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Analytical Report

Results of Focus Group Discussions with Women with Children under Two, Community Activists, Primary Health Care Workers, and Their Mentor/Supervisors Supported by USAID Advancing Nutrition

NOVEMBER 2023

About USAID Advancing Nutrition

U.S. Agency for International Development (USAID) Advancing Nutrition is the Agency's flagship multi-sectoral nutrition project, led by JSI Research & Training Institute, Inc. (JSI), and a diverse group of experienced partners. Launched in September 2018, USAID Advancing Nutrition implements nutrition interventions across sectors and disciplines for USAID and its partners. The project's multi-sectoral approach draws together global nutrition experience to design, implement, and evaluate programs that address the root causes of malnutrition. Committed to using a systems approach, USAID Advancing Nutrition strives to sustain positive outcomes by building local capacity, supporting behavior change, and strengthening the enabling environment to save lives, improve health, build resilience, increase economic productivity, and advance development.

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Executive Summary

USAID Advancing Nutrition conducted a qualitative study in September 2023 to better understand the key issues and questions that community activists and health workers face when providing nutrition counseling to households and the challenges women with children under two face when adopting positive nutrition behaviors. The study consisted of 12 focus group discussions carried out in Batken and Jalal-Abad oblasts with supervisors, counselors, community activists, and caregivers. The project contracted Zerkalo CA to conduct the study. The outcome of this study is a list of the leading causes of resistance/barriers that prevent households from adopting healthy nutrition practices, conclusions about their background, and recommendations for future remedies.

According to the results of the study, the most significant causes of difficulties are—

- Young women are typically not the primary decision-makers in family matters, such as purchasing food or planning and preparing healthy meals. They often find that mothers-in-law or husbands frequently make these decisions. Their circumstances have posed challenges in influencing the overall eating habits of the entire family, making the adoption of a healthier diet for the entire household complex.
- Lack of staff and space for counseling, as well as lack of time for counseling, also made obtaining complete and comprehensive information difficult.
- Traditional customs play a role in caring for the older generation, with young women, including those who are pregnant or breastfeeding (BF), typically taking a secondary position and consuming what is available when time permits. In addition, the older generation, guided by traditional beliefs, is reluctant to support the preparation of healthy, non-traditional dishes. There is also resistance to the use of tablets and vitamins by young, pregnant, and BF women due to misconceptions held by the older generation.
- Women, prioritizing the health and well-being of their families, children, and work commitments, sometimes overlook their health.
- Lack of information on the subject—the community lacks access to comprehensive information from alternative sources, resulting in a perception that malnutrition and anemia may not be perceived as significant concerns.
- Incorrect dosage of iron-containing medicines, resulting in side effects (nausea, constipation), leading to refusal of their use.
- Financial constraints in consuming proper nutrition and taking iron-containing medicines.

Difficulties identified in the implementation of proper nutrition include—

- Transition to new cooking methods and new dishes—the taste preferences of the entire household or individual family members did not always respond to change.
- Traditions—drinking tea after meals was also a stumbling block in some households.
- Household eating patterns—not everyone is willing and able to shift mealtimes; not everyone can cook fresh hot meals daily and eat home-cooked meals three times a day (domestic work, agricultural or private sector work).

The focus group discussion (FGD) participants gave many recommendations and ideas for the future elimination of such difficulties; the following are the most frequently mentioned:

- Adjust the training program may be needed. For the mentors, adding psychological aspects to approach customs, traditions, misconceptions, and habits of the households with understanding; highlighting the most difficult topics to simplify them and breaking them down into smaller ones; and providing visual materials) would be helpful. For community members, consider adapting the frequency of training, offering group training for families, discussing the psychological aspect of revising their eating habits, and dealing with the myths and misconceptions revealed).
- Promote healthy and proper nutrition as affordable nutrition, improving the quality of human life. Promote healthy eating habits at various public events, inform about the dangers of anemia and ways to prevent it, continue disseminating information through WhatsApp groups, and create special interest clubs to promote nutrition information.

Continue to improve the skills of medical personnel providing counseling and increasing the number of health workers.

Project Description and Its Objectives

Since 2019, USAID Advancing Nutrition improved the nutritional status of women of reproductive age (ages 15–49) and children under five, specifically focusing on the 1,000-day window of opportunity. Working closely with partners in national and local government, village health committees, oblast and district-level health centers, local and international nongovernmental organizations, and other nutrition stakeholders, the project aimed to—

- improve knowledge, attitudes, and motivation related to healthy nutrition practices, including increased use of facility-based nutrition services
- improve household demand for a variety of nutritious foods while increasing access to these foods year-round
- improve the capacity of the health system to plan, deliver, and monitor nutrition services
- build the capacity of local institutions that deliver nutrition services
- advocate for improved policies and resource allocation for nutrition services.

Specifically, the project sought to encourage better practices in 11 different areas, including six related to infant and young child feeding. Support was provided through two primary arms. The first focused on improving nutrition behaviors through community outreach via a cadre of volunteers (activists) who conducted household visits and community meetings in program areas on nutrition and hygiene-related topics based on a seasonal schedule. The second arm focused on improving the quality of nutrition services offered at health facilities, including updating those at the national level.

Methodology

This qualitative study aims to explore and understand the key issues and questions faced by community activists and health workers during nutrition consultations with households and the challenges women with children under two face in trying to change behaviors related to improved nutrition practices. The study focused on identifying key factors that limit program implementation and contribute to behavior change or lack of change in households despite receiving nutrition information and advice. By understanding these issues, the study seeks to identify the main reasons for resistance or barriers preventing households from adopting healthier dietary practices. Ultimately, the study aims to develop targeted interventions and strategies to effectively address these barriers and facilitate positive behavioral changes in households to promote better nutrition.

The study included two focus groups with supervisors from Batken and Jalal-Abad Oblasts who supported health workers in improving their nutrition counseling skills; two focus groups with health workers who provided nutrition counseling to women with children under two; four focus groups with activists who provided nutrition information to households; and women with children under two who received nutrition counseling from health workers. Each focus group had 10 to 12 participants and lasted 60 to 90 minutes. We conducted all focus group discussions in the Kyrgyz language. Participants were recruited from lists provided by the project. First, we selected the women with children under two who scored lowest on an indicator according to the impact evaluation survey. Then, the communities where most women with low scores lived were identified. All the health facilities located in these communities and those in the surrounding communities were selected. Then, the health workers from these health facilities were included in the sampling list. The list of activists and women with children under two was also drawn from the communities where the health facilities were located. We randomly selected the supervisors from the list of all supervisors who had worked closely with the project.

Tables 1 and 2 below show the breakdowns of the FGDs by type of participant, oblast, and number of participants.

The analysis of the obtained data was carried out using Microsoft Excel—the opinions on each question were presented in the form of a matrix, divided into topics according to the pre-approved structure of the report, and analyzed accordingly.

Table 1. Sample of the Study

Regions	FGDs				Total
	Supervisors	Activists	Health Workers	Households	
Jalal-Abad	1	2	1	2	6
Batken	1	2	1	2	6
Total	2	4	2	4	12

Table 2. List and Information about Conducted FGDs

# of FGD	Location of FGD	Type of Participants	Quantity of Participants	Quantity of Covered Communities
1	Batken	Supervisors	14 participants	8
2	Jalal-Abad	Supervisors	11 participants	3
3	Batken	Health workers	11 participants	5

# of FGD	Location of FGD	Type of Participants	Quantity of Participants	Quantity of Covered Communities
4	Jalal-Abad	Health workers	11 participants	2
5	Batken	Activists	12 participants	3
6	Batken	Activists	11 participants	2
7	Jalal-Abad	Activists	10 participants	2
8	Jalal-Abad	Activists	10 participants	2
9	Batken	Households	11 participants	2
10	Batken	Households	12 participants	2
11	Jalal-Abad	Households	10 participants	2
12	Jalal-Abad	Households	10 participants	2

Data Analysis

4.1. Analysis of Problems and Recommendations in the Stage of Receiving and Understanding the Information

As described earlier, the USAID Advancing Nutrition aims to disseminate relevant and reliable information on healthy nutrition for households and pregnant women, mothers of children under two, and children (focusing on preventing anemia).

This chapter focuses on the results of the analysis. The opinions of all parties concerned and involved, namely:

- households' representatives who directly received information from the project
- activists who conducted household visits and community meetings on nutrition and hygiene topics in program areas
- health workers trained with up-to-date information on improving the quality of nutrition services provided in health facilities, including updating national protocols and guidelines.

We integrated supportive supervision, mentoring, and quality improvement into the approach to routine care. Our results analysis is followed by a detailed review of the changes associated with the project, the problems encountered, and how they were resolved.

4.1.1. Households' Diet

The project's information efforts focused on altering the dietary habits of all household members. Based on the feedback from FGD participants, it can be inferred that disseminating information regarding this objective was quite successful. The groups mentioned numerous topics that were particularly memorable for them:

- introducing dietary diversity (legumes, fruits, and vegetables)
- freezing to preserve food products and food diversity during the winter
- cooking stewed and boiled food instead of fried food
- hygiene information
- food pyramid.

Participants identified the following topics as difficult to understand during the consultations. These were all topics mentioned, and they were all mentioned or agreed upon by multiple participants or by a single person, as indicated:

- Proper dietary pattern for adults (no eating after 18:00, three hot meals a day, snack breaks), as this is difficult to achieve for the whole family (a few people's opinions).
- Peculiarities of the food pyramid (a few people's opinions)—

> *"I would like to mention the pyramid—if one can't explain the food pyramid, then everything else is meaningless. It was the most difficult task for health workers."*
> ***— Supervisor, Batken, family doctor, and clinical director***

"We didn't learn the rules of nutrition right away, and we also didn't understand the pyramid right away. We used photos to understand everything, we displayed them at home, and our children were interested in them. At work, we also cooked according to the pyramid."

— Household representative, Jalal-Abad city

- Financial difficulties that cause protests when explaining the topics of anemia, the food pyramid, and food diversity (a few people's opinions)—

"There were difficulties when explaining the topics of anemia, food diversity, [and] nutrition of children and women. When it comes to practice, we realize that everyone has different living standards: iron-containing medicines and some food products are expensive—many people can't afford them."

— Health worker, Jalal-Abad

- Portion sizes (single opinion)—

"For us, it was difficult to explain the servings of food. All women have their own measurements, many do it by eye or have their own utensils. When we said 50 g [grams] or 20 g, it was difficult for them to visualize. And only when we started using utensils everything became clear."

— Supervisor, Batken, head nurse

Analyzing these responses, we can conclude there is a need to simplify or expand these topics in the future to reach the audience more easily. Suggestions provided by respondents included—

- Visual materials, brochures, simplified explanations, or pictures of the products used in the training area provide better understanding since they determine the whole project's success.
- Joint and well-coordinated work to change the habits of the whole household—emphasizing a unified pattern for the whole family, not just women and children. Educate the older generation, who often refuse to accept changes and innovations in nutrition because of their conservatism.
- Visual presentations or descriptions of foods that families can use in the diet without significant financial expenditure. Prepare a list of foods with prices to help people understand that it is possible to buy a lot of healthy foods with the same budget and get benefits in terms of the health of the whole household.

Below is an analysis of the topics respondents remembered based on the 11 key evidence-based nutrition practices identified by the project as part of the knowledge development process. From this analysis, we can draw conclusions about the clarity of the topics, and develop further recommendations to enhance the training program, emphasizing areas that need more focus or expansion.

Table 2. References to the Topics on Which the Project Held Training

#	Key Evidence-Based Nutrition Practices	References by the Respondents in the FGDs
1.	Consumption of iron-folic acid by pregnant women	• Information about the first 1,000 days • Peculiarities of nutrition for pregnant women
2.	Dietary diversity for women with an emphasis on the consumption of food sources of iron and food that enhance iron absorption	• Eating diverse food products (legumes, fruits, and vegetables) • Cooking stewed and boiled dishes instead of fried ones • Food pyramid • Information on 1,000 days, breastfeeding (BF), and complementary feeding

#	Key Evidence-Based Nutrition Practices	References by the Respondents in the FGDs
		• Peculiarities of nutrition of pregnant women
3.	Dietary diversity for children 6–23 months, emphasizing the consumption of food sources of iron and vitamin A and food sources that enhance iron absorption	• Dietary patterns of children • Serving size for children • Development of children • Nutrition for children with disabilities
4.	Optimal meal frequency for children 6–23 months of age	• There was very little information on this topic, possibly due to respondents' lack of knowledge of this issue.
5.	Early initiation of BF	• Information on BF and 1,000 days • Information on communicating with a baby, showing affection and love
6.	Exclusive BF from birth through the first six months.	• Prohibition of complementary feeding until six months old
7.	Timely introduction of appropriate complementary foods	• Importance of starting complementary feeding after six months old • information on complementary feeding—what should and can't be given to a baby
8.	Reduced consumption of high-calorie, low-nutrient-density (junk) food	• Exclusion of fried, heavily salted, and spicy dishes from the diet • Transition from carbonated drinks to homemade compotes and fruit drinks
9.	Presumptive treatment of helminth infections for pregnant women and children	• Practice of handling children's pots • Prohibition of using pacifiers and feeding bottles to feed children • Household hygiene practices
10.	Handwashing at five critical times: after using the latrine, after changing a baby's diaper/cleaning a child, after handling animals, before preparing food, and before feeding a child.	• Frequent hand washing
11.	Adoption methods for safe and prolonged storage of nutrient-dense produce for the winter.	• Freezing to preserve food products and food diversity in winter

Furthermore, the discussion highlighted the presence of nutritional misconceptions and myths that may hinder the adoption of healthy eating habits. Participants identified the following misconceptions (these were the only ones mentioned, and while most came up only once, they were generally agreed upon by other participants):

- Non-fried food is bland and tasteless (single opinion)—

"If one doesn't fry vegetables until they're red, they're pale and tasteless; people of the past generations believe it."

— Activist, Batken, assistant teacher in kindergarten

- The habit of preparing compotes, salads, jams, and pickles with a lot of sugar and salt for the winter because it is believed that frozen foods lose vitamins (single opinion)—

"Some people think that frozen fruit is harmful. There's ice; the fruit loses its properties."
— Activist, Batken, cook in kindergarten

- To be healthy, you need to eat fried foods that are high in calories (single opinion)—

"It's believed that eating soup makes one's stomach weak. If one doesn't eat fried and starchy food, one can get sick."
— Activist, Jalal-Abad, housewife

The training sessions should address these misconceptions and we should include them in the training materials, clearly emphasizing them as misconceptions to eliminate them. By doing so, individuals who currently believe in these misconceptions may reconsider, and those not aware of such misinformation will be less likely to be influenced by them if they encounter these ideas in the future.

Now there will be a focus on identifying the problems to continue to address them.

FGD participants were asked to describe the difficulties they encountered during the consultations:

- Internal and external migration (a few people's opinions)—

"The problem is created by internal migration because medical staff can move, or patients can move to their relatives, and all this creates problems, we can't get a picture and a result. Therefore, we can't give a complete picture of the project. We are doing good work. We are solving two problems at the same time, the problem of proper nutrition and the problem of anemia, but we can't get an analysis and result."
— Supervisor, Batken, head nurse

"It is very difficult to work with those who have moved to Russia as they have left their children with grandparents and relatives, but we are trying to work with them."
— Health worker, Batken, nurse

- Difficulties in counseling individual household members and changing habits (single opinion)—

"Training of young women has not always been effective because they are not the ones making the decisions about purchasing food products. Young brides do not have their own finances; they are dependent on their mothers-in-law and, therefore, have difficulties. Many married women do not work. It is advisable to invite women to a conversation with their mothers-in-law. There are cases when they do not trust their pregnant brides."
— Supervisor, Jalal-Abad, family doctor

- Inattention during consultations (single opinion)—

"…many women come to us with problems. They are in a hurry, they are sick, and when we consult them, they do not understand everything. When we consult them again, they can't tell us anything."
— Medical officer, Batken, family nurse

- Lack of space for counseling (single opinion)—

"Lack of separate offices. In one office, there are two people—this is also a problem."
— Supervisor, Batken, medical officer

- Lack of health workers for counseling (a few people's opinions)—

> *"Lack of doctors. If there were enough medical staff, then maybe 80 percent of the project would be implemented among the population. One doctor covers two settlements, two doctors cover 6,000 people. At the time of vaccination, the number of women is high, and they all hurry up—it is difficult to provide consultations in such conditions."*
>
> ***— Medical officer, Batken, family doctor***

> *"Counseling is easy and available, but there is not enough time. We work until 15:00, and we go home at 16:00–17:00. We have to enter data into a computer, conduct obstetric appointments procedural appointments, visit the registrar's office, and so on. There are four of us working, but one of us takes home nursing, and three remain. We are understaffed."*
>
> ***— Medical officer, Batken, family nurse***

4.1.2. Pregnant Women, Feeding Women, and Children's Diets

The next step involves a more in-depth examination of the issue, from the household level to the specific context of pregnant and BF women and children.

Respondents also mentioned relevant and new topics, topics that are difficult to understand, and myths and misconceptions.

Relevant and interesting topics:

- information on the 1000-day window of opportunity, BF, and complementary feeding
- information on communicating with a baby, showing affection and love
- Nutrition for people with disabilities—

> *"I would like to mention parents of children with disabilities; they were very grateful. The information was very useful. For example, disabled people should not be spoon-fed all the time, thinking that they can't eat on their own. We need to give them a chance to learn; when eating they develop fine motor skills and a child learns to express his/her wishes."*
>
> ***— Supervisor, Jalal-Abad, specialist of FMC***

- children's diet
- practical handling of child's potty
- nutritional peculiarities of pregnant women
- development of children
- portion size of food for children.

Participants identified the following topics (complete list) as difficult to understand:

- serving size (single opinion)—

> *"When we visit households and ask to show how much food is given to a child, mothers can't tell us. They can't describe the consistency of food. We couldn't show it by visual demonstration in the clinic. If there were models, they could see it in real life."*
>
> ***— Supervisor, Batken, medical officer***

- use of pacifiers and feeding bottles to feed infants (single opinion)

- complementary feeding before six months old (single opinion)—

  "It was more difficult to explain harm from complementary feeding to infants. When their children cried, they thought they were crying because they were hungry. So, they gave different types of complementary feeding. In these families, it is mostly the grandmothers who say that they raised their children this way and grew up healthy."

  — Health worker, Jalal-Abad, nurse in procedure room

- importance of introducing complementary feeding after six months old (single opinion)
- nutrition of pregnant women (single opinion).

Again, the recommendations described earlier to introduce visual materials, drawings using products common in the project area, and work on misconceptions and myths are relevant here.

Key misconceptions about nutrition for pregnant and lactating women and children revealed by the FGDs include—

- Shame of taking children to health workers (single opinion)—

  "Since there used to be an unbalanced diet, our young people are suffering from anemia. There is a shame in our mentality to take our young daughters to doctors. It causes anemia in children."

  — Activist, Batken, leading specialist in the rural government

- To keep a baby healthy and have enough milk, BF mothers should eat fatty, calorie-rich foods and exclude fruit (single opinion)—

  "If a breastfeeding mother eats rice, soups—a baby will not have enough milk or will have diarrhea. And if one eats fruits and vegetables, a baby will have gasses."

  — Activist, Jalal-Abad, housewife

- Children under six months old should be given water despite BF (single opinion).
- Babies should be given tea because water can lower blood pressure (single opinion).

  "Some mothers were afraid to give water to children, worrying that it might lower their blood pressure. Instead of water, they gave black tea to their children."

  — Health worker, Jalal-Abad, family nurse

- If a baby under six months is crying, it is because he is hungry—he is not getting enough milk and should be given complementary foods (single opinion).
- Baby food should be chewed by an adult (single opinion).

As mentioned earlier, it is recommended that these misconceptions be discussed and their inaccuracy emphasized for such misconceptions to be widely criticized.

Undoubtedly, the project has positively influenced the community members, particularly in enhancing the nutrition of children and women. Participants in the FGDs shared some success stories in this regard:

- Introducing fruits and vegetables to the diet of children under two years old—

  "After six months, we can give fruits and vegetables. Before, we were afraid to give them; now we have learned how to boil and feed them to children."

  — Activist, Batken, cook in kindergarten

- positive changes in children's nutrition, quantity, and consistency of food

- BF until two years old—

"We started to apply knowledge in life. For example, I didn't breastfeed my older children until they were two years old, but just until one year old. I will feed my youngest until he is two years old."
— Activist, Jalal-Abad

The difficulties in conducting counseling sessions are the same as those already described. The same can be said about recommendations. However, the following may be added:

- visual demonstration of food quantities for children of different ages during consultations
- "Mothers' Schools" conducted at Family Group Practitioners (FGP), inviting pregnant women to attend
- additional training provided for health workers, as they are a key element in disseminating reliable information—

"We need to raise the level of health workers, then health workers should train the population. If there is a capable health worker, then qualified help can be provided to the population."
— Supervisor, Jalal-Abad, statistician

4.1.3. Iron Supplements for Pregnant Women and Children

The subsequent step involves evaluating the community's reception of information regarding the significance of iron supplementation for pregnant women and children. This assessment is crucial, as the project aims to reduce and prevent anemia, making it one of its primary objectives.

Different aspects of this topic and related medication use were discussed in all the FGDs, with most of the information derived from supervisors, health workers, and activist sessions. It's important to note that there was only one question on anemia in the caregiver FGDs. Respondents emphasized the significance and novelty of the following issues:

- Supplementation with iron preparations for children—

"…for breastfeeding women, information on supplementation for children has been useful. Supplementation can be given to six-month-old children. We have shown the dosage on the syringe and taught how to use iron-containing medicines."
— Supervisor, Batken, head nurse

- dosage of iron preparations for different degrees of anemia in children and adults
- nutritional peculiarities for pregnant women—

"Pregnant women should take care of the hemoglobin and iron content in their food. In practice, when I asked how they were feeling at the next appointment, the women noticed an improvement in their health."
— Supervisor, Jalal-Abad, family doctor

A lot of difficulties were identified during counseling on this important topic:

- Lack of adequate care in the postnatal period (a few people's opinions)—

"No matter how we write prescriptions for women, there is no feedback. We need to work with their spouses—young women stop taking prescribed medicines after childbirth: they forget, give all their attention to a child, save on themselves and their health."
— Supervisor, Batken, clinical director

- Lack of sufficient information about anemia from other sources is rarely discussed, so it is more difficult to deal with; the population does not consider it a big problem but rather a norm (a few people's opinions).
- Problems with laboratory performance—due to outdated equipment and lack of laboratory personnel—lead to discrepancies, inaccurate data, and difficulty obtaining results (single opinion).
- Difficulty working with remote areas without communication—makes it difficult to determine if recommendations are being applied and the situation is changing (single opinion).
- Women neglect their health and unsystematically take medicines (a few people's opinions).
- Iron-containing medicines have side effects (e.g., nausea) (single opinion).
- Inappropriate dosage of medication leads to constipation and subsequent withdrawal (single opinion).
- Financial difficulties prevent the purchase of medicines (a few people's opinions).
- Elderly relatives prohibit medicines due to various reasons and circumstances (a few people's opinions)—

> *"Some pregnant women come and explain why they don't take medicines — their mothers-in-law scold them, saying they gave birth without medicines. Then I write them a note: "'Ezhe, these medicines are useful for your grandson and your daughter-in-law. Let her take them.'"*
>
> ***— Health worker, Jalal-Abad, family doctor***

More work needs to be done in this area, and the following recommendations can be offered to address difficulties:

- Create channels to receive important information and disseminate information through existing channels (WhatsApp groups and informal communities) to create an information field about anemia and the importance of its treatment and prevention.
- Provide specialists to counsel pregnant women and women with children, offices for their counseling, and more time for counseling—

> *"Separate services for women with newborns up to six months old, separate attention. Monitoring results and monitoring of this category."*
>
> ***— Supervisor, Batken, clinical director***

> *"In real life, a minimum of 10 minutes is required for a consultation, so there is a need to open a separate consultation office for this category of women."*
>
> ***— Health worker, Batken, medical officer***

- Joint consultations for pregnant women with their husband/partner/family members to create a shared understanding of the importance of women's health management during pregnancy and BF—

> *"There is a need to counsel together with a partner; the family should support pregnant women. To explain to relatives that the child's development depends on the mother's nutrition."*
>
> ***— Health worker, Batken, nurse***

- As an alternative suggestion to the previous two recommendations—mass counseling. Due to the lack of specialists for individual counseling, it is possible to provide mass counseling—

  "We need to introduce mass counseling. Currently, they are conducted individually with pregnant women. Also, we are understaffed, we have too many patients, and sometimes it is difficult to find time for [individual] counseling."

  — Health worker, Jalal-Abad, family doctor

- Active promotion of "Mothers' Schools" for pregnant women could help encouraging attendance and enable them to discuss this topic.

- Education and dissemination of information on the risks of anemia and the importance of taking iron-containing medicines, not only to specific groups but also to the general population—training of teachers and social workers, discussions with students in schools (e.g., lessons on proper nutrition)

- The FGD participants from both regions agreed that brochures with information on anemia were the most useful and recommended their continued use and dissemination among the population.

- For the sustainability of the project, recommendations were made for further activities on anemia to maximize dissemination of information, organize monitoring of hemoglobin levels in the population, and track their dynamics—

  "We need more activists. Currently, there are several trainings; we need more activists among non-working mothers. Non-working mothers can spread the information more effectively because they gather for different activities. We need those who can talk and are popular among women."

  — Household representative, Jalal-Abad

Some major misconceptions about anemia have been identified that should also be discouraged and discussed in counseling sessions so that they are not taken as truths:

- Pregnant women should drink strong tea with sugar—it increases hemoglobin—

  "Five or six pregnant women have told me that they were suggested to drink black tea with sugar because it would increase hemoglobin."

  — Health worker, Jalal-Abad, nurse in procedure room

- Previous successful experiences with pregnancy and childbirth without vitamins lead to the misconception that there is no need to take medication—

  "There are women who are pregnant not for the first time, and they think: I didn't take vitamins during my last pregnancy, and it was fine, so it's OK not to take medicines during this one."

  — Health worker, Jalal-Abad, nurse in procedure room

In Batken, women acknowledged the issue and highlighted the expensive nature of medications for treatment and prevention. In Jalal-Abad, some women stated they experienced no problems, while others shared success stories of effectively treating anemia after its detection.

4.2. Analysis of Problems and Recommendations in the Stage of Implementation and Adaptation of Nutrition Behavior

After receiving the information, the next stage involves incorporating it into everyday life. In nutrition, this proves to be a challenging phase with numerous difficulties and obstacles. The following chapter will delve into this topic by categorizing the information into three main components: integration at the

family level, implementation concerning women and children, and incorporation of iron-containing medicines.

4.2.1. Households' Diet

There have been several success stories and positive changes as a result of the project:

- Households are trying to replace sweets with dried fruits for celebrations.
- Steamed and boiled foods became part of the diet.
- Households started to freeze fruits and vegetables for winter.
- New products (vegetables, legumes) became part of the diet.
- New healthy dishes appeared in the diet.
- Consumption of highly salted and spicy foods decreased.
- Homemade compote and fruit drinks replaced carbonated industrial beverages.

All these positive points underline the importance and success of the project.

Next, we will examine the aspects of proper nutrition that the FGD participants found easiest to incorporate into their daily lives:

- complementary feeding, especially the fact that complementary foods should be introduced after the child reaches six months of age
- for the majority of the FGD participants—new cooking methods (e.g., boiling, stewing, baking)
- in Batken, several FGD respondents mentioned fish as an easy food to include in the diet, while in Jalal-Abad, dairy and cereal dishes were more frequently mentioned.

The list becomes even longer when considering methods and guidelines for healthy eating that prove challenging to implement.

- For some FGD participants, stewing and boiling are common cooking methods (a few people's opinions)—

> *"We had some difficulties. The older generation likes fried, spicy, canned food, and we have switched to proper nutrition. It was hard to break the habit."*
> ***— Household representative, Jalal-Abad***

> *"There were difficulties. Some approved, some didn't. Children want one thing, elders want another. In such cases, we cook two pots of food: fried separately and boiled separately. I don't cook a lot of different dishes; I cook according to what my husband likes. I often cook pilaf."*
> ***— Household representative, Jalal-Abad***

- introduction of new grains, legumes, and vegetables (a few people's opinions)
- reduction of sugar and salt in cooking (a few people's opinions)
- Drinking tea while eating (a few people's opinions)—

> *"It's long been a bad habit of ours; tea washes away all the benefits of food. We need to pay more attention to this."*
> ***— Activist, Jalal-Abad, school teacher***

- Eating of leavened bread (single opinion)—

> *"… for example, bread with yeast is still bought. This has been said many times, but it's still hard to accept because even I myself buy bread with yeast in a store. It would be good if stores sold sourdough bread. It is necessary to start with the customer; there should be an interest in proper nutrition."*
>
> ***— Activist, Jalal-Abad, kindergarten director***

- Dietary pattern (late dinner) (a few people's opinions)—

> *"Dietary patterns are difficult to follow when there are old people at home. They always drink tea at 9 p.m. I live with my parents-in-law, and I can't go to bed without feeding them."*
>
> ***— Activist, Jalal-Abad, accountant in assisted-care facility***

Therefore, a recommendation is to have the project prioritize addressing challenges that have been particularly resistant to change. This might involve employing diverse approaches that consider psychological barriers, such as taking gradual steps instead of attempting comprehensive changes all at once acknowledging and celebrating positive changes. It is recognized that established human habits and psychology can pose challenges when incorporating proper nutrition into everyday life.

To identify problem areas, all FGD participants were asked about the impact of various aspects on households' access to healthy and adequate food.

Access to Resources for Implementing New Eating Behaviors

In the Batken region, most households reported that they had all the necessary resources to introduce proper nutrition, such as blenders, highchairs, appropriate utensils, and freezers. Only a few reported a lack of household appliances and time to cook separately.

In the Jalal-Abad groups, the main point was that there are enough resources, but everyone is used to eating fried food, and it is difficult for them to give it up.

> *"These are the needs of an organism accustomed to eating fried food and other foods. We haven't switched 100% to proper nutrition yet. We all love fried things; for example, for pilaf we fry until dark. I won't allow the pilaf to turn out light; I fry it almost until it burns."*
>
> ***— Household representative, Jalal-Abad***

The main recommendation (mainly from activists) is to continue the information work among the population.

Impact of Access to Healthy Foods on Household Dietary Habits

In Jalal-Abad, all respondents noted that eating habits are gradually changing and that healthy foods are mostly available to the population. In Batken, the most common comment was that healthy foods were unavailable to households during the winter, but knowledge of storage practices has changed the situation.

Recommendation: Conduct information campaigns on how to preserve products, extend their storage time, and provide themselves and their households with healthy foods during the winter and spring.

Financial Aspects of Diverse Diet

The financial aspect is the most challenging of all. All household representatives noted its strong impact on the family's diet—some can't afford meat products; others suffer from the lack of fresh fruits and vegetables in winter. All respondents said they try to diversify their diet by using products that don't significantly impact the family budget.

In Batken, activists did not consider the financial aspect to have a strong impact on nutrition—they believe that the region's residents mainly grow all the products on their own and can store them.

In Jalal-Abad, activists believe that finances play a significant role in households. However, they also emphasize the importance of proper nutrition to save money for families. By adopting a healthy diet, everyone can improve their overall health, potentially reducing expenses on vitamins, medicines, and visits to health workers.

The recommendation remains consistent: encourage healthy and balanced nutrition as an affordable and cost-effective means to enhance people's quality of life.

External Factors that Affect the Ability to Comply with Food Diversity Practices

In the Batken region, participants primarily identified financial constraints as the main issue. In Jalal-Abad, household representatives acknowledged facing situations where they struggled to find time for cooking nutritious and diverse meals due to work and other household responsibilities.

Recommendation: Provide women with additional resources, such as straightforward and healthy recipes, along with time-saving tips and tricks for cooking (e.g., utilizing pre-prepared ingredients or using a programmable multi-cooker with a delayed start)

Cultural Beliefs, Norms, and Traditions that Encourage or Discourage Households from Adhering to Recommended Dietary Diversity or Other Nutritional Practices

In Batken, it was noted that a cultural trait involves prioritizing and taking better care of the older generation, as opposed to the younger individuals who are responsible for the continuation of the family lineage—

> *"… in order to continue the family name, women must be taken care of, while we do the opposite by prioritizing aksakals and the elderly. And even pregnant women come second. We don't care about proper nutrition for women."*
>
> ***— Household representative, Batken***

Participants also mentioned cultural traits reflecting unequal family dynamics, where mothers-in-law tend to dictate family conditions, and daughters-in-law often find themselves with insufficient food. Additionally, traditional practices of older generations impact eating habits, as many older individuals prefer to chew food for children, and the younger generation hesitates to object due to cultural upbringing.

> *" We live separately from my mother-in-law, and I don't have any problems. One problem is that she chews her food and gives it to her grandchildren. We can't say anything to her because she is the oldest in our family."*
>
> ***— Household representative, Batken***

In Jalal-Abad, focus group participants could only identify one cultural trait: during celebrations, there is a tendency to overlook proper nutrition. People tend to prepare and consume fatty dishes, sometimes overindulging in a single day.

> *"Let's take tradition as an example: when we meet guests, we butcher a whole lamb and eat it all within a day. We serve five kinds of dishes: samosa, roast, meat dumplings, pilaf, beshbarmak. Imagine what we'll eat the day after tomorrow? We'll eat what's left."*
>
> ***— Household representative, Jalal-Abad***

Activists in the Jalal-Abad region note that norms and traditions often pose challenges when promoting proper nutrition. While people initially show interest in adopting healthy eating habits within their families, they tend to revert to their usual dietary patterns over time.

"It's just something that's ingrained inside a person. My husband always eats fried meat and doesn't accept stewed or boiled dishes very well. It's hard to change it, so it's easy to start with our younger generation. If a mother shows her child how to cook healthy dishes, he will get used to it and will do it in the future."

— Activist, Jalal-Abad, school teacher

Recommendations:

- Conduct counseling sessions involving all family members to educate them on maintaining each member's health through proper, balanced, and adequate nutrition. Additionally, it guides hygiene practices and the principles of healthy eating.
- Enhance the psychological aspects of the training program, which involves exploring more effective approaches to gently and gradually help families change their deeply rooted and unhealthy eating habits and practices.

Misconceptions or Myths about the Diversity of Food that Impact Households' Willingness to Embrace New Approaches to Food Diversity and Other Eating Practices

During the focus group discussion in Jalal-Abad, participants mentioned considering potatoes highly nutritious, often frying them with the belief that it was a healthy dish. Meanwhile, in the Batken region, a household member initially believed frozen food lacked vitamins. However, she later learned from a community activist involved in the project that this was a misconception.

Recommendation: Address and dispel myths through training and consultations by developing a thorough analysis and providing evidence-based refutations.

Social or public factors that may be barriers to the adoption of dietary diversity recommendations and other nutrition practices:

In Batken, a public concern highlighted the lack of knowledge about cooking techniques. Meanwhile, in Jalal-Abad, the recurring issue of working women who struggle to find time to cook for their families was raised.

In Jalal-Abad, diverse tastes and preferences among family members were recognized as a significant hurdle to promoting proper nutrition. Complicating matters, social norms that emphasize respect and obedience from younger individuals toward elders often prevent women from objecting or suggesting changes not endorsed by their fathers- and mothers-in-law.

Recommendation: Provide women with information on healthy cooking techniques, recipes, a list of nutritious food items, and tips for expediting the cooking process.

Food shortage:

In both regions, all participants emphasized that food shortages are solely due to financial challenges within individual households. In other words, there hasn't been a scarcity of food in markets or stores in the last two years, but not everyone can afford to purchase essential food items due to increasing prices.

In Batken, one respondent mentioned a shortage of dairy products during the summer:

"…in summer, we send cattle to summer pastures, problems occur with dairy products. We do not have any milk to cook dairy dishes, such as porridge. And on markets, milk is expensive or quickly goes sour."

— Household representative, Batken

Demotivating Factors

During the focus group discussion in the Batken region, Buzhum village, participants shared instances of feeling demotivated to adopt healthy eating habits for themselves and their households. First, there were situations where they couldn't access health workers for consultations, including nutrition issues, due to a shortage of specialists and long queues. Secondly, respondents observed a lack of professionalism among health workers, leading to a loss of confidence in consultations, including those related to healthy eating.

In Jalal-Abad, participants mentioned being demotivated due to their time constraints for cooking and the unavailability of necessary ingredients at home. For instance, they might lack certain healthy ingredients during meal preparation but do not have the time or motivation to go to the market to acquire them.

Recommendation: Designate staff to provide nutrition counseling and ensure they receive training and education to deliver effective counseling.

4.2.2. Pregnant Women, Feeding Women, and Children's Diets/Iron Supplements' Consumption

Challenges and obstacles like those detailed in the preceding section are encountered in implementing proper nutrition initiatives for pregnant women, BF mothers, and children under two within the project.

Among the methods that have proven to be the most difficult for children to adopt are the following:

- Introducing complementary feeding to a child can be challenging due to a lack of time for preparing separate meals or because the child may refuse to accept complementary foods (a few people's opinion)—

  "…it was hard for me to start complementary feeding at six months old because I am raising my child alone. I have no time to cook, and my child is used to eating cookies. And the transition to complementary feeding was difficult."

  — Household representative, Batken

  "…I breastfed until my child was six months old, transition to complementary feeding was difficult—the child wouldn't eat, spit it out because he was completely on BF."

  — Household representative, Batken

- weaning off store-bought beverages and transitioning to homemade compotes and fruit drinks (a few people's opinion)

- introducing new foods to children's diets (a few people's opinions)—

  "My children don't eat barley grains, only my husband and I do. When we have barley grains, I have to cook something else for my children."

  — Household representative, Jalal-Abad

'Challenges in this area stem from a lack of information among mothers regarding child-feeding practices. This includes issues like the delayed introduction of complementary foods, using less healthy options (such as biscuits) instead of nutritious foods, and a deficiency of cereals in children's regular diets. To address these challenges, conducting information and awareness activities can help mothers adopt healthier practices more easily, promoting proper nutrition in the lives of children.

Otherwise, all the recommendations mentioned in the previous paragraph apply to this group.

Myths and misconceptions that have been identified among the FGD participants regarding the nutrition of pregnant women:

- Pregnant women should avoid taking any medication, as it may pose a risk of harm to the fetus. (single opinion)—

> *"…such misconceptions exist. There are people/families who believe that pregnant women should not take any medicines. They think that folic acid and iodomarin are harmful."*
> ***— Health worker, Jalal-Abad, RMP paramedic***

- To raise hemoglobin levels, one should drink wine (single opinion)—

> *"There is a misconception that drinking wine will increase hemoglobin."*
> ***— Health worker, Jalal-Abad, clinic worker***

- Taking nutritional supplements from advertised brands instead of vitamins during pregnancy and BF (single opinion).

The activists in the focus group emphasized the importance of incorporating the nutrition of the entire population, including children and mothers, into national policies. They believe that such policies serve as a guiding framework for development and should be exemplified and followed in public institutions:

> *"In hospitals, we counsel patients on proper nutrition, but here you see what they have for lunch ... pasta! And they don't give the products we talked about. Practice does not match theory, even in public institutions. Then what should we demand from households?*
>
> *The children's hospital itself doesn't provide hot meals. Our words should be an indicator and correspond to our words. The kitchen workers don't know how much food should be given to a five- and two-year-old child."*
>
> ***— Supervisor, Batken, clinical director***

4.3. Problems and Recommendations to the Project Realization in General, COVID-19 and Other Internal/External Events Effect

This chapter reviews the problems and recommendations for implementing the project as a whole received from all parties involved. Since the activists, supervisors, and health workers were directly and deeply involved in the Project, they were the first to observe its success and weaknesses. Their opinions will be the focus of the following paragraph.

4.3.1. Households' Diet

According to activists participating in the FGDs, about 70–80 percent of the information was effectively assimilated during the implementation phase. Participants showed genuine interest and listened attentively. However, a common trend emerged once the training was over a significant proportion of the information tended to fade into the background over time. Only 3 out of 10 people felt they had retained and actively applied what they had learned.

Recommendations to improve this situation are as follows in the list below. These recommendations were proposed by FGD participants (all four types of participants). They were mentioned by at least one person, with others agreeing:

- Change the frequency of training—not to give all information within one day and to arrange a new meeting every other month, but to give information in shorter intervals and gradually. Giving the information at a certain frequency will allow it to remain relevant to be delivered in portions so that it stays in people's minds and can be understood and put into practice.

- Provide training not only for women but also for the whole family since women, because of their age and position in the household, might not be taken seriously and might be forced to feed their families as they used to be.
- Find village and street leaders to agree to monitor adherence to proper nutrition practices—so they can be persistent and careful in observing how households are fed—remind them of proper nutrition practices, and help them with advice.
- Continue/re-establish groups in WhatsApp to disseminate relevant information (rules, recipes, benefits of products) and remind people of the importance of healthy eating habits.
- Bring up the topics of proper nutrition, anemia prevention, and taking iron-containing medicines at various events to promote these topics.
- Try to join with other agricultural projects of international donors that provide training on cultivating different crops, in case the project continues to exist. Share not only the benefits of growing crops but also the benefits of eating these products in the household. The synergistic effect of cooperation between several projects will undoubtedly be greater.
- Ensure the sustainability of the project is achieved through the activists, supervisors, and health workers continuing what has been started. Organize mentoring of young specialists, continue to conduct seminars on proper nutrition, improve their level of qualification on this issue and disseminate information among the population, continue counseling—this can be taught within the project and provide all interested parties with a plan of activities after the end of the project.
- Transfer the functions previously performed by the project to the Ministry of Health to ensure the sustainability of the project's impact.
- Train health workers on the psychological side of the issue. Household representatives themselves stated that they did not always feel moral support from health workers in introducing proper nutrition—health workers scolded them for not following any prescriptions or advice and for poor hemoglobin values. Health workers should be trained to take small steps, not to push patients too hard, to support their efforts, and to praise and recognize successes more often than to scold them for failures.
- Coordinate state assistance for the FGD participants from trained households. The participants expressed a desire to receive help from the state in iron-containing medicines, as they are expensive and not everyone can afford them.
- Increase staff in clinics and hospitals as the population also points out the lack of health workers and specialized health professionals.

Challenges faced by the project's activists include—

- Refusal to consume healthy products—according to the activists, young families are more receptive to new information and ready to use it than the older generation. There is a psychological aspect of not wanting to change their habits, and it should be considered in future Projects on nutrition. Add psychological components to the training of trainers, to prepare them for such resistance and ways of reducing it, to teach them to pay attention to small successes and to move towards the goal in small steps, gradually, so that the trainers do not lose their motivation to train the population and do not give up.

- Acute lack of knowledge—the activists are sure that to consolidate and sustain the results in the long term, it is necessary to continue disseminating information and transferring knowledge to the entire population—

> *"I think there is a lack of knowledge. It would be good to educate everyone with the help of specialized people who are professionals. To hire trainers to learn more about the topic. This program is well understood among the trained, but if the program stops there, then there is a chance that this information will not spread further. In order for everyone to understand, they need to be taught gradually."*
>
> ***— Activist, Jalal-Abad, on maternity leave***

- Training not only young women but also the older generation—

> *"We often train young women, they start cooking recipes, and the older generation refuse to eat and say to cook pilaf, fried potatoes or something like that. I think we need to educate the older generation, to change their patterns is a big problem."*
>
> ***— Activist, Jalal-Abad, housewife***

The subsequent assistance provided by the project activists to the community members after the training consisted of:

- Practical sessions where the activists showed them how to cook healthy dishes.
- Creation of WhatsApp groups to provide support through them.
- Support of trained people by phone—communicating and clarifying questions, difficulties, and successes in changing eating habits.

This information can also guide future specialists in supporting their trainees, observing their successes, and monitoring their progress in proper nutrition after the training.

4.3.2. Impact of COVID-19

The COVID-19 pandemic impacted many aspects of the population, and this paragraph aims to identify how COVID-19 affected this Project.

All FGD participants mentioned the following positive and negative aspects of COVID-19 for themselves and their families.

Positive Impact of COVID-19

- The hygiene level of the population has significantly improved (frequent hand washing and sanitizing).
- The population learned measures to prevent viral diseases—frequent wet cleaning, no handshakes, and immunity building.
- The incidence of hepatitis A and enterocolitis has decreased significantly. Overall, there was a decrease in the incidence of children's diseases since they were less likely to be infected with children's diseases without contact with each other.
- Online counseling is now available.
- Men spend more time at home and help with household chores.

- Limited freedom of movement and lack of routine activities outside the household have freed up more time for people to learn about healthy eating habits, improve their immunity to fight COVID-19 and cook more nutritious dishes.

Negative Impact of COVID-19

- It was difficult for the population to seek medical attention because hospitals and clinics had limited access. There was described a case where health workers had to deliver babies at a clinic because the local maternity hospital was closed for the pandemic and the city maternity hospital could not be reached in time.
- Movement of people was restricted.
- Restricted access to food products led to nutrition difficulties—cooking from what was available was monotonous and sparse.
- Online nutrition training was more difficult to deliver than the traditional form (inability to visualize, get feedback, notice trainees' difficulties), and the results were lower.
- Vaccination of children ceased during the pandemic.
- Lack of work during the pandemic resulted in reduced income and financial problems for the population—resulting in reduced nutrition for all household members.
- Pharmacies lacked essential medicines.

4.3.3. Impact of Border Conflict

In addition to the COVID-19 pandemic, the Project was affected by other external events—most notably the Kyrgyz-Tajik conflict of 2022, which lasted from September 14 to 19. During that period, the events took place in the Batken region, which the project covered.

As a result of the armed conflict, 63 Kyrgyz citizens were killed. About 190 citizens were injured, most of them in extremely serious condition. More than 140,000 people were evacuated from the conflict zone.

All these events were bound to affect the nutrition of households. For this reason, the FGD participants from the Batken region were asked about the impact of the conflict on the eating habits of households.

The respondents mentioned the following negative impacts:

- Severe stress in children and adults, which resulted in, among other things, loss of appetite—

> *"… children's fear appeared, they stopped eating, then we fled to Boz-Adyr village. There were no food products in the family, which took us in. After a few days, help started to arrive, but the children could not eat proper food and refused…"*
>
> ***— Household representative, Buzhum village, Batken region***

- The diet of households affected by the conflict was drastically reduced to what was available in their houses.
- Evacuated families were forced to live in administrative buildings where it was impossible to cook hot meals.

"The diet was poor; we were all on the run, so there was not enough food. We ran from Buzhum village to Kara-Tokoi village with our children and lived in the sports hall at the school. We had no money, no food, no conditions to cook food for children, no products; we ate what was given to us by volunteers and local residents."

— Household representative, Buzhum village, Batken region

- Men didn't eat for a few days as they helped the soldiers protect the border—

"I lived with my parents at the border with Tajikistan before I got married. My relatives called; they had evacuated to Leilek. The next day, my father called and disappeared for a few days. It turned out that he had been lying in a pipe, giving bullets to soldiers, and he had not eaten anything for three days. He said that there were supplies, but there was no time to eat; the enemy was coming."

Activist, Batken, kindergarten teacher

- People abandoned their gardens, left their fields uncultivated, and lost their cattle—the basis of their food security and income.

Conclusions

In summarizing this study's findings, several key conclusions about the challenges faced in implementing the project can be drawn. Respondents demonstrated a commendable retention of nutrition practices acquired through consultations, reflecting substantial project efforts. Numerous instances highlighted the successful adoption of healthy habits in households, such as dietary shifts and the integration of nutritious foods, cooking new healthy dishes and compotes, and growing and preparing frozen foods for winter.

Receiving and Understanding the Information

Difficulties in understanding proper nutrition topics were mainly due to either the complexity of the topic (the most frequently mentioned was the complexity of the food pyramid topic), the lack of visual materials, or the beliefs and eating habits of the trainees when they were not ready to accept and apply new information (e.g., refusal to steam food because the respondents thought it was tasteless; inability to change eating patterns and late supper because it is traditional in the family and older generations demand respect for traditions).

The main difficulties faced during the counseling work were—

- Only young women attending the counseling, who often did not make the decisions in the family about buying food and planning a healthy diet. Their position did not allow them to change the family's eating habits, making it difficult to introduce healthy eating habits in the household.
- Lack of staff, offices for consultations, and time for consultations were also challenges for implementing the project.
- Internal and external migration of project implementers and respondents "blurred" the project results.

Implementation and Adaptation of Nutrition Behavior

The FGDs revealed several myths and misconceptions about healthy eating, the effects of different foods on human health, and children's nutrition and development. Undoubtedly, there is a need to carry out awareness-raising work on these myths—to analyze and refute them.

A lot was also said about taking iron-containing medicines—this topic was widely and extensively discussed among the participants. The participants mostly understood and recognized the problem of anemia and also learned how to prevent and control the disease. Here, the main difficulties in accepting and applying knowledge in practice were:

- Traditional beliefs—on the one hand, it's about taking care of the older generation, and young women, including pregnant and BF women, take second place and eat what's left when there's time; on the other hand, the older generation may forbid young, pregnant and BF women from taking "pills" because of their misconceptions and myths ("We didn't take anything and lived to old age! "We raised our children this way and they are all healthy!", "Pregnant women should not take pills—they are all chemicals!")
- women's neglect of their health, putting family and children first
- Lack of information on the topic—people do not get this information from any other source and, therefore, do not consider it a major problem.
- Inaccurate doses of medication lead to side effects (nausea, constipation) and withdrawal.

- Financial restrictions—the cost of iron-containing medicines is quite high, and not everyone can afford them.

The following difficulties were often observed during the introduction of the information from the consultations:

- Transition to new cooking methods and new dishes—the eating habits of the whole household or individual family members were not always susceptible to change.
- Traditions—drinking tea after meals has been a stumbling point in some households.
- Household eating patterns—not all are willing and able to move dinner time earlier; not all can cook fresh hot meals daily and eat home-cooked food three times a day (due to domestic work, agricultural or private sector work).

The study did not identify significant barriers to accessing healthy eating resources. However, a lack of information about healthy eating emerged as a commonly reported barrier. Despite this, respondents noted the availability of healthy food. Winter shortages of fresh fruit and vegetables were effectively addressed through project training on freezing and preserving.

External factors contributing to adopting healthy eating habits were mainly attributed to busy schedules and lack of time to cook. Financial considerations, particularly about diversified diets, were discussed extensively. While financial constraints were acknowledged, the advantage of rural people owning land and growing their produce was emphasized. Participants in both regions emphasized that food shortages were primarily related to financial problems in individual households rather than a general shortage in the market. Rising prices posed a significant barrier to access to basic food items despite their availability.

Regarding introducing healthy nutrition among children, the study results have shown that difficulties arise from mothers' lack of information, such as the late introduction of complementary feeding, wrong strategy for introducing complementary feeding, and lack of groats in children's regular diet. Conducting information and awareness-raising activities in this area will help to avoid such difficulties and 'introduce proper nutrition into children's lives easily.

COVID-19 and Other Internal/External Events Affect

A broader analysis included challenges affecting the project, including the impact of external events such as the COVID-19 pandemic and the Kyrgyz-Tajik conflict in 2022. The pandemic created barriers to access to healthcare, counseling, and food, with a subsequent decline in nutritional quality during the lockdown (difficulty in accessing clinics and hospitals, limited access to food products, difficulties with online training in nutrition, lack of work during the pandemic and resulting deterioration in the quality of nutrition for all household members). The Kyrgyz-Tajik conflict in 2022 caused stress, loss of appetite, and disrupted eating patterns (drastic reduction in diet, disruption of nutrition patterns, loss of crops and cattle).

Recommendations

To summarize the analysis of the information presented in this report, here is a list of all the recommendations made by the project participants.

At the Consultation Stage

- Visual materials, brochures, simplified explanations, or pictures of products used in the training area are provided to make it more straightforward since understanding determines the whole project's success (e.g., visual demonstration of food quantities for children of different ages).
- Joint and well-coordinated work to change the habits of the whole household—emphasizing a unified pattern for the entire family, not just women and children. To educate the older generation, who are often reluctant to accept changes and innovations in nutrition because of their conservatism; to explain the importance of caring for the health of each member through a correct, balanced, and adequate diet;and to educate them in the rules of hygiene and the principles of healthy nutrition.
- Visual presentation or description of foods that can be used in nutrition without significant financial expenditure. Preparing a list of foods with prices helps people understand that it is possible to buy a lot of healthy foods with the same budget and get benefits in terms of the health of the whole household.
- Myths and misconceptions about food and nutrition identified in the consultations were clarified and analyzed, and why they are untrue was explained.
- Counseling at the family level enhanced, ensuring that every household member understands the importance and benefits of adopting healthy eating habits.
- Family consultations conducted in the home at a convenient time, ensuring that all family members involved in food purchasing and cooking decisions are reached.
- Counseling topics focused on those that have proven to be the most difficult to introduce and add a psychological aspect to the training program, as it is often the human habits and psychology that prevent the introduction of proper nutrition into life.
- The main recommendation of all the project implementers is to continue the information work among the population to mass disseminate knowledge and eliminate unhealthy eating habits.
- Counseling sessions should provide women with more information on simple, healthy, and time-saving recipes, tips, and tricks for time-saving cooking (e.g., preparing semi-finished products or using a multi-cooker with a delayed start).

At the Introduction Stage

- Supporting households as the first failures occur during the introduction phase—providing additional information about progress, successes, and difficulties. It is suggested that existing WhatsApp groups be continued/re-established to share useful information, recipes, success stories, and face-to-face and telephone communication.
- Running information campaigns on preserving food, extending its shelf life, and providing themselves and their households with useful food in winter and spring.

- Promoting healthy and proper nutrition as a cost-effective means to enhance people's quality of life. This includes promoting healthy eating habits at various public events and fostering a trend towards healthy eating.
- Supporting women during the introductory phase with information on simple, healthy, and time-efficient recipes motivating success stories.
- Implementing preventive activities in schools for girls in grades 9–11—hemoglobin checks, medical check-ups, and supplements.
- Running "Mothers' Schools" at clinics or RMPs, inviting pregnant women to attend trainings.
- Introducing a pre-retirement policy gives people more opportunities to monitor their health.

About the Implementation of the Project as a Whole

- Change the training frequency—provide information in chunks so that it can be absorbed gradually and is easier to understand. Adjust the frequency of consultations to determine the optimal number of consultations and breaks between them.
- Engage community leaders to work with them to monitor adherence to good nutrition practices—discreetly observing how households feed their families, reminding them to follow good nutrition practices, and helping them with advice.
- Continue/re-establish groups on WhatsApp to disseminate relevant information (rules, recipes, benefits of foods) to remind people of the importance of healthy eating habits.
- Disseminate information on proper nutrition, anemia prevention, and the use of iron-containing medicines at various events to promote these topics.
- Try to link up with other agricultural projects run by international donors that offer training in growing different crops if the project continues. To share not only the benefits of growing crops but also the benefits of consuming these products in the household. The synergy effect of cooperation between several projects will undoubtedly be greater.
- Continue what has been started and achieve sustainability of the project via the activists, supervisors, and health workers. Organize mentoring for young professionals, continue to hold seminars on proper nutrition, improve their level of qualification in this area, disseminate information to the population, continue counseling—this can be taught within the project, and provide all interested parties with a plan of action after the project ends.
- Provide additional training for health workers who provide counseling, as they are a key link in disseminating reliable information. Household representatives mentioned they didn't always receive consistent moral support from health workers while trying to adopt proper nutrition. They reported counselors sometimes expressed dissatisfaction when they deviated from prescribed advice or had low hemoglobin levels. To address this, it is recommended to provide health workers with training focusing on the issue's psychological aspects. This involves encouraging them to guide patients with small steps, offer support instead of criticism, and emphasize positive reinforcement by acknowledging and praising successes more frequently than failures.
- Coordinate government support for iron supplements, which FGD participants from trained households expressed a desire for, as these are quite expensive and not everyone can afford to

buy them; health workers asked to resume distribution of Gulazyk, a nutritional supplement for children to reduce anemia.[1]

- Increase staff in clinics and hospitals. The population also points out the lack of health workers and specialized health professionals and requests an increase. Expand the network of health workers and activists to disseminate information on healthy eating. Where possible, assign health workers to provide nutritional counseling and train them.
- Establish interest clubs for women (focused on sports, handicrafts, personal fulfillment, financial literacy, and basic entrepreneurship) in locations where community members gather. These clubs provide a platform for the free exchange of nutrition information. Alternatively,", to reach the broader population, disseminate nutrition information through existing informal associations (such as mothers' committees and women's councils).

[1]A nutritional supplement to reduce anemia is provided free of charge by health workers of family doctors group/RMPs at place of residence. The Ministry of Health of the Kyrgyz Republic distributes the supplement, with the support of UNICEF and the Soros Foundation of Kyrgyzstan.

USAID ADVANCING NUTRITION

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