MASTERCLASS SERIES
in Systems Thinking

SYSTEMS THINKING FOR ECD

Complexity Aware Monitoring Approaches for Adaptive and Context-specific Program Improvement

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JSI

The Systems Thinking for Early Childhood Development (ECD) Initiative is a partnership between ECDAN and Harvard University and supported by Porticus.

ECDAN Early Childhood Development Action Network

HARVARD T.H. CHAN SCHOOL OF PUBLIC HEALTH

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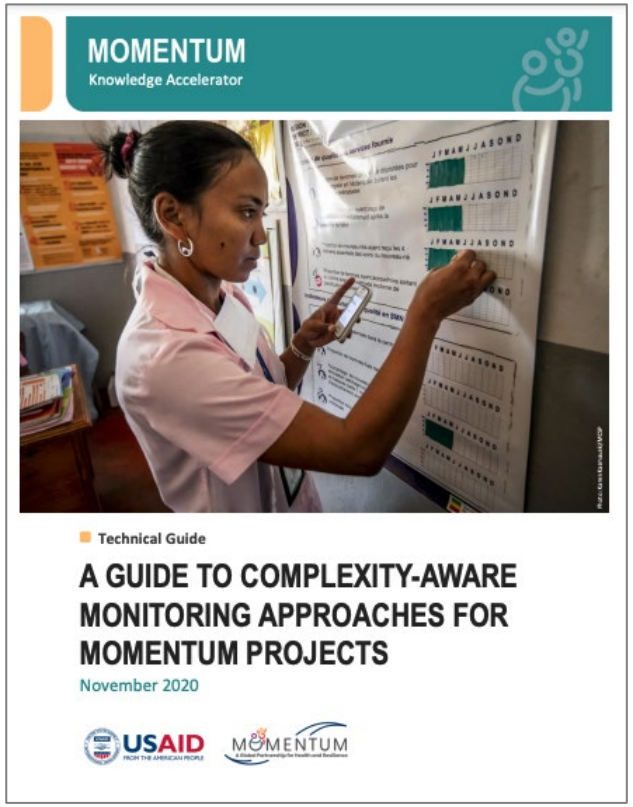
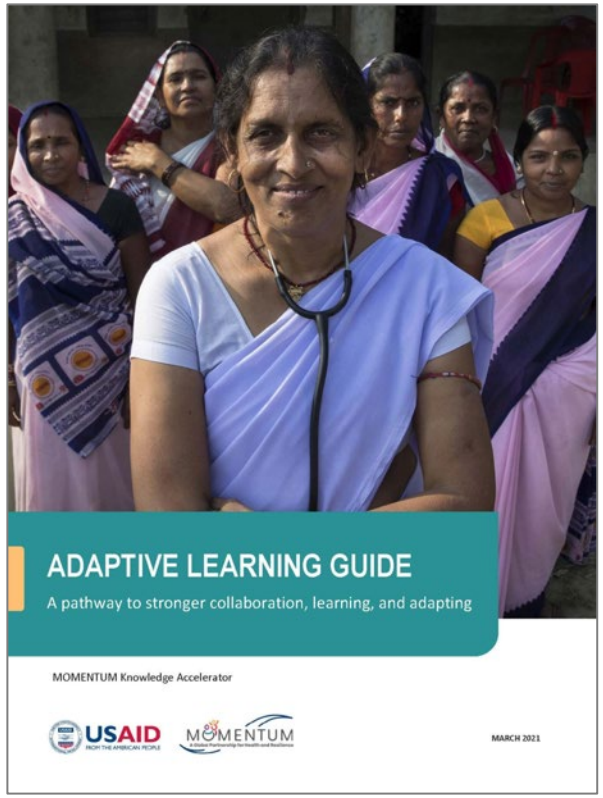
Section Overview

1. Introduction to Complexity Aware Monitoring approaches
2. Matching Complexity Aware Monitoring approaches to research questions
3. Application of Complexity Aware Monitoring approaches

Resources This Session Draws from…





Work done through USAID MOMENTUM, JSI, inSupply Health

The MOMENTUM Suite of Awards

- USAID's flagship project involving a suite of interconnected awards working in almost 40 counties to:
  - Accelerate reductions in maternal, newborn, and child mortality and morbidity
  - Improve equitable access to high quality voluntary family planning, and reproductive health care.
- 6 centrally-managed awards, 5 country level Mission-led bilaterals (to date)
- Awards started on a rolling basis beginning in January 2020 and will run through mid-2026

Poll Question

How familiar are you with complexity aware monitoring approaches?

- I have never heard of the term
- I understand all the words in the term
- I have heard about the term but never used it
- I have worked on a project that used this approach, but did not use myself
- I have used a complexity aware monitoring approach before

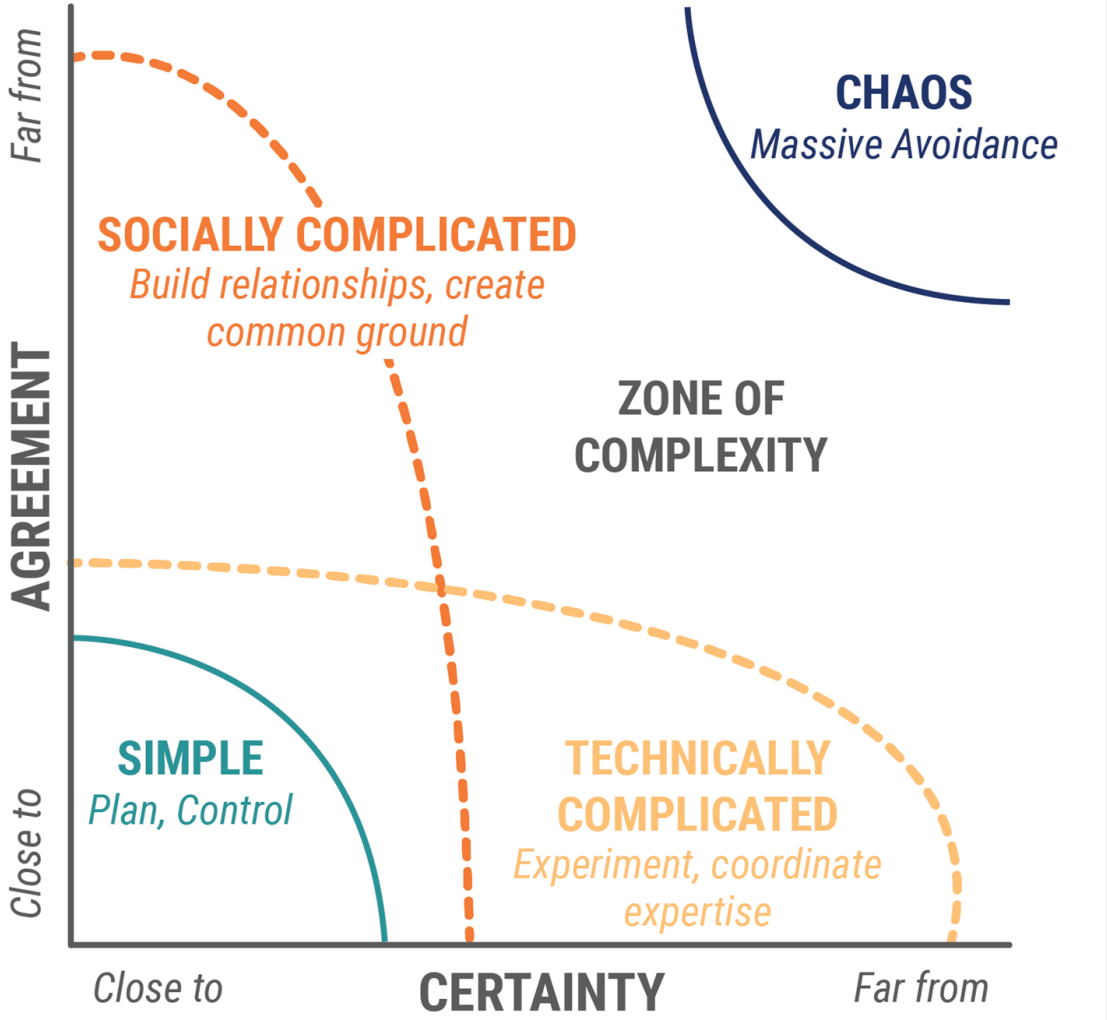
Introduction to Complexity Aware Monitoring Approaches

Defining Complexity

- Complexity is a continuum between simple and chaotic.
- It occurs when there is a lack of both strong expertise and 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?



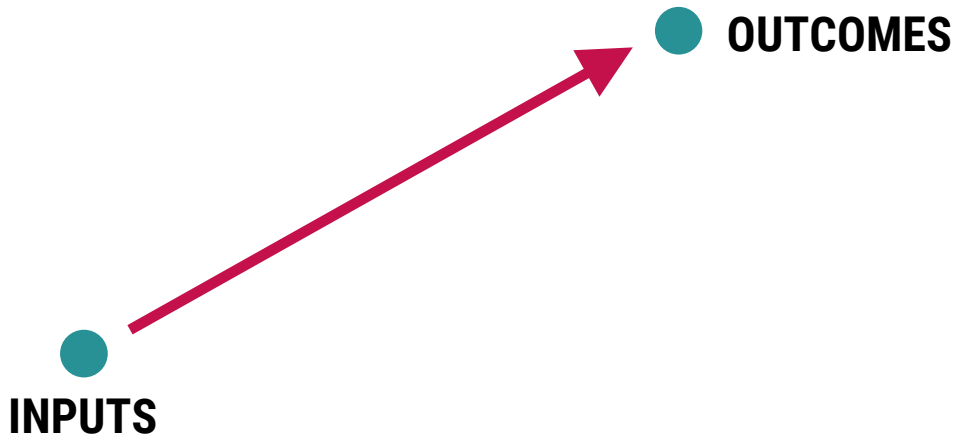
Source: MQPatton, Developmental Evaluation. (New York: Guilford Press, 2011).

“Socially-Complicated”

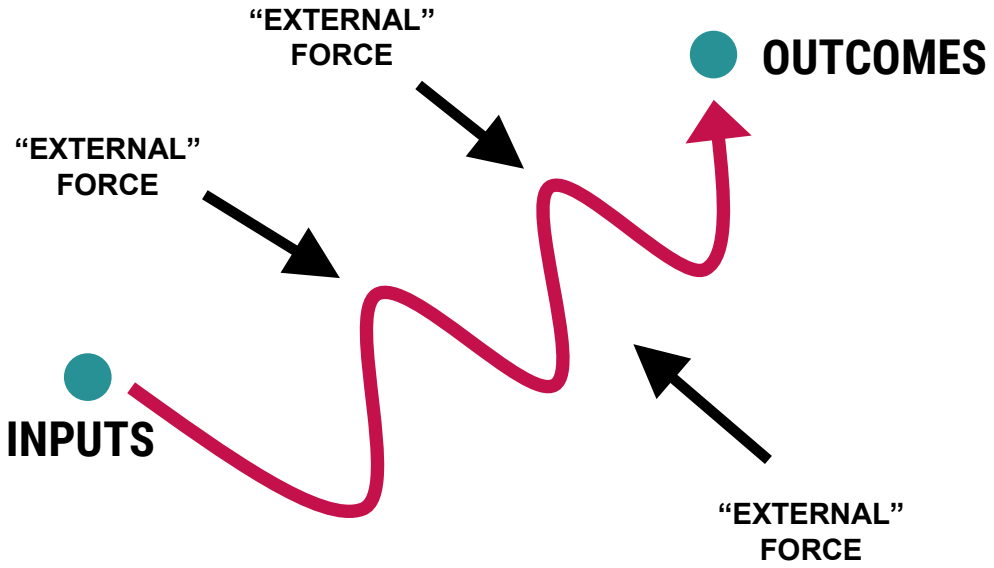
Photos (L-R): Jamie Barnett/FHI 360; Nena Terrell/USAID Ethiopia

“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?

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.

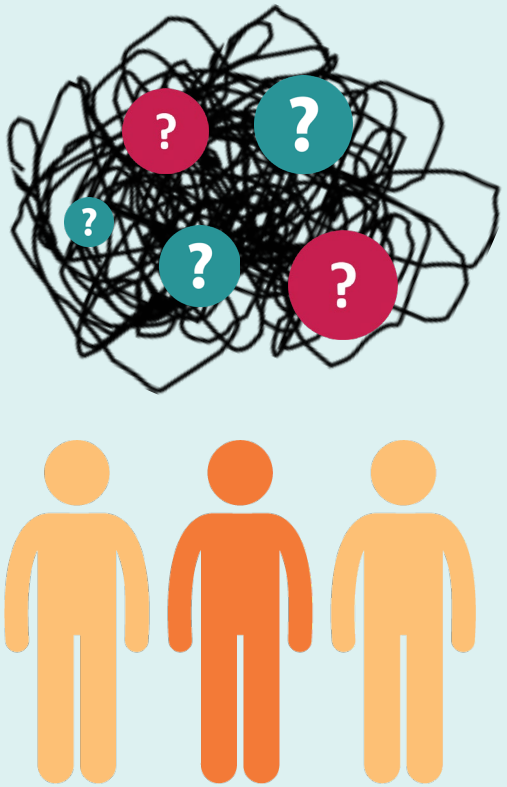
Synchronize monitoring with the pace of change.

Consider interrelationships, perspectives, and boundaries.

What questions can Complexity Aware Monitoring address?

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?

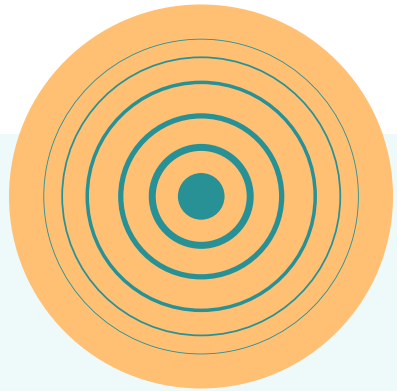


Examples of Four Methods

Pause and Reflect

Outcome Harvesting

Most Significant Change



Ripple Effect Mapping

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1. Pause and Reflect

- Often thought of as adaptive learning, pause and reflect collects information that can be analyzed for program improvement - so its also Complexity Aware Monitoring!
- Reflections enable learning about a project or intervention at key points in implementation to support adaptation and improvement.
- **GREAT FOR** everything!

P&R can be implemented as part of:

- Program reviews
- Quarterly check-ins
- Team meetings
- Communities of practice
- After-action reviews
- Peer assists
- Knowledge cafes
- Journaling

Example of Pause and Reflect

MOMENTUM Knowledge Accelerator seeks to understand, on a regular basis, how the project can **adapt and improve its processes** by using Pause-and-Reflect

- What was planned?
- What really happened?
- What went well?
- What did not go well?
- What should we do next time?

2. Outcome Harvesting

- In this retrospective narrative approach, project staff **look for outcomes** and then to **understand the role of the project** in contributing to them.
- As “forensic M&E”, it entails sleuthing (and at times slogging) in the search for outcomes.
- Inspired by Outcome Mapping and informed by Utilization focused Evaluation
- **GREAT FOR** advocacy, research, social and behavior change, capacity building, innovation, and other interventions in which there is limited valuable quantitative data. Any intervention in which you expect there to be unintended outcomes.

4 Groups of Key Stakeholders

- **Project Staff**
- **Primary Intended Users**
- **Change Agents**
- **Outcome Verifiers or Substantiators**

Six Iterative Steps

1. ***Design the Outcome Harvest***: Focus on actionable information for primary users
2. ***Gather data and draft outcome descriptions***: Collect data from project sources
3. ***Engage change agents in formulating outcome descriptions***
4. ***Substantiate***: Knowledgeable, independent individuals validate outcome descriptions
5. ***Analyze and interpret***: Provide evidence-based answers to harvesting questions
6. ***Support use of findings***

Adapted from Britt, Heather et al. 2021. Complexity Aware Monitoring (CAM) Workshop Series. Session 4: Outcome Harvesting. USAID MOMENTUM

OH Across 4 InSupplyHealth Projects in Kenya/Tanzania

- 4 Projects focusing on community level supply chain and utility of IMPACT teams for program improvement
  - Complicated - multifaceted interventions and overlapping projects
  - Intended and unintended outcomes of community health approaches, cStock and IMPACT Team on community health programs.
  - Similar timeline
- Objective: Generate evidence around intervention components that lead to sustainable community health models
- Conducted over a 6 month period as projects were ending
- Questions identified
- 45 outcomes harvested across the 4 projects, and analyzed based on their relevance to research questions
- Users were Government staff, Implementing partners, Foundations, USAID

Adapted from InSupplyHealth. Outcome Harvesting Synthesis Report.
https://insupplyhealth.com/resources/outcome-harvesting-synthesis-report/

inSupplyHealth
CO-CREATING INNOVATIONS FOR HEALTH

Some Findings

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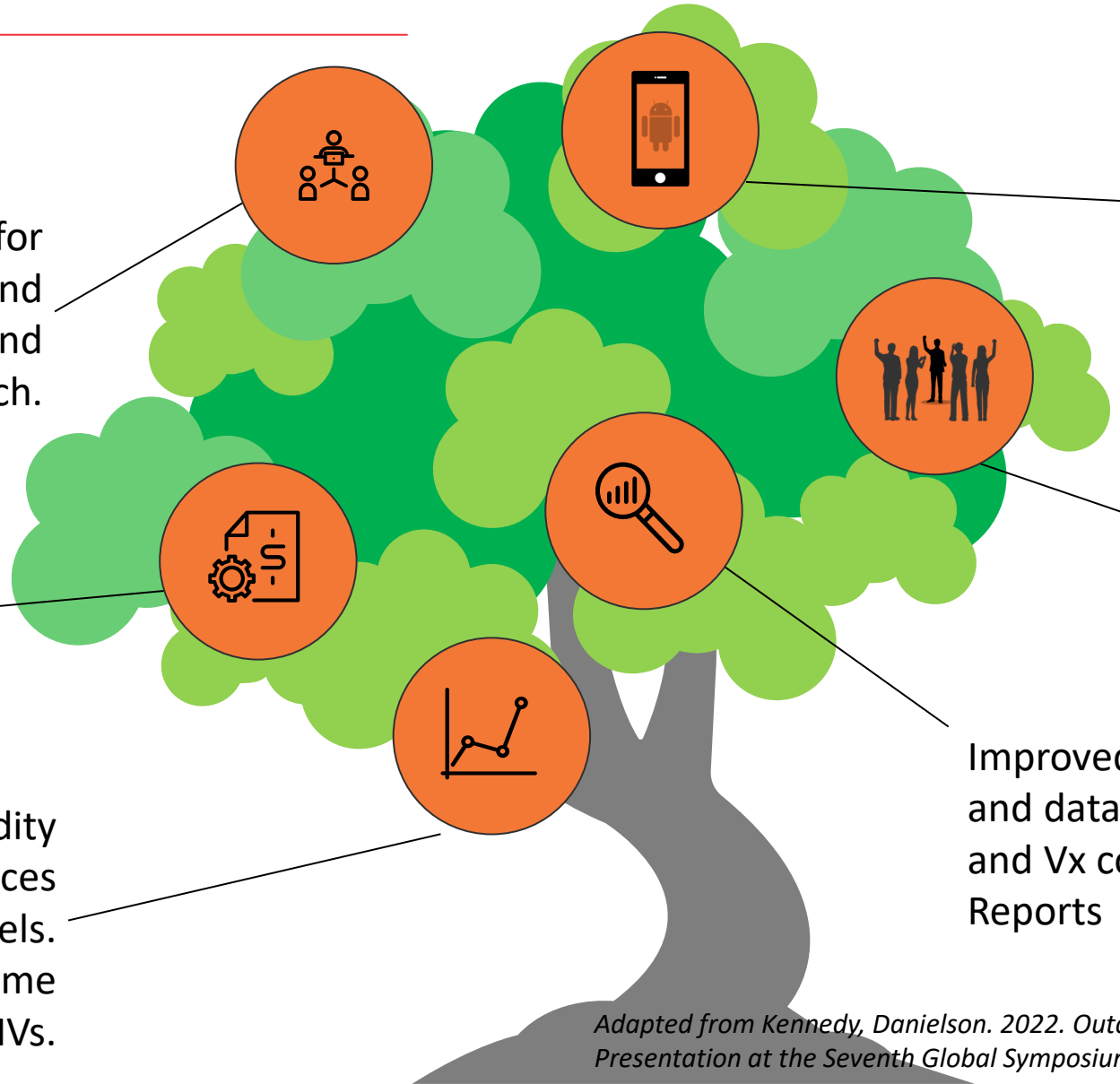
Several approaches for sustainability and ownership resulted around the IT Approach.

Standardized community health commodity reporting tool developed and cStock data is now integrated in KHIS.

Improved commodity management practices across different levels. Commitment by some counties to resupply CHVs.



cStock is an effective way to manage commodities contributing to service improvement to underserved populations.

IMPACT Teams provide a structured, resilient. and flexible way to review data to inform decision-making.

Improved data visibility and data quality for FP and Vx commodity Reports

Adapted from Kennedy, Danielson. 2022. Outcome Harvesting to Strengthen Programs. Presentation at the Seventh Global Symposium on Health Systems Research, Satellite Session.

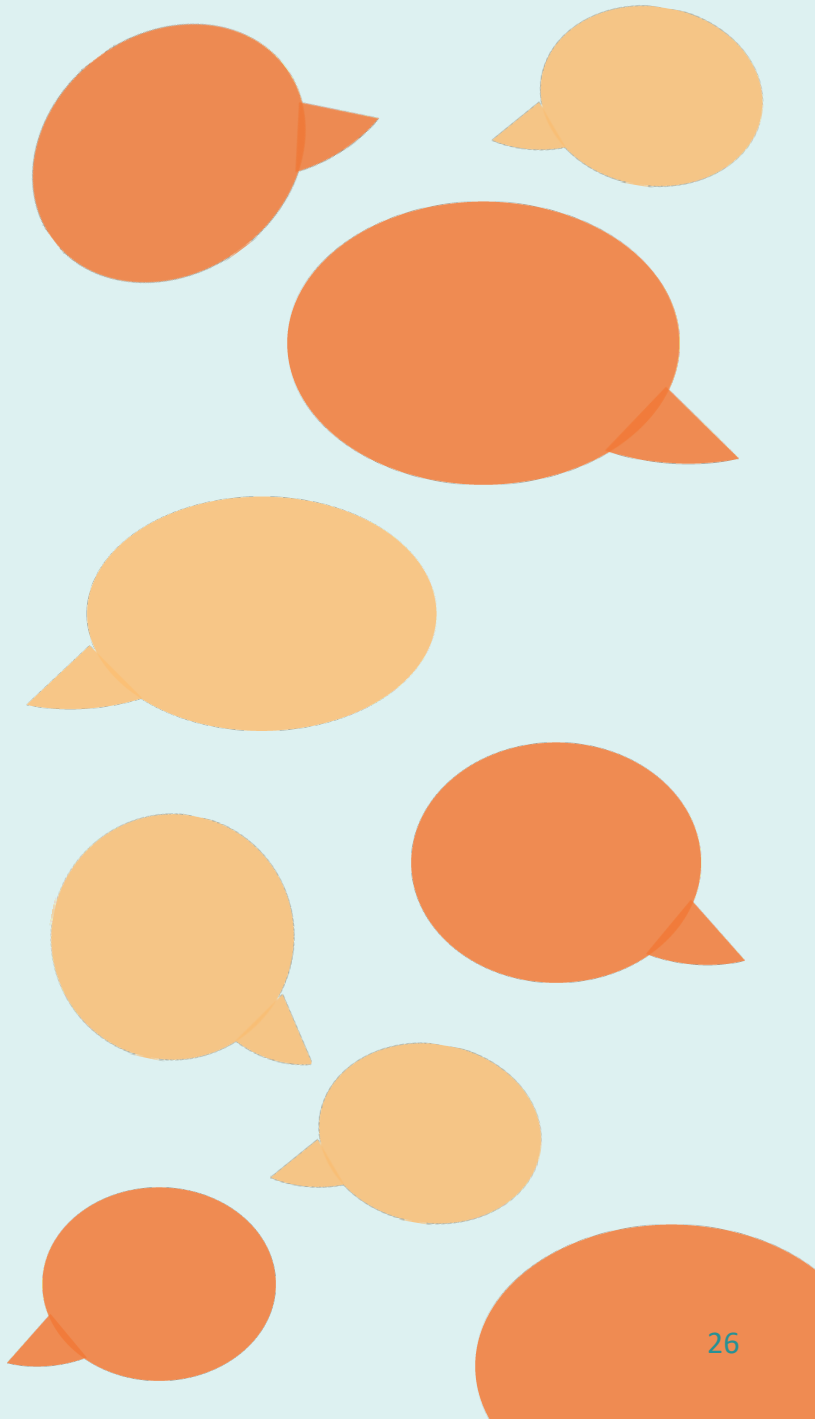
Strengths & Limitations

Strengths	Limitations
• Captures outcomes in complex and knowledge scarce situations • Participation offers opportunity for rich learning for stakeholders • Tailored to each project and context	• Negative outcomes are difficult to capture • Outcome descriptions are tedious to write and may require followup • Participatory methods are not feasible in all situations • Findings not necessarily comparable across evaluations or interventions
Ongoing development of Outcome Harvesting through a vibrant community of practice	

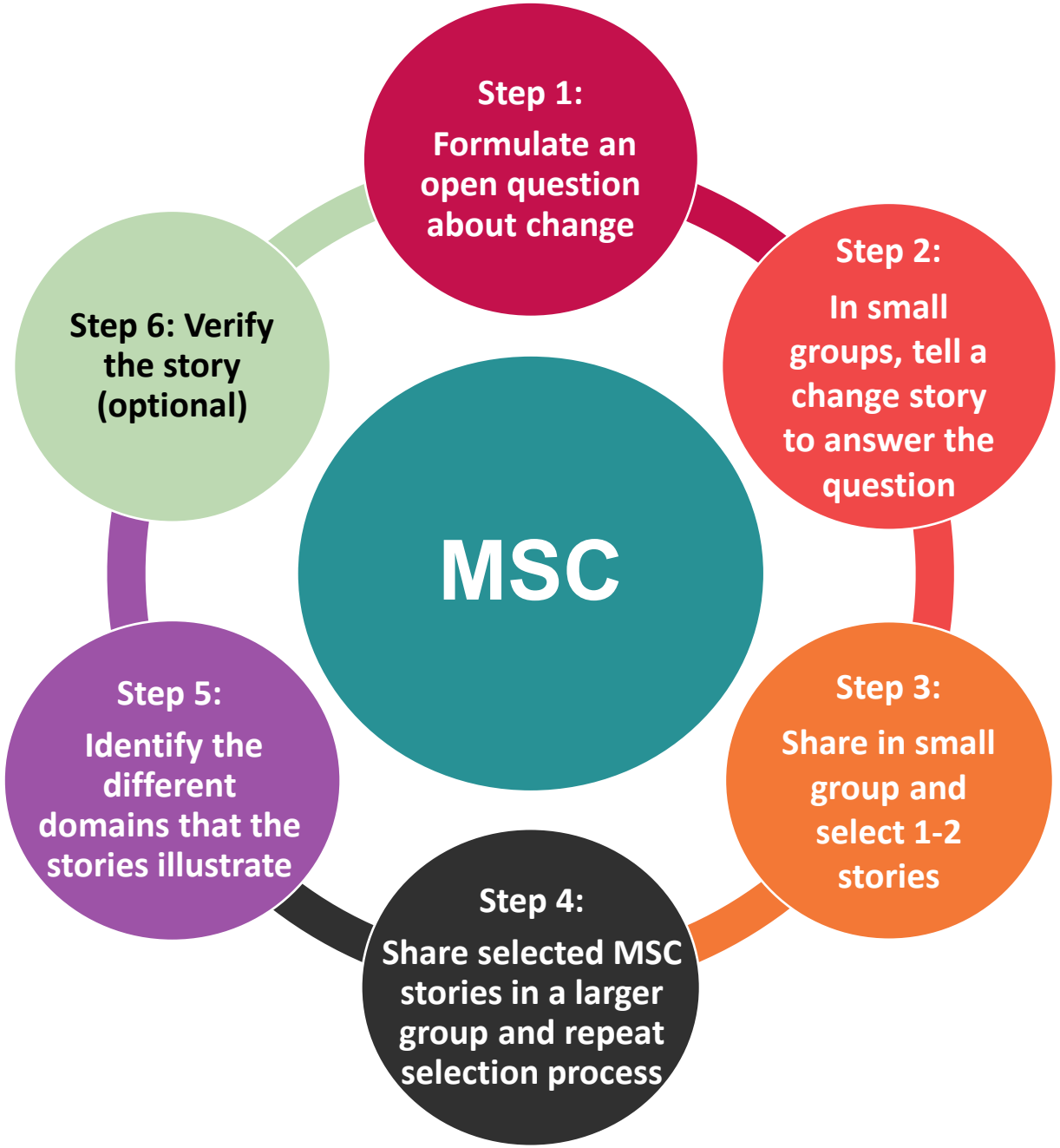
Adapted from Britt, Heather et al. 2021. Complexity Aware Monitoring (CAM) Workshop Series. Session 4: Outcome Harvesting. USAID MOMENTUM

3. Most Significant Change

- Retrospective approach that prompts a wide range of stakeholders including program participants and staff to **tell their stories** of the intervention.
- Stories are prioritized to **understand what was most significant** and what values are held by the stakeholders.
- **Contribution is assigned** to the intervention by the story-teller.
- **Key domains of change** and areas of focus identified.
- **GREAT FOR** large-scale and/or system-wide interventions when many things might be changing differently for different stakeholders without a clear linear pathway. Also great for innovations. Commonly used in community-based interventions, such as for social norm change.



Process


Step 1:
Formulate an open question about change
Step 2:
In small groups, tell a change story to answer the question
Step 3:
Share in small group and select 1-2 stories
Step 4:
Share selected MSC stories in a larger group and repeat selection process
Step 5:
Identify the different domains that the stories illustrate
Step 6: Verify the story (optional)
MSC

Example: Merci Mon Héros: Multimedia Campaign

MMH Video still frame: "If you don't exchange with your children [about reproductive health and family planning], you cannot help them."

- Social media, mass media, community activities) implemented by **USAID Breakthrough ACTION**
- Leverages testimonial videos to showcase the power of empathy to improve reproductive health (RH) and family planning (FP) access for young people in francophone Africa
- Disseminated in nine countries, including Burkina Faso, Côte d'Ivoire, Niger, Togo
- **Goal:** Reduce impact of social norms that prevent youth from accessing FP/RH information and services

Adapted from Somji, Aleefia et al. 2021. Complexity Aware Monitoring (CAM) Workshop Series. Session 5: Most Significant Change. USAID MOMENTUM

Examining Changes due to the MMH Campaign

1. What changes in **communication** between parents/adult allies and young people around intimate relationships and FP/RH?
2. What changes in the **behavioral pathway to adult/youth communication** (i.e., knowledge, attitudes, intention, self-efficacy or social norms)?
3. What changes in the **behavioral pathway of youth utilizing FP/RH services**?
4. What **intended or unintended consequences**, positive or negative?

Methodology:

24 FGD of all sub groups exposed to the campaign

Topics: Community level attitudes and perceptions about youth and FP/RH, Exposure, perceptions & recommendations about the campaign, stories on domains of change

- Formation of selection panel
- Story selection criteria: Validity, scope, alignment
- Triangulate with other data

Example of Findings

“I am a midwife and mother living in Niger. Before, when I received pregnant women at the health center, especially the younger ones, I moralized them. Because of this, many patients found my attitude stigmatizing. But the Merci Mon Héros campaign, in which I took part during a seminar, has since changed me. ***It is with empathy and encouragement that I now welcome young girls who are unhappy to discover that they have become pregnant****.”*

Limitations: Story generation process is limited to those who are contacted and choose/are able to participate. Whose stories are we not capturing? Strong potential for social desirability bias

Lessons learned: Ensure sufficient exposure of participants, FGD or KII?, selection panel covers all populations, clear selection process outlined

4. Ripple Effect Mapping

- A participatory method to understand the different effects (or ripples) a complex program has on a community or beneficiary
- Includes stakeholder discussion and a visual mapping of these ripples

When, where and why to use this method?

- Complex evaluations when difficult to deductively identify outcomes or impact
- Uncover unanticipated consequences
- Is not a standalone evaluation method, but part of a larger learning and evaluation strategy

Needs strong facilitation and evaluation skills

Process

- Stakeholders are brought together to discuss what occurred as a result of the intervention. The output of the session(s) is a ripple effect map.
- **GREAT FOR** social change and community-based interventions, advocacy and scale-up, as well as quality strengthening in hospitals and health systems.

Methodology

1 Appreciative Inquiry Interviews

- Peer to peer interviews in pairs, using a set of standard questions, and a script
- Content:
  - Tell a story about …
  - What is an achievement or success you had based on …
  - Has the project helped to maintain or improve …
  - What new or deepened collaboration/ partnerships, etc. have you made as a result of …

2 Group reflections

- Each pair to offer one story (only one at a time), and facilitator probes – what, who, how?
- Collective mapping

3 Preliminary analysis

- What is the most significant change or ripple?
- How are these ripples different from each other?
- Is there anything missing from this map?
- What should we do next?

Example: Data Use Project in Kenya

IMPACT Teams approach, a people-centered and data-driven approach that encourages data review teams to use data and information analysis for evidence-based performance monitoring, to allow continuous improvement of supply chains.

Primary question: What are the intended and unintended outcomes of implementing IMPACT Teams in Mombasa/ Nairobi/Nyeri/Trans Nzoia County?

Secondary questions:

- What has been the most helpful part of IT approach?
- What are the major changes as a result of IT approach?
- What are the unexpected results of IT approach?

How do you choose among different Complexity Aware Monitoring approaches?

Case Scenario

Staff with Project Zed in Country Y are wrapping up their 5-year multi-faceted child health project and are interested in looking back at a year-long advocacy campaign that was undertaken in 2022 that focused on promoting the integration of responsive caregiving promotion into routine well-child/growth monitoring visits in 3 pilot districts in the most remote areas of the country.

Project Zed would like to know the effects of the advocacy and whether and how the intervention has impacted nutrition and developmental outcomes in children to inform scale-up efforts (for the next multi-year award).

Project Zed is well-staffed and well-resourced with local experts who have experience and expertise using and facilitating qualitative research approaches. They have availability to commit to these efforts, but time is limited as project is closing in six months.

Photo: Calvin Odhiambo/MOMENTUM Routine Immunization Transformation and Equity Kenya

Which approach/es could we use?

Questions to ask:

- Where are you in your program cycle?
- What questions do you need to answer?
- What resources do you have and/or need to implement?
- Others?

When in the project life cycle do you need the answers?

	Causal Link Monitor.	Outcome Mapping	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 questions do you need to answer?

	Causal Link Monitor.	Outcome Mapping	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?	●		●				

What resources do you have and/or need to implement?

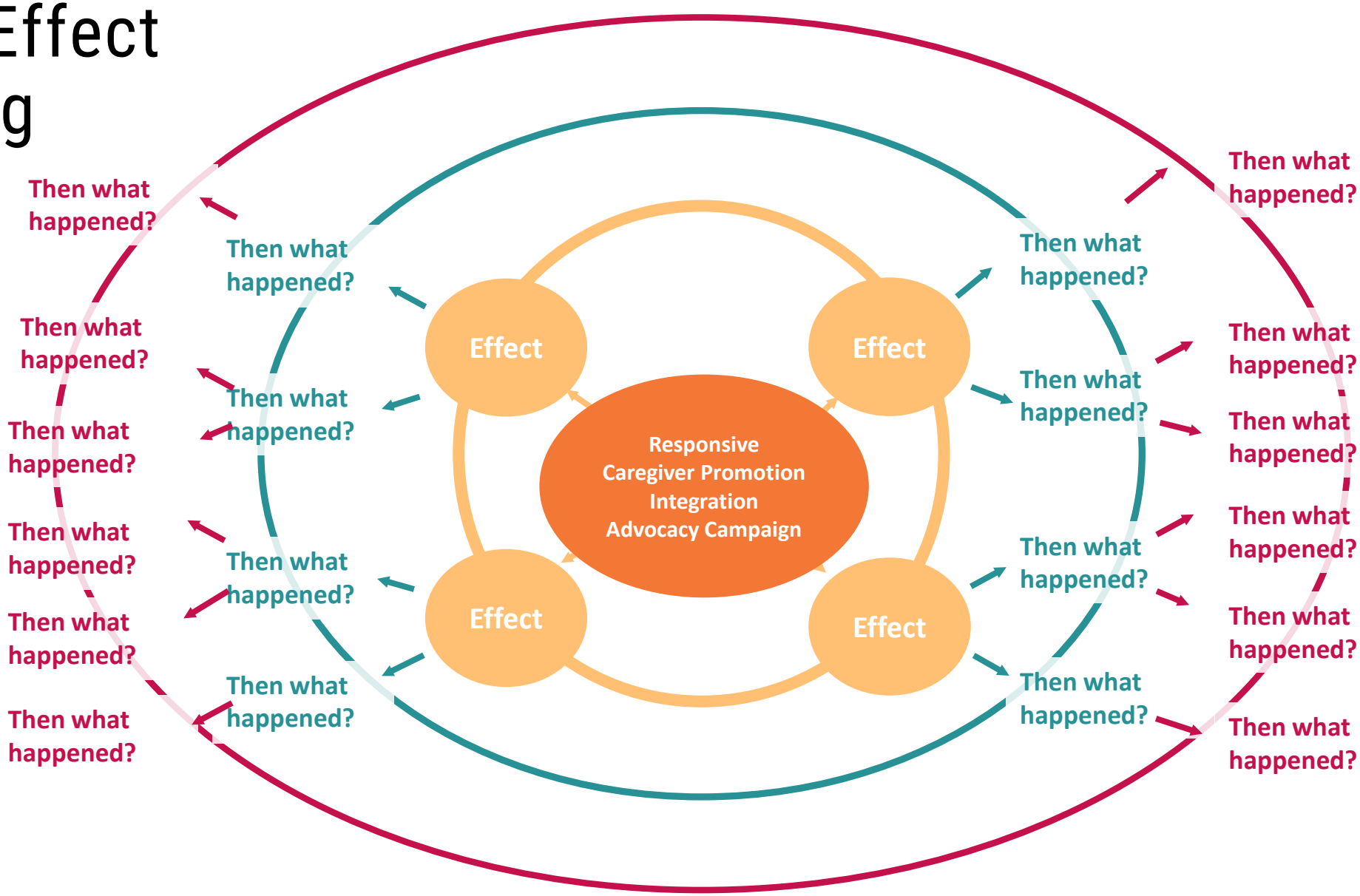
		Causal Link Monitor.	Outcome Mapping	Pause & Reflect	Outcome Harvest.	Most Sig. Change	Ripple Effect Mapping	Contribut. Analysis
Data Type	Qualitative	●	●	●	●	●	●	●
	Quantitative	●	●					●
Ease of Use	Skills & resources required*	2, 3	2, 3	1	2	1, 2	2, 3	2
	Intensity/Level of effort**	1	2	1	2, 3	2, 3	2	2, 3
	Type of engagement†	1, 2	1, 2	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)

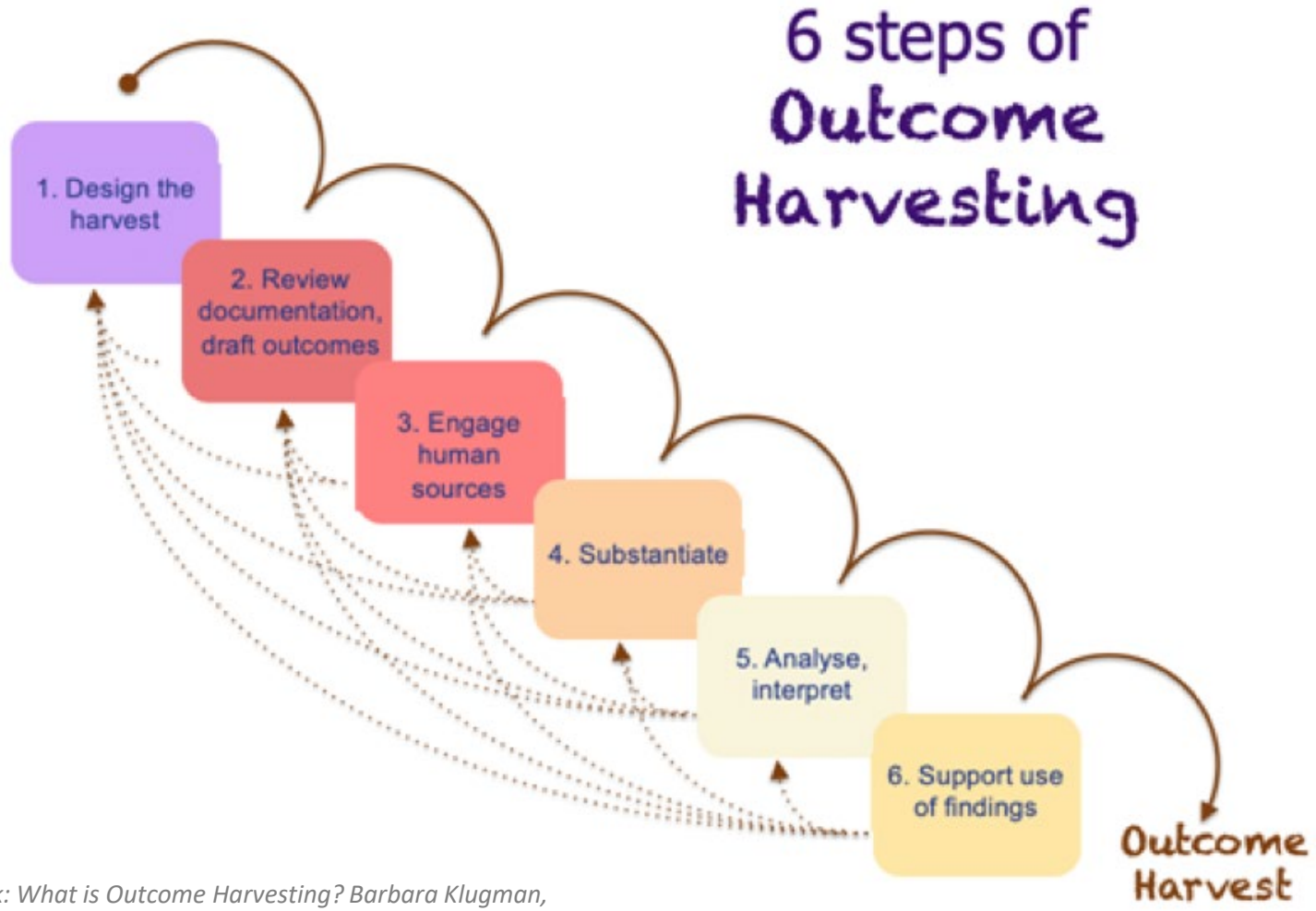
** **1** = Able to integrate within existing staff workload and/or short-term engagement of external assistance; **2** = Moderate dedicated staff time needed and/or medium-term engagement and/or; **3** = Dedicated staff needed and/or longer-term external engagement

† **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.

Ripple Effect Mapping



Outcome Harvesting



Source: Outcome Harvesting Week: What is Outcome Harvesting? Barbara Klugman, Heather Britt and Heidi Schaeffer
https://aea365.org/blog/outcome-harvesting-week-what-is-outcome-harvesting-barbara-klugman-heather-britt-and-heidi-schaeffer/.

Most Significant Change

Source: The 'Most Significant Change' MSC Technique. A Guide to Its Use by Rick Davies and Jess Dart, 2005.

In summary, Complexity Aware Monitoring methods/approaches....

Can answer questions about:

- Intended, unintended and unfinished outcomes
- Factors that contributed to change or success
- Perspectives and perceptions of stakeholders
- Context and how it influences interventions

Can be integrated into M&E for:

- Adaptive learning/management

Resources

For More Information

Complexity Aware Monitoring resources available from USAID MOMENTUM.

THANK YOU

MOMENTUM Knowledge Accelerator is funded by the U.S. Agency for International Development (USAID) as part of the MOMENTUM suite of awards and implemented by Population Reference Bureau (PRB) with partners JSI Research and Training Institute, Inc. and Ariadne Labs under USAID cooperative agreement #7200AA20CA00003. For more information about MOMENTUM, visit USAIDMomentum.org. The contents of this PowerPoint presentation are the sole responsibility of PRB and do not necessarily reflect the views of USAID or the United States Government.

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