



Manage Nutritional Problems in Mothers and Children

NTQF Level III

Learning Guide # 2

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| Unit of Competence | Manage Nutritional Problems in Mothers and Children |
| Module Title: | Managing Nutritional Problems in Mothers and Children |
| LG Code: | HLT MDW3 M09 LO02-02 |
| TTLM Code: | HLT MDW3 TTLM 0919v1 |

LO 2: Provide basic nutrition information/ education to the clients



This learning guide is developed to provide you the necessary information regarding the following **content coverage** and topics:

- Obtaining client education from assessment data
- Basic educational materials and products
- Nutrition Education
- Nutrition information system
- Consultation with the community on nutrition

This guide will also assist you to attain the learning outcome stated in the cover page.

Specifically, **upon completion of this Learning Guide, you will be able to:**

- Obtain client education requirements from community assessment or collected data.
- Gather basic educational materials and products according to the directions of the nutrition guideline.
- Consult the community about the appropriateness of cultural practices of nutrition and convenience of time for participation.
- Confirm the purpose of the information/education based on the nutrition national guideline
- Provide practical nutritional education to support meal and food choices consistent with nutrition care plan.
- Provide report of plan implementation to Woreda health office.
- Monitor clients according to nutrition care plan, using appropriate monitoring/reporting formats.
- Identify and carry out client deviations from the nutrition care Plan and appropriate course of action.

Learning Instructions:

1. Read the specific objectives of this Learning Guide.
2. Follow the instructions described below 3 to 6.



3. Read the information written in the information “Sheet 1 and Sheet 2
4. Accomplish the “Self-check 1, Self-check 2, Self-check 3, Self-check 4 and Self-check 5 in **page 5, 8, 14, 22 and 33 respectively.**



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| Information sheet 1 | Obtaining client education from assessment data |
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1.1. Target of clients who need nutrition education

May include infants, children, adolescents, mothers, aged people, people with disabilities, people with physical or mental illness

Why those are targets for nutrition education?

- **Infants:** most of the time if an infant do not take exclusive breast feeding for six months and do not start supplementary feeding after 6 months of age it is prone to malnutrition. Optimal feeding of an infant is critical to break the cycle of malnutrition from generation to generation. Breast feeding is recognized as being the most important window of opportunity for establishing healthy growth. Infant and child feeding practices are major determinants of the risk of malnutrition.
- **Children:** Need breast milk until they are at least two years old. They need at least three mixed meals and two snacks each day. They cannot eat large bulky meals. It is especially important for the meals to be clean and not to contain parasites or microorganisms that could cause diarrhoea or other infection. Feeding status during children is the determinant for physical, mental and reproductive growth of a person. This age group is where schooling is initiated so that proper nutrition is very important in school. If children do not feed property they will have week academic performance.
- **Adolescents:** Adolescents undergo a very rapid growth during their puberty (called the pubertal growth spurt). During the pubertal growth spurt, they increase rapidly both in weight and height. Therefore, they need a nutrient intake that is proportional with their rate of growth.
- **Mothers:** Due to pregnancy and child birth mothers have high requirements of energy, protein, essential fatty acids, vitamins and minerals. During pregnancy and after child birth a mother should need one and two extra meals respectively. The health of the mother and the growing fetus is related with the nutrition that the mother takes.



- **Aged people:** people at this age group faces possible nutritional issues in old age like problems of procuring and preparing foods, psychosocial problems, digestion problems, nutrient absorption problems renal changes memory loss (senile dementia), which may include forgetting to eat sensory changes physical problems like weakness, gouty arthritis and painful joints. People at this age group need at least two and if possible more meals each day as they may not eat much at each meal. They need fewer calories than younger people, but about the same amount of protein and other nutrients. Women who have stopped menstruating need less iron than childbearing women. Old people may need soft food.
- **People with disabilities:** People who have physical disabilities may face problems of finance to purchase food, preparing foods, psychosocial problems and physical problems like disabilities and weakness. People with physical problem need the same amount and content food as healthy people so attention to people with physical problems is mandatory to increase their productivity and weakness.
- **People with physical or mental illness: During illness people need more nutrition for fast recovery and to fight against the infective agents. Prevent and seek early treatment of infections and manage symptoms through diet is mandatory.** Illness affects food intake, digestion, absorption, and utilization, and poor nutrition reduces the ability to fight infection. Some symptoms of illness can be managed through diet. People with mental illness face problems of preparing foods, memory loss (senile dementia), which may include forgetting to eat sensory changes. There for people who have mental illness needs a close family who help them to get adequate nutrition.

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| Self-check 1 | Written test |
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Choose the Correct Answer for the Following Multiple Choose Questions (each 2 point 2x2= 4%)

1. Which is the target of nutrition education?
 - A. Infant
 - B. Women



- C. Aged people
 - D. People with disabilities
 - E. All
2. Which client have a problem of procuring and preparing foods, psychosocial problems, digestion problems, nutrient absorption problems renal changes memory loss (senile dementia), which may include forgetting to eat sensory changes physical problems like weakness, gouty arthritis and painful joints.
- A. Adolescents
 - B. Aged people
 - C. People with disabilities
 - D. People with physical or mental illness

Note: Satisfactory rating - 2 points

Unsatisfactory - below 2 points

Answer Sheet

1. _____

2. _____

Score= _____

Rating = _____

Name: _____

Date: _____



2.1. Basic education materials and products

Education materials include all materials that are used as teaching aids to support the communication process and bring desired effects on the audience. These are important aids needed to make easy or facilitate the nutrition education process. And they can be;

- **Leaf lets:** these teaching materials are prepared with a simple language containing both short sentences and illustrations (pictures or simple drawings). Leaflets are more appropriate for those who can read. Some people are too shy to ask an advice so that they simply pick-up a leaflet and read it. Leaflets are also important to give instruction how food is prepared. Although, they need educational experience written words have the advantage to be distributed to the audience so that they read and understand them at their convenient times.
- **Food models:** Food models are proven teaching aids made from plastic. Helps clients learn to choose great food and healthy portions.eg food model containing food samples for diabetic patients, grains, vegetables, fruits, dairy and protein. The food model should possess the color of the food for example green color for vegetables.
- **Charts** A chart is made up of a small number of posters that are meant to be shown one after the other. In this way, several steps or aspects of a central topic can be presented such as about balanced diet. When you use the flip chart in nutrition education you must discuss each page completely before you turn to the next and then make sure that everyone understands each message.
- **Posters** A poster is a large sheet of paper with words and pictures or symbols that put across a message. It is widely used by commercial firms for advertising products, but can also be used for nutrition education. Since a poster consists of pictures or symbols and words, **it**



communicates nutrition messages both to literate and illiterate people. They should be posted where many people can see them when passing by - market areas, meeting halls, etc.

Purpose of posters

- ✓ To give information and advice
- ✓ To give directions and instructions (prevention strategies)
- ✓ To announce important events and programs e.g. World children's day

Standard rules in making posters

All words should be in the local language

- ✓ Words should be limited and simple
- ✓ Symbols that illiterate people will also understand should be used
- ✓ Mix of colors should be used to attract attention
- ✓ Only put one idea on a poster. If you have several ideas, use a chart
- ✓ The poster should encourage practice-action oriented messages
- ✓ It is better to use real-life pictures if possible.

General principles to use posters

- ✓ They should contain the name of the event/problem, date, time, and place
- ✓ They should be large enough to be seen from some distance;
- ✓ They could be used for small or larger groups
- ✓ Should be placed where many people are likely to pass
- ✓ Never use them before pre-testing

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| Self-check 2 | Written test |
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Choose the Correct Answer for the Following Multiple Choose Questions (each 2 point 2x2= 4%)

1. _____ are prepared with a simple language containing both short sentences and illustrations (pictures or simple drawings). Leaflets are more appropriate for those who can read.



- A. Leaf lets
 - B. Food model
 - C. Poster
 - D. Flip charts
2. Which is NOT the standard rule in making poster?
- A. Words should be limited and simple
 - B. Mix of colors should be used to attract attention
 - C. Several ideas can put on a poster
 - D. It is better to use real-life pictures if possible.

Note: Satisfactory rating - 2 points

Unsatisfactory - below 2 points

Answer Sheet

3. _____

4. _____

Score= _____

Rating = _____

Name: _____

Date: _____



3.1. Definition of terms

Nutrition Education: Is a “A program to promote better health by providing accurate and culturally sensitive nutrition, physical fitness, or health (as it relates to nutrition) information and instruction to participants, caregivers, or participants and caregivers in a group or individual setting overseen by a dietitian or individual of comparable expertise. Nutrition education topics shall be based on the needs of the participants and should be culturally appropriate.



Nutrition counseling: Is “the provision of individualized advice and guidance to individuals, who are at nutritional risk, because of their health or nutritional history, dietary intake, medication use, or chronic illness, about options and methods for improving nutritional status, performed by a health professional in accordance with state law and policy.” Nutritional counseling is a two-way interaction through which a client and a trained counselor interpret the results of nutrition assessment, identify individual nutrition needs and goals, discuss ways to meet those goals, and agree on next steps. Nutrition counseling aims to help clients understand important information about their health and focuses on practical actions to address nutrition needs, as well as the benefits of behavior change. Nutrition counselors may be nurses or other facility-based providers or community health workers or volunteers.



Based on the results of nutrition assessment, health care providers can educate and counsel clients on the importance of nutrition and ways to gain or lose weight, strengthen immunity, manage symptoms of illness and address other identified needs.

3.2. Purpose of nutrition Education

Well-formulated and efficiently recognized nutrition education;

- Helps to support the client to make healthy choices at home
- Helps to have information, facts and skillfulness to make healthy food choices in the perspective of their way of life and economic sources.
- An important way of healthy eating, build good life long habits and struggle against the problems of obesity, under-nutrition, over-nutrition, and malnutrition;
- To identifying the problems that are associated with diet and nutrition and the good effects of a healthy well balanced diet.
- Will able to consume children a healthy and a well-balanced diet then they will be able to concentrate upon their studies and learn effectively.

3.3. What makes counseling effective?

Optimal counseling contributes to successful health and nutrition outcomes. Ideally, counseling should be done in a place where the client feels comfortable and has privacy. This may be more challenging in a busy health facility than in a community setting, but adjustments can be made to improve the situation.



Ethical principles for nutrition counseling

Upholding ethical standards is also essential for effective counseling.

1. **Provide accurate information.** Clients should be able to trust that counselors' words and actions are truthful and reliable.
2. **Keep client information confidential.** Clients need to know that counselors will keep their information confidential except as needed for their treatment or recovery.
3. **Respect clients' autonomy.** Clients have the right to make their own decisions without coercion.
4. **Keep clients' interests in mind.** Advise them based on professional assessment and offer alternatives if you cannot help them.
5. **Do no harm.** Avoid any interventions that could harm or exploit clients emotionally, financially, or medically.
6. **Be fair.** Treat all clients fairly and without discrimination. Respect clients' rights, dignity, and individual difference

The foundation of effective counseling is asking questions about the client's symptoms and situation to be able to give appropriate information and support the client to make healthy choices at home. Just telling people what to do does not mean that they will do it, because knowledge is not enough to change behavior.

Counselors need to know not only what messages are appropriate, but also how to prioritize those messages depending on clients' needs and how to deliver them effectively in a short time. This requires practice and experience. Different mnemonic devices have been developed to help counselors remember the steps in counseling and guide sound technique. These can also be used during training role-plays and supervision and mentoring visits.

Tips for Effective Nutrition Counseling

- Do more listening than talking.
- Ask open-ended questions, not just questions clients can answer with "yes" or "no."



- Repeat what clients say to make sure you understood them correctly.
- Show interest in and empathy for clients' problems and situations.
- Avoid judging clients.
- Listen to what clients think and respect their feelings, even if information may need correction.
- Recognize and praise what clients are doing correctly.
- Suggest actions that are possible for clients given their situations.
- Give only a little bit of information at a time.
- Use simple language.
- Give suggestions, not commands.

GALIDRAA approach to counseling

GALIDRAA has proven effective in many settings and captures the essential elements of effective counseling interactions.

GALIDRAA

- **G**reet the client. Ask him or her to sit down and then exchange introductions to establish a comfortable atmosphere.
- **A**sk the client about his or her situation and current practices using open-ended questions and familiar language.
- **L**isten to what the client and/or caregiver says. Notice body language, use probing questions, and reflect back what the client says to make sure you understand it correctly.
- **I**dentify the client's key problems and help select the most important ones to address.
- **D**iscuss options, considering what is realistic and using visual materials to engage the client and/or caregiver in discussion.
- **R**ecommend and negotiate a small, doable action, explaining the rationale and benefits.
- Ask the client to repeat what he or she understood from the discussion and what action he or she **A**grees to try at home.



- Make a follow-up Appointment and ask the client to repeat the date.

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| Self-check 3 | Written test |
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Part I. Say “True” if the statement is Correct or “False” if the Statement is Incorrect (each 2 point 2X2=4% incorrect

1. Well-formulated and efficiently recognized nutrition education helps to support the client to make healthy choices at home
2. Optimal counseling contributes to successful health and nutrition outcomes.

Part II. Choose the Correct Answer for the Following Multiple Choose Questions (each 2 point 2x2= 4%)

1. Which is NOT the characteristics tips for effective nutrition counseling?
 - A. Do more talking listening than talking
 - B. Avoid judging clients
 - C. Recognize and praise what clients are doing correctly
 - D. Give suggestions, not commands.
2. During nutrition counseling if clients make decisions with coercion, which ethical principle of nutrition counseling is violated?
 - A. Provide accurate information.
 - B. Keep client information confidential.
 - C. Respect clients’ autonomy.
 - D. Keep clients’ interests in mind.

Note: Satisfactory rating - 4 points

Unsatisfactory - below 4 points

Answer sheet True or False

1. _____

2. _____

Answer Sheet Multiple choose Questions

1. _____

2. _____



Score= _____

Rating = _____

Name: _____

Date: _____



4.1. Definition and features of Nutritional Information system (NIS)

Nutrition Information system (NIS) is a system of continuous collection, analysis and interpretation of nutrition-related data for making timely and effective decisions to improve the nutritional health of the population. Any good NIS will consist of the following features:

- The ability to detect and prevent malnutrition epidemics during times of insecurity
- The ability to collect and process information easily so that information can be available promptly to various levels of government administration and the local community for making policy decisions and developing intervention programmes
- As far as possible, it uses data and information already available from the routine service returns at the local level
- It is designed so that the information can be collected and processed by frontline health workers in the community.
- It serves as a monitoring mechanism for higher level government administrators (regional and federal levels) so that information can be communicated to them timely way without creating additional reporting arrangements.

The NIS facilitates prompt action and should be able to show trends (situations over a period of time) in nutrition in the country. The NIS has to function as a timely warning and intervention system (TWIS) and a system for linking problem-prone areas (community, woreda, regional and federal levels), with higher authorities at woreda and federal levels. It should also provide indicators that can serve as early detection mechanisms together with data of food crises from other sectors. Finally, an effective NIS should guide prompt action to cope with deterioration of the nutritional status of vulnerable people in the population, particularly among poor households, as well as children and mothers.

The NIS is aimed primarily at using data generated by the different programmes to help the decision-making process for mobilizing resources in a targeted and appropriate way.



The data generated by the system used together with other early warning signs diagnosed by the agricultural and other relevant sectors on food shortages or problems, in order to hasten timely interventions at all levels. The data generated from work (for example, the weight of infants) is part of the overall information system and therefore has vital importance in helping to address nutrition problems.

Data on different forms of malnutrition is essential to track the trends and variation of the nutritional status of a vulnerable population over time. It helps in assessment of the impact of the community-based nutrition interventions

Information is therefore needed for effective decision making. To enable managers to make effective decisions, the information collected needs to be accurate, relevant and communicated in a timely way.

Reliable information generated from the routine services can help to plan essential interventions at the community level. For example; using information about your community's needs to access important supplies including vitamin A capsules, de-worming tablets and bed nets.

4.2. Objectives of the NIS

A major objective of the NIS is to use nutrition data to support timely warnings for short-term prevention, preparedness and response. One aim is to increase the use of data generated from routine community based nutrition interventions, and link these data to an early warning system (EWS) at woreda and regional levels for early warning purposes.

The following are additional key objectives of the NIS in Ethiopia:

- To support timely warnings of possible household food insecurity
- To provide accurate and reliable information on trends
- To provide inputs into management decisions, planning and monitoring of nutrition programmes.

4.3. Why Ethiopia has an NIS



Ethiopia is one of the most disaster-prone countries in the world. Famines and food shortages brought on by drought have been a major problem through the years, and to a lesser extent there have also been problems triggered by flood, pests and livestock diseases. The recorded history of famine and food shortages in the country goes back hundreds of years, with considerable loss of human life and the destruction of property. In addition to climate, the roots of Ethiopia's vulnerability to disaster are in its subsistence economy. About 80% of the population remain subsistence farmers, with another 10% being pastoral nomads.

Currently, the food and nutrition information system is being compiled, analyzed and used for decision-making by the Disaster Risk Management and Food Security Sector (DRMFSS). The creation of the DRMFSS has created a capacity for prior awareness of the need for disaster preparedness, encompassing, among other things, the ability to provide advance warnings and to develop response mechanisms based on an effective early decision making system.

However, despite the high prevalence of under nutrition and the history of nutrition crises in Ethiopia, nutrition indicators that can be used for effective decision-making are not routinely reviewed for early warning. To fill this information gap, using selected nutrition indicators from routine health programmes is a practical alternative.

4.4. Critical indicators and data sources for the NIS in Ethiopia

The following basic information is needed in order to track the nutrition situation in Ethiopia:

- Micronutrient coverage (vitamin A, iodine, iron)
- Growth of children under two years (growth monitoring coverage)
- Prevalence of acute malnutrition (severe acute malnutrition and moderate acute malnutrition)
- Birth weight
- Maternal nutritional status during pregnancy and lactation.

4.5. Sources of data for the NIS

Nutrition information can be generated from;



- Active surveillance activities one of the major disadvantages of an active data generation strategy is that it is very costly and it is difficult to develop uniform indicators that can detect progress in the common nutrition success indicators at national levels because the data from the active surveillance usually come from small studies which are not representative of the different regions.
- Data from the routine service records such as growth monitoring records. The data that are recorded and reported from routine nutrition activities, child health days and therapeutic feeding programmes could be used to generate uniform indicators for looking at trends in indicators of certain nutrition situations. This allows comparisons over time across all regions of the country (either by yearly or seasonal variation).

NIS provides a source of information (indicators) that will help create appropriate and effective solutions to address the nutritional needs in communities as long as data is recorded accurately and communicated in a timely way.

Indicators are useful for community programme planning to establish priorities for problems, set goals and formulate plans of action. Each village then can determine its requirements and plan for further action, based on the indicators generated, that will best address its particular nutritional needs.

4.6. The triple A cycle approach

The NIS should be a continuous (cyclic) process which is undertaken regularly using the principle of the triple A cycle used in community based nutrition (CBN). Information generated by the NIS can be used for decision making from your local community level to the national level. The triple A cycle has:

- An assessment aspect involving service generated data recording and timely reporting
- Analysis and interpretation of the data based on the national guidelines and procedure



- An action component which involves decision making and implementation using the information, which in turn will automatically be followed by another assessment.

This is illustrated in Figure 2.1. Which shows how each element of the cycle is connected to the other.

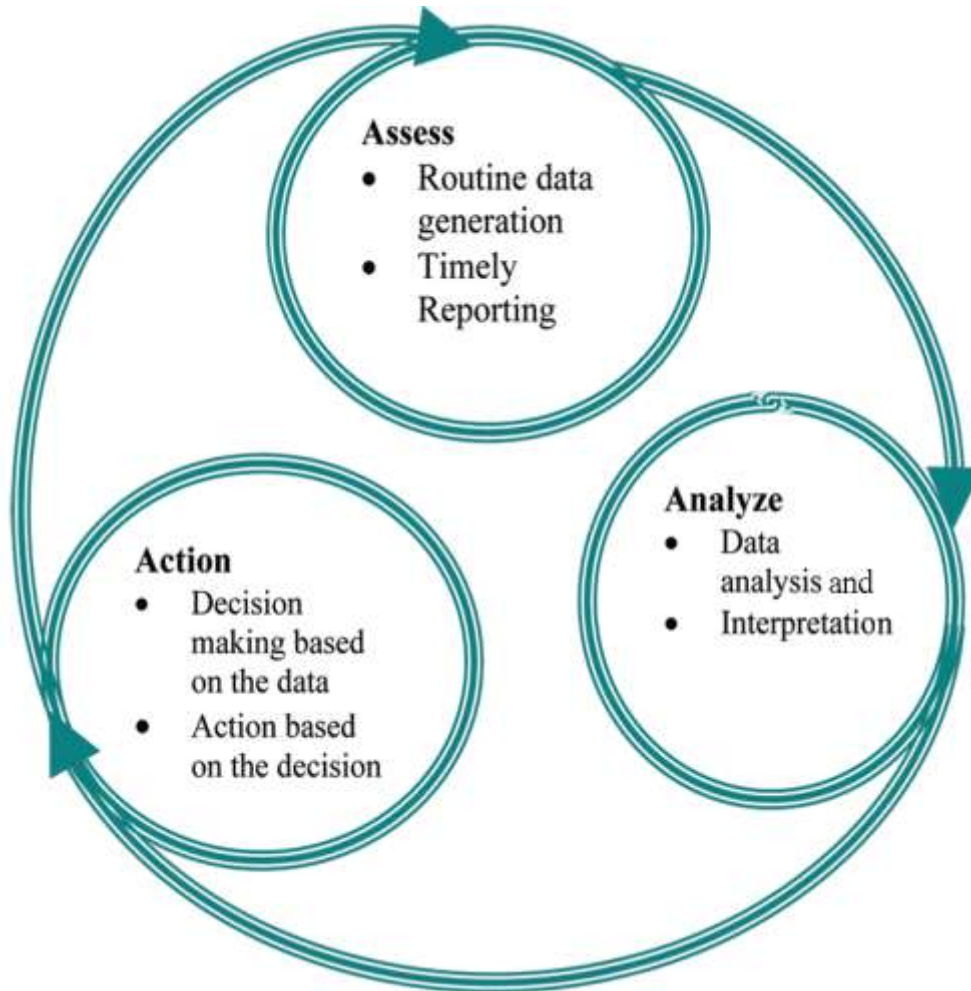


Figure 2.1. Using the triple A cycle in nutritional surveillance.

The data you record as part of routine programmes is a critical element of nutrition intervention programmes and therefore needs to be recorded accurately and reported in a timely way



Figure 2.2. Illustrates how data collection informs decision making through the different level, right up to the Federal Ministry of Health.

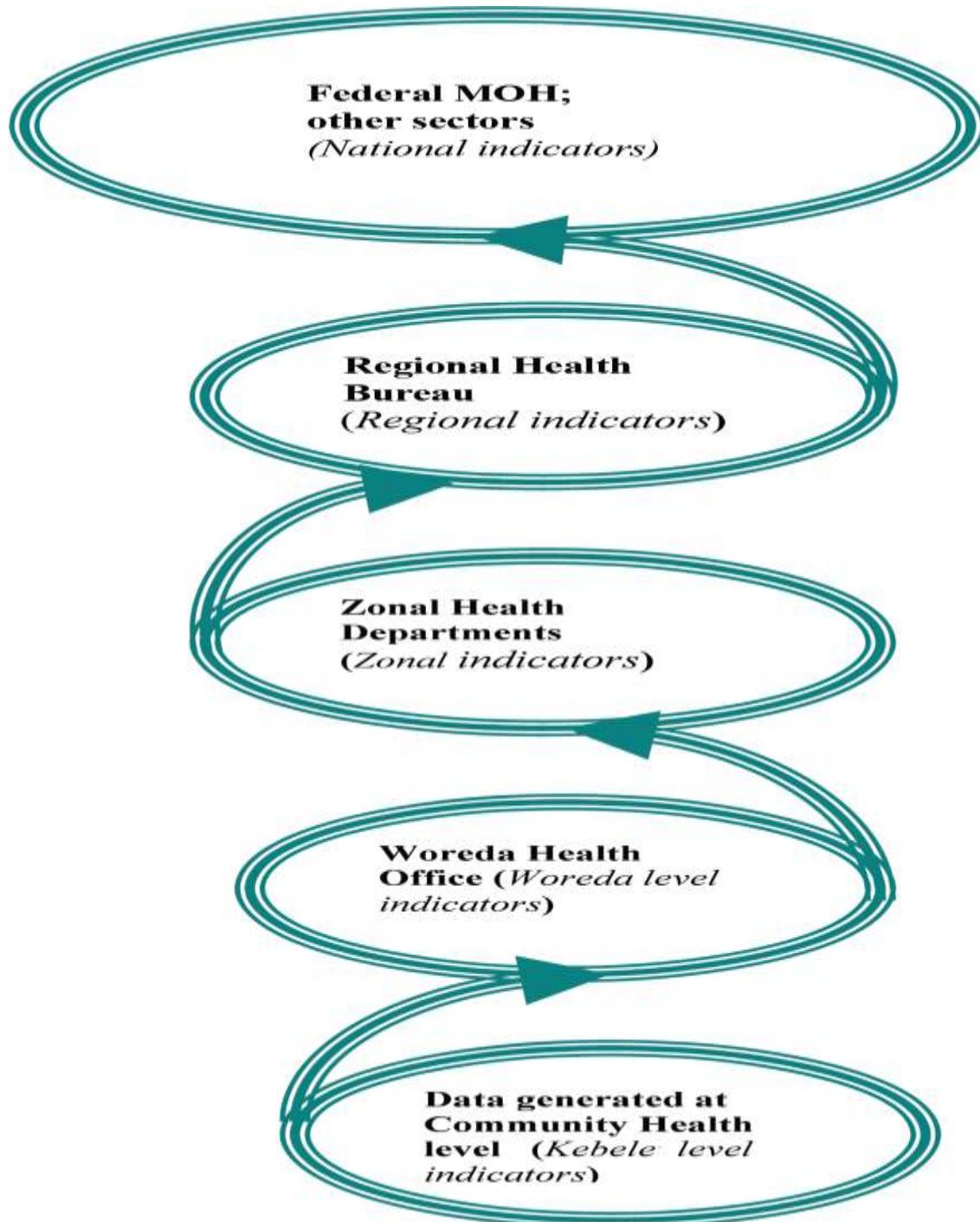


Figure 2.2. How local data informs national decision-making.



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| Self-check 4 | Written test |
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Say “True” if the statement is Correct or “False” if the Statement is Incorrect
(each 2 point 2X2=4% incorrect)

1. A major objective of the NIS is to use nutrition data to support timely warnings for short-term prevention, preparedness and response.
2. Nutrition information generated from active surveillance activities is not costly.

Note: Satisfactory rating - 2 points

Unsatisfactory - below 2 points

Answer sheet True or False

1. _____

2. _____

Score= _____

Rating = _____

Name: _____

Date: _____



5.1. Nutrition behaviour change communication

Nutrition behaviour change communication is a strategy that will be able to use to change nutrition related behaviours in the community to bring about practices that promote better health through optimal feeding practices and improved dietary habits. Nutrition behavior change communication (BCC) used to teach people about essential nutrition actions, most particularly optimal infant and young child feeding practices and the key messages in relation to these, and also to facilitate the adoption of healthy adult dietary styles.

The nutrition BCC activity will involve educating the community about a wide range of activities including horticultural activities, development of backyard fruit and vegetable gardens, and use of irrigation and water harvesting systems. Nutrition BCC can be done with individuals or with groups or communities.

Nutrition behaviour change communication in food-based approaches

It is not possible to address nutritional problems in a sustainable way through supplementation in the form of tablets or capsules. It would be too difficult to organize and the costs would be too high. Therefore, promotion of food-based approaches are important for you to use within the community. Horticultural activities and dietary diversification are both examples of important approaches, BCC should focus on the need for consumption of different varieties of foods. The intensification of horticultural activities needs to be supported by nutrition education. The people in the community should be encouraged to cultivate vegetable gardens as a source of nutritious food for their families.

In addition, BCC should focus on the importance of knowledgeable care for pregnant and lactating women, and for children during the first two years of life. This should give greater emphasis on changing behaviours in relation to:



- Cultural malpractice and beliefs in child feeding and weaning (complementary feeding process, exposure of children to sunlight, addressing issues relating to food faddism and food prejudices)
- Intra household mal-distribution of food (e.g. age bias, sex bias)
- Emotional deprivation and neglect of the child.

5.2. Counseling on diet

Below are general tips for dietary counseling.

1. Make specific recommendations. For example, when encouraging a caregiver to enrich a child's porridge, explain exactly how often and how much to feed.
2. Try to include portion sizes for specific nutrient-rich foods. Use examples or pictures of local measuring utensils to counsel on portion sizes.
3. Use pictures of food groups, with healthy foods divided into sections to show recommended daily consumption, to counsel on dietary diversity. Food groups are not the same in all countries, but in general, they include carbohydrates, protein, and micronutrients.
4. Demonstrate how to prepare or use foods whenever possible.

Severely malnourished people need treatment with ready-to-use therapeutic food (RUTF), but moderately malnourished people can improve their nutritional status by eating adequate amounts of a variety of locally available foods. The following is a list of dietary suggestions that can be used, as feasible, during nutrition counseling.

Counseling on how to increase energy intake

- Eat mashed bananas, baked bananas, sweet potatoes, nuts, or porridge enriched with oil and sugar. Add honey to staple foods.
- Add milk, cheese, or oil to foods.
- Fortify milk by adding 4 spoons (15 ml) of milk powder to 500 ml of milk. Stir well and keep in a cool place. Use full-fat milk powder if available instead of skim milk powder. Use this fortified milk in tea, on cereals, and in cooking.
- Add yogurt to soups, puddings, cereals, and drinks.



- Stir a beaten egg into porridge or mashed potatoes and cook for a few minutes more to cook the egg.
- Put nut paste, jam, butter/margarine, or tinned fish on bread.
- Eat nuts as a snack and put chopped nuts on food or add nut paste to food
- Eat foods rich in fat, such as avocado, fatty fish, coconut, oil, and fried foods, if tolerated.



Counseling on how to address moderate malnutrition

- Eat regular meals, even if you have been prescribed fortified blended food, which is meant to supplement the home diet.
- Eat not only cheap staple foods to provide energy and protein, but also foods from all food groups.
- Eat foods with essential fatty acids (fish and shellfish, oil, pumpkin seeds, sunflower seeds, and leafy vegetables).

Nutrition counseling for pregnancy

Healthy, well-nourished pregnant women should gain between 10 kg and 14 kg during pregnancy to increase the likelihood of delivering a full-term infant weighing at least 3.3



kg. Below are the recommended extra energy and protein requirements during pregnancy.

| Stage | Extra calories needed per day for pregnant adults and adolescents | Extra protein needed per day | |
|------------------|---|------------------------------|---|
| | | Pregnant adults | Pregnant Adolescents |
| Second trimester | 360kcal | 10 g | 1.5g of extra protein per kg of pregnancy body weight |
| Third trimester | 475kcal | 10 g | |

Counseling on infant and young child feeding (IYCF)

Inadequate feeding, care, and hygiene practices cause malnutrition in children.

Breastfeeding is the most effective preventive public health intervention for child survival and has the potential to prevent 13% of all deaths in children under 5 in the developing world. The benefits of breastfeeding are listed below.

1. Breast milk provides all the food and water an infant needs for the first 6 months of life.
2. Breast milk is completely hygienic and contains antibodies that protect infants from disease.
3. Its composition adjusts to serve the special needs of pre-term infants, newborns, and older infants.
4. Breast milk includes fatty acids absent in formula or animal milks that are important in brain development.
5. Breastfeeding promotes mother-child bonding and psychosocial development.
6. A breastfed infant has lower risks of illness and death from diarrheal disease and pneumonia, reduced incidence of allergies and otitis media (ear infections), and in later life, reduced incidence of overweight, obesity, and some chronic diseases.
7. There is evidence that exclusive breastfeeding improves children's performance on intelligence tests.
8. For mothers, early initiation of breastfeeding helps contract the uterus and expel the placenta and reduces postpartum bleeding.



9. Exclusive breastfeeding delays the return of menstruation, helping mothers recover iron stores and acting as a natural form of birth spacing.
10. Women who breastfeed have lower rates of premenopausal breast and ovarian cancers.
11. It is cost effective; it doesn't require any expenses for supplies and fuels
12. It is readily available

The WHO recommends exclusive and continued breastfeeding for the first six months of age.

Complementary feeding should begin when infants reach the age of 6 months. They should be offered semi-solid foods and gradually introduced to the regular family diet by the age of about 1 year, with continued breastfeeding until they are around 2 years or older. Below are counseling messages on complementary feeding.

- Feed foods from all food groups in each meal, not only starchy foods. Try different combinations, tastes, and textures if children refuse foods. Young children have small stomachs so they should eat small, frequent meals. When children are 9 to 24 months of age, feed three or four main meals (one meal = 1 cup) and two nutritious snacks between meals, in addition to milk. As children get older, increase the quantity of foods.
- Feed finely flaked fish, eggs, beans, ground-up nuts, finely sliced meat, or other soft and easily digestible foods from the family pot.
- Feed mashed fruits and vegetables such as ripe banana, papaya, avocado, and pumpkin as often as possible.
- Add 1–2 teaspoons of oil, butter, margarine, milk, or groundnuts/sesame paste to each cup of food to increase nutrient and energy intake.
- For snacks give finger foods (foods children can pick up easily), such as sliced fruit or bread with butter.
- Give children who are not receiving breast milk or animal foods a vitamin and mineral supplement.



- Give children boiled or treated water to drink after they eat, even if they are still breastfeeding.
- Do not feed children sugary drinks such as sodas and processed juices.
- Do not feed spicy foods, which may make children afraid to try other nutritious foods.
- Feed responsively (notice children's hunger signs, show love and care, talk to the children, and make eye contact).
- Feed slowly and patiently, encouraging but not forcing children to eat.
- Avoid distractions during meals so children don't lose interest in eating.

Counseling on IYCF for children who are ill

Sick children may not seem to have an appetite, but they need to eat to get enough nutrients to make up for losses from diarrhea, vomiting, and reduction in intake and to strengthen their immune systems. Below are nutrition counseling messages for caregivers of sick children.

- If the child is breastfed, continue to breastfeed when the child is sick or breastfeed more often.
- Be extra patient in encouraging the child to eat and making the child comfortable.
- Feed a variety of foods that are rich in nutrients, such as fruits, and rich in energy, such as enriched porridge.
- Feed foods that the child likes.
- Feed small meals often.
- Pay attention to the child and make feeding time happy.
- After illness, appetite usually increases. Feed extra food to help the child regain lost weight and possibly speed up catch-up growth. Either breastfeed the child more often or, if the child is older than 6 months, give food more often than usual and include an extra meal.
- Feed fruits and foods with extra energy and/or nutrients such as enriched porridge.
- Give the child extra fluids (if the child is not breastfeeding exclusively) and make sure drinking water is boiled and treated.

Counseling HIV-positive mothers on IYCF



National prevention of mother-to-child transmission (PMTCT) guidelines should be followed when counseling HIV-positive mothers on infant feeding. WHO global guidance includes the following messages:

1. Mothers of HIV-positive infants should breastfeed exclusively for 6 months, then begin complementary feeding and continue breastfeeding along with complementary foods up to 24 months of age and beyond.
2. Mothers of infants who are HIV negative or of unknown HIV status should breastfeed exclusively for the first 6 months, then introduce complementary foods and continue to breastfeed for the first 12 months. They should stop breastfeeding gradually, over 1 month, only when they can provide their infants with a nutritionally adequate and safe diet without breast milk.

Nutrition counseling for people who are ill

Infections and diseases can reduce appetite, decrease nutrient absorption, and make the body use nutrients faster than usual, for example, to repair the immune system.

Nutrition counseling for people with infectious diseases

Nutrition counseling complements clinical care for clients with chronic infectious diseases. Nutrition therapy is part of treatment guidelines for people with HIV and tuberculosis (TB). People with chronic infectious diseases can be counseled to manage symptoms of illness through diet.

Counseling for optimal nutritional status is a critical component of care for people living with HIV, who often lose weight progressively and have poor nutritional status. Their reduced appetite cannot accommodate their increased energy needs caused by HIV and opportunistic infections. They also have impaired gastrointestinal function and increased metabolic rate. Poor nutritional status can have a negative effect on treatment outcomes and further depress immunity. Dietary counseling, along with treatment of malnutrition, may prevent wasting and alleviate some symptoms of the disease. Food-insecure people living with HIV may have difficulty adhering to treatment and require economic strengthening or food security support. Below are general nutrition counseling messages for people living with HIV.



1. Eat a variety of foods from all food groups every day.
2. Increase energy intake to meet the extra energy needs caused by HIV and opportunistic infections.

| Stage of HIV infection | Extra intake required per day |
|------------------------------------|---|
| Early, asymptomatic stage (adults) | 10% more energy (about 200–250 more kcal or one additional snack) |
| Late, symptomatic stage (adults) | 20–30% more energy (400–750 additional kcal or 2–3 additional snacks) |
| Symptomatic stage (children) | 50–100% more energy |

3. Take antiretroviral drugs (ARVs) as prescribed to stimulate appetite and help recover body mass and improve immune function. Skipping doses increases the viral load and lowers resistance to opportunistic infections.
4. Some ARVs should be taken with food, some without food, and some either with or without food to maximize their effectiveness and minimize negative side effects.

TB makes malnutrition worse, and malnutrition weakens immunity, increasing the likelihood that latent TB will develop into active disease. Like other infectious diseases, TB is likely to increase energy requirements, and most people with active TB lose weight. Co-morbidities of TB, such as HIV, diabetes, smoking, and alcohol or substance abuse, have their own nutritional implications. Below are messages for counseling people with TB on micronutrient supplements.

1. Consume recommended micronutrients through food or fortified foods or, if that is not possible, take micronutrient supplements to meet the recommended dietary allowance.
2. If you have been prescribed specialized food products to treat malnutrition, do not take multiple micronutrient supplements, which already contain the micronutrients you need.
3. If you are pregnant and have active TB, take the same antenatal micronutrient supplements—calcium, iron, and folic acid—as pregnant women without TB.



Nutrition counseling for people with non-communicable diseases

There is a rising global epidemic of non-communicable diseases (NCDs), including cardiovascular disease, stroke, hypertension, cancer, and metabolic diseases such as diabetes and obesity. It is projected that by 2030, NCDs will account for 46 percent of all deaths in sub-Saharan Africa. Nutrition therapy is part of treatment guidelines for cardiovascular disease, diabetes, hypertension, kidney disease, and chronic obstructive pulmonary disease (COPD). Nutrition counseling for people with NCDs should focus on the following recommendations:

1. Eat less sugar and avoid sugary drinks.
2. Avoid processed foods.
3. Eat plenty of fruits and vegetables to get needed vitamins and minerals.
4. Get regular exercise.
5. Eat more fiber from fruits, vegetables, whole grains, pulses, and nuts.
6. Eat fewer fatty and fried foods.

Counseling on water, sanitation, and hygiene (WASH)

Poor water, sanitation, and hygiene conditions are associated with disease and disability all over the world. Diarrheal diseases are the most common illnesses resulting from contaminated drinking water and food. Diarrhea is most often caused by gastrointestinal infections that kill around 2.2 million people each year, mainly children in developing countries. WHO estimates that contaminated food causes 230,000 deaths every year and that unsafe food causes more than 200 diseases ranging from diarrhea to cancer. Frequent diarrhea contributes to child stunting and is the second highest cause of illness and death in children under 5. Almost all diarrheal illnesses in developing countries can be attributed to unsafe water and inadequate sanitation and hygiene. Poor WASH practices may be responsible for up to one-half of underweight in women and children.

Children, pregnant women, the elderly, and people with compromised immune systems are especially vulnerable to food- and water-borne bacteria, viruses, and parasites. It is thought that poor hand washing, poor food hygiene and sanitation, and lack of clean drinking water contribute to child stunting by inducing a gut disorder called



environmental enteric dysfunction. Constant exposure to fecal matter ingested by mouth results in flattening of the villi (finger-like projections that protrude from the lining of the intestine). This limits the body's ability to absorb nutrients and increases exposure to microbes that lead to intestinal inflammation. These changes divert energy from growth to fight asymptomatic infection.

Unsafe food creates a vicious cycle of disease and under nutrition. People with diarrhea eat less and are less able to absorb nutrients from food. Malnourished people are more susceptible to diarrhea if they are exposed to fecal material from the environment. Purchased food may be contaminated by preparation or handling in unhygienic environments, and food that is prepared in the home may become contaminated if it is prepared with unsafe water or not cooked or reheated adequately.

Anemia is the most common nutritional deficiency in the world, caused by iron deficiency and infections related to WASH (malaria, hookworm, and schistosomiasis). Improving hygiene, sanitation, and water supply; controlling schistosomiasis and malaria; and deworming every 6 months with an appropriate broad-spectrum anthelmintic can help prevent anemia.

No water or food is 100 percent safe at all times for all people, but following a few simple practices can reduce the risk of water- and food-borne illness. A significant proportion of diarrheal diseases could be prevented by treating and storing drinking water correctly, washing hands with soap and flowing water, appropriate food hygiene, and using improved latrines.

Counseling on hand washing

1. Wash hands under flowing water with soap or ash.
2. Wash hands at five critical times:
 - Before preparing food
 - Before feeding another person (including breastfeeding) or eating
 - After using a toilet or latrine
 - After cleaning a baby's bottom
 - After cleaning up blood, vomit, urine, or feces



3. Air-dry hands (shake off the water) instead of drying them on a cloth or clothing that may be contaminated with germs.

Counseling on safe water treatment and storage

Simple, low-cost household water treatment can improve water quality and reduce diarrheal disease. Water can be treated in the home by chlorinating, filtering, boiling, or using solar ultraviolet water disinfection (SODIS). Some countries distribute basic care packages that include a water container, hypochlorite solution, a treated bed net for malaria prevention, and a bar of soap. This package could also include information on how and when to wash hands, how to build a water-saving hand washing device called a “tippy tap,” how to build a latrine, and how to manage feces safely.

Counseling on food safety

1. Wash hands with soap and flowing water before touching food.
2. Wash cooking utensils and store them in a clean place before using them.
3. Cook food until it is boiling or steaming throughout and all meat juices are clear.
4. Store food at room temperature for no more than 2 hours.
5. Reheat food until it is boiling or steaming throughout.
6. Store food at sufficiently low or high temperatures to prevent bacteria from multiplying.

To prioritize WASH messages, counselors can ask clients questions about how they treat and store drinking water, wash hands, and prepare and store food. Then they can focus on the most important behaviors (ones with the highest risk of contaminating food) that are feasible for clients to change.

| | |
|----------------------------|----------------------------|
| <u>Self-check 5</u> | <u>Written test</u> |
|----------------------------|----------------------------|

Part I. Say “True” if the statement is Correct or “False” if the Statement is Incorrect (each 2 point 2X2=4% incorrect

1. Food should not be stored for more than 2 hour at room temperature.
2. It is possible to address nutritional problems in a sustainable way through supplementation in the form of tablets or capsules.



Part II. Choose the Correct Answer for the Following Multiple Choose Questions
(each 2 point 2x2= 4%)

1. Breastfeeding has the potential to prevent all deaths in children under 5 in the developing world by _____%
 - A. 10%
 - B. 13%
 - C. 18%
 - D. 21%
2. Which is NOT the focus of nutrition counseling for people with non-communicable diseases (NCDs)?
 - A. Eat high sugar and sugary drinks.
 - B. Eat plenty of fruits and vegetables
 - C. Get regular exercise.
 - D. Eat fewer fatty and fried foods.

Note: Satisfactory rating – 4 point

Unsatisfactory below 4 point

Answer for True or False

1. _____

2. _____

Answer for Multiple choose

1. _____

2. _____

Score _____

Rating _____

Name _____ **Date** _____



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