# Final Evaluation Report of the Sagar Health Project World Vision India (February – March 2021)


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**Submitted by:**
**Technical Service Organization (TSO)**
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# List of Abbreviations

| | |
|---|---|
| AP | Area Programme |
| ANC | Antenatal Care |
| ANM | Auxiliary Nurse Midwife |
| ARI | Acute Respiratory Infection |
| ASHA | Accredited social health activist |
| AWW | Anganwadi Worker |
| AWC | Anganwadi Centres |
| BMO | Block Mobilization Officer |
| CDPO | Child Development Project Officer |
| CHC | Community Health Centre |
| CLTS | Community Led Total Sanitation |
| CMAM | Community-based Management of Acute Malnutrition |
| ENA | Emergency Nutrition Assessment software |
| FMNR | Farmer Managed Natural Regeneration |
| Gram Panchayat | Smallest administrative unit responsible for administration of village |
| HTSP | Healthy Timing and Spacing of Pregnancy |
| ICDS | Integrated Child Development Scheme |
| MUAC | Mid-Upper Arm Circumference |
| MCHN | Maternal, Child, Health and Nutrition |
| NFHS | National Family Health Survey |
| NRC | Nutrition Rehabilitation Centre |
| ORS | Oral Rehydration Solution |
| PHC | Primary Health Centre |
| SAM | Severe Acute Malnutrition |
| TTC | Timed and Targeted Counselling |
| VHND | Village Health & Nutrition Day |
| VHSNC | Village Health Sanitation & Nutrition Committee |

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# 1. Executive Summary with key indicators

**Introduction**

The Sagar Health Project is a five-year health project implemented by World Vision India through the funding from Takeda Pharmaceutical Company Limited and cost-sharing from World Vision Hong Kong. The project was started in October 2016 and will be completed in September 2021. The project goal is to contribute to improved health status of mothers, pregnant women and children under five years old in Khurai Block, Sagar District, Madya Pradesh State, India. The project target to reach a population of 189,199 (population of Sagar District in Census 2011), with 99,732 males, 89,467 females, and approximately 19,463 children under five years old. The final evaluation was conducted in February-March 2021.

**Methods**

The evaluation adopted a mixed-methods design of qualitative and quantitative methods. Quantitative data collection included a household questionnaire, adapted from the WV Caregiver Survey, with a total sample of 656 caregivers of children 0-59 months old from 30 clusters. The qualitative component consisted of 12 Key Informant Interviews (KII) and 12 Focus Group Discussions, conducted in two villages, and 1 FGD with the Sagar Health project team.

**Results**

**Outcome 1: Reduced vulnerability of women and newborns to the risks related to pregnancy, delivery and newborn care in all communities in target areas**

Maternal nutrition status at the time of the final survey was mixed. Consumption of IFA supplementation during pregnancy was high (98.9%), far exceeding the 23.5% reported in the NFHS. However, food taboos during pregnancy and the finding that women reportedly eat last and least within some households were identified as barriers to maternal nutrition. In the qualitative findings, nutrition-related enablers for a healthy mother were identified; however, there may be a gap in practice, as meal frequency and dietary diversity for mothers of children remained suboptimal. Roughly 3 in 5 women reported consumed three or more meals per day, with 55% of women consuming foods from at least four food groups.

In maternal health, significant from baseline to the final evaluation were observed: 4 ANC visits increasing from 11.4% at to 79.8%; the proportion of women delivering at a health facility increased from 91.1% to 97.8% and contraceptive use increased from 31.78% to 66.7%. Most women in the project area, 98.6%, reported receiving a home visit during pregnancy, and 100% of mothers of children 0-23 months reported receiving post-natal care within the first two days. Focus group discussions reported a change in community behaviour from years past. Whereas home delivery and avoidance of medical care was common practice in the past, there is a demand for such services now as there is a confidence that they will get good medical care.

The proportion of mothers who received two doses of tetanus toxoid vaccination before giving birth decreased from 80.5% to 46.8%. This decline is possibly due to the impact of COVID-19 pandemic restrictions, and refusal of some families to allow immunization, as was noted in the qualitative findings.

**Outcome 2: Reduced vulnerability of children under five to the risks related to malnutrition and childhood illnesses in all communities in target areas**

The nutritional status of under-five children improved in the project target communities, as evidenced by improvements to stunting, wasting, and underweight indicators, along with the reported community perception that addressing malnutrition was one of the most useful contributions of the project. While all three nutrition indicators showed improvement, the smaller reductions observed in stunting (50.1% to 45.2%) and wasting (20.1% to 16.7%) were not statistically significant. In contrast, reductions in underweight were significant from 45.5% at baseline to 25.2% at the evaluation.

Regarding infant and young child feeding, there were significant improvements in early initiation of breastfeeding from 10.8% at baseline to 96.8%, and exclusive breastfeeding in children 0-5 months, from 9.6% at baseline to 92.86% at the end of the project. The adequacy of the diet for young children remains of concern, with 62.1% of children 6-23 months of age and 69.2% of children 24-59 months reportedly received a minimum acceptable diet, meeting the requirements for both diversity and frequency. While no comparison with baseline was available for this indicator, in the most recent government survey (NFHS), only 6.1% of children 6-23 months reportedly received an adequate diet. The qualitative findings revealed the persistence of some food taboos for young children (e.g., vegetables can cause late walking), along with the early cessation of breastfeeding due to a subsequent pregnancy.

Concerning childhood immunization and COVID-19 vaccine hesitancy, the proportion of children 12-23 months with complete immunizations decreased from 77.3% at baseline to 68.4% at the time of the final evaluation. This decrease may be due to barriers related to migration, refusal, and the COVID-19 pandemic. In addition, the COVID-19 pandemic disrupted health services throughout the country, and lockdowns prevented families from seeking immunizations for their children.

Hesitancy regarding receiving the COVID-19 vaccination was low at 6.4% among caregivers surveyed. The qualitative findings revealed that the caregivers interviewed would like to get the COVID-19 vaccine so that they and their family can be safe and protected from the disease.

Caregivers practicing appropriate handwashing behaviors decreased significantly from 98.5% to 90.6% at final evaluation. Given the importance of handwashing for preventing COVID-19 infection, a decrease in this indicator was an unexpected finding. However, the final evaluation did not verify whether households had access to water and soap for handwashing or collect data on the population using improved sanitation. From the qualitative evaluation, it was noted that the project area is drought-prone, so people think to save water as much as they can. There was no intervention to address the lack of water in the project area.

Indicators related to the management of childhood disease and care-seeking performed well. Among children who had diarrhea in the last two weeks, 90.5% reportedly received the correct treatment, meeting the project target of50%. For appropriate health-seeking behaviours, 97.3% of children who experienced fever and symptoms of acute respiratory infection were taken to a health care provider, an increase from 71.1% at baseline. Home visits were provided to 98.6% of households with children 0-59 months.

Access to health facilities remains a barrier, as the evaluation found that 60.3% of respondents require more than 30 minutes to travel to the nearest health facility.

Satisfaction with the health services provided is high was 83.8% reporting that the services provided at their local health facility are adequate, and 100% of the caregivers reported that health services have improved from before the project.

**Conclusions & Recommendations**

The Sagar Health Project realized significant achievements towards improving the health status of pregnant women, mothers, and children in Sagar District. The project met or exceeded the target set for the key indicators, except for immunization, handwashing practice, and underweight.

Given the persistently high levels of malnutrition in Sagar District, future health and nutrition projects should include nutrition-sensitive interventions (such as Livelihoods, Food Security, Water Sanitation and Hygiene, Education) and nutrition-specific interventions, targeting the main determinants of malnutrition in this district. With nearly 40% of children 6-23 months of age, and 30% of children 24-59 months not receiving the minimum acceptable diet, future interventions should improve dietary adequacy for young children, including addressing household nutrition and food security. A multi-sector approach is required to address malnutrition, including enhancing the livelihoods of low-income families and nutrition security at the household level. By facilitating more local livelihood opportunities, it will help to reduce the seasonal migration of families. Hence it will help to improve the coverage of health and nutrition services as well.

The low prevalence of good handwashing practice and the mention of poor sanitation and limited access to clean water during the focus group discussions highlights the need for more WASH investment. Future projects should include interventions to address lack of clean water or link the community with available resources from the government to improve access to clean water.

Further efforts are needed to improve immunization prevalence for both children and women in Sagar District. The Government recognized that there are still some resistance and refusal for immunization in some areas. It is recommended that the future health and nutrition project has a stronger social behavior change component to improve immunization coverage, such as using a formative study to analyze barriers to immunization and formulation of social behavior change strategies. This effort will need a joint strategy with the Government to reach the mobile population who frequently move to find livelihood opportunities and require strong collaboration between State Governments to provide immunization services to children and pregnant women, regardless of where their residence is. A related issue is the lack of government-issued identification, a common challenge for low-income families. Providing a seamless primary health care service across the States border is still a challenge for other countries. Therefore it is recommended that future projects or programs can test innovations to have this seamless system of Primary Health Care across borders, especially for the poor.

**Targets for Year 5 of the Sagar Health Project**

| **Indicators** | **60-months targets (in %)** |
|---|---|
| Prevalence of stunting in children under five years of age | 47 |
| Prevalence of wasting in children under five years of age | 17 |
| Prevalence of underweight in children under five years of age | 20 |
| Percentage of women who gave birth to their youngest child at a health facility | 97 |
| Proportion of mothers who received at least two tetanus vaccinations before the birth of their youngest child | 85 |
| Proportion of women married or in union who are using a modern contraceptive method | 33 |
| Proportion of children under 2 years receiving early initiation of breastfeeding | 60 |
| Proportion of parents or caregivers with appropriate hand-washing behaviour | 99 |
| Proportion of population using improved sanitation facilities (for defecation) | 75 |
| Percentage of children under 5 with diarrhoea who received effective treatment of diarrhea | 50 |
| Percentage of children under 5 with presumed pneumonia who were taken to appropriate health provider | 80 |
| Coverage of essential vaccines among children | 91 |
| Percentage of children exclusively breastfed until 6 months of age | 80 |
| Proportion of children receiving a minimum meal frequency | 30 |
| Percentage of mothers who report that they had four or more antenatal visits while they were pregnant with their youngest child | 60 |

## Summary of Key Indicators from the Final Evaluation

Note: p value < 0.05 is significant; p value < 0.001 is highly significant

| Indicators | Baseline (2017) | Mid Term (2018) | Endline (2021) | Targets (Based on Project's DIP) | P value (BL vs EL) |
|---|---|---|---|---|---|
| Stunting | 50.1% (CI:46.50-53.70) | 51.1% (CI:47.3-54.9) | 45.2% (CI:40.0-50.5)<br>Boys: 47.7% (CI:41.4-54.1%)<br>Girls: 42.2% (CI: 35.8-48.9) | 47% | 0.1208 |
| Wasting | 20.1% (CI:17.10-25.0) | 22.3% (CI:19.1-25.0) | 16.7% (12.3-22.3)<br>Boys: 18.9% (CI:13.5-25.7)<br>Girls: 14.1% (9.0-21.4) | 17% | 0.244 |
| Underweight | 45.5% (CI:41.90-49.0) | 42.4% (CI:38.8-46.0) | 25.2% (CI:21.6-29.3)<br>Boys: 26.7% (21.6-32.5 95% CI)<br>Girls:23.5% (18.8-28.9 95% CI) | 20% | <0.0001 |
| Global acute malnutrition using MUAC <125 mm and/or oedema | | | 11.5% (CI:6.9 - 18.4)<br>Boys: 9.5% (5.1 - 17.0)<br>Girls: 13.8% (7.8 - 23.3) | | |
| Proportion of Caregiver of U5C who stated that they have increased confidence after participating in the nutrition program activities | | | 98.57% (CI: 97.58% - 99.56%) | | |
| Proportion of caregivers of children 0-59 months who have GMP card | | | 92.5% (CI: 90.41% - 94.59%) | | |
| Proportion of children 0-59 months who participated in GMP in the previous month and during this month from all children who have attended GMP | | | 93.9% (CI. 92.01% - 95.79%) | | |
| Proportion of children 0-23 months who had early initiation of BF | 10.87% (CI:8.25-14.25) | 32.03% (CI:27.81-36.56) | 96.79% (CI: 94.8% - 98.78%) | 60% | <0.0001 |
| Proportion of children 0-23 months who received prelacteal feeding | | | 12.2% (CI: 1.79% - 22.61%) | | |
| Proportion of children 0-23 months ever breastfed | | | 97.9% (CI: 96.4% - 99.5%) | | |
| Proportion of children 24-59 months ever breastfed | | | 85.6% (CI: 81.5% - 98.7%) | | |
| Proportion of Children 0-5 months who are exclusively breastfed | 9.6% (CI:7.48-12.23) | 59.60% (CI:49.26-69.34) | 92.9% (CI: 87.8% - 98.2%) | 80% | <0.0001 |
| Proportion of Children 12-23 months still being breastfed (continued breastfeeding) | | | 97.4% (CI:. 93.4% - 99.3%) | | |
| Proportion of Children 24-59 months still receiving breastmilk | | | 65.9% (CI: 60.5% - 71.1%) | | |
| Minimum Dietary Diversity - children 6-23 months | | | 62.07% (CI: 54.14% - 69.99%) | | |
| Minimum Dietary Diversity - children 24-59 months | | | 86.2% (CI: 82.17% - 90.23%) | | |
| Minimum Meal Frequency - children 6-23 months | 10.6% (CI:7.2-14.9) | 10.14% (CI:04.18-19.79) | 79.31% (CI: 73.46% - 85.16%) | 30% | 0.0031 |
| Minimum Meal Frequency - children 24-59 months | | | 52.15% (CI: 44.6% - 59.7%) | | |

| | | | | | |
|---|---|---|---|---|---|
| Minimum Acceptable Diet - children 6-23 months | | | 62.07% (CI: 54.14% - 69.99%) | | |
| Minimum Acceptable Diet -children 24-59 month | | | 69.17% (CI: 63.15% - 75.19%) | | |
| Proportion of children 0-5 months who received early complementary feeding (less than 6 months) | | | 7.1% (CI: 0 - 26.13%) | | |
| Milk-feeding frequency for non-breastfed children 6-23 months | | | 5.6% (CI: 0 - 18.1%) | | |
| Proportion of children 6-59 months old consuming iron-rich or iron-fortified foods | | | 31.5% (CI: 24.64% - 38.36%) | | |
| Proportion of children 6-59 months old consuming Iron Pills or Iron Syrup in the last 7 days | | | 76.5% (CI: 71.9% - 81.1%) | | |
| Proportion of children 6-59 months who received Vitamin A supplementation | | | 82.3% (CI: 78.8% - 85.8%) | | |
| Proportion of mothers of children 0-59 months reported consuming food >= 3 times a day | | | 67.1% (CI: 62.71% - 71.49%) | | |
| Proportion of mothers of children 0-59 months reported consuming more meals than before pregnant | | | 39% (CI: 33.02% - 44.97%) | | |
| Proportion of mothers of children 0-59 months who consumed at least 4 food groups | | | 55.03% (CI: 50% - 60.16%) | | |
| Proportion of mothers of children 0-59 months who consumed at least 90 Iron Folate tablets during last pregnancy | | | 98.88% (CI: 98.05% - 99.70%) | | |
| Proportion of mothers of children 0-59 months who had at least 4 ANC visits | 11.41% (CI:9.04-14.31) | 26.14% (CI:21.82-30.97) | 79.8% (CI: 76.33% - 83.27%) | 60% | <0.0001 |
| Proportion of caregivers of children 0-59 months who received home visit during pregnancy | | | 98.6% (CI: 98.23% - 99.8%) | | |
| Proportion of mothers of children 0-59 months who received at least 2 TT injections before the birth of their youngest child | 80.5% (CI:75.89-83.65) | 79.88% (CI:75.32-83.78) | 46.8% (CI: 40.78% - 52.81%) | 85% | <0.0001 |
| Proportion of mothers of children 0-23 months who delivered in health facility | 91.1% (CI:87.82-93.56) | 90.03% (CI:86.50-92.71) | 97.76% (CI: 95.43% - 99.09%) | 97% | 0.0001 |
| Proportion of mothers of children 0-23 months who delivered with the assistance of Skilled Birth Attendant | | | 93.27% (CI: 89.9% - 95.79%) | | |
| Proportion of mothers of children 0-23 months who received Post Natal Care within the first 2 days | | | 100% | | |
| Proportion of women married or in union who are using a modern contraceptive method | 31.78% (CI:27.54-36.33) | 24.58% (CI:20.41-29.30) | 66.7% (CI: 61.3% - 71.73%) | 33% | <0.0001 |
| Proportion of children 0-23 months who had Essential Newborn Care practice | | | 98.7% (CI: 86.3% - 93.1%) | | |

| | | | | | |
|---|---|---|---|---|---|
| Proportion of caregiver 0-59 months who received deworming during pregnancy | | | 65.4% (CI: 61.62% - 69.04%) | | |
| Proportion of caregiver 0-23 months who received deworming during pregnancy | | | 65.4% (CI: 58.87% - 71.93%) | | |
| Proportion of caregiver 24-59 months who received deworming during pregnancy | | | 62.4% (CI: 55.73% - 69.1%) | | |
| Proportion of children 12-23 months who received complete immunization | 77.3% (CI:70.58-83.12) | 90.85% (CI:84.85-95.03) | 68.4% (CI: 59.59% - 77.21%) | 91% | 0.0236 |
| Proportion of caregivers 0-59 months with COVID-19 vaccine hesitancy | | | 6.4% (CI:0 - 13.8%) | | |
| Proportion of children 0-59 months who had diarrhea in the last 2 weeks who had correct management of diarrhea | 0% | 0% | 90.5% (CI: 80.5% - 100%) | 50% | <0.0001 |
| Proportion of children 0-59 months with fever and ARI symptoms in the last 2 weeks who were taken to a health care provider | 71.05% (CI:54.10-84.58) | 42.11% (CI:20.25-66.50) | 97.3% ( (C.I. 91.3% - 100%) | 80% | 0.0027 |
| Proportion of caregivers of children 0-59 months who wash their hands with water and soap in at least 3 critical times | 98.49% (CI:97.15-99.20) | 98.32% (CI:96.93-99.08) | 90.6% (CI: 88.25% - 92.95%) | 99% | <0.0001 |
| Proportion of population using improved sanitation facilities (for defecation) | 47.07% (CI:43.10-51.08) | 71.50% (67.76-74.97) | Not collected during Endline | 75% | |
| Proportion of caregivers of children 0-59 months who received home visit during last pregnancy | | | 98.6% (CI: 97.41% - 99.37%) | | |
| Proportion of caregivers of children 0-59 months who received home visit for the child | | | 98.6% (CI: 98.23% - 99.8%) | | |
| Proportion of caregivers of children 0-59 months who can reach a health facility within 30 minutes | | | 39.8% (CI: 33.86% - 45.74%) | | |
| Proportion of caregivers of children 0-59 months who think that the health services provided by HF is adequate | | | 83.8% (CI: 80.5% - 87.1%) | | |
| Proportion of caregivers of children 0-59 months who think that the health services provided now is either better or much better | | | 100.00% | | |

## 2. Project information

The Sagar Health Project is a five-year health project implemented by World Vision India through funding from Takeda Pharmaceutical Company Limited and cost-sharing from World Vision Hong Kong. The project was started in October 2016 and will be completed in September 2021. The goal of the project is to contribute to improved health status of mothers, pregnant women and children under five years old in Khurai Block, Sagar District, Madya Pradesh State, India. The project is targeted to reach a population of 189,199 (population of Sagar District in Census 2011), with 99,732 males, 89,467 females, and approximately 19,463 children under five years old.
The goal, outcomes and outputs of the project as are follows:

Goal: To contribute to the improved health status of mothers, pregnant women, and children under five years old in Sagar District, Madya Pradesh State, India

Outcome 1: Reduced vulnerability of women and newborns to the risks related to pregnancy, delivery, and newborn care in all communities in target areas

- Output 1.1: Increased knowledge and awareness among men and women on the risks of malnutrition and childhood illnesses, and preventive measures
- Output 1.2: Increased community involvement and strengthened capacity of community organizations for safe motherhood
- Output 1.3: Improved access to maternal health and nutrition services

Outcome 2: Reduced vulnerability of children under five to the risks related to malnutrition and childhood illnesses in all communities in target areas.

- Output 2.1: Increased knowledge and awareness among men and women on the risks of malnutrition and childhood illnesses, and preventive measures
- Output 2.2: Increased community involvement and strengthened capacity of community organizations for new-born and child health & nutrition
- Output 2.3: Improved access to new-born and child health and nutrition services

Khurai Block is one of the eleven blocks in the Sagar District. The district of Sagar lies in the north-central region of Madhya Pradesh. It is situated between 23 deg 10’ and 24 deg 27’ north latitude, and between 78 deg 4’ and 79 deg 21’ east longitude. The district has a truly central location in the country. The tropic of cancer passes through the southern part of the district. Khurai is one of the vulnerable blocks of the Sagar district. It is situated 18 km from Bina, the railway Junction, and nearest city, and Sagar is about 60 km from Khurai block.

Madhya Pradesh, located in central India, has 50 districts and 342 blocks with population of 7.2 crores (Census, 2011). Sagar district is located 180 Kms from the state capital Bhopal and caters to a population of 24 lakhs of which 3.5 lakh live in Sagar city. Sagar health division comprises 5 districts of Bundelkhand region in Madya Pradesh, of which the Sagar district is one of them. The district is divided into 11 blocks namely, Deori, Kesli, Rahatgarh, Jaisinagar, Banda, Shahgarh, Rehli, Shahpur, Agasod, Khurai and Malthon.

Sagar is one of the 100 districts of Empowered Action Group (EAG) states of India, where the Infant Mortality rate (IMR) is very high. It is also among the top 25 administrative divisions in order of the Maternal Mortality Ratio. The Annual Health Survey (AHS) 2011-12 for Madya Pradesh revealed that Sagar district has IMR rates higher than that of Madya Pradesh as a whole (M.P.67; Sagar 70). Neonatal mortality rate is also high in the district. The maternal mortality ratio is 397 per 100,000 live births for Sagar administrative division. Sex ratio at birth is very low at 844 females per 1000 males in Sagar district compared to state average, indicating female infants are experiencing higher mortality both in rural and urban areas.

An initial assessment conducted by the project team identified the following are the reasons for poor maternal and child health status in Khurai Block: delayed breast feeding and milk feeding; lack of proper ante-natal and post-natal care, including limited institutional delivery, low awareness on appropriate child nutrition among the mothers; poor awareness of good sanitation and hygiene practices among the elders as well as the children; infrastructure gaps in Anganwadi Centre, CHC, PHC, etc.; absence of skilled medical practitioners and presence of unlicensed/unregulated medical professionals 'quacks'; low access to family welfare and health care services among the target rural population; lack of safe drinking water source; high incidence of malnutrition among the children.

The Sagar Health Project received funding from the Takeda Pharmaceutical Company Limited through WV Japan and Private Non-Sponsorship (PNS) funding from WV Hong Kong.

## 3. Purpose and scope of evaluation

**Purpose of the evaluation**: To conduct a final evaluation using mixed methods (quantitative and qualitative) in the Sagar Health Project implementation areas, addressing the following questions:

- **Relevance**: is the intervention doing the right things? The extent to which the intervention objectives and design respond to beneficiaries and country needs, policies, and priorities.
- **Coherence**: how well does the intervention fit? The compatibility of the interventions with other interventions in the country.
- **Effectiveness**: is the intervention achieving its objectives? The extent to which the intervention achieved, or is expected to achieve, its objectives, and its results, including any differential results across groups.
- **Efficiency**: how well are resources are being used? The extent to which the intervention delivers results in an economic and timely way.
- **Impact**: what difference does the intervention make? The extent to which the intervention has generated or is expected to generate significant positive or negative, intended or unintended, higher-level effects.
- **Sustainability**: will the benefits last? The extent to which the net benefits of the intervention continue, or are likely to continue.

The evaluation questions above were formulated based on the input from WV Japan in consideration of the expectations of the donor agency: Takeda Pharmaceutical Company Limited. The 6 evaluation questions are based on the Organizations for Economic Co-operation and Development (OECD) Criteria for evaluation of development program.

# 4. Methodology

## 4.1 Evaluation design

The evaluation adopted a mixed methods design, including both qualitative and quantitative methods. Quantitative data collection included a household questionnaire adapted from the WV Caregiver Survey. The qualitative component consisted of Key Informant Interviews (KII) and Focus Group Discussions. Geographic coverage of the study included villages that participated in the project.

### 4.1.1 Statistical considerations

The project evaluation was designed to measure/detect a statistically significant difference between proportions between 2 survey domains (pre and post-intervention). The following formula from the Global Centre LEAP 3 Guidance for Sample Size calculation was used to determine the minimum sample size.

$$n \geq DEFT \frac{\left[Z_{\alpha/2}\sqrt{2P(1-P)} + Z_{\beta}\sqrt{P_2(1-P_2)+P_1(1-P_1)}\right]^2}{(P_2-P_1)^2}$$

Where:

n: Desired sample size

DEFT: Design effect

$Z_{\alpha/2}$: Z-score corresponding to the level of confidence with which it is desired to be able to conclude that an observed change of magnitude ($p_2$-$p_1$) would not have occurred by chance (i.e., *Probability of Type-1 error*) (unless otherwise noted, assume 2-sided test with a = 0.05; thus Z = 1.96).

$Z_{\beta}$: Z-score corresponding to the probability with which it is desired to be certain of being able to detect a change of magnitude ($p_2$ - $p_1$), if one occurred (i.e. *Power to avoid Type-2 error*) (unless otherwise noted, assume power of 80%; thus Z = 0.84).

$P_1$: This is the expected proportion that is obtained from the evaluation survey, or in a survey particular survey domain.

$P_2$: This is the expected proportion that will be obtained from our follow-up survey, or in a survey particular survey domain.

P: ($P_1$ + $P_2$) / 2

### 4.1.2 Non-statistical considerations

- *Prioritisation of Information needs (Evaluation Objectives):* the stakeholders agreed on the main objectives of the evaluation which then informed priority information needs.
- *Priority Indicators:* the evaluation team has tried as much as possible to measure all indicators under the two project outcomes

## 4.2 Quantitative Method

### 4.2.1 Sampling Frame and Decision on Number of Samples

The sampling frame for the evaluation came from the recent Census of Population and Housing data collected. Sampling was conducted across villages in Sagar District, where the project was implemented. This approach provided statistically significant data on change and comparative analysis at the project level. The primary sampling units (PSUs) were the villages.

The project evaluation utilized a two-stage stratified cluster sampling design with probability proportional to size to sample the clusters and the households. To minimize intra-cluster correlation, only twenty households were selected from each cluster resulting in a total of **30 clusters** selected for the final evaluation. The evaluation team considered 10% increase for non-response with **planned sample of 660 households, however the actual sample was 656**. It is worth noting that the sample selected was not sufficient to detect smaller, yet potentially significant change in anthropometric indicators.

**Table 2. List of selected villages/clusters for the Quantitative Evaluation**

| | | |
|---|---|---|
| Achanwara + Beichanwara | Toda Kacchi | Bharchha |
| Jharai + Gajar | Sabdha | Khadesara |
| Khajra Harchandra + Dalpatpur Malgujari | Jagdishpura | Basahari |
| Mudiya + Simariya Ghat | Bardha | Maheri |
| Pipariya Gond + Budho | Dhangar | Khimlasa1 |
| Nardha + Parasari | Kanera Gond | Khimlasa2 |
| Lahatwas + Budanpura | Balau | Dhemadhana |
| Mudri + Chandpur + Khiriya Thansingh | Gadhola Jagir | Koha |
| Khajuria + Khoja Khedi | Jamun Khedi | Silodha |
| Gwari | Barodiya Baman | Tewari |

### 4.2.2 Training of Trainer for Field Offices, and Training of enumerators and supervisors

A virtual Training of Trainers training was conducted, bringing together project teams from the four countries (India, Nepal, Bangladesh, Afghanistan). The training covered sampling techniques for both quantitative and qualitative data, including anthropometric measurement techniques and COVID-19 risk reduction measures. Following the virtual training, the India team conducted similar training to the enumerators and supervisors before data collection.

### 4.2.3 Data Collection – quality control

**Quantitative data collection was conducted on 22-26 February 2021**. Data were reviewed daily for completeness and accuracy. Anthropometric data was verified daily using ENA Software. Relevant corrections were done by field team, and final data was cleaned for data analysis.

### 4.2.4 Analysis of Quantitative evaluation

Anthropometric data (stunting, wasting, and underweight) was analyzed using ENA Sofware, while other quantitative data was analyzed using SPSS. Measurements were based on frequencies, cross-tabulations and t-tests to generate P values across the relevant indicators.

## 4.3 Qualitative Method

For qualitative measurements, non-probability sampling was used where the objective was to establish meaning rather than representative study outcomes. The criteria for selecting respondents was determined by the information required for the particular project outcome.

### 4.3.1 Sampling method and Respondents

This section of the study is based on a thematic analysis of qualitative data analysis. First, the patterns were identified through a rigorous process of data familiarization, data coding, and theme development. The themes were derived after identifying patterns of meaning across the transcribed interviews.

The study was conducted through individual semi-structured interviews or Key Informant Interviews (KII) and Focus Group Discussion (FGD) to address the research questions of this evaluation. Two villages, Achanwara and Kanera Gond, were selected for the qualitative evaluation using purposive sampling according to the following criteria:

- Must be part of Phase 1 Area (experienced 5 years of project interventions)
- Represent one high-performing area and one poor-performing area based on several indicators in Quantitative Evaluation (4 ANC Visits and Delivery in Health Institution).

Following discussions between the Consultant and the project team, it was agreed that rather than a 'poor performing area' the selected site should be referred to as ' "not so high performing area".

Focus Group discussions were conducted with the following groups of respondents: mother of child under five years old, pregnant woman, father of child under five years old, grandmother, adolescent girls (12-19 years old), and adolescent boys (12-19 years old). Participants for FGDs were selected based on their previous participation or interaction with the Sagar Health Project. Each FGD included 8-10 participants who meet the specific criteria such as Key Informants were selected based on their position and familiarity with the focus of Evaluation.

**The entire qualitative data collection was carried out on 16 – 20 March 2021**. A total of 12 KIIs and 13 FGDs were conducted for this evaluation. The schedule of KIIs and FGDs are described below:

**Table 3. List of Interviewee and Respondents for Qualitative Evaluation**

| Achanwara | Kanera Gond | Cluster/Block level |
|---|---|---|
| 16 March 2021<br>• 1 FGD with mothers of U5C and pregnant women<br>• 1 FGD with fathers of U5C<br>• 1 FGD with grandmothers<br>• 1 FGD with adolescent girls<br>• 1 FGD with adolescent boys<br>• 1 FGD with VHSNC<br>• 1 KII with Community Leader<br>• 1 KII with TTC Volunteer<br>• 1 KII with ANM<br>17 March 2021<br>• 1 KII with Anganwadi Worker<br>• 1 KII with Anganwadi Supervisor | 18 March 2021<br>• 1 FGD with mothers of U5C and pregnant women<br>• 1 FGD with fathers of U5C<br>• 1 FGD with grandmothers<br>• 1 FGD with adolescent girls<br>• 1 FGD with adolescent boys<br>• 1 FGD with VHSNC<br>• 1 KII with Community Leader<br>• 1 KII with TTC Volunteer<br>• 1 KII with ASHA<br>19 March 2021<br>• 1 KII with Anganwadi Worker<br>• 1 KII with Anganwadi Supervisor | 17 March 2021<br>• 1 KII with CDPO<br><br>19 March 2021<br>• 1 KII with Block Community Mobilizer (ASHA Supervisor)<br>• 1 FGD with project staff |
| Total KIIs and FGDs conducted: 25 (12 KIIs + 13 FGDs) | | |

A semi-structured interview guide for KIIs and FGDs was developed by the Consultant (a Public Health expert). The guide was then reviewed by another Consultant (a nutrition expert) and a Gender Specialist and Child Protection Specialist. The final KII and FGD guides were shared with the Data Collection team to be translated into Hindi. The translated KII and FGD guides were used for orientation to ensure consistency in the interview guides when the team conducted the KII and FGD in the local languages.

### 4.3.2 Training for Field Offices and Orientation for Interviewers & FGD Facilitators

Before the data collection, the Consultant provided a one-day orientation to the Qualitative Data Collection team recruited from the World Vision India DME team and staff from the nearby Area Program. A total of 4 interviewers and facilitators were recruited for this qualitative evaluation. The Sagar Health Project team was not included as the lead interviewer or FGD facilitator to prevent biases.

The Consultant reviewed the expectations for qualitative data collection, including obtaining informed consent from all respondents, procedures for recording discussions, and the level of detail expected for transcripts. Consultant expected to have a clean verbatim transcript from each KII and FGD.

### 4.3.3 Data Collection – quality control

The consultant had daily communications with the Qualitative Data Collection team to check on the progress of interviews completed, any clarifications needed on questions, and progress on translation and transcription.

The interview and discussion were done in the local language (Hindi). Each KII or FGD was audio-recorded after the informant or participant agreed to participate in the evaluation and agreed to have the interview recorded. The recording then was used to write the transcripts, and the Supervisor checked the result. The first few transcripts were not done according to standards, and thus, the Consultant returned them to the team for revision. Some transcripts were sent to the consultant within 3-7 days after the data collection, and some took a bit longer due to the availability of the transcriber and the supervisor who checked the transcripts.

**Figure 1: Qualitative Evaluation Team**

**Table 4. Participants of the Qualitative Evaluation by Gender**

| List of In-depth Interviews and FGDs by area | Male | Female |
|---|---|---|
| Achanwara | | |
| FGD with mothers of children under 5 and pregnant women | | 11 |
| FGD with fathers of children under 5 | 8 | |
| FGD with grandmothers | | 8 |
| FGD with adolescent girls | | 12 |
| FGD with adolescent boys | 11 | |
| FGD with Village Health Sanitation and Nutrition Committee (VHSNC) | | 11 |
| KII with Community Leader | 1 | |
| KII with TTC Volunteer | | 1 |
| KII with ANM | | 1 |
| KII with Anganwadi Worker | | 1 |
| KII with Anganwadi Supervisor | | 1 |
| Kanera Gond | | |
| FGD with mothers of children under 5 and pregnant women | | 12 |
| FGD with fathers of children under 5 | 11 | |
| FGD with grandmothers | | 7 |
| FGD with adolescent girls | | 14 |
| FGD with adolescent boys | 10 | |
| FGD with Village Health Sanitation and Nutrition Committee (VHSNC) | | 10 |
| KII with Community Leader | 1 | |
| KII with TTC Volunteer | | 1 |
| KII with ASHA | | 1 |
| KII with Anganwadi Worker | | 1 |
| KII with Anganwadi Supervisor | | 1 |
| TOTAL | 42 | 93 |

### 4.3.4 Analysis of qualitative evaluation

Analysis of the qualitative evaluation was conducted using the Thematic Analysis approach, as described by Braun and Clark (2006). Initially, the consultant read the transcripts 2-3 times to familiarize herself with the data. Afterward, preliminary codes were used to identify the recurring ideas in the interviews. The recurring ideas comprised the themes. The themes were closely examined to ensure that the responses were categorized under the most appropriate theme. The last stage was to identify the sub-themes within the main themes.

**Picture 2. Process of quantitative survey**

# 5. Results

## 5.1 Quantitative Results

### 5.1.1 Demographic Characteristics

**Education Background**

Among caregivers interviewed, the majority (54.9%, CI: 50.98% - 58.73%) completed between Class 1 – IX as per Table 5.

**Table 5: Educational background of primary caregivers**

| Education background of Caregivers | Frequency | Valid Percent |
|---|---|---|
| Illiterate/ never gone school | 27 | 4.1% |
| Only Sign and read | 17 | 2.6% |
| Can read and write | 14 | 2.1% |
| Pre-primary | 49 | 7.5% |
| Class I - IX | 360 | 54.9% |
| SSC | 114 | 17.4% |
| HSC | 35 | 5.3% |
| Bachelor | 22 | 3.4% |
| Masters | 17 | 2.6% |
| **Total** | **656** | **100.0%** |

Regarding, educational background for household heads, the majority (44.4%, CI: 40.51% - 48.26%) completed Class I-IX followed by SSC (21.5%, CI: 18.41% - 24.84%) as per Table 6.

**Table 6: Educational background for household heads**

| Education background of Household Heads | Frequency | Valid Percent |
|---|---|---|
| Illiterate/ never gone school | 20 | 3.0% |
| Only Sign and read | 24 | 3.7% |
| Can read and write | 8 | 1.2% |
| Pre-primary | 48 | 7.3% |
| Play, Nursery/ECCD (Early Childhood Care and Development) & Kinder Garten | 3 | 0.5% |
| Class I - IX | 291 | 44.4% |
| SSC (Secondary School Certificate) or Matriculation examination | 141 | 21.5% |
| HSC (Higher Secondary Certificate) | 56 | 8.5% |
| Bachelor | 45 | 6.9% |
| Masters | 20 | 3.0% |
| **Total** | **656** | **100.0%** |

**Religion**

Majority of the respondents belong to Hindu religion at 99.4% (CI: 98.45% – 99.83%), while Christians and Muslims are 0.2% and 0.5% respectively, as per Table 7.

**Table 7: Religion of respondents/primary caregivers**

| Religion of primary caregivers | Valid Percent |
|---|---|
| Christian | 0.2% |
| Hindu | 99.4% |
| Muslim | 0.5% |
| **Total** | **100.0%** |

**Occupation**

Majority of the primary caregivers, which is 73.5% (CI: 69.9% - 76.8%) are housewives, while 19.5% (CI: 16.55% - 22.76%) engage in cultivation-agriculture of their own land as per Table 8.

**Table 8: Primary occupation of caregivers**

| Primary Occupation of Caregivers | Frequency | Valid Percent |
|---|---|---|
| Agricultural labour (day labourer/agricultural labourer/assists in household agricultural activities) | 32 | 4.9% |
| Cultivation (only mortgaged/borrowed or rented /lease land) | 1 | 0.2% |
| Cultivation-Agriculture (own land) | 128 | 19.5% |
| Government/Nongovernment employee | 6 | 0.9% |
| Housewife | 482 | 73.5% |
| Non-agricultural labourer (mason/weaver/potter/blacksmith/cobbler/tailor/assistant to mason/weaver/ worker in a rice mill) | 4 | 0.6% |
| Not applicable/No secondary work | 1 | 0.2% |
| Professional (Teacher/Lawyer/Doctor/Engineer) | 2 | 0.3% |
| **Total** | **656** | **100.0%** |

For household heads, the majority, which is 65.1%, (CI: 61.3% - 68.7%) are involved in cultivation: agricultural of their own land, followed by working as day labour in agriculture with 18.8% (CI: 15.8% - 21.9%) as per Table 9.

**Table 9: Primary occupation of household heads**

| Primary Occupation of Household Heads | Frequency | Valid Percent |
|---|---|---|
| Agricultural labour (day labourer/agricultural labourer/assists in household agricultural activities) | 123 | 18.8% |
| Auto/Bus/Truck driver | 6 | 0.9% |
| Cultivation (only mortgaged/borrowed or rented /lease land) | 9 | 1.4% |
| Cultivation-Agriculture (own land) | 427 | 65.1% |
| Differently able/ did not work | 1 | 0.2% |
| Government/Nongovernment employee | 20 | 3.0% |
| Housekeeping in others household | 1 | 0.2% |
| Housewife | 1 | 0.2% |
| Large business | 2 | 0.3% |

| | | |
|---|---|---|
| Non-agricultural labourer (mason/weaver/potter/blacksmith/cobbler/tailor/assistant to mason/weaver/ worker in a rice mill) | 47 | 7.2% |
| Not applicable/No secondary work | 3 | 0.5% |
| Petty traders | 6 | 0.9% |
| Professional (Teacher/Lawyer/Doctor/Engineer) | 5 | 0.8% |
| Rickshaw/Van/ puller Pushing cart man/boatman | 3 | 0.5% |
| Students | 2 | 0.3% |
| **Total** | **656** | **100.0%** |

**Disability among caregivers and household heads**

Table 10 indicates that 2.4% (CI: 1.40%-3.93%) of the households interviewed had either the primary caregiver or the household head with disability. Major types of disability include physical problem (difficulty walking, missing leg/foot or arm/hand), cannot see/poor vision/blind, cannot hear/deaf and physical problem (difficulty walking, missing leg/foot or arm/hand), Illness/accidental loss of physical organ.

**Table 10: Proportion of caregivers and household heads with disability**

| With Disability | Frequency | Caregivers | Household heads |
|---|---|---|---|
| | | Valid Percent | Valid Percent |
| No | 640 | 97.6% | 97.6% |
| Yes | 16 | 2.4% | 2.4% |
| Total | 656 | 100.0% | 100.0% |

**Disability among the children under five years old**

According to the caregiver's report during the interview, 1.9% (CI: 1.1% - 3.4%) of children under five years have a disability. The type of disability among these children under five are behavioral issues, and a few have a seeing disability or walking disability as per Table 11.

**Table 11: Proportion of children under 5 years with disability**

| Disability among children under 5 surveyed | Frequency | Prevalence |
|---|---|---|
| Seeing | 1/656 | 0.15% (CI: 0.0% – 0.8%) |
| Walking | 1/656 | 0.15% (CI: 0.0% – 0.8%) |
| Behavioral issues | 11/656 | 1.68% (CI: 0.84% – 2.9%) |

Compared to other children, caregivers reported that 23.6% (CI: 16.9% - 30.3%) of children under 5 with a disability have a poor appetite (does not like to eat).

### 5.1.2 Nutritional Status of Children Under Five

**Picture 3. Measuring Mid-upper Arm Circumference (MUAC)**

Stunting, underweight and wasting indicators were measured to assess the nutritional status of children from birth to 59 months. (See table Table 12). In Sagar Health project, stunting was found to be 45.2% (95% CI: 40.0%-50.5%) with 22.5% (95% CI: 19.0%-26.4%) moderately stunted and 22.7% (95% CI: 18.8%-27.0%) severely stunted.

**Overall, stunting decreased by 4.9 percentage points from baseline; however, this change was not significant**. **Underweight decreased significantly** from 45.5% (95% CI: 41.9%-49.0%) to 25.2% (95% CI: 21.6%-29.3%). Moderate underweight was 18.4% (95% CI: 14.9%-22.4%) and severe underweight was 6.8% (95% CI: 5.1%-9.1%). **Global Acute Malnutrition decreased but not significantly** from 20.1% (95% CI: 17.1%-25.0%) to 16.7% (95% CI: 12.3%-22.3%). Moderate acute malnutrition was 7.2% (95% CI: 5.2%-9.8%) and severe acute malnutrition was 9.5% (95% CI: 5.8%-15.3%).

**Table 12: Child Nutrition among children 0-59 months of age**

| Indicators | Baseline | | Endline | | p value | target |
|---|---|---|---|---|---|---|
| | Freq | % (95% CI) | Freq | % (95% CI) | | |
| Stunting | 330/659 | 50.1% (46.50-53.70) | 287/635 | 45.2% (40.0-50.5) | 0.1208 | 47% |
| Wasting | 132/659 | 20.1% (17.10-25.0) | 107/641 | 16.7% (12.3-22.3) | 0.244 | 17% |
| Underweight | 299/659 | 45.5% (41.90-49.0) | 115/614 | 25.2% (21.6-29.3) | <0.0001 | 20% |

Table 13 shows nutrition indicators disaggregated by sex. **There was no significant difference in the prevalence of stunting, underweight and acute malnutrition between boys and girls**.

**Table 13: Comparison of anthropometric results by sex**

| Nutritional Status | Boys | Girls | P value |
|---|---|---|---|
| | n and 95% CI | n and 95% CI | |
| Stunting | 346<br>47.7% (CI: 41.4-54.1) | 289<br>42.2% (CI: 35.8-48.9) | 0.39 |
| Underweight | 337<br>26.7% (CI: 21.6-32.5) | 277<br>23.5% (CI: 18.8-28.9) | 0.36 |
| Global Acute Malnutrition (GAM) | 350<br>18.9% (CI:13.5-25.7) | 291<br>14.1% (CI: 9.0-21.4) | 0.11 |

The prevalence of acute malnutrition by low MUAC and/or oedema for children 6-59 months is shown in table 14. Global Acute Malnutrition by low MUAC and/or oedema was 11.5%, lower than GAM reported by weight-for-height z score (16.7%), this is to be expected as WHZ and MUAC are independent criteria for assessing GAM and do detect different children. Severe Acute Malnutrition, by WHZ, low MUAC and/or oedema was high, which is most likely due to erroneous detection of oedema, which is a rare event, but was detected at uncharacteristically high levels (6.2%) in the final evaluation.

**Table 14: Prevalence of acute malnutrition by MUAC and/or oedema in children 6-59 months of age**

| Indicators | All | Boys | Girls |
|---|---|---|---|
| | n = 558 | n = 304 | n = 254 |
| **Prevalence of global malnutrition** (< 125 mm and/or oedema) | (64) 11.5 % (95% CI: 6.9 - 18.4) | (29) 9.5 % (95% CI: 5.1 - 17.0) | (35) 13.8 % (95% CI: 7.8 - 23.3) |
| **Prevalence of moderate malnutrition** (< 125 mm and >= 115 mm, no oedema) | (24) 4.3 % (95% CI: 2.7 - 6.8) | (8) 2.6 % (95% CI: 1.3 - 5.3) | (16) 6.3 % (95% CI: 3.5 - 11.1) |
| **Prevalence of severe malnutrition** (< 115 mm and/or oedema) | (40) 7.2 % (95% CI: 3.5 - 14.2) | (21) 6.9 % (95% CI: 2.9 - 15.6) | (19) 7.5 % (95% CI: 3.6 - 14.9) |

Figure 1 compares nutrition indicators at baseline, midline and endline, with the National Family Health Survey-4 (NFHS) 2015-2016, which is the most recent state level data available for Madhya Pradhesh.

**Figure 1: Nutritional status comparison**

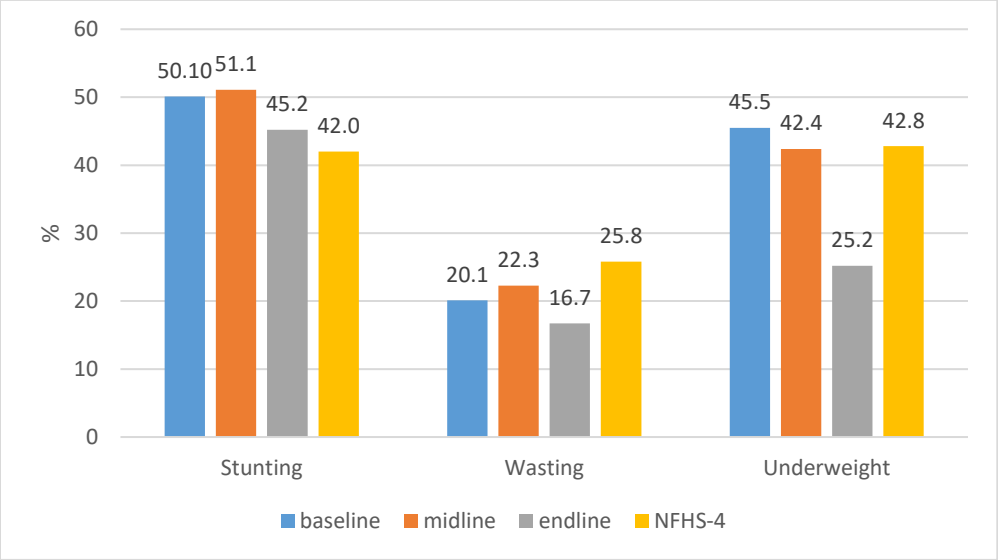
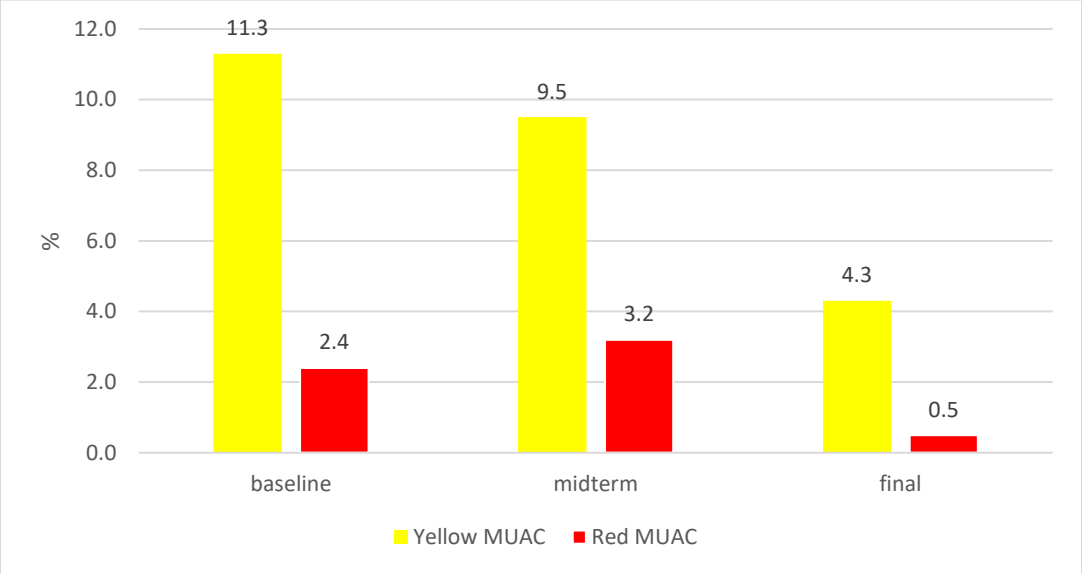



Figure 2 compares the prevalence of yellow (<125 mm and >= 115 mm) and red MUAC (<115 mm) categories at baseline, midline, and endline.

**Figure 2: Prevalence of Yellow MUAC (<125 mm and >= 115 mm) and Red MUAC (<115 mm) at baseline, midterm and final**




The evaluation found a **high level of participation in growth monitoring and promotion activities**. Among children 0-59 months, 92.5% had a growth monitoring card, and 93.9% had participated in GMP recently (Table 15). In addition, caregivers reported an increased level of confidence in child feeding and caring following their participation in the nutrition program activities.

**Table 15: Participation in Nutrition activities**

| Indicators | Endline | |
|---|---|---|
| | Frequency | % (95% CI) |
| Proportion of Caregiver of U5C who stated that they have increased confidence after participating in the nutrition program activities | 552/560 | 98.57% (CI: 97.58% - 99.56%) |
| Proportion of caregivers of children 0-59 months who have GMP card | 607/656 | 92.5% (CI: 90.41% - 94.59%) |
| Proportion of children 0-59 months who participated in GMP in the previous month and during this month from all children who have attended GMP | 616/656 | 93.9% (CI: 92.01% - 95.79%) |

### 5.1.3 Infant and Young Child Feeding

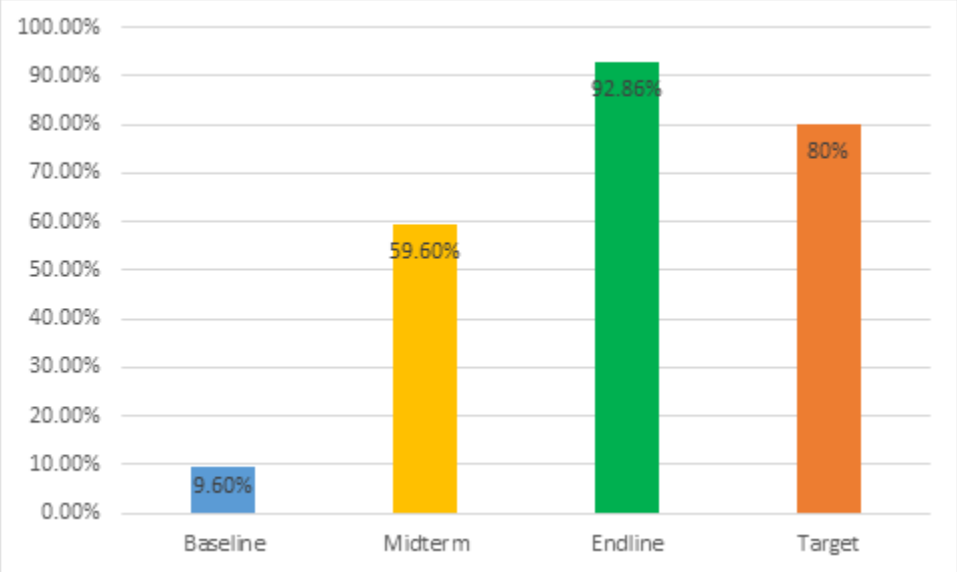
**Breastfeeding Practices**

**Significant improvements in breastfeeding practices were observed** (Table 16). Among children 0-23 months, 96.8% received early initiation of breastfeeding at birth, an increase from 10.9% recorded at baseline. Exclusive breastfeeding among children 0-5 months of age improved with 92.9% of infants reportedly exclusively breastfed at the time of the evaluation compared to 9.6% at baseline. The project target for this indicator was 80%. (See figure 2).

**Table 16: Breastfeeding Practices**

| Indicators | Baseline | Endline | | P Value |
|---|---|---|---|---|
| | % (95% CI) | Freq | % (95% CI) | |
| Proportion of children 0-23 months who had early initiation of BF | 10.87% (CI:8.25-14.25) | 302/312 | 96.79% (CI: 94.8% - 98.78%) | <0.0001 |
| Proportion of children 0-23 months who received prelacteal feeding | | 38/312 | 12.2% (CI: 1.79% - 22.61%) | |
| Proportion of children 0-23 months ever breastfed | | 323/330 | 97.9% (CI: 96.36% - 99.46%) | |
| Proportion of children 24-59 months ever breastfed | | 279/326 | 85.58% (CI: 81.46% - 98.7%) | |
| Proportion of Children 0-5 months who are exclusively breastfed | 9.6% (CI:7.48-12.23) | 91/98 | 92.86% (CI: 87.76% - 98.24%) | <0.0001 |
| Proportion of Children 12-23 months still being breastfed (continued breastfeeding) | | 148/152 | 97.37% (CI: 93.4% - 99.28%) | |
| Proportion of Children 24-59 months still receiving breastmilk | | 215/326 | 65.95% (CI: 60.53% - 71.08%) | |

**Figure 3: Proportion of Children 0-5 months who are exclusively breastfed**




**Minimum Dietary Diversity, Minimum Meal Frequency, Minimum Acceptable Diet and other IYCF indicators**

Indicators related to child feeding are shown in table 17. Among children 6-23 months, 62.1% (95% CI: 54.14% - 69.99%) received the Minimum Dietary Diversity (foods from 5 or more food groups, including breastmilk) at the time of the evaluation. For children 24-59 months of age, this was 86.2% (95% CI: 82.17% - 90.23%).

The proportion of children 6-23 months achieving Minimum Meal Frequency increased from 10.6% at baseline to 79.31% (CI: 80.95% - 90.65%) (p. 0.031), while 52.2% (CI: 44.6% - 59.7%) of children 24-59 months achieved minimal meal frequency

Regarding a Minimally Acceptable Diet, meeting the requirements for both diversity and frequency, 62.07%% for children 6-23 months of age and 69.17% for children 24-59 months reportedly received the minimum acceptable diet. Dietary diversity was better among older children (24-59 mos), while meal frequency was higher in the younger age group, 6-23 months. In the NFHS (2015-2016) for the Sagar district, only 6.1% of children 6-23 months received an adequate diet. Consumption of iron-rich foods was low at 31.5%; however, use of iron syrup and micronutrient sprinkles was high, 76.5% and 78.9% respectively. Eighty-two percent of children surveyed had received vitamin A supplementation.

**Table 17: Child Feeding Practices**

| Indicators | Baseline | Endline | | P value |
|---|---|---|---|---|
| | % (95% CI) | Freq | % (95% CI) | |
| Minimum Dietary Diversity - children 6-23 months | | 144/232 | 62.07% (CI: 54.14% - 69.99%) | |
| Minimum Dietary Diversity - children 24-59 months | | 281/326 | 86.2%2% (CI: 82.17% - 90.23%) | |
| Minimum Meal Frequency - children 6-23 months | 10.61% (CI:7.16-14.96) | 184/232 | 79.31% (CI: 73.46% - 85.16%) | 0.0031 |
| Minimum Meal Frequency - children 24-59 months | | 170/326 | 52.15% (CI: 44.6% - 59.7%) | 0.0001 |
| Minimum Acceptable Diet - children 6-23 months | | 144/232 | 62.07% (CI: 54.14% - 69.99%) | |
| Minimum Acceptable Diet - children 24-59 months | | 226/326 | 69.17% (CI: 63.15% - 75.19%) | |
| Proportion of children 0-5 months who received early complementary feeding (less than 6 months) | | 7/98 | 7.1% (CI: 0 - 26.13%) | |
| Milk-feeding frequency for non-breastfed children 6-23 months | | 13/232 | 5.6% (CI: 0 - 18.1%) | |
| Proportion of children 6-59 months old consuming iron-rich or iron-fortified foods | | 176/558 | 31.5% (CI: 24.64% - 38.36%) | |
| Proportion of children 6-59 months old consuming Iron Pills or Iron Syrup in the last 7 days | | 427/558 | 76.5% (CI: 71.9% - 81.1%) | |
| Proportion of children 6-59 months old consuming Micronutrient sprinkles in the last 7 days | | 440/558 | 78.9% (CI: 75.09% - 82.71%) | |
| Proportion of children 6-59 months who received Vitamin A supplementation | | 459/558 | 82.3% (CI: 78.8% - 85.8%) | |

### 5.1.4 Maternal Nutrition

Maternal nutrition indicators are reported in table 18. The proportion of mothers with children 0-59 months of age who reported consuming three or more meals per day was 67.1%, with 55% of women consuming foods from at least 4 food groups. During their last pregnancy, 39% of women reporting

increasing their number of meals. Iron folate consumption during the last pregnancy was high, with 98.9% of women reportedly consuming at least 90 tablets. In the NFHS, 23.5% of women reported consuming iron-folic acid for 100 days or more while pregnant.

**Table 18: Maternal Nutrition**

| Indicators | Endline | |
|---|---|---|
| | Freq | % (95% CI) |
| Proportion of mothers of children 0-59 months reported consuming food >= 3 times a day | 440/656 | 67.1% (CI: 62.71% - 71.49%) |
| Proportion of mothers of children 0-59 months reported consuming more meals than before pregnant | 256/656 | 39.0% (CI: 33.02% - 44.97%) |
| Proportion of mothers of children 0-59 months who consumed at least 4 food groups | 361/656 | 55.03% (CI: 50% - 60.16%) |
| Proportion of mothers of children 0-59 months who consumed at least 90 Iron Folate tablets during last pregnancy | 620/627 | 98.88% (CI: 98.05% - 99.70%) |

### 5.1.5 Maternal Health

Maternal Health indicators related to antenatal (ANC), delivery and post-natal care are shown in table 19. For these indicators, the final evaluation used the "based on report" approach instead of "based on record", as the enumerators did not check the Ante Natal Card or any maternal health record kept by the mother. In India, the record-keeping is done in the register of front-line workers, and mothers do not have personal or household records as documentation. The same approach was used in the Baseline and in the Mid Term Evaluation.

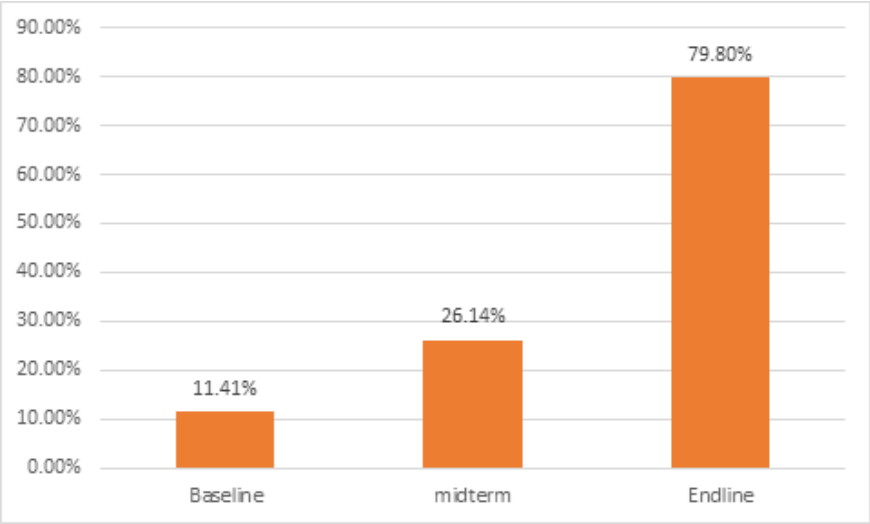
The evaluation revealed a significant increase in ANC visits from 11.41% (CI:9.04-14.31) at baseline to 79.8% (CI: 76.33% - 83.27%) at endline (figure 3). The proportion of mothers who received two doses of tetanus toxoid vaccination before giving birth decreased from 80.5% (CI:75.89-83.65) to 46.8% (CI: 40.78% - 52.81%) (figure 4). In addition, the proportion of women delivering at a health facility increased from 91.1% (CI:87.82-93.56) to 97.76% (CI: 95.43% - 99.09%), against a project target of 98% (figure 5). Most women in the project area, 98.6% (CI: 98.23%-99.8%), reported receiving a home visit during pregnancy. Compared to the NFHS survey in which 54.9 % of women received post-natal care within two days of giving birth, 100% of survey respondents reported receiving timely post-natal care.

**Table 19: Antenatal, Delivery and Post Natal Care (based on mother's recall)**

| Indicators | Baseline | Endline | | P value | Target |
|---|---|---|---|---|---|
| | % (95% CI) | Freq | % (95% CI) | | |
| Proportion of mothers of children 0-59 months who had at least 4 ANC visits | 11.41% (CI:9.04-14.31) | 514/644 | 79.8% ( CI: 76.33% - 83.27%) | <0.0001 | 60% |
| Proportion of caregivers of children 0-59 months who received home visit during pregnancy | | 647/656 | 98.6% (CI: 98.23% - 99.8%) | | n/a |

| | | | | | |
|---|---|---|---|---|---|
| Proportion of mothers of children 0-59 months who received at least 2 TT injections before the birth of their youngest child | 80.5% (CI:75.89-83.65) | 264/564 | 46.8% (CI: 40.78% - 52.81%) | <0.0001 | 85% |
| Proportion of mothers of children 0-23 months who delivered in health facility | 91.1% (CI:87.82-93.56) | 305/312 | 97.76% (CI: 95.43% - 99.09%) | 0.0001 | 97% |
| Proportion of mothers of children 0-23 months who delivered with the assistance of Skilled Birth Attendant | | 291/312 | 93.27% (CI: 89.9% - 95.79%) | | n/a |
| Proportion of mothers of children 0-23 months who received Post Natal Care within the first 2 days | | 312/312 | 100% | | n/a |
| Proportion of children 0-23 months who had Essential Newborn Care practice | | 308/312 | 98.7% (CI: 86.3% - 93.1%) | | n/a |
| Proportion of caregiver 0-59 months who received deworming during pregnancy | | 429/656 | 65.4% (CI: 61.62% - 69.04%) | | n/a |
| Proportion of caregiver 0-23 months who received deworming during pregnancy | | 204/312 | 65.4% (CI: 58.87% - 71.93%) | | n/a |
| Proportion of caregiver 24-59 months who received deworming during pregnancy | | 203/326 | 62.4% (CI: 55.73% - 69.1%) | | n/a |

**Figure 4: Comparison of the proportion of mothers of children 0-59 months who had at least 4 ANC visits of Ante Natal Care Visits during Baseline, Mid-Term, and Endline**



The huge increase in ANC visits from Baseline and Midterm to Endline might be due to the efforts done by the project to do a more focused outreach to the TTC beneficiaries. Based on the information we received from the project team, they learned through monthly monitoring that there was some decline in key indicators during the COVID-19 pandemic first wave, which happened after the mid-term. Therefore, the project developed a focused approach, called "Mission ECHO," to reverberate the TTC messages with more intensity and intentional conversion of knowledge into practice through the focused groups. The visits for the focused group were as frequent as on a monthly basis. The project team focused on the visits for pregnant and lactating women, adolescents, and grandparents.

In addition to the “Mission ECHO,” capacity building of FLWs from Health and ICDS departments and TTC volunteers through "Mission 82" also resulted in the active mobilization of focused beneficiaries. Capacity building of VHSNCs also contributed to the mobilization of focused beneficiaries. All these efforts might have contributed to increasing the ANC visits.

**Figure 5. Comparison of Mothers of children 0-59 months who reported receiving at least 2 TT Vaccination during last pregnancy at Baseline, Mid-term, and Endline**

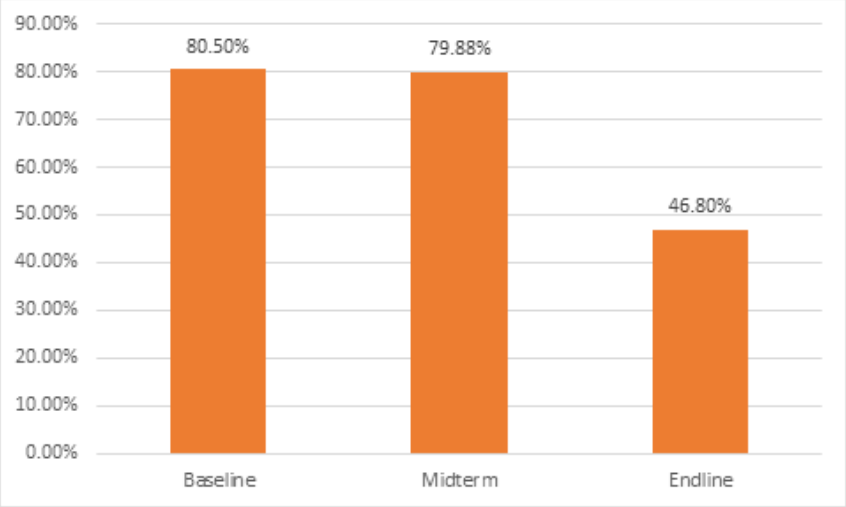
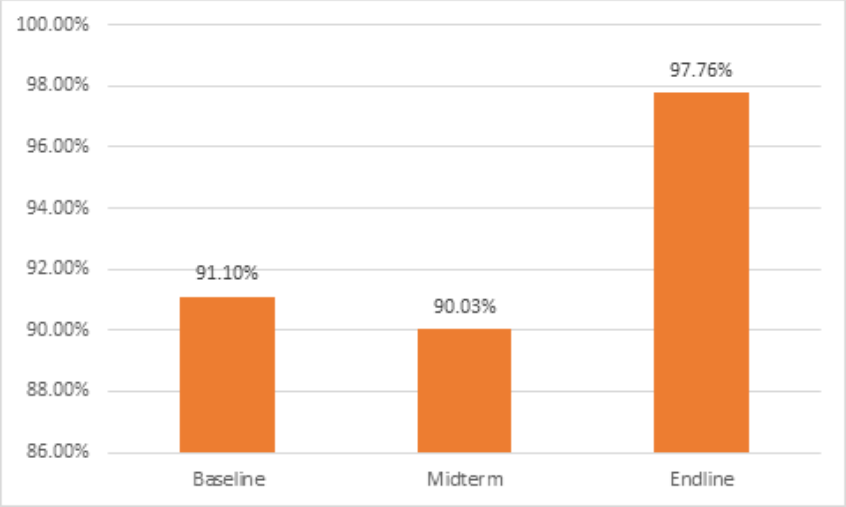



**Figure 6: Proportion of mothers of children 0-23 months who delivered in health facility**

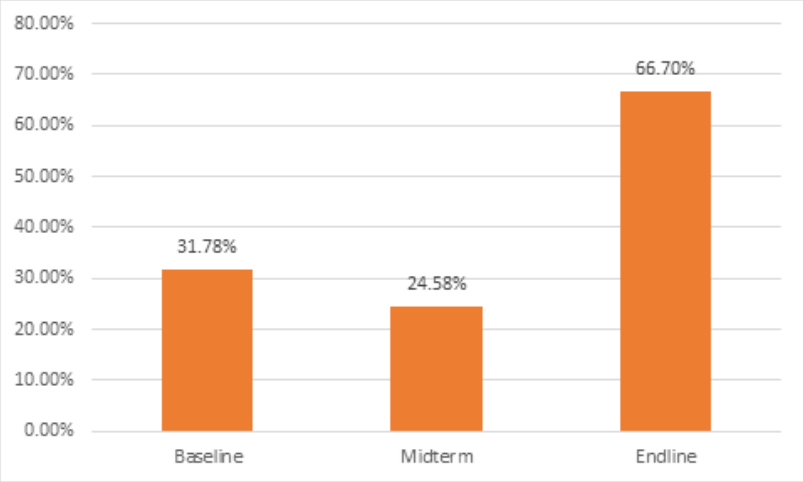


**Family Planning**

Contraceptive use increased significantly from 31.78% (CI:27.54-36.33) at baseline to 66.7% (CI: 61.3% - 71.73%) at endline, exceeding the project target of 33%.

According to the project team, the increase of modern contraceptive use from Baseline to Endline resulted from the better relationship fostered with the community over time. During the initial stage of the project, it was very difficult for the project team to discuss Healthy Timing and Spacing of Pregnancy (HTSP) methods. The community in project's area had a different culture, such as, a newly-wed couple could not go together. If married women wish to go to a market or visit a doctor, she would go with her parent-in-law or husband's elder brother. Due to this practice, women were shy to visit any doctor for any consultation.

**Figure 7: Proportion of mothers of children 0-23 months who are currently using contraceptive**




However, by mid-term, the project had established strong bonding with the community. One of the lessons learned was that mobilizing only reproductive women is not sufficient for HTSP. It is essential to involve husbands and grandparents also in the discussion. In most cases, grandparents were the decision-makers for the couples' family reproduction. The project then mobilized the families and grandparents to emphasize the importance of understanding HTSP methods. Therefore, the couple needs to visit the medical staff together. The project carries out various behavior change communication approaches to reach the community, such as Video Van, Street Plays, Mehendi competitions, wall paintings, and training of FLWs and TTC volunteers on HTSP. The community accepted this approach at the later stage of the project. Therefore, involving such decision-makers contributed to significant improvement in Endline.

### 5.1.6 Child Health and COVID-19 vaccine hesitancy

**Childhood Immunization**

The proportion of children 12-23 months with complete immunizations decreased from 77.3% (CI:70.6%-83.1%) at baseline to 68.4% (CI: 59.6% - 77.2%) at the time of the final evaluation (Table 20) against a project target of 85%. Hesitancy to receiving the COVID-19 vaccination was low at 6.4% (CI: 0%-13.8%) among caregivers surveyed.

**Table 20: Immunization**

| Indicators | Baseline | Endline | | P value | Target |
|---|---|---|---|---|---|
| | % (95% CI) | Freq | % (95% CI) | | |
| Proportion of children 12-23 months who received complete immunization | 77.3% (CI:70.58-83.12) | 107/156 | 68.4% (CI: 59.59% - 77.21%) | 0.0236 | 91% |
| Proportion of caregivers 0-59 months with COVID-19 vaccine hesitancy | | 42/656 | 6.4% (CI: 0 - 13.8%) | | |

**Management of childhood illness**

At the time of the evaluation, 37 cases of diarrhea were reported in the last 2 weeks and hence the analysis was limited to this small number of samples. Among children who had diarrhea in the last two weeks, 90.5% (CI: 80.5% - 100%) reportedly received the correct treatment. The project target for this indicator was 50%. Regardless that the number of cases of diarrhea among children is too small to see significant change, the prevalence of children 0-59 months old who had diarrhea in the last two weeks and received correct management of diarrhea was 0% in Baseline and 0% in Mid-Term. Therefore, it could be concluded that there has been good progress for diarrhea management among children, even though the number of cases is too small to be generalized to the population.

For appropriate health-seeking behaviors, 97.3% (CI: 91.3% - 100%) of children who experienced fever and symptoms of acute respiratory infection were taken to a health care provider, a significant increase from 71.1% (CI:54.10%-84.58%) at baseline (Table 21).

**Table 21: Management of childhood illness and home visits**

| Indicators | Baseline | Endline | | P value | Target |
|---|---|---|---|---|---|
| | % (95% CI) | Freq | % (95% CI) | | |
| Proportion of children 0-59 months who had diarrhea in the last 2 weeks who had correct management of diarrhea | 0% | 34/37 | 90.5% (CI: 80.5% - 100%) | <0.0001 | 50% |
| Proportion of children 0-59 months with fever and ARI symptoms in the last 2 weeks who were taken to a health care provider | 71.05% (CI:54.1%-84.6%) | 28/29 | 97.3% (CI: 91.3% - 100%) | 0.0027 | 80% |

### 5.1.7 WASH behaviors

Caregivers practicing appropriate handwashing behaviors in at least 3 critical times decreased from 98.5% in baseline to 90.6% at final evaluation.

**Table 22: Handwashing practices**

| Indicator | Baseline | Endline | | P value | Targets |
|---|---|---|---|---|---|
| | % (95% CI) | Freq | % (95% CI) | | |
| Proportion of caregivers of children 0-59 months who wash their hands with water and soap in at least 3 critical times | 98.49% (CI:97.15-99.20) | 594/656 | 90.6% (CI: 88.25% - 92.95%) | <0.001 | 99% |

### 5.1.8 Caregivers who reported receiving Home Visits

Home visits were provided to 98.6% (CI: 98.23% - 99.8%) of households with children 0-59 months for the child and 98.6% (CI: 97.41% - 99.37%) during the last pregnancy.

**Table 23: Caregivers who reported receiving Home Visits**

| Indicators | Baseline | Endline | |
|---|---|---|---|
| | % (95% CI) | Freq | % (95% CI) |
| Proportion of caregivers of children 0-59 months who received home visit during last pregnancy | | 647/656 | 98.6% (CI: 97.41% - 99.37%) |
| Proportion of caregivers of children 0-59 months who received home visit for the child | | 647/656 | 98.6% (CI: 98.23% - 99.8%) |

### 5.1.9 Access to Health Facility & Satisfaction with Health Services

Nearly 40% of caregivers reportedly can reach a health facility within 30 minutes of their home (table 24). Satisfaction with the health services provided was high with 83.8% reporting that the services provided at their local health facility were adequate, and 100% of caregivers reported that health services have improved from before the project.

**Table 24. Access to Health Facilities and Satisfaction with Health Services**

| Indicators | Endline | |
|---|---|---|
| | Freq | % (95% CI) |
| Proportion of caregivers of children 0-59 months who can reach a health facility within 30 minutes | 261/656 | 39.8% (CI: 33.86% - 45.74%) |
| Proportion of caregivers of children 0-59 months who think that the health services provided by HF is adequate | 480/573 | 83.8% (CI: 80.5% - 87.1%) |
| Proportion of caregivers of children 0-59 months who think that the health services provided now is either better or much better | 573/573 | 100.00% |

## 5.2 Qualitative Result


**Picture 4: FGD with Mothers**

The themes and sub-themes identified in the qualitative analysis are reported in Table 25.

**Table 25: Themes and Sub-themes from the Qualitative Analysis**

| Aspects | Themes | Sub-themes |
|---|---|---|
| A.Relevance | A1. Health Problems | Lack of access to health services beyond primary health care<br>Problem related to Water, Sanitation and Hygiene<br>Challenge in the Anganwadi Centre program implementation |
| | A2. Barriers for Health and Nutrition practices | Barrier for Immunization<br>Barrier to get treatment for malnutrition in NRC<br>Barrier to have a healthy child<br>Barrier to have a healthy pregnancy<br>Barrier to deliver in health facility<br>Barrier to have ANC in AWC<br>Barrier for continued breastfeeding |
| | A3. Enablers for Health and Nutrition practices | Enablers for healthy pregnancy<br>Enablers for giving birth in health facility<br>Enablers for getting treatment in NRC<br>Enablers for immunization<br>Available services on Health and Nutrition<br>Support for AWC and VHSNC from government |
| | A4. Health Practice and Awareness | Who eat first?<br>Diarrhea management<br>Cough management<br>Food taboo for PW and U5C<br>How to know that the mother and child are healthy<br>Duration of BF<br>Start of Complementary feeding<br>Consumption of IFA and side effects |
| | A5. Acceptance | Project has done the right interventions<br>Positive remarks about World Vision |
| | A6. Project's Intervention and Support | Malnutrition prevention, referral and treatment<br>Home visit and counselling<br>Awareness raising and campaign for adolescent<br>Capacity building for the Frontline Health Workers<br>Community mobilization to VHND<br>Renovation of AWC<br>Social Behavior Change approach |
| B. Effectiveness | B1. Results of interventions | Improvement in Anganwadi Centre (AWC) and increased attendance of children in AWC<br>Increased immunization<br>Interesting methods for training and community mobilization<br>Increased awareness |
| | B2. Inclusion | Project has reached the right target group<br>Challenge for migrant workers to participate in program activities<br>Some families decided not to access services on their own choice<br>Barriers for participation |

| | | |
|---|---|---|
| | | TTC volunteers reached everyone |
| | B3. Partnership | Close collaboration at the field level<br>Meeting for planning in the field<br>The Project has involved us |
| | B4. Effect of COVID-19 | Lack of access to livelihood opportunities<br>Lack of food and increased food prices |
| C. Impact | C1. Most useful contributions | Reduced malnutrition<br>Positive effects on women's participation<br>Positive effects on acceptance of advice and counselling from front-line health workers |
| D. Sustainability | D1. Diverse opinions on sustainability | Project should be continued to reach more people<br>Concern about future problems<br>Confidence that the program will continue |
| | D2. Preparing the community for sustainability | Building capacity of VHSNC<br>Educating mothers and adolescents<br>Use of Citizen Voice and Action (CVA) approach for social accountability |
| E. Gender role | E1. Gender issues | Gender role in taking care of children under 5<br>Preference for female health worker |

### 5.2.1 Theme one: Relevance

**How relevant were project interventions in responding to community's needs, to the government's priorities and policies?**

The relevance of the project was considered based on how the interventions responded to the challenges or health problems felt by the community and by the health workers. There are three sub-themes for the Relevance: lack of access to health services beyond primary health care; challenge in the Anganwadi Centre program implementation; and problems related to Water, Sanitation, and Hygiene.

**Sub-theme A1. Health Problems**

**Lack of access to health services beyond primary health care**

Some of the stakeholders interviewed mentioned the lack of access to health services in the form of sub-center or hospital. The available services at the community level are mostly for primary health care related to maternal-child health and nutrition, which is provided through Anganwadi Worker, ASHA worker, and the Auxiliary Nurse Midwife (ANM).

While services for pregnant and lactating women and children under five are considered adequate, the community felt a gap in access to health services for other age groups, such as the elderly population and chronic diseases.

The community members interviewed also expressed their desire to have a higher level of care and services closer to their community. It will help them access services for illnesses and emergencies. They also expressed the challenge in finding transportation to go to those health facilities.

*"There are services and facilities available in the village for pregnant women and children, but there are no such facilities for common people. If any Primary Health Care centre is opened here, it would be very*

*helpful for the community, it would save a lot of time, and they will not have to travel such long distance." (56 years old male, community leader)*

*"Since we do not have a hospital in the village, it is very difficult for us to go to the hospital. There is no medicine in AWC. They only have medicines for first aid. When a person suffers from dangerous sickness and in emergency, it is very difficult for us." (33 years old female, member of a VHNSC)*

The project interventions included renovation of health facilities related to primary health care for mothers and children in construction or renovation of Anganwadi Centre (AWC). The construction of a sub-centre or hospital was beyond this project's scope and required investment by the Department of Health. The project allocated resources for interventions relevant to their focus, i.e., the health and nutrition of pregnant and lactating mothers, children under five years old, and adolescent girls.

**Challenge in the Anganwadi Centre program implementation**

As AWC is the central place where MCHN services are provided in the community, problems with AWC will affect the provision and coverage of MCHN services in the area. Some stakeholders mentioned that the main challenge for AWC is on getting the women and children to come to AWC to access the services. Community mobilization is considered a common problem. In addition, a few stakeholders mentioned that they did not have enough help to run the programs in the AWC.

*"The most common problem for these beneficiaries is illiteracy, especially the mothers. They do not know the benefits of going to AWC. They are busy with their work and do not want to send children to the center. The biggest challenge we face in the AWC is to mobilize children to come. Some of the families do not want to send their children, and the Anganwadi helper tried her best to bring children, but not all of the children can come." (53 years old female, Anganwadi Supervisor)*

*"I do not have any Anganwadi helper appointed in my center. Because of that, I work very hard – bringing children, cooking, feeding, cleaning. I am not getting any support from the village to implement the government scheme." (30 years old female, Anganwadi Worker)*

The project's intervention on MCHN and the focus on AWC strengthening and community mobilization may have helped the community to address these challenges. Appreciative comments from stakeholders were obtained from the interviews and described in the Effectiveness section of this report.

**Problems related to Water, Sanitation and Hygiene**

The stakeholders noted health problems related to lack of access to clean water and toilet facilities and poor drainage systems in the neighborhood. Because of this issue, the community members complained that this led to malaria affecting some children, bad smells, and dirty neighborhoods.

*"No toilet in some houses. This is the biggest challenge in the village. People go to open field even at night." (14 years old boy, student)*

*"Since the toilet is not available in the house, people go to open field. I face a lot of problems, as bad smells and diseases spread easily in the village." (17 years old girl, student)*

*"No drainage system in the village, so there is stagnant water. Due to that, mosquitoes are there, and there is malaria." (27 years old female, VHSNC member)*

*"The mosquito is breeding as drainage water is flowing on the road, and it is not clean. Because of this, few children suffered from malaria last year, but they got well after treatment." (20 years old (24 years old female, TTC volunteer)*

Interestingly, the caregivers interviewed did not mention any issue with access to toilets. In Achanwara, the mothers, fathers, and grandmothers said that they all had latrine at home. It was not clear from the interview about who usually decides on building the latrine at home, as we received different responses from the community interviewed. According to the mothers in Achanwara, the husband decided to build a latrine at home, so that the women and children do not have to go outside for defecation. According to the fathers in Achanwara, husband and wife made the joint decision to build latrine at home. The grandmothers in Achanwara mentioned that it was the grandmother who decides to build latrine.

In contrast, the mothers and fathers group in Kanera Gond also mentioned that they all had latrine at home, but the grandmothers also added that even though they all had latrine at home, they did not use it, as they have the jungle nearby. According to the mothers in Kanera Gond, building latrine was a joint decision between husband and wife. However, according to the fathers in Kanera Gond, the men decided to build latrine at home. According to the grandmothers in Kanera Gond, the grandfather decided to build latrine at home.

Water, Sanitation, and Hygiene activities within the project focused mainly on health promotion of hand-washing with water and soap, and the use of latrine to defecate, through the Timed and Targeted Counselling home visits and signage (e.g., paintings on the wall). The project attempted Community-led Total Sanitation (CLTS) approach to address the problem of open defecation, but it was not successful due to the lack of water in the project areas.

*"The CLTS that was done to make every village Open Defecation Free (ODF) is not so much successful. Though Toilets are there but very few people use that. As water scarcity is there, we brought new technology which will use less water, but that also could not sustain long." (PROJECT'S Community Health Coordinator, 34 years old male, work for 4 years and 6 months)*

Regarding the lack of water in project areas, we received information from the project team that they had the opportunity to work with the World Vision's Farmer Managed Natural Regeneration (FMNR) project, which shared few villages and the same donor i.e., WV Hong Kong. During the implementation, the Sagar Health project team learned that the current interventions were insufficient to sustain good health of children in the community. The community needed to have access to water for drinking. However, in summer, the water table decreases so much that available handpumps fail to fetch water or clean water from the ground. Drinking poor quality water can result in poor health among children. As the FMNR project already had a good experience in water recharging, the Sagar Health Project also discussed the same with WV Hong Kong, and the project constructed a stop dam in 2021. At this point in time, it would be too early to state the impact of that construction.

While the issue of malaria was noted during the interviews, it was not mentioned in the project design nor in discussion with project staff. The problem with poor drainage, open defecation, and its contribution to the spread of malaria, would require additional resources if the project is expected to do any interventions related to infrastructure of clean water, latrine and waste system. The interview with the caregivers also suggested that households have enough resources to build their latrine. However, the problem is with the behavior change and with the availability of water, that some people still prefer to defecate in the open even when they have a latrine at home.

**Sub-theme A2. Barriers for Health and Nutrition Practices**

From the interview and focus group discussion with stakeholders, several barriers for the families to adopt healthy practices were identified.

**Table 26: Barriers for Health and Nutrition Practices from Qualitative Evaluation**

| | |
|---|---|
| **Barriers for immunization** | • The migrant worker brings their children along to another city<br>• Afraid that child will have a fever or a disease after immunization |
| **Barriers to get treatment in NRC** | • Parents have to go to work<br>• The family has a lot of children and nobody to care for them<br>• Poverty<br>• Childhood illness |
| **Barrier to have a healthy child** | • Parents are not taking care of the children as they do daily labor work and return home in the late evening<br>• Early marriage<br>• Poverty<br>• Childhood illness<br>• Belief in oojha (witchcraft) |
| **Barrier to have healthy pregnancy** | • Early marriage<br>• Pregnant woman eats last, and not enough food is available<br>• Myths and food taboo<br>• Pregnant women have so much work<br>• Some medicines are not available in the village |
| **Barrier to deliver in health facility** | • Long distance from the village to the government hospital<br>• Ambulance (108 emergency service) comes late<br>• Bad road<br>• Mother cannot get the entitlements due to a registration issue |
| **Barrier to have ANC in AWC** | • Women are busy with their work<br>• Family do not allow them as they are afraid of the Corona virus |
| **Barrier for continued breastfeeding** | • Mother is pregnant again |

*"Most of the people are daily wages. Now it is the harvesting period, so those people will not come for immunization now. These are Adivasi (tribal), and they are living below the poverty line. They have to go for daily labor work and return home by late evening. So, there is a problem with them coming to AWC. There are a lot of changes in the past five years." (55 years old female, Anganwadi Supervisor)*

*"Few families are large families, so the mother does not take good food, due to which the breastmilk is not enough, and they are not able to feed their children properly." (38 years old female, ASHA worker)*

*"The families are nuclear families and not joint families, so they cannot leave their children with anybody. They cannot take the malnourished child to NRC." (35 years old female, CDPO)*

*"Where there is a big family with in-laws, and the pregnant woman is a newly married, the pregnant woman eats food at last after feeding everyone. Sometimes the food is not enough for her, or the food is not left out for her. She feeds everyone, and if the food is not enough for her, she does not prepare food for her again. In families, they don't allow women to eat in the morning, or else the mother-in-law will scold her. The families who are daily wage laborer, they cannot take care of pregnant women… The family members who are daily wage laborers eat first and go to work, and if food is finished, then pregnant women will eat less, or go hungry." (From FGD with VHSNC members)*

*"Ambulance arrives at the village very late because the road is very bad. This is a tribal and mountainous area. At night, we cannot travel on this road." (25 years old female, VHNSC member)*

*"For delivery, all pregnant women go to the hospital, but by accident, some of them had to give birth at home or on the road, when it is too late for them to travel." (38 years old female, ASHA worker)*

*"It is difficult for the pregnant women and mothers who do not have Bank Accounts. Even many do not have an Adhar card (a citizen card for all Indians). Due to this, some women are not able to get the benefits of* Rs.16,000/- *from government, given to women who give birth in a health facility." (38 years old female, ASHA Worker)*

*"Nutritious food and facilities are provided from Anganwadi Centre (ICDS), but parents are not taking as necessary and not giving to children on time." (52 years old male, community leader)*

**Sub-theme A3. Enablers for Health and Nutrition practices**

From the interviews with stakeholders, there were four main areas for enablers:

**Table 27: Enablers for Health and Nutrition Practices from Qualitative Evaluation**

| Enablers for giving birth in a health facility | Enablers for a healthy pregnancy |
|---|---|
| • Health workers provide proper medical care, child vaccination, and also taking weight of the newborn<br>• ASHA worker tells the family to go even if they refused at first<br>• Husband and/or grandparents decide that wife should give birth in hospital<br>• Monetary benefit for women who give birth in hospital i.e., Janani Suraksha Schemes (16,000 Rupees) which is a government's scheme<br>• Ambulance (108) is available and take the woman to hospital<br>• People in the neighborhood talk about available facilities if women give birth in hospital | • No restriction for eating food for pregnant women.<br>• No difference on meal frequency for men and women. Pregnant women eat 3-4 times as per their will<br>• Husband tells the wife to eat one extra meal so that child will be healthy<br>• Pregnant women eat different kinds of meals such as green vegetables, dal, daliya, fruits, puri, paratha roti<br>• An equal amount of food is served to men and women<br>• Give rest time to pregnant women, no work is expected from pregnant women |
| **Enablers for getting treatment in NRC** | **Enablers for immunization** |
| • Referral of malnourished children in AW centre to NRC<br>• NRC department give money to child's mother if child is admitted to NRC. WV India gives the money to NRC Department<br>• Food basket given by WV India | • If any child missed an immunization, then the next month immunization is given to the child |

*"Everyone goes to the government hospital. No one delivers their baby at home. Grandparents or husband makes the decision. Sometimes ASHA Worker also makes the decision. Sometimes the family denies to go to hospital, but if the ASHA worker tells them to go, then she will go to the hospital." (39 years old female, housewife, and VHSNC member)*

*"The facility [Government Hospital] is available, and treatment is done for free. If we go to a private facility, then money will be charged. The government has given so much facility. Rs. 16,000 is available for the scheme, the family would go to the hospital. People of the neighborhood also talk about facilities available.*

*They even call, and Janani (Ambulance) will come to take her to hospital." (52 years old male, community leader)*

*"Home deliveries happening locally do not have such facility. Initially, deliveries were happening locally and everything was very good, but as time passed, now the children are not very healthy. These days, if it happens, the child will need to be put under Oxygen supply, and all such facilities are not available at home. Therefore, we prefer institutional deliveries." (56 years old male, community leader)*

*"Five to six years back, pregnant women used to give birth at home because they were afraid of injection and operations. But now, in our community every family prefers to give birth in the hospital, because the doctor and nurse take care and provide proper medical care for the child and mother." (from FGD with Mothers in Kanera Gond)*

**Available services on Health and Nutrition**

Stakeholders described the services for pregnant women, malnourished children, and adolescents provided by the government through the front-line health workers (Table 28).

**Table 28: Available Services in the Project Areas provided by Government**

| Available service for maternal health | Available service for malnourished children |
|---|---|
| • Dastak Abiyan program to visit client household by FLWs<br>• Registration of pregnant women by Anganwadi Worker<br>• Home visit for pregnant women conducted by ANM, ASHA, and Anganwadi Worker<br>• Home visit by TTC volunteers, including counseling on hand-washing and hygiene<br>• ANC service provided in Arogya Centre/AWC (conducted by ANM or ASHA) and in a government hospital<br>• Food demonstration for pregnant women in AWC<br>• Ambulance for emergency<br>• Nutritious food packets<br>• Counseling for pregnant and lactating mothers<br>• Tuesday program or Mangal Diwas for first time pregnant women<br>• Take Home Ration for pregnant women<br>• Incentives for ASHA, in the form of 500-600 Rupees per delivery in hospital<br>• VHSNC identify the high-risk mother and ASHA worker takes them to the hospital for check up<br>• IFA Tablet for pregnant women<br>• Food Basket for low BMI pregnant women in FY2021 (provided by World Vision) | • Weight and height monitoring<br>• Sneha program (Track and manage nutritional needs of children) done by ICDS department for malnourished children at AWC<br>• Referral to NRC<br>• Treatment in NRC<br>• Take Home Rations<br>• Food basket for malnourished children treated in NRC (provided by World Vision)<br>• Food basket for the malnourished child who is discharged from NRC for 6 months (provided by World Vision)<br>• Food Demo conducted for families with malnourished children (conducted by World Vision)<br>• If parents of a malnourished child do not understand or deny the request of ASHA worker and TTC volunteer to bring the child to NRC, then 4 members of VHSNC will go to the family and convince them<br>• Pot Offering or Matka Dan, organized in the community, to raise food items from community people for the malnourished children<br>• Milk packets from ICDS department given to the child's family |
| **Available service for child health and nutrition** | **Available service for adolescents** |
| • Growth monitoring<br>• Vaccination for children in AWC, conducted by ANM on VHND every month<br>• Take Home Ration for children | • Health and hygiene programs for adolescent girls<br>• Hemoglobin testing<br>• IFA Tablet for adolescent girls<br>• Girls Day or Balika Diwas in AWC |

| | |
|---|---|
| • Haluwa or panchari (mixed porridge containing sugar and flour)<br>• Complementary feeding celebration called "Anna Prasan" for children aged 6 to 7 months<br>• VHSNC committee or Samiti monitors the VHND and conduct meeting every month | • Adolescent girls' rally on safety or Beti Bachao (Save the Girls campaign) |

**Support for AWC and VHSNC from government**

Stakeholders described several types of support given by the government to facilitate the program of Anganwadi Centres. The support is given to the Anganwadi Centre and Anganwadi Worker and the supporting system, such as the untied funds given to ASHA to purchase equipment and supplies for Anganwadi Centre and medicines supplies given to ASHA and ANM. None of the stakeholders mentioned any stockouts. However, the ASHA worker and the VHSNC commented that they had not received the untied funding for some time.

*"Medicines is taken by ANMs from Sub-centres and ASHA for Arogya Centres. Iron supply is available in enough quantity, but other medicines is issued according to the supplies. Out of 16 types of medicines, all medicines are available, except 2-3 medicines, but they are made available as and when available." (38 years old female, Block Community Mobilizer)*

*"Yes, we receive enough medicines. There are 24 types of medicines which is available to us in enough quantity. There is never any situation when there is a shortage of medicines." (45 years old female, ANM)*
*"For Arogya Centre we get Rs. 5000 or Rs. 10,000 as untied funds, which is used for Blood Pressure machine, ANC table, tables, chairs, weighing machine for adults and children, etc." (38 years old female, Block Community Mobilizer)*

*"We have spent some of the VHSNC money to buy BP machine and weighing machine for AWC. But for this year, we did not receive the money." (38 years old female, ASHA worker)*

*"We received untied fund per annum. The amount is Rs.10000/- but some of the VHNSC received only Rs.5000/-. This VHSNC also did not receive untied fund since last 5 years but I hope that we will be received in this year." (39 years old female, housewife and VHSNC member)*

**Sub-theme A4. Health Practices and Awareness**

**Who eats first?**

The majority of stakeholders interviewed mentioned that they usually eat together, especially in the fathers, mothers, and grandmothers' group. However, the adolescents' groups had different opinions. Some adolescent boys mentioned that it is common for the father to eat first, as fathers are older, work in the paddy field all day so they go hungry, and boys respect the father, so he should eat first. In the adolescent girls' group, some of them mentioned that they would give food to their younger siblings and grandparents first, and then they will eat.

*"I eat last because girls do care a lot for the families. Girls think about the family at best because she will go to another house after marriage. So, I want to serve my loving family" (From FGD with Adolescent Girls in Achanwara)*


**Picture 5: FGD with Adolescent Girls in Achanwara**

**Diarrhea management**

When asked about what parents will do if their child under five has diarrhea, most of the caregivers interviewed said that they will give ORS liquid (Oral Rehydration Salt) to the child, if the child is above 6 months then they will give specific foods such as Khichdi (a mix of rice and dhal), Daliya (cereal food) and liquid food so that the child will not feel hungry, if the child is breastfeeding then it should be continued, and if the child is not getting better they will take the child to hospital. The mothers in Achanwara added that they also give liquid made of sugar, lemon and water, which is a home remedy called "sikangi". Only one group, the grandmothers in Kanera Gond, mentioned using only home remedy in the form of "jungle medicine juice" made from various roots.

**Cough management**

When asked about what parents will do if their child under five has cough, some caregivers mentioned that they will give home remedy such as rubbing child's chest with Vicks or steam infused with Vicks, they give some food such as honey, ajwain (Carom seed), loung (Clove), or munga ke chaal ka juice (drumstick stem skin boiled in water) believed to control the cough, and if the child is not cured then they will bring the child to hospital for treatment. Specific to Kanera Gond area, the fathers group mentioned that they give some types of food such as jaggery sweet, hot milk, Kesar (kind of sweet), and Kasturi, as they are hot food and can control the cough. People also give a little bit of Afim (Opium) to help to control the cough. However, if the child is not getting better, they will take the child to the hospital for treatment. The grandmothers in Kanera Gond mentioned that they would give home remedy in the form of "jungle medicine juice" made from various roots.

**Duration of breastfeeding and start of complementary feeding**

The caregivers interviewed provided mixed responses on breastfeeding practices. Some of them mentioned that most mothers usually breastfeed their child exclusively for six months, while some mentioned that exclusive breastfeeding is for seven months. Most caregivers said that the most common reason for caregivers to stop breastfeeding is because the mother is pregnant again. It was reported that

breastfeeding cessation could happen as early as six months old, although usually breastfeeding continued until 18-24 months or older when the child starts to eat family food.

**Food taboo**

The caregivers interviewed provided similar responses on which type of foods should be avoided by children under five and why. The most common reason to avoid the food is the perception that it will cause health problems, or delay in a child's development especially walking.

**Table 29: Food Taboos for Children Under 5 from Qualitative Evaluation**

| Food taboo for children under 5 | Reasons |
|---|---|
| Curd | Cold, will make child gets cough or pneumonia |
| Sour food, such as pickles | Child will get cough |
| Roti or rice mixed with chilli | Heavy, child's liver will increase, will make child not be able to walk soon "Ning nahi pate") |
| Oil and chili food | Cause stomach problem |
| Roti or vegetables | Cause late walking |
| Gram pulses | Affect digestion |
| Tea | Not good for children |

In terms of the food taboo for pregnant women, most of the caregivers interviewed mentioned about papaya. However, they did not specify whether it is the ripe papaya or unripe one can cause miscarriage. Lemon should be avoided as it can cause some boils or skin diseases on a child's head after birth. Suran and Kand, which are some types of roots, are to be avoided and can cause skin problems in the newborn.

**Table 30: Food Taboos for Pregnant Women from Qualitative Evaluation**

| Food taboo for pregnant women | Reasons |
|---|---|
| Papaya | Cause miscarriage |
| Non-vegetarian foods | Cause miscarriage |
| Tobacco | Cause miscarriage |
| Alcohol | Cause miscarriage |
| Lemon | Cause some kind of boils in child's head (Phoda) |
| Suran, Kand | After birth, child skin can comes out |
| Hot items, e.g. chilli, garlic, brinjal | Stomach problem, cause miscarriage |
| Sour food | Cause cough, cause body swelling |
| Tea | Affects the child |

**How to know that the mother and child are healthy**

The stakeholders interviewed provided similar signs of a healthy mother, healthy newborns, and healthy child. A pregnant women is considered healthy if they can eat proper food. This may link to the perception that these women can survive morning sickness and nausea well; thus, they are healthy. Post-partum mothers are considered healthy if they have safe delivery, no heavy bleeding, no fever or any physical weakness. Newborns are considered healthy if, after birth, the baby can cry, be physically strong, breastfeed properly, breathe properly, and weigh more than 2.5 kilograms. The family rely on the doctor and nurse to tell them whether the mother and the baby are healthy. In children under five, they are considered healthy if they can eat properly, they play, they are clean, and are not crying. In summary, these signs are a combination of observable characteristics and what the experts informed the family.

**Consumption of IFA and side effects**

All of the stakeholders interviewed know about the importance of taking iron folate tablets, such as help increase the quantity of blood of pregnant women, help with physical weakness and keep mother and baby healthy. However, a few stakeholders mentioned that there were some complaints about the side effects. The side effects of taking iron folate tablets were a significant reason why the pregnant mothers did not consume the tablets fully as recommended. Those side effects include vomiting, nausea, diarrhea, headache, body itches, or feeling sleepy.

*"Wife did not take [IFA tablet] fully due to vomiting" (45 years old male, father of a child under five)*

*"Pregnant women come for VHND, and the ANM gave IFA tablets, but some pregnant women did not take that medicine. Some women do not take food properly. They complained that if they take food, she will vomit and have a headache." (35 year old female, housewife and VHSNC member)*

*"The Iron tablets helped us in our physical weakness and it protect us so the pregnant mothers should take at least 200 tablets… When I eat tablet, I feel vomit so I use sour items like lemon." (FGD with Mothers in Achanwara)*

**Sub-theme A5. Acceptance**

Another aspect of Relevance investigated was the acceptance of stakeholders of the project interventions and on World Vision as an entity. There are two sub-themes for the acceptance: the perception that the project has done the right interventions and positive remarks about World Vision.

**Project has done the right interventions**

The stakeholders commented that the Sagar Health project had done the right interventions to address the challenges they face, especially related to challenges faced by the Anganwadi Centres.

*"Lots of equipment were given by World Vision, such as swing, playing materials, weighing machine… Everything that is required for a center is given, including the learning materials, table, chairs, which is very good." (35 years old female, CDPO in Khurai Block)*

*"Construction of the health center, building AWC in many places where there is no AWC…When World Vision came to the village, things have changed. TTC volunteer is doing many things, such as food demo, counseling session, and if some children do not come to AWC, then the TTC volunteer goes to their home and take weight measurement. She is also doing food demo at the household level. If a child is malnourished, then she takes MUAC regularly; she refers the child to NRC, and during follow-up, she also gives a food basket to the child. TTC volunteers participate in the Take Home Ration distribution with counseling to children and mothers admitted to NRC." (35 years old female, VHSNC member)*

*"The work of World Vision is very good, which they have done for the community. They have benefitted the community. Food basket was given to the selected most vulnerable families. It was not like they gave it to anyone, but they have the perfect selection to give that food basket. There is no favoritism with World Vision. They would give benefit only to the eligible." (56 years old, community leader)*

**Positive remarks about World Vision**

The stakeholders interviewed mentioned some positive remarks about World Vision, including acceptance by the community members on the program in the village, the perception of World Vision's neutrality, and the reasons why community people accepted the project interventions.

*"The organization is very good. It does its own work and never bothers about the local politics… It only pays attention to its work and nothing else." (52 years old male, community leader)*

*"Programs conducted by World Vision are very educative and informative. Adults and children both learn when they participate." (56 years old male, community leader)*

**Sub-theme A6. Project's Intervention and Support**

During the interview and focus group discussion with stakeholders, the team asked about the Sagar Health project's interventions in the area. **Interviewers did not cue the type of activities done by the project, so the stakeholders mentioned the activities they remember.** Therefore, the project activities mentioned below might be less than the actual project interventions. Based on the interviews, these are the interventions and support provided by the Sagar Health project:

**Table 31: Project's Interventions according to stakeholders interviewed during the Qualitative Evaluation**

| Project's Interventions according to Stakeholders Interviewed | |
|---|---|
| Malnutrition prevention, referral and treatment | • TTC volunteer conducts Food demo programs for malnourished children families, counseling on proper food and handwashing<br>• TTC volunteer recommends taking AWC Take Home Ration (THR)<br>• Food Basket for children who have been discharged from NRC. Contents of the Food Basket are 5 kgs of Atta (wheat flour), 5 kgs of rice, and 2 kgs of Dal<br>• Monthly monitoring for malnourished children who were discharged from NRC, conducted for six months<br>• Growth monitoring once every three months, and children whose MUAC is less than 11.5cm will be admitted to NRC for 14 days<br>• Cooking demonstration on Tiranga (Three color food) for pregnant and lactating mother |
| Home visit and counselling | • Counseling to pregnant mother, mother with children under two, and mother with malnourished children<br>• Give the advice to go for ANC checkup, to eat properly more than three times a day with nutritious food, register with the ANM and to get the benefits, to take IFA tablets, to do ANC check-up, to breastfeed exclusively for six months, and to start complementary feeding at six months, to eat green leafy vegetables, tomato, potato, and rice<br>• There are three visits during pregnancy (2-4 months, 5-6 months, and 7-9 months). TTC volunteer visits when the child is born during the 1st day, 3rd day, 7th day, and 15th day, and if the child is malnourished. TTC volunteer also visits on 1st month, 5th month, 9th month, 12th month, 18th month, and 24th month. If a woman could not be visited, TTC volunteer will follow up the next month |
| Awareness raising and campaign for adolescent | • Nukad Natak (Street Plays), Rangoli (Traditional art), Mahendi competition (art on hand), dance competition, musical chair<br>• Awareness on hygiene, including menstrual hygiene<br>• Mobilization to access services and sanitary napkins in AWC<br>• Campaign for World Hygiene Day, World Population Day, Handwashing Day |

| | |
|---|---|
| Capacity building for the Frontline Health Workers | • Training on Mother and Child Health for AW Workers conducted at block level once a year, with trainer from outside<br>• Training on Book Keeping for the VHSNC<br>• Training on how to spend the entitlement untied fund for VHSNC<br>• Training on how to do the regular meeting for VHSNC |
| Community mobilization to VHND | • TTC volunteer mobilize beneficiaries to come to AWC for GMP and take medicine<br>• Work with the VHSNC and give orientation to them on cleanliness and hygiene<br>• Work and support VHSNC during the regular meeting |
| Renovation of and support for AWC | • AWC construction<br>• Roof renovation (even up to 3 times)<br>• Wall painting<br>• Construction of boundary wall<br>• Play materials<br>• Chairs<br>• Mattress<br>• Children chairs<br>• Table<br>• Health checkup (ANC) table<br>• TTC volunteer to help AWW with vaccination, weight monitoring, counselling for mothers |

In the FGD, project staff mentioned that the project provided interventions for adolescent girls and boys, but more specifically for adolescent girls for menstrual hygiene and the promotion of TT injection. Adolescent boys are reached to raise awareness on menstrual hygiene and to address misconceptions about menstruation, and for the boys to access health checkups conducted regularly every three months by government health workers.

*"We worked with Adolescent Girls and Boys (11 – 18 years). When the girls start menstruation, they need a lot of information and care. So, we have formed groups for them and teach them about the changes, including mental and physical changes that they go through. The use of Sanitary Pad training helped them to use sanitary pad regularly. Now they have learned to save 1 rupee per day and get a sanitary pad for themselves in Rs.30/-... Earlier the check-ups of adolescent girls and boys were not happening but now this has been worked out with the Govt. departments and is being done regularly every 3 months." (Project's Community Health Coordinator, 41 years old male, worked for two years)*

*"…we have mobilized Adolescents regarding monthly cycle. It was taboo to speak about menstruation, and people never used to talk on it. So, we made one strategy that this time we will provide a Sanitary Pad to boys, teach them about this and tell them to give it to anybody at home – maybe mother or sister or anybody else. Our motive was to make them understand the pain that they go through so that when this boy grows up, he will know about the process and will be able to treat his wife accordingly. (Project's M&E Manager, 36 years old male, work for 4 years and 6 months)*

*"During VHNDs, adolescents were never a part of VHNDs. Only few pregnant women and few children were coming for immunization...Earlier, adolescent children were afraid to take injections. So, we spoke to few of them, motivated them, and as a result, few adolescents came forward to take injections. Now, they are taking TT injections and it has become a practice among the adolescents. When WV came, we started GP level initiatives, and in that program, TT shots were given to adolescent children, where 21 children took. The Health Official say that in their career, this figure is the highest number ever they have given in any event." (Project's M&E Manager, 36 years old male, work for 4 years and 6 months)*

During the FGD, project staff also shared how they did advocacy for childhood immunization and TT immunization, to make it monthly instead of once every 2-3 months. To have a more regular immunization schedule, the project also raised the issue of not having enough ANMs in the villages with the government. This resulted in an increased number of ANMs.

*"Earlier, VHND was known as a day for Immunization. We met with the department and updated the schedule for Immunization to every month instead of once in every 2 or 3 months. The government accepted this suggestion and rescheduled. We also put to the department that there were not enough ANMs, but after discussion, though it took some time from 18 it became 24 and now it is 27." (Project's M&E Manager, 36 years old male, work for 4 years and 6 months)*

**Social Behavior Change approach**

To address myths and beliefs, the project staff mentioned that they used multiple social behavior change strategies, such as using one-to-one counseling, community discussion, games and competitions, wall paintings, and street plays to communicate about the myths and the facts.

*"When we started this project, we had messages to deal with various myths and beliefs. There was not a practice of handwashing during critical times as this is drought-prone area and they think to save water as much as they can. So, we used these messages in Wall Paintings, Street Plays, small community gatherings, different competitions, Mothers' meetings where they learned these things and started implementing it and as a family has accepted… Mainly one to one interaction is one of the reasons for these changes. Our interaction was not only with one beneficiary but with the entire household. Where there is Pregnant Women, we took the husband; we involved the grandparents and the members in the awareness process. We adopted a Multi Dent Strategy – the message which went directly from us to the program participants, it went through the TTC volunteer, through the ASHA Worker, through the Anganwadi Workers, through the Supervisors and also through the ANMs. So, when the same message is going to the community from different levels of the services, the impact was more." (Project's M&E Manager, 36 years old male, work for 4 years and 6 months)*

*"We also touched every age group and different categories of people including children, males, females. We even used male volunteers, a child under five fathers, or husbands of pregnant women, who can counsel the male groups. They are known as "Hanuman," who used to counsel the male group. They have done village meetings, awareness sessions, etc. We also have "Dadima Model", a program for grandparents, in which we used good volunteers for counseling. They also counseled the grandmothers who are part of the decision-making process in a household." (Community Health Coordinator, 41 years old male, work for 2 years)*

### 5.2.2.Theme two: Effectiveness

In general, stakeholders held positive views on the effectiveness of the Sagar Health Project. Stakeholders perceived the reduction in malnutrition among children under five years old in the area, increased awareness on maternal-child health and nutrition, and increased attendance of children in the Anganwadi Centre due to the renovation done by the project as noteworthy achievements. Other positive remarks were on the increased awareness among adolescent girls on the menstrual hygiene and use of sanitary pads, community mobilization approach done by the project, and changes in mindset and acceptance of the community health workers.

**Sub-theme B1. Results of interventions**

**Improvement in Anganwadi Centre (AWC) and increased attendance of children in AWC**

Stakeholders commented very positively on the result of the renovations in increasing children's attendance in the Anganwadi Centre, increasing ANC visits conducted in Anganwadi Centre. This was due to the improvement in the AWC building condition that it is now becoming clean, attractive and safe for children and women to join any activity there.

The Sagar Health project investment in the renovation and construction of Anganwadi Centre was likely an effective decision, considering that AWC is a central community facility where MCHN services are provided, especially for immunization and ANC. A Health Centre or "Arogya Kendra" is built on the same premise as the AWC in all villages. Thus, renovation happened in AWC such as the flooring, roof repair, and boundary wall around the centre, also benefitted the Arogya Kendra's building.


**Picture 6: Before and After of the Anganwadi Center (AWC) in Kanera Gond**

*"Five years ago, there was no AWC in our village, and people could not access services. We used to cook food [for the children] outside. After the change of village panchayat, AWC building was constructed, but after some time, AWC building roof condition was not good, water was leaking during rainy season. Due to that, AWC was dirty, and children and mothers were not coming to AWC. But when World Vision came, lots of changes have been initiated. Now, we have AWC, and through that, all community people have access to services of AWC." (62 years old female, Anganwadi Worker)*

*"Before World Vision came to my area, the children growth monitoring was done at Anganwadi Worker's home or from any place in the village. We missed many children. Renovation is done in many centre and it is very beautiful. Before the construction, the condition was very bad… so bad that it was worse than a cow shed. The construction was done by World Vision in such a way, that no one can say that it was the same building. It is very beautiful and friendly, that every child and other beneficiaries wants to come in the center. This increased the beneficiary visit in the center. Now, growth monitoring is done at AWC and in this way we can cover all children." (53 years old female, Anganwadi Supervisor)*

*"The program is done very easily now. Before the renovation, the THR (Take Home Ration) distribution was happening under a tree or somebody's house. The storeroom was filled with rats and dogs." (55 years old female, Anganwadi Supervisor)*

*"The Anganwadi Worker used to open the centre occasionally because the centre was running from her house. But now, since the centre is constructed, they are coming to the centre. For pregnant women also it was very difficult in getting the services. They did not go to AWC because it was a private house. If a mother has bad relation to Anganwadi Worker, she will not go to her house." (24 years old female, TTCvolunteer)*

In addition, in the case where the Anganwadi worker was illiterate, the project provided support for implementing growth monitoring. Ideally, this should not be a frequent need as Anganwadi Workers should be literate, given the scope of their responsibilities as defined by the ICDS. This need could reflect a gap in the recruitment progress for Aganwadi workers within the community.

**Increased immunization**

Respondents felt that immunization services had improved as a result of the project. This is possibly due to the investment made in the Anganwadi Centre, along with the home visit and counseling done by the project through TTC volunteers, and promotion done by other front-line health workers.

*"Not a single family refuses immunization. People are so much aware these days that if they know that ANM is coming today, they will go and avail themselves services. They reach AWC with their child, and vaccination starts." (56 years old male, community leader)*

However, a few stakeholders commented that some children still have challenges getting immunization service on time, such as children who migrate together with their parents or children whose families refuse to get a vaccination.

*"Some of the children are migrated with their parent. Such children do not receive the vaccine on time. But most of the children get the immunization." (33 years old female, Anganwadi Worker)*

*"Some of the families refused to get the vaccination. The worker has to motivate them, and then finally they get the vaccination." (26 years old female, VHSNC member)*

**Innovative methods for training and community mobilization**

Another factor contributing to the increased attendance in AWC, was the training and community mobilization approach used by the Sagar Health project.

*"World Vision conducted program with mic (sound system) and conduct some kind of games for mothers during the VHND. This attracts all the adolescents, mothers, and children to come for VHND. Before the World Vision program, mothers hardly come for VHND. Now, even extra mothers are coming in VHND." (55 years old female, Anganwadi Supervisor)*

*"There are sports-related program and competitions for adolescents. Many of them got an award. These activities were organized to attract adolescent girls to come out of their house… When villagers hear the name of World Vision India, the entire villagers will gather because they want to learn and get a prize. When my worker calls for a meeting, no one will come, but when World Vision calls them, they will come running to the center." (55 years old female, Anganwadi Supervisor)*

*"Our workers have received very good training. World Vision gives the type of trainings which we cannot give. They give training from 11:00AM to 05:00PM and the trainer comes from outside. They even conducted test for participants to know the knowledge before and after the training. We cannot give much time for training, but World Vision makes the participants sit. In our training, the workers will not sit that long. Due to this, their knowledge has improved significantly. To encourage them, competitions are done and prizes are given. During the lockdown, a supervisor training was organized online, which was very good." (35 years old female, CDPO)*

**Increased awareness**

Many stakeholders commented that they have seen improvement in the awareness of parents, resulting in increased attendance of children in the Anganwadi Centre (although it is also contributed by the renovation of AWC), increased uptake of services on the Village Health and Nutrition Day (VHND), and because of that, growth monitoring and ANC visits have increased.

*"Since World Vision came to our village, they brought many good things to the people. They sensitized the community with knowledge, and they even gave food to the malnourished children. We are getting information from World Vision India." (18 years old girl, student)*

*"Children are regularly going to AWC to play games and to wash hands. Now these children are teaching to their parents to do the same." (55 years old female, Anganwadi Supervisor)*

*"Due to wall painting and writing, the village has improved in sanitation. People are using toilet." (28 years old female, Anganwadi Worker)*

*"Families have improved in sanitation and personal hygiene. Handwashing practice is very good. They have learned about handwashing from WV India. Now, every family knows how to wash their hands and diseases are reducing in the area." (55 years old female, Anganwadi Supervisor)*

*"Adolescent girls who were shy to speak about their concern regarding their health, now they are able to talk to ASHA, ANM, or Health Volunteer without any issue. Even the women are able to speak freely with the Health Workers." (38 years old female, Block Community Mobilizer)*

*"Earlier, Sanitary pads were not used, but women were using Cow Dung for that purpose. However, now, adolescent girls and women have shifted their practices to Sanitary Pads." (Project's M&E Manager, 36 years old male, work for 4 years and 6 months)*

**Sub-theme B2. Inclusion**

**The project has reached the right target group**

The stakeholders felt that the selection and targeting of beneficiaries for the project were appropriate. The target groups of pregnant mothers and children under five years old and malnourished children were the right beneficiaries for the project.

*"The main targets are under-five children and pregnant mothers. Yes, they have targeted the right group of people." (45 years old female, Auxilliary Nurse Midwife)*

*"Our sole target is to reduce the number of malnourished children. Yes, we are at the right track, and we have chosen the right beneficiaries." (55 years old female, Anganwadi Supervisor)*

*"The project has reached the right groups, and all are included. We are working on reducing maternal mortality, and child mortality, and World Vision is working on this, which helps a lot. Due to this, the MDR [Maternal Death Rate] and CDR [Child Death Rate] have been improved." (38 years old female, Block Community Mobilizer)*

In the FGD, project staff described the project's strategies for targeting, such as 1) conducting census in the entire area for households with pregnant women and/or children under five years old and use it to set the target for TTC approach, 2) recruiting TTC volunteers from the same area so that they know the community and their locations, and 3) ensuring that all children under five years old and pregnant women are registered in the Anganwadi Centre so that they can access services.

*"The volunteers are from the same village so they know who is where. Also, it was ensured that all the children below 5 are registered in the Anganwadi Centers. Earlier, we saw that few of the families were not part of the program, so the volunteers identified those families and registered them in the Anganwadi workers. We ensured that all the children below five and all pregnant women are registered." (Project's Community Health Coordinator, 43 years old male, worked for 5 years)*

*"Earlier we found few hamlets where the services are not reaching there and a few households where they didn't know about the services. But, after the TTC volunteers were appointed, it was ensured that all the children U5 and pregnant mothers are registered and avail the services." (Project's M&E Manager, 36 years old male, worked for 4 years and 6 months)*

**Challenge for migrant workers to participate in program activities**

A few stakeholders mentioned that although most of the families participated in the program and accessed services, some families could not participate if they worked in the agriculture field or migrated outside the village to find work. However, upon their return, such families would participate.

*"Every family comes, as I go and call them personally for immunization. Some are not able to come when they are in the agricultural field or migrate outside the village. They come after some days. Then, they participate." ((38 years old female, ASHA worker)*

**Some families decided not to access services on their own choice**

Some stakeholders noted that a few individuals chose not to access the available services. Where efforts to encourage participation by the project and other frontline health workers failed, such families would be considered as a challenging case.

*"So, there are families, if they are not visiting a government doctor, but they will visit private doctor… The poor are visiting government hospitals for they would also get some benefits. But some families are well off, and they would visit private doctor…" (56 years old male, community leader)*

*"One family denied having the woman go to AWC. She also denies participating in any program such as VHND and growth monitoring. She does not take the Take Home Ration (THR) from the center, too. ANM visited her, but she said she did not want any services. She said that if she came to VHND, her child would get sick."(28 years old female, Anganwadi Worker)*

*"Most people accept child immunization, except one family who does not want to take immunization for their children. Many efforts were taken by ASHA, ANM, and TTC volunteers, but they refused. They believed that if they take the vaccine, then fever will come and child gets sick." (62 years old female, Anganwadi Worker)*

*"Earlier one or two families were not able to participate due to different reasons, but after AWW, ANM, and myself persuaded, those families started coming and participating in the program." (20 years old female, TTC Volunteer)*

**Barriers for participation**

While most beneficiaries were able to access Maternal, Child Health and Nutrition (MCHN services), disability and illiteracy were noted as barriers to participation in a few exceptional cases. For example, in one of the FGD with adolescent girls, they mentioned one girl with a disability. One VHSNC member said about illiterate families. Further facilitation and support might help overcome the barriers for these families.

*"I participate in every program. But there is one adolescent girl who is physically challenged, and she feels shy to join in the program. She cannot understand the things." (14 years old girl, student)*

*"The illiterate families do not know the services, and they are not able to get the services. There are about 10 to 12 families. But they are also monitored." (25 years old female, VHSNC member)*

*"There are two families who do not want to take all the benefits from Government. Children's mothers wanted to participate in VHND, but her father-in-law does not want it. One of the family is also staying far away from the village; she also feels difficulties getting service. But she participated in many programs." (From FGD with adolescent girls in Achanwara)*

**TTC volunteers reached everyone**

Stakeholders mentioned the project reached all eligible households. This was possible due to the work of TTC volunteers who went house to house and reached the 'hard to reach' families.

*"There is no family who is left behind. Everyone came for VHND and growth monitoring since the TTC started working." (24 years old female, TTCvolunteer)*

*"Yes. The volunteer is going house to house and reaching the difficult family too. It is compulsory for volunteer to go to every house for monitoring." (33 years old female, VHSNC member)*

**Sub-theme B3. Partnership**

**Close collaboration at the field level**

Stakeholders commented that there had been close collaboration, especially at the field level, among the TTC volunteer and other Front-Line Health Workers (FLHWs) - Anganwadi Worker, ASHA, and ANM. TTC volunteers provided various types of support and assistance. Most frequently mentioned was mobilizing mothers and children to AWC during VHND and help in the growth monitoring program in AWC.

The partnership with the Health Department (through working with the local Health Workers) and the nutrition sector through ICDS Department have been vital to reach the cooperation and agreement of these departments to support the Health Volunteers from local communities who are an asset to the community.

The TTC volunteers who were engaged at the village level also played a crucial role in connecting the mother and the child to different key stakeholders, including the fathers, grandmothers, AWC, VHNC, ANM, ASHA, Panchayat, NRC, Health Centres, etc.

Home visits were done separately by these FLHWs, but they all worked for the same purpose, to provide counseling for pregnant and lactating mothers and in work to prevent malnutrition. TTC Volunteers also worked with the other FLHWs to conduct campaigns and health promotion.

A specific example of collaboration among the FLHWs is the Dastak Abhiyan. It is a campaign done through active case finding from house to house for diarrhea, pneumonia, severe acute malnutrition, severe anemia, and referral for those cases, conducted by the Dastak Team comprised of the ANM, ASHA, and AW Worker.

*"It is helping us a lot in our work. WV workers go along with our workers and go house to house to take weight and height, which is good." (35 years old female, CDPO)*

*"Any campaign that is organized, ASHA and World Vision participate." (38 years old female, Block Community Mobilizer)*

*"Yes, we do growth monitoring. The beneficiaries are pregnant women and children under 5. TTC Volunteer, ASHA worker, and AW worker, we all together do the work." (24 years old female, TTCvolunteer)*

*"When I visit the project with the project staff, the impact is very good. The beneficiaries listen and understand them. WV volunteer, staff, ASHA worker, AW worker, and me, visited the field together, and it is very good. When we conduct visits as a group, there is much better impact on the beneficiaries. Even the stone-hearted families who do not want to admit their children in NRC, agreed when we visited them together." (53 years old female, Anganwadi Supervisor)*

*"World Vision volunteers help us a lot, also in Dastak Abhiyan. They went with us, and do check-up for children below five years old. Even ASHA workers also helped a lot." (45 years old female, ANM)*

*"World Vision is helping us always. Whenever I conduct VHND or meeting for mothers or adolescents, World Vision is always present." (53 years old female, Anganwadi Supervisor)*

**Meeting for planning in the field**

One of the methods for partnership mentioned by some stakeholders was regular coordination meetings with the Sagar Health project. Coordination meetings usually took place in the field to discuss nutrition programs, the cases of malnourished children who need to be admitted to NRC, and planning for counseling activities. The project staff and TTC volunteers frequently had a meeting with the Anganwadi Worker and Anganwadi Supervisor in the field.

*"Whenever I did the planning, I invited WV staff. There is no program where WV is not there. Even the volunteers play a big role." (55 years old female, Anganwadi Supervisor)*

*"We coordinate meeting at village level for counseling session for pregnant women and children. This helps the children and mothers becoming healthier now." (25 years old female, VHSNC member)*

However, a few stakeholders admitted that they were invited by the project to join the meeting many times, but they could not attend due to some reasons.

*"Any program happens, I am being invited, but many times I could not attend them." (52 years old male, community leader)*

**The Project has involved us**

All the stakeholders interviewed reported that the Sagar Health project has involved them as important partners. The project has supported them in their work, especially in increasing community awareness and meeting their targets. The partners have acknowledged the capacity building provided for the TTC volunteers as bringing good results, and some of the volunteers were later recruited as ASHA workers by the government.

*"We have done programs where women and adolescent girls came and participated in different games. I was part of the event and acted as a judge for all the games for women. This was done to encourage the participants. I felt very good participating in this program." (45 years old female, ANM)*

*"The project has involved us adequately as a partner for community's health. After working this much, a lot of changes have been seen. Now the volunteers have learned and are helping our ASHA workers so much. Few of the volunteers have become ASHA workers also." (38 years old female, Block Community Mobilizer)*

However, the project staff felt that they had not involved the Gram Panchayat structure deeply. According to the Ministry of Minority Affairs, Government of India, Panchayat is the name of the local government system in India, which means a group of "Five Persons." It is a council of elders representing a village. Gram Panchayat is the Panchayat system at the village level. In the previous Village Health sanitation and Nutrition Committee (VHSNC) structure, the Sarpanch or Head of the Panchayat used to be part of the VHSNC, but, now Sarpanch is no longer part of the committee, and thus the Gram Panchayat is not part of the regular meeting.

*"We were not able to work deeply with Gram Panchayat. We are supposed work with them more because they have the hold over the villages more. If they take interest, the people acceptability will be more. But we were not able to work with them and give much time to them. We worked with VHSNC mainly, which was our focus. In VHSNC earlier, Sarpanch (Head of the Panchayat) was part of it, but now Sarpanch is not a part of VHSNC. So regular messaging was not going to the Panchayat." (Project's Community Health Coordinator, 49 years old male, work for 2 years)*

**Sub-theme B4. Effect of COVID-19 pandemic**

**Lack of access to livelihood opportunities**

Focus group participants and key informants were asked about the effect of the COVID-19 pandemic on their community. Consistently, all respondents mentioned that there were fewer to no livelihood opportunities for the daily laborers, and people who used to work in another city could not go to work. The COVID-19 pandemic and the lockdown hit the agricultural sector and the livelihood sector hard because people could not work in the field and could not access the market.

*"It was the harvest time last year. The fields were ready for harvest. But due to lockdown, the market (mundy) was closed, even the traders were not able to come and purchase." (56 years old male, community leader in Achanwara)*

*"My husband works in Indore (A city in Madhya Pradesh), but he cannot go there due to lock-down. The person who earns and supports family is sitting at home. We cannot pay the house rent in Indore as my children are working there as a laborer." (35 years old female, a housewife, and a VHSNC member in Achanwara)*

*"Not able to go for work. Not having money in hand. Sons were not able to go for work." (38 years old female, ASHA worker)*

**Lack of food and increased food prices**

Lack of access to food, especially vegetables, and increased food prices, were mentioned by all respondents. The lack of access to food was caused by the closing of markets during the initial lockdown period in India; people could not travel to the market or go outside to buy food; and also because the families had no money to purchase food as there was no daily labor work including in the agriculture sector.

Even families who had some money to purchase food could not purchase the food items because the market was closed. Families used various coping strategies during this difficult time, such as borrowing money, selling seed used for cultivation, and eating a limited variety of food.

*"Economic status gone down. I borrowed money from the landlord with double interest for showing seed for land" (37 years old male, a father of child under five in Achanwara)*

*"There was no wages work, no money for buying food items. We ate food without vegetables, we borrowed money from the landlord for grocery items purchase." (60 years old female, a grandmother in Kanera Gond)*

*"We did not have money and wanted to purchase grocery item for our home. That time we sold our seed (used for cultivation) which we have kept for family survival." (From FGD with Fathers in Kanera Gond)*
*"There was no vegetable, so we ate dal and roti only." (24 years old female, a TTC volunteer in Kanera Gond)*

*"We cannot go to the market. And still, we are afraid of go to city. Children are also hungry." (43 years old female, a VHSNC member)*

*"Because of coronavirus, we have suffered in getting food material like the price of grocery items increased, and my husband did not find the labor work. Also, we were facing the problem of having no money for buying the food items, and those families who have children were very affected. (30 years old female, a mother with a 54 months old child in Achanwara)*

Because the COVID-19 pandemic reportedly impacted families' ability to purchase food, access food, and consume vegetables and fresh produce, it likely led to worsening nutrition status, especially among children under five years old and pregnant women project areas.

There were other effects of COVID-19 mentioned by the caregivers and stakeholders, such as limited transportation to access health care in hospital, children had to study at home with limited facilities, and people could not go out of the house even during the hot summertime in India. The effects of pandemic mentioned were based on the respondents' experience with the first wave of COVID-19 in 2020, the second wave of COVID19 in April-May 2021 is much worse and brings more devastating impact to the families in the whole country.

*"My daughter was affected with the sickness and not able to be taken to hospital for treatment." (60 years old female, a grandmother from Kanera Gond)*

*"There was a restriction of visiting the hospital." (23 years old female, a mother with 8 months child from Kanera Gond)*

*"We were not able to go to hospital and if we go, the doctor was diagnosing from afar." (20 years old female, a TTC volunteer from Achanwara)*

### 5.2.3. Theme three: Impact

**Sub-theme C1. Most useful contributions**

**Reduced malnutrition**

In terms of the malnutrition treatment program, World Vision India, through the Sagar Health Project, provided a food basket for the malnourished child's family for six months, along with a nutritious food demonstration program. The program for undernourished children was implemented in coordination with the ASHA worker, Anganwadi Worker, and the TTC volunteer. All the stakeholders interviewed commented that they have seen improvement in the nutritional status of children and that the rate of malnutrition in the areas has reduced compared to other areas.

*"If we look into malnutrition, in the entire Sagar District, malnutrition is comparatively less in Khurai Block. The number of children admitted in NRC is highest in this Block. District Program Officer Sir says that NRC is working well in this Block, and he says as World Vision is there, that's why it's high. He wrote in the report that World Vision's support is there in this Block. He said that as World Vision provides food baskets to those who are discharged, that's why more children are admitted in NRC. Because of that, it is good. NRC is always full bed here. Yes, malnutrition is prevalent in this area, but this is being rectified." (35 years old female, CDPO)*

*"Earlier the malnourished children were not going to hospital due to negligence by their parents. But after Sagar Health Project came to this area, the children who are in Red category are being admitted in NRC for treatment." (Project's Finance Coordinator, 35 years old male, work for 4 years)*

**Positive effects on women's participation and practices**

Project stakeholders mentioned that there has been a change in people's way of thinking and that more women and children have the courage to speak up for their health concerns, and that many people are coming to access services. The front-line health workers noted that people now listen to their advice and follow health practices such as taking iron folate tablets or thinking that institutional delivery is a must.

*"The women and ASHA who were not going out of the house earlier are now able to speak freely… Adolescent girls who were shy to speak about their concerns regarding their health can talk to ASHA, ANM or Health Volunteer without any issue. Even the women can speak it freely with the health workers." (38 years old female, Block Community Mobilizer)*

*"The adolescent girls are happy because they are aware of menstrual cycle and now, they are using sanitary napkin, they are also taking IFA tablet. World Vision India purely contributes this." (25 years old female, VHSNC member)*

*"Mothers' way of thinking have changed. Whenever we gave Iron Folate tablet, they are taking it. They think that institutional delivery is good and compulsory. The mother thinks that she will give breastmilk. In these ways, they change their thinking." (53 years old female, Anganwadi Supervisor)*

### 5.2.4. Theme four: Sustainability

**Sub-theme D1. Diverse opinions on sustainability**

**The project should be continued to reach more people**

The majority of stakeholders interviewed expressed that they would like World Vision and the Sagar Health project to continue for varied reasons. Firstly, they feel that some families in other villages, malnourished children, pregnant and lactating women still need help from the project.

*"This work should be continued because the health messages should reach everyone out of this village. AWC is constructed, and we have learned many things. If this project goes on, that will be good" (24 years old female, TTC volunteer)*

*"Sagar Health Project should stay more years in Khurai, because people learn more things from World Vision. World Vision is working much better than any organization. The situation of the villager, pregnant women, lactating women, lactating mothers, they still need WV in the village." (33 years old female, VHSNC member)*

*"I suggest that WV should continue because there are still families in the villages whose children are still malnourished. Everyone must learn what malnutrition is and their causes." (55 years old female, Anganwadi Supervisor) is*

**Concern about future problems**

Secondly, the stakeholders interviewed expressed their desire for WV to continue working in the project area due to concern about future problems, especially regarding community mobilization and budget.

*"The food basket is very helpful for the families who are in need and has improved children's health. This thing will discontinue. It may be difficult after WV left because now people are already aware of the things, and WV is working closely in the community. People will not go to AW Centre without World Vision mobilization. They will think that, what will I get after WV go away?" (35 years old female, housewife and VHSNC member)*

*"Without World Vision, the program cannot continue. Because, for example, when an Anganwadi Centre is damaged and need to be renovated, it is never done. I have written many complaint letters to the department, but it is not happening. But for World Vision, whenever there is a need to change (program or infrastructure), we discuss it in team and change happen." (53 years old female, Anganwadi Supervisor)*

**Confidence that the program will continue**

Conversely, some stakeholders expressed their confidence that they would continue working even after the project is completed. They felt that World Vision had increased community's awareness of available services from the Government. Hence, government programs such as immunization and growth monitoring will continue even without World Vision's support.

*"The government schemes such as immunization, GMP, VHNDs will continue without World Vision, because you have raised awareness of the community people for getting services from government." (62 years old female, Anganwadi Worker)*

*"Without World Vision, this work will go on. I will continue to give health messages to the villagers. I will continue to work even if WV go away from the village. I will also go to AW Centre for growth monitoring even if I do not get my payment/salary. "(24 years old female, TTC volunteer)*

**Sub-theme D2. Preparing the community for sustainability**

The project team were confident that the program and achievements would continue, even if World Vision is not working in the area, due to the strategies used to prepare the community and partners. These strategies included: building the capacity of the community health committee or Village Health Sanitation Nutrition Committee (VHSNC); educating the mothers and the adolescents; using the Citizen Voice and Action (CVA) approach to educate community members on their rights to services and entitlements and bridging communication with Service Providers; and by building the capacity of frontline health workers including the Anganwadi Worker, ASHA worker, ANM, and the TTC volunteer.

**Building capacity of the VHSNC**

*"I have observed that the VHSNCs are in documents only, but in Khurai we see that VHSNCs are functioning very well. Every month they are organizing meetings, they can utilize fund that they get, and VHNDs are being organized well." (Project's Manager, 40 years old male, work for 5 months)*

**Building capacity of the front-line health workers**

*"The volunteers appointed are from the same village, and these volunteers will surely be used in the future. Now the families have learnt about health and hygiene and are aware of the need of it. We have built the capacity of ASHA and Anganwadi Workers who will be in this location. There may be a little lack of speed as World Vision will go, but they are now feeling good and getting respect from the community. Now they can fill up the 16 registers and know how it is to be filled. Now they know about the messaging as what to speak with the clients." (Project's M&E Manager, 36 years old male, work for 4 years and 6 months)*

**Educating mothers and adolescents**

*"We have taught the mothers and adolescents. The teachings and learnings will surely continue after we leave. We expect a lot of change during the next 5 years as the awareness has been increased and the demand has been generated." (Project's Community Health Coordinator, 34 years old male, work for 4 years and 6 months)*

*"The women are receiving health awareness messages, which is good. The institutional delivery among tribal women is 100% now. Now they are saying that delivery in the hospital is good. Even the Mothers-in-law are advising their daughters-in-law to deliver in hospital to be safe. (Project's Community Health Coordinator, 49 years old male, work for 2 years)*

**Use of Citizen Voice and Action (CVA) approach for social accountability**

*"What we have done is that we started generating demand for the services. Then we worked with the Service Providers so that they will be able to provide their services well. We empowered people who were entitled to the services to understand that availing services is their right (through CVA). So Service Providers become cautious that they should provide services for whom it if entitled. For example, earlier, people didn't know about the fund for VHSNCs, but now they know that there is a fund and can understand their entitlements. (Project's Community health Coordinator, 41 years old male, work for 2 years)*

### 5.2.5. Theme five: Gender Roles

**Sub-theme E1. Gender issues**

**Gender roles in taking care of children under 5**

During the interviews, caregivers were asked about gender roles in childcaring. The childcaring responsibilities by role are summarized in the table below:

**Table 32: Gender Roles for Childcaring from Qualitative Evaluation**

| Role of mothers | Role of grandmothers | Role of fathers | Role of the adolescent as an older sibling |
|---|---|---|---|
| • Usual day-to-day caring of the child<br>• Takes care of babies. If busy, then mother-in-law or sister-in-law takes care of the baby<br>• Bathing, feeding and caring for the child<br>• Putting clean clothes on the child | • If the mother is sick, then the grandmother takes care of the child<br>• Bathing, feeding and caring for the child<br>• Helping pregnant daughter or daughter-in-law by cleaning the house, fetching water, prepare and cooking food, caring for children, and telling the pregnant woman to take rest<br>• Going to hospital with the pregnant woman for ANC | • In special case such as when the child is sick, then father will take care of the child<br>• If the baby is crying, the husband takes the baby and make him/her quiet<br>• If the child is sick, the mother and father take the child to the hospital<br>• Feed the child if the mother is busy | • If the mother is away, feed and clean the baby<br>• Taking care or watch for the younger sibling |

*"Earlier, husband and wife will never go out together anywhere. If they are going on a bike, it will be [similar to] sister-in-law and brother-in-law and they will never go together. However, when Project started advocating on this issue, they felt that she needs her husband more when a woman is pregnant. The husbands learned that they should take care of their children and started taking them to VHNDs, hospitals etc. Now they learned that we also have a role in our family. They started taking care of their wives and ensured that when they are pregnant, they are taking enough rest, not lifting heaving materials, sleeping inside the mosquito net, taking a balanced diet, and bringing fruits, vegetables, etc. Now the community people insist that the delivery should happen in hospitals." (Project's M&E Manager, 36 years old male, work for 4 years and 6 months)*

**Preference for female health worker**

Respondents consistently said that the women and families would prefer to go to the female health worker and not go to a male doctor for various reasons, such as feeling shame and believing that another man cannot touch the woman. Most caregivers and front-line health workers said that pregnant women should only go to female health workers, as women can understand the women's health concern and a female health worker can do health checkups better than males. However, some caregivers said that there are some exceptions. For instance, in the hospital setting or the city, a male health worker can check up on a female patient. Or if the woman goes with her husband or with his permission, they still feel hesitant to visit a male health worker for a checkup. They will go to a male health worker only if they think that he can be trusted.

*"If there is only a male health worker, then we will consult them for a checkup, and we will go to female health worker only because the female health worker can do health checkup better than male." (From FGD with Grandmothers in Kanera Gond)*

*"Take advice from male health worker if the female health worker is not available, and when we trust the male health worker." (From FGD with Grandmothers in Achanwara)*

When we asked the front-line health workers and TTC volunteers about who should be recruited as front-line health workers, they also provided consistent responses with the caregivers that female health workers or volunteers should be recruited for maternal child health issues. They responded that the volunteer or Anganwadi Workers should be female because the work is closely related to mothers and children's health and because the beneficiaries are mainly female such as the mothers and adolescent girls.

*"Female only should be recruited as AW worker because we work closely relate to mother and child health. Women can discuss with women related to their health concern." (62 years old female, Anganwadi Worker)*

## 6. Limitations

Due to the COVID-19 pandemic, the consultants relied on remote methods to support the evaluation preparations and the quantitative and qualitative data collection. TSO organized virtual training sessions, regular follow-up, and updates to support quality assurance during the evaluation process.

Some limitations were noted in the quality of anthropometric measurements, underscoring the need to include a measurement standardization exercise as part of the enumerator training and to ensure close supervision of measurement techniques during data collection. Thus, implausible values were excluded from the anthropometric analysis. In addition, the sample size for anthropometry used at the baseline and final evaluation was not sufficiently large to detect smaller changes in nutritional status. So, while all three anthropometric indicators decreased from baseline to final evaluation, reductions in wasting and stunting were not statistically significant.

The project design also did not have a comparison group in the evaluation design because of a limited budget. The baseline and evaluation assessments were designed to measure the progress pre- and post-interventions of the projects.

In the final evaluation, an updated indicator of Minimum Meal Frequency recommended by UNICEF and DHS was used, a change from the indicator definition used at baseline and Mid-Term. The updated Minimum Meal Frequency indicator is as follows:

| MMF during Baseline and Mid-term Review | MMF during Final Evaluation |
|---|---|
| • 2 times for breastfed children 6–8 months<br>• 3 times for breastfed children 9–23 months<br>• 4 times for non-breastfed children 6–23 months | a) For breastfed children, receiving solid or semi-solid food:<br><br>• at least twice a day for infants 6-8 months or<br>• at least three times a day for children 9-23 months<br><br>b) For non-breastfed children age 6-23 months, receiving solid or semi-solid food or milk feeds at least four times a day plus solid feeds where at least one of the feeds must be a solid, semi-solid, or soft feed |

In addition, the handwashing practice of caregiver indicator was different at the final evaluation compared to baseline. In the baseline, the hand-washing practice was asked during four critical times: after defecating, after cleaning a baby's bottom, before preparing food, and before feeding children. In the final evaluation, the hand-washing practice was asked for five critical times: after defecating, after cleaning a baby's bottom, before preparing food, before feeding children, and before eating.

The limitation in qualitative data collection was the varying degree of skills of interviewers and facilitators in conducting the qualitative interviews. In some interviews and FGDs, the interviewer did not explore further responses or disagreements among the participants. Moreover, the level of detail of the transcripts varied from team to team. Some transcripts were done verbatim, while a few transcripts were as a summary of the discussions. To address this challenge, the consultant requested support from the Qualitative Data Collection Supervisor, Mr. Sudipta Ranjan, to check the quality of the transcripts. Afterward, some revisions were made to the transcripts.

Another limitation was the language barrier. The interviews and FGDs were conducted in the local language (Hindi) and recorded. Then, all the transcripts were prepared in English. The consultant could not speak Hindi and thus, could not check the accuracy of the translation and transcription by listening to the recording.

Nevertheless, with all the challenges and limitations associated with conducting the evaluation remotely, and with the help of the WV India team, the necessary quantitative and qualitative data for the evaluation was collected.

# 7. Conclusions

**Relevance**: *is the intervention doing the right things? The extent to which the intervention objectives and design respond to beneficiaries and country needs, policies and priorities*.
Based on the qualitative findings, the Sagar Health project was appropriately designed, including interventions that responded to the population's needs and were in line with Government priorities. Government stakeholders, including the CDPO, the Block Community Mobilizer, and the Anganwadi Supervisor in ICDS noted that the project contributed to increased maternal child health and nutrition services coverage. The community members and caregivers interviewed mentioned that the project's interventions have responded to the community's needs, such as through the repair of Anganwadi Centre, and support for malnourished children through the provision of food baskets to families of children admitted to the NRC, and for six months after the child is discharged. The project addressed most of the health problems mentioned by the community and stakeholders. The remaining gap is on the felt need for community health services for the elderly and other groups outside of the mothers and children under five, and the issue with lack of clean water and waste management. However, these issues are beyond the scope of the project.

**Coherence**: *how well does the intervention fit? The compatibility of the interventions with other interventions in the country.*

The project interventions were aligned with the government's priorities and policies. Strengthening of ICDS system through the Anganwadi Centers is a priority of the Government of India. The project's interventions align with that priority, focusing on building the capacity of front-line health workers, strengthening the Anganwadi Centre system, and supporting community mobilization to increase access and coverage of AWC's services, ASHA's services, and ANM's services. Moreover, the stakeholders interviewed shared that the project has consulted them in planning for the interventions and coordinated with them during the implementation.

The project's interventions in social and behaviour change approaches through the Timed and Targeted Counselling (TTC) approach, Citizen Voice and Action (CVA) approach, awareness-raising of adolescent girls and boys, fathers, and grandmothers, food demonstration using locally nutritious food, and the provision of food basket of malnourished children, aligned with government's recommended interventions included in National Nutrition Policy of the Government of India, Department of Women and Child Development, Ministry of Human Resource Development 1993. Those recommended interventions include: 1) increasing coverage of children 0-6 years covered in the ICDS, 2) increasing coverage of GMP program in Anganwadi Centre , especially among children 0-3 years old, 3) increasing coverage of adolescent girls reached through services in ICDS, 4) increasing coverage of pregnant women reached through services in ICDS, and 5) popularization of low-cost nutritious food.

***Effectiveness****: is the intervention achieving its objectives? The extent to which the intervention achieved, or is expected to achieve, its objectives, and its results, including any differential results across groups.*
The project's goal was to contribute to the improved health status of mothers, pregnant women and children under five years old in Sagar District, Madhya Pradesh State, India, with two project outcomes: Outcome 1 - Reduced vulnerability of women and newborns to the risks related to pregnancy, delivery and newborn care in all communities in target areas, and Outcome 2 - Reduced vulnerability of children under five to the risks related to malnutrition and childhood illnesses in all communities in target areas. The project made substantial progress towards these outcomes.

In comparing the final evaluation versus the baseline results, the following key indicators showed statistically significant change, some with positive gains, while others worsened:

Improvements:

1) Reduction in Underweight
2) Increased Early initiation of breastfeeding
3) Increased Exclusive breastfeeding among children 0-5 months
4) Increase in pregnant women received at least 4 ANC visits
5) Increase in institutional deliveries
6) Increase use of modern contraceptive
7) Improved diarrhea management
8) Increased care-seeking for ARI

Worsened:

1) Decrease in pregnant women who received at least 2 Tetanus Toxoid vaccination before the birth of the youngest child
2) Decrease in complete immunization among children 12-23 months
3) Decreased handwashing with soap at least 3 critical times

**Outcome 1: Reduced vulnerability of women and newborn to the risks related to pregnancy, delivery and newborn care in all communities in target areas**

While indicators of maternal nutrition were not assessed at baseline so no comparison can be made, maternal nutrition status at the time of the final survey was mixed. Consumption of IFA supplementation during pregnancy was high (98.9%), far exceeding the 23.5% reported in the NFHS. However, food taboos during pregnancy and the finding that women reportedly eat last and least within some households were identified as barriers to maternal nutrition. In the qualitative findings, nutrition related enablers for a healthy mother were identified; however, there may be a gap in practice, as meal frequency and dietary diversity for mothers of children remained suboptimal. Roughly 3 in 5 women reported consumed three or more meals per day, with 55% of women consuming foods from at least 4 food groups.

Regarding maternal health, significant improvements from baseline to the final evaluation were observed: 4 ANC visits increasing from 11.4% at to 79.8%; the proportion of women delivering at a health facility increased from 91.1% to 97.8%, and contraceptive use increased from 31.78% to 66.7%. Most women in the project area, 98.6%, reported receiving a home visit during pregnancy, and 100% of mothers of children 0-23 months reported receiving post-natal care within the first two days. Focus group discussions reported a change in community behaviour from years past, where home delivery and avoidance of medical care was common practice in the past. However, now there is a demand for such services due to confidence that they will get good medical care.

Of note was the observed decrease in the proportion of mothers who received two doses of tetanus toxoid vaccination before giving birth from 80.5% to 46.8%. This decline is possibly due to the impact of COVID-19 pandemic restrictions and the refusal of some families to allow immunization, as found in qualitative evaluation.

**Outcome 2: Reduced vulnerability of children under five to the risks related to malnutrition and childhood illnesses in all communities in target areas.**

The nutritional status of under-five children improved in the project target communities, as evidenced by improvements to stunting, wasting, and underweight indicators, along with the reported community perception that addressing malnutrition was one of the most useful contributions of the project. While all three nutrition indicators showed improvement, the smaller reductions observed in stunting (50.1% to 45.2%) and wasting (20.1% to 16.7%) were not statistically significant. In contrast, reductions in underweight were significant from 45.5% at baseline to 25.2% at the evaluation. The sample size for anthropometry was not sufficiently large to detect smaller changes in these indicators.

The Sagar Health Project set a target for stunting reduction, from 50.1% at baseline to 47% or 3.1 percentage points within 5 years. The project target was surpassed with a stunting prevalence of 45.2% at the evaluation time, representing a 4.9% reduction within 5 years, or an 2.5% Average Annual Rate of Reduction (AARR). Normally an AARR of between 3-5% is expected in a project addressing stunting. Based on the WHO prevalence thresholds (Table 33), the stunting prevalence remains very high.

Similarly, the project set a target to reduce wasting from 20.1% at baseline to 17% at the evaluation, or within 5 years. This represents an absolute reduction of 3.1 percentage points, 0.6%/year. At the end of the project, wasting prevalence was 16.7%, or 4% reduction within 5 years, remaining very high according to WHO prevalence thresholds.

For underweight, the target set at year 5 was 20%, or a 25.5% reduction from the Baseline. This required a 5.1% decrease per year, or an AARR of 14%. While the project did not meet the target of 20%, there was

notable progress in reducing underweight, approximately an 11% average annual rate of reduction, moving from the WHO prevalence classification of very high to high.

While underweight decreased significantly, and positive trends were observed in stunting and wasting, further interventions targeting the main determinants of malnutrition within the target communities are needed. With nearly 40% of children 6-23 months of age, and 30% not receiving the minimum acceptable diet, future interventions should focus on improving dietary adequacy for young children, including addressing household nutrition and food security.

**Table 33. Prevalence thresholds of Stunting, Wasting and Underweight**

| Prevalence thresholds | Stunting | Wasting | Underweight |
|---|---|---|---|
| Very low | < 2.5% | < 2.5% | |
| Low | 2.5% - < 10% | 2.5% - <5% | < 10% |
| Medium | 10% - < 20% | 5% - < 10% | 10% - 19% |
| High | 20% - < 30% | 10% - < 15% | 20% - 29% |
| Very High | ≥ 30% | ≥ 15% | ≥ 30% |

Adapted from WHO prevalence thresholds on Wasting, Overweight and Stunting published in the Public Health Nutrition Journal by Mercedes de Onis et al. (2018) and the WHO's Cut-off values for public health significance (1995).

The improvements observed in nutrition status may be due to strengthening of the growth monitoring and promotion program in Anganwadi Centre, home visits and counselling through Timed and Targeted Counselling approach, screening and referral of severe acute malnourished children to the Nutrition Rehabilitation Centre (NRC), and the provision of a food basket to families while the child is being treated and for 6 months after discharge from the NRC. The food baskets were useful to mobilize the families to access treatment for children with severe acute malnutrition. During the COVID-19 pandemic, it appeared that in-patient treatment for SAM in the NRC was disrupted; however, the project provided food baskets to families of children with SAM and MAM, even when there was no admission for treatment. The provision of this food basket was considered a lifesaving intervention in this period where there was not work nor income for parents who worked as day labourers.

Despite the project interventions, malnutrition remains a significant public health problem in the Sagar district. The project sought to address malnutrition through direct nutrition interventions (GMP, SAM management, support for SAM families), caring practices and health-seeking behaviours, and improving maternal health and nutrition. However, the project did not address the broader determinants of malnutrition within this context through nutrition-sensitive interventions, which may explain the smaller reductions in malnutrition than anticipated.

Regarding IYCF, there were significant improvements in early initiation of breastfeeding from 10.8% at baseline to 96.8%, and exclusive breastfeeding in children 0-5 months from 9.6% at baseline to 92.86% at the end of the project against the target of 85%. In addition, the majority of children, 62.07% for children 6-23 months of age, and 69.17% for children 24-59 months, reportedly received a minimum acceptable diet, meeting the requirements for both diversity and frequency. While no comparison with baseline was available for this indicator, in the most recent government survey (NFHS), only 6.1% of children 6-23 months reportedly received an adequate diet. The qualitative findings revealed the persistence of some food taboos for young children (e.g., vegetables can cause late walking), along with the early cessation of breastfeeding due to a subsequent pregnancy.

Concerning Childhood Immunization and COVID-19 vaccine hesitancy, the proportion of children 12-23 months with complete immunizations decreased from 77.3% at baseline to 68.4% at the time of the final evaluation. This decrease may be due to barriers related to migration, refusal, and the COVID-19 pandemic. The qualitative evaluation found that some children whose parents were migrant workers tend to miss the immunization schedule as they migrate along with their families. Some families persistently refused to have their child immunized due to the belief that their child would get sick afterward. In addition, the COVID-19 pandemic disrupted health services throughout the country, and lockdowns prevented families from seeking immunizations for their children.

Hesitancy regarding receiving the COVID-19 vaccination was low at 6.4% among caregivers surveyed. The qualitative findings revealed that the caregivers interviewed would like to get the COVID-19 vaccine so that they and their families can be safe and protected from the disease. However, very few grandmothers refused to receive the COVID-19 vaccine, and their reason was they never go outside, and the jungle is full of various medicines to treat the disease.

Caregivers practicing appropriate hand-washing behaviors decreased significantly from 98.5% to 90.6% at the final evaluation. Given the importance of handwashing for preventing COVID-19 infection, a decrease in this indicator was an unexpected finding. However, the final evaluation did not verify whether people had access to water and soap for handwashing or collect data on the population using improved sanitation. From the qualitative evaluation, it was noted that the project area is drought-prone, so people think to save water as much as they can. It may have contributed to the decreased of handwashing with soap practice in at least three critical times. The social behavior change to promote hand-washing was done through wall painting and included as key messages in the Timed and Targeted Counselling approach. The intervention to address the lack of water in the project area was to construct a stop dam, learning from the experience of another project in the same area. However, the stop dam construction was completed in 2021, and at the time of Endline evaluation, it was too early to see the impact of this intervention.

Indicators related to management of childhood disease and care-seeking performed well. On the correct management of diarrhea, while the sample size for this indicator was small (n-27), among children who had diarrhea in the last two weeks, 90.5% reportedly received the correct treatment, meeting the project target of 90%. For appropriate health-seeking behaviours, 97.3% of children who experienced fever and symptoms of acute respiratory infection were taken to a health care provider, an increase from 71.1% at baseline. Home visits were provided to 98.6% of households with children 0-59 months.

Access to health facilities remains a barrier, with most of the population needing to travel more than 30 minutes to reach the nearest health facility.

Satisfaction with the health services provided is high, with 83.8% reporting that the services provided at their local health facility are adequate, and 100% of the caregivers reported that health services have improved from before the project.

**Efficiency**: *how well are resources are being used? The extent to which the intervention delivers results in an economic and timely way.*

Limited information on efficiency was collected during the evaluation. As the scope of this evaluation did not include a cost analysis, efficiency was not evaluated from an economic perspective. Some aspects of efficiency such as targeting, inclusion, partnering and collaboration were explored in the qualitative data collection. The project was efficient in the sense that interventions focused on strengthening the existing

health system and community structures and avoided duplication of services. In addition, stakeholders agreed that the project targeted the appropriate groups – pregnant women and children under 5 years of age, prioritizing resources to the interventions for these groups.

**Impact**: *what difference does the intervention make? The extent to which the intervention has generated or is expected to generate significant positive or negative, intended or unintended, higher-level effects.*
In terms of impact, the extent to which the interventions have generated positive effects can be seen from the achievement in some indicators, such as improvement in nutritional status, in attendance of children in GMP or Anganwadi Centre, and the high coverage of antenatal visits, healthy facility deliveries and post-natal care visits.

In the qualitative evaluation, stakeholders commented most frequently on reduction of malnutrition in project areas. Stakeholders mentioned that Sagar Health project areas have made significant reductions in the numbers of malnourished children compared to other areas. This was made possible due to community mobilization of children with SAM to the Nutrition Rehabilitation Centre (NRC) with the help of TTC volunteers who conducted home visits and counselling, provision of food basket to the family of malnourished children so that they can bring the child for treatment (at least) 14 days in NRC, and provision of food basket for 6 months after the malnourished child is rehabilitated and discharged, and preventive work done through counselling.

Some stakeholders noted that the NRC beds "are always full now," which means that SAM children were screened and referred to the NRC, and the families went to the NRC. Previously, the high opportunity costs for a family of seeking in-patient care for their children in the NRC for a minimum of 14 days was a significant barrier to accessing treatment. For families reliant on a daily wage, missing work for 14 days was not feasible, even though it is for the well-being of their children. The supports provided by the project offset some of these opportunity costs, leading to an increase in treatment uptake. However, it is uncertain how the food basket scheme would continue after the project ends; thus, the uptake of inpatient treatment for SAM continues to be a long-standing problem in the community. According to WV Japan, the Sagar Health project sought ways to sustain this food basket scheme, by proposing to use the Anganwadi Center's Take Home Rations (THR) as content of the basket, however it was rejected as it requires collaboration between different Ministries. Health officials in Sagar District and WV India should consider how it can support outpatient care for children with SAM, as is done in other jurisdictions in India.

The evaluation was conducted in March 2021, after India suffered from a severe COVID-19 first wave. All community members and stakeholders interviewed expressed their difficulties due to COVID-19, including lack of food and problems getting jobs. Undoubtedly, the effects of the COVID-19 pandemic impacted the nutrition of children and pregnant women in the project area. Moreover, the second wave of COVID-19 in India from mid-March 2021 until now is more serious. India has seen a significant rise in the number of recorded deaths, with the total toll since the pandemic crossing 250,000, with 40% of these deaths have occurred since the beginning of March 2021. With these many families impacted due to deaths or acute infections, limited job opportunities, and disrupted health systems, India may see an increase in the already high undernutrition cases among children and pregnant women. In an interview during World Food Day, UNICEF India's Chief of Nutrition, Arjan De Wagt, said "*As far as India is concerned, a Lancet study last year estimated that two-thirds of the 1.04 million deaths in children under five years in India is still attributable to malnutrition. And during COVID-19, it may increase by 10-20 %.*" With such a strong external influence, including in the Sagar Health project areas, the project's impact on nutrition

might be significantly reduced. Hopefully, the younger age group, such as the 0-6 months, would be protected if they are continued to be exclusively breastfed.

Another notable impact of the project was on women's participation. Although the project's design did not specifically include gender indicators, the project stakeholders mentioned that there were some positive impacts, including a change in people's way of thinking and that more women and children have the courage to speak up for their health concerns, and that many people are coming to access services.

**Sustainability**: *will the benefits last? The extent to which the net benefits of the intervention continue or are likely to continue.*
The majority of stakeholders consulted expressed a desire to see the Sagar health project continue due to the needs of families not yet reached by the project and the ongoing needs of the target population in other. This reason might express more of the need of the population and the positive acceptance of the community of World Vision and the Sagar Health project rather than an expression of lacking sustainability.

In addition, stakeholders expressed concern about the future, especially related to budget to cover expenses covered by the project in the past 5 years and the continuation of community mobilization after the project ends. This reflects a lack of confidence in the sustainability of the project's achievements and activities. Regarding budget, it was noted that the government system tends to be lengthy and bureaucratic, and it will take some time until the government can improve their system to be more responsive to the needs expressed by the community level providers. Moreover, the government may have competing priorities. Sometimes, an NGO such as World Vision might help in the monitoring and advocacy for such cases where budget and priorities need to be set by the government. Specific concerns were expressed regarding the continuation of community mobilization for AWC services and the provision of supports for children with SAM.

However, some stakeholders expressed their confidence that they would continue working even after the project is completed because World Vision has increased the community's awareness of the services. The community volunteers will continue working as they felt they got other benefits from working with the community, such as respect and recognition from the community members.

In addition, Sagar Health project staff reported they were confident about the program's continuation and achievements because they had used several strategies to prepare the community for sustainability. For example, they prioritized building the capacity of the Village Health Sanitation and Nutrition Committee (VHSNC) to continue advocating for the community's right to health care; educating women and girls on health and nutrition practices; using the Citizen Voice and Action (CVA) approach where they educated the community on their entitlements and bridged the communication with the health providers; and last but not least, through building the capacity of the front-line health workers.

To properly assess the project's sustainability, a post-project evaluation after several years in the project area. However, this effort will depend on the available resources and interest from the donor agency and the implementing organizations.

# 8. Recommendations

Given the persistently high levels of malnutrition in Sagar District, future health and nutrition projects should **include nutrition-sensitive interventions** (such as Livelihoods, Food Security, Water Sanitation and Hygiene, Education) **and nutrition-specific interventions**, targeting the main determinants of malnutrition in this district. A multi-sector approach is required to address malnutrition, including improving livelihoods of the poor families **and nutrition security at the household level.** By facilitating more local livelihood opportunities, it will help to reduce the seasonal migration of families. Hence it will help to improve the coverage of health and nutrition services as well. However, the livelihood and food security component could be considered as high-cost interventions, and not all donors are willing to fund interventions outside of the health and nutrition sector.

While few indicators related to WASH were examined in this evaluation, the low prevalence of good handwashing practice and the mention of poor sanitation and limited access to clean water during the focus group discussions highlights the need for more WASH investment. **Future projects should include interventions to address the lack of clean water or link the community with available resources from the government to improve access to clean water.**

Further efforts are needed to improve immunization prevalence for both children and women in Sagar District. The Government recognized that there are still some resistance and refusal for immunization in some areas. While the project supported the mobilization efforts of ASHA and AWW, the project targets were not achieved. Improved approaches are needed, including effectively reaching the families of migrant workers who frequently move in and out of the area looking for seasonal jobs. **Future health and nutrition projects need to have a more robust social behavior change component to improve immunization coverage,** such as using a formative study to analyze barriers to immunization and formulate social behavior change strategies. This effort will need a **joint strategy with the Government to reach the mobile population who frequently move to find livelihood opportunities** and require strong collaboration between State Governments to provide immunization services to children and pregnant women, regardless of where their residence is. A related issue is the lack of government-issued identification, a common challenge for low-income families. Providing a seamless primary health care service across the States border is still a challenge for other countries. Therefore it is recommended that future projects or programs can test innovations to have this seamless system of Primary Health Care across borders, especially for the poor.

# 9. Annexes

## Annex 1. Quantitative Sampling Frame

**Sagar Health Project - List of Villages**

| S. No. | Village Name | HH | PoP | | | Clusters | Cumulative HH | Sample HHs |
|---|---|---|---|---|---|---|---|---|
| 4 | Achanwara + Beichanwara | 185 | 921 | Random | 702 | 1 | 704 | 22 |
| 8 | Jharai + Gajar | 203 | 829 | 702+1028 | 1730 | 2 | 1740 | 22 |
| 11 | Khajra Harchandra + Dalpatpur Malgujari | 460 | 1956 | 1730+1082 | 2758 | 3 | 2557 | 22 |
| 15 | Mudiya + Simariya Ghat | 299 | 1257 | 2758+1082 | 3786 | 4 | 3524 | 22 |
| 21 | Pipariya Gond + Budho | 172 | 733 | 3786+1082 | 4814 | 5 | 4640 | 22 |
| 27 | Nardha + Parasari | 236 | 1035 | 4814+1028 | 5842 | 6 | 5683 | 22 |
| 31 | Lahatwas + Budanpura | 260 | 1214 | 5842+1028 | 6924 | 7 | 6809 | 22 |
| 36 | Mudri + Chandpur + Khiriya Thansingh | 204 | 981 | 6924+1028 | 7952 | 8 | 7898 | 22 |
| 41 | Khajuria + Khoja Khedi | 211 | 1021 | 7952+1028 | 8980 | 9 | 8905 | 22 |
| 45 | Gwari | 233 | 1028 | 8980+1028 | 10008 | 10 | 9554 | 22 |
| 47 | Toda Kacchi | 310 | 1626 | 1008+1028 | 11036 | 11 | 10542 | 22 |
| 54 | Sabdha | 120 | 518 | 11036+1082 | 12064 | 12 | 12044 | 22 |
| 58 | Jagdishpura | 100 | 412 | 12064+1082 | 13092 | 13 | 12989 | 22 |
| 62 | Bardha | 584 | 2593 | 13092+1028 | 14174 | 14 | 14116 | 22 |
| 66 | Dhangar | 363 | 1499 | 14174+1028 | 15202 | 15 | 15075 | 22 |
| 73 | Kanera Gond | 102 | 467 | 15202+1028 | 16230 | 16 | 16233 | 22 |
| 79 | Balau | 125 | 474 | 16230+1028 | 17258 | 17 | 17177 | 22 |
| 81 | Gadhola Jagir | 903 | 3525 | 17258+1028 | 18286 | 18 | 18435 | 22 |
| 86 | Jamun Khedi | 102 | 479 | 18286+1082 | 19314 | 19 | 19300 | 22 |
| 92 | Barodiya Baman | 119 | 545 | 19314+1028 | 20342 | 20 | 20362 | 22 |
| 95 | Bharchha | 418 | 1733 | 20342+1028 | 21370 | 21 | 21231 | 22 |
| 97 | Khadesara | 351 | 1673 | 21370+1028 | 22398 | 22 | 22078 | 22 |
| 98 | Basahari | 1554 | 7138 | 22398+1028 | 23426 | 23 | 23632 | 22 |
| 101 | Maheri | 104 | 401 | 23426+1028 | 24454 | 24 | 24191 | 22 |
| 102 | Khimlasa | 2287 | 10333 | 2 clusters | 26510 | 25, 26 | 26478 | 44 |
| 109 | Dhemadhana | 123 | 578 | 26510+1028 | 27538 | 27 | 27562 | 22 |
| 113 | Koha | 161 | 747 | 27538+1028 | 28566 | 28 | 28489 | 22 |
| 118 | Silodha | 344 | 1523 | 28566+1082 | 29594 | 29 | 29598 | 22 |
| 124 | Tewari | 238 | 1104 | 29594+1028 | 30622 | 30 | 30844 | 22 |
| | | 30844 | | | | | **Total Sample** | **660** |

| | |
|---|---|
| **Sampling Interval** | **1028.133** |
| **Random Number between 1 to 1028** | **702** |

## Annex 2. Indicator definitions of MDD, MMF, and MAD

### Minimum Dietary Diversity:

Proportion of children 6-23 months who received 5 out of 8 food groups yesterday (Breastmilk is included). The food groups are: 1) Grains, roots, tubers, 2) Legumes and nuts, 3) Dairy products, 4) Flesh foods, 5) Eggs, 6) Vitamin A rich fruits and vegs, 7) Other fruits and vegs, and 8) Breastmilk.

### Minimum Meal Frequency:

a) For breastfed children, receiving solid or semi-solid food

- at least twice a day for infants 6-8 months or
- at least three times a day for children 9-23 months

b) For non-breastfed children age 6-23 months, receiving solid or semi-solid food or milk feeds at least four times a day plus solid feeds where at least one of the feeds must be a solid, semi-solid, or soft feed

### Minimum acceptable diet:

a) Breastfed children – meet the criteria for Minimum Dietary Diversity and meet the criteria for Minimum Meal Frequency as above

b) Non-breastfed children – meet the criteria for Minimum Dietary Diversity but excluding the dairy products category (4 out of 6 groups – breastmilk and dairy are excluded) and Minimum Meal Frequency (meal or snack or infant formula or other milk ==== and the total of this should be at least 4, where 1 must be meal or snack)