

FINAL PROJECT PROCESS REPORT







Introduction

Fulfilling nutritional needs of children is key to secure good health and thus to increase their productivity in long-term. Thus, with a view to enhance enrolment, retention, attendance and simultaneously improving nutritional levels among children, Govt. of India launched National Program of Nutritional Support to Primary Education (NP-NSPE)as a Centrally Sponsored Scheme in 1995, initially in 2408 blocks in the country. The roots of the scheme take us back to pre-independence period when Mid-day Meal scheme launched by Madras Municipal Corporation in 1925, which kept evolving with changing time and need. By the year 1997-98 the NP-NSPE was introduced in all blocks of the country. The program has undergone many changes since its launch in 1995^[1]. The Mid day Meal Scheme is covered by the National Food Security Act, 2013 which provides that, every child up to class VIII or within age-group of 06-14 years shall be entitled to get one mid-day meal without any charge as entitlement to his/her nutritional needs ^[2].

Under article 24, paragraph 2c of the Convention on the Rights of the Child, to which India is a party, India has committed to yielding "adequate nutritious food" for children^[3]. The legal backing to the Indian school meal program is akin to the legal backing provided in the US through the National School Lunch Act^[4].

"National Program of Mid-day Meal" in Schools is being implemented in all Govt., Local Govt., Govt. aided Primary and Upper Primary Schools, EGS/AIE centers including Madarsas and Maqtabs supported under SSA across the country^[1].

The objective of the scheme is to help in improving the effectiveness of school education by improving the nutritional status of school children. Time to time many changes were have been made to improve the implementation of the scheme like, norms have been revised to ensure balanced and nutritious diet to schoolchildren of by increasing the intake of quantity of pulses, vegetables and decreasing the quantity of oil and fat. Cook cum helper appointed as per enrolment of children, it means that one up to 25 students and two cook-cum helpers up to 26 to 100 students^[1].

MALAISE OF ANEMIA

Anemia is a condition in which the number of red blood cells (RBCs) or haemoglobin concentration within RBCs is lower than normal. To carry Oxygen to various parts of body, Haemoglobin is needed and if someone is having lesser or abnormal red blood cells, or say insufficient haemoglobin, body tissues will get lesser Oxygen due to decreased capacity of blood to carry oxygen. This results in symptoms such as fatigue, weakness, dizziness and shortness of breath, among others. The optimal haemoglobin concentration needed to meet physiologic needs of body which may vary by age, sex, pregnancy status, etc^[5]. Anemiaaffect motor and mental development in children and adolescents and causes reduced work capacity in adults. Anemia may affect visual and auditory functioning and is also associated with poor cognitive development in children (Killip S, et al, 2007).

Iron deficiency Anemia is most prevalent form of malnutrition in the world. Iron deficiency Anemia accounts for considerable quantum of morbidity across age-groups (WHO, 2015). According to the National Family Health Survey, about 53.1% women are Anaemic which itself defines need for a sustainable intervention (NFHS-4, 2015-16). High prevalence of Anemia was reported in NFHS-4 survey in Uttar Pradesh across various age-groups. Unacceptably 52.4% women from age-group of 15-49 years and 63% children from 06 months to 03 years age-group in Uttar Pradesh are Anemic ^[5]. Much grim picture came forth in CAB survey which observed that in Uttar Pradesh 92.4% and 90.9% children from age-group of 5-9 years and 10-17 years respectively. Not much different findings were observed in Varanasi District which showed Anemia prevalence of 91.5% and 91.1% in -9 years and 10-17 years age-groups respectively ^[6].

Despite high priority being accorded through public health programs prevalence of Anemia remains very high. To address the iron deficiency Anemia, Ministry of Health and Family Welfare introduced Weekly Iron and Folic Acid Supplementation (WIFS) Programme to meet the challenge of high prevalence and incidence of anaemia amongst adolescent girls and boys. IFA supplementation on weekly basis is given to beneficiaries in schools and Anganwadi centers focusing on breaking the inter-generational cycle of Anemia. The inter-generational cycle of Anemia can be broken by using various public health measures. The strategies suggested by MoHFW to reduce prevalence of Anemia are as follows:

• Dietary Diversification

Increasing food variety through nutrition education and provision of foods rich in minerals and vitamins such as fruits, vegetables, and iron-rich foods (i.e. red meat, proteins)

Nutrition education

• Food fortification

Fortification of foods with required quantity of vitamins and minerals using fortificants

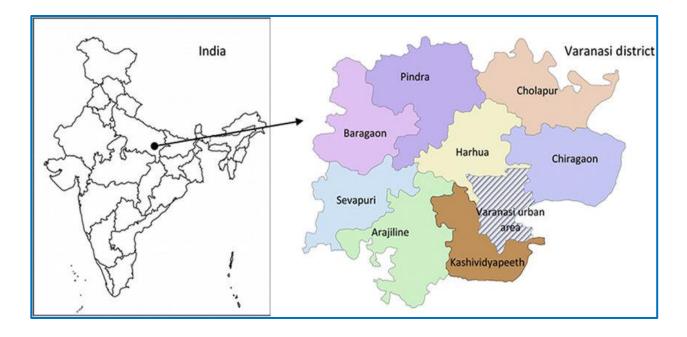
• Supplementation

Daily or intermittent oral iron, vitamins, or any other mineral (especially vitamin B12, foliate, vitamin A, or provitamin A, but also vitamin C, vitamin E, zinc, etc.) supplementation alone or in combination (MoHFW, 2013)

Thus, considering the high prevalence of Anemia amongst schoolchildren in Varanasi, United Nations World Food Programme (UN WFP) collaborated with Govt. of Uttar Pradesh (GoUP) initiated a programme to support Fortification of Mid-day Meals (MDM) in Varanasi.



The project for Fortification of MDM in Varanasi was launched in 2018, and to support fieldlevel activities Dr. ShambhunathSingh Research Foundation(SSRF), a Uttar Pradesh based not for profit organization, acted as the implementing partner. The SSRF pivotal role in MDM monitoring at school-level, conducting different social behavior change communication (SBCC) activities at school and at community-level. During monitoring visits to schools work related to improvement of complementary factors for successful implementation of project were also fulfilled which included, visits to storages of food-grain, capacity building of functionaries of HRD department and teachers, sensitization of key stakeholders like cook-cum helpers, Pradhans, Corporators and FPS owners were carried out.



For MDM, states decide menus by considering food habits of community. Rice being major staple food in Uttar Pradesh out of 6 working days rice-based menu is served for 4 days while for rets 2 days wheat-based menu is served. In the project the 292,599 schoolchildren from 1610 government and government aided schools in district were provided Fortified Rice through MDM. In the project WFP supported the government by providing fortified rice, the raw rice is supplied by government which is fortified and repackaged by WFP and post-packaging the rice bags are sent to block-level warehouses from where it goes to Fair Price Shops which in turn provide food-grain (fortified rice in this case) to schools as per their requirements.

Executive Summary

The report briefs about activities carried out during October 2018-March 2020. The details of efforts taken to ensure availability of fortified rice uninterrupted availability for consumption of beneficiaries, efficient supply chain management, monitoring of MDM in schools, improvement

in hygienic practices i.e. kitchen hygiene, cleanliness during MDM preparation, handwashing practices by CCH, usage of cap & apron, removal of jewelry, hand-washing practices by children, usage of clean water in preparing MDM and for consumption by schoolchildren, etc. Also, the report briefs about activities done to ensure improvement in storage practices for food-grain in line with the standard guidelines which are normally in custody of local elected members of the village & town area, at fair price shops and in schools.

The reports also discusses about efforts of Project Management Team (PMU) memberstowards sustainability of key project elements like nutrition, health and hygiene which was achieved by adopting various approaches like capacity building of officials of education department, district administration, teachers also sensitization training of cook-cum helpersfor making the project successful.

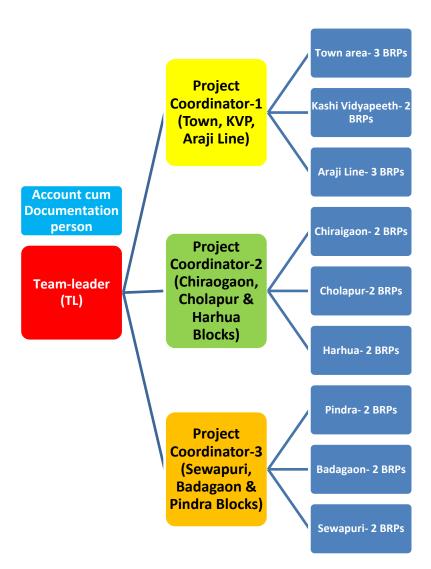
Detailed analysis using quantitative and qualitative approaches used in SBCC activities at both level i.e. schools and at community-level has been discussed in the report like Nutrition Health Education Day (NHED) sessions, Snake and ladder Game, Information Education Communication (IEC) materials, Sensitization training of cook cum helper,Block Level Workshop, District Magistrate (DM) Letter to guardians & parents, Nutrition Kiosk Van, Focus Group Discussions (FGD), etc.

Much of the analysis revolves around the checklists filled by PMU during school-visits using Poshan Suraksha Application which includes beneficiaries' details, food-grain availability, storage practices, inter-active sessions with schoolchildren, availability of IEC at schools, array of discussions during interactions with community-members, etc. The checklistswere filled each month by the team-members based on which progress of project could be assessed.

Team Structure

The Project Management Team (PMU) consisted of 25 members. The Team-leader (TL) was responsible for project related activities & ensuring coordination amongst team-members in entire project area, who also visited project area either alone or with team-members. Below that there were 3 Project Coordinators (PC) who were assigned separate blocks number of which varied from 3-4 blocks. The Block resource persons (BRP) were the one who reported the PCs and TL and carried out field-level activities. The PCs too joined BRPs during their field-visits and conducted visits on their own to assess the work done by respective BRPs. In addition to this there was an account cum documentation person. The organogram of the field-level team is as





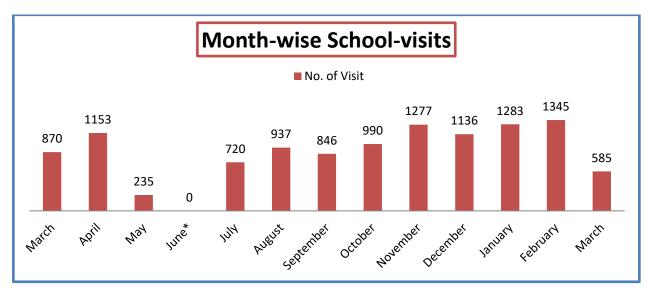
School-visit details

PMU visited regularly in the schoolsof district. Typically, a team-member would visit once to all schools in 30-45 days duration. On a typical day, BRP would visit 4-5 schools, thus he/she would be able to cover all schools in his/her assigned area in 30-45 days. Also, many times PCs would accompany the BRPs or would undertake the visits on their own with a purpose of assessing the quantum and quality of work done by the BRPs. Similarly, the TL would visit the schools either alone or with PC or with any BRP. At the end of each day after school visits, the team-members interacted with community-members through FGDs. During the implementation phase of the project, the schools were closed on 3 occasions i.e. during Summer vacations (Mid-

May to June 2019), during winter period schools remained closed by district administration (Dec. 2019 to Jan. 2020) and from mid-March onwards the schools remained closed due to Covid-19 pandemic. Thus, during summer vacations and much of the winter period when schools were closed the team-members worked at community-level with major focus on FGDs along with other interactive modes of engagement with children like Snake & Ladder.

| Month | No. of Visit |
|-----------|--------------|
| March | 870 |
| April | 1153 |
| May | 235 |
| June* | 0 |
| July | 720 |
| August | 937 |
| September | 846 |
| October | 990 |
| November | 1277 |
| December | 1136 |
| January | 1283 |
| February | 1345 |
| March | 585 |
| Total | 11377 |

*Schools were closed in June for entire month due to Summer vacations

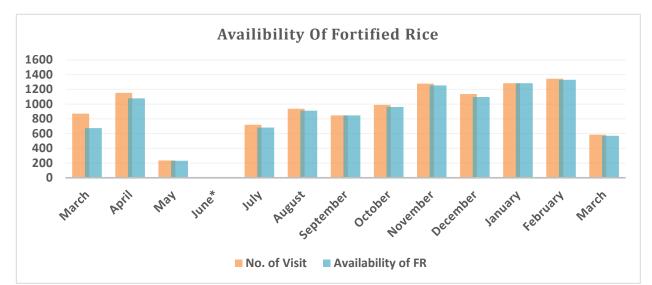


*Due to summer vacations Schools were closed in June 2019, thus no school-visits happened

Availability of FR

In the project, the pivotal issue was to ensure availability of fortified rice & its consumption by the intended beneficiaries. In Uttar Pradesh as a practice the food-grain meant for MDM are kept

in custody of the Village Headman called Pradhan and Nagar Parshads (Municipal Corporators) respectively in rural and urban areas, also for some schools the food-grain are stored at government Fair Price Shop (FPS) owners while for the rest food-grain are stored in schools itself. After, launch of the project, there was some difficulty in ensuring availability of Fortified rice, thus with the help of sensitization training the availability was ensured.



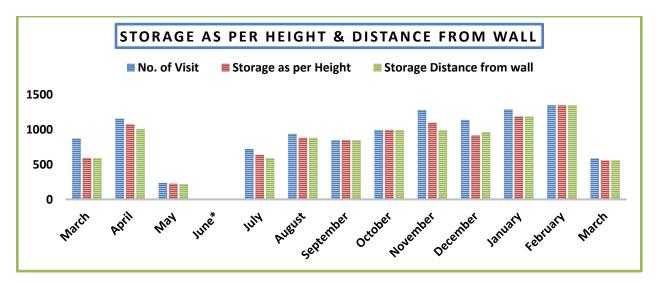
| Month | No. of Visit | Availability of FR | Percentage |
|-----------|--------------|--------------------|------------|
| March | 870 | 674 | 77.47 |
| April | 1153 | 1078 | 93.49 |
| May | 235 | 231 | 98.29 |
| June | 0 | 0 | 0 |
| July | 720 | 681 | 94.58 |
| August | 937 | 911 | 97.22 |
| September | 846 | 846 | 100 |
| October | 990 | 961 | 97.07 |
| November | 1277 | 1254 | 98.19 |
| December | 1136 | 1096 | 96.47 |
| January | 1283 | 1283 | 100 |
| February | 1345 | 1330 | 98.88 |
| March | 585 | 570 | 97.43 |
| Total | 11377 | 10915 | 95.93 |

Due to longer chain at field level and involvement of multiple stakeholders much efforts were taken by team-members for active involvement of stakeholders e.g. Block warehouses, FPS owners, Pradhans/Parshads and Schools. Most of the supplies are in local elected members' custody that is, Pradhan (Village Headman) in villages and Ward members in Town area. PMU members made sure that, they visit the stakeholders on regular basis and ensured the availability of FR. Thus, due to active engagement of team-members after April 2019 fortified rice was

available in more than 98% schools and in case if any school had not received allotment teammembers resolved issues by coordinating at block-level officials.

Storage

In addition to ensuring the availability of fortified rice, storage is an important facet in implementation of the project. As it could be comprehended that, if the storage is not improved the quality of the fortified rice could be affected. Thus, PMU staff worked vigorously in order to improve the storage at various levels. Ideally the bags of fortified rice need to be stored 6-8 inches above ground and stacks should be raised 1 ft. away from walls. This measure prevents fortified rice from having direct contact with moisture which in turn can adversely affect the quality. Most of the supplies are in custody of local elected members as Pradhan in villages and Parshads for School in town area. PMU whenever visited the Pradhan's or Parshad's house or Fair Price Shops they did sensitization trainingto improve the storage.



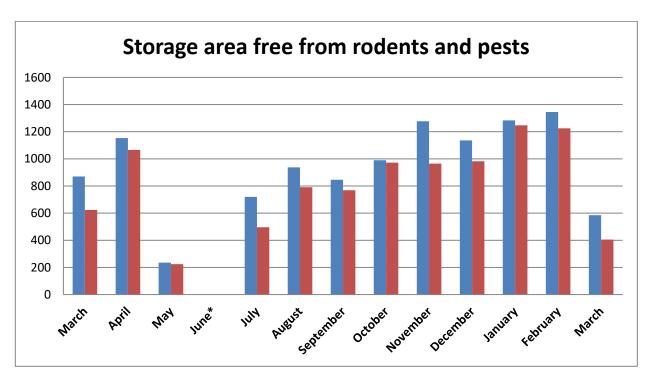
| Month | No. of Visit | Storage as per required height | Storage as per required Distance from wall |
|-----------|--------------|-----------------------------------|---|
| March | 870 | 591 | 589 |
| April | 1153 | 1070 | 1003 |
| May | 235 | 224 | 219 |
| June* | 0 | 0 | 0 |
| July | 720 | 637 | 591 |
| August | 937 | 879 | 879 |
| September | 846 | 846 | 846 |
| October | 990 | 990 | 990 |
| November | 1277 | 1093 | 987 |
| December | 1136 | 912 | 961 |
| January | 1283 | 1183 | 1183 |

| February | 1345 | 1343 | 1343 |
|----------|-------|-------|-------|
| March | 585 | 556 | 558 |
| Total | 11377 | 10334 | 10149 |

The storage has great implications on shelf life of the food-grain. Earlier there was not much focus on storage of food-grain, thus improving the storage at all levels due to multiple stakeholders was a challenge. But, after repeated visits and support from district and block level officials and teachers from schools' engagement of stakeholders was sought. Sometimes even the teachers would accompany the team-members also at times non-satisfactory responses were experienced by BRPs in such cases they would ask for intervention of PCs or TL which would help them in changing perspective of stakeholders. Also, sustained visits by team-members, sensitization trainings by them had considerable impact on changing stakeholders outlook towards importance of adherence to storage practices.

Storage area free from rodents and Pests

As the fortified rice needs to be protected from the moisture similarly it needs to be stored at places which are free from rodents and various pests which can potentially infest the food-grain. Pradhans and Parshads did not considered it as important practice. They considered wastage of some quantity of food-grain is part of storage which cannot be ruled out.



| Month | No. of visits | Storage area free from rodents & pests | Percentage |
|-----------|---------------|--|------------|
| March | 870 | 624 | 71.72 |
| April | 1153 | 1066 | 92.45 |
| May | 235 | 224 | 95.31 |
| June* | 0 | 0 | 0 |
| July | 720 | 496 | 68.88 |
| August | 937 | 791 | 84.41 |
| September | 846 | 769 | 90.83 |
| October | 990 | 972 | 98.18 |
| November | 1277 | 965 | 75.56 |
| December | 1136 | 982 | 86.44 |
| January | 1283 | 1247 | 97.19 |
| February | 1345 | 1225 | 91.07 |
| March | 585 | 405 | 69.23 |
| Total | 11377 | 9766 | 85.83 |

During their visits to the schools and storage spaces the team-members diligently worked towards active engagement of stakeholders. During sensitization sessions it was emphasized that, the fortified rice is for children of their own villages which will help them to fight against Anemia. Also, they were shown how the fortified rice is different from regular rice, they were also made aware of prevalence of Anemia in schoolchildren and how to identify symptoms of Anemia. In this regard they were also informed how it is important to store safely the opened bags of fortified rice which will ensure safety of children who consume the MDM. Gradually, with the increased awareness, the storage spaces are improving, but still some engagement through self-motivation would be more helpful.

जब प्रोजेक्ट की शुरुआत हुईं, उस समय प्रधान, एफ.पी.एस ओनर आदि के स्टोरेज एरिया का विजिट करने पर पाया जाता कि रख-रखाव सही नहीं रहता तथा चूहे इधर उधर घूमते रहते | टीम-मेंबर के द्वारा स्टेक होल्डर का सेशन लिया गया तथा उन्हें स्टैन्ड्रेड गॉइडलाइन के बारे में बताया गया | टीम मेंबर ने उन्हें बताया कि जमीन से ऊँचा तथा दीवारों से दूरी बना के रखें तथा स्टोरेज एरिया ऐसे जगह पर बनाए जहाँ चूहे की पहुँच ना हो | हमारेद्वारायहभीबतायागयाकिस्टोरेजकरतेसमयसिलहन वालीजगहपरनारखें | शुरू-शुरू में स्टेक होल्डर नहीं मानते पर प्रोजेक्ट टीम ने उन्हें इसके गुणों को तथा होने वाले लाभों को बताया ,जिसके बाद स्टोरेज पर प्रधान और एफ.पीएस बहुत बढ़िया काम किए |

नवीन कुमार, टीम-लीडर

Initially when the project was launched, that time during visits to the storages at Pradhan, FPS owner, etc. it could be seen that, storage is not done properly also rodents were observed there. Team-members use to take sessions (sensitization) with them and told them about standard storage guidelines. They were also told that, the food-grain needs to be stored at height from ground and away from wall where rodents could not reach. Also, the place should be free from moisture. Initially there was hesitation but after informing them about it (Fortified rice) Pradhans and FPS owners worked well.

Navin Kumar, Team-leader

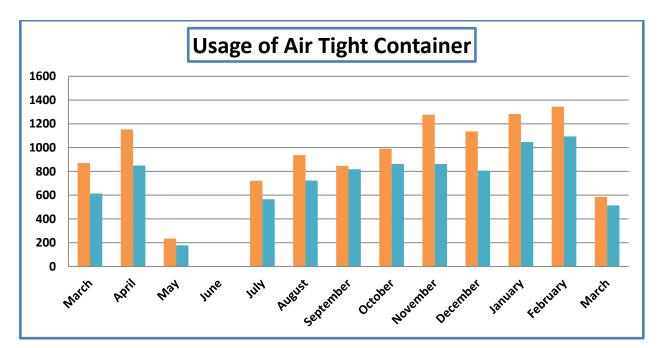
शुरू में भ्रमण के दौरान कई विद्यालयों व प्रधान, कोटेदार के स्टोर का निरिक्षण कर पाया गया कि वहाँ फोर्टीफाइड चावल का रख-रखाव सही नहीं था, फिर मैंने उन्हें बताया कि पल्लियों पर रखें जिससे ऊँचाई पर चावल की बोरियाँ हो तथा दिवार से हटाकर रखें, जिससे चावल की बोरियों में सिलहन ना पकड़े। मैंने वहाँ ये भी बताया कि अगर आप राशन प्रदान करते है तथा फिर कुछ राशन बच जाता है बोरी में तो उसे बाँधकर रख दें। अगले विजिट में देखा गया कि वो हमारे द्वारा बताए गए सुझावों पर कार्य कर रहें है।

वकर रख दा जनेता विजिट में देखा नेवा कि वा हमार द्वारा बताए नेए तुझावा पर कार्य कर रहे हैं | कृष्णकांत, चोलापुर

Initially during the visits, while monitoring the schools and FPS shops it could be observed that storage of fortified rice was not stored properly, then I told them to keep the bags of fortified rice on wooden platform in a way that they are above ground and away from wall and will not exposed to moisture. I also told that, when you give the ration (food-grain) and if some of it (Fortified rice) remains the you need to tie the bag. During next visit I could see that suggestions given by us have been implemented.

-Krishnakant, BRP, Cholapur

PMU saw that in project area once bags of Fortified rice were opened, they were not packed properly making them prone to exposure to moisture as well as to rodents and infestations. Thus, it was important to orient the cook-cum helpers and monitor them regularly on this aspect. Hence, it is advisable to use air-tight containers for safety of food-grain. took in Air-tight container. In view of this, team-members interacted with teachers so that, availability and usage of air-tight containers is ensured in schools.



| Month | No. of Visit | Usage of Air tight container | Percentage of usage of Air Tight Container |
|-----------|--------------|------------------------------|--|
| March | 870 | 614 | 70.57 |
| April | 1153 | 849 | 73.63 |
| May | 235 | 178 | 75.74 |
| June | 0 | 0 | 0 |
| July | 720 | 565 | 78.47 |
| August | 937 | 723 | 77.16 |
| September | 846 | 818 | 96.69 |
| October | 990 | 863 | 87.17 |
| November | 1277 | 862 | 67.50 |
| December | 1136 | 806 | 70.95 |
| January | 1283 | 1048 | 81.68 |
| February | 1345 | 1094 | 81.33 |
| March | 585 | 514 | 87.86 |
| Total | 11377 | 8934 | 78.52 |

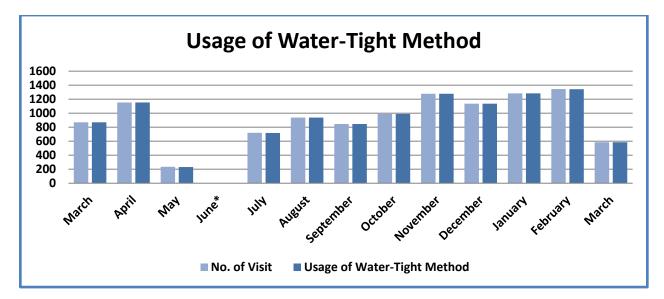
Though the stakeholders understood relevance of air-tight containers in view of food safety, the major hurdle was non-availability of funds. So, due to efforts of team-members some teachers took initiative by purchasing the containers while at some schools they took help of Pradhans to arrange for fund for purchasing the containers. PMU visited 11377schools out of which 8934schools started using Air-tight containers for storage of Fortified rice.

Cooking practices of the MDM

For the project in Varanasi, the Fortified Rice consumed in MDM is enriched with 8 micronutrients (Iron, Vitamin-A, Vitamin-B12, Folic acid, Vitamin-B1, Vitamin-B3, Vitamin-B6 and Zinc) through fortification which are vital for normal physical and mental growth. Along with this, other practices in kitchen which have bearings on nutritional value of meal also play irreplaceable role like not to wash the vegetables after cutting them, usage of iodized or preferably double fortified salt, usage of fortified oil for preparations, etc.; these small but important steps can play decisive role in reduction of prevalence of Anemia, other micro-nutrient deficiencies and malnutrition in long run.

Usage of Water-Tight Method

While cooking fortified rice, water-tight method should be used, so that, the nutrients in it are not washed away. Emphasizing this during interactions with cook-cum helpers is very important given the fact that, traditionally in plains of Ganges rice is cooked using water-drain method, and if similarcooking method is used in cooking fortified rice then water- soluble micro-nutrients in fortified rice may wash away and schoolchildren will not get expected benefits. So, care should be taken that, during rice preparation micro-nutrients added in the rice are not drained away.



| Month | No. of Visits | Usage of Water- Tight Method | Percentage of Usage of water tightmethod |
|-----------|---------------|---------------------------------|--|
| March | 870 | 870 | 100 |
| April | 1153 | 1153 | 100 |
| May | 235 | 231 | 98.29 |
| June* | 0 | 0 | 0 |
| July | 720 | 718 | 99.72 |
| August | 937 | 937 | 100 |
| September | 846 | 846 | 100 |
| October | 990 | 990 | 100 |
| November | 1277 | 1277 | 100 |
| December | 1136 | 1136 | 100 |
| January | 1283 | 1283 | 100 |
| February | 1345 | 1343 | 99.85 |
| March | 585 | 585 | 100 |
| Total | 11377 | 11369 | 99.92 |

वाटर टाइट मेथड का प्रयोग प्रोजेक्ट के शुरुआत में फॉलो नहीं किया जा रहा था, फिर हमने रसोइयों का एक सेशन लिया जिसमें हमने बताया कि वाटर टाइट मेथड में माड़ नहीं निकाल जाता है। माड़ नहीं निकालने से फोर्टीफाइड राइस में मिले सूक्ष्म पोषक तत्व पिघल घुल जाती है जिसके बाद से देखा गया कि कुक कम हेल्पर द्वारा वाटर टाइट मेथड का सही तरीके से प्रयोग किया जार हा।

मीराचौहान, बी.आर.पी, पिण्डराब्लॉक

Initially when the project was launched water-tight method was not used (by cook-cum helpers) then we took sessions in which we informed that, in this method water is not drawn as removing water from cooking rice will take away micro-nutrients added in the fortified rice. Later we could observe that, they preferred usage of water-tight method for rice cooking.

-Meera Chauhan, BRP, Pindra Block

Even before using '*Poshan Suraksha Application*' much groundwork was done from December 2018 itself, thus the practice of water-tight method was adopted universally in the district. To ensure this, along with the directives from district, team-members used platforms such as block-level workshops, teachers' trainings, sensitization training of CCH and teachers during school-monitoring visits. The efforts have reflected in increased percentage of usage of water-tight method in schools, when PMU visited as out of 11377 schools visited 11369 schools are using water-tight method for rice cooking. Total percentages of schools wherewater-tightmethod was followed is 99.92%. Along with the efforts of PMU teacher too responded well by keeping regular check during MDM preparation and instructing the CCH on regular basis. Role of Cook-cum helper also cannot be undermined as they adhered to the instructions of team-members.

Usage of Apron and Caps by CCH

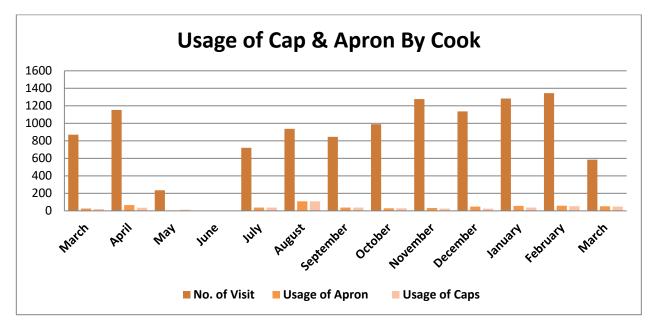
As we know, hygiene is equally important facet in maintaining health of individual, similarly during MDM preparation also hygiene maintenance is very crucial for food-safety and health of beneficiaries or say schoolchildren. Usage of Apron and Cap by CCH is part of the food-safety, additionally apron is useful for safety of CCH during cooking. In order to promote hygiene and food-safety, team-members oriented teachers and cook-cum helpers to ensure usage of Cap & Apron while preparing MDM on regular basis.

कैप और एप्रन के उपयोग एक अच्छा प्रैक्टिस है, जिससे हाईजीन का ख़्याल रखा जा सकता है तथा कुक कम हेल्पर के सुरक्षा के दृष्टिकोण से भी यह प्रैक्टिस अत्यंत लाभकारी है | हमने रसोइयों के लिए केप और एप्रन ला दिया है तथा वो निरंतर खाना बनाने के समय उसका प्रयोग करती है |

स्कूल प्रिंसिपल, काशी विद्यापीठ

Usage of Cap & Apron is a good practice, this is helpful in maintaining hygiene, it is also important from the perspective of cooks' safety. We have brought Apron for our cooks and we also ensure that they use the Apron & Cap regularly (while preparing MDM).

-School Principle, Kashi Vidyapeeth

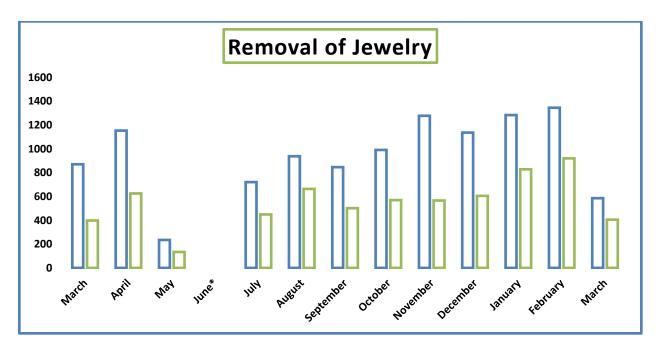


| Month | No. of Visit | Usage of Apron | Usage of Caps |
|-----------|--------------|----------------|---------------|
| March | 870 | 27 | 21 |
| April | 1153 | 66 | 36 |
| May | 235 | 5 | 13 |
| June | 0 | 0 | 0 |
| July | 720 | 38 | 38 |
| August | 937 | 109 | 109 |
| September | 846 | 38 | 38 |
| October | 990 | 29 | 29 |
| November | 1277 | 33 | 26 |
| December | 1136 | 49 | 25 |
| January | 1283 | 57 | 38 |
| February | 1345 | 59 | 53 |
| March | 585 | 52 | 49 |
| Total | 11377 | 562 | 475 |

The usage of Apron and caps at universal scale in district was a challenge due to the fact that, there is no separate budgetary provision for the item. Thus, in some schools' teachers took initiative and brought them, while in some schools cooks prepared Aprons for themselves at on their own. Gradually, the practice is being adopted but keeping in view of safety of schoolchildren special budgetary provisions would be helpful in this aspect.

Removal of Jewelry by CCH while cooking MDM

As the usage of Cap & Apron are necessary while preparing MDM, similarly it is important to remove jewelry while preparing the MDM. As, culturally in Gangetic plains usage of jewelry by women is considered auspicious and removal of jewelry is seen negatively. Thus, earlier before initiation of project cooks did not removed jewelry while preparing MDM, but the point was emphasized that, if any part of jewelry falls it will be harmful if consumed by children, also some food particles may get struck in jewelry weared in hands, which can potentially contaminate the food. Thus, during the school monitoring visits also this aspect was dealt with by regular sensitization of cook-cum helpers and involving teachers in regular monitoring. Initially some hesitation was observed on the part of cook-cum helpers and teachers considerable behavior change could be observed.



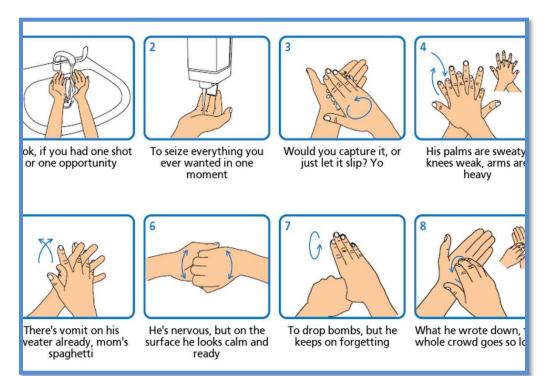
| Month | No. of Visit | Removal of Jewelry by CCH | Percentage of Removal of Jewelry |
|-----------|--------------|------------------------------|--|
| March | 870 | 398 | 45.74 |
| April | 1153 | 625 | 54.20 |
| May | 235 | 134 | 57.02 |
| June* | 0 | 0 | 0 |
| July | 720 | 449 | 62.36 |
| August | 937 | 663 | 70.75 |
| September | 846 | 501 | 59.21 |
| October | 990 | 569 | 57.47 |
| November | 1277 | 566 | 44.32 |
| December | 1136 | 605 | 53.25 |
| January | 1283 | 828 | 64.53 |
| February | 1345 | 920 | 68.40 |
| March | 585 | 405 | 69.23 |
| Total | 11377 | 6663 | 58.56 |

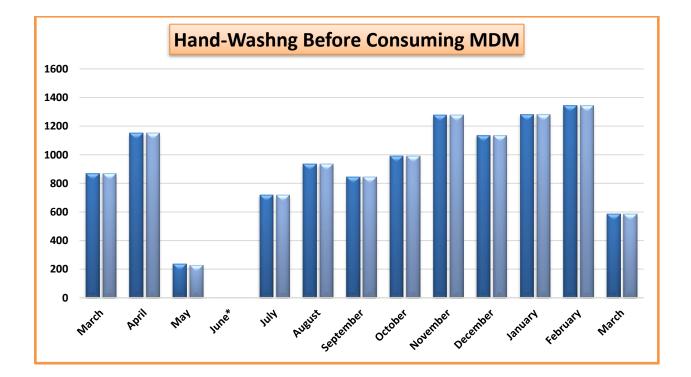
PMU visited 11377 schools and 6663 schools cook cum helpers removed jewelry while preparing MDM. Teachers also actively monitoring the cook-cum helpers about removal of jewelry. Total percentage of Removal of Jewelry by CCH was 58.56% in Project coverage area. During initial days when project started, the percentage of Removal of Jewelry was low but gradually the percentage started increasing.

Hand-washing practices by schoolchildren before consuming MDM

Hand washing is an important practice in maintaining personal hygiene and good health in general. Many researches have established close correlation between hand washing and health. Earlier though the teachers were telling children to wash their hands before meals, so in many schools' children used to wash their hands without soap and without understanding benefits of hand washing. Also, teachers were not much keen to teach hand washing technique or making available the soap for hand washing.

Handwashing Technique





| Month | No. of Visits | Hand-washing before Consuming MDM | Percentage of Hand- washing before consuming MDM |
|-----------|---------------|--------------------------------------|--|
| March | 870 | 870 | 100 |
| April | 1153 | 1153 | 100 |
| May | 235 | 231 | 98.29 |
| June* | 0 | 0 | 0 |
| July | 720 | 718 | 99.72 |
| August | 937 | 937 | 100 |
| September | 846 | 846 | 100 |
| October | 990 | 990 | 100 |
| November | 1277 | 1277 | 100 |
| December | 1136 | 1136 | 100 |
| January | 1283 | 1283 | 100 |
| February | 1345 | 1345 | 100 |
| March | 585 | 585 | 100 |
| Total | 11377 | 11371 | 99.94 |

As a decisive factor in health and nutrition and also in success of the Fortification of MDM Project, it was necessary to promote hygiene in all key elements of MDM. The team-members took efforts through various means like, orientation to teachers during capacity building sessions, block-level workshops and during school-monitoring visits where platforms such as NHED sessions and Snake & Ladder game were utilized to orient stakeholders upon importance of proper hand washing practices by schoolchildren.

During NHED sessions the team-members used various techniques to sensitize schoolchildren such as FAQs, Storytelling, discussion about events happening around and demonstration techniques were some innovations like SUMAN were also done, SUMAN is an abbreviation of easy memorizing hand washing steps.

Hand washing practices involving all steps of hand washing and usage of soap was observed in more than 99% schools. The impact of the efforts of PMU members is such that, now teachers are inclined to take demonstration sessions on hand washing in respective schools, making the handwashing stations functional or repairing them regularly and making soap available for handwashing which definitely has huge bearings on hygiene and ultimately health of schoolchildren. The efforts by team-members is reflected in the fact that in all schools visited, Hand washing by school children was universal practice. No doubt, these efforts shall play important role in improving their health and nutritional status.

SUMAN

हाथ धोने के विधि के बारे में टीम-मेंबर के द्वारा तकनीक का उपयोग किया जाता रहा, जिसे सुमन के तहत बताया जाता है।

(The technique which team-members use to orient schoolchildren are explained under Abbreviation SUMAN).

एस (S): साबुन से हाथ धोना (Hand wash with soap)

यू (U): ऊँगली को मलना (Finger rubbing)

एम (M): मालिश करना (Do the Massage)

ए (A): अंगूठा (Cleaning the Thumb)

एन (N): नाख़ून करना (Cleaning the Nail)

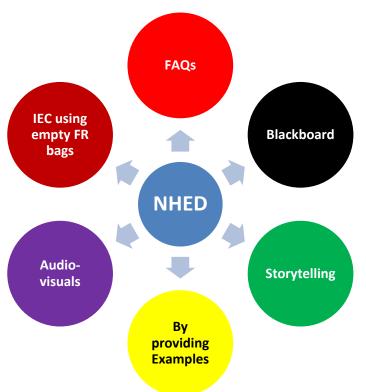
शिक्षकों ने बताया कि यह तकनीक काफ़ी लाभकारी है, जिससे बच्चें हाथ धोने की विधि को आसानी से समझ पाएँगे ।।

(Teachers told that, this technique is very beneficial in understanding proper handwashing techniques to schoolchildren).

-Jvoti Singh, PC

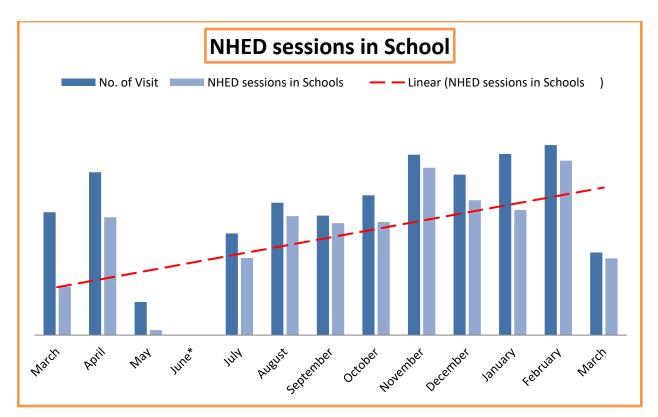
Nutrition & Health Education Day (NHED) Sessions

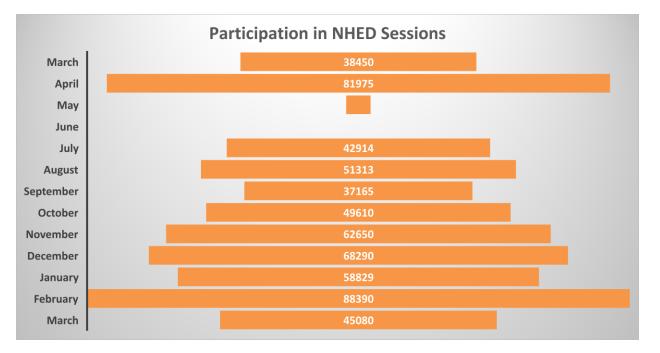
In the CAB survey (2014), it was observed that, Varanasi has high prevalence of Anemia in agegroup of 05 to 17 years, which was found to be more than 90%. One of the reasons behind the high prevalence could be attributed to low level of awareness amongst community-members and other stakeholders such as teachers and schoolchildren. Keeping in view the fact that, sustainability to any programme is ensured when end-users are sensitized upon objectives and expected outcomes of the programme along with initiatives for behavior change. Thus, Social Behavior Change Communication (SBCC) activities hold considerable importance in reducing prevalence of Anemia. Thus, many SBCC activities were conducted either at school-level or at Community-level. In schools, Nutrition Health Education Day (NHED) sessions by teammembers have substantial relevance in such activities. Normally team-members visited all schools within 30-45 days, thus any particular schoolvisit was repeated in respect to such timeline. With each visit, team-members oriented schoolchildren upon different broad topics upon nutrition, health, hygiene and Fortification of MDM Project. Topics related to Anemia was discussed repeatedly through which beneficiaries were oriented upon prevalence of Anemia, symptoms, consequences, measures to contain Anemia at large scale by government also household-level measures to tackle Anemia and various types of micro-nutrient deficiencies was also discussed. Additionally, role of diversified diet, intake of micro-nutrients, consumption of IFA tablets distributed at school-level on weekly basis was also underlined in light of their significance in normal physiological and mental development. The students were also explained about modalities of Fortification of MDM Project, importance of consuming fortified rice and other fortified consumable commodities along with recognizing fortified food products available commercially. For better understanding of students the team-members used different techniques of explanation depicted in following presentation:



Techniques of NHED

Each team-members had their own techniques to ensure active engagement of students, like Vishal, BRP used Blackboard to write and draw key messages, Pushpanjali, BRP found storytelling as effective media to reach students, Jyoti, PC found FAQs to trigger curiosity among students, Prashant, PC considered IEC as a media to engage with students, Krishnakant used empty bags of fortified rice and some sample of fortified rice for better understanding, etc. All team-members ensured that, teachers remain present during entire NHED sessions, who also played a very encouraging role by prompting children, reminding them of lessons learnt in academics, giving examples and for their own learning's too. The students also reciprocated by participating actively in the NHED sessions. The team-members also made sure that, they ask questions from previous sessions for revision purpose, group recalling was also a popular approach amongst students; many students were able to recall key messages like what is Anemia, symptoms of Anemia, how to tackle Anemia, role of various micro-nutrients, listing of iron-rich food, steps involved in hand washing, etc. The students were encouraged to consume IFA tablet, deforming tablets, adopt hand washing practices, necessity of consuming diversified diet, role of various micro-nutrients, details of iron-rich diet also used to share with participants; with this whenever health department's team visited schools at the time of team-members visit, team-members made a point to engage health functionaries to emphasize their teachings.





| Month | No. of Visit | NHED sessions in Schools | Participation of School Children |
|-----------|--------------|-----------------------------|-------------------------------------|
| March | 870 | 343 | 38450 |
| April | 1153 | 834 | 81975 |
| May | 235 | 35 | 3975 |
| June | 0 | 0 | 0 |
| July | 720 | 546 | 42914 |
| August | 937 | 842 | 51313 |
| September | 846 | 792 | 37165 |
| October | 990 | 801 | 49610 |
| November | 1277 | 1185 | 62650 |
| December | 1136 | 955 | 68290 |
| January | 1283 | 885 | 58829 |
| February | 1345 | 1235 | 88390 |
| March | 585 | 543 | 45080 |
| Total | 11377 | 8996 | 628641 |

PMU conducted11,377 school-visits and took 8,996 NHED sessions. In the month of May due to heat wave many children remained absent and schools too opened for 10 days, it can be seen that, October onwards the participation has remained on higher side which was due to active engagement of teachers and children. 6,28,641 schoolchildren participated through the 8,996 NHED sessions.

एन.एच.ई.डी सेशन के माध्यम से बच्चों को जो जानकारी बताई जाती है, वो काफ़ी महत्वपूर्ण है। बच्चें इस से स्वास्थ के प्रति सजग तथा जागरूक भी हुए। आयरन क्यों आवश्यक है तथा आयरन की प्राप्ति के लिए दिए जाने वाले आई.एफ.ए टेबलेट सप्लीमेंट के बारे में भी बच्चों को बताया जाता है। बच्चें इस सेशन के बाद से काफ़ी सजग हुए है तथा ख़ुद विटामिन आयरन आदि के बारे में जानकारी का आदान प्रदान करते रहते है।

-शिक्षक, प्रा.वि नहिया

The information conveyed through NHED sessions is very important. Children also become aware about their health, they are told about aspects like why iron (intake) is important and they are also told about how IFA supplementation is important. Children have become aware after such sessions and they tend to exchange information about Vitamins, Iron, etc. on their own.

-Teacher, P.S. Nahiya

जब हम स्कूल-बच्चों के बीच एन एच ई डी सत्र लेते हैं तो उच्च स्तर की बुद्धिमत्ता और जिज्ञासा देखी जा सकती है। अच्छे पोषण पर मेरे सत्रों के दौरान वे मुझे रोकते हैं और बताते हैं कि वे पोषण के बारे में कैसा अनुभव कहते हैं। शिक्षक यह भी बताते हैं कि, हमारे जाने के बाद के सत्र के बच्चों के बीच पोषण के बारे में चर्चा करने के लिए होता है, वे यह भी बताते हैं कि, ऐसे सत्रों के कारण बच्चे पोषण के बारे में जागरूक होते हैं और अपनी बुद्धिमत्ता को बल प्रदान करने हैं।

-राजकिशोर मिश्रा, बीआरपी

When we take NHED session amongst schoolchildren high level of intelligence & curiosity could be observed. During my sessions upon nutrition they stop me & tell how they perceive about nutrition. Teachers too tell that, after our departure post-sessions children discuss about nutrition, amongst themselves, they also tell that, due to such session's children are getting aware about nutrition and provide strength to their intelligence.

-Rajkishor Mishra, BRP, Cholapur

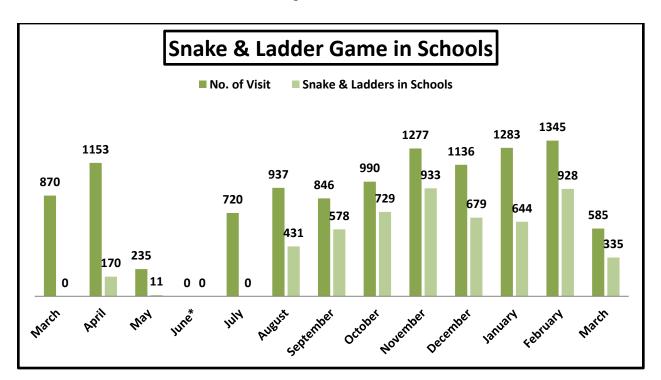
PS Hathivar पर NHED सत्र लेने के समय, शिक्षिका ने कक्षा 5 की लड़की के बारे में बताया कि लड़की परियोजना के शुभारंभ से पहले सक्रिय नहीं थी और खाना नहीं खाना चाहती थी, लेकिन लगातार एन.एच.ई.डी सत्रे होने के बाद, वह जागरूक हो गई शरीर में आवश्यक पोषक तत्वों और उसने समय पर आयरन की गोलियां लेना शुरू कर दिया। शिक्षकों ने यह भी बताया कि फोर्टिफाइड चावल के सेवन से बच्चों में रुचि का विकास देखा जा सकता है।

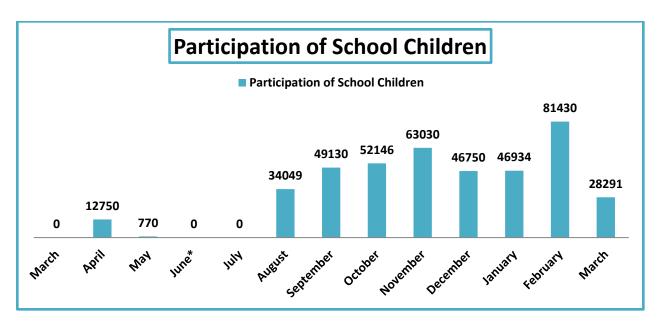
-नवीन कुमार, टीमलीडर

While taking the NHED session at P.S Hathiwar, the teacher told about a class 5 girl who was not active before the launch of the project & did not want to eat food, but after having NHED sessions, she became aware of the nutritional aspects & she started to take IFA tablets regularly. Teachers also told that the development of interest among the children can be seen with the consumption of fortified rice.

-Navin kumar, Team-leader

The traditional way of classroom learning is highly prevalent method of teaching/creating awareness amongst schoolchildren but with changing times the learning methods are being restrategized globally. Thus, the conceptualization of Snake & Ladder (S&L) was suggested by WFP. S&L is played by using chequer board flex with 1-100 numbers marked on it with come ladders and snakes portrayed on it which is plyed by rolling a dice. There are 4 players who participate in the game, 2 are runners while 2 are prompters who roll the dice. Also, there are intermittent questions after runners come across a Snake or a Ladder. The questions are in two sets (of 20 questions) according to age-groups, one is for Primary students which are simple and easier questions and another for Upper Primary which are little hard and covering more topics related to health, nutrition and hygiene related practices like Anemia, Malnutrition, Dietary diversity, intake of micro-nutrients, food fortification, etc.. Runner's movement along Snake or Ladder depends upon answering the questions correctly or incorrectly. Other children act as active audience while the team-members and teachers act as moderators. Team member also takes session when runners come across a question.





| Month | No. of Visit | Snake & Ladders in Schools | Participation of School Children |
|-----------|--------------|-------------------------------|-------------------------------------|
| March | 870 | 0 | 0 |
| April | 1153 | 170 | 12750 |
| May | 235 | 11 | 770 |
| June* | 0 | 0 | 0 |
| July | 720 | 0 | 0 |
| August | 937 | 431 | 34049 |
| September | 846 | 578 | 49130 |
| October | 990 | 729 | 52146 |
| November | 1277 | 933 | 63030 |
| December | 1136 | 679 | 46750 |
| January | 1283 | 644 | 46934 |
| February | 1345 | 928 | 81430 |
| March | 585 | 335 | 28291 |
| Total | 11377 | 5438 | 415280 |

Usage of the S&L game as SBCC activity started from April 2019 onwards. It is to be noted that, schools were closed from Mid-May till end of the June, and later another activity of distribution and briefing of District Magistrate (DM) letter was in the schedule thus S&L could not happen in the month of July. But, after August 2019 onwards S&L was played on regular basis. On a particular day of school-visit, a BRP would visit 4-5 schools and out of it S&L was played in 2-3 schools while in rest of the schools only NHED sessions were conducted due to paucity of time. Total 10,507 visits were conducted between April 2019 to March 2020, of which in 5,438 schools the S&L game was played. The children were always excited to play the game so the teachers. It could be seen that, there were many students who were not active during their

academic studies but as teachers observed those students shone brighter, through all 5,438 S&L sessions 415,280 schoolchildren participated in them. It can be seen that, between August 2019 to March 2020 the percentage of S&L sessions against visit was above 62% engaging 401,760 students. Such initiatives have made a mark on nutritional awareness of schoolchildren thus it can be safely said that S&L has played impressive role in nutritional landscape of the district.

साँप-सीढ़ी के खेल को शिक्षकों द्वारा बेहतर बताया गया था और खेल के माध्यम से बच्चों को जानकारी देने का एक अच्छा तरीका है। बच्चों के बारे में, शिक्षक ने कहा कि बच्चे खेल के कारण एक-दूसरे के साथ पोषण संबंधी जानकारी साझा करते हैं।

-शांति कुमारी, बीआरपी, हरहुआ

The snake-ladder game was best described by the teachers as it is a great way to convey information to children through sports. Regarding children, the teacher said that children share nutrition-related information with each other due to the game.

-Shanti Kumari, BRP, Harhua

सांप-सीढ़ी के खेल के साथ दी गई जानकारी शिक्षक को बहुत खुश करती है और वह बताते हैं कि यह बच्चों को

बताने का एक आसान तरीका है। जब बच्चे इस खेल में भाग लेते हैं, तो शिक्षक भी मौजूद रहते हैं और उन्हें सूचित

करते हैं ।

-शुभम मौर्य, बीआरपी

The information given with the Snake & Ladder game make teachers very happy and they explain that, this is an easy way to tell (Teach) the children. When the children participate in this game, the teachers also remain present and inform them and try to tell them how much nutrients are necessary for the body.

-Shubham Maurya, BRP, Chiraigaon

साँप –सीढ़ी का खेल बच्चों के बौद्धिक क्षमता का विकास करने में अत्यधिक सहायक होता है तथा जब खेल खिलवाया जाता है उस समय हम सभी शिक्षक भी उपस्थित रहते है। गेम हर महीनें खिलवाया जाता है, जिसमें बच्चों को पोषण संबंधी प्रश्नों को पूछ उन्हें पोषण के मूल्यों के बारे में जानकारी दी जातीहै। यह सही माध्यम है बच्चों तक सही जानकारी पहुँचाने का जिसमें प्रोटीन, विटामिन और स्वच्छता के मूल्यों पर सेशन भी लिया जाता है।

-शिक्षिका, प्र.वि.महादेवपुर

The game of snake-ladder is very helpful in developing the intellectual capacity of children and all the teachers are also present when the game is played. The game is played every month, in which children are informed about nutritional values by asking them nutrition-related questions. This is the right medium to convey the right information to children in which sessions on protein, vitamins and hygiene values are taken.

-Teacher, P S Mahadevpur 29

जब हम स्कूलों का दौरा करते हैं, तो हम देखते हैं कि, कुछ बच्चे हैं जो इसमें शामिल होने से कतराते हैं, खेल के दौरान हमें यह भी पता चलता है कि जिन बच्चों को खराब प्रदर्शन / कमजोर के रूप में वर्गीकृत किया जाता है, वे कलाकारके रूप में उभर कर आते हैं। शिक्षक यह भी बताते हैं कि, ऐसे खेलों के कारण वे छात्र तेज चमकते हैं। साथ ही, ऐसे खेलों के दौरान हमें पता चलता है कि ऐसेबच्चे सूक्ष्म पोषक तत्वों के महत्व के बारे में भी जानते हैं।

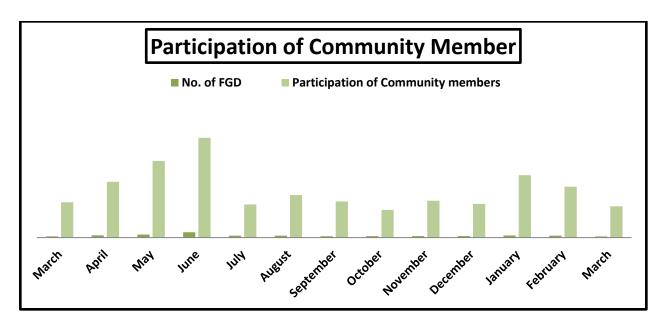
-नवीन कुमार, टीम लीडर

When we visit schools, we see that, there are some children who shy away from involving but when we play game the answer very well. During the game we also get to know that those children who are categorized as poor performing/ weak, they emerge as performer. Teacher also tells that, because of such games those students shine brighter. Also, during such games we come to know that such children are also aware of importance of micro-nutrients.

-Navin Kumar, Team Leader

Focus Group Discussions (FGDs) in community-members

As a part of SBCC strategy, community-members were engaged through Focus Group Discussions. On each day, after school visits, team-members would go to nearby communities, gather some community-members and held one FGD. The number of participants could be 10-25. The community-based strategy was based on notion that the parents or guardian should focus on their child's nutrition at household level, to understand nutrition-related issues and deal with them. During the FGDs community-members were oriented about various issues like Anemia, its prevalence, strategies to reduce prevalence of Anemia, importance of diversified diet, fortified food products, Fortification of MDM Project, etc. Along with this, they were engaged to understand about necessity to play a pro-active role in MDM by them, role of frontline workers in improving nutritional status of the community. Team-members also explained about the objectives of Fortification of MDM project, they also explained how Fortified rice looks like and how to identify bags of fortified rice. Many times, the team-members would seek help of Cookcum helpers, Anganwadi workers, ASHA worker, ANM, Teachers, Pradhan, FPS owner, Social workers, etc. to gather community-members and to play a pro-active role in monitoring of MDM. One FGD was taken each working day by the team-members but during school-vacations when schools were closed, they used to take 3-5 FGDs each day e.g. during Summer vacations and during winters as well.



| Sr. | Month | No. of FGD | Participation of |
|-----|-----------|------------|-------------------|
| No. | | | Community members |
| 1 | March | 230 | 6900 |
| 2 | April | 435 | 10875 |
| 3 | May | 598 | 14950 |
| 4 | June | 1046 | 19461 |
| 5 | July | 368 | 6458 |
| 6 | August | 380 | 8279 |
| 7 | September | 264 | 7045 |
| 8 | October | 273 | 5391 |
| 9 | November | 297 | 7195 |
| 10 | December | 291 | 6570 |
| 11 | January | 412 | 12162 |
| 12 | February | 374 | 9926 |
| 13 | March | 215 | 6095 |
| 14 | Total | 5183 | 121307 |

The team-members took 5,183 FGD sessions in the community and through the FGDs they sensitized 121,307 community-members. Different techniques were used to orient the community-members like they started with questions and answers sessions e.g. What is Anemia? Do you feel dizzy or weak? Why do you get headache or pain in legs or swelling in legs or feel irritable? Why pregnant/lactating women need to consume IFA tablets? Are you aware of IFA supplementation given in schools & Anganwadi Centers to children? What salt you use for consumption? What inference you can draw by usage of iodized salt and reduction of Goiter cases? etc. Giving examples in local context was also a strategy to engage community-members like, how in earlier generations due healthy food people maintained good health and later how

junk food is dominating our dietary needs and requirement of supplementations or prevalence of Anemia, etc. Team-members also used empty bags of Fortified Rice and training module as IEC material. Many times, when there were more children among participants, they would play Snake & Ladder through which sensitization was done. The participants were also made aware about identification of Fortified food products available commercially for which they demonstrated by showing cans of fortified oil. The team-members also got much help from frontline workers in proving their point. We can say that, the outreach activities like FGDs are effective mode to create awareness in community and bring sustainable positive changes in perception about nutrition-related aspects.

कई जगहोंपर स्कूली बच्चे भी एफजीडी में भाग लेते हैं, जैसे कि एनीमिया, विटामिन, प्रोटीन, फोर्टिफ़ाइड राइस जैसे विषयों पर चर्चा के दौरान वे शीघ्र और सक्रिय रूप से चर्चा में भाग लेते हैं जिसका अर्थ है कि स्कूलों में की गई गतिविधियाँ (NHED सत्र और S & L)। वे मुद्दों को अच्छी तरह समझते हैं। बच्चे एफजीडी के दौरान एनीमिया, पोषण, आदि के बारे में बात करते हैं,अभिभावक बताते हैं कि यह परिवर्तन फोर्टीफिकेशन (एम.डी.एम. परियोजना की शुरुआत) के बाद से दिखाई दे रहा है। वे यह भी बताते हैं कि, पहले बच्चे स्कूल में उपस्थिति का प्रदर्शनकम करते थे, लेकिन अब वे सक्रिय होने लगते हैं, पहले वे हरी सब्जियों के सेवन से भी इनकार करते थे, लेकिन अब सूक्ष्म पोषक तत्वों और पोषण मूल्य जैसे लाभों को समझने के बाद, इनकासेवन करते है।

– राजकिशोर मिश्रा, बीआरपी, चोलापुर

In many places school children also participate in FGDs, they actively participate in discussions on topics such as anemia, vitamins, protein, fortified rice, etc. which means through the activities done in schools (NHED Session and S&L) they understand the issues very well. Children talk about anemia, nutrition, etc. during FGD, with parents stating that this change has been visible since Fortification (the beginning of the MDM project). They also state that, earlier children had lower attendance at school, but now they are becoming more active, previously they also denied green vegetable intake, but now understand the benefits of micronutrients and nutritional value after that, they are keen to consume them.

-Rajkishore Mishra, BRP,

FGDs के दौरान कई जगहों पर समुदाय के सदस्यों का कहना है कि, MDM प्रोजेक्ट का फोर्टिफिकेशन बहुत अच्छा और आवश्यक है क्योंकि इससे बच्चों को अच्छा भोजन (पौष्टिक भोजन) मिल सकेगा, जिससे उनके स्वास्थ्य और विकास के मामले में अच्छा प्रभाव पड़ेगा मानसिक क्षमता। इसके अलावा, इस परियोजना के आरंभ होने के बाद से, हम स्कूलों में विकास देख सकते हैं, रसोइयों द्वारा स्वच्छता की ओर बहुत ध्यान दिया जाता है, एफपीएस मालिकों और प्रधानों (ग्राम प्रधान) के भंडारण में भी गुणात्मक रूप से सुधार हुआ है।

-विशाल सिंह, बीआरपी, हरहुआ

On several occasions during FGDs community members say that, the project (Fortification of MDM project) is very good and necessary as this will enable children to get good food (nutritious food), which will have a good impact in terms of development of their health and mental capability. Also, since initiation of this project, we can see development in schools, much attention is given towards cleanliness by cooks, also storage at FPS owners and Pradhans (Village headman) has improved qualitatively.

-Vishal Singh, BRP, Harhua

एफजीडी के दौरान होने वाली चर्चा को समुदाय के सदस्यों द्वारा ध्यान से सुना जाता है, साथ ही आयरन युक्त खाद्य पदार्थों की खपत, लोहे के बर्तनों में भोजन की तैयारी पर चर्चा को गंभीरता से लिया जाता है और वे यह भी आश्वासन देते हैं कि वे निश्चित रूप से इस पर कार्य करेंगे (इसका अनुसरण करें) उनके परिवारों को एनीमिया से दूर रखने के लिए।

-दिक्षा सिंह, बीआरपी

The discussion happened during FGDs are attentively listened by the community members, also the discussions over consumption of iron-rich food, food preparation in iron utensils are taken seriously by them and they also assure that they'll definitely act upon it (follow it) to keep their families away from Anemia.

-Diksha Singh, BRP, Kashi Vidyapeeth

Capacity building of Officials & Teachers

TOPICS DISCUSSED DURING TEACHERS' TRAININGS

- Nutritional scenario in Varanasi, Uttar Pradesh & India.
- Anemia, its causes, symptoms & prevalence
- ✤ Malnutrition, its causes & types
- Importance of micronutrients & its deficiency& their necessity
- RDA & intake of food
- Strategies to tackle malnutrition in various forms
- ✤ Hygiene & food security
- Role of stakeholders in project
 & MDM
- Details & objective of the 'Fortification of Mid-day Meal project'
- What are fortified food products?
- Parallel between iodized salt and fortified rice
- ↔ What is fortified rice& FRK?
- Standard storage protocols & FIFO
- ✤ Role of implementing agency

Capacity building exercise was started with holding a Districtlevel workshop chaired by District Magistrate (DM) and Chief Development Officer (CDO) and other district-level officials from different departments. This was followed by a district-level mastertrainers training.

In the second phase, 11 block-level workshops were conducted in all blocks of district attended by block-level officials of education department, master-trainers and select schoolteachers.

Later, with the support of District Basic Shiksha Office, one-day Teacher's training programs on 'Fortification of Mid-day Meals in Varanasi District'were conducted at the URC/NPRC of all the blocks of Varanasi district, which was done in 87 batches and 2975 teachers were trained. In the first stretch of the trainings which were conducted between January to February 2019 in which intercollege teachers were not able to participate thus some batches were conducted in August 2019. It is to be noted that, before trainings of inter-college teachers also team-members were conducting more intensive monitoring visits to inter-colleges during which they emphasized on-job training/capacity building of teachers.

Teachers were surprised with the findings of prevalence of Anemia observed by CAB survey, many of the participants were seeing symptoms of Anemia among their students but due to lack of knowledge they were not able to comprehend it. Participants lauded about role of stakeholders in successful implementation of MDM. To prevent Anemia and reduce prevalence of Anemia they were in conformity with role of diversified diet, nutrition education or IFA supplementation but some questions were raised about how fortified rice will help in this, which was explained by drawing analogy between usage of iodized salt and reduced incidences of Goiter with fortified rice and how it would support in reducing prevalence and incidences of Anemia.

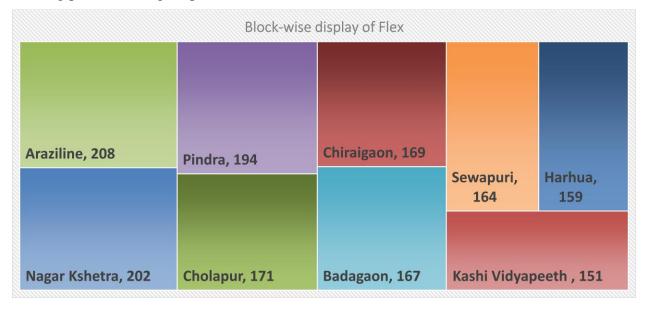
Some voices were raised to improve upon existing systemic structure of MDM e.g. many of the participants recommended about streamlining of supply chain of the MDM, as in current supply chain local elected members are integral part in who's custody the food-grain are kept also for other ancillary supplies like consumable oil, fuel, spices, vegetables, etc. they have larger say in those matters which in view of participants make an uphill task to run the MDM programme sometimes the conflicts between elected members and school-teachers reach at a point when MDM is also not prepared.

During trainings teachers agreed to use various platforms to improve nutritional status of children like Meena Munch, Child parliament, WIFS, De-worming, SBA, SMC meetings, etc.

Wall Painting

In the MoU with WFP. Deliverable stated about wall paintings to be done in or around each school in the district. But, considering feasibility of it, wall paintings in school was replaced by displaying/affixing flex in schools after approval of WFP. The flex design was developed by SSRF in consultation with WFP which was approved by WFP (refer Annexure-II).

The flex contains key messages about fortified rice and encourages schoolchildren about consuming diversified diet, iodized salt, IFA tablets and tells them about importance of hand washing practices using soap.



| Sr No. | Name of Block | No. of flexes displayed |
|-----------|------------------|-------------------------|
| 1 | Nagar Kshetra | 202 |
| 2 | Kashi Vidyapeeth | 151 |
| 3 | Araziline | 208 |
| 4 | Pindra | 194 |
| 5 | Badagaon | 167 |
| 6 | Sewapuri | 164 |
| 7 | Harhua | 159 |
| 8 | Chiraigaon | 169 |
| 9 | Cholapur | 171 |
| 10 | Total | 1585 |

In addition to the flexes, other IEC activities were also done by team-members in schools like they used empty bags of fortified rice in preparing displayable IEC material in schools which was displayed in classrooms and common places in school campus. In these activities, teammembers included the schoolchildren which generated curiosity amongst them and heightened their awareness about health and nutrition practices. Upon this, team-members also encouraged schools to use empty bags of fortified rice for planting purposes and as sheets for sitting purposes by joining them.



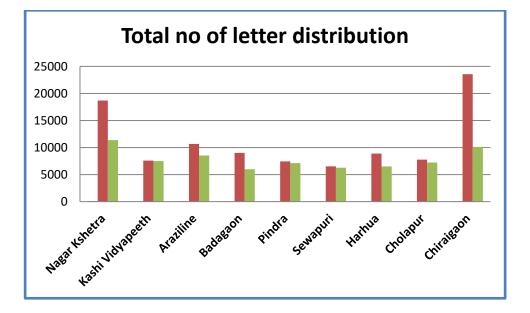
In addition to the IEC activities, the schoolteachers in cooperation with team-members made different paintings like '+F' logo, slogans related to consuming fortified rice, consuming diversified diet, consumption of IFA tablets regularly, etc. Thus, all these measures shall definitely help in changing and improving nutritional landscape of schools in Varanasi.

DM Letter

As per the MoU with WFP, a letter was to be issued by District Magistrate (DM), Varanasi addressed to parents and guardians of the schoolchildren. Thus, a letter was issued by DM which tell parents& guardians on importance, objective and benefits of MDM and to inform about 'Fortification of MDM Project in Varanasi'. The letter emphasizes the role of 'Fortification of

Mid-Day Meals in Varanasi project' in improving school-going children's health & nutrition status. It also elaborates about importance of Micronutrients in growth and development of school-going children. In the letter DM recognized Anemia as major public health problem considering its high prevalence amongst schoolchildren of Varanasi district. It has taken serious note of consequences of Anemia which is reflected in weak academic performance, high drop-out rate and lowered productivity in the later years of life.

To strengthen the project activities & ensure community engagement, it expects that the guardians & parents become more aware of the health & nutrition- related issues faced by their children and provide attention to factors having direct impediment upon children's health & nutrition. Simultaneously, he urged parents to encourage their children for attending school regularly, consuming MDM daily, ensuring high compliance to IFA consumption at school-level and seeks to provide diversified diet at household-level for better outcome and resultantly to build a stronger nation.



| Block Name | Total no. of UPS | Target no of students in class 6-8 | Total no. of letter distributed |
|------------------|------------------|------------------------------------|------------------------------------|
| Nagar Kshetra | 97 | 18694 | 11372 |
| Kashi Vidyapeeth | 45 | 7591 | 7504 |
| Araziline | 68 | 10662 | 8537 |
| Badagaon | 49 | 9012 | 5993 |
| Pindra | 61 | 7432 | 7127 |
| Sewapuri | 48 | 6525 | 6271 |
| Harhua | 52 | 8893 | 6512 |
| Cholapur | 52 | 7770 | 7237 |
| Chiraigaon | 56 | 23554 | 10117 |
| Total | 528 | 100133 | 70670 |

The copies of letter were distributed in all UPS schoolchildren, while distributing the letter, it was discussed in front of all schoolchildren and teachers. A total 70,670 copies of the letters were distributed amongst the schoolchildren of 528 schools. The letter was distributed in the month of July 2019, immediately after completion of summer vacations and being the attendance was on lower side all children could not get the letter. It is noteworthy that many participants in FGD recognized that the letter has been helpful to understand importance and role of MDM in improving children's nutritional status.

Nutrition Kiosk Van

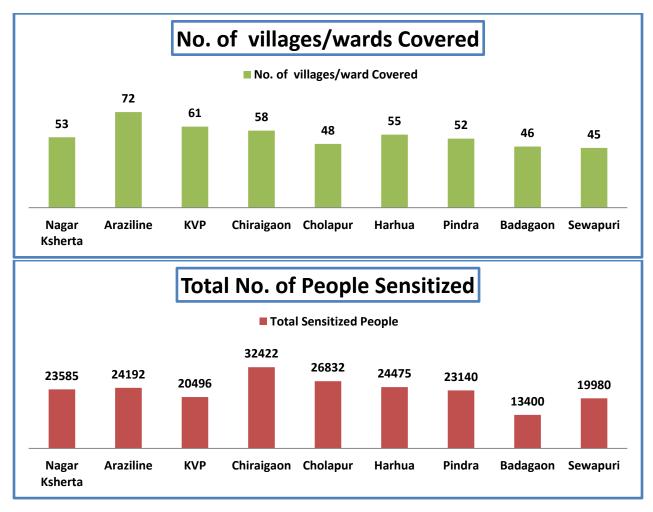
To spread awareness and to sensitize stakeholders on various health & nutrition related aspects, balanced diet, dietary diversity, intake of micro-nutrients, fortified food products and Fortification of MDM Project many SBCC activities were carried out. In this line and as per deliverable mandate we launched two Nutrition Kiosks Vans for a period of 40 days, this ensured better outreach at community level. Accordingly, route maps, banner designs, script for audio recording was developed and Two kiosk van started after inaugurated by District Magistrate in different route from August to October.

The coverage area has been divided into two routes, the 1st route comprised of Nagar Kshetra, Ramnagar, Kashi Vidyapeeth, Araziline, Sewapuri and 2nd route covered Chiraigaon, Cholapur, Harhua, Badgaon and Pindra Blocks.

In this activity, mass awareness on nutrition, Fortification of MDM project, importance of fortified food products and other messages related to hygienic practices were disseminated.

Team member also done FGDs when they went to village community. People involved eagerly in this activity. What will come through this project? What is the purpose to do fortification in food? What is the scenario of Anemia in the district? PMU also discussed about objectives of Project through FGD.

In this activity Pradhan, ASHA worker and Anganwadi of respective villages were also involved. When Nutrition kiosks van visited in the village, Team member visited the stakeholder house and they also took a session in respective villages. During this activity, 490 villages were covered, and 208,522 people were sensitized through Nutrition van activity.



| | No. of villages/wards | |
|---------------|-----------------------|-------------------------|
| Block Name | Covered | Total Sensitized People |
| Nagar Ksherta | 53 | 23585 |
| Araziline | 72 | 24192 |
| KVP | 61 | 20496 |
| Chiraigaon | 58 | 32422 |
| Cholapur | 48 | 26832 |
| Harhua | 55 | 24475 |
| Pindra | 52 | 23140 |
| Badagaon | 46 | 13400 |
| Sewapuri | 45 | 19980 |
| Total | 490 | 208522 |

The people in the community listened to the pre-recorded messages of Poshan Chetana Rath attentively All the stakeholder such as Pradhans, Parshands, Anganwadi workers, Cook-cum helpers across the project coverage area, gathered together and they were sensitized upon improving the nutritional level of community. Poshan Chetana Rath was a commendable effort to spread the awareness on health & nutrition issues. It had a warm response across the community. DM letter also used to sensitize stakeholders like Gram Pradhan, FPS owner, Asha, etc.

पोषण चेतना रथ चलने के दौरान गाँव में जाने का बाद वहाँ के लोग उत्साहित होते तथा ध्यान से प्री-रेकॉर्डेड मेसेज को सुनते। इस दौरान कहीं–कहीं ग्राम प्रधान की भी उपस्थिति रहती थी। गाँव के लोग कहते कि फोर्टिफाइड चावल स्कूल में आने से अच्छा हुआ है। जब गाँव में पोषण चेतना रथ विजिट करती तो वहाँ आशा कार्यकर्ति भी उपस्थिति रहती तथा वो भी एनीमिया के बारे में वहाँ उपस्थिति जन–समूह को बतलाती।

-विशाल सिंह, बी.आर.पी, हरहुआ

While nutrition kiosks vans were running through the villages, people there were excited and listened to the pre-recorded message carefully. During this period, there was also presence of some village head. The people of the village opined that fortified rice has been good for children who go to the schools. When the nutrition kiosks van run in the villages, ASHA worker used to present there and addressed the gatherings to inform them about Anemia.

-Vishal Singh, BRP, Harhua

Poshan Pledge

Poshan Partigya (Pledge) developed by the WFP in February 2020 and it was instructed to team member that when they conduct monitoring visits to schools, team-members shall support schoolchildren and cook-cum helpers during Poshan Pakhwara (Nutrition Fortnight). There were two Pledge developed, one for Cook-cum helpers and another for schoolchildren. Teachers were also participated on the pledge program. But, due to Covid-19 pandemic, the schools were closed on directive of state thus; this activity could not be completed.

The pledge for Schoolchildren and Cook cum helper are as follows:

विद्यालयों में बच्चों के लिए पोषण प्रतिज्ञा

आज हम अपने देश को कुपोषण मुक्त बनाने की प्रतिज्ञा लेते है हम प्रतिज्ञा लेते है कि हम स्कूल में दिए जाने वाले फोर्टिफाइड खाने को पुरे मन से सेवन करेंगे | हम प्रतिज्ञा लेते है कि हम रोज़ हरी-पत्तेदार सब्जियाँ खाएंगे |हम प्रतिज्ञा लेते है कि हम बाजार का तला-भुना और अस्वच्छ खाना बिल्कुल नहीं खाएंगे हम प्रतिज्ञा लेते है कि हम स्कूल में दी जाने वाली आयरन की गोलियां जरूर खाएंगे हम प्रतिज्ञा लेते है कि हम हमेशा खाना से पहले और शौच के बाद साबुन और पानी से हाथ जरूर धोयेंगे हम प्रतिज्ञा लेते है कि हम अपने आस-पास सफाई जरूर रखेंगे हम प्रतिज्ञा लेते है कि हम वक्तिगत साफ़-सफाई भी रखेंगे हम प्रतिज्ञा लेते है कि हम सुपोषित भारत का सपना मिलकर पूरा करेंगे

विद्यालयोंमेंकुककेलिएपोषणप्रतिज्ञा

आज हम अपने देश को कुपोषण मुक्त बनाने की प्रतिज्ञा लेते है। हम प्रतिज्ञा लेते है कि हम खाना बनाने से पहले और परोसने से पहले साबुन से हाथ जरूर धोयें हम प्रतिज्ञा लेते है कि हम बच्चों को हमेशा ग़र्म और ताज़ा खाना ही परोसेंगे। हम प्रतिज्ञा लेते है कि हम बीमार होने पर स्कूल बिल्कुल भी नहीं आयेंगे और प्रिंसिपल मैडम को सूचित जरूर करेंगे। हम प्रतिज्ञा लेते है कि खाना परोसने में जात -पात या लड़का लड़की का भेदभाव बिल्कुल भी नहीं करेंगे। हम प्रतिज्ञा लेते है कि हम पूरी निष्ठा और लगन सेअपनी ज़िम्मेदारियाँ निभाएंगे। हम प्रतिज्ञा लेते है कि हम सूपोषित भारत का सपना मिलकर पूरा करेंगे।

Objective of the Poshan Pledge was to make the schoolchildren and cook-cum helpers more sensitive towards the nutrition as key issue and revisit tenets of the MDM.

Balika Suraksha Jagrukata- July Campaign

In July 2019, a month-long campaign was started by Govt. of Uttar Pradesh with the joint initiative of Dept. of Woman & Child Development, Dept. of Home Affairs and Education Dept. The objective of the campaign was to make girl-child aware of provisions available to redress their grievances. The DM had appealed all NGOs to support this campaign for better outreach, accordingly with prior permission of WFP our team-members supported *Balika Suraksha Jagrukata* July Campaign. During the school monitoring visits by team-members along with creating awareness about prevention of gender violencethey informed why it is important to address nutrition aspects of girl-child, maintaining dietary diversity at household level, necessity of consuming IFA tablets and encouraged them to attend school regularly.

Conclusion

It was a great opportunity to act as implementing partner for the 'Fortification of Mid-day Meals Project in Varanasi' we thank WFP for giving this wonderful opportunity. Team-members worked diligently in this project either during school-monitoring visits or conducting SBCC activities at community-level.

The project activities were kick-started with District-level workshop in which the district administration committed itself to lend full support to the project and the team-members. Later with Block-level workshops we became aware of issues related to MDM which we were expected to fulfill by the participants. The block-level workshops were an eye-opener in a sense that, many areas which were side-tracked that had bearings upon quality of MDM programme like storage issues, hygiene maintenance in MDM, necessity of SBCC activities, active engagement of teachers in smooth functioning of MDM, etc.During the teachers' trainings through which 2975 teachers' capacity building was done which was a good opportunity to introduce with them and seek their support during school monitoring visits. During the capacity building sessions, we were briefed about issues related to supply chain andthe areas like hygiene in MDMwere highlighted.

School-monitoring visits were at the core of the responsibilities to be carried out by teammembers. Normally, a school was visited by team-members once between 30-45 days period. During school-monitoring visits, the team-members tried to establish good rapport with the teachers, schoolchildren, cook-cum helpers, Pradhan/Parshads and FPS owner. Repeated sensitization sessions and on-job trainings were conducted with teachers and cook-cum helpers which helped to improve in areas like usage of water-tight method, maintaining nutrition by following correct cooking methods like washing vegetables before cutting them, hygienemaintenance in MDM overall, improving storage practices at schools. The teachers were actively engaged during NHED sessions through which we could create awareness amongst 628,641 schoolchildren by conducting 8996 NHED sessions which was a good start to interact with them. To involve children in NHED sessions team-members used various innovative strategies that left teachers impressed. Later to cater to their curiosity we started Snake & Ladder as a part of learning through games strategy for which we conducted 5438 game sessions in schools which was a very popular media to orient the children, the approach was equally popular among teachers as it provided children practical life-lessons upon nutrition and health. Through the Snake & Ladder games 415,280 children were sensitized upon various topics related to nutrition, health, fortified food products and hygiene. As a part of IEC activities, flexes displaying key messages upon nutrition and health were displayed in all schools of project area, with this, in around 900 schools schoolchildren were involved in IEC related activities by cutting the empty bags of fortified rice in creative manner and which were used for displaying in classrooms and common places, the empty bags were also used as sheets and curtains by joining them. Govt of India has launched Green India Mission (GIM) and to support this education department had launched plantation drive in schools, thus for plantation purposes the empty bags of fortified rice were used which were also acted as IEC material for children and guardians.

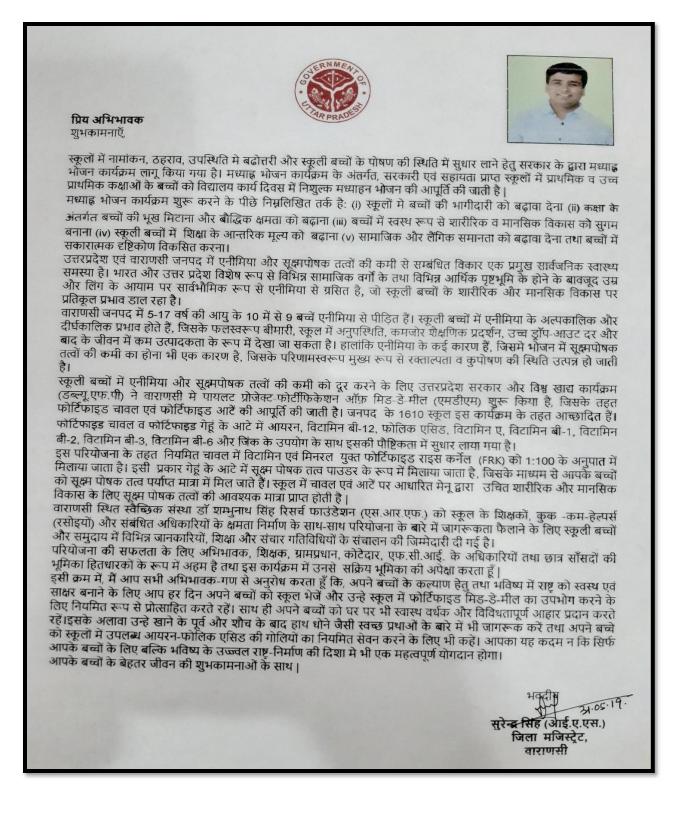
Considering the storage practices at field-level, team-members made a point to visit storage places for food-grain which was normally at houses of local elected members (Pradhan or Parshad) or at FPS shops. The team-members played a very decisive role in developing positive communication between schools and local elected members or FPS owners which helped to improve the storage practices remarkably on qualitative aspect, adherence to in FIFO practice was also improved; in addition to that efforts were taken to break the gaps in supply chain management. The efforts of team-members in improving storage practices and supply chain management at field-level were recognized as impressive work by many teachers in the field.

Creating awareness amongst community-members was also an important facet of SBCC strategy of project. Thus, to interact with them, FGDs played focal role during entire project period under which 121,307 community-members were oriented upon different aspects of nutrition, health, hygiene and Fortification of Mid-day meals Project through 5183 sessions. Many innovative strategies were adopted by team-members to sensitize kindling their interest in nutrition which was more or less remained neglected until now.

To support the FGDs as a part of SBCC activities other time-bound strategies were carried out by team-members which included letter by DM, Nutrition Kiosk Van and Poshan Pledge. Distribution of letter by DM to appeal guardians and parents to understand their responsibilities and underlining need to play pro-active role in improving nutrition of children was very helpful in noting the importance of MDM as a key supplementation programmein improving nutritional

status of district. The Nutrition Kiosk Van travelled in district for 40 days covering 208,522audience from 490 villages and wards.and local elected members and also with improving interaction with community-members. Finally, to say, the key words like Fortified rice, Iron, Anemia, Micro-nutrient deficiency, +F, etc. have been known to stakeholders widely specially the schoolchildren, teachers and guardians which could be considered as acid test of work done in the field. We are sure that, these efforts by team-members has started a new era to change the nutritional landscape of district.

Annexure- I: DM Letter



Annexure- II

Wall Painting/Flex

फोर्टीफाइड एम.डी.एम. की पहल, स्कूल का हर बच्चा सशक्त और सबल



Annexure- III

Poshan pledge for schoolchildren

विद्यालयों में बच्चों के लिए पोषण प्रतिज्ञा

आज हम अपने देश को कुपोषण मुक्त बनाने की प्रतिज्ञा लेते है।

हम प्रतिज्ञा लेते है कि हम स्कूल में दिए जाने वाले फोर्टिफाइड खाने को पूरे मन से सेवन करेंगे।

हम प्रतिज्ञा लेते है हम रोज़ हरी-पत्तेदार सब्ज़ियां खाएंगे ।

हम प्रतिज्ञा लेते है कि हम बाजार का तला-भुना और अस्वच्छ खाना बिलकुल नहीं खाएंगे ।

हम प्रतिज्ञा लेते है कि हम स्कूल में दी जाने वाली आयरन की गोलियां जरूर खाएंगे ।

हम प्रतिज्ञा लेते है कि हम हमेशा खाने से पहले और शौच के बाद साबुन और पानी से हाथ जरूर धोयेंगे।

हम प्रतिज्ञा लेते है कि हम अपने आस-पास सफाई जरूर रखेंगे ।

हम प्रतिज्ञा लेते है कि हम व्यक्तिगत साफ़-सफाई भी रखेंगे।

हम प्रतिज्ञा लेते है कि हम सुपोषित भारत का सपना मिलकर पूरा करेंगे ॥

Poshan Pledge for Cook-cum Helpers

विद्यालओं में कुक के लिए पोषण प्रतिज्ञा

आज हम अपने देश को कुपोषण मुक्त बनाने की प्रतिज्ञा लेते है ।

हम प्रतिज्ञा लेते है कि हम खाना बनाने से पहले और परोसने से पहले साबुन से हाथ जरूर धोयेंगे ।

हम प्रतिज्ञा लेते है कि हम बच्चों को हमेशा गर्म और ताज़ा खाना ही परोसेंगे।

हम प्रतिज्ञा लेते है कि हम रोज़ रसोई की अच्छे से सफाई करेंगे।

हम प्रतिज्ञा लेते है कि हम बीमार होने पर स्कूल बिलकुल भी नहीं आएंगे और प्रिंसिपल मैडम को सूचित जरूर करेंगे ।

हम प्रतिज्ञा लेते है कि खाना परोसने में जात-पात या लड़का-लड़की का भेदभाव बिलकुल भी नहीं करेंगे।

हम प्रतिज्ञा लेते है कि हम पूरी निष्ठां और लगन से अपनी ज़िम्मेदारियाँ निभाएंगे ।

हम प्रतिज्ञा लेते है कि हम सुपोषित भारत का सपना मिलकर पूरा करेंगे ॥

Annexure- IV

Nutrition Kiosks Van



Abbreviations:

| Sr. No. | Abbreviations | |
|---------|---------------|--|
| 1 | ANM | Auxiliary Nurse Mid-wife |
| 2 | ASHA | Accredited Social Health Activist |
| 3 | AWW | Anganwadi Worker |
| 4 | BEO | Block Education Officer |
| 5 | BRP | Block Resource Person |
| 6 | BSA | Basic Shiksha Adhikari |
| 7 | ССН | Cook Cum Helper |
| 8 | DM | District Magistrate |
| 9 | FIFO | First in First out |
| 10 | FGD | Focus Group Discussion |
| 11 | FPS | Fair Price Shop |
| 12 | IFA | Iron & Folic Acid (Tablet) |
| 13 | MDM | Mid-day Meal |
| 14 | NHED | Nutrition Health and Education Day |
| 15 | NPRC | Nyaya Panchayat Resource Center |
| 16 | PC | Project Coordinator |
| 17 | PMU | Project Management Unit |
| 18 | SBA | Swastha Bharat Abhiyaan |
| 19 | SBCC | Social & Behavior Change Communication |
| 20 | S&L | Snake and Ladder |
| 21 | SBM | Swacha Bharat Mission |
| 22 | SRF | Shambhunath Singh Research Foundation |
| 23 | SMC | School Management Committee |
| 24 | SMI | Senior Marketing Inspector |
| 25 | SSA | SarvaShikshaAbhiyan |
| 26 | TL | Team Leader |
| 27 | VHND | Village Health and Nutrition Day |
| 28 | WFP | World Food Programme |
| 29 | WIFS | Weekly IFA Supplementation (Program) |

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THANK YOU