



FEED THE FUTURE

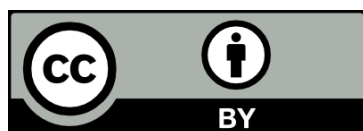
The U.S. Government's Global Hunger & Food Security Initiative

Integrating Gender and Nutrition within Agricultural Extension Services

Nutrition, Behaviors, and Health Food & Water Practices for Extension Services Staff

A Facilitator's Guide





© Wood and INGENAES 2018

This work is licensed under a Creative Commons Attribution 3.0 Unported License.

Users are free:

- To share — to copy, distribute and transmit the work. (without participant contact information)
- To remix — to adapt the work.

Under the following conditions:

- Attribution — users must attribute the work to the authors but not in any way that suggests that the authors endorse the user or the user’s use of the work.

Technical editing by Elizabeth Wood. Production by Katy Mosiman.

This manual was produced as part of the United States Agency for International Development (USAID) and US Government Feed the Future project “Integrating Gender and Nutrition within Extension and Advisory Services” (INGENAES) under the Leader with Associates Cooperative Agreement No. AID-OAA-LA-14-00008. The United States Agency for International Development is the leading American government agency building social and economic prosperity together with the government and people of Tajikistan. The University of Illinois at Urbana-Champaign is the prime awardee, and partners with the University of California-Davis, the University of Florida, and Cultural Practice, LLC. www.ingenaes.illinois.edu

The research and this manual were made possible by the generous support of the American people through USAID. The contents are the responsibility of the authors and do not necessarily reflect the views of USAID or the United States government.

Contents

Day #1	1
Welcome and Workshop Overview	1
Introductions.....	1
Session #1: Basic Nutrition.....	1
Session #2: Basic Water, Sanitation, and Hygiene.....	3
Session #3: Behavioral Change Theories	5
Day #2	6
Session #4: Nutrients and Plate Method	6
Session #5: Food Safety	7
Session #6: Health Promotion Programs	11
Day #3	12
Session #7: Misconceptions and Health Consequences	12
Session #8: Cooking Demonstrations.....	12

Day #1

Welcome and Workshop Overview

Facilitator reviews workshop agenda (a road map that may be adjusted as we progress through the workshop), notes any logistical details...highlights workshop “rules”: turn off cell phones; one person talking at a time; listen/focus-no side conversations; respect differing opinions; be prepared to move around—no permanent seats; take turns presenting—present only once.

Introductions

Introduction: *Good morning and welcome to the workshop on integrating nutrition and health behaviors into agricultural extension services. As we begin, please start to think what the words nutrition and health behaviors mean to you. As you introduce yourself, give your name, job title, organization, and state one thing you hope to learn from this workshop.*

Pre-Test: *Before beginning the first session, we'd like to assess your knowledge of both nutrition and health behaviors. Please take the next 10 – 15 minutes to complete the test being passed around. And please do NOT write your name on it.*

Time:	30 – 45 minutes, depending on the number of participants
Materials:	Printed workshop outlines, pre-test
Objective:	To have participants get acquainted with each other and to begin thinking and talking about facilitation and training from the participants' experiences and assess current understanding of health and nutrition.

Facilitator Notes:

While participants are taking the pre-test, walk around to ensure this is not a group or partner activity and that each pre-test is submitted anonymously. Should anyone submit a pre-test with their name, it should be redacted.

Session #1: Basic Nutrition

Introduction: *During the first session it is necessary to establish basic vocabulary for effective communication. The starting point is to define the main terms such as nutrients and their classification. All nutrients are divided into two large categories macro and micro nutrients. Macronutrients are substances that we need to provide for the body in order to have energy, for proper growth and development and are needed in large quantities. We may need 200 grams of a particular macronutrient or a cup of it. Micronutrients are needed in very small quantities. They are needed for growth and development. We need maybe 1 gram or less of any of the micronutrients per day.*

Categories of macronutrients are: carbohydrate, protein, fat and water.

Categories of micronutrients are: minerals and vitamins.

Activity I: Macronutrients in everyday food

Time: 20 minutes

Materials: Images or plates with local food

Objective: For participant to be able to accurately classify the main ingredients of the traditional dishes as sources of macronutrients.

Look at the images of the common foods and try to figure out what nutrients, using just the main categories, are provided by each dish.



Answer: Main foods that are noticeable on the plate are rice and meat. Rice is a food source of carbohydrate. Meat provides protein.



Answer: Round loaves of baked bread. Grains made into flours are very good source of carbohydrate. Some breads are also "glazed" with butter or oil and then they will provide fats.



Answer: Fresh salad made with cabbage, tomatoes and parsley. All three ingredients provide a little of carbohydrate, protein and very little fat. The salad is a good source of minerals and vitamins.



Answer: Soup made of carrots, peppers, cabbage, potatoes, fresh parsley and meats. Potatoes are a good source of carbohydrates. Meat provides protein and fat. Other vegetables provide minerals and vitamins. This soup is also a good source of water.

Facilitator Notes: When talking about nutrients, first concentrate on macronutrients and local or common food sources and as a second issue talk about micronutrients and food sources. Different foods are good sources of specific nutrients. For example, potatoes and rice are very good sources of carbohydrates. Both have also protein and fat but the main macronutrient is carbohydrates. Oils and nuts provide fat but

they also provide micronutrients. Below you have a list of macronutrients and food groups that are good sources of each. The facilitator should remember to point out that each food provides more than just one nutrient.

Carbohydrate: grain (flour made of rye, wheat, oats, etc.), fruit, milk, sugar and honey, some vegetables (potatoes, peas, corn, pumpkins, other vegetables are not good sources of carbohydrates)

Protein: meat, fish, eggs and milk, pulses (beans, peas and lentils), nuts, and grains

Fat: meats (usually white, soft and shiny part of the meat around muscle or skin), fish (usually under the skin), eggs and milk (cream on milk), grains, nuts, olives and avocado, cakes and other food made with added fat

Water: it is found in fruit and vegetables, milk, all liquid foods such as soups or juice, compote, etc. and in a free form as water

Minerals and vitamins are food specific and require food specific analysis. For example, cabbage and cucumber are both green vegetables but have very different minerals and vitamins.

Session #2: Basic Water, Sanitation, and Hygiene

Introduction: During this session we will be discussing the importance of clean water, sanitation, and hygiene (WASH), different WASH and nutrition pathways, fecal-oral pathways, and handwashing.

Activity 1 – The spread of germs using turmeric

Time:	20 minutes
Materials:	Ground turmeric spice (or another dark spice), a bowl, and a little water
Objective:	To provide an interactive way to show the invisible (in this case visible) spread of disease. To demonstrate the importance of washing hands thoroughly at all critical points.

When are critical points for handwashing?

How long and how thoroughly should we wash our hands?

Facilitator should spread a small amount of water over their hands then cover their hands in the bowl with ground turmeric. Explain that the turmeric represents germs, germs that we all encounter by touching surfaces, animals, people, etc.

The facilitator should be shaking hands with participants then asking them to shake other peoples' hands. Place more water and/or turmeric on hands as necessary. The turmeric should now be leaving a trail of those it's encountered.

Imagine that you are now about to set down to dinner with your family, but before you do you scratch your face or hold your child's hand. Then you notice the turmeric covering your hands. Would you wash your hands at this point? Would you wash your child's hands? Would you continue to eat?

The turmeric represents germs that we normally cannot see on our hands and how easily and quickly they spread among us.

How many times in the last hour have you touched your face? In the last day?



Activity 2 – The cost of clean water

Time:	20 minutes
Materials:	Pitcher filled with water, empty bucket
Objective:	To demonstrate the proper way to wash one's hands. To calculate the amount of water needed for a family to wash using this method and the potential barriers it creates.

How much water does it take to properly wash our hands? One liter? Half a liter? Let's find out.

The facilitator should ask for a volunteer to demonstrate the proper way to wash hands by pouring water from a pitcher and capturing the fallen water in a bucket. If the facilitator does not have access to a bucket or pitcher, then estimate an amount that the entire group agrees is appropriate (roughly 500 mL of water should be used for this demonstration).

*If it takes at least **500 mL** to wash your hands, how much water will a family of **6** need for one day (two adults, two children over 5, and two children under 2)?*

Use the table below to begin counting when each family member would wash their hands. The exact number is not important, but it should get the group discussing the critical points of handwashing for the various ages.

	Number of times a day for each person	Number of family members	Total number of times each day
After defecation			
After cleaning a small child after defecating			
Before preparing food or cooking			
Before eating			
After touching livestock			
TOTAL			

Once the group has a TOTAL for the far right column 'Total number of times each day', multiply this by your agreed upon amount of water needed for washing hands (500mL). See below for example:

Estimated amount of water needed to properly wash hands _____

Total amount of times the family of 6 washes their hands _____

Total amount of water needed for a family of 6 to
wash their hands correctly for one day _____

Does this seem like a lot of water? A little?

*Is this another trip to the well or store? Who in the family would normally be responsible for gathering the water?
A young girl?*

Discuss the potential impact another trip gathering water would have on a young girl. Would this cause her to miss school? This activity is meant to show how one handwashing intervention may cause a cascading effect for other members of the household, particularly females.

What can you do in your roles to reduce the barriers associated with proper handwashing?

Facilitator Notes: This session includes a mini-lecture within the two activities. Lectures should be kept short and interactive to include maximum participation.

Session #3: Behavioral Change Theories

Introduction: To understand behavioral change, we must first review a few definitions and terminology so we're all speaking the same language.

Health communication activities can vary widely, depending on the objectives, audience, and communication channels. For example, a health communication activity may be designed to advocate essential changes in health regulations to policymakers; or use interpersonal communication to promote actions that prevent childhood illness and malnutrition to mothers.

Health Education is any combination of learning experiences designed to help individuals and communities improve their health by increasing their knowledge or influencing their attitudes

Social marketing uses research to bring the consumer perspective to the forefront, and uses the client's (consumer's) point of view to define a social problem and consequently the marketing and media mix that can be used to respond to it. Social marketing also recognizes that communication (i.e., promotion) is only one element of the marketing mix; and that product and behaviors, placement, and pricing could be equally important to achieving objectives.

There are different models, theories, and approaches for different social and behavioral change communication strategies because people are different and may be at different stages of their life.

Case Study: A case study can be used to demonstrate different strategies that have been implemented in the past or currently that show social marketing.

For example, a case study of cigarette marketing in the United States from the 1940s to present day has changed dramatically. From celebrity endorsements to tobacco control advocacy gaining momentum in popular culture to the present ads that focus on quitting or preventing youth from initiating smoking. The focus should be around the strategies both tobacco companies and anti-tobacco groups have used to sway the general public.

Facilitator Notes: Review SBC terminology. Show how there is similar definitions for similar concepts across different disciplines. Examples include: Health Promotion is similar to Messaging; Extension agents are similar in function to Community Health Workers.

Review the different models and theories used to influence behavior change. Give examples of how these theories are being used and translated into practice. Ask participants to name their own examples.

Daily Reflection

Time: 20 - 30 minutes

Objective: To review and reflect on the day's lessons and activities.

Facilitator Notes: Have participants get into small groups. Ask that the each group discuss and give examples of how the different sessions can be applicable to their job. After approximately 15 minutes, ask everyone to come back together as a whole and have each group provide one example of how the sessions can be applied.

Day #2

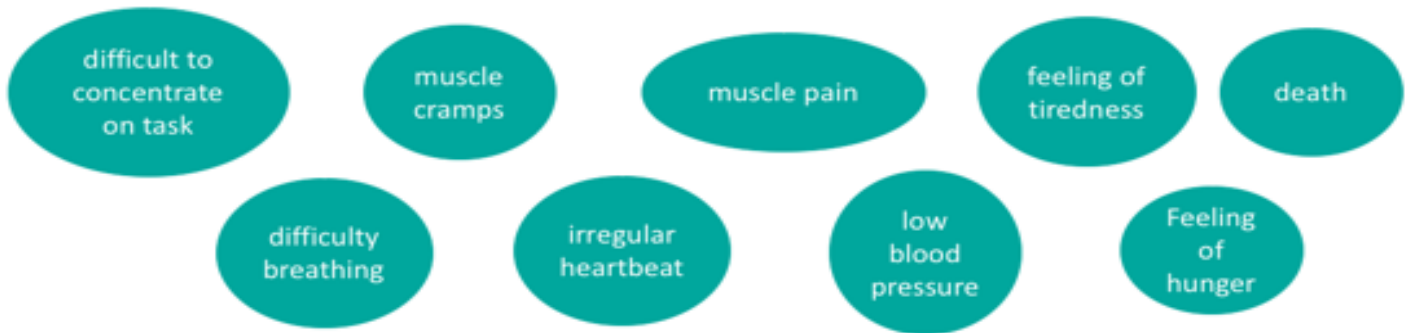
Session #4: Nutrients and Plate Method

Introduction: Water is a macronutrient but does not provide energy. A person can drink it all day long and it will not add one gram of fat to their body. But if a person does not have any water all day than they may be in trouble. Without water life would not exist. We can survive without food for 3 - 4 weeks. It would depend on an individual's fat storage, but ultimately we cannot survive more than 3-4 days without water. We need a lot of water every day. An adult who is not doing much physical activity should have about 2 liters of water per day. If a person is physically active or there is hot weather, then they need more. We do not need to drink just pure water to reach our daily goal, we can have fruit tea, milk, juice, or have soup, or fruit. Even foods that seem as dry as bread have a little water. If we only eat bread all day we cannot possibly get enough water but if we are eating different foods, a lot of water can be absorbed. For example, cucumbers may have up to 98% of water but it would take more than 2 kg of cucumbers to reach our daily water goal.

Activity 2: Water and hydration

Time:	20 minutes
Materials:	A set of different conditions that may result from dehydration printed on an office paper. The number of sets depends on how many groups are arranged.
Objective:	For participant to be able to list symptoms of dehydration and grade the level of severity.

An adult needs 2 liters of water per day. What happens if a person does not drink enough? Is there a difference between drinking almost enough water and almost nothing?



Facilitator Notes: Start this activity with a short presentation about water (use "Introduction" above). Describe how it is classified among other nutrients and why it is so important.

Divide your audience into smaller work groups, 2-3 people per group and ask the question: Is there a difference between drinking almost enough water and almost nothing?

When people are debating what differences may exist present the set of symptoms of dehydration and ask them to arrange the symptoms from just slight dehydration to very severe.

Ask them if they ever experience any of these symptoms, how much water do they drink per day, and if they eat other foods that have a lot of water. Ask what foods may be a good source of water in a day.

Progress of dehydration symptoms

- If you are just slightly dehydrated:
 - a. It is more difficult to concentrate on tasks.
 - b. You may feel tired.
 - c. You may feel hungry.
- If your dehydration is greater (you do not take in enough water for a few days):
 - a. You may have muscle pain and muscle cramps.
 - b. Difficulty breathing.
 - c. Your heartbeat may become irregular.
 - d. Your blood pressure may drop.
- In extreme cases, lack of water will lead to death.

Session #5: Food Safety

Time: 30 minutes

Materials: Foodborne Illnesses handout

Objective: Describe the occurrence, signs and symptoms, and control of foodborne illnesses.
Describe outbreak situations that were a result of poor food safety.

Introduction: Welcome to the next session of the workshop. Now we are going to talk about food safety. Food safety is not only what we do with food but also what we do before food preparation and after we eat. It also includes condition and quality of food products that we are purchasing or make ourselves.

Activity 1: Name this foodborne disease

Everyone should have a copy of the common foodborne illnesses to help them with this activity. First we're going to review two different case studies to determine what foodborne illness the person may have had and then discuss ways in which the foodborne disease could have been avoided.

Case study 1 – A patient arrives at a clinic with diarrhea and vomiting. After meeting with the physician, the physician notices the patient is having trouble breathing and keeps stumbling around the room. The physician asks if the patient wears prescription glasses, the patient answers no, his vision is usually good but lately he's experienced some blurriness.

What could the patient potentially have? **Answer** Clostridium botulinum

Why, what symptoms give it away? **Answer** Effects to neurological system include paralysis, blurred vision, and difficulty breathing and swallowing

Which foods do you suspect and why?

Food/Container	Packaging	Storage	Container opened?
Ground meat	Vacuum packaged in tray	Refrigerated	Yes (trash)
Strawberries	Plastic clamshell	Refrigerated	Yes(trash)
Pineapple chunks	Canned	Shelf stable	No (cupboard)
Chili beans, meat, seasoning	Canned	Shelf stable	Yes (recycle bin)
Ketchup	Plastic bottle	Refrigerated	Yes (refrigerator)
Milk	Plastic jug	Refrigerated	Yes (refrigerator)
Orange juice	Paperboard carton	Refrigerated	Yes (refrigerator)
Grape jelly	Plastic jar	Refrigerated	Yes (refrigerator)
Vegetable soup	Canned	Shelf stable	No(cupboard)
Dried spaghetti	Box	Shelf stable	Yes (cupboard)
Tomato sauce	Glass jar	Shelf stable	No (cupboard)
Soda	Plastic bottle	Shelf stable	Yes (refrigerator)

Ground meat - Anaerobic, low-acid, if stored at improper temperature

Chili beans, meat, seasoning - Anaerobic, low-acid

Vegetable soup - Anaerobic, low-acid

The culprit in this case study was the canned chili sauce. It had been processed incorrectly leaving the product undercooked. Canned low-acid foods are considered at risk for supporting *C. botulinum* growth; however, strict adherence to low-acid, canned food regulations which require processing conditions in excess of those necessary to inactivate *C. botulinum* spores has provided an excellent safety record for these foods.

Case study 2 – A family becomes ill showing signs of diarrhea, fever, and stomach pain. They haven't eaten anything outside of their normal diet for a few weeks. However, about 3-4 weeks earlier they had all attended a wedding ceremony where food was served. The physician at the clinic noticed other patients had similar symptoms and that many if not all had attended this wedding. Most of the patients were presenting with a yellowish skin color.

What could this family and the other patients have? Why?

Answer Hepatitis A. The yellowish discoloration of the skin is a sign of jaundice. The 3-4 week onset of symptoms is also a characteristic of Hep A.

What food could have attributed to the spread of Hep A?

Food	# Ate and Sick	# Ate and Not Sick	# Not Eat and Sick	# Not Eat and Not Sick
Potato with green onions	17	3	3	4
Cabbage	3	1	17	6
Rice	7	2	13	5
Soup with meat	4	2	16	5
Bread	5	4	15	3
Pasta	6	1	14	6
Lamb	2	1	18	6

Why do you suspect the potato with green onions got so many people sick?

Answer The green onions could have been contaminated through fecal contamination while it was being grown or by the cook not washing his or her hands before preparing the meal.

Facilitator Notes: The case studies in this activity were based off real events but were altered to meet the appropriateness of the audience (e.g. changing the foods to local, recognizable food). Use these case studies to discuss country-appropriate ways in which foodborne illnesses can be avoided and what common practices are currently taking place that should be changed.

Activity 2: What's wrong with this picture?

Introduction: On the next few slides we will have images of different situations that potentially may become issues of food safety. Review each picture and try to find what characteristics of food safety are good and potentially bad. How can problematic situations be addressed?

Time: 30 minutes

Materials: Examples of country-appropriate photos that reflect good and poor food safety

Objective: To provide an interactive way to demonstrate the importance of food safety in the kitchen and elsewhere.



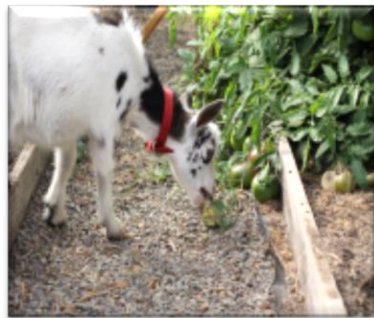
Answer: Clean surface, both are wearing head covers to avoid contamination. What about the carbord?



Answer: The meal is on the floor where potential contamination can occur. Hands are used instead of utensils. Multiple people eat from one plate.



Answer: Even though chickens are in the garden, herbs are protected by the wire.



Answer: Goats are unaccompanied by uncovered tomatoes. This increases risk of contamination, especially if tomatoes are eaten raw without washing.



Answer: Raw chicken on a plate with a cucumber. Do you cook cucumber or any other of the foods that touch the raw chicken before you eat it?



Answer: Table with hot and cold foods. How long until that food spoils and gets eaten?

Facilitator Notes: This session includes a mini-lecture within the two activities. Lectures should be kept short and interactive to include maximum participation.

Session #6: Health Promotion Programs

Time: 30 minutes

Objective: To provide an interactive and fun way to review the day's activities.

Introduction: Before we begin, let's refresh on what health promotion means. Can someone please give me the definition and an example?

Answer: Health promotion is the process of enabling people to increase control over, and to improve, their health. It moves beyond a focus on individual behavior towards a wide range of social and environmental interventions.

Another important term is intervention. An **intervention** is the planned actions that are designed to prevent disease or injury or promote health in the target/priority population.

What are some other examples of health, nutrition, or agricultural interventions?

Building a Health Promotion Program: Create a health promotion program in a country-appropriate region.

- 1) What is the health outcome?
 - Increased fruit and vegetable consumption in adults
- 2) Who is the target population?
 - Working adults
- 3) What is the population level (SEM)?
 - Community
- 4) Formative assessment – what do you know about your audience?
 - Low health literacy, not enough time to eat fruit and vegetables, too expensive
- 5) What are your objectives?
 - By December 2017, the adult population in the target population will have increased fruit and vegetable consumption by 3%
- 6) What intervention strategies will you use (Health communication, health education, etc.)?
 - Increase fruit and vegetable production by introducing new crops with high nutrient contents
- 7) Implement & Evaluate
 - 24-hour recall survey of all foods consumed before and after the intervention
 - Environmental assessment

Facilitator Notes: Once you go through how to build a health promotion program, have the participants divide into groups to create their own program step-by-step.

Daily Reflection

Facilitator Notes: Have participants get into small groups. Ask that the each group discuss and give examples of how the different sessions can be applicable to their job. After approximately 15 minutes, ask everyone to come back together as a whole and have each group provide one example of how the sessions can be applied.

Day #3

Session #7: Misconceptions and Health Consequences

Introduction: *In many cultures there are common misconceptions or taboos surrounding food. For example, some cultures believe that men are not permitted to help collect certain foods in the fields because it may cause them bad luck, which leaves women having to do extra work.*

What are some misconceptions or taboos around food that are found in your culture?

What can you do to address these misconceptions?

What impact do these beliefs have on the population? Are certain populations more effected than others, such as women or children?

Facilitator Notes: This time should be meant having a thoughtful discussion about the different perceptions and beliefs around food in that area. Using the skills and knowledge that the participants have developed over the course of this workshop, discuss ways to change behavior using the theories and models. Also discuss different potential interventions that could take place to address these different misconceptions and taboos. Help the participants establish what their role would be.

Post-Test: Before beginning the last session, we'd like you all to retake the test on nutrition and health behaviors from the first day of the workshop. Please take the next 10 – 15 minutes to complete the test being passed around. And please do NOT write your name on it.

Session #8: Cooking Demonstrations

Introduction: *During the cooking demonstration we are presenting very simple recipes. Each one of the recipes starts as a salad and later we demonstrate how the salad with a few additional ingredients can be modified to become a complete meal. For each dish we will talk about tools needed, ingredients, give some substitutions and alternatives and lastly we present step by step preparation. All dishes as the main ingredient have a vegetable from a Cruciferae family also known as a cabbage or broccoli family vegetables. Vegetables from this group are known for their flavor, define fragrance and as a source of many health promoting nutrients. While preparing the dishes we will talk about the main minerals and vitamins, how to preserve them during food preparation, and how the nutrients affect health.*

Facilitator Notes: Each of the dishes may be presented by itself. Facilitators may choose to use any two or all three dishes and use it as theme titled “Cooking with cruciferous vegetables” or less formally “Cooking with cabbage family vegetables”. For each recipe there is a specific set of tools listed, all of which are common and a list of ingredients. Each recipe has some optional ingredients that enhance a flavor and nutrient content. Additionally, each recipe may be used as a salad but may be modified to become a complete meal.

Recipe I: Brussel sprouts quick sauté

Time:	15 – 20 minutes for as a salad or 20 – 30 as a complete meal
Serving size:	The recipe is intended for two adults. If you want to make a larger meal add extra Brussels sprouts and increases other ingredients proportionally.
Purpose:	To demonstrate proper food preparation techniques while introducing a new dish of high nutritional value.

Introduction: *In this recipe the main ingredient is a small cabbage family vegetable called Brussels sprouts. Brussels sprouts are one of the vegetables that deserve the name of a super food. They are good source of many minerals and vitamins including iron, magnesium, manganese, phosphorus, potassium and vitamins: A, C, E, K, thiamine, B6, and folate. Because many minerals and vitamins B and C may dissolve in water while cooking, it is recommended to use very little water and if possible incorporate the water in the dish. Vitamins A, E and K may dissolve in oil, therefore to preserve them we want to use only some oil needed for flavor and cooking but not a lot. Brussels sprouts have so many minerals and vitamins and other substances that positively affect health to list them all would be difficult, however, the main ways are by improving immunity, improving heart and bone health, and possibly even protecting against cancer. Iron and folate are particularly important for women who are pregnant or want to become pregnant, because they are crucial for development even at very early days of pregnancy.*

Tools needed: sharp knife, cutting board, plate or a bowl, sautéing/frying pan

Ingredients:

- 0.5kg Brussels sprouts
- 1 tablespoon of sunflower or vegetable oil
- 1 clove of garlic (optional)
- Juice from ½ lemon, about 1 tablespoon
- Salt to taste, use as little as possible
- Chopped parsley (optional)

To prepare the Brussels sprouts:

Wash Brussels sprouts, lemon and parsley in clean, cool water. Shake off excess water and place on a clean surface.

With a knife cut/trim the stem of each Brussels sprout to expose clean surface, discard any dirty or not fresh-looking outer leaves.

Chop each sprout into 1/8 or slightly smaller pieces, it can be as finely chopped as you like but not larger than 1/8.

Heat the oil on the pan.

Add garlic, sprouts and sauté it all together for 5- 6 min. The sprouts should become slightly brown and tender. Add the lemon juice, stir well and remove it from the heat. Add salt to taste and if you want add chopped parsley, toss it all together and serve.

To convert the Brussels sprout dish into a meal:

Hard boil a few eggs. In most cases cooking eggs for 8 to 10 minutes is sufficient. Try to have one egg per person but if you can only have half per person that is good too. Once the eggs are cooked,

remove them from the water, cool for a few minutes, peel the shells off and cut the eggs up into quarters or eighths.

Peel and boil potatoes in water. When they are done, pour out almost all the water, leaving a little on the bottom (optional: add a couple of spoons of sour cream) and mash the potatoes. You may also add some black pepper to taste.

Another alternative, instead of the potatoes, use noodles.

Once all of the steps are done (Brussels sprouts are sautéed, eggs are boiled and cut up and the potatoes or noodles are prepared) you can assemble the meal. On a large plate, create a layer of potatoes (or noodles), on top of it layer the Brussels sprouts, and on the very top put the chopped eggs. Serve with a large spoon scooping all three parts together.

The meal created with this recipe offers all the benefits of consuming Brussels sprouts, provides energy from potatoes and sour cream, and is a source of valuable proteins from the eggs and sour cream.

Enjoy!

Facilitator Notes: Make sure anyone who helps prepare the food has washed their hands before touching anything. While following the steps of the recipe make sure to demonstrate:

- Washing of vegetables
- Using only the listed amount of oil needed within the recipe
- Adding salt only in small quantities at the end of cooking or after the cooking is done

Mention that adding lemon juice and parsley provides additional vitamin C, which is very easily lost in any food preparation. Vitamin C is important for the body to fight infections, healing of cuts and scrapes, and it helps to absorb iron from plant-based foods.

Your goal in preparing the Brussels sprouts sauté should look similar to the image below:



Simple Brussel sprouts recipe (Alison Milam. Food Network)

Recipe 2: Cabbage “C” salad

Time:	60 – 70 minutes as a salad or 75 – 85 minutes as a complete meal
Serving size:	This amount is intended for two-three adults. If you want to make a larger meal add extra cabbage and increase other ingredients proportionally.
Purpose:	To demonstrate proper food preparation techniques while introducing a new dish of high nutrition value.

Introduction: In this recipe the main ingredient is cabbage. One of the more common ingredients in many countries around the globe. Although the cabbage is not flashy or exotic it is easy to grow, store and use. In addition to its culinary benefits it is a good source of many minerals and vitamins including iron and vitamins: C, K, B6, and folate. Because many minerals, vitamins B and C may dissolve in water while cooking it is recommended to use very little water and if possible incorporate the water in the dish. Vitamin K may dissolve in oil, therefore to preserve it we want to use only some oil needed for adding flavor and preparation but not a lot. Cabbage has many minerals, vitamins and other substances that positively affect health. Some of the health benefits resulting from eating cabbage are stronger immune system, support bone health, and possibly protect against cancer. Iron and folate are particularly important for women who want to become pregnant or are pregnant. Both iron and folate are needed for proper development even at the very early days of pregnancy.

Tools needed: sharp knife, cutting board, and a bowl

Ingredients:

¼ of medium size cabbage

1 large or 2 smaller tomatoes

1/2 tablespoon of oil (sunflower or vegetable)

Optional: ½ medium size onion

Juice from ½ lemon, about 1 tablespoon

1 teaspoon of sugar

Salt to taste

Optional: Chopped parsley and/or dill

To prepare the cabbage “C” salad:

Wash whole cabbage, tomatoes, lemon, parsley and dill in clean, cool water. Shake off excess water and place it on a clean surface.

Cut out ¼ of the cabbage but if you have a large gathering you can use more. Discard any damaged outer leaves.

Chop the ¼ of cabbage very finely.

Chop tomato(es)

If you choose to use onion, chop it as finely as the cabbage.

Toss cabbage, tomatoes and onion together in a bowl.

Add oil, lemon juice, sugar, parsley and dill

Toss and mix all ingredients in a bowl well.

Cover the bowl and let it sit for 30-40 minutes. It's best if it sits in a cool place such as refrigerator, however, if one is not accessible, you may limit the time to 25 minutes. Never place the bowl with the ingredients in direct sunlight.

After the time has passed, add salt and serve.

Add shredded small carrots, or a finely chopped sweet pepper, or a tablespoon of raisins to slightly change the flavor and add color.

Converting the salad into a meal:

To make it into a meal you will need boiled potatoes, or noodles, and any nuts you have. Try to use at least a good handful of nuts or more. But it still should be a cabbage salad with nuts, not nuts with a cabbage salad.

Peel and boil potatoes in water. After the potatoes are boiled, cut them into bite-size pieces.

Nuts may be raw, roasted in oil or dry roasted. Chop the nuts up into smaller pieces, a pea size.

Add the nuts to the cabbage "C" salad and mix it up. Serve hot potatoes with a nice, cool and nutty salad.

This meal is not only delicious and plentiful in beneficial nutrients, but it also provides energy from the potatoes (or noodles) and oil and it is a source of valuable proteins from the nuts.

Enjoy!

Facilitator Notes:

Make sure anyone who helps prepare the food has washed their hands before touching anything. While following the steps of the recipe make sure to demonstrate:

- Washing of vegetables
- Using only the listed amount of oil needed within the recipe
- Adding salt only in small quantities at the end of cooking or after the cooking is done

Mention that adding lemon juice and parsley provides additional vitamin C, which is very easily lost in any food preparation. Vitamin C is important for the body to fight infections, healing of cuts and scrapes, and it helps to absorb iron from plant-based foods. Your goal in preparing the cabbage "C" salad should look similar to the image to the right.



Curious Cuisiniere. 2017. Nicaraguan cabbage slaw

Recipe 3: Red, white and green salad

Time:	50 – 60 minutes for a salad and 65 – 75 minutes as a complete meal
Serving size:	This amount is intended for two adults. If you want to make a larger meal add extra broccoli and increase other ingredients proportionally.
Purpose:	To demonstrate proper food preparation techniques while introducing a new dish of high nutrition value.

Introduction: In this recipe the main ingredient is broccoli. Broccoli is one of the cruciferous vegetables that should be recognized for its nutrient density. It is good source of many minerals and vitamins including calcium, copper, iron, magnesium, manganese, phosphorus, potassium, and vitamins: C, E, K, B6, and folate. Because many minerals, vitamins B and C may dissolve in water it is recommended not to soak or cook it in a lot of water. Use very little water for cooking and if possible incorporate the water in the dish. Vitamins E and K may dissolve in oil, therefore to preserve them we want to use only some oil needed for flavor but not a lot. The main health benefits of broccoli include support for the immune system, protection of the heart, support of bone health, and possibly protection against certain cancers. Both iron and folate are needed for proper development even at the very early days of pregnancy.

Tools needed: sharp knife, cutting board, and a bowl

Ingredients:

2 stalks of broccoli, about 0.5kg

1 large or 2 small tomatoes

1 tablespoon of oil (sunflower or vegetable)

Juice from 1 lemon, about 2 tablespoons (if lemon is not accessible you can use vinegar: about a tablespoon if not concentrated or a few drops diluted in a tablespoon of water if concentrated)

1 tablespoon of sugar

Optional spices: cinnamon

Optional: 3-4 tablespoons of hard white cheese, such as feta, or sour cream or non-sweet yogurt

Optional: 2 tablespoons of nuts (peanuts or walnuts), sunflower seeds, or pumpkin seeds

Optional: hard boiled eggs, half or one egg per person

Optional: Chopped parsley and/or dill

To prepare the red, white and green salad:

Wash the broccoli, tomatoes, lemon, parsley and dill in clean, cool water. Shake of excess water and place it on a clean surface.

To make the marinade, mix the oil, lemon juice, sugar in a bowl and optionally add a pinch of cinnamon.

Cut out the florets and divide them into small bite-size pieces and add them to the bowl with the marinade.

Peel the stalk of the broccoli - remove the outer layer and cut the inside into bite-size pieces and add to the florets.

Cut up the tomatoes in to small chunks and add them to a bowl.

Mix all ingredients in the bowl for the marinade to coat them.

Cover it up and let it sit in a cool place such as refrigerator for 30-40 min and mixing it from time to time. If you do not have access to a refrigerator, you can opt out for a cool cellar or shorten the time to 20-25 min. Never put the bowl with food in direct sunlight.

Optional: Add sunflower, pumpkin seeds, or raw or roasted. To roast the seeds or nuts, place them on a hot pan (like a frying pan) for a few seconds. Nuts and seeds have different types of oils that burn quickly. Once they turn gold take them off the hot pan and allow them to cool down. Wait for the broccoli and tomatoes to finish marinating.

After 30-40 minutes take the salad out to put it on a plate and serve.

If you choose to add optional ingredients once the salad is on the plate, add dollops of the sour cream or yogurt or feta, add nuts/seeds, and sprinkle some chopped up parsley and dill on top. You can add the entire optional ingredient or just one, it is up to you. Any of the additional ingredients add flavor and nutrients to your meal.

To convert the red, white and green salad into a meal:

Boil some noodles. You want to have about the same volume of noodles as you had of the salad.

After the salad has marinated for 30-40, add the noodles. They can be added hot or cold, mix it all well. The last step before you serve the meal is to add sour cream/ yogurt/feta and eggs chopped into smaller pieces.

The meal created with this recipe offers all of the benefits of consuming broccoli, provides energy from the noodles, and sour cream/yogurt/feta and is a source of valuable proteins from eggs, nuts and dairy products.

Enjoy!

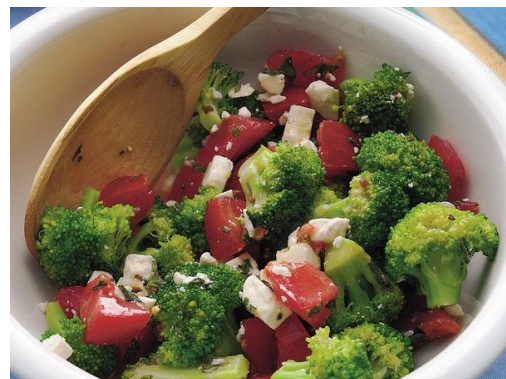
Facilitator Notes:

Make sure anyone who helps prepare the food has washed their hands before touching anything. While following the steps of the recipe make sure to demonstrate:

- Washing of vegetables
- Using only the listed amount of oil needed within the recipe
- Adding salt only in small quantities at the end of cooking or after the cooking is done

Mention that adding lemon juice and parsley provides additional vitamin C, which is very easily lost in any food preparation. Vitamin C is important for the body to fight infections, healing of cuts and scrapes, and it helps to absorb iron from plant-based foods.

Your goal in preparing the red, white and green salad should look similar to the image to the right.



Red, white, and green salad (General Mills)