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Double Burden of Malnutrition Workshop Facilitation Manual: Lima, Peru

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Double Burden of Malnutrition Group Model Building Workshop Facilitation Manual

Lima, Peru
April 2022

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Materials in this facilitation manual are adapted from resources of Scriptapedia (https://en.wikibooks.org/wiki/Scriptapedia) This facilitation manual is shared as a learning resource and as an artifact of a workshop hosted in Lima, Peru in April 2022.

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CENTRO DE EXCELENCIA EN ENFERMEDADES CRÓNICAS

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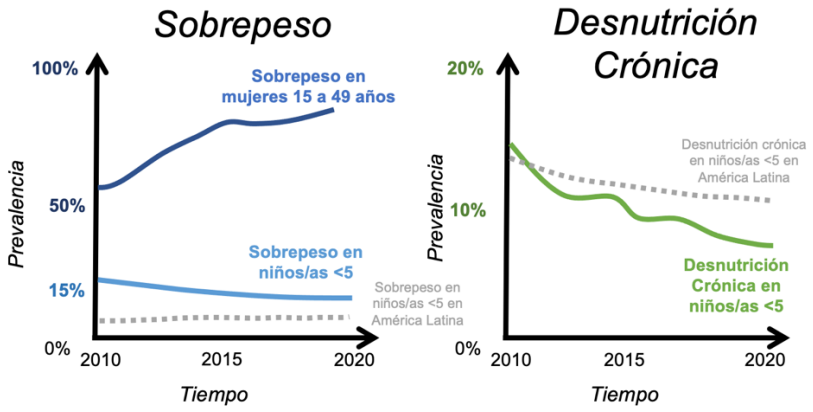
Project Background

The concept of the Double Burden of Malnutrition (DBM) arose out the coexisting issues of both undernutrition and overnutrition. In Peru, undernutrition has been a concern for decades, with stunting affecting more than 12% of children under the age of 5 in 2019. At the same time, the dramatic change of how people eat in Peru has increased overnutrition, which refers to dietary excess and related health outcomes, like overweight, obesity and non-communicable disease, such as cardiovascular disease. The problem of the DBM has been presented in this workshop using the reference modes shown below, which reflect dynamic trends in overweight and stunting in Lima, Peru.



Policy interventions have historically only been one-sided, addressing either undernutrition or overnutrition. These efforts have been siloed and thus precipitate the need for double-duty policies to address the DBM and avoid unintended consequences of one-sided policy.

In order to address this knowledge gap and identify opportunities for double-duty policies in Peru, the research team is developing a conceptual simulation model to inform understanding of the wider food system and how it affects the DBM. As a formative step, representatives of CRONICAS and system dynamics professionals from Imperial College London, Universidad de los Andes Colombia, and the Social System Design Lab hosted a series of group model building sessions in Lima and Iquitos, Peru. Stakeholders tapped for their experience included policymakers, NGOs representatives, health practitioners, academics/researchers, and community members. Insights and model structure gleaned from these workshops will inform the adaptation and further development of the conceptual simulation model.

The facilitation manual here presents the design of a workshop hosted in Lima, Peru, in April 2022.

Objectives

Explicit Objectives

- Map the drivers of the food system that contribute to the double burden of malnutrition in two diverse regions in Peru using a CBSD approach.
- Orient relevant stakeholders to a systems perspective of the double burden of malnutrition.
- Identify potential policy levers that could address the double burden of malnutrition through changes in the food system to be explored in future simulation analysis.

Implicit Objectives

- Build group model building capabilities within the project research team to facilitate community workshops.
- Support the development of a cohort of community stakeholders with exposure to system dynamics approaches to continue involvement in the project moving forward.
- Generate resources to replicate application of the CBSD approach in relevant future work

Facilitation Team Roles

Members of the Core Modeling Team (CMT) will adopt various roles throughout the course of the workshops. Below are basic descriptions and expectations of each role. Specific tasks will be covered in each detailed agenda.

Workshop Convener
Task: Welcomes participants and thanks them for attendance. Introduces workshop and provides context for the workshop within the larger project. Facilitates introductions among CMT and stakeholders. Reviews agenda, norms, and goals of workshop.
Attributes: Community based member of CMT

Presenter
Task: Presents the project with the use of PowerPoint slides. Introduces the concept of DBM. Introduces the current simulation model.
Attributes: Currently conducting research on DBM. Should have system dynamics background to introduce model. More than one presenter may be used. Should be a Spanish speaker.

Facilitator
Task: Leads the script/activity. Depending on activity, engages with participants through posing prompts and questions, responds to participants' questions, and reflects on participants' contributions.
Attributes: Should have systems dynamics expertise or content expertise with the Double Burden of Malnutrition. Should have experience with group facilitation. Should be native Spanish speaker.

Modeler
Task: Constructs model based on input from participants and reflections from facilitator.
Attributes: Should have background in system dynamics modeling and be a native Spanish speaker. Can also have the role of the facilitator at the same time.

Wall-builder
Task: Takes participants' contributions (e.g., sheets of paper) and tapes them to wall in clusters of themes. Reflects on group's ideas and explains clustered themes to group.
Attributes: Can identify core concepts and themes from group participation. Two members of CMT can simultaneously be wall-builders, but at least one should be a Spanish speaker

Reflector
Task: Reflects on the workshop's activities and emerging themes. Explains how activities and models created fit into the context of DBM project and model. Describes next steps in the workshop process and overall project goals.
Attributes: Community based member of CMT. Can speak to the connection to simulation model. Can be more than one CMT member, should have at least one Spanish speaker.

Notetaker
Task: Captures participants' contributions to workshop.
Attributes: Native Spanish speaker.

Logistics/Timekeeper
Task: Sets up technology for presentation, as well as materials for connection circle and causal mapping activities. Keeps track of time for each script and signals to facilitator when time is nearly up.
Attributes: Familiarity with tech and presentation.

Planning Logistics

Workshop Space

- Tables organized for 3-5 participants per table, facing each other
- Wall space – open wall space or windows to allow for taping chart paper and A4 papers. Alternatively, a whiteboard could be used, depending on format of workshop.
- Technology – availability of projector & screen for projecting
- Refreshments – Water & snacks as appropriate, space to serve

Materials Needed

- Technology
  - Digital Projector
  - Computer with PowerPoint
  - Microphone if necessary, depending on space.
- Office Supplies
  - White A4-sized paper
  - Tape - Painter's tape that doesn't pull off paint from walls
  - Colorful, fat-tipped markers – enough for each participant to have 1 + some extra. Flip-chart markers preferable so they don't bleed through
  - Chart paper or Flip charts
  - Name tags – sticky name tags for people to wear

Interpretation Approach

Workshops were facilitated in Spanish with simultaneous English interpretation for English-language observers provided by professional interpreters. Notes were taken primarily in Spanish, with supplemental notes from observers in English.

Summary Agendas

The summary agendas illustrate the order of activities, how long is set aside for each activity, and which roles are needed.

Workshop 1 & 2 (Policymakers & NGO Representatives)

Time	Activity	Main roles
20 minutes	Welcome & Introductions	Convener
10 minutes	Introduction to DBM & Model	Presenter(s)
30 minutes	Graphs Over Time	Facilitator Wall-builder(s)
10 minutes	Break	
60 minutes	Large Group Causal Loop Diagram	Facilitator(s) Modeler
10 minutes	Reflections & Closing	Reflector(s)

Workshop 3 (Health Practitioners, Academics, and Researchers)

Time	Activity	Main roles
30 minutes	Welcome & Introductions	Convener
10 minutes	Introduction to DBM & Model	Presenter(s)
35 minutes	Variable Elicitation and Dots	Facilitator Wall-builder
15 minutes	Break	
10 minutes	Introduction to CLDs	Facilitator
60 minutes	Small Group CLDs	Facilitator(s) Modeler
10 minutes	Reflections & Closing	Reflector(s)

Workshop 4 (Parents of school-aged children)

Time	Activity	Main roles
30 minutes	Welcome & Introductions	Convener
10 minutes	Introduction to DBM & Model	Presenter(s)
35 minutes	Variable Elicitation and Dots	Facilitator Wall-builder
15 minutes	Break	
10 minutes	Introduction to Connection Circles	Facilitator
40 minutes	Connection Circles	Facilitator(s)
10 minutes	Reflections & Closing	Reflector(s)

CLD: Causal Loop Diagram

Detailed Agendas

The detailed agenda walks through each activity including timing and roles, prompts, props, and other details for a successful activity. There are 3 different agendas based on the different workshop configurations.

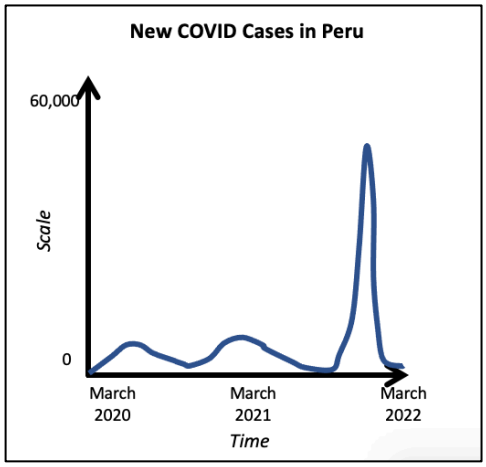
Detailed Agenda for Workshops 1: Policymakers & 2: NGO representatives

Timing & Roles	Activity
Time: 30 minutes	**Room Set-up** • Table lay out • Materials on table • Technology – PowerPoint ready • Refreshments
Time: 30 minutes	**Participants arrive** • Welcome participants in • Ask participants to create a nametag
<u>Welcome & Introductions</u>	
Time: 20 minutes Roles: Convener Logistics/Timekeeper	*Convener welcomes participants in* Convener thanks everyone for coming and introduces the project and workshop • Introductions – CMT introduce themselves, then stakeholders introduce themselves • Mentions notetaking, photos – “if you share something that you don’t want recorded, let the notetaker or CMT know”
<u>Introduction to DBM & Model</u>	

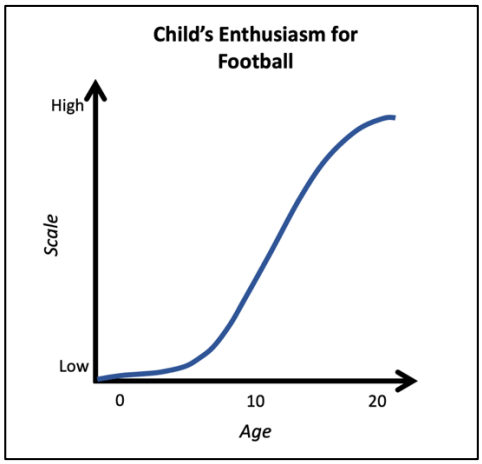
Time: 10 minutes Roles: Presenter(s) Logistics/Timekeeper	**Project Introduction:** Presenter 1**:** Introduce the project and the topic of DBM using a PowerPoint presentation. - Overall structure of the problem - Highlight the knowledge gap about food system drivers and the multiple ways they act - Make clear that this is what we're exploring in this workshop and where participants' experience can provide insight **Systems Thinking Iceberg:** Presenter 2: Introduce the idea of the iceberg as a framework for understanding the double burden of malnutrition and explaining main system dynamics notions. Present existing model.

Graphs Over Time

(This activity is a variation on the Graphs over Time activity)

Time: 30 minutes Roles: Facilitator Wall-builder Logistics/ Timekeeper Notetaker	Facilitator: Explains the next activity's goals: 1. Identify factors that contribute to the DBM 2. Look for patterns of behavior that change over time Facilitator *creates one of the below examples of a graph over time on flip chart/whiteboard.* ***Example #1:*** 

Example #2:



Facilitator: Explain what is needed on each graph:

1. X-axis: Time
   The time should start in the past and end in the present, and could vary (such as days, months, or years).
2. Y-axis: scale of the variable to be described
   Numeric or qualitative, such as "high/low."
3. Use a line to draw the pattern of behavior
   How it has changed over the timescale. Is the factor increasing or decreasing over time? Or both? Or not changing?
4. Title to your graph to indicate the pattern of behavior

Facilitator: "You will create these graphs in response to 2 prompts. Then we will share out to the rest of the group"

Prompts:

1. **What food system variables do you think are associated with child stunting?**
2. **What food system variables do you think are associated with overweight in children or adults?**

Facilitator: "You will have 4 minutes to complete your graphs in response to the first prompt, then we will move on to the next prompt."

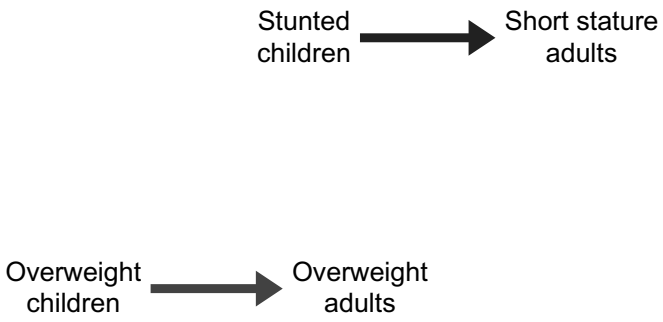
Facilitator: "We will now move onto the second prompt."

Facilitator: **"**Before we share-out, start stacking your graphs with the most important/favorite on top and the least important/favorite on the bottom."

Give participants another minute to order their graphs.

Facilitator: **"**Now, we will go one by one to share one graph at a time, starting with your most important graph. We will go through a few rounds of sharing out what we have created. If

	someone else shares a graph that is the same as yours, share a different one. Who would like to go first?" *Participants share graphs one at a time until time is up.* *Facilitator summarizes what each participant shared, and hands graph off to Wall builder.* *Wall builder tapes the graphs on the wall in clusters of themes.* Facilitator: "While you have been sharing your graphs, the wall builder has been clustering them into themes. Wall builder will you please share what you have created? " *Wall builder describes clusters of graphs.* Wall builder: Ask if there are changes the group would like to make *Wall builder responds to group and makes any recommended changes.* Facilitator: Tell group they will have a 10 minute break and when to return to the room.
<u>BREAK</u>	
Time: 10 minutes	Facilitation Team checks in *Prepare flip chart paper with seed structures for group CLDs, blank flip chart paper for facilitator/modeler to demonstrate how to create a CLD*
<u>Large Group Causal Loop Diagram</u> (This activity is a variation Causal Mapping in Large Group)	
Times: 60 minutes Roles: Facilitator(s)/Modeler Logistics/ Timekeeper Notetaker	Facilitator: "We are going to explore the interconnections between these factors by developing a causal loop diagram together." *Facilitator introduces the seed structure describing the aging of overweight children to become overweight adults, and the aging of stunted children to become small stature adults:*

	 Facilitator: **“**Choose one or two graphs as variables to start off with. And reflect how they act to influence or be influenced by factors in this model.” Participants propose a graph as a variable and describe the link created in the model. The facilitator clarifies the nature of the link between variables, and in the process explaining the concept of positive and negative polarity. The facilitator requests contributions from each participant, then opens up participation to any participant who wants to add additional links. As feedback loops emerge, the facilitator identifies and retells the story of each feedback loop. As more variables are added, the facilitator may ask pointed questions about how loops might be closed – for example, highlighting that many factors are influencing overweight adults, but then asking what the consequences of a larger number of overweight adults are. Model development continues until either time runs out or all potential contributions are made. The facilitator retells the story of major causal chains and feedback loops to close the modeling session.
Reflections and Closing (This activity is a variation on the Next Steps and Closing activity)	
Times: 10 minutes Roles: Reflector(s)	**Reflections:** Reflector 1: Reflect on what insights and themes were gained from the model Reflector 2: Reflect on what insights mean for larger context of the project **Closing**

	Reflector 2: Discuss next steps of model synthesis with other stakeholder groups' workshops and plans for a future presentation session Reflector 1: Thanks everyone for attending

Detailed Agenda for Workshop 3: Academics & Researchers

Timing & Roles	Activity
Time: 30 minutes	**Room Set-up** • Table lay out • Materials on table • Technology – PowerPoint ready • Refreshments
Time: 30 minutes	**Participants arrive** • Welcome participants in • Ask participants to create a nametag
<u>Welcome and Introductions</u>	
Time: 30 minutes Roles: Convener Logistics/Timekeeper	*Convener welcomes participants in* Convener thanks everyone for coming and introduces the project and workshop • Introductions – CMT introduce themselves, then stakeholders introduce themselves • Mentions notetaking, photos – "if you share something that you don't want recorded, let the notetaker or CMT know"
<u>Introduction to DBM & Model</u>	
Time: 10 minutes Roles: Presenter(s) Logistics/ Timekeeper	**<u>Project Introduction:</u>** Presenter 1**:** Introduce the project and the topic of DBM using a PowerPoint presentation. - Overall structure of the problem - Highlight the knowledge gap about food system drivers and the multiple ways they act - Make clear that it's this that we're exploring in this workshop and where participants' experience can provide insight **<u>Systems Thinking Iceberg:</u>**

	Presenter 2: Introduce the idea of the iceberg as a framework for understanding the double burden of malnutrition and explaining main system dynamics notions. Present existing model.
Variable Elicitation and Dots (These activities are a variation on the Variable Elicitation activity and the Dots activity)	
Time: 35 minutes Roles: Facilitator Wall-builder Logistics/timekeeper Notetaker	**Variable Elicitation** Facilitator: "We are looking to understand the food system factors that explain, facilitate or resist implementation & impact of these strategies." Facilitator: Explain participants will have 4 minutes to brainstorm on their own and write one variable on each piece of paper that they'd like to share in response to 2 prompts (facilitator can provide example) **Prompts** 1. **What food system variables do you think are associated with child stunting?** 2. **What food system variables do you think are associated with overweight in children or adults?** Facilitator: Ask participants to share factors one by one, until time is up or everyone has gone for two rounds. *Wall builder collects pieces of paper with variables and tape to the wall* **Dots:** *Each participant receives 3 or 4 dot stickers.* Facilitator: Ask participants to identify which factors they think are the most important using dots. Facilitator: Explain participants can "vote" for their factors using the stickers. Each sticker means one vote. They can vote 4 times for the same factor or spread them around as they like.
BREAK	
Time: 15 minutes	CMT checks in *Prepare flip chart paper with seed structures for group CLDs, blank flip chart paper for facilitator/modeler to demonstrate how to create a CLD*

Introduction to Causal Loop Diagrams

(This activity is a variation on the Chickens and Eggs activity but using themes discussed in previous activity)

Time: 10 minutes

Roles:

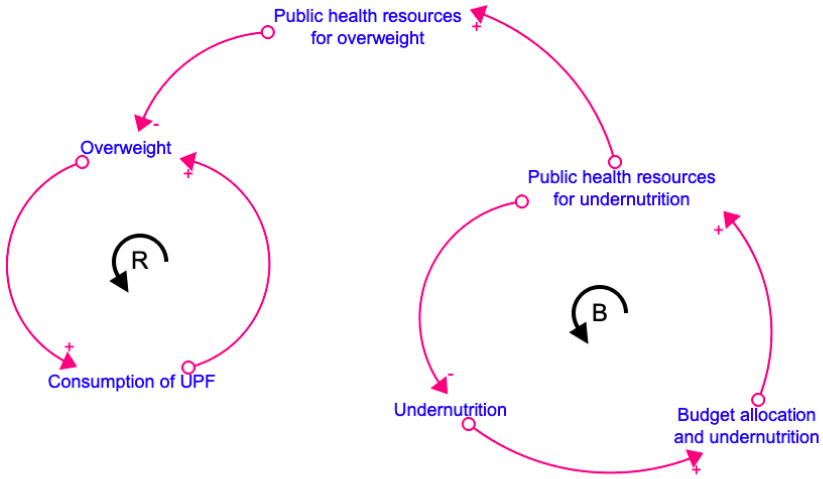
Facilitator

Facilitator: **"**Our next activity will be using the variables you have created with your graphs over time to create a causal loop diagram."

Facilitator uses a PowerPoint presentation to review main system dynamics concepts and CLDs.

Facilitator: Demonstrate how to create a CLD with a story about public health resources, budget allocation and over and undernutrition

Facilitator starts to draw the below CLD and explain as drawing goes.



Facilitator: While explaining make sure to talk about the following important parts:

a. + sign: [*Use up thumbs to demonstrate polarity*] when one variable goes up the other goes up, when one goes down the other also goes down
b. – sign: [*Use up and down thumbs to demonstrate polarity]* when one variable goes up, the other goes down, and when one variable goes down the other goes up
c. reinforcing feedback loop: the initial condition creates an outcome that feeds back and reinforces that initial condition.
d. balancing feedback loop: the outcomes counteract to resist the change of the initial condition

Facilitator: Asks if there are any questions or need for clarity.

Causal Loop Diagrams in Small Groups

(This activity is a variation on the Causal Mapping in Small Groups activity)

Times: 60 minutes Roles: Facilitator(s)/Modeler Logistics/Timekeeper Notetaker	*Break the group into small groups (if more than 6 people)* *Logistics/timekeeper will hand out flip chart paper with seed structures.* Facilitator: **"**Choose one or two graphs as variables to start off with. Reflect how they interact with the variables identified in the previous activity. You can add more to complete your story." *[if more than one group]* Facilitator: "You will have 20 minutes to work on your causal loop diagrams. Afterwards, we will bring the whole group together and work on combining them." *[if only one group]* Facilitator: **"**You will have 60 minutes to work on your causal loop diagrams before we move onto reflections and closing." *Facilitators walk around the room to assist groups as needed. Each Notetaker will go to separate groups.* *Timekeeper notifies facilitator when time is up.* *[if more than one group]* Small group CLDs will move onto large group synthesis with facilitator modeling for 40 minutes.

Reflections and Closing

(This activity is a variation on the Next Steps and Closing activity)

Times: 10 minutes Roles: Reflector(s)	**Reflections:** Reflector 1: Reflect on what insights and themes were gained from the model Reflector 2: Reflect on what insights mean for larger context of the project **Closing** Reflector 2: Discuss next steps of model synthesis with other stakeholder groups' workshops and plans for a future presentation session Reflector 1: Thanks everyone for attending

Detailed Agenda for Workshop 4: Parents of school-aged children

Timing & Roles	Activity
Time: 30 minutes	**Room Set-up** • Table lay out • Materials on table • Technology – PowerPoint ready • Refreshments
Time: 30 minutes	**Participants arrive** • Welcome participants in • Ask participants to create a nametag
<u>Welcome and Introductions</u>	
Time: 30 minutes Roles: Convener Logistics/Timekeeper	*Convener welcomes participants in* Convener thanks everyone for coming and introduces the project and workshop • Introductions – CMT introduce themselves, then stakeholders introduce themselves • Mentions notetaking, photos – “if you share something that you don’t want recorded, let the notetaker or CMT know”
<u>Introduction to DBM & Model</u>	
Time: 10 minutes Roles: Presenter(s) Logistics/Timekeeper	**<u>Project Introduction:</u>** Presenter 1**:** Introduce the project and the topic of DBM using a PowerPoint presentation. - Overall structure of the problem - Highlight the knowledge gap about food system drivers and the multiple ways they act - Make clear that it’s this that we’re exploring in this workshop and where participants’ experience can provide insight **<u>Systems Thinking Iceberg:</u>** Presenter 2: Introduce the idea of the iceberg as a framework for understanding the double burden of malnutrition and explaining main system dynamics notions. Present existing model.

Variable Elicitation and Dots

(These activities are a variation on the Variable Elicitation activity and the Dots activity)

Time: 35 minutes

Roles:

Facilitator

Wall-builder

Logistics/timekeeper

Notetaker

Variable Elicitation

Facilitator introduces the activity by describing how understanding food systems is not as easy as identifying one cause (education, care for child, etc.). We need to understand its different parts and how they are interconnected.

Facilitator: Explain that the group will brainstorm factors in two stages.

Stage 1: Facilitator asks participants to think for 2 minutes about the prompt:

> **What changes would there be in their diet if your baby was born small or premature, or if you thought the doctor said that your child has a delay in growth?**

After 2 minutes, asks each parent to share one factor. Wall builder writes variables shared on the flip chart.

Continue asking for additional factors or variables until 3 times around or they run out of factors.

Stage 2: Facilitator asks participants to think for 2 minutes about the prompt:

> **What changes would there be in their diet if your baby was born large, or if the doctor had thought that your child was overweight?**

After 2 minutes, asks each parent to share one factor. Wall builder writes variables shared on the flip chart.

Continue asking for additional factors or variables until 3 times around or they run out of factors.

Dots:

Each participant receives 3 or 4 dot stickers.

Facilitator: Ask participants to identify which factors they think are the most important using dots.

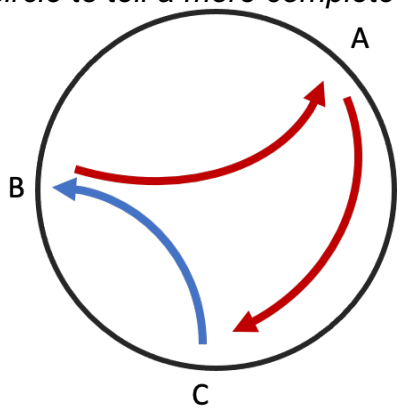
Facilitator: Explain participants can “vote” for their factors using the stickers. Each sticker means one vote. They can vote 4 times for the same factor or spread them around as they like.

BREAK

Time: 15 minutes	CMT checks in *Prepare flip chart paper with circles for Connection Circles activity, and blank flip chart paper for facilitator/modeler to demonstrate how to create a Connection Circle*

Introduction to Connection Circles

(This activity is variation of the first two steps of the Connection Circle activity)

Time: 10 minutes Roles: Facilitator	Facilitator explains that the next activity will be using the variables listed in the previous activity to start seeing how they are interconnected in a system. Facilitator explains that the group will be using a "connection circle" to do this. *Facilitator identifies 3 variables from the list and writes them around the perimeter of the circle.* Facilitator asks participants to volunteer to describe how the factors are interconnected. • *For positive polarity (change in the same direction) facilitator uses blue marker to draw an arrow* • *For negative polarity (change in opposite direction) facilitator uses black marker to draw the arrow* • *For one link, facilitator demonstrates that there may be intermediate variables that can be added to the circle to tell a more complete story* 

Connection Circles

(This activity is a variation on the Connection Circle activity)

Time: 40 minutes	**Connection Circles** *Split the participants into 2-3 groups.*

Roles: Facilitator(s)	Facilitator explains the instructions: 1. Select 3 variables from the undernutrition & 3 variables from overnutrition to get started. 2. Write these variables around the edge of the circle 3. Discuss how they are interconnected. 4. Draw arrows describing how they are interconnected: a. Black for same direction b. Blue for opposite direction 5. Add additional variables as needed 6. Be prepared to tell the stories from your connection circle when done. **Share out** Facilitator: Ask a volunteer from each group to share out what they discussed, including: - Key links - Questions this raised - "ah-ha" moments or other things that were interesting. *After each group shares, the facilitator asks questions* - **How is this similar or different from your experience?** - **What might you add?**

Reflections and Closing

(This activity is a variation on the Next Steps and Closing activity)

Times: 10 minutes Roles: Reflector(s)	**Reflections:** Reflector 1: Reflect on what insights and themes were gained from the model Reflector 2: Reflect on what insights mean for larger context of the project **Closing** Reflector 2: Discuss next steps of model synthesis with other stakeholder groups' workshops and plans for a future presentation session Reflector 1: Thanks everyone for attending