

# Navigating Complexity Aware Monitoring

Real-World Application of Key Resources and Approaches

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# The MOMENTUM Suite of Awards

- USAID's flagship suite of interconnected projects working in more than 40 countries to:
  - Accelerate reductions in maternal, newborn, and child mortality and morbidity
  - Improve equitable access to high quality voluntary family planning, and reproductive health care.

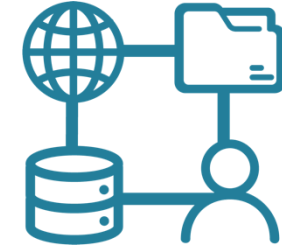


# Country Health Information Systems and Data Use (CHISU)

- USAID's flagship data and information system project of the Office of Health Systems working across 22 countries to:
  - Support the integration and harmonization of information systems across health areas to improve data collection, analysis, and use
  - Inform the demand and use of health information to address health priorities and advance the capacity of local partners to support health ministries



Strengthened **governance** and enabling environment of host-country health information systems



Increased **availability and interoperability** of quality health data and information systems



Increased **demand and use** of health data and information to address health priorities, gaps, and challenges



Strengthened organizational development of **local partners** for sustained health data use

# What We'll Discuss Today

- ✓ What is Complexity-Aware Monitoring?
- ✓ How do you select the most appropriate approaches for your context?
- ✓ What are some real world examples that show when, why, and how to implement CAM?
- ✓ What questions do you have about CAM?
- ✓ What resources on CAM are available?

# Housekeeping Announcements



**Introduce yourself** in the chat! (name, organization, and location).



If you have any questions, please submit them through the **“Q & A”** function.



Feel free to share reflections and comments in the **chat** at any point!

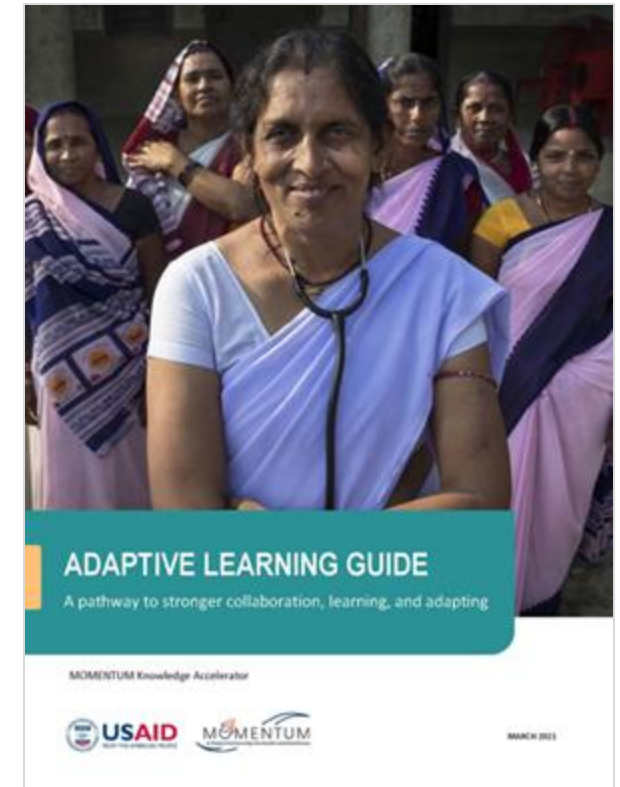
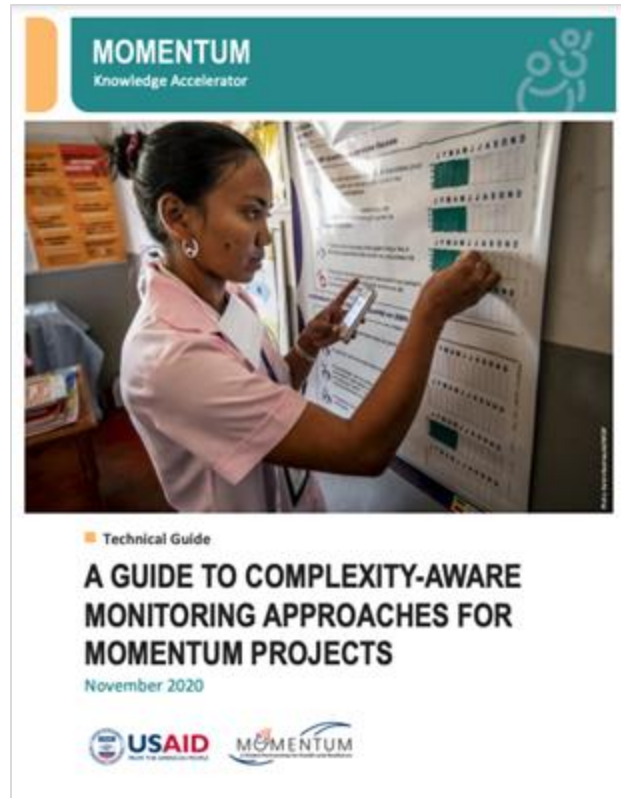
**Pause for a poll question!**



# Background on Complexity-Aware Monitoring

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# MOMENTUM CAM Resources



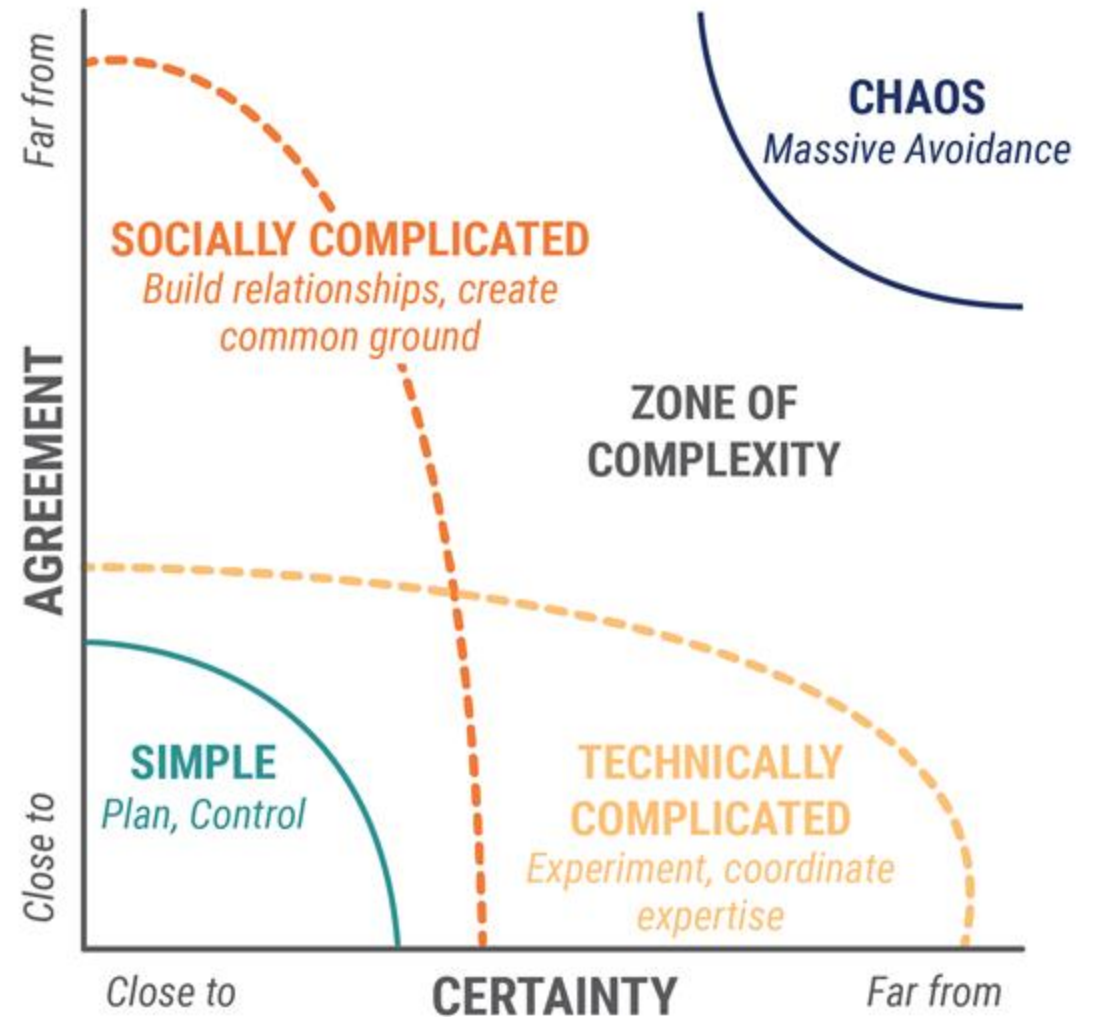


# What Is Complexity?

- Complexity is a continuum between simple and chaotic.
- It occurs when there is a lack of certainty and/or of agreement on what needs to be done.
- A situation can be complex as a result of the intervention, the context, or both.

Are you implementing a simple, straightforward intervention in a stable, well-defined environment?

Do you expect your workplans to be implemented as originally written, without delays or changes?



Source: MQPatton, *Developmental Evaluation*. (New York: Guilford Press, 2011).

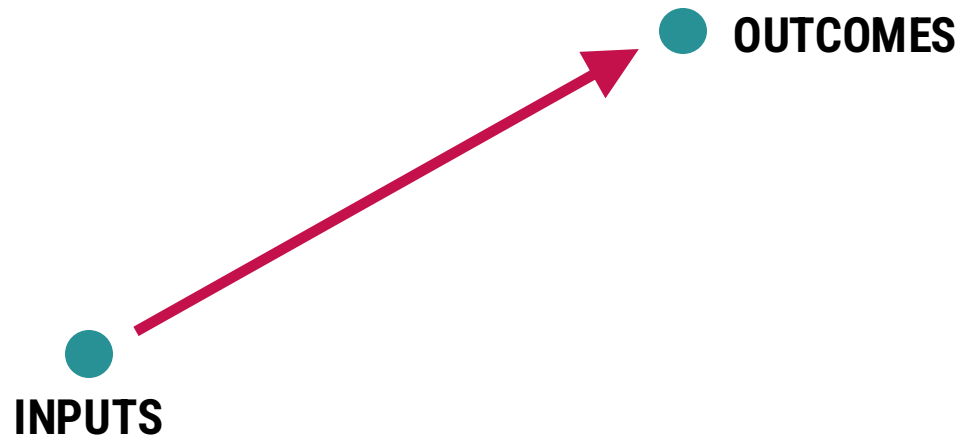
# “Socially-Complicated”



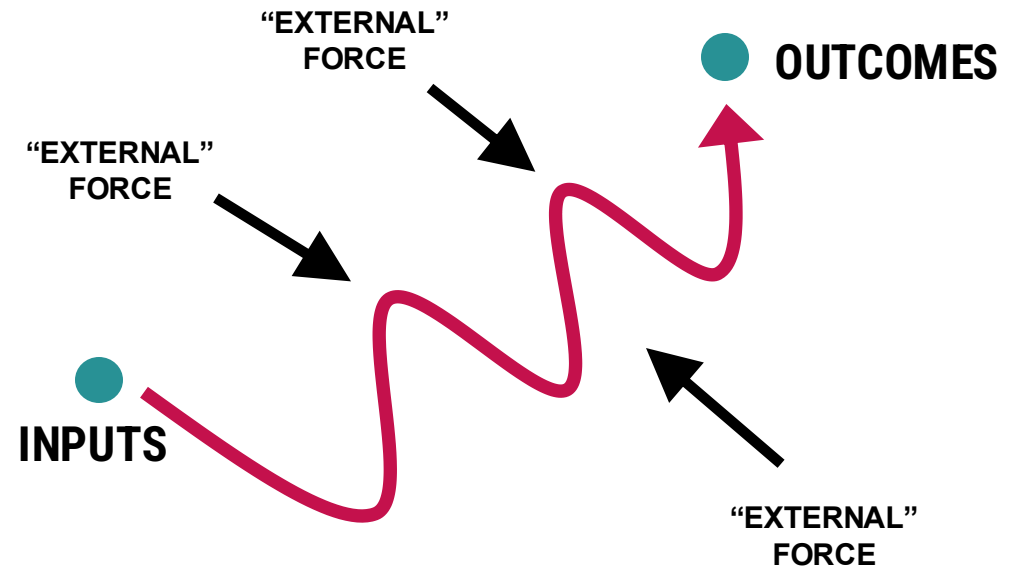
Photos (L-R): Jamie Barnett/FHI 360; Nena Terrell/USAID Ethiopia

# “Technically-Complicated”

## Project Proposal



## Implementation Reality



# Characteristics of...

## COMPLEX INTERVENTIONS

- Causal pathways are unclear
- Multiple changes must happen simultaneously
- Non-linear chains of influence
- Feedback loops
- Numerous outcomes
- Emergent outcomes

## COMPLEX SYSTEMS

- Diversity of stakeholders and perspectives
- Contextual factors influence programming in unknown ways
- Unpredictability of environment
- New information, opportunities or challenges arise

**This is when we use Complexity Aware Monitoring**



## What Is Complexity Aware Monitoring?

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Complexity-aware monitoring is a type of complementary monitoring that is useful when results are difficult to predict due to dynamic contexts or unclear cause-and-effect relationships.

# Complexity Aware Monitoring Guiding Principles



**Attend to  
performance  
monitoring's three  
blind spots.**



**Synchronize  
monitoring with the  
pace of change.**



**Consider  
interrelationships,  
perspectives, and  
boundaries.**

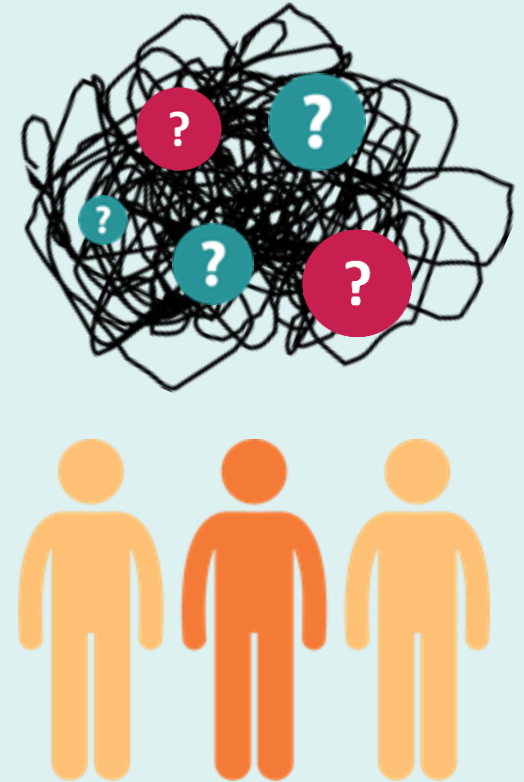


## What Questions Can Complexity Aware Monitoring Address?

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# The Missing & Difficult Questions

- What outcomes might we be missing?
- What outcomes might yet emerge?
- How do stakeholders perceive the intervention?
- What factors contributed to the observed outcome(s)?
- What is happening in the wider context?







## What Are Examples of CAM Approaches?

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# A Few Examples of CAM Approaches



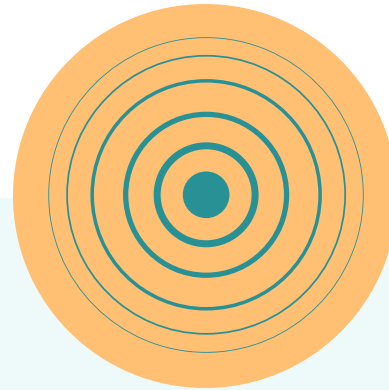
Pause and Reflect



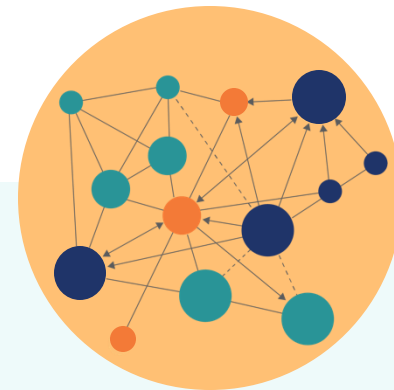
Outcome Harvesting



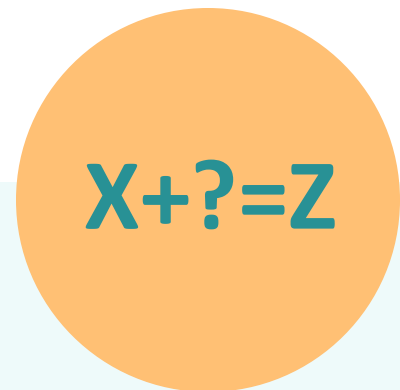
Most Significant Change



Ripple Effect Mapping



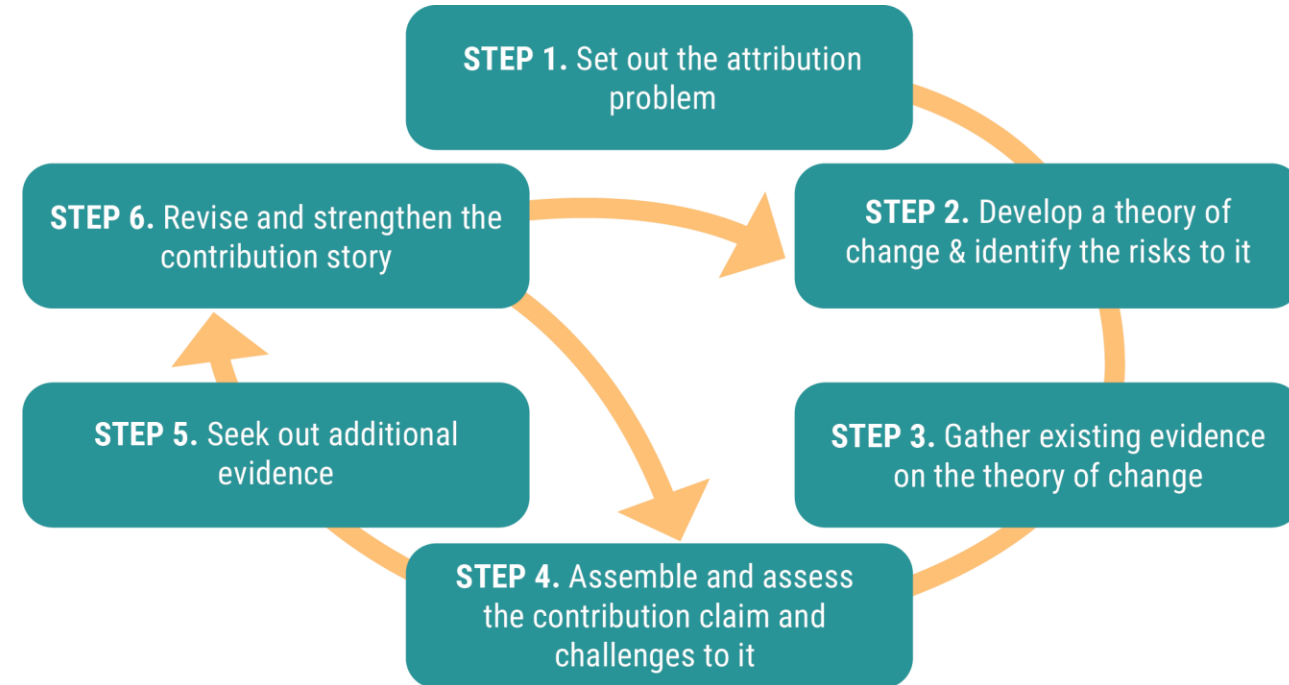
Social Network Analysis



Contribution Analysis

# Contribution Analysis

- Establishes the role or contribution of the intervention in leading to an observed outcome. Recognizes that many factors likely contributed towards the outcome.
- As it builds from the intervention's causal framework, requires a strong, evidence-based causal framework, with evidence gaps and assumptions identified.
- GREAT FOR when the relationship between the intervention and the intended outcome is not clear, such as when there are multiple actors working together towards related changes. Also great for thinking about how to replicate and scale interventions.



Source: Apgar, Hernandez and Ton, *Contribution Analysis for Adaptive Management*. Briefing Note (2020).



## How Do You Choose Among the CAM Approaches?

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# What Questions Do We Need to Answer?



	CAM APPROACH								
	Social Network Analysis	Causal Link Monitor.	Outcome Mapping	Sentinel Indicators	Pause & Reflect	Outcome Harvest.	Most Sig. Change	Ripple Effect Mapping	Contrib. Analysis
What outcomes might we be missing?					●	●	●	●	
What outcomes might yet emerge?		●	●	●				●	
How do stakeholders perceive the intervention?	●		●		●		●	●	
What factors contributed to the observed outcome(s)?	●	●	●	●		●	●	●	●
What is happening in the wider context?	●	●		●	●				

# When in the Project Life Cycle Do You Need the Answers?



	CAM Approach								
	Social Network Analysis	Causal Link Monitor.	Outcome Mapping	Sentinel Indicators	Pause & Reflect	Outcome Harvest.	Most Sig. Change	Ripple Effect Mapping	Contrib. Analysis
Design & Planning/Formative Assessments	●	●	●	●					
Implementation/Ongoing Monitoring		●	●	●	●	●	●	●	
Evaluation/ Interim or Final Evaluations	●	●	●	●	●	●	●	●	●

# What Resources Do You Have and/or Need to Implement?

		CAM Approach								
		Social Network Analysis	Causal Link Monitor.	Outcome Mapping	Sentinel Indicators	Pause & Reflect	Outcome Harvest.	Most Sig. Change	Ripple Effect Mapping	Contribut. Analysis
Data Type	Qualitative	●	●	●	●	●	●	●	●	●
	Quantitative	●	●	●	●					●
Ease of Use	Skills & resources required	1-3	2, 3	2, 3	2	1	2	1, 2	2, 3	2
	Intensity/Level of effort	1, 2	1	2	1	1	2, 3	2, 3	2	2, 3
	Type of engagement	1	1, 2	1, 2	3	2	3	1, 2	1	2, 3

\* **1** = Little/no training needed, little/no resources (easily community-led); **2** = Some training (i.e. facilitation skills, basic understanding of causal frameworks, etc.) and resources required (often junior-mid-level project staff); **3** = Training and expertise likely needed, requires significant resources (often senior-level project staff)

\*\* **1** = Able to integrate within existing staff workload and/or short-term engagement of external assistance; **2** = Moderate dedicated staff time needed and/or medium-term engagement and/or; **3** = Dedicated staff needed and/or longer-term external engagement

† **1** = Best as in-person engagement with group or in community setting; **2** = Easily adapted for virtual engagement with videoconferencing and related technologies; **3** = Able to complete remotely via desk reviews, email, phone calls, online surveys, etc.

# How Do I Choose Just One?

- Approaches have similarities and differences, their functions may overlap and work well together.
- Some approaches intentionally build upon or match up with others.
- Using several allows you to experiment to understand which approaches work best in your context (and to adapt them as appropriate).
- Triangulating with both quantitative and qualitative data enhances rigor.



Photo: Calvin Odhiambo/MOMENTUM Routine Immunization Transformation and Equity



# Contribution Analysis

## CHISU Program's Experience with CAM

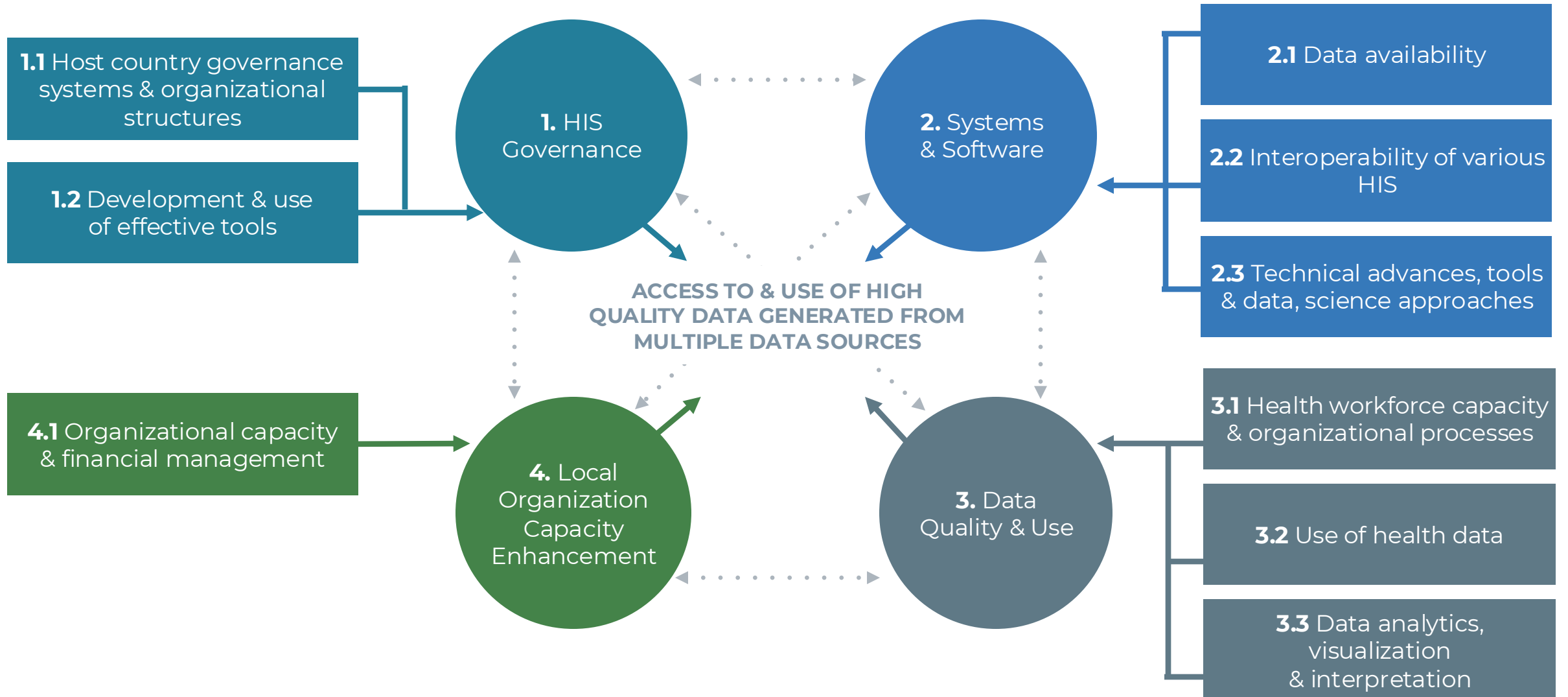
**Caitlin Madevu-Matson**  
*MEL Lead*



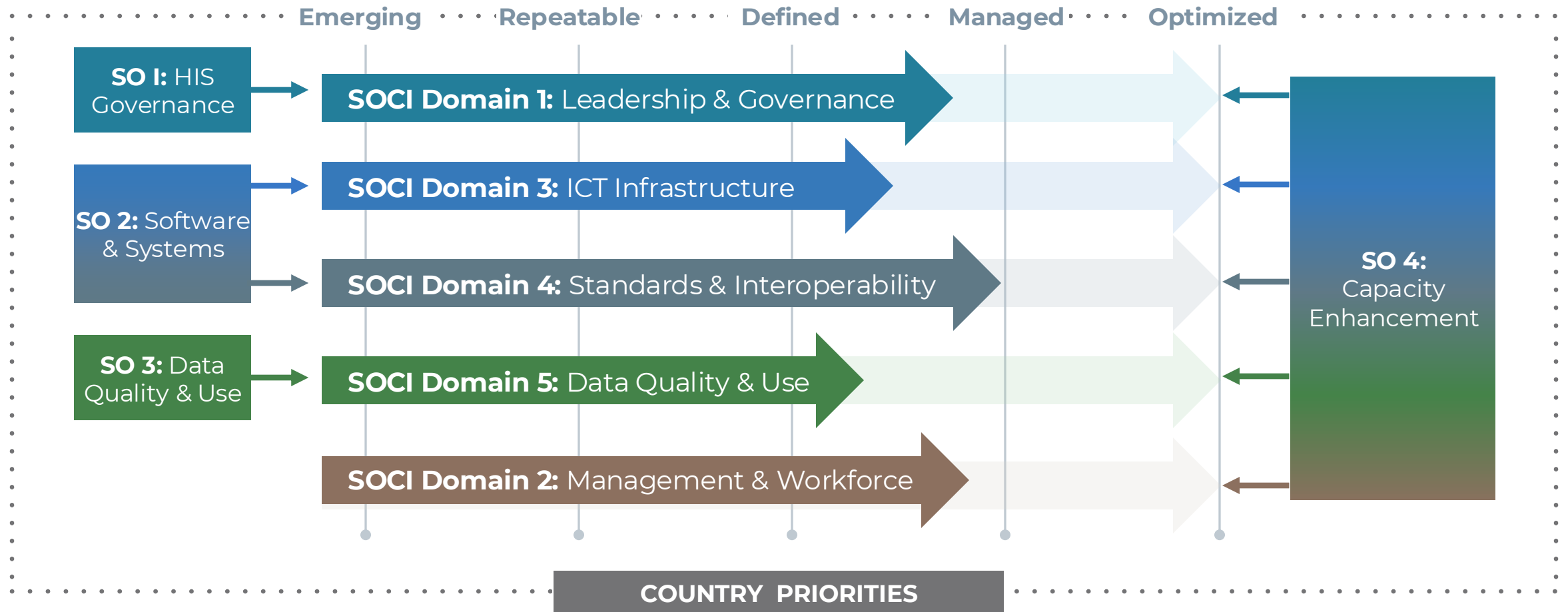
# Why contribution analysis?



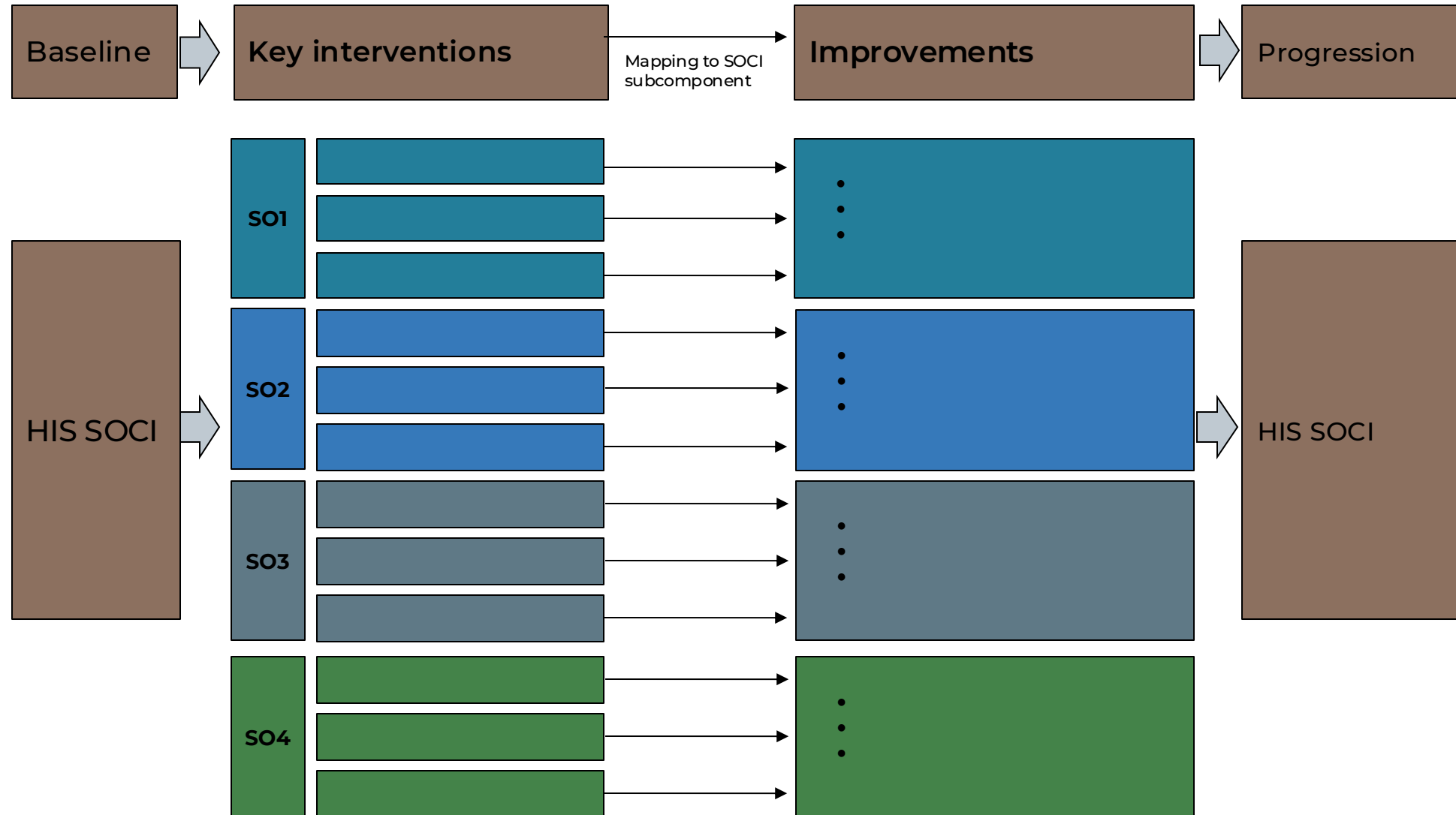
# CHISU program theory of change



# HIS stages of continuous improvement



# Country portfolio causal framework



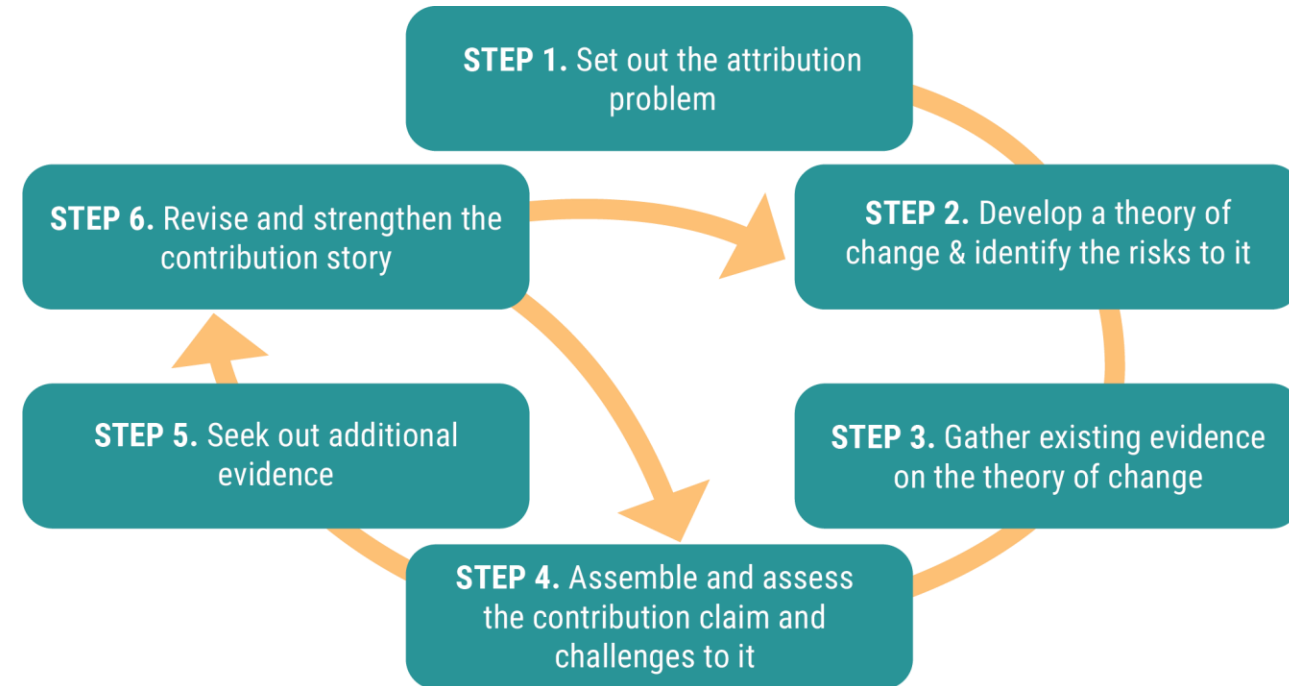
# Contribution analysis rationale

- USAID structured the CHISU program to strengthen HIS independent of any specific health area
  - » HIS strengthening exists within a complex operating environment
  - » Many unknowns
    - How does successful HIS strengthening work?
    - Does it work to use the maturity model framework to guide this work?
    - How does HIS strengthening contribute to health systems outcomes?
- Contribution analysis provided holistic, feasible method
  - » Explore what factors contributed to outcomes
    - HIS progression: Measure HIS outcomes through HIS SOCI progression
    - Broader health system: Other health system outcomes
  - » Account for complexity
  - » Frames evaluative questions and enables use of other CAM methods for additional inquiry



# Contribution Analysis

- Establishes the role or contribution of the intervention in leading to an observed outcome. Recognizes that many factors likely contributed towards the outcome.
- As it builds from the intervention's causal framework, requires a strong, evidence-based causal framework, with evidence gaps and assumptions identified.
- GREAT FOR when the relationship between the intervention and the intended outcome is not clear, such as when there are multiple actors working together towards related changes. Also great for thinking about how to replicate and scale interventions.



Source: Apgar, Hernandez and Ton, *Contribution Analysis for Adaptive Management*. Briefing Note (2020).

# Contribution analysis planning

For specific work in one country





# Questions and countries

## Guiding questions

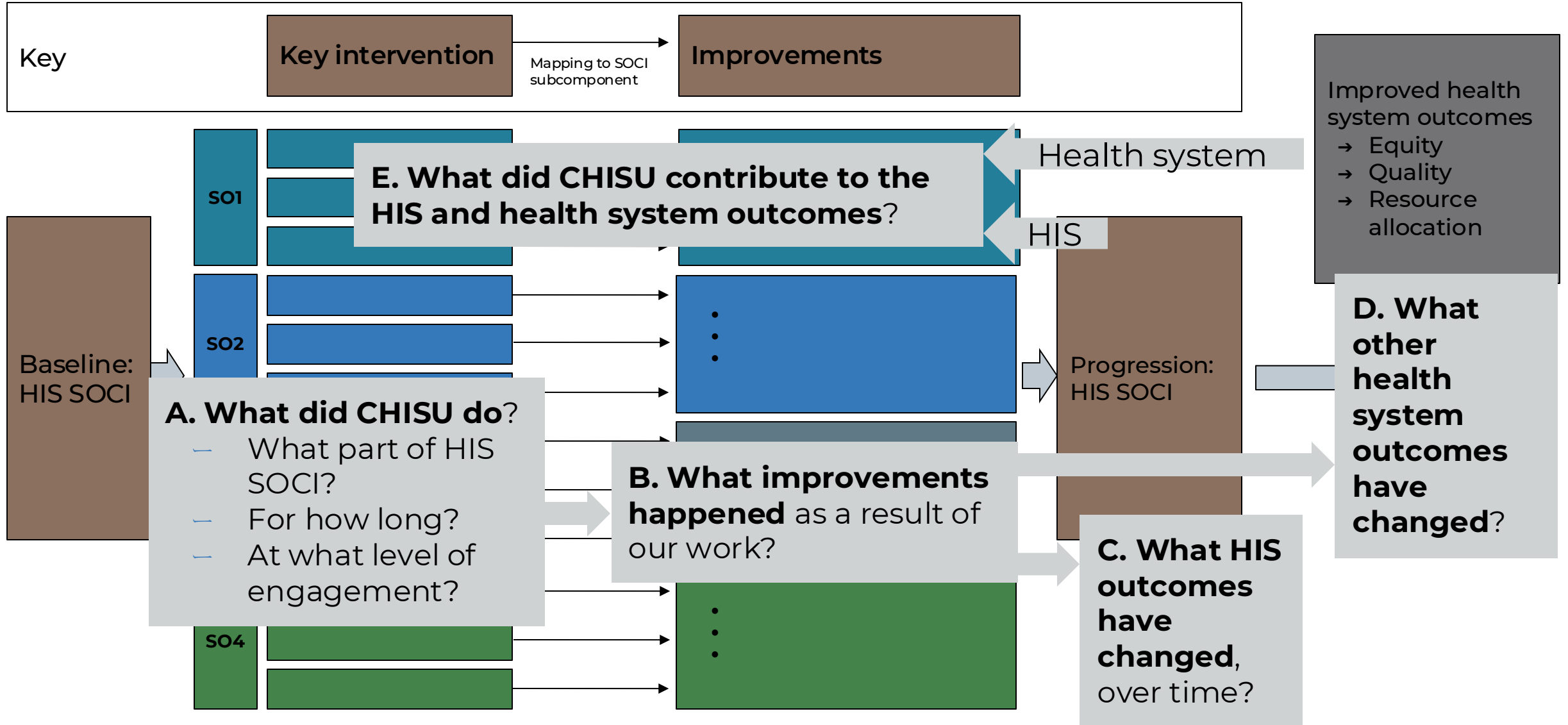
- How did CHISU support the MOH (or others) to achieve progression in HIS SOCI domains?
- How did CHISU contribute to improved equity, quality, and/or resource allocation in a specific health area?

## Selected countries

- Burkina Faso
- Serbia



# Theory of change process



# Methods

## Desk review

- Internal CHISU reports
- HIS SOCI baseline (2021) and repeat (2024) assessments
- National and sub-national action plans that resulted from HIS SOCI
  - if available, monitoring reports on implementation of action plans
- CHISU routine activity reports on progress and outcomes of all work
- Pause and reflect session materials and notes

## Qualitative, original data collection

- Theory of change workshop
- Purposively sampled semi-structured, key informant interviews (KII), or if needed focus group discussions (FGD)

# Timelines

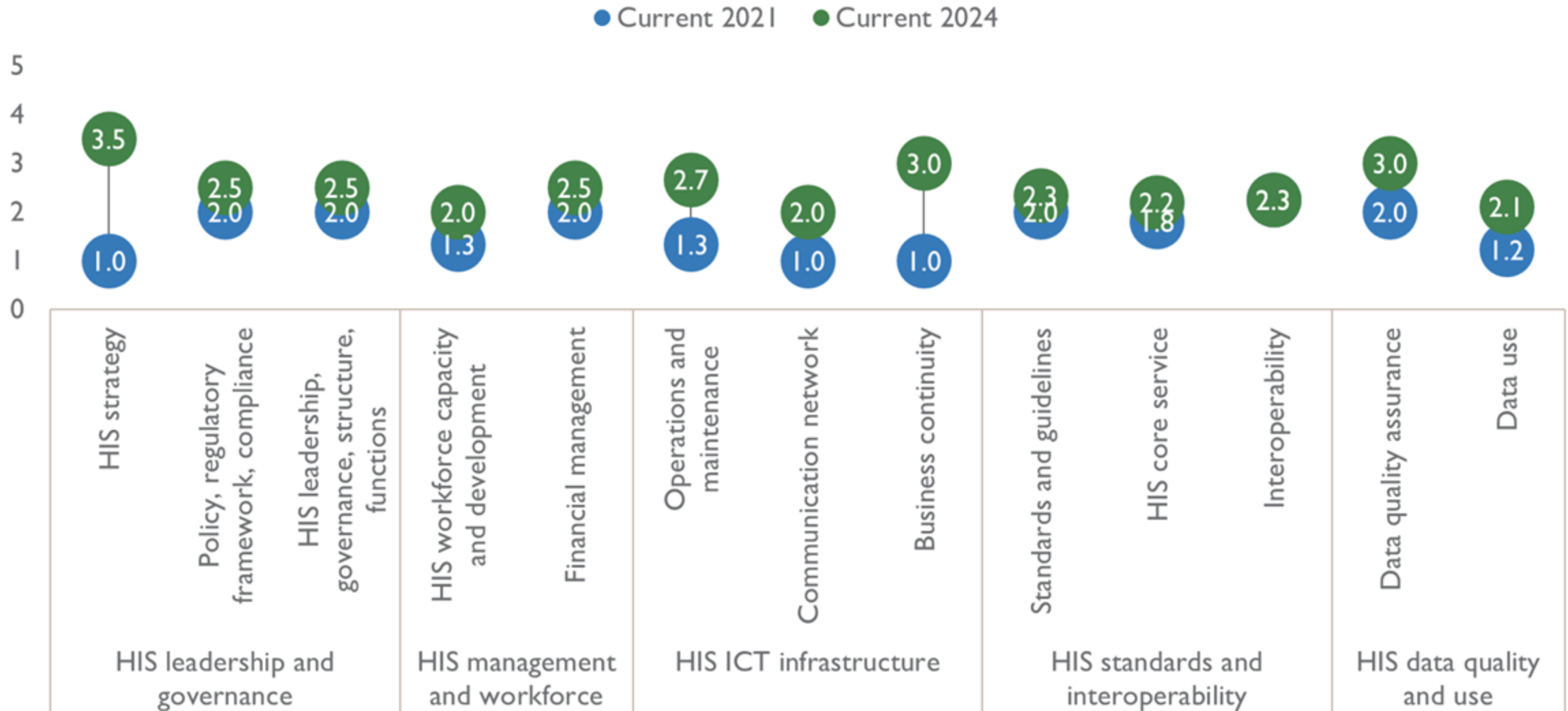
- Protocol IRB review
  - » Submitted and received approval: May 2024
- Desk review
  - » Ongoing
- Qualitative data collection
  - » Serbia: May - July 2024
  - » Burkina Faso: July 2024
  - » Indonesia: July - August 2024



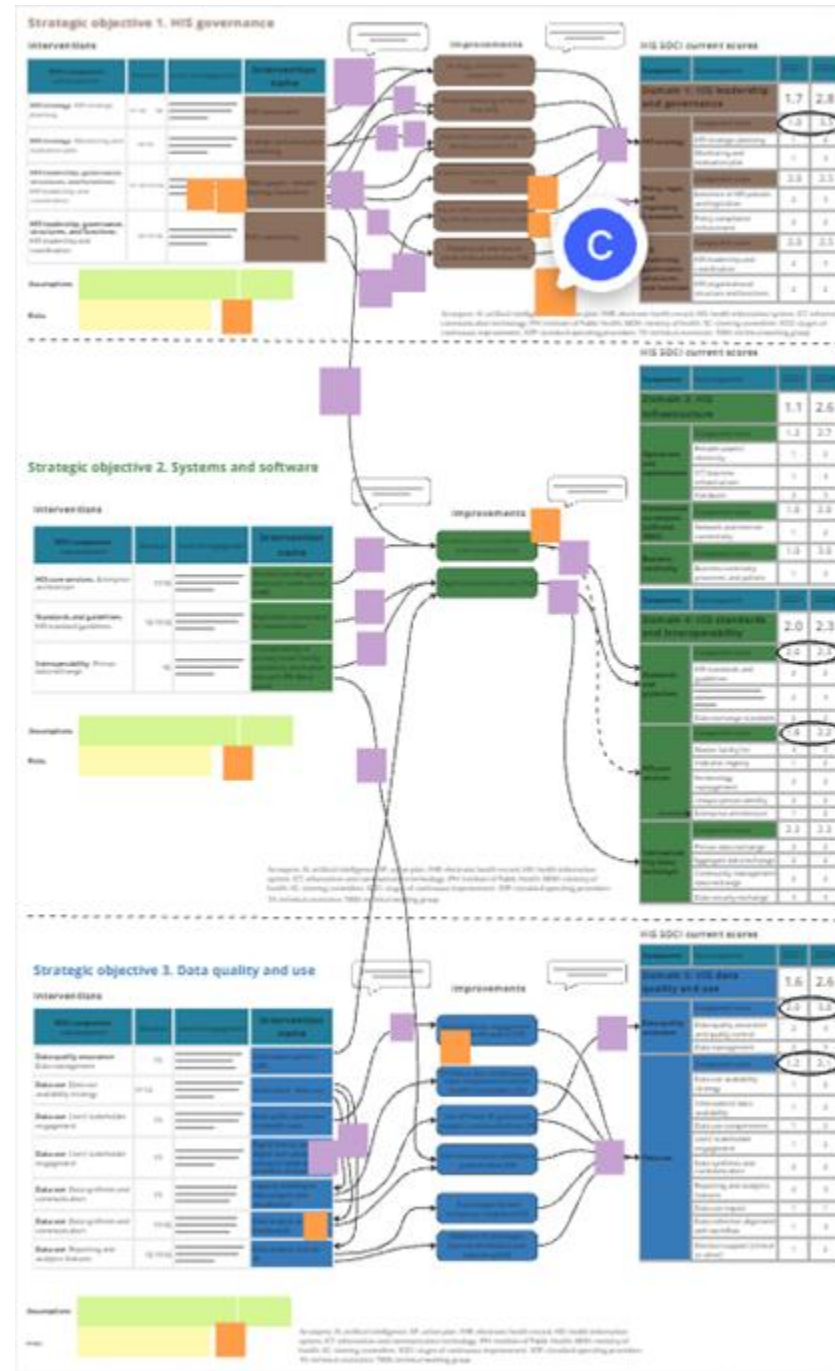
# Initial results



# HIS SOCI results (draft!)



# Overall country theory of change



# Waterfall Question!

Can you think of ways to apply complexity-aware monitoring in your own work?

*If yes, put a 1 in the chat!*

**Now, tell us your ideas!**





It's Time for Your Questions!

# Today's Main Takeaways

- ✓ Complexity is common in most global public health situations.
- ✓ CAM approaches can help answer questions not easily addressed by traditional M&E.
- ✓ CAM approaches can be mixed and matched together, and also integrated with traditional performance M&E.
- ✓ Contribution analysis, as implemented by the CHISU project, can help unpack complex causal pathways to better understand the contributions, outcomes and impact of a project.

\*\*\*\*\*Many of these approaches formalize and build on monitoring and evaluation approaches you're likely already using! Don't be afraid to dive in!\*\*\*\*\*

# Download CAM Resources Now!

Complexity Aware Monitoring resources  
available from USAID MOMENTUM.

