

Workshop 3

“How to Use Moringa Leaves and Other Leafy Vegetables to Prevent Malnutrition”

Summary of discussions by Beth Doerr, ECHO, USA

Objective:

Define the best strategies for using leafy vegetables to prevent malnutrition.

Activity I. Assessing malnutrition: When and why choose leafy vegetables?

One of the first steps in preventing malnutrition is to identify the target population and their most prevalent type(s) of malnutrition. The target population is who will benefit from the project; ie: children under 5, pregnant/lactating women, HIV/AIDS patients, etc. Determining the most prevalent type of malnutrition of the target population can be done by simple surveys or baseline studies. This baseline data is necessary for determining the most appropriate intervention. Once the problems are identified (diarrhea, Protein Energy Malnutrition, micro-nutrient deficiencies, wasting, stunting, etc) then activities to address these problems can be implemented. This baseline data is also an important tool for measuring progress.

Another important step is to assess the availability of local foods and their nutrient content to determine what foods are most appropriate for the particular malnutrition issues. Data on nutrient content exists for most foods (USDA has an online database with information on nutrient content); information on nutrient requirements is also available (Human Vitamin and Mineral Requirements, FAO/WHO, 2002) and many countries have developed energy and nutrient requirements specific to their populations.

Another step in this process is to assess cultural dietary practices to determine the acceptability of proposed new food in local diets. For Moringa this could include questions such as: Do people eat tree leaves? Are people familiar with making and using leaf powder? How do people cook (throw out water, over-cook, etc)?

Moringa has many attributes that make it appropriate for addressing malnutrition. These include:

- proven capacity for improving health & nutrition
- more acceptable and nutrient-rich than vitamin supplements
- affordable, accessible and self-renewable
- easy to produce and process locally
- sustainable solution for malnutrition that does not depend on external inputs

While Moringa is an excellent food for fighting malnutrition, it should be used carefully with high-risk groups (severe malnutrition, acute diarrhea, etc.).

Activity II. Ways to increase leafy vegetable consumption: individual production and consumption vs. marketing leafy vegetables. Whose diet is improved?

There are various strategies for increasing vegetable consumption. Policy makers can be influenced through advocacy with government structures, NGOs, religious organizations, and other significant agencies. Producers and consumers can be influenced by awareness-raising, promotions and trainings with families, schools, women's groups, cooperatives, etc. Increased production and consumption should be evident as more people learn about the benefits of consuming leafy vegetables and are trained in the skills needed to produce them.

The dissemination of information is a key component in increasing vegetable consumption. This starts with obtaining valid information and scientific documentation and then developing promotional and training materials that are appropriate for the target population. The next step is getting the information to the target population. There are various types of media that can be used for information dissemination: radio, tv, posters, recipe books, etc. There are also various methods of interpersonal communication that can be used: cooking demonstrations, nutrition lessons, peer educators, skits. It can also be useful to network and form partnerships with other agencies to reach a larger sector of the population.

Activity III. Production vs consumption: groups concerned and their incentives

If the objective is to increase consumption of leafy vegetables, there is a need for both production and consumption. At the same time, there is a desire that producers will also be consumers to some extent.

The production aspect of Moringa concerns farmers, Ministry of Agriculture, NGOs, etc. Their incentives and motivations include: income generation, poverty reduction, desire to consume healthy food, access to urban markets, low start-up costs, and small number of external inputs.

The consumption aspect of Moringa concerns families, communities, NGOs, schools, etc. Their incentives and motivations include: improved health and nutrition, increased food security (availability, accessibility and utilization), and enhanced dietary diversity.

Activity IV. Assessing diet changes in projects aiming at increasing leafy vegetable consumption: examples, methods, results, constraints

This assessment is looking at diet changes

Methods:

Establish baseline data and conduct follow-up studies on dietary parameters. This can include information such as:

- moringa source (produced or purchased)
- specific Moringa consumption (how much per day or week?)
- general content and amount of daily diet (what do people eat?)

Community observations are also helpful and can include information such as:

- moringa markets and prices
- supply and demand of Moringa products
- existence of Moringa orchards and/or trees

Results:

Measuring baseline data against follow-up surveys provides the ability to determine impact. If this shows a dietary improvement, it can encourage the communities as well as those implementing the project. It also provides a way to tell if the activities are achieving the desired results or if a different approach should be selected.

Constraints:

- Obtaining accurate data (including causal connections such as: did the project trainings affect a dietary change or was it caused by a drought?)
- Cultural sensitivities (gender issues, phrasing questions, etc.)
- Current dietary and food preparation practices (such as throwing out cooking water)
- Community and project biases

Activity V. Assessing the change in nutritional status of the target groups: examples, methods, results, constraints

This assessment is looking at nutritional status

Methods:

Establish baseline data and conduct follow-up studies on nutritional parameters. This can include information such as:

- anthropometric measures (weight, height, age, upper arm circumference, etc)
- general clinical assessment (mucus membranes, skin, hair, oedema, dehydration, etc)
- frequency of various ailments (headaches, malaria, diarrhea, stomach problems, etc)

Results:

Measuring baseline data against follow-up surveys provides the ability to determine impact. If this shows a nutritional improvement, it can encourage the communities as well as those implementing the project. Also, documented results can be submitted to Moringa News and augment the database.

Constraints:

- Obtaining accurate data (including causal connections such as: did the Moringa improve the nutrition or was it because they simply fed the child 3 times a day?)
- Cultural sensitivities (gender issues, phrasing questions, etc.)
- Current dietary and food preparation practices (such as throwing out cooking water)
- Community and project biases

Result I: Guidelines for project development: diagnostic, implementation, assessment

Diagnostic (Activity I)

- Identify target group

- Conduct baseline studies and determine type of malnutrition
- Determine if Moringa is appropriate

Implementation (Activities II & III)

- Advocacy
- Development of promotional and training materials
- Information dissemination
- Take into account incentives and motivations for each group

Assessment (Activities IV & V)

- Establish baseline data and conduct follow-up surveys
- Be prepared for potential constraints

Result II: Description of the best practical tools already tested

Ideas for promotional and training tools include:

- flip charts, posters, calendars, T-shirts, etc
- cooking demonstrations, peer education, recipes & special event recipes
- tv, radio, skits, and other media events
- importance of involving appropriate government ministries or other agencies
- importance of using Moringa yourself so you can speak from personal experience

Result III: List of contacts able to provide materials and methods for projects

MoringaNews network (www.moringanews.org)

MoringaNews Member Database

Trees for Life (www.treesforlife.org)

AVRDC (www.avrdc.org)

ECHO (www.echonet.org)

Please help us complete this list and keep it updated!