

**Setting the scene:
Looking at change from a food systems perspective**

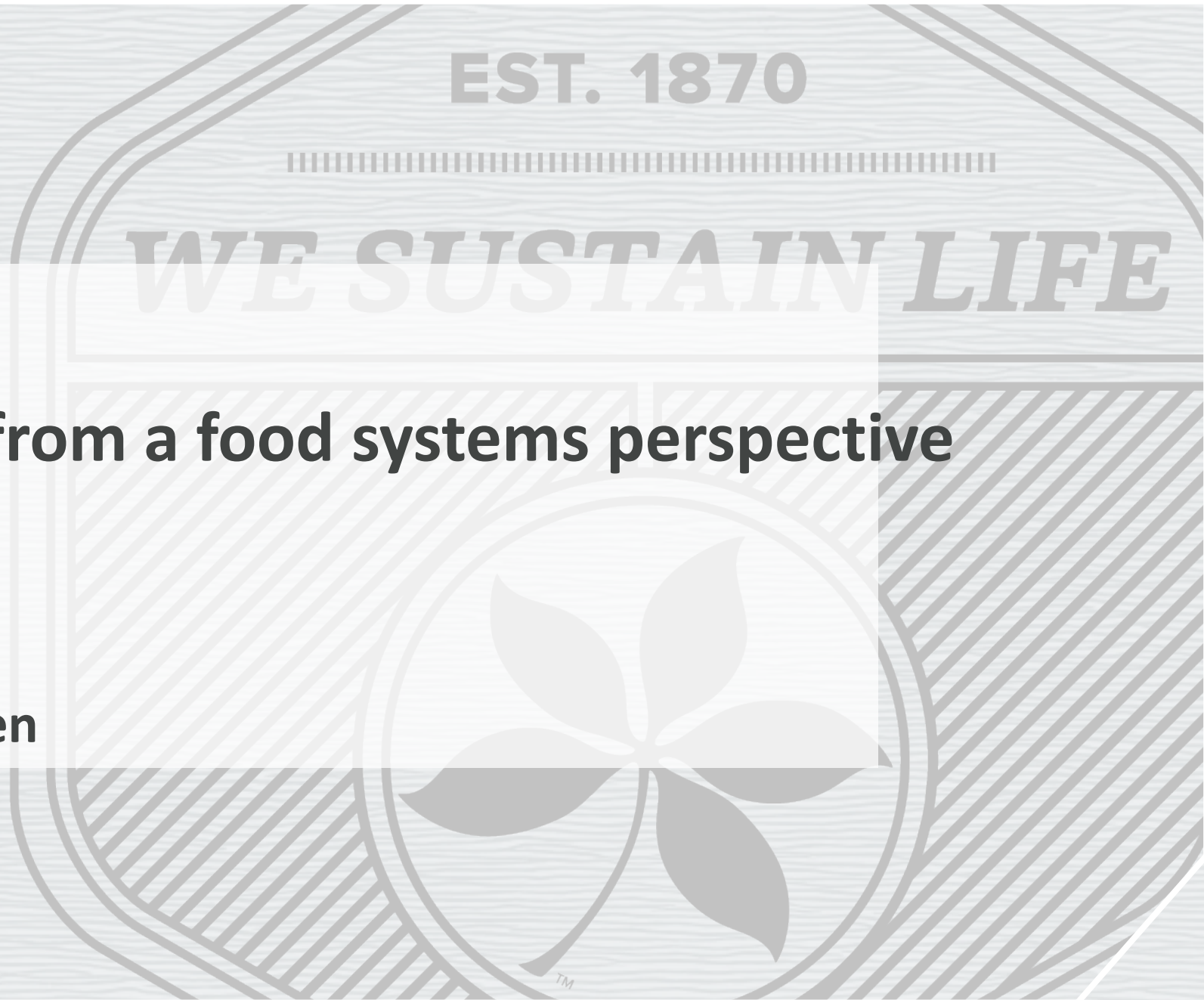
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What scene are we setting?

Systems Thinking for Change





In this session I will....

Guide through the basics of systems thinking

Systems thinking overview

Ladder of Inference – how we make sense of the world around us

Mental models (paradigms)

Patterns over time

Causal connections

Iceberg – seeing beyond the event/issue at hand

Systems Thinking

What is it?

An approach to problem solving which considers the overall system as well as individual parts.

A framework for seeing interrelationships and patterns.

A set of tools and a philosophy.



Systems Thinking

What's unique about this approach?

It helps us to:

- Recognize consequences to our actions of which we may be oblivious
- Recognizing that there are powerful laws of systems operating of which we are unaware
- Move from observing events or data to identifying patterns of behavior over time

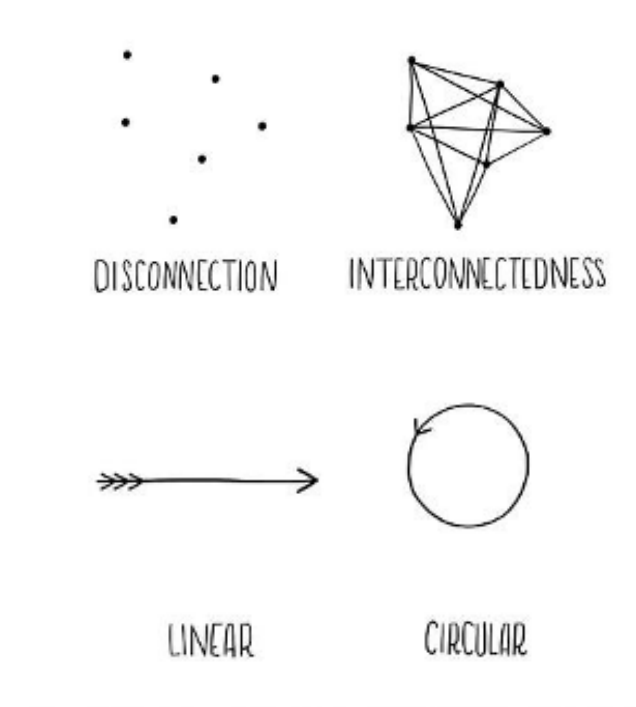
Tools to navigate this perspective

Ladder of Inference

Mental Models

Causal connections

Iceberg



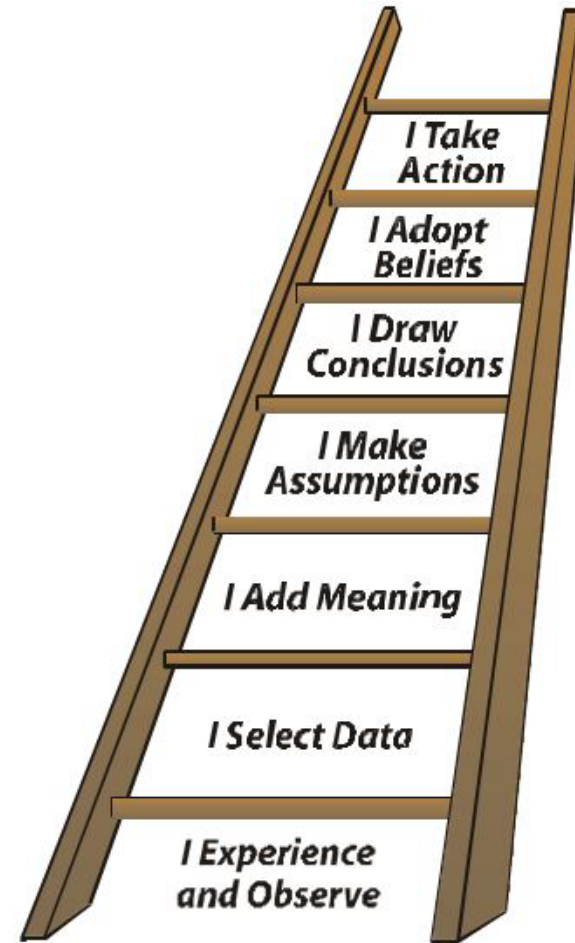
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An image is worth a thousand words

What comes to mind when you see the photo on the next slide?

”

Ladder of Inference



I act based on my beliefs as if they were proven facts. And I adjust new data to fit my beliefs

I adopt beliefs, based on my conclusions, as if everyone has the same conclusions and beliefs.

I draw conclusions, based on my assumptions, and based on what is best for me, and those I care for.

I make assumptions that my data and meaning are accurate, and represent reality.

I add meaning, based on what I feel is reasonable, according to the data I selected.

I select data that I feel is relevant, and discard data that seems irrelevant.

I experience and observe data as a video camera captures data. I hear words, observe body language collect information.

From Chris Argyris

Mental Models

The ladder of inference describes how people form and sustain mental models

Mental models are embedded assumptions, generalization, or images

Mental models shape our worldview and in turn impact our behavior



Why are mental models important?

We might miss important perspectives.

Our interventions might be missing the mark leading to failed efforts or unintended consequences.

Others?

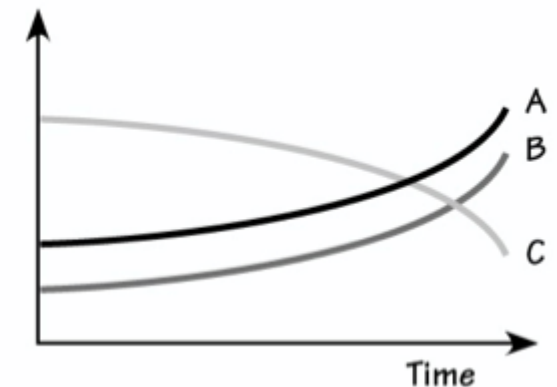
But how can we influence change?

By exploring the system – seeing changes over time and the connections.

Patterns & behaviors over time

To focus on patterns of change over time, rather than on isolated events you can graph behavior over time.

A behavior-over-time graphs (BOTGs) can lead to deeper thinking and discussions about how and why something is changing.





Causal Connections

Identifying interdependencies in systems to see the big picture

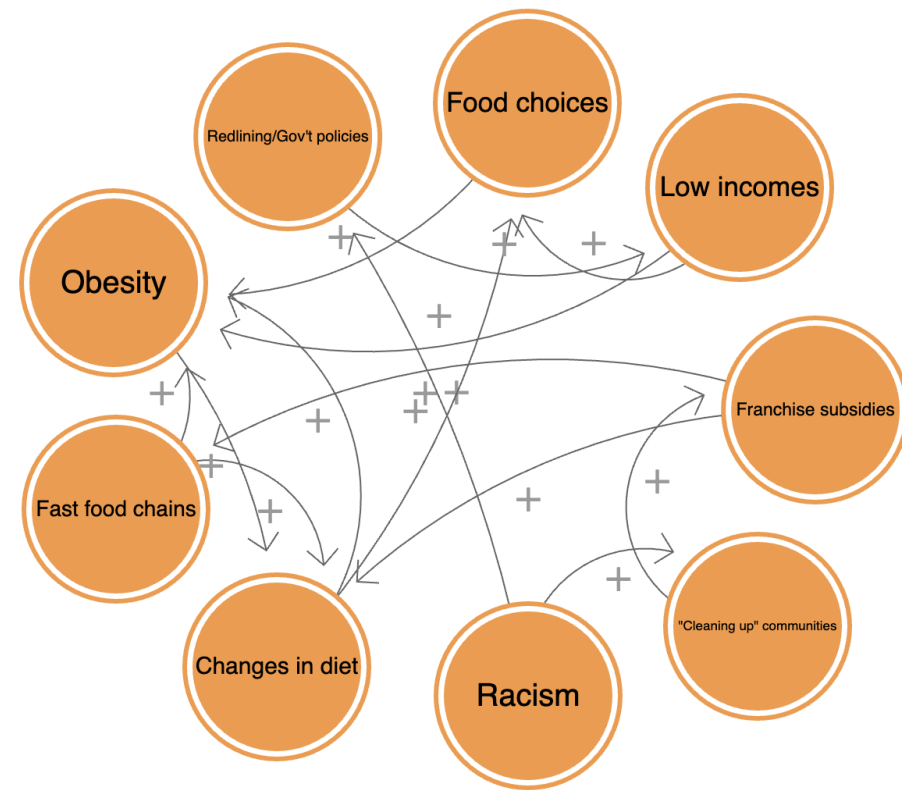
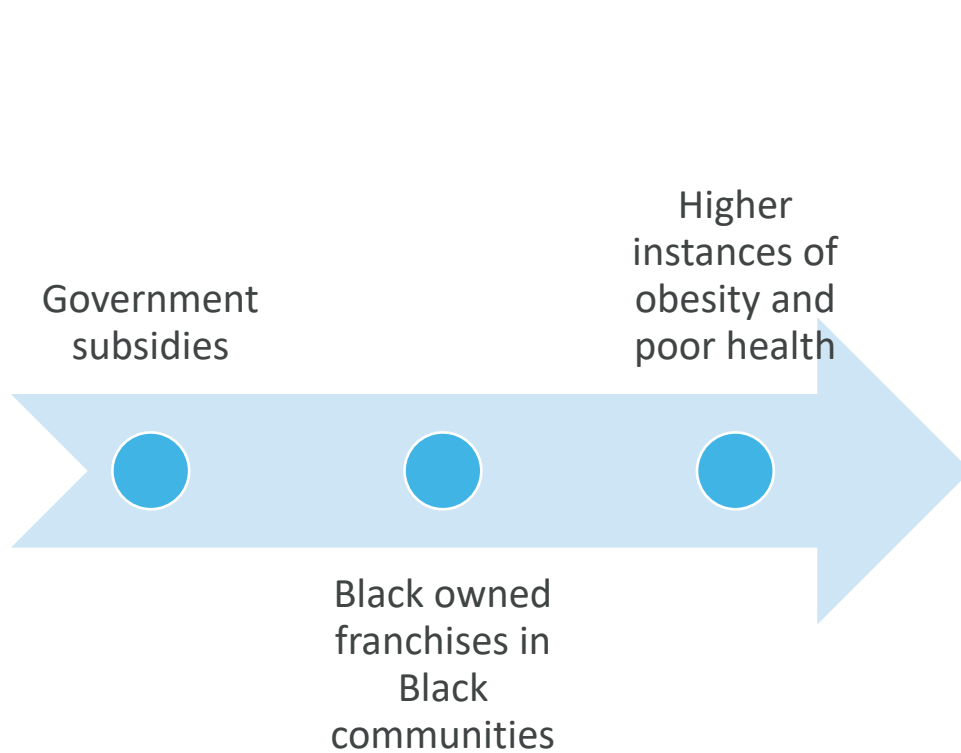
Identifying connections between parts

Exploring causal relationships and anticipating effects of actions

How fast food chains supersized inequality

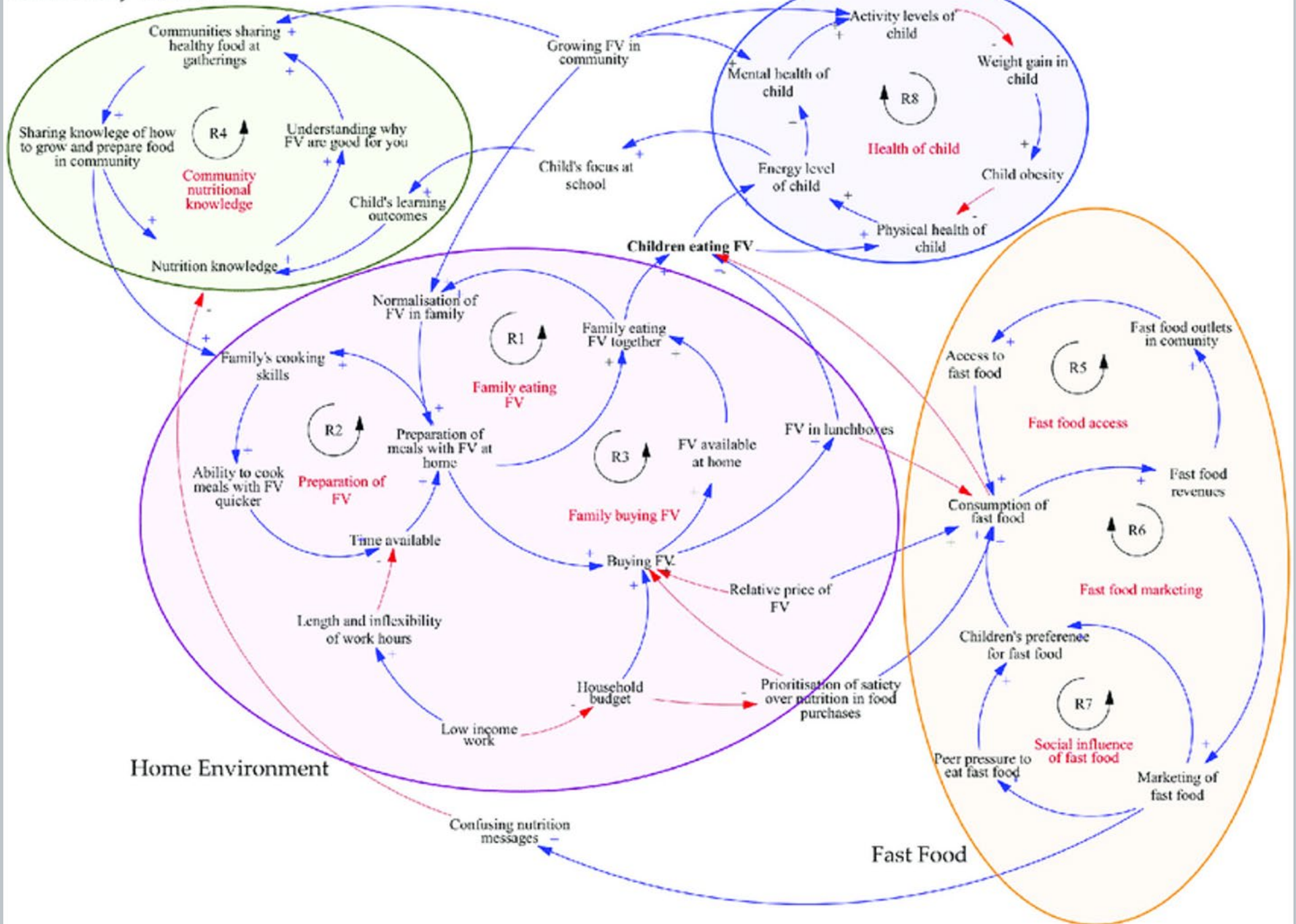
Let's take a look at an example.

Fast food in the U.S.



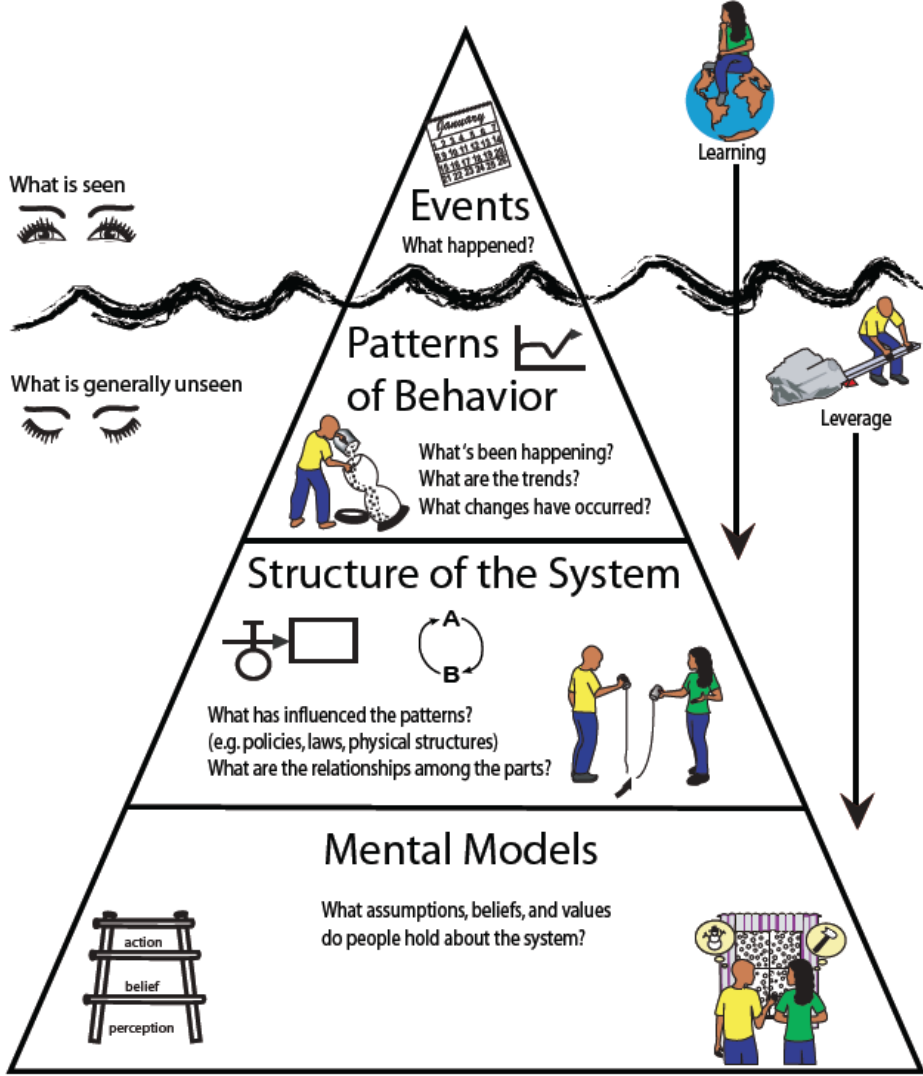
Community Nutrition

Health Outcomes



Iceberg

Iceberg... Seeing What's Below the Surface



Adapted by Systems Thinking in Schools, Waters Foundation, www.watersfoundation.org, from Innovation Associates, Inc.



So, what does this actually look like?

An example from Ethiopia



Food aid

As I tell you about my time in Ethiopia, take down some notes:

- What is/are the event(s)?
- What are the patterns that might be occurring?
- What are the structures influencing the system? How are components interrelating?
- What perspectives (mental models) do you hear?

Let's put this into practice

In pairs, talk about an issue in your food system using the iceberg.

- *Event* - What is something that you see happening in your community?
- *Patterns* - What has been happening over time that has led to that event?
- *Structure* - What is it about the structure of the community food system that has led to those patterns happening over time? What are the interconnections you see?
- *Mental models* – For an interventions, who are the actors involved and how might their mental models differ?



Some final thoughts...

Systems thinking takes practice.

Engaging with various perspectives can help us see the nuances and opportunities for change.

Sustainable and systemic change requires us to make these changes.

Thank you for your time!

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