

Process Documentation Report on Nutrition Counselling, Capacity Development of Anganwadi workers and Kitchen Garden – August 2017





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List of Acronyms

AWW Anganwadi Worker

CDPO Child Development Project Officer

CF Complementary Feeding

DWCD Department of Women and Child Development

DPO District Program Officer

EBF Exclusive Breastfeeding

FGD Focus Group Discussion

GHI Global Hunger Index

ICDS Integrated Child Development Services

IDI In Depth Interview

KAP Knowledge Attitude and Practice

LW Lactating Woman

MGSA Mahatma Gandhi Seva Ashram

NFHS National Family Health Survey

NGO Non-Governmental Organization

NRC Nutrition Rehabilitation Center

PW Pregnant Woman

PLA Participatory Learning and Action

SHG Self Help Group

TPDS Targeted Public Distribution System

UNICEF United Nations Children's Fund

WHO World Health Organization

WRA Women of Reproductive Age

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1. Background

Despite rapid economic growth, India lags behind in providing food and nutrition security to a large number of its people. The Global Hunger Index (GHI) 2016 report has placed India in the 97th position of 118 countries of the developing world. India remains home to one third of the stunted children in the world (UNICEF et al. 2016) are categorized as 'serious'. According to GHI, 15.2% of the population of India do not receive enough calories per day (are undernourished), while 15.1% of children under five are wasted (low weight for their height), reflecting acute under nutrition. 38.7% of children under five are chronically undernourished or stunted (low height for their age) and 4.8% children die before the age of five.

Maternal undernutrition is highly prevalent in underprivileged populations of India, especially in rural and tribal settings. These mothers are at an increased risk of experiencing adverse pregnancy outcomes including maternal morbidities and mortality, increased foetal loss, and low birth weight, small for gestational age and prematurity, which contribute to higher infant mortality and morbidity. Efforts to address maternal undernutrition therefore constitute an integral component of recent programmatic initiatives for experiencing a positive pregnancy outcome.

Malnutrition in early life has long lasting and irreversible consequences, and it is estimated to be the cause for nearly half the deaths of children under the age of five. Undernutrition among children usually begins with the start of complementary feeding, when breast milk is gradually being replaced with complementary foods. Undernutrition is caused by inadequate nutrient and energy intakes and diseases that result from poor feeding practices. Complementary feeding includes a complex set of behaviours, practices and decisions, which are influenced by a vast number of determinants, such as caregiver's knowledge and skills, time constraints, social support system and the context.

Madhya Pradesh is one of the states in India where a large number of children are malnourished. The recent National Family Health Survey NFHS 4 data shows that 42% of children under 5 are stunted, 25.8% are wasted and 42.8% are underweight. Dietary intake of children 6-23 month who take adequate diet is just 6.6%. In Sheopur district only 0.9% children aged 6-23 months receive an adequate diet, whereas in Chhatarpur it is 9.9%. Undernutrition in under- 5 children is 51% is Sheopur and in Chhatarpur it is 41%. Both districts have high rates of illiteracy and poor health indicators.

Food and Nutrition Security, Enhanced Resilience Project (FaNS)

The Food and Nutrition Security, Enhanced Resilience Project (FaNS) under the 'One World - No Hunger' initiative of the Germany's Federal Ministry for Economic Cooperation and Development (BMZ) is being implemented in India and also globally by GIZ, to fight hunger and malnutrition. The project in Madhya Pradesh is being implemented by GIZ in partnership with Department of Women and Child Development (DWCD) and Welthungerhilfe along with NGO partners, EKJUT, Samarthan, Darshana and Mahatma Gandhi SEWA Ashram (MGSA), in the two districts Chhatarpur and Sheopur of Madhya Pradesh.

The Project is being implemented in close collaboration with the Integrated Child Development

Service (ICDS) platform¹. The nutrition education and behaviour change is being facilitated by the Anganwadi Workers (AWW). Community empowerment and engagement through appropriate nutrition education and action is promoted using Participatory methodology and learning tools. Dietary diversity and nutrition education and awareness of best practices is put in focus to build the community resilience, strengthen the food habits, enhance consumption of locally available food groups and food diversity practices.

Key strategic interventions

- 1. Training of Anganwadi Workers to Facilitate Meetings on Nutrition diversity through principles of Participatory Learning and Action in villages
- 2. Promotion of Home Stead Nutrition Gardens through Community Participation in 100 Focus Villages.
- 3. Strengthening Citizens' Rights towards improving access to Food and Nutrition Entitlements under the ICDS and the Targeted Public Distribution System (TPDS) through community score card and Citizens report card activities.

Expected Impact

Dietary diversity among the women of reproductive age and the number of children in the age group of 0-23 months consuming minimum acceptable diet has increased through raised awareness, increased access to entitlements; community based planning and monitoring of public services.

- The last mile government extension workers Anganwadi (DWCD) have leadership and skills for improving nutritional status of women (15-49 years) and children (0-23 months)
- Access to entitlements under food safety net programs especially TPDS by women enhanced
- 100 focus villages from the two districts provide the learning ground for the Government, civil society and the community to take up comprehensive action ensuring better access to food and nutrition related schemes and improved mother and child care practices through behaviour change by direct action from WHH in partnership with two district level implementing NGO partners with technical support from Ekjut.
- 3025 AWWs have been trained in intensive four PLA rounds of training who reach out to nearly 150,000 women of reproductive age and young children consistently over a

 $Achieve\ effective\ coordination\ of\ policy\ and\ implementation\ among\ various\ departments\ to\ promote\ child\ development\ .$

¹ICDS – Integrated Child development program is the largest Govt of India flagship program focusing the development of children from prenatal stage to six years of age. The program commenced in 1975 and is today recognized as one of the world's largest and unique community based outreach program for women and children.it adopts multi sectoral approach for women and child wellbeing by incorporating nutrition, education and health interventions.

ICDS – Objectives and key services

[•] Improve the nutritional and health status of children below the age of six years and women in the 18-45 years age group.

[•] Lay the foundation for the proper physiological, physical and social development of the child.

[•] Ensure effective Immunization for pregnant women and children.

Enhance the capacity of mother to look after the normal health and nutritional needs of the child through proper health and Nutrition Education.

period of 20 PLA meetings to improve their knowledge, skills and practices on nutrition and dietary diversity in their respective villages

2. Introduction

Inappropriate and inadequate feeding practices during the first two years of life are a major cause for undernutrition in young children. Insufficient nutrition in early life also has long-lasting and irreversible consequences, including growth failure, poor resistance to infections and impaired learning capabilities (Victora et al. 2008). The incidence of undernutrition rises rapidly during the period of complementary feeding from the age of 6 months until 18 months in many developing countries (Victora et al. 2010, Black et al. 2008). The transition from exclusive breastfeeding to family diet during the phase of complementary feeding is the most vulnerable period. World Health Organization (WHO) recommends that children should receive adequate, safe and appropriate complementary foods from six months onwards while continuing to be breastfed until two years of age. Complementary feeding includes a complex set of behaviours. There is now a shared understanding in the field of nutrition and public health that complementary feeding is not only about *what* is fed, but also *how*, *when*, *where* and *why* (Pelto et al. 2003, Engle et al. 1997). Furthermore, the local context, such as culture, economy, agriculture and healthcare, affects decisions on the practices and feeding (Black et al. 2013, Stewart et al. 2013, Paul et al. 2011).

This report is based on the experiences shared by the recipients of a set of interventions in 100 focus villages of two districts, Sheopur and Chhatarpur in Madhya Pradesh (MP), India. The findings describe the approaches that have the potential to mobilise communities in tackling undernutrition including health and hygiene related interventions among women and children under two years of age, and to address other health problems. While doing so, it primarily focuses on efforts to build awareness on undernutrition in the community and make the problem of undernutrition and its immediate and underlying determinants more visible. This was done by a series of Participatory Learning and Action (PLA) monthly meetings conducted by the Anganwadi worker. The Anganwadi workers were trained in conducting the PLA meetings by master trainers of partnering NGOs who were initially trained by Ekjut.

This document aims to capture the acceptability of the processes, the barriers and enablers to the uptake of intervention and to identify challenges and learning that will be useful in scaling up of this intervention.



Figure 1 Nutritional Awareness & Counselling for Skill Building of Beneficiaries - PLA Session in Sheopur

3. Purpose of the presented research

The purpose of this document is to report the processes/steps involved in the intervention strategies and its effect on the KAP (Knowledge Attitude and Practice) concerning nutritional practices and the relevant indicators of dietary diversity among women and children. This document will help to reflect, analyse and improve the ongoing project interventions; what is working and what is not; if any mid-course corrections are required and the effectiveness of the project in achieving the desired outcomes. Of special interest is the training of Anganwadi workers on issues of nutrition and dietary diversity, feeding practices and personal hygiene using participatory learning and action (PLA) techniques, homestead nutrition garden and distribution of Information Education and Communication (IEC) material called "Poshan Thali". In the context of food security, assessment of coverage, access and utilization of TPDS among the marginalized communities in selected districts of Madhya Pradesh is also considered.

In addition to this, the process documentation of the intervention strategies in terms of enablers and barriers, what worked or did not work, involvement of the stakeholders and ownership of recipients will also inform the project team regarding any mid-course correction. This will also help to advocate for the replication of successful interventions planned in two remote districts of Madhya Pradesh.

4. Aim and objectives of the qualitative study

The aim of the qualitative study was to capture the key experiences and challenges faced by different stakeholders while implementing and facilitating the project. Perspectives from the AWW (Anganwadi workers - frontline worker of ICDS program, who facilitated the meetings), community women (recipients of all the three interventions), representatives from the organization who were involved in the implementation and district and Block level official team of ICDS program are included in the study.

Specific objectives:

- 1. To assess the delivery strategies of nutritional interventions like PLA meetings for improving capacities of health-workers and levels of knowledge, attitudes, beliefs and practices on nutritional issues among women
- 2. To explore community level factors impacting the uptake of health and nutritional services
- 3. To assess individual, household and community level barriers to uptake of intervention.

5. Framework of the study and methodology

Two districts (Sheopur and Chhatarpur of Madhya Pradesh India) where the Food and Nutrition security Project is implemented were selected for this study. Other than community members, stake holders working in Department of Women and Child Development and on child health and nutrition programs were also interviewed. The interviews included 1 representative from the implementing NGOs working in the districts; representatives from the government included 3 ICDS Supervisors, 1 CDPO (Child Development Project Officer) and 2 District program officers from each of the two districts.

Of a total of 22 FGDs, 10 were with Anganwadi workers who facilitated meetings and 12 were with women who had participated in the meetings. These were conducted in 41 of the 100 focus villages where the interventions took place. Seven in-depth interviews were conducted with implementing NGO partners and stakeholders from ICDS. Details of the number of interviews and the type are shown in the table below:

	Sheopur	Chhatarpur	Total
FGD – AWW	4	6	10
FGD – Community Women	6	6	12
IDI – ICDS – Supervisor	1	2	3
IDI – CDPO	0	1	1
IDI –District Program Officers	1	1	2
IDI –NGO Partner	1	0	1

Table 1: Number of FGDs and IDIs conducted by district

6. Profile of the respondents

To understand the background of the respondents taking part in the discussion, a profile sheet was filled up that captured information related to their age, education and other characteristics such as the number of lactating women (LW), pregnant women (PW), adolescent girls (Ad), mothers with children under 2 years of age (U2M) and those from the reproductive age group. Profile related information was not captured for stakeholders who took part in the in depth interviews.

Chhatarpur Communit	 Sheopur Community	Sheopur AWW
У		

10-14	Nil	Nil	4	Nil
15-49	45	24	60	16
50 & above	5	2	2	3
Missing data	Nil	12	Nil	5
Total Participants	50	38	66	24

Table 2: Age Profile of respondents

Above table shows that of a total 116 community participants with whom FGD was conducted, 105 were from the reproductive age group, 4 were in the age group of 10-14 years and 7 were more than fifty years old. Amongst 62 Anganwadi workers, information for 17 is missing and 40 of them were from the reproductive age group.

	Chhatarpur Community	Chhatarpur AWW	Sheopur Community	Sheopur AWW
Up to 5 th	11	1	0	2
6th to 9 th	10	8	2	5
10th-12 th	3	15	0	12
Graduate	1	5	0	5
Post Graduate	0	9	0	0
No Schooling	17	0	18	0
Missing	8	0	46	0
Total	50	38	66	24
Participants				

Table 3: Educational profile of respondents

In the above table of 116 participants, 11 of them studied till class 5th, 12 between 6th to 9th, 3 had completed 10th to 12th class and 1 was a graduate and 35 had no schooling and information of 54 from the total participants were not available. Of Anganwadi Workers, 3 had studied till class 5th, 13 between 6-9th class, 27 had completed 10th to 12th class, 10 were graduates and 9 were post graduates (all 9 were from Chhatarpur).

Average FGD Duration					
	Chhatarpur Community	Chhatarpur AWW	Sheopur Community	Sheopur AWW	
Average Duration	40 min	43 min	56 min	58 min	

Table 4: Duration of FGDs

The average time taken for the FGDs with the community in Chhatarpur was 40 minutes whereas in Sheopur it was 56 minutes, and with AWW it was 43 and 58 minutes respectively.

	Chhatarpur Community	The second secon	· ·	Sheopur AWW	
Participant Profile - LW/PW/Ad/U2M/Others of Community Participants					

Lactating Women	8	NA	12	NA
Pregnant Women	4	NA	7	NA
Adolescents	3	NA	10	NA
Mothers of children Under 2 years	0	NA	3	NA
Others (including Women of Reproductive Age)	32	NA	18	NA
Missing	3	NA	16	NA
Total Participants	50		66	

Table 5: Profile of respondents

Table 5 shows that of the 116 women who participated, 20 were lactating women, 11 pregnant, 13 adolescent, 3 of them had children under 2years. 19 entries are missing and 50 participants were of reproductive age or aged 50 years or more.

7. Ethical considerations

Confidentiality and anonymity: Research participants were assured of confidentiality and anonymity which meant that names or any label reflecting participant's identity was avoided; instead codes were used to identify participants.

Informed participation/consent: Participants were allowed to make an informed decision after being told about the nature and purpose of this study and about the process and duration of interview and/or FGD. Participants who accepted to take part in the study were also informed that they could withdraw any time or refrain from answering questions that they were uncomfortable with, without giving reasons. Informed consent was also sought before using Dictaphones for recording the interviews and discussion.

8. Data Analysis

The data consisted of transcriptions of focus group discussions and answers from in-depth interview questions. The final transcripts for analysis were based on the transcribed audio tapes. A thematic analysis framework was used to analyze the data. The data was analyzed by a team of two who read the transcripts, generated initial codes (themes) independently, and subsequently met to discuss and finalize the codes. The codes were organized and combined to form overarching themes. These themes were further refined by checking for consistency between the data extracted and the identified codes and themes.

9. Presentation of key findings:

In the following the key findings in form of notes from the focus group discussions and the indepth-interviews.

Three Main overarching themes emerged:

 Capacity, Leadership and skill building of Frontline AWWs using Participatory learning and Action (PLA) trainings tools for nutrition education and awareness among women aged 15-49 year and its linkages to food and nutrition security.

- Participation and uptake of the PLA intervention linking with project objectives and goals
- Homestead Nutrition garden -uptake of the intervention -learning from community's experiences

9.1: Leadership, capacity and skill building of Anganwadi Workers

The Anganwadi workers were trained (on an on-going basis) on communication and

leadership skills kev maternal and child health and nutrition related issues. detailed training was shared with WCD department, Government of Madhya Pradesh for issuing permission letter to all supervisors and **AWWs** of Chhatarpur and Sheopur districts. Training was conducted in approximate 100 batches in each round, with the support and coordination of district program office, ICDS.

After the training AWWs conducted PLA meetings in their respective villages and



Figure 2 Use of Role-Plays and Demonstration for Improving Capacities of Anganwadi workers

supervisors provided supportive supervision for its effective implementation. Supervisors also reviewed the progress in their cluster meetings.

Given the evidence about the importance of targeting health and nutrition in pregnancy and during the first 24 months of life to reduce stunting and ill health, they were trained to hold community discussions on 10 key practices identified by India's Expert Task Force on Infant and Young Child Nutrition related behaviours within community groups. These key practices are:

- 1. Timely initiation of breastfeeding within one hour of birth
- 2. Exclusive breastfeeding during the first 6 months of life
- 3. Timely introduction of complementary foods at the completion of 6 months
- 4. Age appropriate complementary feeding, adequate in quantity, quality and frequency (children between 6-23 months) specially focusing on increased Minimum Meal Frequency (MMF) and Minimum Acceptable Diet
- 5. Illness prevention for children: full immunization during the first year of life; bi-annual vitamin A supplementation (children aged 6-59 months); once in a year de-worming during deworming day (children aged 1-19 years)
- 6. Frequent and appropriate feeding for children during and after illness, including oral rehydration during diarrhoea along with zinc as per national guidelines
- 7. Timely and therapeutic feeding for children with severe acute malnutrition
- 8. Improved food and nutrient intake for adolescent girls, particularly to prevent anaemia

9. Improved food and nutrient for women, especially during pregnancy and lactation to improve Individual Dietary Diversity-Women.

Topics covered under PLA training

During the PLA training, information regarding health and nutrition of women and children were discussed and demonstrations using flip charts, picture cards, stories, role plays and various participatory exercises were used. **Skill transfer trainings also included cultivation of nutritionally rich crops, food preparation and preservation techniques as well as child feeding, caring and health seeking practices.** The Anganwadi workers were also trained on food groups and preparation of nutritious meals using locally available food from four food categories. The training covered the participatory learning and action contents and detailed planning for each meeting, use of participatory communication techniques, managing conflict and ensuring involvement of marginalized women living in hamlets. The trainings were organized in a sequential manner which facilitated better learning and adequate time for practice. Participants' own experiences were used and the sessions were aimed to be relevant to the needs of participants and their communities. A variety of training methods were used, such as:

- Demonstrations
- Practice
- Case studies
- Group discussion and
- Role play.

Participants also acted as resource persons for each other and the residential trainings with four days in each round which helped them to interact and learn from each other.

PLA training 1st **round:** This phase emphasized basic listening and communication skills, and the first few meetings (identification and prioritizing of problems related to undernutrition) of the PLA cycle.

PLA training 2nd **round:** In the second round, facilitators were trained in the process of developing stories depicting the causes and effects of the problems, making pictorial presentations of the stories to find solutions and prioritizing strategies to address problems.

PLA training 3rd round: In the third round they were trained on addressing the 10 key practices emphasised by the Indian Task Force on Infant and Young Child Feeding. This was accompanied by practical demonstrations and activities including nutrient-rich complementary food recipes and discussing the MCH protection card.

PLA training 4th round: In this round reinforcements of earlier lessons is emphasized and how to carry it forward is taught.



Figure 3 PLA Training Round of Anganwadi Workers (4 Rounds of Training)

Of the 62 Anganwadi workers who were involved in the discussion, 37 of them had undergone three round of training (Sheopur 11+ 26 Chhatarpur), 6 of them attended 2 rounds and 3 of them from Sheopur district did not attend a single round. Information of 10 cases from Sheopur and 6 from Chhatarpur were missing. All the trainings emphasized on nutrition issues related to children, pregnant and lactating women and the schemes and entitlements related to them.

"The objective of PLA meetings is to improve the nutrition intake of women of 15-49 years, to make them understand how to increase their nutrition intake, how to increase the weight of children of 0-23 months and to take care of children's food." FGD AWW – Kotra (Sheopur)

Differential Components of the PLA Training

Almost all the respondents shared that the PLA training was different from the trainings that they had received under the ICDS program. Various methods such as games, stories, role plays, demonstrations including developing homestead nutrition garden and other participatory methods were used to improve their understanding on the issues. This also helped them in conducting the meetings with the community. Participants also shared that during the PLA training everyone gets a chance to speak and are engaged during the training. The methodologies used are very interactive and easy to understand.

"In these trainings we are trained on the processes for conducting meetings with the community. During the training we are trained on the use of picture cards, banners and stories as the methods or the medium of discussion with the women in the meetings. In every meeting, different types of tools are being used which makes discussion easier and interesting to interact with women. In the trainings provided by the Mahila Bal Vikas Vibhag (ICDS), the trainer who imparts training, only keeps on saying for which it is difficult for us to understand properly the things that they share" AWW – Pipat (Chhatarpur)

"The women of the villages are less educated, they understand faster (easily) from pictures, stories and games. They even discuss about the things discussed during the meetings with their family members and follow the practices at home" FGD AWW – Silpuri (Sheopur)

Suggestions for further improvements in the training methodology:

All of the respondents liked the training and would like to continue with such trainings in which they participate and learn through games, stories and pictures. When asked about any further improvement, they shared that they have no suggestions for improvement, they liked the way it is.

9.2 Participation and uptake of the PLA intervention

This section highlights the knowledge, attitudes, beliefs and practices of community members on reproductive maternal child health and nutrition in targeted districts. The community members were categorized as women of reproductive age, adolescents, pregnant, lactating women and mothers of children under two years of age. There were two key interventions; PLA meetings (participatory group meetings) and developing of Homestead Nutrition Gardens.

Participatory Group Meetings on village level

The participatory learning and action cycle follows the four phases. Each phase included a series of women's group meetings that covered different topics.

The main objective of the participatory group meetings was to explore locally appropriate dietary solutions for improving IYCF practices with a focus to improve complementary feeding for children 6-23 months of age. Facilitators were the Anganwadi Workers (from the ICDS) who were trained to assess household access to and use of different nutrient-rich locally available foods that are vital for young child feeding, including legumes, vegetables, fruit and animal source foods. Of specific interest were seasonal differences in food availability and their effect on the quality, quantity and frequency of complementary foods fed to young children.

The Facilitators conducted monthly participatory group meetings with community members. Meetings also included participatory cooking sessions, which provided an opportunity to practice cooking the improved recipes and to develop skills and confidence in using under-utilized nutrient-rich local foods. The majority of meeting participants were women and mothers of children aged 0-23 months. However, fathers, grandmothers and older siblings were also invited to participate because of their important role in decision-making related to childcare. Fathers may decide which foods are purchased, while grand-mothers and older children may also care for and feed the child while the mother is working.



Figure 4 PLA meeting on village level in an open space or Community Center

Topics discussed during PLA meetings

The community's perceptions of factors contributing to children's undernutrition in their areas were captured in this section. In all FGDs, "poverty" and "financial constraints" were identified as key reasons for childhood undernutrition. Women also reported additional factors, like, inadequate food intake, ill health, inadequate care of children and heavy workload for mothers as the underlying or contributing factors to the child being undernourished or weak. Participants had a clear understanding of the signs for identifying an undernourished baby and they shared that they were able to recall these signs and symptoms because of the detailed discussions that happened in some of the meetings conducted by the Anganwadi workers. They even mentioned the use of picture cards and flex that were used as a medium for developing an understanding of under nutrition. Women shared that children who were not fed appropriately, lose weight, have poor growth and become weak and sick.

"Lack of adequate food causes weakness and leads to under-nutrition in children and women. To cure this, we must take care of eating habits and eat freshly prepared food and green vegetables. While cooking, the vegetables must be washed before it is cut otherwise the vitamin is washed away. "Community Woman – Gudpada (Chhatarpur)

"A very thin child whose hands and legs are thin and belly is swollen and chest is inwards – that child is undernourished and we need to take special care of such children. They should be timely weighed, immunized and fed. We must take advice of Anganwadi worker and if the child is in red then he/she should be admitted to NRC."

"Weak children are called undernourished and whose weight and height is less according to age. It is a situation, not disease." Community Woman – Arora (Chhatarpur)

"In an Anganwadi centre, one picture was shown in which the difference between weak and healthy child was discussed. Under nutrition cycle was discussed with us and how to break it" Community Woman - Sheopur

"Anyone can be undernourished; if we don't get food then we can be undernourished. Lack of food (can) cause undernutrition, it can happen at any age. "Community Woman – Chhatarpur

Suggestions by the communities to address undernutrition

Topics like growth monitoring, NRC referrals, recipe demonstration, hot cooked meal served in the AWW center were also discussed during the meetings. Women also discussed about food groups and the importance of diverse diet and timely introduction of complementary feeding for children after the completion of six months.

"In the previous meeting, we cooked khichdi for the kids. We mixed split black gram, chickpeas, bean seeds (Kidney Beans), rice, salt, milk, ghee, and some green vegetables like bottle gourd, spinach etc. We made breads using flour and in that we have added chopped spinach (palak paratha)."

"Discussed to prepare meal for 6 months to 2 year old children - how to make it with appropriate consistency which child can eat (not too thin, not too thick- can easily flow from the spoon) and add (different) food from different groups and to add oil or ghee on top of the meal (cooked) and feed the child." Community Woman — Chhatarpur

"In the 15th meeting we had a discussion on dried food. We discussed with the women that the fruits and vegetables which we don't get in all the seasons can be dried then we can consume it in future also – this will ensure food diversity." AWW – Panagar (Chhatarpur)

"During the meetings, we discussed about 4 food categories. In these meetings, women get food items from their home. In these meetings we discussed that the 4 food categories are: foods that fill our stomach (pet bharne wala), those which save from diseases, foods which help in developing the muscles, and those which give energy. We discuss about food diversity and about different foods. "Community Woman - Sheopur

"Women must have food having all the three colors of the flag (tri-colour) ... in all the meals one element each from the group must be included, like if cashew and almond are not there then peanuts can be added." Community Woman - Chhatarpur

9.3 Enablers for the uptake of PLA Intervention

Enablers included those factors which helped in the implementation process, enabled the participants to come to the meetings, to learn and to adapt practices that were discussed in the meetings. Participants mentioned that the participatory methods, opportunities to decide the time and venue for the meetings, the discussion which were relevant to their life were the main enablers which attracted them to attend the meetings.

Strategies that may have helped to draw people to PLA meetings were:

- Pre-planning for the next meeting (fixing date as per the community's convenience and informing people well in advance before the meeting date).
- Inviting EVERYONE to the meetings. Key members, in-laws, husbands, local leaders, other service providers etc. were encouraged to attend; Personal interactions of facilitators with key members of community to include them, like PRI members, service providers, key influencers, etc. People from all age groups are encouraged to attend PLA meetings. Although SHG members remain the core group, inviting non-members to attend the meeting makes them more inclusive and those who attend do so voluntarily if the meetings are made interesting.



Figure 5 Community Meeting with key stakeholders

Engaging with the stakeholders during the meetings helped them to gain knowledge on the topics covered, which in turn helped the mothers in seeking support from their husbands and mother-in-law's at the household level. Several women shared that, when men are directly involved, their understanding helps in supporting their wives. The Anganwadi workers also shared that engaging the mother-in-law's during the meetings, allowed them to participate in the discussion directly affecting their lives thereby helping their daughter in laws to attend the meetings.

"Mothers-in-law also don't scold their daughters-in-law now and let them go to the meetings. Earlier, they used to keep their daughter-in-law at home and made them do what they felt was right. They did not approve the things their daughters-in-law used to say to them. Now they

say – go to the meetings. We call mothers-in-law to the meetings too, now which help us in seeking their support." (AWW – Lalpur- Chhatarpur – relates to her own life)

"Earlier, mothers-in-law used to take suggestions in a wrong manner but now their thinking is gradually changing, earlier they used to say Anganwadi worker does her job as she gets money for it. But now, daughters-in-law come and take iron tablets. ."FGD AWW – Dalarna Bageechi (Sheopur)

Barriers to the Uptake of PLA Intervention

To understand the factors that prevented women from participating or implementing the learning. Some of them identified were that women were often busy with child care, work and household tasks, which made it difficult for them to attend meetings. In some communities, facilitators had to make a lot of effort initially to encourage women to participate by asking regular attendees to invite other women. When asked about this the Anganwadi workers shared that during the initial phase, there was resistance from the family and community (because there was no provision of incentives, any financial support or gifts for attending the meetings, in addition there was resistance from in-laws or husbands), but with time, participants understood that they were getting important information from the meetings.

Attendance in the meetings also depended on the seasons, during the peak farming season, it was difficult to organize meetings since many were engaged in wage labour, harvesting and men who were not directly involved in the intervention prevented women of their household from attending PLA meetings.

"In the beginning, I did not come for these meetings, as I thought it's a waste of time and same boring meetings we usually attend. But after attending 3-4 meetings I realized it is different and I started participating actively. I learnt a lot from them." Community Woman — Banar (Sheopur)

"Before, some women used to think that it is their (AWW's) job and they are being paid for that for which they are organizing meetings, but now there is improvement; women understand and come for meetings." AWW – Silpuri (Sheopur)

"Throughout the year, women have to live by doing agricultural work and during lean seasons, they do other daily wage labour work. Hence it is difficult to involve women in the meeting. Men, not being directly involved with the PLA meetings, stop the women of their house to come for the meeting." AWW – Lalpur (Chhatarpur)

Differentiating aspects of the PLA training on village level

Women particularly enjoyed the Community Meeting that was held after the two phases of PLA meetings. This larger community meeting is when the entire village comes together to participate in the dissemination of the learning of the group members. Some groups adopted interesting ways to disseminate them (e.g. through role play and skit), which was liked by the community members. Facilitators (AWW) who took the main role in helping the group to rehearse and mentor members behind the screen in preparing the role play/drama served as an effective means of communication at the dissemination meeting.

"We are asked to identify issues affecting our village, based on which we find solutions and develop strategies. I really like this method. They use pictures, stories, games and I do enjoy them!" Community woman - Sheopur

"Every time we come for the meeting, she (AWW) always shows us the pictures. Not only she shows us the pictures, but she also discusses what is depicted in the picture. She also tells us stories, makes us play games, shows posters of Poshan thali and through these provides us information about how we can improve dietary diversity among women of reproductive age and children" Community Women – Sheopur

"Women have developed an understanding, they feel good to come for meetings, they feel they can learn something and can make some difference too. Earlier (in the meetings) we used to read from the registers, now using pictures etc., playing games, showing picture of bowl and spoon we make the women understand. Narrated Sombari's story, everyone liked it, community agreed that this story is of their own community. The community has together identified reasons (problems) and its solution. "FGD with AWW – Dalarna Bageechi (Sheopur)

"The women of the villages are less educated, they understand faster (easily) from pictures, stories and games. They even discuss on the objectives (of the meeting)."FGD with AWW – Gurunawada (Sheopur)

"(earlier) 20-30 women used to participate, but after watching the community meeting, the attendance of SC-ST and OBC women increased and a few women from general category also participated in which women came from far away villages and after discussing with everyone we decided to conduct the meetings where everyone can easily come together. Discussion on child-marriage, domestic violence, nutrition, food to eat, cleanliness and hygienic practices and health takes place through these meetings in which different activities are done by the women who participate. AWW – Lalpur (Chhatarpur)

9.4. Homestead Nutrition Gardens



 $\textit{Figure 6 Sapling and Seed Distribution and Training for Raising \textit{Kitchen Garden}}$

surplus added to the household income.

Discussion on nutrition in groups was closely linked to food production component, where the members of the groups were encouraged to grow diversified and nutrient rich fruits and vegetables. As a complementary activity, support was provided in the form of seeds, information on organic farming, etc. This encouraged high yields, and resulted in adequate food for the family and selling of the



Figure 7 Kitchen Garden in a Villager's House

The major focus was on vegetables such as carrot, ladyfinger, bottle gourd, tomato, chillies, bitter gourd, garlic, spinach and other varieties of dark green leafy vegetables, radish, brinjal, coriander; as they take shorter time to grow and to harvest and can bring faster returns. Some other crops selected were beans, papaya, potatoes. The Anganwadi worker discussed with the group members about balanced diet, and the importance of consuming different types of vegetables and having a diversified diet.

"Earlier community members used to cook vegetables when someone used to come to sell (in the village) or if they go to the market to buy. As the vegetables were costly, they used to buy less. As they are able to grow various types of vegetables, they are cooking different vegetables every day." AWW – Kotra (Sheopur)

"A lot of problems arose while starting nutrition garden, husbands opposed their wives saying that it would give rise to trash in which worms will be there leading to foul smell. But when the plants in the nutrition garden started reaping fruits they understand the importance and today they are willingly; and are able to develop nutrition gardens by themselves." AWW – Gulpada (Chhatarpur)

Enablers for establishing homestead nutrition gardens

Participants shared that they had increased and also diversified their dietary intake as a result of their participation in the meetings. A major contributor to improved nutrition practices was through nutrition gardens and the promotion of vegetable and fruit production. Though these vegetables were for mainly for household consumption, some women shared that they also sold the excess which gave them income to purchase other foods that they did not grow or to purchase other non-food items. They also mentioned about distributing surplus production to their neighbors.

"By growing nutrition garden, we consumed different kinds of vegetables resulting in increased variety in our family's diet as well as also got monetary benefits." FGD Community – Sadna (Chhatarpur

"Different types of vegetables are there in the garden. We consume as well as give to those who don't have nutrition gardens in their house" FGD – Community – Ganjisijari (Chhatarpur))

"The vegetables that we grew in the nutrition garden, we consumed to the fullest and now in this season again we have planted bottle-gourd plants"



Figure 8 Kitchen Garden in a Villager's House

9.5 Challenges faced and strategies to overcome them

Poverty was cited as a key challenge for applying the knowledge on nutrition gained during the PLA meetings. Participants said that households with inadequate financial resources, affected women's ability to follow healthy nutritional practices.

"Though we discuss about the importance on consuming different kinds of food like sometimes potato and sometimes pulse with green leafy vegetables, but because of poverty this is not possible every day." Community Women – Heerapur (Sheopur)

However, lack of water was a challenge for expansion and sustainability of gardens. The scarcity of water made it difficult because garden needs water to thrive throughout the year. Women also shared about shortage of land and water, as an inability to cultivate or grow different kinds of vegetables in their nutrition garden.

"Nutrition garden was there in every house, now in some people's house the gardens have dried up, but everyone has grown it before."

"In our house we got fresh vegetables, as we grew vegetables in the nutrition garden but now due to lack of water the garden is drying.

In my house also we have grown vegetables in the nutrition garden; minimum 25-30 households in our village have nutrition gardens from around the last 8 months, after the monsoon started." Community Women – Heerapur (Sheopur)

"In 30-35 houses there are nutrition gardens, in some places water has dried up and there they face a lot of problems in summer. "AWW – Dalarna Bageechi (Sheopur)

"In our house also we grew nutrition garden but at present because of lack of water the garden is drying"

"Those who have the arrangement of water and space for garden – they have developed nutrition garden, those who don't have, they don't grow."

Various efforts have been made by the communities to address the challenges for developing nutrition gardens. Many participants understood the concept of organic farming and avoided use of fertilizers and pesticides in their gardens. Demonstration plots located near the Anganwadi Centre also helped to reinforce the importance of such gardens. During the focus group discussion with the community members, a few participants complained of insufficient area for gardens, but they also mentioned about growing plants in containers or pots, and those who did not have space in their house (for nutrition garden), grew vegetables in pots or on the roof.

"For protecting from rats – (we use) rat traps, from cows and domestic animals (we use) barbed wire and shrubs for fencing and (we keep) medicines to kill rats. For watering the plants - we made a hole on the bottom of a pot so that water reaches in all the four directions; we had covered with sarees to save the garden from hens. "AWW- Silpuri (Sheopur)



Figure 9 Efficient use of scarce water to grow vegetables

"Now in our house there is a garden, in which we use waste water and we have got seeds too. We change what we eat every day. In a meeting, it was discussed about not eating only one type of food group, we must eat from different groups. Now with a very little space in our house, we have grown bottle-gourd, spinach, and pumpkin. According to the season, bitter-gourd, bottle-gourd, pumpkin, ladyfingers are grown in the houses (of the village), in our house also we grow and now we get fruits and vegetables locally. "Community Woman – Heerapur (Sheopur)

"They have started using the waste water after washing dishes for watering the plants in their nutrition garden. Now (during summer months) also there are nutrition gardens in the houses. "AWW – Dalarna Bageechi (Sheopur)

Water Interventions to improve water availability

Several villages in Sheopur district are in the situation of severe water crisis and require immediate remedial action and support to deal with it. While providing technical support in the field of food and nutrition security in this district, the FaNS programme grappled with the water crisis situation by including a pilot WASH component in its interventions. FaNS has taken the following immediate action steps along with continuous advocacy with Sheopur District Collector and the Chief Minister of Madhya Pradesh to tackle the situation:

- Pilot construction of one ferro-cement tank in the District Collector's office-compound to raise more awareness and acceptance within the local community, thus transferring helpful low cost technologies.
- Water conservation by introducing groundwater recharge, rainwater harvesting and water storage activities. Quality of recharged water was improved by utilising sand filters and activated charcoal around the well from where the water was recharged.





Figure 10 Locally made and cost effective solution, using old dry wells as recharge wells.

10. "Poshan Thali" - IEC material used for dietary diversity awareness

Posters on Poshan thali were displayed on the walls in Anganwadi center that included themes on nutrition diversity that could be available locally. These posters acted as an IEC tool for promoting diet diversity and were critical in creating demand for services. Findings from the communities indicate that community level factors impact strongly on knowledge, attitudes and beliefs in the communities. The AWW used visual materials the form of flipcharts to illustrate the information related to dietary diversity. The participants also mentioned that the mothers who had seen the posters beforehand were able to share the details of these illustrations, demonstrating the strong impact these materials had on the mothers.



Figure 11 Poster on Poshan Thali

11. Perceived benefits of the PLA meetings on village level

Women were extremely positive about the introduction of PLA meetings (Participatory group meetings) and nutrition gardens. When asked about 'value-addition', they claimed to have learnt many new things and topics especially with respect to maternal and child nutrition and accessing food options like Fruits and Vegetables all the year round. Other inputs they received were on hand-washing, food diversity, IFA supplementation, regular weighing of children etc. and women also felt that they had started applying this knowledge in their daily

lives. *"Earlie*

"Earlier, nobody in my family was serious about hand-washing. But after attending the meetings I ensure we all wash hands with soap and after defecation and before eating and cooking." Community Women – Sheopur



Figure 12 Training women to raise Kitchen Garden and address Challenges in these settings

"(Now) children are sent to Anganwadi and they eat food there and different pulses are fed everyday. those food items which are locally available in our village, we have started using that only." Community women – Chhatarpur

""If nutrition garden is at home then we will not have to buy vegetables from outside, in a little space at house, variety of vegetables can be grown. In our house also we grew nutrition garden but at present because of lack of water the garden is drying. In my house also I have nutrition garden, minimum 25-30 gardens are there in the houses (of the village) from approximately 8 months, since the monsoon started." Community woman – Sheopur

11.1 Shifting Traditional Beliefs and Practices:

Participants from both the districts extensively discussed changes in community norms resulting from the project. All the participants talked about changes in knowledge and regarding feeding practices as well as changes in their behaviors. Using the temporal opposition of "before the project and after the project started", or previously and now they were able to contrast the past and present.

"We have started eating green leafy vegetables, banana, peanuts, fruits, pulses, rice and egg — which was earlier a restriction for mothers and our children. But when these issues were discussed in the meetings, regarding adding variety of food items in our food, we could realize its importance and have changed. Now not only we are consuming but also are feeding our babies. Now for 6 to 23 months old children we are also giving them rotis prepared from multi flour or by mixing all — wheat flour, soya bean flour and chick-pea flour." Community Woman - Sheopur

"Earlier mothers used to feed only the gruel of the pulse, but now they have started feeding (the whole cooked) pulse and the women have started feeding and cooking as per the age of the children." Community Woman – Chhatarpur

"Food diversity has increased, before they used to eat roti (wheat bread) only, now they keep changing (what they eat regularly). AWW – Heerapur (Sheopur)

In addition to changes in knowledge and beliefs, respondents acknowledged significant shifts in feeding practices and behavior and in both the districts they spoke about new ways in which they cared for their children. Mothers also described changes they made in the care during pregnancy that were triggered by the realization that in-utero development had consequences for later development, and that infants' health depended on their wellbeing as well. Mothers talked about how they no longer ate poorly out of fear to experience difficulty at birth, and that now with the support of family members, they took better care of themselves. Because the outcomes were clear, concrete, easily observable and beneficial for mothers and babies; respondents expressed feeling happy with the changes and were obliged to the Government and NGOs (implementing organization) for helping them in bringing about these changes.

"If the girl child is weak, then she will remain weak after marriage and her child would also be weak" Community Woman - Sheopur

11.2 Increased Capacities and Skills of AWWs

The discussion with the Anganwadi workers highlighted their confidence, which had increased after they started conducting PLA meetings. They shared that after the mothers were counseled on nutrition, they practiced exclusive breastfeeding, introduced their children to

complementary foods at six months, children with malnutrition were referred to Nutrition Rehabilitation Centers (NRC) feeding centers by the Anganwadi workers and when they became healthier and more active, it gave them immense pleasure to see that their advice was being followed and the children were growing well, which further increased their confidence.

"Before, 4 people (group of people) did not come together for a cause and now people even go to the collector office and are able to discuss issues freely without any hesitation and fear. Even we (Anganwadi worker) used to hesitate while conducting the meeting but now in PLA meetings, along with the continuous training, the hesitation has ended and we hold discussions on food diversity and health very easily and try to develop an understanding in the community." AWW – Dalarna Bageechi (Sheopur)

"What we used to tell before (in the meetings) to the women, we had no strategies, now we discuss using different methods and our relationship with the women (of the community) has also increased and even we also do not hesitate to discuss any kind of issues with them." AWW – Lalpur (Chhatarpur)

"By learning from the training, the meetings which we conducted with the community – we can see change because of that in the behavior of the community. Earlier even after calling the children for weight measurement, they did not come (mothers did not get their children); whereas after meeting number 3, where importance of regular weighing and interpreting growth curves was discussed, an understanding has evolved and now they (mothers) get the children themselves and asks in which color is my child, is she/he okay?" AWW – Kotra (Sheopur)

11.3 Increased knowledge on nutrition among women

Participants had been receiving information about nutritional practices from the Anganwadi centers in the past, but they said that they also learnt about nutrition from the group meetings. Most of them shared about the link between maternal dietary intake during pregnancy that led to healthy development of the fetus. Many also shared that healthy dietary practices were important for the mothers' health.

"Weakness in body and undernutrition takes place generation by generation. Through the meetings we realized that not taking good food (nutritious), not maintaining hygiene can lead to undernutrition. If a mother does not eat good food while she is pregnant, it would hamper the baby's growth inside and she will give birth to a malnourished baby" Lactating Woman - Chhatarpur

12: Perceptions of implementing partners and other stakeholders:

Several aspects of the intervention approach that had worked included, visible improvement in leadership skills of women, planning at village level- specific problem identification, solutions and strategizing; a unique concept and approach for capacity building of grass root workers which could be scaled up in other districts and methods that were used were easily doable and community friendly.

The ICDS Supervisor of Chhatarpur district had the opinion that PLA was a simpler way for Anganwadi workers to do their work. She said,

"PLA - was received by the AWW as a helpful technique for meetings during the training. Along with it, the Anganwadi workers got a simpler way to do their work which helped them to do their work in a different and a much more participatory way. The Anganwadi workers have started discussing the importance of nutrition garden for improving food diversity and they have tried to grow nutrition gardens in the houses of moderately and severely under-nourished children. Earlier also the Anganwadi workers were given information on nutrition garden by us but it was helpful to understand through the medium of PLA meetings."

The ICDS supervisor of Sheopur had the opinion that through the PLA meetings, women become more aware and talk more (among themselves) and discuss on various issues such as nutrition, weight measurement, growth chart. She said, "During the meeting the women themselves understand and give answers. The power walk game, stories, observing nutrition garden by going house to house were done by me during the PLA meetings. Apart from this, PLA meetings have been very helpful to monitor growth and how to link the women staying far away from the Anganwadi center with the Anganwadi.

Challenges during the training Supervisor' perception:

"Challenge during training is completing the office work. We have to come to the training but also have to do official work in the middle of the training. It was also recommended that our training must be done somewhere outside (of our office) so that the training is not affected because of our work.

Programs run by our department and its information are supposed to be given by me. Continuous calls and information divert the mind" – ICDS – Supervisor – Sheopur

Challenges as a trainer while imparting training on PLA:

We faced two types of challenges - one by involving the supervisor who could not give enough time during the training due to her workload and interruptions for receiving phone calls for providing data and information to the department. Secondly, the behavior of the Anganwadi workers also acted as an obstacle for which good relationships could not be built as well as the literacy level of workers also acted as a major barrier while imparting trainings.

Strategies for overcoming challenges

For keeping up the interest of the government departments and the Anganwadi workers, inviting Government officials or NGO representatives and updating them about the initiatives proved to be beneficial.

"From time to time, we invite representatives from different departments of the government and brief them about the importance of these trainings and that nutritional status (of women and children) can be improved through these meetings and strengthened the training through support from the government." IDI – NGO Representative - Sheopur

Sustainability

Based on the improvements that were seen because of the meetings, the general opinion was that it should be implemented in the entire district. To avoid consumption of outside food, growing vegetables locally was an excellent idea, and using of cow-dung as manure and growing different vegetables in individual nutrition gardens would increase food

diversity and those members who grow more can share with others. Money is not needed for this, earlier women were eating **dry food** ('rukha sukha') but now they eat a variety of vegetables.

Views from Implementing Partner

The members of the implementing NGO were asked about their views and experiences on implementing the PLA meeting cycle. According to them this is a new approach in which they acquire practical knowledge through innovative ways such as stories and picture cards. The nutrition garden was another such effective and innovative tool that was very well accepted and practiced. They felt that for better outputs and to make this sustainable, it should be integrated with the government system.

Some of their key opinions and suggestions are mentioned below:

Overall approach: "Through the PLA meetings women have learned a new approach, earlier they had the theoretical knowledge but through the PLA meetings and using stories and picture cards they have acquired practical knowledge adopting new and innovative ways"

Innovation: "This (nutrition garden) is a very effective tool which was not implemented earlier. The forest department also supported by providing different variety of plants. People also thought that they can get variety of fruits and vegetables by growing them in their backyard. Initially we felt that it would be difficult due to scarcity of water. We choose community volunteers who did this willingly and now the community says that if they had done this earlier, their children would not have been undernourished. When the community started implementing it, we invited PRI members and key opinion makers from the village and people from the department to see those."

Sustainability: "Since this place predominantly has people from the tribal community, we need to have strategies at the highest level to influence and for better results we need more time."

"Involvement of Anganwadi workers are essential for the successful implementation of the programme, we are also seeing better trends in the growth chart, immunization, dietary diversity etc."

"These interventions should be routed through the government system for sustainability and better results."

13. Summary and Conclusion

Taken together the themes expressed by the participants in this study echoed the findings highlighted in various previous researches that poverty and vulnerability are significant economic barriers for uptake of such nutrition interventions.

Participatory group meetings and nutrition garden together form an excellent entry point for learning new knowledge and skills related to nutrition in a sustainable and culturally appropriate manner that enhances local ownerships by the participants especially from rural and low literate backgrounds. Community members appreciated and valued the discussion and the meetings conducted by the Anganwadi workers. They also understood the link between nutritional practices and healthy development of children. Respondents learnt about prevention of malnutrition, growth monitoring, dietary diversity and about developing a nutrition

garden to supplement their daily nutritional requirements and additionally by identifying locally available nutritious foods also learnt about preparation of new recipes through demonstrations.

Nutrition gardens are a valuable means of contributing to the improvement of food consumption patterns contributing to better nutrition, as well as income generation at the household level, by consuming the food they grow and by selling the surplus to buy other food and non-food items. Communities facing several barriers in obtaining and including more nutritious foods in their diets, such as lack of finances, inaccessibility to market daily, seasonal availability could be overcome by this practice of homestead garden.

Practical nutrition discussions like food demonstrations, contributed to women acquiring new skills required for preparing new food recipes, proper storage and preservation of foods. Further, life skills acquired during the group meetings contributed to building members' self-esteem and enabled the majority of members to think out of the box and adopt nutrition practices within their capabilities.

The stakeholders discussed about the need for more integration of the systems with the community; more co-operation and supportive environment from the department to work closely and train women on health and nutrition issues. The posters of 10 food groups displayed in the AWC reminded the members about improving dietary diversity and intake.

Men who were not directly part of the intervention tended to restrict their wives from attending the meeting, whereas those who were directly or indirectly involved, understood and supported women by sending them to meetings and also helping with intra-household food distribution.

An integrated approach combining the PLA meetings with the existing government schemes would greatly enhance the uptake of services by the community and ownership by the functionaries.

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