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H T Parekh FOUNDATION
An HDFC Initiative

FORTIFYING LIVES

Reducing malnutrition among children, adolescent girls, and pregnant and lactating women in Koppal, Yelburga and Gangavathi blocks of Koppal district, Karnataka

Introduction

Adequate nutrition is a fundamental right and is recognized constitutionally as part of Sustainable Development Goals (SDGs), which aim to "end hunger, achieve food security and improved nutrition and promote sustainable agriculture." However, the population's nutritional status, particularly among vulnerable groups such as children, adolescent girls, and pregnant and lactating women, is grave.

India has fallen six positions on the 2022 Global Hunger Index (GHI), ranking 107th out of 121 countries. Nearly half of all deaths among children under five are attributed to undernutrition (NFHS5 2019-21, CNNS 2016-18). World Health Organization (WHO) recommends extra nutritional care during pregnancy and lactation.

Though the Government of India (GoI) has launched a National Nutrition Mission and a multi-ministerial convergence mission called "Poshan Abhiyaan" with the vision to ensure the attainment of a malnutrition-free India by 2022, the nutritional status of children, adolescents and pregnant and lactating women remains alarming, contributing an intergenerational cycle of malnutrition. Strategic action points of the mission include key Nutrition strategies and interventions Infant and Young child feeding (IYCF), Food and Nutrition, Immunization, Institutional Delivery, Water, Sanitation and Hygiene (WASH), De-worming, ORS-Zinc, Food Fortification, Dietary Diversification, Adolescent Nutrition, Maternal Health and Nutrition, ECD (Early childhood development)/ECCE (Early Childhood care and Education).

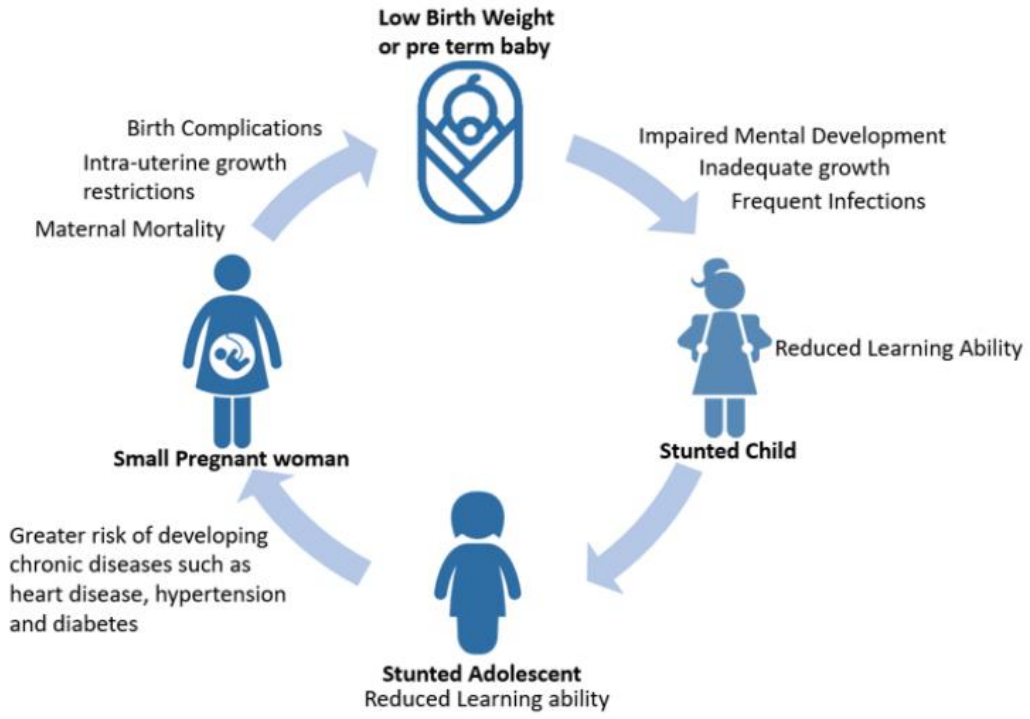


Fig 1: Intergenerational Cycle of Malnutrition

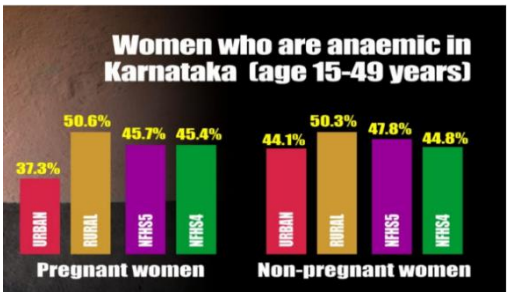
Image source: Strengthening Integration of Nutrition…commissioned by the EC (May 2018)

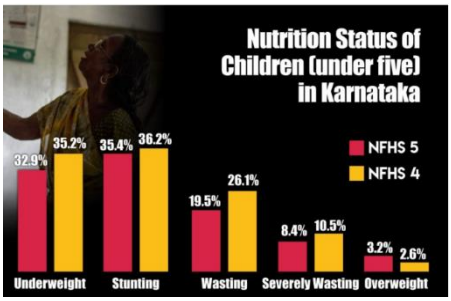
The primary service delivery mechanism to achieve these objectives is through Anganwadis and ASHAs, Anganwadi workers and ANMs or AAAs. Household-level IYCF practices, timely identification of SAM children and their care, access to quality food through the Anganwadi Supplementary Feeding Program (SNP), improved feeding practices during child illness and after recovery, cooking demonstrations at the community level, Village Health, Sanitation and Nutrition Days (VHSND), etc. Behavioural Change Communication (BCC) has been envisaged as a strategy.

Malnutrition is among India's most serious development challenges and significantly to the country's disease burden. Stunting and undernutrition continue to be the big challenges. The National Family Health Survey (NHFS)-5 has revealed some more insights into the problem of malnutrition. As per the NFHS-5, 35.5% of children below five years were stunted and 32.1 per cent were underweight in 2019-21.

Karnataka Context

According to the Comprehensive National Nutrition Survey, 26% of girls and 9% of boys are anaemic in Karnataka. While improved service delivery and convergence have been envisaged as part of the scheme, a key missing element remains the development of community ownership and demand for improved nutritional services and practices. This is important for the long-term sustenance of nutritional behaviours and to lay demand on institutional structures and facilities to provide high-quality nutritional services to communities. While institutional services and mechanisms and the provision of supplementary nutrition can bring about immediate gains and short-term change. To witness long-term and inter-generational changes in nutritional status; communities need to come together and realize that it is their right to demand better services and access to nutrition. There is a need to sensitize families to address the intergenerational aspects of malnutrition and see nutrition from a gender lens.

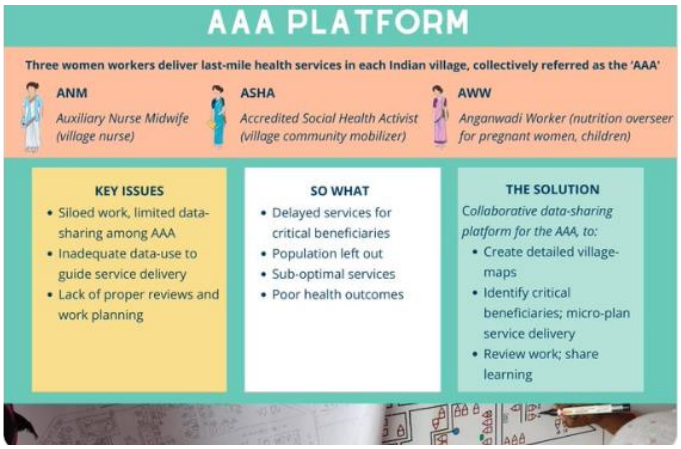




Targeted interventions should be offered to specific age groups to interrupt the intergenerational cycle of malnutrition. Working with adolescent girls to develop their skills, knowledge, awareness, and leadership, as well as understanding gender norms and barriers, in addressing malnutrition issues in their communities. will lead to improved nutritional status among them, resulting in healthier pregnancies and safer childbirths.

Working with mothers and empowering them through knowledge, awareness, and leadership skills coupled with creating a safe place for them to share experiences during and post pregnancies, to resolve their doubts, and anxieties around pregnancy and lactation, nutrition, weaning and early childhood development will open wide scope for developing healthier babies who will become healthier adults of tomorrow.

Further, these locally available empowered individuals from the community can drive nutritional changes for the community, by the community, and to the community by sharing their knowledge, experiences and supporting the strengthening of existing available health infrastructure and making sure the services are delivered to the last mile by the frontline workers. These empowered mothers can reduce the barriers by acting as a catalyst for both frontline workers and communities.



Overburdened frontline workers often find reaching the most vulnerable and geographically remote communities difficult. Additionally, socially discriminatory attitudes among frontline workers have also contributed to poor service delivery for the most marginalized and vulnerable communities, who in fact face the greater burden of malnutrition due to structural and sociocultural barriers such as lack of resources and discrimination. The intervention- Fortifying Lives

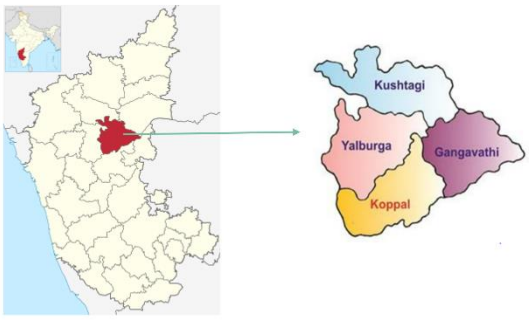
Since 2001, KHPT has been involved in implementing nutritional interventions in the Koppal district. KHPT envisioned incorporating targeted intervention to specific age groups to interrupt the intergenerational cycle of malnutrition as the immediate response in addition to the improved service delivery and convergence that have been envisaged as part of the scheme. The key missing element remains the development of community ownership and the demand for improved nutritional services and practices is been strategically intervened.

From 2021-2022, KHPT focused on an intervention strategy aimed at reducing malnutrition amongst adolescent girls, pregnant and lactating women and children from the most vulnerable communities in the Koppal district through the distribution of Fortified Blended Food (FBF), sourced from two women-led SHG-run factories in Chincholi and Devagurga.

In addition to adopting this nutrition-specific approach, other intervention activities were focused on improving awareness and knowledge on healthy diets and nutritional behaviours among target beneficiaries, advocating, activating and increasing linkages with government services such as Anganwadis, health checkups facilitated by ASHAs, strengthening Village Health Sanitation and Nutrition Committees, etc., through stakeholder sensitization programs, nutrition Habbas, jathas and campaigns, training of FLWs and SHGs, and other community mobilization activities.

Coverage Geography

Koppal District located in the northern part of Karnataka state, is one of the backward districts. The first year of intervention (2020-2021) was delivered in the Koppal Block of the Koppal District. The second-year intervention (2021- 2022) began in three blocks i.e. Koppal (153 Villages), Yelburga (143 Villages) and Gangavathi (195 Villages)



Objectives of the project:

- Improving the consumption of nutritious food by the Primary Target Beneficiaries within family budgets through appropriate behavioural change communication (BCC).
- Improving linkages with existing nutrition-enhancing services implemented by another social sector program
- Improving the availability and accessibility of Fortified Blended Food (FBF) using local community structures
- Supplying FBF to the neediest target population

The Working Model

A unique working model was developed based on the 1st year intervention. A more holistic and community-driven approach was adopted to reach larger populations. Leveraging the Sphoorthi programme, KHPT built a cadre of empowered girls through life skills education, and other critical activities such as exposure visits, leadership and communication Camps, and 'Samvadas' (or Dialogues with critical stakeholders in the community), to address gender norms that were barriers to their health and nutrition. Further, the program also worked with parents to build parent-daughter relationships and develop a supportive environment for the girls to become change leaders in their community.

The Sphoorthi Program has successfully demonstrated how a 'role model' approach can deliver long-term sustainable solutions to address various issues including nutrition just by empowering the communities. The Sphoorthi project made them aware of all issues related to youth, including nutrition deficiency, anaemia and unhealthy eating practices.

Thus, drawing from all the learnings and experience which has demonstrated the significance of role-model girls and role-model parents in bringing about community-level changes, we proposed to empower and develop village-level collectives of adolescent girls and mothers, to sustain the impact of the three-year nutrition program supported by HTPF. Also, with the experiences and learnings from these projects and tailored nutrition intervention is developed to improve the behaviour of the community around nutrition.

The intervention was broadly divided in two arms:

FBF Distribution- Shakti Vita

Mobilization of community and Linkages with exisiting community structures

FBF Distribution: FBF Distribution was the main intervention aiming to break the intergeneration cycle of malnutrition. The most vulnerable and marginalised beneficiaries were given FBF along with the key messages on nutrition. This intervention is only considered as an immediate action to improve nutrition in the communities and not as a sustainable solution to tackle malnutrition and anaemia. The adolescent collectives consist of Sphoorthi Role Model Girls (RMGs). They were chosen to distribute FBF because they would be in a better position to discuss issues related to nutrition and health among their peers. A sense of sisterhood prevailed among the RMGs as they wanted girls from their villages to come out of undernutrition. Moreover, working as a team they supported each other in distributing the food packets.

In a few taluks/ blocks the Community Organisers (COs) worked with the frontline health workers and distributed food packets to pregnant women, new mothers and adolescent girls. They built a good rapport with the AAAs which led to better coordination in mobilizing the beneficiaries for meetings. Many COs were also invited to such meetings and popularized Shakti Vita among the community members.

Another cadre of Nutrition Volunteers (NVs) was also recruited, trained and given the responsibility of changing the health status of the beneficiaries in their villages in addition to the FBF Distribution. Since they belonged to the same villages they were trusted people from their own communities which yielded better deployment of nutritional activities and FBF distribution.

Mobilization of community and Linkages with existing community structures: While FBF distribution can bring about immediate changes in the nutritional status of beneficiaries, sustenance of these changes requires long-term behaviour change, sustained advocacy, and

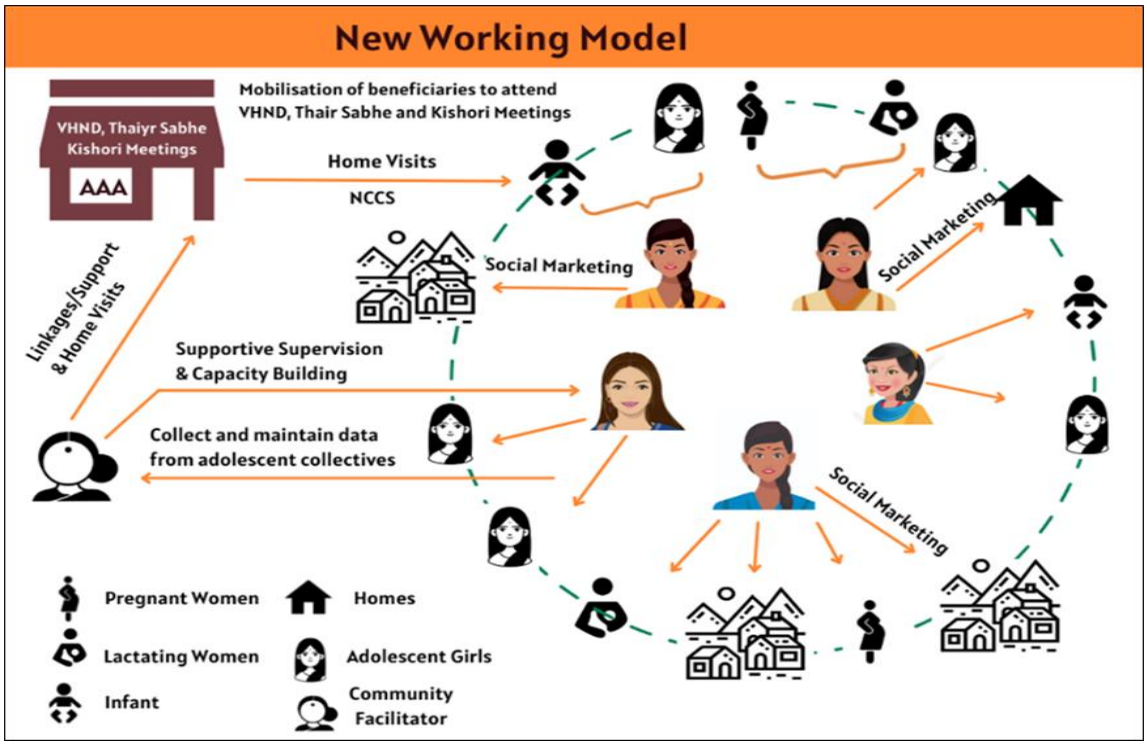
changes in norms and attitudes and that could only be achieved by mobilizing the communities and linking those in need to the community structures.

To achieve this, at the heart of the working model were our adolescent girls who formed 'Collectives' in their respective gram panchayats and became changemakers in their villages. Working closely with the project team (Community Organisers) their enthusiasm and energy brought visible changes in the community.

These Collective girls also inspire their peers who can take on the mantle to educate the next generation of girls and women on health and nutrition. This way it becomes a sustainable model and there is an overall improvement in the health of women in the community.

Continuous training and constant support from our Community Organisers (COs) ensured they maintained the momentum and helped the COs in mobilizing women and adolescent girls for meetings at Anganwadi centres.

Community Engagement: To raise awareness on nutrition, health and hygiene, behaviour change and generate demand for Shakti Vita among the common public, several outreach activities with the community were done. The multi-level community engagement including panchayat members, SHGs, women, and adolescent girls has resulted in increased knowledge on consuming nutritious food, basic hygiene, and maintaining health.



In schools and colleges, adolescent girls were sensitized on why nutrition is vital for their growth and development. Specific messages on anaemia, its causes and how to improve HB levels were discussed. Shakti Vita was provided at schools to increase the demand.

Setting up stalls at local fairs and festivals resulted in raising awareness of nutrition, health, and hygiene. Also, such events provided an opportunity to reach out to large populations; especially women and adolescent girls who came to participate in the fairs and festivals. The stalls set up provided information on nutrition, especially for pregnant women, lactating mothers, children, and adolescents. A cooking demonstration of Shakti Vita was also done and visitors had the opportunity to taste it. This has led to an increase in demand for Shakti Vita in the community.

Jointly working with frontline workers helped the project gain access to pregnant and new mothers. Information on healthy diets, eating locally available healthy foods and care during pregnancy for mother and child was provided at 'Thayir Sabhas' (Mothers' meetings).

During nutrition month special events, plays, and programmes were conducted at schools and colleges. The students themselves educated their peers on the importance of nutrition and other related aspects.

SHGs are an integral part of this project and were part of several training programs. Also, they were also trained in social marketing, support, and coordination for the project activities. SHG members displayed positive reactions to business and are open to ideas. Some even expressed new ways to introduce Shakti Vita through SHGs.

Capacity Building: To successfully implement the programme, continuous capacity-building initiatives were undertaken for our ground staff and the frontline health workers (ASHA, Anaganwadi workers and ANMs or AAAs). This has resulted in greater work coordination between KHPT staff and the frontline workers. Moreover, the training has improved the knowledge of nutrition among AAAs.

The Adolescent Collective girls, COs and NVs were also trained on how to use the Pragma App (an app which is used in the project to capture FBF distribution data).

Advocacy Efforts: With strategic and continuous advocacy efforts, the district team has seen positive results. The advocacy was not limited to the health department but also included members of the WCD, RDPR, and panchayats. This has aided the team in rolling out mass campaigns smoothly and also motivated the officials to involve KHPT staff to seek their support in training and orienting the community on health, hygiene, and nutrition.

Targets vs achievements

FBF Distribution:

In order to address the immediate concerns of severe malnutrition in the community, FBF was provided to the most vulnerable adolescent girls, children less than 36 months, and pregnant and lactating mothers. The beneficiaries were selected based on 10-point criteria; landlessness, housing with no roof and walls, marginalized community, singleness (single woman, a minor, or

elderly and there is no adult male in the age group 16–59), occupation, education, disability, overcrowding, dependency (if the (child plus elderly)-to-adult ratio is larger than two). This criterion helped our adolescent collectives to map the beneficiaries and distribute FBF to those who are really in need.

The FBF branded as Shakti Vita included locally grown ingredients such as raggi, jowar, green grams, ground nut powder, soya and wheat fortified with 8 micronutrients including calcium, iron, Vitamin A, thiamine, riboflavin, niacin, Vitamin C and Folic Acid. The product is certified and is licensed.

Shakti Vita is produced and packaged differently for Adolescents Children above 6 months and Mothers (Both pregnant and lactating). One package is 750 grams. The children above 6 months to 36 months are distributed with monthly 1 package of Shakti Vita for 3 months and are recommended to consume 25 grams per day (1 spoon) and Girls and Mothers are distributed monthly 2 packages of Shakti Vita for a period of 6 months and are recommended to consume 50 grams per day (2 spoon).

Along with the distribution 3 key messages are delivered to the beneficiaries- how to prepare different kinds of foods using Shakti Vita powder, its calorie-dense contents and the best way to store the food packets.

Initially, we faced many challenges when we introduced Shakti Vita to the community. Some didn't like the taste and others were hesitant to use it for their children. We overcame this problem with counselling and advocacy at the household and community level via multiple mediums. For the taste, beneficiaries were encouraged to include jaggery or honey as per their taste or to cook different recipes out of the powder. We took support from ASHAs and AWWs to advocate Shakti Vita. Multiple village-level jatras, camps and events were organised where a hot sampling of Shakti Vita was given to people to taste it. Advocacy by district collectors and officials also helped us to build trust. Adolescent girls who were not having their breakfast regularly were advised to prepare ladoos out of this and

consume at least 1-2 ladoos before they go to school. Family-centred counselling was done to husbands or in-laws to build their trust for the pregnant and lactating mothers.

Another key challenge for the distribution of FBF has been the tracking of pregnant and lactating women, who move between their natal or marital homes prior to, and after delivery. To overcome this challenge, mothers were tracked to their maternal homes. If the maternal home was within the district or other intervention areas, then they were distributed Shakti Vita at their maternal place, if not then the Shakti Vita was given in advance or handed over to their husbands who would travel to meet their wives. We also notified mothers in advance to share their plans of travel and Shakti Vita was distributed accordingly. Once the trust in Shakti Vita was built, mothers often times demanded Shakti Vita for themselves and their children. Even with our full effort,s we were not able to reach 100% of our targeted pregnant and lactating mothers.

We also faced a few challenges where machinery in the factories was not working and the production was delayed. Hence the Shakti Vita for the new beneficiaries lasted till February 2023. These beneficiaries will be receiving the FBF till July 2023.

There has been a demand for Shakti Vita from the communities and district officials. Considering the immediate impact of FBF on beneficiaries, FBF was distributed to people with TB on request by the district TB officials.

The FBF distribution became an integral part of nutrition services along with Mid-Day Meals, Iron Folic Acid Supplementation and other nutrition services. It was accepted by the community and was supported by service providers.

We successfully achieved the target of FBF distribution. Since we were not able to cover the target of pregnant and lactating mothers, the balance targets were covered by identifying additional adolescent girls and newborn children for distribution, thus, overall completing the target of 64839. The distribution of FBF was reported digitally on an application called as Pragma.

Blocks	**Type of Beneficiaries**	**Total Target**	**Total Achieved**
A Koppal	Adolescent Girls	4221	5028
	Children 6 to 36 months	11910	10152
	Pregnant women	1294	1155
	Lactating mothers	1294	876
	Total (A)	**18719**	**17211**
	Adolescent Girls	12715	14415

B Yelburga and Gangawati	Children 6 to 36 months	21120	26730
	Pregnant women	6142	3371
	Lactating mothers	6142	3048
	Total (B)	**46120**	**47564**
Total patients with TB	**Total (C)**	**NA**	**101**
Total(All blocks) **(A +B+C)***		**64839**	**64876**

**The original target was 58600. Additional 6239 beneficiaries were added in third quarter*

Other Program Activities

Several program activities were planned during the project period in order to spread awareness about nutrition and Shakti Vita in the communities

Stakeholder sensitization programs at the panchayat level: In order to receive support from the communities the key stakeholders were sensitized on the project goals and objectives and the importance of distributing Shakti Vita to vulnerable populations. The stakeholders included Frontline Health Workers, Gram Panchayat members, Self-Help Groups, district-level government officials and local leaders. The idea behind this was to seek their support and advocate the intervention on our behalf. We received a positive response from all the stakeholders especially the FLWs who led this program in most of the villages with the help of adolescent girls and our staff. We observed commitment from district collectors, the CEOs and various other health officials. They catalysed the building of trust in the communities immensely. We were able to initiate dialogues about nutritional dietary patterns and how communities can come together to bring a change.

Adolescent Volunteer Group strengthening activities: Adolescent girls have been at the forefront of implementing the nutrition project. They were a group of 10-12 girls from each village who formed the collectives. These girls were a part of Sphoorthi intervention before and came with skills and capacities. They have played a vital role in distributing FBF and communicating key messages on nutrition. To strengthen their knowledge and skills around nutrition refresher training was conducted. The training focused on the collectivization of girls, the importance of health and nutrition, and reorienting them on their roles and responsibilities. A detailed discussion on how to use the 'pragma' app was also done. Despite their busy

schedules, the collectives helped not only in distributing the FBF but also mapping the most vulnerable beneficiaries.

Training of 3 sisters on NCCS, self-assessment tool, FBF: Frontline workers (AAAs)played a crucial role in the successful delivery of nutritional messages along with Shakti Vita distribution. All three frontline workers were brought on a common platform to make them understand the project's objectives and how effectively they can work with our AG Group collectives and/or Nutrition Volunteers. We discussed key findings about the nutrition status in their blocks and how we can contribute to the health system for better implementation of services. In addition to nutrition, we also took this opportunity to discuss mental health. The training majorly focused on nutritional Intervention, training on anaemia, WASH practices, nutrition during menstruation, immunization, exclusive breastfeeding and complementary feeding including support required to roll out the intervention, Shakti Vita distribution and exit strategies.

Consultation meetings for SHG social marketing ventures: The idea behind conducting consultation meetings with SHG was to explore social marketing opportunities. We wanted to understand whether SHGs will show interest to explore opportunities for social marketing for ShaktiVita. Many SHGs expressed their interest and suggested many new ideas for marketing. They have also suggested changes like reducing the size of packets and adding more flavours to them. The only drawback that they thought was from the demand side. Since the beneficiaries are used to getting Shakti Vita free of cost at their doorstep, they are finding it difficult to persuade the community to pay for it. Hence the social marketing options are yet to be explored.

Nutrition campaign, jathas, habba and events: As discussed earlier, a key element in this intervention was to persuade the community about the nutrition of the beneficiaries. Communities still do not consider nutrition as an integral part of their health and wellness; especially for vulnerable groups such as adolescent girls. There is still sensitivity towards pregnant and lactating mothers and children around nutrition, but despite awareness consumption of nutritious food is not adequate due to gender norms and other factors. The Nutrition campaigns, jatha,

habbas and events were conducted at a large scale to spread the message of the importance of nutrition during various life cycle stages. These events also helped us to build a connection with the communities so that they accept Shakti Vita and show interest in nutritional counselling and practice to maintain good health. Participants involved in these events were both male and female. We also leveraged traditional events like baby showers to celebrate the event with messages on nutrition. We were able to sensitize the communities on Shakti Vita but there is still a lot of scope for improvement in behaviour change communication around nutrition.

Most of the activities were conducted using existing platforms like AWC and leveraging events conducted by villages. Hence, we were able to successfully conduct the activities more than what was targeted. A few activities like stakeholder sensitization helped us to build a strong foundation at the village and community level and utilizing the community's empowered girls helped us to make this project a success in terms of implementation.

S No.	Activity	Target	Achievement
1	Stakeholder sensitization programs at the panchayat level	300	342
2	Adolescent Volunteer Group strengthening activities	900	1197
3	Training of 3 sisters on NCCS, self-assessment tool, FBF etc.	500	1033
4	Consultation meetings for SHG social marketing ventures	2	184
5	Training of SHG on social marketing	7	43
6	Nutrition-Campaign, jatha, Habba & events	No fixed target	679
7	Project mass contact activities-launch, publication, dissemination etc.	No fixed target	22

Measurable outcomes

Baseline and Endline surveys were conducted in the target areas to assess the impact of the project intervention. The evidence for the impact is generated through quantitative and qualitative data collection methods.

Following are the measurable outcome indicators

Increased level of awareness among 50% of the target group

The quantitative study shows an increased level of awareness among the target group i.e. **adolescent girls (90%)**, pregnant women and lactating mothers about the need for nutritious food, exclusive breastfeeding **(58%)** and age-appropriate complementary feeding **(50%).** Even though there is a high level of awareness among the beneficiaries, especially pregnant

and lactating mothers, there are still barriers for them to follow these healthy practices. Deep insights were generated during the qualitative study. The data analysis reveals that there has been a shift in the level of information and also consumption and pattern of food intake. Analysis of the level of awareness pertaining to nutrition among beneficiaries indicates that they understand the importance of proper nutrition, the need for adopting suggested changes, the consequences of not adhering to better nutritional practices, and also what is nutrition and what is a balanced diet.

Improves knowledge among 80% of AAA about the benefit of complementary feeding

Around 1300 AAAs were trained on the nutrition component in 130 batches. Since knowledge among AAAs about the benefits of complementary feeding is almost 100% with multiple training, we have used "whether lactating women received knowledge on complementary feeding from AAAs" as an indicator in our survey at the end of the project period. Only **61% of beneficiaries** stated that they have received such information from AAA. We need to work with AAA so that 100% of their knowledge is translated to the community.

As per our qualitative analysis, there is also increased awareness among the beneficiaries regarding nutrition due to interaction with frontline workers and doctors and exposure to information in the various meetings conducted by the FLWs. The improved Hb levels among the beneficiaries served as proof for the AAAs to gain trust and confidence in the project. They have also found a few practices like house-to-house visits and meeting and counselling the decision makers of the families like elderly women, and men around nutrition to be extremely helpful. There is also cognizance that the existing services do not cover adolescent girls except for creating awareness. They understand that the malnourished, low Hb adolescent girl who gets married and becomes pregnant will have to face a number of pregnancy-related complications and as such are supportive of this initiative. The discussions also opened up issues of school dropout, early marriage and how they affect the mental and physical health of adolescent girls.

Increase consumption of appropriate nutritious food minimum dietary diversity by 30% of the target group

There is an overall **15.6% increase** in the consumption of different kinds of diets from the baseline study. The beneficiaries are aware of taking the nutritious food but very few include at least 5 types of food groups in their meal.

The impact is not as expected as we do have certain barriers still existing in the communities. Adolescent girls, pregnant women, and lactating mothers are aware of the need for nutritious food, exclusive breastfeeding, and age-appropriate complementary feeding, but are unable to accept services and awareness provided by the government due to conflicting ideas and beliefs of the community and healthcare providers. This is visible in various services and behaviours, such as feeding colostrum, exclusive breastfeeding, uptake of iron folic tablets, physical activities during pregnancy, and food taboos. Other barriers include an increase in the workload of women, poverty, non-availability of fresh vegetables and fruits in nearby places, lack of family support, lack of dietary diversity, decision-making power, food consumption patterns where women eat last, newly married and marriage at a young age, mental stress, pregnancy-related issues, birth spacing all attribute to poor dietary intake during pregnancy and lactation.

Increase in exclusive breastfeeding among 50% of infants

There is an overall increase of 58% in exclusive breastfeeding as compared to baseline data.

However, during our qualitative survey we found that in terms of breastfeeding, health workers advise women to follow an exclusive breastfeeding regimen. While the elderly family members, the mother-in-law insists on giving the newborn sugar and water, honey, and ghatti, a paste made from carom (Ajwain) seeds, almonds, black pepper, and breast milk, starting three months after delivery. The beneficiaries themselves also vouch for the efficacy of feeding this mixture to the infant. This convinces them that the experiences and knowledge shared by the elders cannot be doubted or discarded. As such, it compromises exclusive breastfeeding. The increase in the awareness of FLWs and reinforcement of messages to create awareness and behaviour change is compromised. In certain instances, the FLWs denied that the practice of feeding sugar water or honey no longer exists, however, the beneficiaries revealed that they followed the practice after the birth of their baby. Elderly act as the gatekeepers for certain practices. Acknowledging this fact, the FLWs and beneficiaries suggested working extensively with elderly family members and with men in the community.

We also found that when a mother gets pregnant with the second child within a year of delivery breastfeeding is stopped.

50% of infants up to 6 months started appropriate complementary feeding along with breastmilk

As per our study around 50 % of infants up to 6 months started appropriate complementary feed along with breast milk. It is a known practice in the villages as well where they celebrate the first feed of the baby at Anganwadi Centers (Annprashan). Mothers are aware of feeding complementary food starting from a liquid diet to a semi-solid and solid diet.

Few mothers are also inclined towards purchasing Cerelac or OTC food mix for their children, some even prepare homemade Cerelac powders for their babies to improve their nutrition

50% of the Village Health Sanitation and Nutrition Committee in the block held community nutrition monitoring sessions

The VHSNC nutrition monitoring sessions in the Koppal district were transferred this year to the PHC along with budgets. The PHC has collaborated with Gram Panchayat Task Force to conduct these sessions. 1000 camps on nutrition were conducted across 117 Gram Panchayats covering 491 villages.

VHND or tayandira sabhe (mothers' meeting) as it is locally referred is reported to be a platform where the beneficiary involvement is most. The participants when asked about the impact of VHND were able to list down the changes that have taken place over a decade because of regular VHND meetings. Institutional deliveries have increased. Earlier home deliveries were common. Feeding of colostrum has increased, and people are no longer wasting colostrum. The Uptake of Iron folic acid tablets has increased. Breastfeeding up to six months and subsequent supplementary feeding has increased. Awareness and acceptance of childhood immunization have increased the most, it is demanded by the community now. Women have

better awareness about nutrition and diet during pregnancy and the postpartum period. Women understand the importance of breastfeeding and supplementary feeding. Increased awareness about anaemia and its consequences.

When this information was triangulated with the beneficiaries, it was found that beneficiaries are aware of the importance of nutrition, a balanced diet, anaemia, IFA, breastfeeding, and supplementary feeding through this meeting.

Increase in full immunization of children against baseline indicator value

As per our data, full immunization has decreased in this period. The cohort in the survey is likely to be born in the COVID year, this may be a reason for the decrease in the levels of immunization.

Even though there is a decrease in the qualitative data, interestingly we have found through our FGDs that mothers are positive and accepting immunization as a priority for their children's health. They understand that vaccines will prevent them from many diseases and also negotiate with their in-laws who oppose vaccination.

2% decrease in underweight, stunting and wasting in children between 6-36 months

As per the qualitative study, there is a 5% decrease in underweight and wasting in children between 6-36 months but no change in stunting as compared to baseline data.

Through our qualitative study as well we found that mothers have evidenced an increase in the weight of their children after consuming Shakti Vita. The consumption of Shakti Vita for children is better than that of mothers. In fact, many mothers have approached the team to provide Shakti Vita even after 3 months of consumption. Improved knowledge about the complementary feeding and support given by ASHAs and AWW has contributed to providing a healthy diet to the child.

Reflections and Learnings

Changes due to Shakti Vita in the community

The discussion around Shakti Vita always started on a positive note and expressed a sense of satisfaction. It was very often mentioned that Shakt Vita is replacing the consumption of tea or coffee. Beneficiaries generally consume it in the morning before their breakfast or at tea time in the evening. It is fed to children during the day in between meals. Beneficiaries also reported that the utility value is more for them because it can help them deal with hunger soon after they come home from work and prepare and drink it and then get on with their household chores.

Some beneficiaries initially had challenges with preparing Shakti Vita as it turned out to be lumpy, but with the help of the program team and FLWs, they were able to learn to prepare it well. Most of the beneficiaries prepare it as porridge and drink, and few of them mentioned that they prepare dishes like *undi* or *dose* and consume. FLWs also mentioned that some of the beneficiaries that they know who go to work, prepare and pour it in a bottle and take it to work with them and consume it in the workplace.

Quotes: -

"After consuming Shakti Vita my appetite increased," an adolescent girl

"I like the taste of Shakti Vita and I make porridge out of it," a lactating mother

"This is a good initiative and I see a positive change in women's health," an Anganwadi worker.

There are various facilitators for the acceptance of Shakti Vita which aids acceptance. The facilitators as reported by the participants in the study are that it is easy to prepare and saves time. As such, it can be a stop-gap solution when one is hungry and waiting for the food to be prepared and it's time to eat. This convenience is very appealing to the beneficiaries and is also accepted by the FLWs who as women themselves understand how difficult it is for a woman to manage the household and take time to prepare something for herself.

Changes in FLWs due to the program

Acceptance of Shakti Vita by the community and beneficiaries is reported to have a positive impact on the FLWs. Their service provision is facilitated by Shakti Vita. When asked about how it has facilitated their work many FLWs explained that it has first and foremost increased the Hb level of pregnant women. As this impacts the birth outcomes, there is a sense of satisfaction among the FLWs. In spite of reinforcing the consumption of IFA tablets, creating awareness, and providing iron sucrose and blood transfusion, pregnant women suffer from anaemia. Therefore, the visible change in the anaemia status of the beneficiaries has created confidence in the FLWs to tackle the problem of anaemia. Along with this the support of the KHPT program team in converging with the FLWs in meetings, and house-to-house visits, to create awareness on nutrition has been found to be extremely helpful.

Understanding vulnerability

The project opened a dialogue for the community to map those who are really in need of nutrition intervention. Listed below are a few more vulnerable groups added by the communities and FLWs.

Preconception period	**Newly married women**
Prenatal period	Multiparous pregnancy Adolescent pregnancy
Post-partum period	Women with one or two children Women without family support Women without birth spacing
Children	Second and third born Malnourished boys/girls in the age group of 6 to 12
Adolescence	Adolescent girls
Other categories	Elderly Women in joint families Women engaged in wage labor People with severe illnesses Elderly living alone

Strength of the Project

The strength of the project lies in its grassroots connection. We successfully utilized community resources such as adolescent girls' collectives and nutrition volunteers from the community to deliver the intervention.

The linkages established with the gram panchayats, and different departments have served us a great ease to successfully drive this intervention and reach the neediest.

Active involvement of FLWs and leveraging existing platforms helped us to reach the maximum number of beneficiaries

Way Forward

While institutional services and mechanisms and the provision of supplementary nutrition can bring about immediate gains and short-term change, long-term and inter-generational changes in nutritional status require that communities recognize this as a right and demand better services and access to nutrition.

This critically calls for nutrition-sensitive approaches to build sustainability and ensure long-term positive impacts. While nutrition-specific approaches adopted by government programs such as dietary supplementation and micronutrient supplementation, exclusive and complementary breastfeeding, disease prevention and treatment for severe malnutrition for vulnerable populations such as pregnant and lactating women, children below age 3, and adolescent girls, are immediate determinants of fetal and child development, nutrition-sensitive interventions such as food security, empowerment programs for women and girls, and access to health services, safe and hygienic environments, ensure the delivery platforms for nutrition-specific interventions, potentially increasing their scale, coverage and effectiveness.

There is still a lot of scopes in Gram Panchayat's role to take the lead in deploying the nutrition models at their level. A concrete toolkit will help them to translate the knowledge into actions.

We can work with men and decision-makers of the families to create more awareness about nutrition and health for girls and women in their houses.