and financial literacy, instilling community-based ownership, and ensuring access to and monitoring of services.
Excludes analysis of the causes of under-nutrition	Recognizes that multiple factors cause under-nutrition and incorporates a multi-disciplinary approach emphasizing collaboration between multiple service providers to address agriculture, livelihood, health, nutrition and capacity building.

Table 6: Key characteristics of FFHIT's educational module (TLC, PLC, LGG)	
Delivery Channels	- Modules prepared for delivery to groups - Delivery during credit group meetings or separate meetings convened for lessons

Modules Components	- Facilitator's Guide that field agents use to facilitate sessions - Trainer's Guide that a trainer uses to train field agents
Number of Sessions	- 6 to 7 lessons per module, each taking 30 minutes. (e.g. Malaria module is divided into 7 sessions of 30 minutes so that people can easily assimilate during the session) - Adapted to 15 minutes/60 minutes lessons also.
Structure of Sessions	▪ Review previous session ▪ Share new knowledge/skills ▪ Analyze new knowledge/skills in depth ▪ Apply new knowledge/skills and commit to action
Methods that Create Dialogue	Stories, visual aids, small-group work, role-plays, games, demonstrations, small- and large-group discussions
Target Group	Adolescent, women and youth, Low-literacy, rural poor
Module Topics	Reproductive & Child Health, Nutrition, WASH, adolescent health, Malaria, TB, HIV/AIDS, Family Planning, SHG Management, financial literacy, etc
Languages	English, Bengali, Hindi, **Oriya**, Kannada, Tamil (also as per the request of the partner)
Session Structure	Sessions use the following structure: • Review application of previous session • Share new knowledge or skills • Analyse new knowledge/skills in depth • Apply new knowledge/skills and commit to action
Participatory Methods Used in Sessions	Stories, visual aids, small-group work, role-plays, games, demonstrations, small- and large-group discussions
Adult Learning Principles Incorporated into Sessions	Safety, relevance, dialogue, respect, affirmation, thinking/feeling/acting, immediacy, accountability, engagement

Table 7: Health Indicators for target districts under RNP (per cent)

Statistic	Baseline Survey			Endline Survey		
	Rajasthan	Banswara	Sirohi	Rajasthan	Banswara	Sirohi
Babies breastfed within 1 hour of birth	47.1	42	48	82.7	73.9	84.6
Babies breastfed for first 6 months	27.1	27	28	36.2	39.1	35.6
Children with diarrhoea that used ORS	34.1	42	33	84.2	88.9	82.8
Proportion of food secure population	21.1	24	20	52.6	65.7	48

Proportion using ICDS services in the last 12 months	60.6	79	54	92.7	100	90.1
Source: RNP surveys						

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