

A User's Guide

MODULE 3. Nutrition Education and Counseling

MAY 2016 VERSION 2



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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 medication side effects, and address other identified needs.

What is nutrition education?

Nutrition education presents general information related to health and nutrition, often to groups in clinic waiting rooms or community settings. Educators may be trained counselors or health volunteers who deliver prepared talks on specific topics, often using visual aids. They should encourage clients to ask questions and direct them to additional information as needed.



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What is nutrition counseling?

Nutrition 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.



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What makes counseling effective?



List of core counseling competencies

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. Counselors should be trained to understand and use support materials such as flipcharts, counseling cards, take-home brochures, data collection forms, and referral forms effectively.

Ethical principles for 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.¹

¹ Adapted from Corey, G. and Callanan, P. 2011. *Issues and Ethics in the Helping Professions*. 8th edition. Fullerton, CA: California State University; Welfel, E.R. 2010. *Ethics in Counseling and Psychotherapy: Standards, Research and Emerging Issues*. 4th edition. Pacific Grove, CA: Brooks/Cole.

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 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.

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GALIDRAA approach to counseling

GALIDRAA has proven effective in many settings and captures the essential elements of effective counseling interactions. It can be adapted as needed for other languages.



The **GATHER**
counseling
approach



Checklist of
recommended
counseling
techniques



GALIDRAA

Greet the client. Ask him or her to sit down and then exchange introductions to establish a comfortable atmosphere.

Ask the client about his or her situation and current practices using open-ended questions and familiar language.

Listen 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.

Identify the client's key problems and help select the most important ones to address.

Discuss options, considering what is realistic and using visual materials to engage the client and/or caregiver in discussion.

Recommend 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 **A**ppointment and ask the client to repeat the date.

The graphic below shows best practices for effective counseling. It can be used as a handy job aid to help counselors follow the essential steps in a counseling session.



To test which behaviors recommended in counseling are acceptable and feasible, counselors can give clients a choice of recommendations, ask them which action they can carry out given their situation, and follow up to find out whether they tried the new practice or modified it and how they felt it worked.

What is a nutrition care plan?

After discussing the results of a client's nutrition assessment and agreeing on one or two achievable goals to improve his or her nutritional status (other goals can be added later, after the first ones are reached), counselors should help the client make a nutrition care plan to achieve the goals, considering challenges the client might face. This can be kept in the client's file or given to the client to take back to the health facility on follow-up visits. Below is a sample nutrition care plan.

Nutrition care plan				
Name:				
Nutrition diagnosis				
Date	Goal	Actions	Evaluation (tick)	
			Goal met	Goal not met
	<i>Eat a variety of foods from all food groups.</i>	<i>Eat more animal-source foods, fruits, and vegetables.</i>		

What can nutrition counseling focus on?

The causes of malnutrition are directly related to inadequate dietary intake and disease but indirectly related to many other factors, including child care and feeding, sanitation, and hygiene. Counseling should address these various factors to result in sustainable change. This section presents guidance on the content of nutrition counseling.

The Essential Nutrition Actions

In 1997, the USAID-funded Basic Support for Institutionalizing Child Survival (BASICS) Project developed a "Minimum Package for Nutrition" that was adopted by the World Health Organization (WHO) and UNICEF in 1999 as "Nutrition Essentials" and later renamed the Essential Nutrition Actions (ENA). Organized by a life-cycle approach, the ENA were affordable and effective interventions to improve the nutritional status of women and children and a framework for program actions to deliver nutrition services and messages on:

1. Exclusive breastfeeding for 6 months
2. Adequate complementary feeding starting at 6 months with continued breastfeeding for 2 years
3. Appropriate nutrition care of sick and malnourished children
4. Adequate intake of vitamin A for women and children
5. Adequate intake of iron for women and children
6. Adequate intake of iodine by all household members





WHO guide on Essential Nutrition Actions



Summary of WHO's Essential Nutrition Actions

Implementation of these and similar actions during the following decade showed that they could help improve health and reduce mortality among women, infants, and young children. The 2008 *Lancet* Series on Maternal and Child Undernutrition, updated in 2013, presented evidence that 10 effective, targeted nutrition interventions to address maternal and child undernutrition implemented at scale during the 1,000-day window of opportunity (pregnancy to a child's second birthday) could reduce mortality by 15 percent and stunting by over 20 percent in children under 5.² Based on these findings, WHO released a 2013 guide on proven actions to address those recommendations in the health sector.

The Critical Nutrition Actions

Along the lines of the ENA, nutritionists developed a set of Critical Nutrition Actions (CNA), originally for people living with HIV but later applied to adults with any infectious or chronic disease. The CNA messages (listed next) can be used in nutrition education and individual counseling.

1. **Get weighed regularly and have weight recorded.** Regular weight loss of more than 6 kg in 2 or 3 months indicates poor health or eating habits (or fast progression of HIV to AIDS in people living with HIV). Ideally, clients should be weighed on every visit. Weight should be recorded in clinic records and on cards given to clients to take home.
2. **Eat a variety of foods and increase your intake of nutritious foods.** Many diets are overbalanced in carbohydrates and do not contain enough protein and

fruits and vegetables. People with limited resources may not be able to eat three meals and two snacks a day, but they can be counseled to eat locally available and affordable foods from each food group to vary the diet and increase energy consumption.

3. **Drink plenty of boiled or treated water.** Drinking water removes toxins, including those caused by infection or medicines. Drinking unsafe water can cause infections such as diarrhea. All water used to drink, swallow medicines, and prepare juices should be filtered and boiled or treated with a point-of-use water treatment product (e.g., chlorine) in the form of a solution, tablet, or powder. Drinking water should be stored in a clean, covered container with a narrow neck to prevent contamination and poured rather than ladled out.
4. **Avoid habits that can lead to poor nutrition and poor health.** Alcohol interferes with nutrient digestion, absorption, storage, and utilization; limits the effectiveness of some drugs; and may work synergistically with HIV to promote microbial translocation and immune activation.³ Smoking interferes with appetite, increases the risk of cancer and respiratory infections, and can reduce T-cell function, accelerating the progression of HIV to AIDS.⁴ Junk food, which has little nutritional value, can be harmful to health and is a poor use of limited income. Unsafe sex increases the risk of sexually transmitted infections.

² Bhutta, Z.A., et al. 2013. "Evidence-Based Interventions for Improvement of Maternal and Child Nutrition: What Can Be Done and at What Cost?" *The Lancet*. Vol. 382, pp. 452–77.

³ Freiberg, M.S. and Kraemer, K.L. 2010. "Focus on the Heart: Alcohol Consumption, HIV Infection, and Cardiovascular Disease." *Alcohol Research & Health*. Vol. 33, pp. 237–46.

⁴ Valianatan, R. et al. 2014. "Tobacco Smoking Increases Immune Activation and Impairs T-Cell Function in HIV Infected Patients on Antiretrovirals: A Cross-Sectional Pilot Study." *PLOS One*. DOI: 10.1371/journal.pone.0097698.

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FANTA Brief:
Improving
Household Food
Hygiene in a
Development
Context

5. **Maintain good hygiene and sanitation.** Food- or water-borne infections affect digestion and absorption of food and remove essential nutrients from the body. Proper handwashing, treatment and safe storage of drinking water, appropriate food hygiene, and sanitary disposal of feces can significantly reduce the transmission of pathogens that cause diarrhea.
6. **Get exercise whenever physically possible.** Regular physical activity—even walking, climbing stairs, or doing household chores—builds and strengthens muscles, increases appetite, helps manage stress, and improves health and alertness.
7. **Prevent and seek early treatment of infections and manage symptoms through diet.** 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.
8. **Take medicines as prescribed and manage side effects and medicine-food interactions through diet.** Not taking medicines as prescribed may cause resistance. Some traditional medicines can interfere with the effectiveness of other drugs, have side effects, or be ineffective themselves (despite claims).

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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.



**Example of a
counseling card
on eating a
balanced diet**

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. Do not eat raw eggs.
- 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.
- Eat fermented and germinated (sprouted) foods.

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).



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Nutrition counseling for pregnancy



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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.⁵ Below are the recommended extra energy and protein requirements during pregnancy.⁶

Stage	Extra calories needed per day for pregnant adults and adolescents	Extra protein needed per day	
		Pregnant adults	Pregnant adolescents
Second trimester	360 kcal (1.5 megajoules [MJ])	10 g	1.5 g of extra protein per kg of pregnancy body weight
Third trimester	475 kcal (2.0 MJ)	31 g	

Recommendations on how much weight women should gain during pregnancy vary greatly. In 2009, the Institute of Medicine of the U.S. National Academy of Sciences published revised gestational weight gain guidelines based on pre-pregnancy body mass index (BMI) ranges recommended by WHO. However, the guidelines are based on data from Western countries and have been questioned for their appropriateness across other populations. Research is needed to further refine the recommendations for gestational weight gain.

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 percent of all deaths in children under 5 in the developing world.⁷ 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.



Photo credit: Wendy Hammond, FHI 360/FANTA



Brochure on maternal nutrition during pregnancy and breastfeeding that can be used for counseling in Africa

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⁵ FAO. 2001. *Human Energy Requirements. Report of a Joint FAO/WHO/UNU Expert Consultation. Rome, 17–24 October.* Food and Nutrition Technical Report Series.

⁶ WHO. 2007. *Protein and Amino Acid Requirements in Human Nutrition. Report of a Joint WHO/FAO/UNU Expert Consultation.* WHO Technical Report Series 935.

⁷ Black, R.E. et al. 2008. "Maternal and Child Undernutrition: Global and Regional Exposures and Health Consequences." *The Lancet*. Vol. 371, No. 9608, pp. 243–260.



Brochure on how to breastfeed that can be used for counseling in Africa

7. There is evidence that exclusive breastfeeding improves children's performance on intelligence tests.⁸
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.⁹
10. Women who breastfeed have lower rates of premenopausal breast and ovarian cancers.

The 2003 WHO/UNICEF Global Strategy for Infant and Young Child Feeding calls for giving caregivers “access to objective, consistent, and complete information, free from commercial influence. In particular, they need to know about the recommended period of exclusive and continued breastfeeding; timing of introduction of complementary food; what types of food to give, how much and how often; and how often to feed these foods safely.”¹⁰

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, pawpaw, 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.
- Feed fermented, germinated, or fortified products.
- For snacks give finger foods (foods children can pick up easily), such as sliced fruit or bread with butter.



Summary of guiding principles for complementary feeding of the breastfed child

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⁸ WHO. 2015. “10 Facts on Breastfeeding.”

⁹ The three criteria for the lactational amenorrhea method (LAM) are 1) the mother's menses have not returned since her baby was born, 2) she exclusively breastfeeds her baby, and 3) the baby is younger than 6 months. (World Alliance for Breastfeeding Action. “LAM—The Lactational Amenorrhea Method.”)

¹⁰ WHO/UNICEF. 2003. *Global Strategy for Infant and Young Child Feeding*. Geneva: WHO, p. 12.



Brochure on complementary feeding that can be used for counseling in Africa



Counseling cards for IYCF that can be used in Africa



- 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.

WHO's *Complementary Feeding: Family Foods for Breastfed Children* contains recipes for balanced meals from four countries. Each meal meets at least one-third of children's energy, protein, iron, and vitamin A requirements. WHO's [training course on infant and young child feeding counseling](#) provides information on specific foods and adequate quantities for children over 6 months of age.

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.

Alive & Thrive's counseling cards on infant feeding, developed for Vietnam but also [available in English](#), include instructions for use, a list of steps for positive counseling, and counseling messages on maternal nutrition, breastfeeding, complementary feeding, hygiene, responsive feeding, and feeding a sick child.



Sample meal plan for children during illness or recovery

Counseling HIV-positive mothers on IYCF



WHO guidelines
on HIV and infant
feeding 2010



Summary of WHO
guidelines on HIV
and infant feeding

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.

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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. Nutritional status and the immune system are linked in a reinforcing cycle, as shown in the figure below.



Nutrition counseling for people with infectious diseases



Dietary management of common symptoms

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 (see **Module 4. Nutrition 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 percent more energy (about 200–250 more kcal or one additional snack)
Late, symptomatic stage (adults)	20–30 percent more energy (400–750 additional kcal or 2–3 additional snacks)
Symptomatic stage (children)	50–100 percent more energy

Source: WHO. 2003. *Nutrient Requirements for People Living with HIV/AIDS. Report of a Technical Consultation*. Geneva, May 13–15.

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.¹¹
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.

¹¹ WHO. 2013. *Nutritional Care and Support for Patients with Tuberculosis*. Geneva: WHO.



Nutrition guidance for common ARVs



WHO guidelines on nutrition care and support for patients with TB



Nutrition counseling for people with non-communicable diseases



Example of a manual on counseling on nutrition and NCDs

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.¹² 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.

¹² World Bank. 2011. *The Growing Danger of Non-Communicable Diseases: Acting Now to Reverse Course*. Washington, DC: World Bank.

¹³ WHO. "Water, Sanitation, and Health: Water-Related Diseases."

¹⁴ WHO. 2015. "Food Safety. Fact Sheet No. 399."

¹⁵ Fischer, C.L. et al. 2013. "Global Burden of Childhood Pneumonia and Diarrhoea." *The Lancet*. Vol. 381, No. 9875; WHO. 2013. "Diarrhoeal Disease. Fact Sheet No. 330."

¹⁶ Pruss-Üstün, A.; Bos, R.; Gore, F.; and Bartram, J. 2008. *Safer Water, Better Health: Costs, Benefits and Sustainability of Intervention to Protect and Promote Health*. Geneva: WHO.

¹⁷ Ngure, F.M. et al. 2014. "Water, Sanitation, and Hygiene (WASH), Environmental Enteropathy, Nutrition, and Early Child Development: Making the Links." *Annals of the New York Academy of Sciences*. Vol. 1308, pp. 118–28.

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.¹³ 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.¹⁴ Frequent diarrhea contributes to child stunting and is the second highest cause of illness and death in children under 5.¹⁵ Almost all diarrheal illnesses in developing countries can be attributed to unsafe water and inadequate sanitation and hygiene.¹⁶ Poor WASH practices may be responsible for up to one-half of underweight in women and children.¹⁷

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 handwashing, 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



Photo credit: Iain McLellan, FHI 360/FANTA

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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.¹⁸ These changes divert energy from growth to fight asymptomatic infection.¹⁹

Unsafe food creates a vicious cycle of disease and undernutrition. 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 antihelminthic 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.

¹⁸ Ngure et al. 2014

¹⁹ Prendergast, A.J. et al. 2014. "Stunting Is Characterized by Chronic Inflammation in Zimbabwean Infants." *PLOS One*. Vol. 9, No. 2, e86928.

Counseling on handwashing

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 bednet 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 handwashing device called a "tippy tap," how to build a latrine, and how to manage feces safely.



USAID's Integrating
Sanitation into
Services for People
Living with HIV



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.²⁰

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.

²⁰ Woldt, M.; Moy, G.G.; and Egan, R. 2015. *Improving Household Food Hygiene in a Development Context*. Washington, DC: FHI 360/FANTA Project.



List of
resources for
this module



Additional WASH Resources

[WHO's Five Keys to Safer Food](#)

[How to build a tippy tap](#)

[WASH questions counselors can ask clients](#)

[WASH counseling messages](#)

[Counseling job aids on WASH from Uganda](#)

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