

IGNITE Nutrition Training Plan

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OVERVIEW

The IGNITE nutrition training aims to build the capacity of staff in institutions which dominantly implement agriculture focused interventions to understand and integrate nutrition-sensitive agriculture as well as behavior change concepts and strategies in their programs/projects thus catalyzing participants toward improving nutrition outcomes. The staff may be involved in either designing, implementing, and/or monitoring/evaluating nutrition sensitive agriculture interventions.

At the end of training, the participants are expected to understand; key nutrition concepts; agricultural strategies and post-harvest technologies that can improve nutritional outcomes (e.g., Main causes of malnutrition; opportunities for streamlining social and behavior change principles diversified production, bio-fortification, improved handling, and storage)

The training is organized into four modules organized into sessions as below:

Module 1: Basic principles of human nutrition (giving rationale of why we care about nutrition, why do we eat food / Purpose of diverse diet / Consequences of malnutrition (health, economics, ag productivity)/ Overview of food groups and roles in the body)

Module 2: Role of agriculture and food system in helping people meet their nutritional needs (Food sources, how do people procure it? What influences people's food consumption and choices?). This module will also review nutrition-sensitive vs nutrition specific interventions and food systems/value chain entry points for nutrition.

Module 3: Basic social and behavior change principles-

Module 4: Designing nutrition-sensitive interventions in agriculture and food systems (Draw from NSIS/FEA tool + process, identify nutrition entry points within current programming and develop indicators for measuring progress)

Nutrition training plan

Session 1: Basic Principles of Human Nutrition

Timing:

1.5 hours

Objectives:

- Understand what nutrition is and why it matters.
- Understand causes and consequences of malnutrition.

Activity Description:

1. Discussion: Ask participants to write on two post-it notes their responses to: “Why do we need food?”
Participants attach their sticky notes on the wall, with the facilitator grouping similar ideas. Ideas may include the following: food is important for life, food gives heat and energy, and it builds and rehabilitates the body and keeps the body strong.
2. Facilitator explains that all food contains nutrients (PowerPoint). Nutrients are substances in food that we use to grow and be active and healthy. What do nutrients do for our bodies?
 - a. Nutrients provide energy for our bodies to grow.
 - b. Nutrients provide energy for our bodies to move and be active.
 - c. Nutrients provide energy to support all our body's functions such as breathing, digesting food, and keeping warm.
 - d. Nutrients help keep us from getting sick and help us get better once we are sick.
3. Discussion: Ask participants what are the reasons that some people are not able to access or eat foods or achieve proper nutrition. Facilitator probes further to ask participants to list the consequences of poor nutrition, and notes responses on a flip chart.
4. Facilitator walks participants through the PowerPoint slides on the following:
 - I. UNICEF conceptual framework on causes of malnutrition: Facilitator describes the conceptual framework of malnutrition with more emphasis on the immediate and underlying causes. The participants (2-3) can discuss where their current projects would be placed within the framework.
 - II. Cycle of malnutrition: Facilitator discusses the intergenerational cycle of malnutrition and its long-term effects. Participants (2-3) can discuss the role of empowering women in breaking this cycle- empowering adolescent girls and women of reproductive age,
 - III. Five forms of malnutrition: The facilitator highlights the 5 forms of malnutrition including stunting, wasting, underweight, overweight and obesity as well as micronutrient deficiencies. The participants (2-3) can discuss which of these are prevalent among children and those that can be found among both adults and children.
 - IV. Developmental and economic consequences of malnutrition: The facilitator to discuss both short and long-term developmental consequences of malnutrition and its implications for a country/community. This includes loss of GDP due to workforce related issues and increased health care costs for malnourished populations.
 - V. Types of nutrition interventions: Facilitator briefly describes the two major types of nutrition interventions. More details to be provided in Session 2.

- a. Nutrition specific interventions-includes promoting correct breastfeeding and complementary feeding practices, micronutrient supplementation. Explain that even when nutrition-specific interventions are scaled up to cover 90 percent of the at-risk population, it would only address about 20 percent of chronic malnutrition (Black et al. 2013). So, more is needed?
- b. Nutrition sensitive interventions-including nutrition sensitive agriculture (NSA), Social protection and WASH. Facilitator mentions that NSA will be discussed in detail in Session 2.

Materials:

- PPT
- Laptop
- Projector
- Screen
- Flipchart
- Post-it notes.

Credit:

Adapted from The SPRING Nutrition-Sensitive Agriculture Training Resource Package.

Session 2: Overview of Food Groups and their Roles

Timing:

1.5 hours

Objectives:

- Identify the 6 principal food groups, their role in body function and provision of nutrients, and foods included in each group.

Activity Description:

1. What you ate?

Distribute paper and markers to participants. Have participants take 5 minutes to draw pictures of the foods they ate yesterday. Also ask them to identify the sources of these foods (made at home by me, made at home by other, purchased outside the home). Ask each participant to share their drawing with their table and to share any reflections from what they see.

2. Facilitator explains that there are many different types of nutrients, and these different nutrients are found in different foods. We often group foods into separate categories based on the kinds of nutrients that they contain. (Note that countries have specific definitions of health diets which can include 6-10 food groups-these though will be all consolidated into 3 groups commonly known as balanced diet)
3. Ask participants what types of categories they have heard of for grouping foods. Facilitator validates their answers, pointing out how those categories are useful, and then introduces the six food groups that we will be using during this training to talk about nutrition:
 - Proteins** – body-building foods: Animal-source foods (Meat/milk/eggs), legumes and nuts
 - Carbohydrates and fats** – energy-giving foods: Staples, fats
 - Micronutrients** – protective foods: Fruits, vegetables
4. Facilitator uses the following guide to walk through identifying foods in each group with participants:

PROTEINS (Body-building foods)

Facilitator asks participants what types of food are in the protein category and writes their responses on a flipchart labeled “Proteins,” putting animal-source answers on one side and plant-source answers on the other side of the flipchart.

Complete protein: animal-source foods	Incomplete protein: plant-source foods
<ul style="list-style-type: none">• Eggs• Beef, goat, sheep• Chicken or guinea fowl• Fish• Milk, cheese, whey• Breastmilk	<ul style="list-style-type: none">• Cowpeas• Groundnuts• All types of beans• Seeds• Grains provide small amounts

Facilitator explains that protein-rich foods contain nutrients that are important for growth as well as brain and muscle development. There are two types of protein: complete and incomplete.

- Animal protein sources are complete: they contain all the nutrients essential for growth. A *complete protein means that it contains all 13 of the amino acids that we must obtain from*

food (there are 22 in total but the other 9 our bodies can produce). It has nothing to do with any of the other nutrients (fat/carbohydrates/micronutrients).

Plant-based proteins (legumes and nuts) are incomplete: they do not contain all the essential amino acids needed by themselves.

Facilitator shows how the flipchart answers are divided into animal-source and plant-source foods and writes “complete protein” and “incomplete protein” above the two categories.

Facilitator asks if there are any other examples of plant and animal proteins that participants consume (see chart below).

Facilitator explains: When eating a meal with **no** animal protein source, it is important to combine at least a plant-based protein source to get the nutrients the body needs to function properly. Have participants list some common plant-based foods that can be combined (example: rice and beans).

CARBOHYDRATES AND FATS (Energy-giving foods)

Facilitator explains that the body turns carbohydrates into fuel for energy. Many foods contain carbohydrates, but most people get most of their energy from carbohydrate-rich foods, such as cassava, rice, millet, maize. Facilitator asks participants which foods are rich in carbohydrates, writing their responses on a flipchart titled “Carbohydrates.”

Carbohydrates:

- Breads
- Grains : rice, maize, millet, sorghum, wheat
- Root crops and tubers: cassava, sweet potato, plantains
- Foods containing added sugars (cakes, cookies, sugar-sweetened beverages)

Energy or staple foods are important and needed each day, but it must not be the only type of food we eat. If we eat this kind of food only and do not include foods from the other groups, our body will be weak and easily become sick.

Fats are also an essential part of the diet. Fats play a vital role in maintaining healthy skin and hair, insulating body organs against shock, maintaining body temperature, and are a source of some vitamins. Ask participants which foods contain fats and write their responses on the flipchart under “Fats.”

Fats are found in the following foods:

- Cooking oil
- Palm oil
- Coconut oil, soybean oil
- Nuts and nut oils
- Soy and groundnuts
- Butter
- Meat, fish, and dairy products

MICRONUTRIENTS (Protective foods)

Facilitator explains that micronutrients are vitamins and minerals that we need for many of our bodily functions including growth, brain development, and to keep us healthy. Ask participants if any of them have heard of any types of vitamins or minerals.

Facilitator asks participants which foods are in this food group, writing their responses on a flipchart labeled (Micronutrient rich foods)

Facilitator can explain that though fruits and vegetables are considered best sources for vitamins, other foods such as animal source foods and nuts are considered good sources of minerals such as iron and zinc, respectively.

<p>Examples of vitamins:</p> <ul style="list-style-type: none"> • Vitamin A • Vitamin C • Vitamin D 	<p>Examples of minerals:</p> <ul style="list-style-type: none"> • Iron • Zinc • Iodine
<p>Micronutrient-rich foods:</p> <ul style="list-style-type: none"> • Dark-green, leafy vegetables like kale, collard greens, spinach • Dark-orange or yellow fruits and vegetables like pumpkin, squash, orange-fleshed sweet potato, mango, papaya • Other fruits and vegetables • Red meat, animal organs, small fish consumed whole. • Fortified foods (foods, often grains, that have micronutrients added to them during processing) 	

Materials:

- PPT
- Laptop, screen, projector
- Colored markers
- Paper
- Flip chart

Credit: Adapted from ACDI/VOCA’s Nutrition-Sensitive Agriculture Farmer Training

Session 3: Purpose of a Diverse Diet

Timing:

2 hours

Objectives:

- Identify ways to achieve diverse diets using locally available foods.
- Develop a seasonal calendar.

Activity Description:

1. This activity will help participants classify everyday food items by their appropriate nutrients for themselves and the persons for whom they are providing care/support. Using the food cards prepared ahead of time, distribute these to participants. There should be enough that each participant receives 3-4 foods.

On a chart/cardboard, prepare a table of six empty columns for different classes of nutrients as shown below and post it on the wall.

Animal-source Foods	Legumes and Nuts	Carbohydrates	Vegetables	Fruits	Fats

Let each participant go to the chart and stick his/her cards in the appropriate column on the posted chart. Finally, ask participants discuss the placement of the items and identify items that should be moved. If the number of food items misclassified is significant, it would be recommended to repeat this exercise at the end of the training.

2. PowerPoint slides: Talk through the following points with the participants: So, what foods should we eat?
 - There is no one single food that is complete and best. In fact, we need to eat from every food group, including a variety of foods throughout the week, to get all the types of nutrients that our bodies need. And our food should be safe (free from all diseases or germs transferred from our hands to the food during harvesting or preparation).
 - The foods we have listed and classified in the previous exercise can provide adequate amounts of all necessary nutrients if consumed based on individual size, age, conditions (pregnant, lactating, sick), activities, etc. While the specific amount of food from these different groups varies, it is important that everyone, regardless of age, eat from all six food groups every day. The exception is infants 0-6 months who receive all the nutrients and calories they need from exclusively breastfeeding (no other food or liquid by mouth).

When we look at the food that a family has available, we need to think about not just how much food is available for eating, but also other essential aspects of that food.

SAFETY: Food that is healthy to eat and will not cause illness—it should be fresh, in good condition and prepared in a hygienic way. Avoiding food that is moldy, spoiled, or contaminated by dirt, bugs, or animal feces.

VARIETY: Ensuring that the family gets food from all food groups: animal protein (eggs, chicken, meat), pulses (nuts, grains), fruits, and a range of vegetables.

QUALITY: Food that looks and smells appealing and fits with what most people eat locally.

QUANTITY: Having enough food for several meals each day, while storing enough to last throughout the year

Discuss with participants and note their responses on a flip chart: What can a family do, in an ideal situation, to get enough diverse, nutritious food year-round? (Ensure that the discussion includes the following ideas)

The family can try to ...

Grow, raise, and collect enough nutritious food, including raising livestock and growing crops. In some contexts, this includes gathering wild foods seasonally.

Harvest, process, and store that food carefully so they do not waste it. Food that is not stored properly can become unhealthy to eat.

Sell and buy food wisely so they can earn money and afford to buy good food. For households that do not produce any of their food, it is important to ensure income diversification and good household budgeting to purchase foods of sufficient quantity and quality.

3. Developing a seasonal food calendar – with these points in mind, the facilitator will now ask participants to break into groups (depending on the size of the training, these groups should be no more than 5 people). Each group will focus on either the dry season or the rainy season, and as appropriate, groups may focus on different geographic regions of the country. Distribute the prepared flip charts with the seasonal calendar grid. Remind participants to not forget about wild, free foods that might be available in the communities.

Each group will spend 20-30 minutes mapping out what foods are harvested and/or available in the markets during each month; they should be classified by

The groups come back together and spend 30 minutes sharing their calendars. Facilitator will guide participants to discuss any differences they noticed between the different seasons, any observations around how hard or easy it would be for households to achieve dietary diversity during different periods. Ask participants to identify ways (as mentioned previously) that families could cover times when certain foods or food groups are not currently available.

Materials:

- PPT
- Laptop, screen, projector
- Flip chart
- Seasonal food calendars prepared on large flip charts (four flip charts taped together with an x-axis marking the months in each season and a y-axis with the 6 food groups)

Credit: Select activities adapted from The SPRING Nutrition-Sensitive Agriculture Training Resource Package.

Session 4: The Role of Agriculture for Nutrition

Timing:

1.5 hour

Objectives:

- Articulate the difference between nutrition-specific and nutrition-sensitive approaches.
- Describe how agriculture and food systems can affect household nutrition and food security.

Activities:

1. Group activity: Ask participants to “Pause and Reflect” via post-it notes and a walk around to the following questions: 1) How do households obtain the food they consume daily? 2) What influences the foods households obtain and consume on a regular basis? Allow participants 10-15 minutes to complete this exercise then bring them back together and have the groups share out their notes.
 - Facilitator should wrap up the conversation with following points to transition into the next PowerPoint: We all rely on food production and interact with the food system for meeting our food needs. The question is whether food production and the food system are positively supporting nutrition and food security – that is where our nutrition angle comes in.
2. PowerPoint slides: Facilitator presents the slides that explain the following:
 - Setting the stage: nutrition-specific vs. nutrition-sensitive
 - Household procurement of food: Grow, Store, Buy
 - Agriculture to nutrition pathways
3. Group activity: Facilitator will divide the participants into three groups to work on the agriculture to nutrition pathway case studies (see annex), including one for each pathway. Allow participants 10-15 minutes to complete this exercise then bring them back together and have the groups share out their notes. Discussion should include how the projects are currently nutrition-sensitive and ways for them to be more intentional about nutrition.
 - Facilitator should wrap up the conversation with the followings points/question to transition into the next PowerPoint: One of our critical pathways is agriculture production for income to meet food and nutrition needs. But what do you think the marketplace looks like for the households in our case study? Do we think it supports households to meet their food security and nutritional needs?
4. PowerPoint slides/discussion: Facilitator presents the slides that explain the following:
 - Applying the agriculture to nutrition pathways in the value chain
 - Input sector
 - Service delivery / extension
 - Farm-level interaction with producers (by the project)
 - Sale of production
 - Discussion: in which ways is your program working in the different parts of the agriculture system? What are some areas nutrition can be integrated or your activities can be nutrition-sensitive? Which pathways are you considering?

Materials:

- PPT

- Laptop
- Projector
- Screen
- Flipchart
- Post-it notes.

Credit: Select activities adapted from ACDI/VOCA's Integrating Nutrition into Agriculture in Tanzania Training

Session 5: The Role of the Food System for Nutrition

Timing:

1.5 hour

Objectives:

- Describe how agriculture and food systems can affect household nutrition and food security.
- Understand the role private sector plays for nutrition in the food system.

Activities:

1. PowerPoint slides: Facilitator presents the slides that explain the following:
 - Understanding the Food System – what are the components?
 - Facilitate discussion: how is your program/activities currently working in these different subsystems? How do you think your work in these different subsystems affect nutrition?
 - Using the Food Environment Framework to understand the Food System.
 - Facilitate discussion: How do you think the local food environment is for households in your intervention areas? (Walk through the different food environment components) Come back to the last question – How do you think your work in these different subsystems can affect nutrition? – now that participants can visualize ways in which the food system surfaces in the local marketplace.
2. Group Activity: Facilitator will divide participants into three groups to work on the “Matching the Consumers to the Food Environment” Activity. Allow participants 10 minutes to complete step #1 of this exercise then bring them back together and have the groups share out their notes. Allow participants 20 minutes to complete step #2 of this exercise then bring them back together and have the groups share out their notes.
 - Example of one case study:
 - Story: You conducted focus group discussions in Amhara region of Ethiopia, and you found that households are consuming predominantly injera made from maize, some ghee, and onion and spices. They are not consuming the local varieties of kale because there is a local thought that if people consume it they are poor; they’ve heard about consuming peanuts and other groundnuts from the extension agent but have not found it in the market; they occasionally will eat chicken but usually the household’s income isn’t enough to consume it on a regular basis, nor does the husband think it is important to do so; and the market is a 1.5 hour walk each way and so households try to buy foods that are more shelf stable.
 - Step #1 question: which food environment components are impacting these households from consuming a nutrient-rich diet?
 - Step #2 question: what are some ways your identified food environment components can be addressed to better support the local consumption of a nutrient-rich diet?
 - Facilitator should wrap up the conversation with the followings points/question to transition into the next PowerPoint: Reflect on how private sector came up in the previous discussion and in the ag-nut pathway session. Ask the group, how can we “get” private sector actors to influence nutrition?
3. PowerPoint slides/Discussion: Facilitator presents the slides that explain the following:

- The role of private sector in the food system
- Building the business case for private sectors actors in the food system

Materials:

- PPT
- Laptop
- Projector
- Screen
- Flipchart
- Post-it notes.

Session 6: Characteristics of Social and Behavior Change

Timing:

1.5 hours

Objectives:

- Articulate the basic concepts about why behaviors change.
- Explain several ways that SBC contributes to improved activity outcomes.
- Understand the process for changing behavior and our role in that process.

Activities:

1. Group activity: Break participants into groups of 4-5 and distribute post-it notes. Ask participants to reflect and discuss in their groups on the factors that influence their own food decisions. Why do they purchase certain foods? Make a note on the post-it about if these are internal factors to them or external factors influenced by other people? Allow participants 10-15 minutes to complete this exercise then bring them back together and have the groups share out their notes.
2. PowerPoint slides: Facilitator presents slides that explain the following:
 - SBC concepts and definitions.
 - 5 “Behave” Principles.
 - Why use SBC in the nutrition and food systems activities.
3. Ask participants to individually remember a change they made (or tried to make) in their own lives, such as brushing their teeth more frequently or washing their hands with soap, then try to recall the things they did to make and secure that change. Finally, reflect on the success of the change.
 - Next, ask a few people to share their reflection, asking:
 - What was the change you made/tried to make?
 - What did you do to facilitate the change?
 - How easy or difficult was it?
 - What made it easier/more difficult?
 - How long did the change take?
 - Were you successful in making the change? Why? Why not?



Facilitator should highlight that some change comes about easily and does not need to be planned for, whereas other behavior changes are more difficult and need to be planned. We should be able to understand the steps needed to change behavior and our role as practitioners in that process.

4. Next the facilitator will divide the participants into small groups of about five people to conduct an exercise that will help them identify the steps in the Process of Planned Change, as well as their roles and the community’s role in that process. Pass out the first set of sheets for the Process of Planned Change Game found in **Appendix 1**. The first set contains the steps for achieving change. Give the groups the first set (and the remaining two sets) out of order and instruct participants to tape the steps on the wall in the order that makes sense to the small group.

Once the group has ordered the first set of sheets, distribute the second set, explaining that these represent the community’s action (the changer). They should put these sheets in order underneath the steps for achieving change they have already posted.

Next, hand out the third set of sheets, explaining that these represent the role of the change agent. Participants should put these sheets in order underneath the changer's sheets. When finished, the steps should be lined up with the corresponding roles/actions of the community and change agent underneath each step.

Once all the groups finish posting the three sets, ask them to visit the others' displays and compare their results. Then show participants the correct order.

	1. Pre-Awareness (Pre-Contemplation)	2. Awareness (Contemplation)	3. Preparation	4. Action	5. Maintenance		
Steps to Achieving Change	Identify the problem.	Study the alternatives and look for more information.	Obtain new skills and access to resources and support.	Try out the new practice.	Reflect on and reinforce the new practice.	Continue the practice with support.	Celebrate your success.
Changer 	I don't see a problem.	There might be a problem but I need more information and alternatives.	I'm ready to try something new, but there are obstacles.	I am trying the new practice but I'm still not 100% certain of the outcome.	With support and encouragement from my family and community I can succeed!	I need to keep trying until the change becomes a habit	Yes! I can do it!
Change Agent 	I will facilitate an activity to help the participants identify the problem.	I will facilitate an activity to help the participants identify alternatives for solving the problem and provide them with more information.	I will facilitate an activity to help the participants identify how to overcome the obstacles and organize access to resources.	I will facilitate a discussion on the benefits of adopting the new practice to encourage permanent change.	Continued reinforcement and support are needed for change to be permanent.	Monitor the change to provide needed support and information.	Recognize and celebrate the success of a positive change in behavior.

Materials:

- PPT
- Laptop, screen, projector
- Post-it notes
- Flipchart
- Handouts for Process of Planned Change exercise

Credit: Select activities adapted from The SPRING Nutrition-Sensitive Agriculture Training Resource Package and the Designing for Behavior Change: For Agriculture, Natural Resource Management, Health and Nutrition training materials, developed by CORE Group, FSN Network, and USAID.

Session 7: Understanding Behaviors, Determinants, and Barriers

Timing:

2 hours

Objectives:

- Identify factors within a specific context that will inhibit, influence, or strengthen behavior change and can be addressed in activities.

Activity Description:

1. Discussion: Reflecting on our discussion of the Agriculture-to-Nutrition Pathways and WASH and the areas where the program is intervening (show notes from previous session as needed), ask participants to work with people at their table or break into groups of 5-6 to discuss the following:

What nutrition behaviors or practices is the program looking to change?

Who is the person doing the behavior or practice?

What is person currently doing?

Ask each group to write each behavior or practice on one large post-it note, then once all the groups have finished, ask them to share their responses in plenary.

After groups have shared their responses, ask groups why it might be helpful to identify behaviors like this. Responses might include:

- It helps us to articulate the change that we want to see.
 - It helps us to align with our indicators: some indicators might be comprised of several behaviors, so articulating behaviors can help us be very clear about what the indicators mean and look like
 - It helps us begin to identify why certain behaviors might not be changing or might be “stuck”
2. Writing behavior statements¹: Facilitator asks participants to break into the same groups and pick one of the behaviors/practices for which to write a behavior statement.

A behavior statement should have:

Priority group + Action verb in present tense + The details (e.g., frequency, quantity, duration...)

Examples of a behavior statement include:

- I. Mothers of children under five years of age wash their hands with soap at the five critical times each day.
 - II. Targeted male and female poultry producers use part of their income to buy nutritious foods such as fruits and vegetables.
 - III. Targeted caregivers include a small cup of milk to the meals for their children under five years of age each day.
3. After participants have identified behavior statements, they should begin to think critically about why participants do or do not adopt these behaviors. Note that, while we will not go into too much

¹ NOTE: This activity might not be appropriate for all audiences. Depending on the expertise of the audience, an alternative change process activity is provided as an Annex to this session.

detail about behavior change frameworks, we will share a few reasons why people adopt or do not adopt behaviors. First, ask participants what some of the reasons people do not adopt behaviors are. Write these on a flipchart in one color.

4. Next, ask participants for some reasons that people might adopt a behavior; write these on the same flipchart, but in a different color. Then show the Determinants of Change slide on the PowerPoint.
5. Explain each determinant and provide examples of each determinant as a barrier (a reason why people do NOT change) and a motivator (a reason why people DO change). Answer any questions.
6. Note that we will not go into detail about how to do studies on determinants, but that there are many resources on how to conduct research on the determinants of change. It is also valuable for participants to keep these determinants in mind when thinking about behavior change. It is critical to not only focus on knowledge and access, but the other determinants that can greatly affect behavior adoption. In addition, participants should be encouraged to refrain from making assumptions, no matter how well they think they know the local or cultural context. Conducting additional analyses will ensure that the implementers have accurate information to develop behavior change components.

Examples of analyses that can help to inform the determinants and barriers include the following:

- Barrier analysis
- Doer/no-doer survey
- Focus group discussion and interview guides
- Rapid market assessments
- Knowledge, attitude, practices (KAP) survey
- Behavior mapping

These are all analyses that IGNITE is equipped to support on if the need arises.

7. Ask participants how they might apply some of this knowledge to their work – for example in trainings, work with producer organizations or self-help and savings groups, etc. Note that some examples include:
 1. Thinking through the behaviors that you want to see result from activities, especially the nutrition behaviors.
 2. Thinking through, when developing new activities, WHY participants may or may not do these behaviors already. Think beyond just knowledge and access as reasons for adoption or non-adoption.
 3. For indicators and results that are somewhat nebulous, articulating a behavior statement so that all project staff understand what the indicator is trying to achieve.
 4. Identifying priority behaviors for the program.

Materials:

- PPT
- Laptop, screen, projector
- Post-it notes
- Flipchart
- Two markers with different colors

Credit: Select activities adapted from The SPRING Nutrition-Sensitive Agriculture Training Resource Package and the Designing for Behavior Change: For Agriculture, Natural Resource Management, Health and Nutrition training materials, developed by CORE Group, FSN Network, and USAID.

Annex 1: Case Studies for Agriculture to Nutrition Pathway Activity

Case Study #1: Production (Donor and IPs)

1. The Mahindi project is working in the southern highlands of Tanzania to improve the production of maize as well as related storage and processing practices. Maize is the primary staple crop consumed in the area and comprises 58% of the diet. The project has worked with input suppliers to increase the availability of quality declared seeds and improved inputs, like fertilizer and pesticides. Through the project, the input suppliers have established more frequent contacts with farmers, which has allowed them to increase their sales. However, the farmers are only interested in purchasing maize input supplies, which does not allow the input suppliers to diversify their business lines. Overall, farmers have seen their production of maize increase. However, they are still seeing spoilage of their maize after harvest, particularly from aflatoxins, which reduces the amount they can consume or sell at a higher price during lean season.
2. Increased yields from improved inputs and agricultural practices have also been matched with increased access to water through irrigation schemes at the village level. As outlined in the Agricultural Sector Development Programme, irrigation received the most funding which has benefited agriculture in the region. However, there is concern of natural resource management, particularly management of water for human use.
3. Additionally, in recent years, the Ministry of Agriculture has encouraged diversity of production in the region. Some farmers have started to produce legumes, but they are primarily selling their production.
 - How are the activities in this region possibly affecting nutrition?
 - What ways can the project make their activities more nutrition-sensitive, or have a greater effect on nutrition?

Case Study #2: Production (Government)

1. Diet in a region in the Southern Highlands consists of 72% staple foods like maize and rice, while 52% of the children are stunted. The primary crop grown in the region is maize. Farmers have little knowledge of what inputs they need or other ways to improve their maize production practices or diversify their production to incorporate high value crops for sale of consumption. After harvest, most farmers sell most of the maize and only keep a portion for themselves in bags to sell and consume during the lean season. A lot of the farmers experience losses during these months due to spoilage and pests, largely from aflatoxin.
2. Despite low adoption of improved inputs and good agricultural practices, overall, yields have improved due to increased access to water through irrigation schemes at the village level. As outlined in the Agricultural Sector Development Programme, irrigation received the most funding, which has benefited agriculture in the region. However, there is concern of natural resource management, particularly management of water for human use.
3. In recent years, the Ministry of Agriculture has encouraged diversity of production in the region. Some farmers have started to produce legumes, but they are primarily selling their production.
 - How are the activities in this region possibly affecting nutrition?
 - What ways can the project make their activities more nutrition-sensitive, or have a greater effect on nutrition?

Case Study #3: Gender

1. The Kuku project has been working to increase poultry rearing practices of smallholder farmers to improve their productivity and increase the consumption of animal source foods. Through the project, vet input suppliers have increased their supply of important vaccinations, like the Newcastle vaccination, but only some farmers, mostly men, have adopted these promoted health management practices. The extension agents have heard that the women do not feel comfortable engaging with the input suppliers or extension agents. Households which have adopted the poultry rearing practices supported by the project have seen their flock size and subsequently sale of egg and meats increase, which has led to increased income for the household. However, community health workers have said that despite increased income and production of poultry amongst some of the households they work with, they have not seen purchasing or consumption of nutrient-rich foods improve for these households. Additionally, health workers are concerned about zoonotic diseases and children's exposure to bacteria from sharing the same spaces as livestock.
 - How are the activities in this region possibly affecting nutrition?
 - What ways can the project make their activities more nutrition-sensitive, or have a greater effect on nutrition?

Case Study #4: Income

1. Project Kuku na Mahindi has been working to increase the productivity of the maize and poultry value chains in the Southern Highlands. Most households have seen an increase in income from these improved practices and increased access to important inputs. However, in many cases, men control the household income, and prioritize different investments and expenses than the women would prioritize. Additionally, most households have difficulty saving money and struggle to purchase nutritious foods, despite 80% of income going to purchase food, or cover unexpected expenses during the lean season. Consumption of nutrient-rich foods has improved, primarily from the improved poultry practices, but purchase and consumption of other nutrient-rich foods has not improved.
 - How are the activities in this region possibly affecting nutrition?
 - What ways can the project make their activities more nutrition-sensitive, or have a greater effect on nutrition?

Facilitator Notes

Case Study #1 and #2: Production

Possible suggestions:

1. Promote adoption of iron and zinc biofortified maize seeds.
2. Work with input suppliers to disseminate nutrition and production messages about legumes to increase the production of this nutrient-rich crop and diversify their business services offerings.
3. Train farmers through extension agents or processors on how to properly store their maize to reduce spoilage and increase a source of food and income during the lean season.
4. Engage with input suppliers to sale pic bags to reduce spoilage or damage to stored grains/legumes.
5. WASH – Call on expertise from WASH in the groups but water for human use needs to be balanced with agricultural use. Additionally, investing in water infrastructure and services for human consumption can decrease time and energy burden of women, leaving them more time for income generating activities (like maize, as in this case study) and reproductive activities.

Case Study #3: Gender

Possible suggestions:

1. Sensitize community on importance of women, who are primarily responsible for livestock rearing, engaging, and communicating with extension agents and input suppliers to learn how to improve their poultry rearing practices.
2. Sensitize households on importance of women participating in decision-making processes within the household and having control over income, as women are more likely to spend money on nutrition and health needs of the household.
3. Increase capacity of extension agents and vet input suppliers to disseminate messages about consuming eggs and poultry.
4. WASH – incorporate messages on safe and clean spaces for household member to decrease the risk of contamination from livestock-human interaction.

Case Study #4: Income

Possible suggestions:

1. Increase women's decision-making ability.
2. Increase savings and access to financial services including HH budgeting to support income smoothing for year-round purchase of diverse foods.
3. Increase use of income for nutrient-rich foods through messaging from community health workers, extension agents, popular messaging platforms.

Annex 2: Alternative Behavior Change Explanation Activity

1. To explain behavior change, start by drawing three buckets or open boxes on a flipchart and asking participants what would be an area that they would like to change from their personal life (e.g., health, work/life balance, personal finances). Provide one or two examples so that they understand the question well. Ask people to volunteer – they will say things like “fitness/health” “family” “work/life balance” or “finances.” Write each theme in a separate bucket or square on the flipchart.
2. Explain that these are the types of areas that we all have in our life that we would like to improve on. Then start to explain specific behaviors. Point out the “fitness/health” category on the flipchart. For those participants who mentioned health, ask, “what are some specific things that you want to do to increase or improve your health?” Write out examples on a separate flipchart. Examples might include:

Swim 3x a week

Sleep more (got to bed at 21h)

Eat at least 1 portion of veggies a day.

Note that all of these are behaviors that, when combined, contribute to improving overall health. Note that all of us have behaviors that we would like to change or adopt. In gender and nutrition, there are behaviors that we want households to adopt; for instance, note the following on a flipchart:

Women make decisions over the money that they themselves have earned.

Women use productive resources (such as machinery or fertilizer) to increase their agricultural production.

All members of the family eat greens once a day.

Note that when we talk about behaviors, it is best to follow a certain format. Behaviors should follow this format:

Noun (Sarah)+Verb (swims) + frequency and additional details (for 35 minutes three times a week).

Also note that behaviors must fit a few criteria:

Visible – you must be able to see the behavior (e.g., someone can see you swim...)

Measurable – You must be able to count the behavior.

The ultimate behavior – behaviors should describe the outcome that you wish to achieve. For example, it is not a behavior to want to swim. Or, from the example above, it is not enough for women to have access to productive resources; they must use the resources.

3. Ask participants to reflect on one or two things that they would like to change about their lives and have them write behavior statements for these. Next, ask for an example of a behavior change statement from participants. If necessary, make small gentle adjustments to the statement to make it correct, and write on a flipchart.
4. Ask participants, what are some of the reasons that X may not do this behavior already? For example, if a participant notes that they want to “run in the park for 45 minutes twice a week,” what are the reasons that he or she might not do that?
5. List reasons on a flipchart. Make sure that you have some examples of access barriers (does not have proper equipment or a place to run), cues for action (forgets to go running), social norms (family members do not want them to run, want to spend time with them instead), negative consequences (if he/she runs she might get hurt), etc.

Explain that for many behaviors, there are various reasons that people do or do not adopt the behavior. Behavior change helps us understand and examine these reasons, so that we can remove the barriers and encourage the motivators.