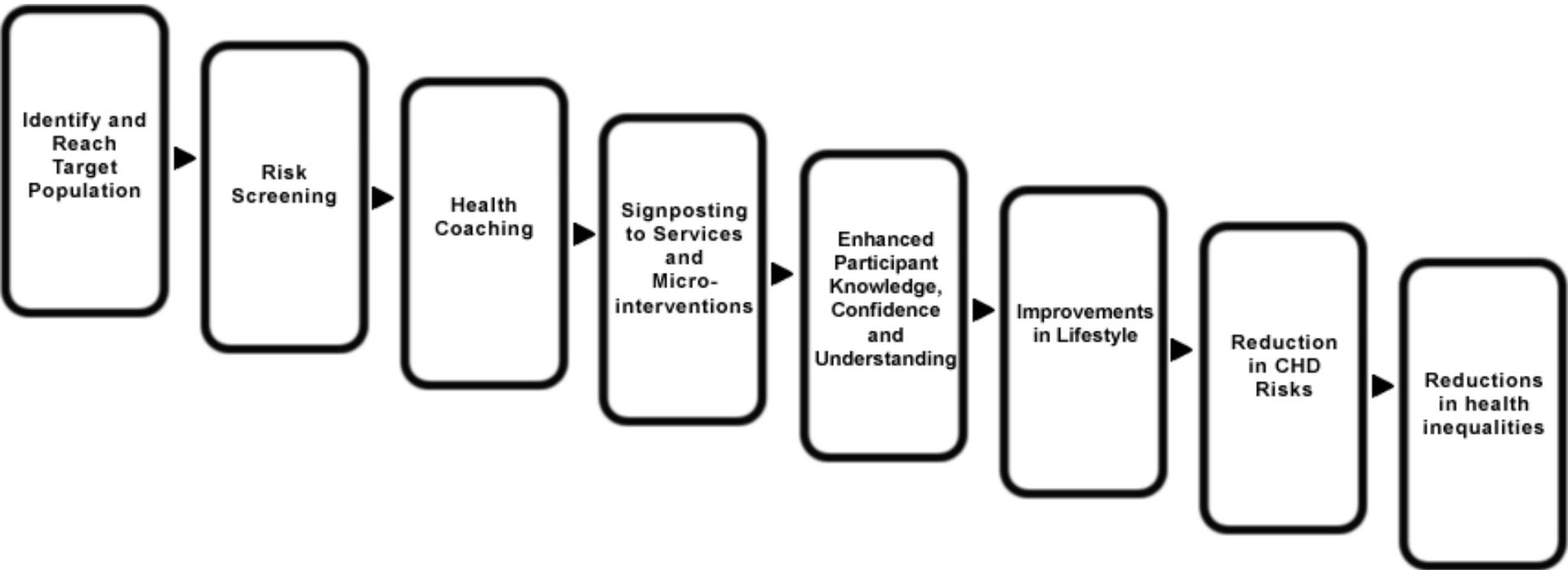


Understanding and evaluating complex programs and policies

Ontario CES meetings

Sanjeev Sridharan
University of Toronto and St. Michaels Hospital

An Example: Primary Prevention Have a Heart Paisley



Sphere of Indirect Influence

15 years

10 years and further

10. External Factors

- Other funders
- Other research

7 Years

5 Years

11. Other Benefits

Innovation Seen as Part of ODA

Grand Challenge Approach Adopted Elsewhere

Branding of Canada in Global Health

2 Years

Process chain

8. New Research Networks Created/Supported

Grant Stewardship

Knowledge Translated and Disseminated

Capacity Building

Leveraging

Oversight and Monitoring

Learning and Evaluation

Enablement chain

7. Southern Researchers Enabled /Canadian Scientists Engaged

Problem solving

6. Health and Economic /Social Benefits

5. Path to Scale/Spread

4. Products and/or Services Produced (commercialization) /Social innovation

3. Proof-of-concept Knowledge Created (research findings)

2. Grants Given (projects launched)

1. Grand Challenge Identified and GC Competitions Launched

9. Integrated Innovation

Sphere of Direct Control

System Dynamic Approaches (Sterman, 2006)

- Constantly changing;
- Governed by feedback;
- Non-linear, History-dependent;
- Adaptive and evolving;
- Characterized by trade-offs;
- Policy resistance: “The result is *policy resistance*, the tendency for interventions to be defeated by the system’s response to the intervention itself.”

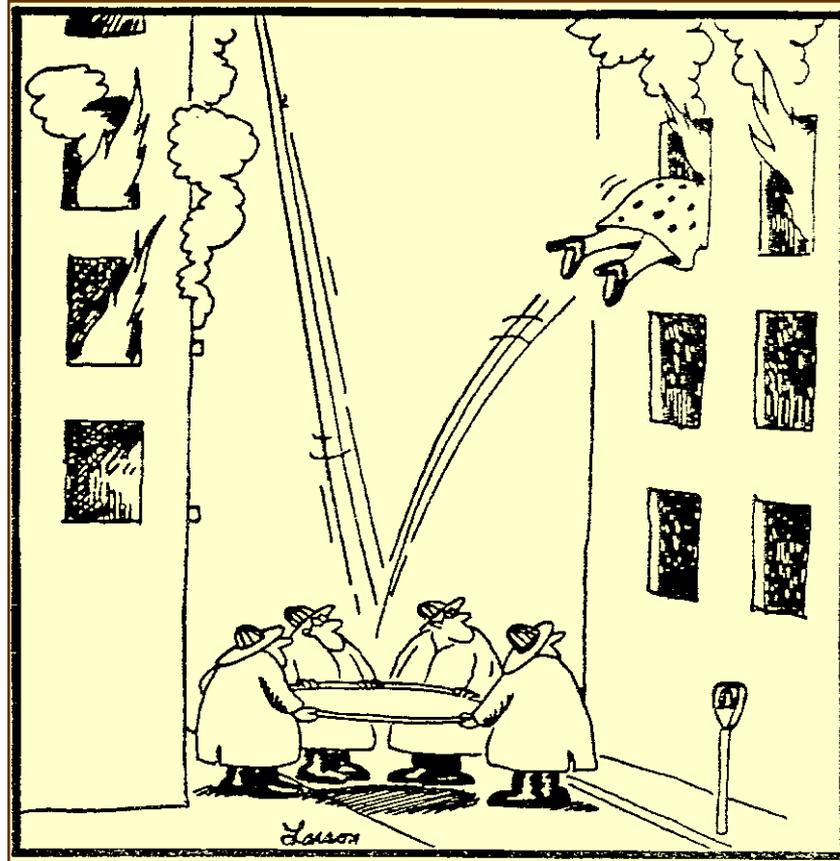
Features of complex interventions (Pawson et al., 2004)

- The intervention is a theory or theories
- The intervention involves the actions of people.
- The intervention consists of a chain of steps
- These chains of steps or processes are often not linear, and involve negotiation and feedback at each stage.
- Interventions are embedded in social systems and how they work is shaped by this context.
- Interventions are prone to modification as they are implemented.
- Interventions are open systems and change through learning as stakeholders come to understand them.

“Solutions” Can Also Create New Problems

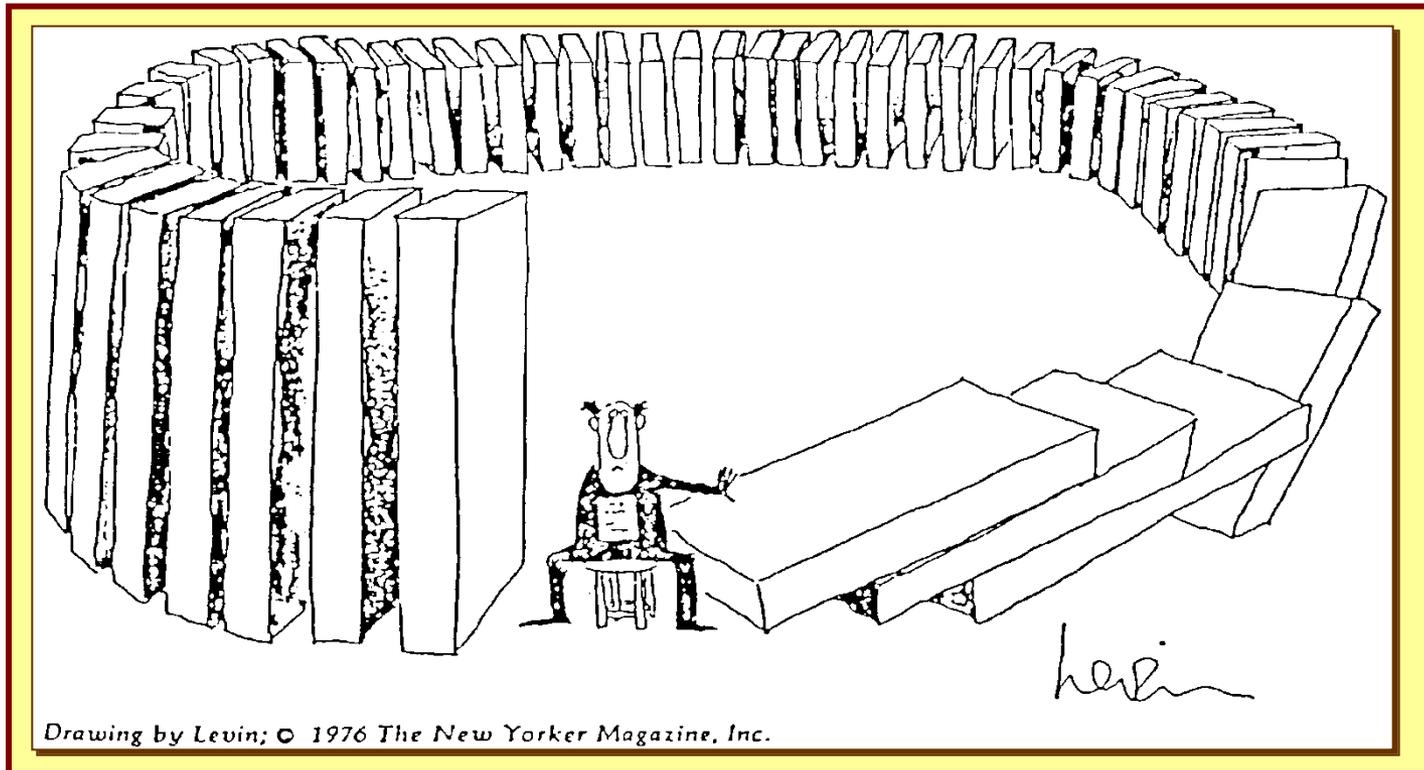
Policy resistance is the tendency for interventions to be delayed, diluted, or defeated by the response of the system to the intervention itself.

-- Meadows, Richardson, Bruckman



Meadows DH, Richardson J, Bruckmann G. *Groping in the dark: the first decade of global modelling*. New York, NY: Wiley, 1982.
Merton RK. The unanticipated consequences of purposive social action. *American Sociological Review* 1936;1936:894-904.
Forrester JW. Counterintuitive behavior of social systems. *Technology Review* 1971;73(3):53-68.

System-as-Cause



Forrester JW. Counterintuitive behavior of social systems. *Technology Review* 1971;73(3):53-68.

Meadows DH. *Leverage points: places to intervene in a system*. Sustainability Institute, 1999.
Available at <http://www.sustainabilityinstitute.org/pubs/Leverage_Points.pdf>.

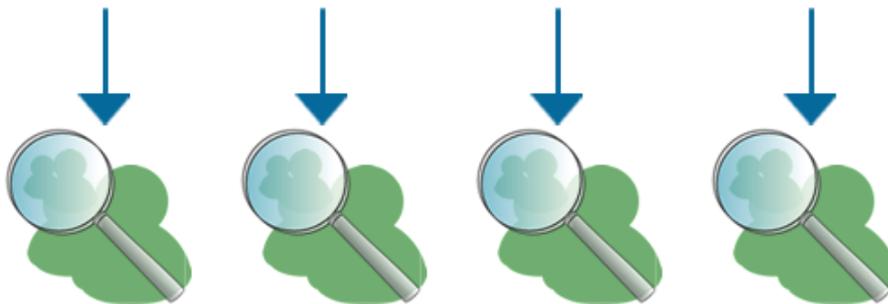
Richardson GP. *Feedback thought in social science and systems theory*. Philadelphia, PA: University of Pennsylvania Press, 1991.

Sterman JD. *Business dynamics: systems thinking and modeling for a complex world*. Boston, MA: Irwin McGraw-Hill, 2000.

Repeated Programmes

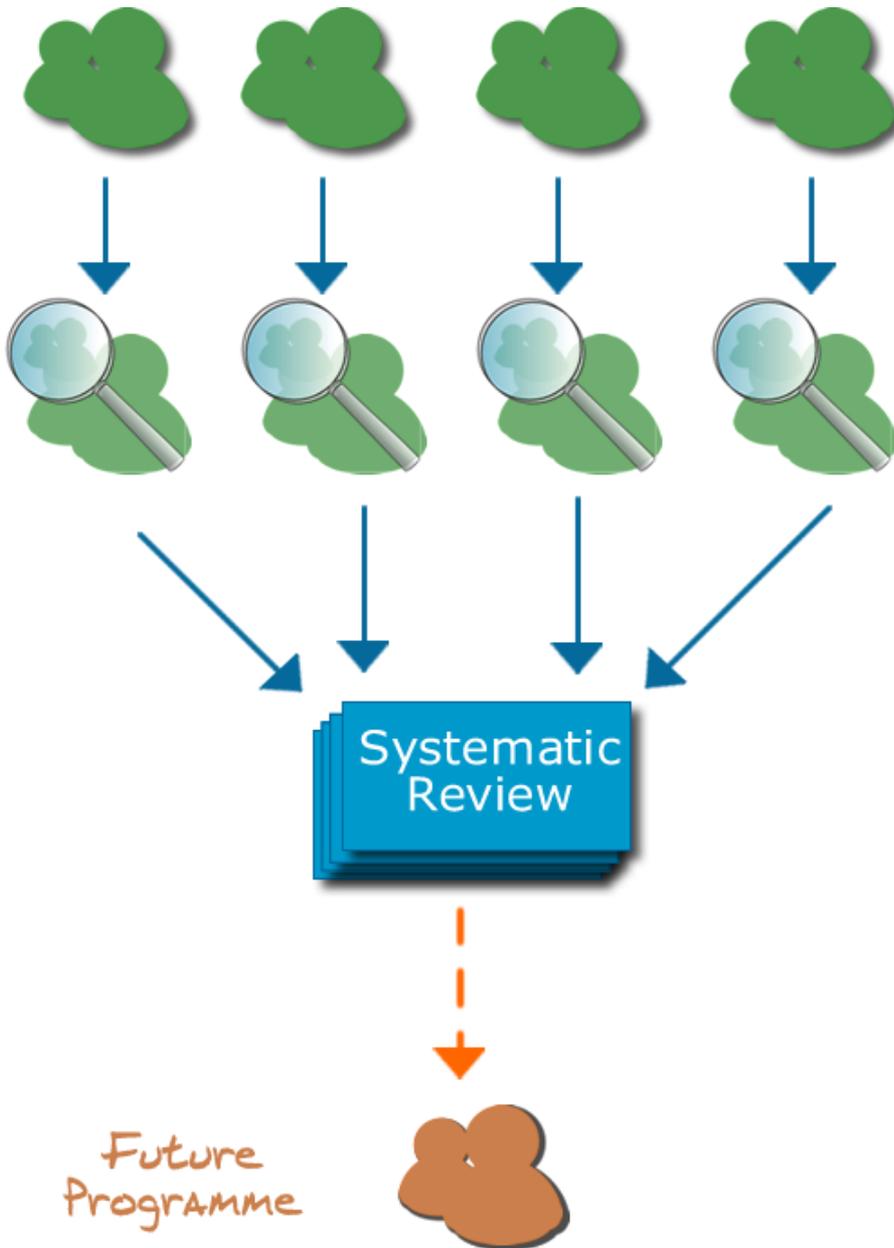


Repeated Evaluations



Systematic Review

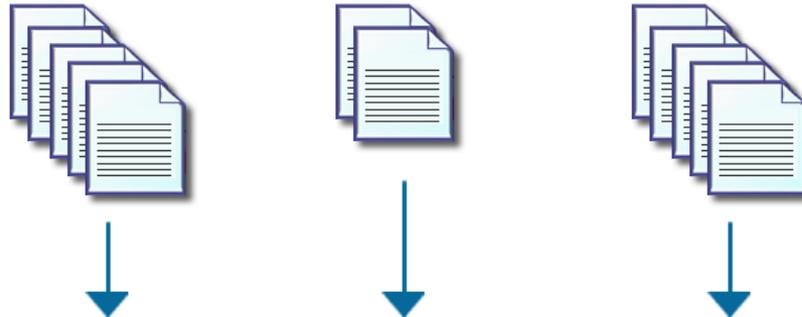
Future Programme



Programme



Evidence



Synthesis



Future Programme



A Ten Step approach to Evaluation

A INTERVENTION THEORY AND DEVELOPING EXPECTATIONS OF IMPACTS OVER TIME

- The key components of the complex intervention
- The program theory of the complex intervention
- Learning from the Evidence Base
- The anticipated timeline of impact

B LEARNING FRAMEWORKS AND PATHWAYS OF INFLUENCE

- The pathways of influence of an evaluation
- Learning framework for the evaluation

C IMPACTS AND LEARNING

- Assessing the impact of the intervention: **DESIGN**
- Learning about the intervention over time

D SPREAD AND SUSTAINABILITY

- Spreading learning from an evaluation
- Reflections on performance and sustainability



Core Impact
Evaluation
Questions

The
'So What'
of the
Evaluation

Taking
Stock

Taking **Stock**



Taking Stock

- What are your key evaluation questions? Whom are these questions relevant? When is this information needed? Is the study a demonstration program? A continuous improvement project? What is planned to be spread as a result of the evaluation?
 - Towards a buffet of possibilities
- Is there a framework of learning?
 - Building an evaluation around learning questions



Taking Stock

- What is your program/policy etc?
 - Is it stable?
 - What does stability mean in an intervention context?
 - What are your key program outcomes? How is your program likely to impact outcomes? What is your program theory?
 - What is the short term and long term views of success?
- Describe the context in which the intervention exists; What is the context in which the program is most likely to work?
- How does the program design incorporate the context?
 - Context as both a knowledge translation and impact problem
- Who is most likely to be impacted by your program? our knowledge of such questions is often limited at the start of a program
 - Heterogeneous mechanisms as both a knowledge translation and impact problem



Taking Stock

- How long will it take for the program to impact outcomes? Any ideas on a trajectory of impact?
 - Methods to develop anticipated trajectories of impacts
- What can we learn from prior evaluations? Learn about program impacts? Learn about program theory? Learn about impact trajectories....history matters
 - Evidence review as a program theory problem

Core Impact Evaluation Questions



Core
Impact
Evaluation
Questions

- What combinations of evaluation approaches are you adopting to answer the key evaluation questions?
 - Movement away from singular designs
- What design did you implement to study the impacts? How was the design informed by the program theory? How was the design informed by some implicit understanding of the timeline and trajectory of impact?
 - Connecting theory driven evaluation with a range of other approaches
- How does the design address threats to external and internal validity?
 - Cook and Campbell are still incredibly relevant
- How does the design study the “networks” of interventions? How does it study context and changes in context over time?
 - Operationalizing the complexity of the intervention; Operationalizing context; operationalizing dynamic context



Core
Impact
Evaluation
Questions

- What analysis methods did you use to study if there was an impact? What methods did you use to study why did the change happen (or not happen)?
 - Connect theories of change with impact evaluations
- What monitoring data were used? Were additional data collected as part of an evaluation? How was monitoring integrated with the evaluation?
 - Integrate monitoring with evaluation
- What were the impacts on the overall sample? What were the impacts on targeted groups?
 - Methods of heterogeneous impacts; learning through principled discovery
- How did the design link process to impacts?
 - Methods to link process to outcomes



Core
Impact
Evaluation
Questions

- How sure are you that the program caused the change? Are there alternative explanations for the observed patterns?
 - How useful are concepts of threats to internal validity when dealing with highly innovative, dynamic systems?
- How does the design generate information that can be generalizable?
 - What are we generalizing?
- What were the unintended consequences of the program?
 - What methods did you implement to be open to the possibility of unintended consequences?
- If possible also address this question: Is it cost effective? Are the positive changes worth the costs of the project / programme / policy? (cost effectiveness)
 - Methods of economic evaluation

The 'So What' of the Evaluation

A green circular graphic with a slight gradient and a drop shadow, containing the title text.

The 'So What' of the Evaluation

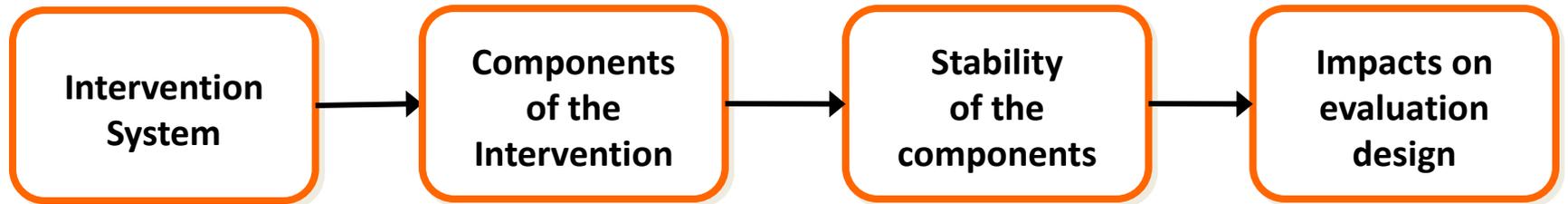
- Is the program generalizable? Can the program be scaled up?
 - Linkage between evaluation and scaling-up
- How do the results link to a framework of spread?
 - Linkage between evaluation, learning and spread
- Did the program impact the groups that needed the program the most? How should the program be adapted to ensure that future version of the program engage with those in need?
 - Differential impacts, heterogeneous mechanisms and knowledge translation



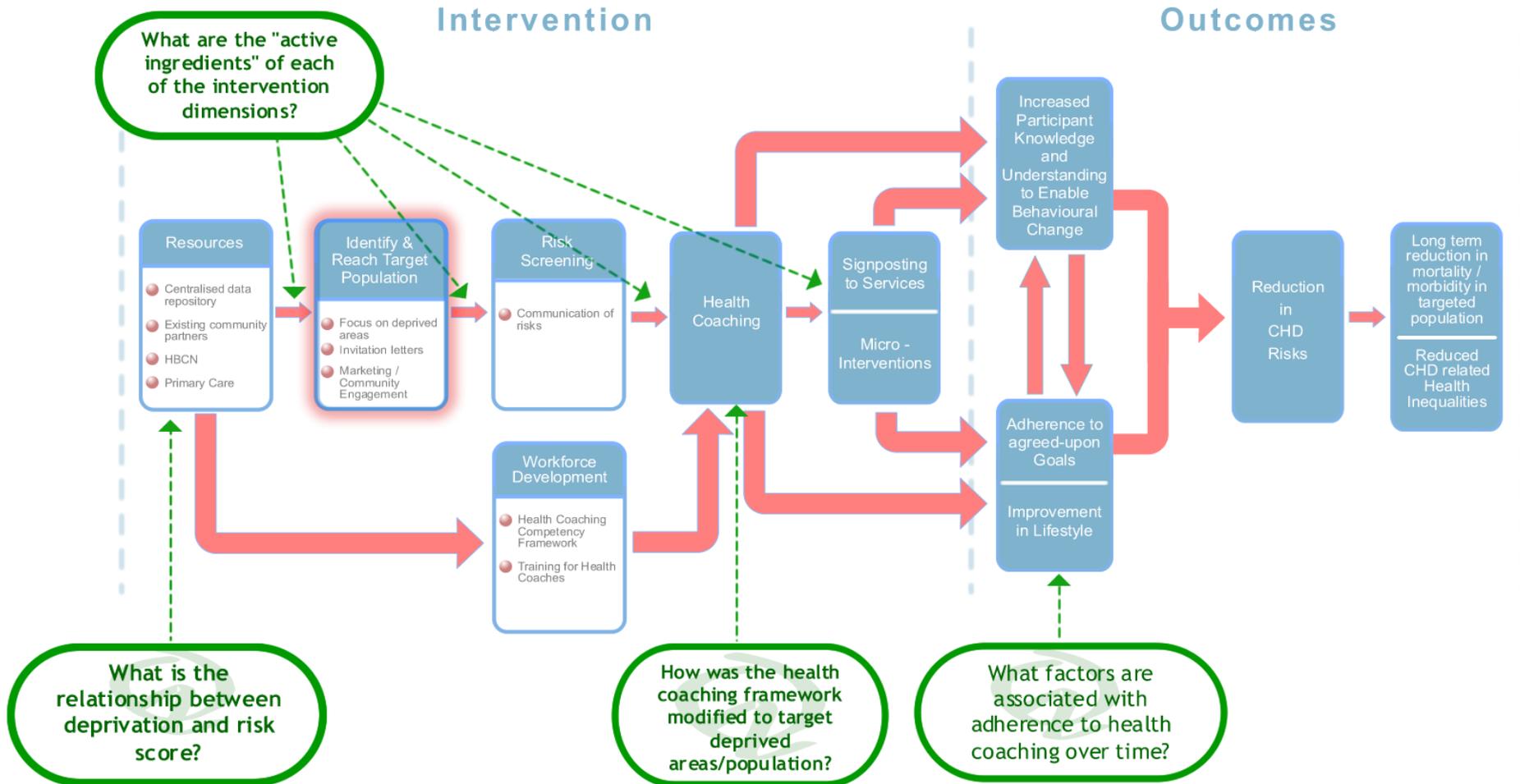
The
'So What'
of the
Evaluation

- How will the information help with decisions to sustain the program?
 - Evaluation, performance and sustainability
- Based on what is learned from the evaluation, how should the program theory be adapted?
 - Dynamic, emergent program theory
-

1. Elements of the intervention



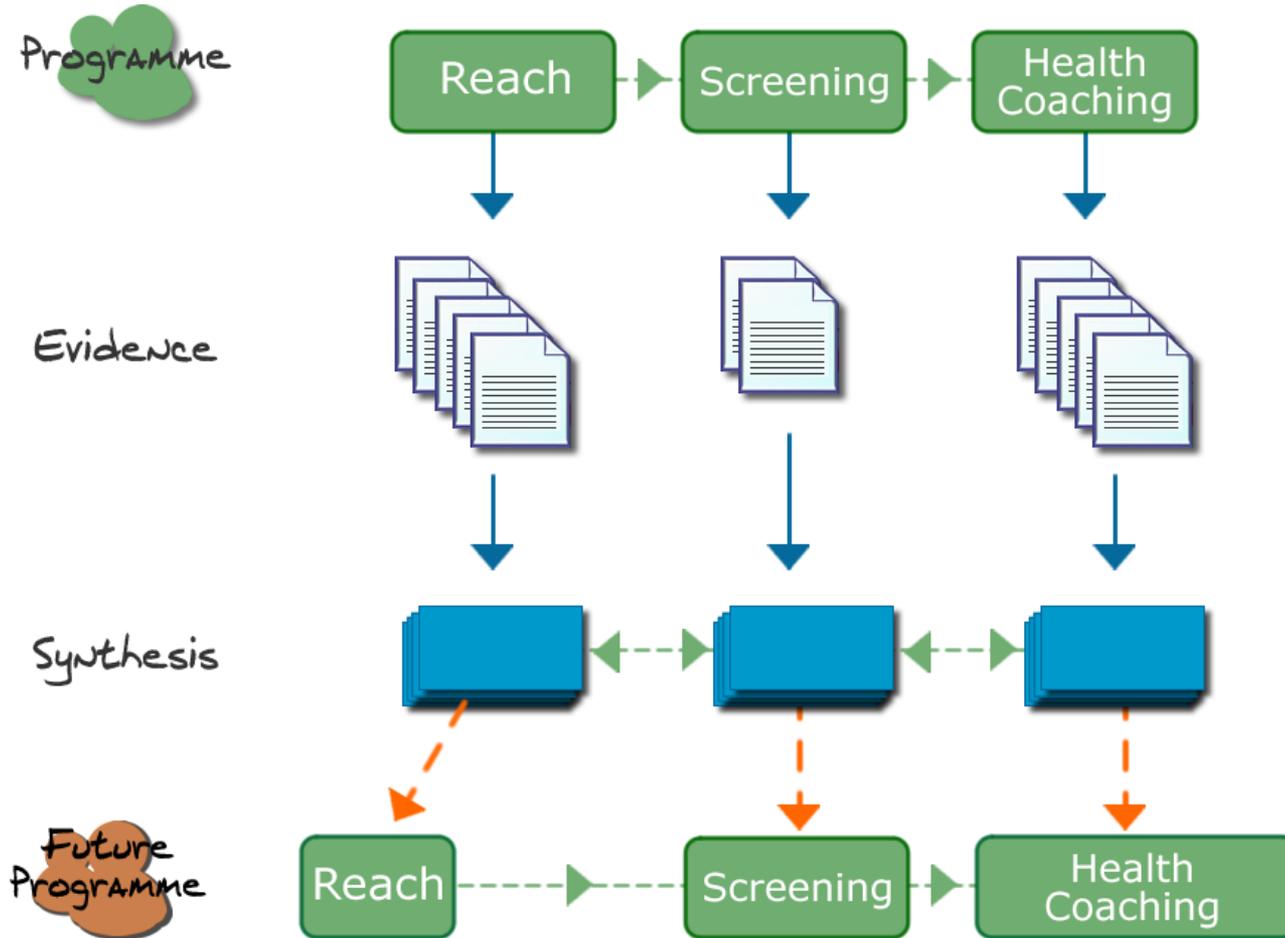
2. Program theory



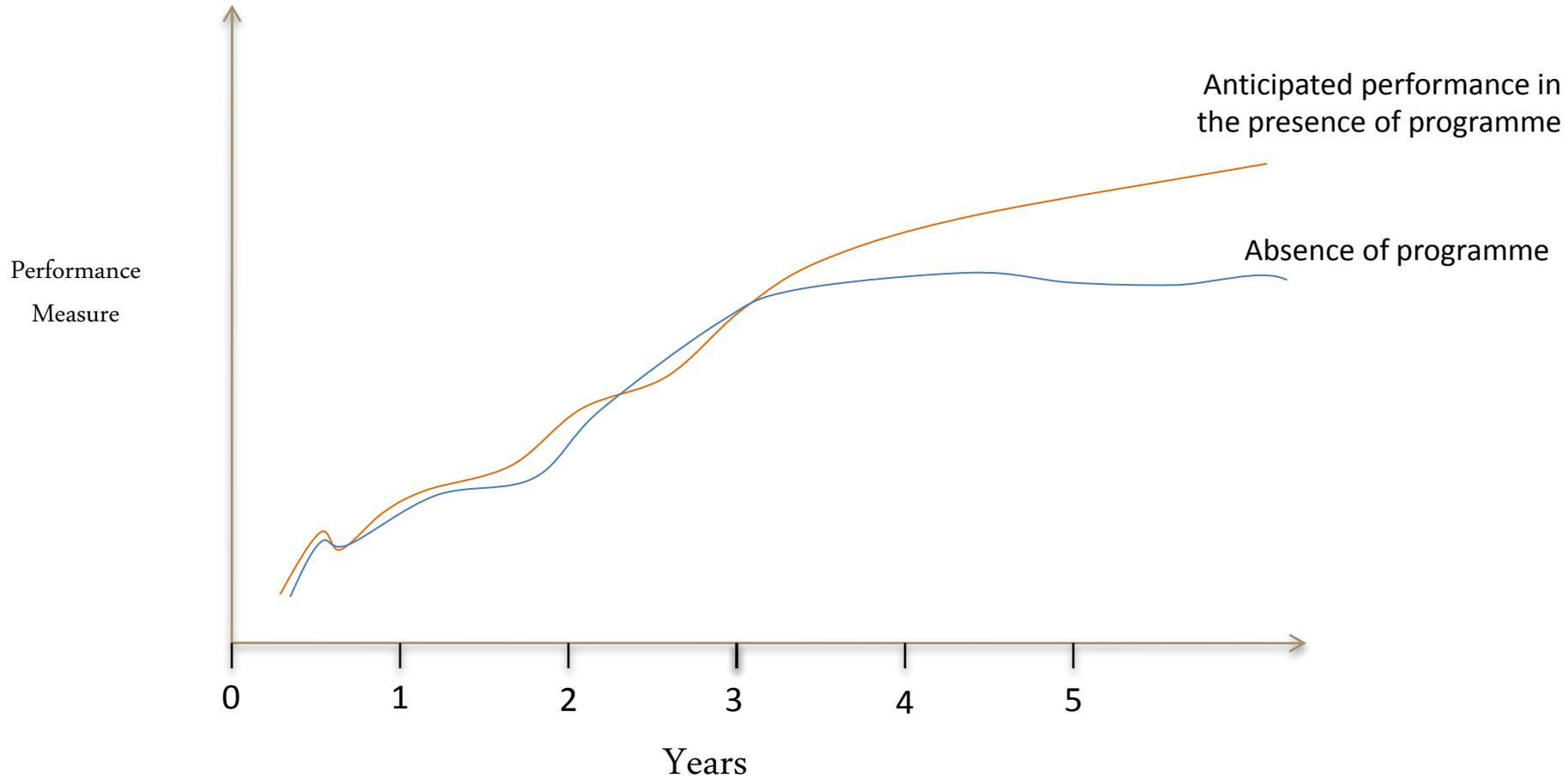
2. Program theory

- Context and contingencies
 - Mechanisms
 - Heterogeneity
 - Leverage
-
-what is a good enough program theory? What is a good enough program theory to aid implementation?

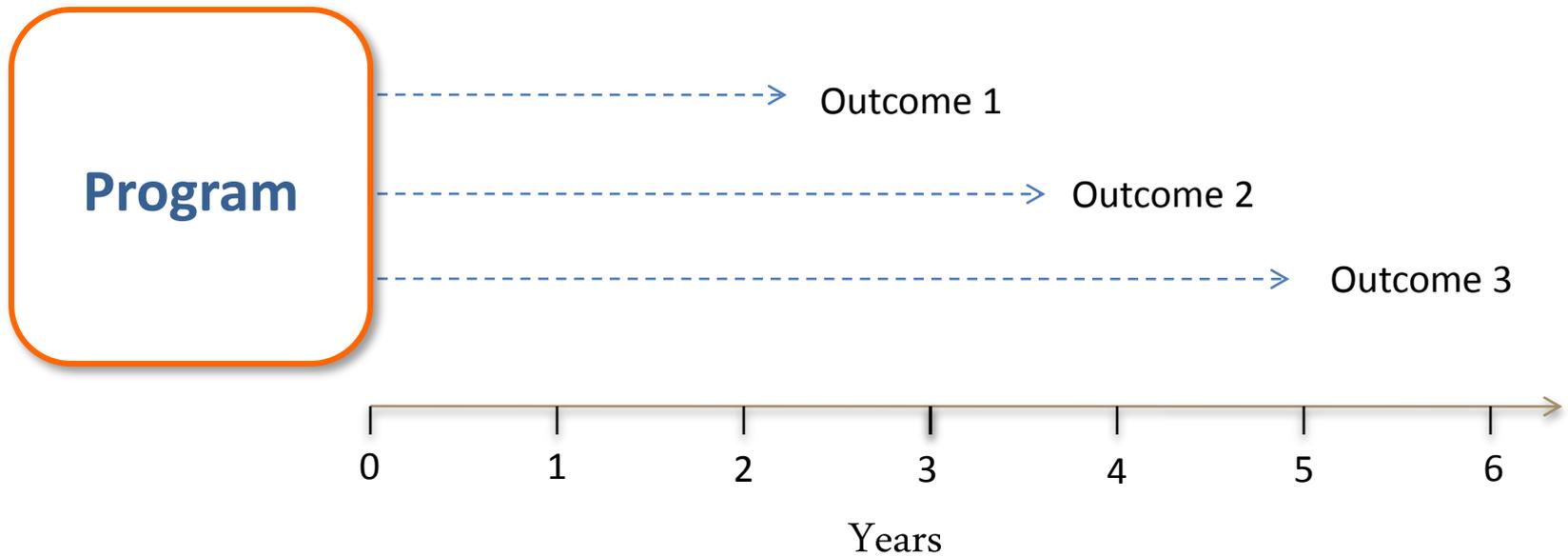
3. Evidence Synthesis

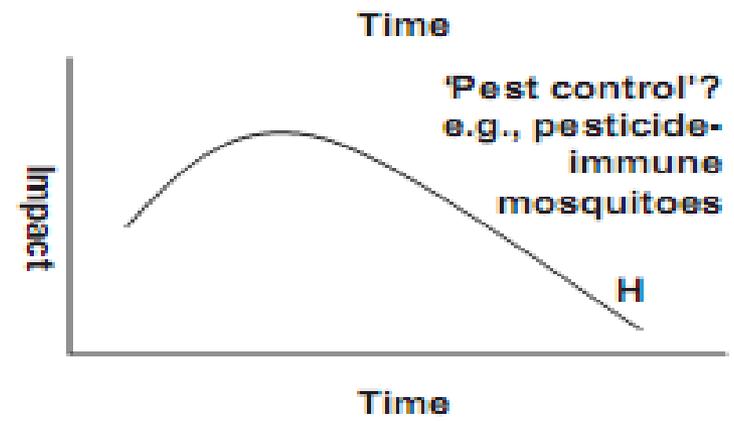
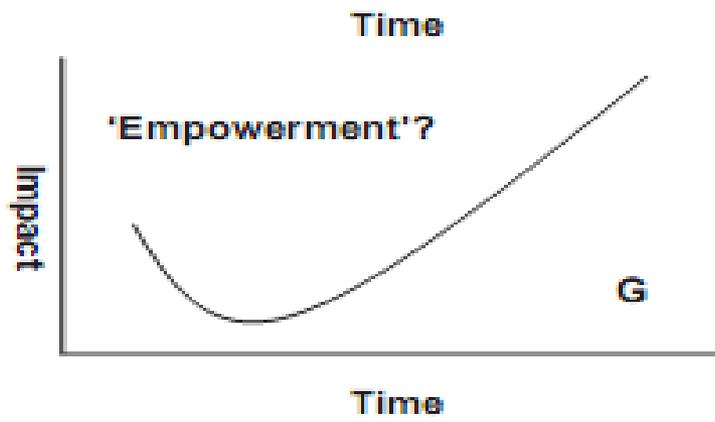
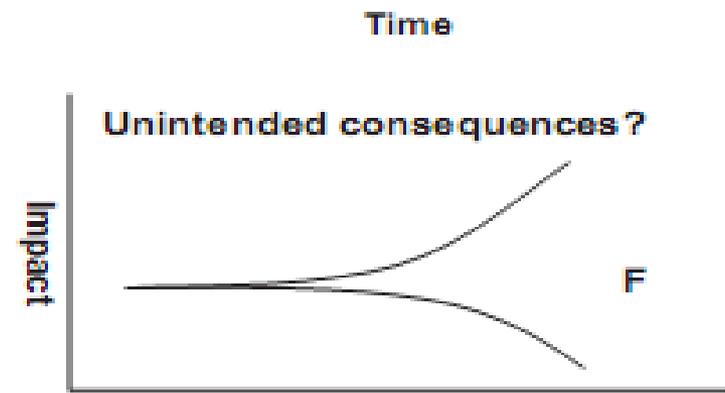
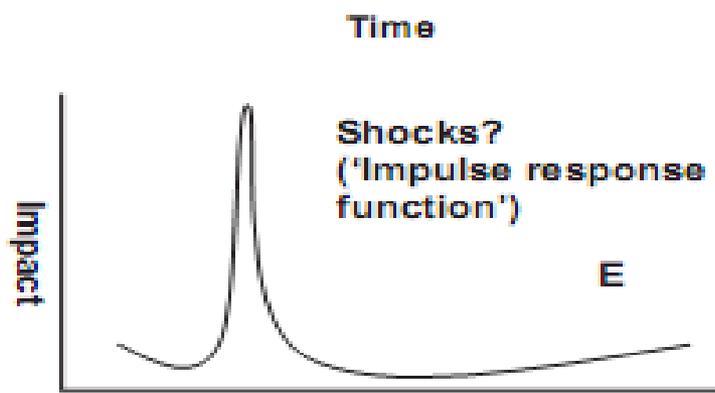
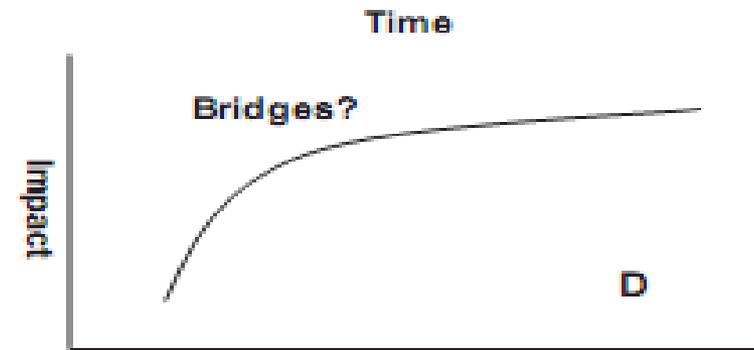
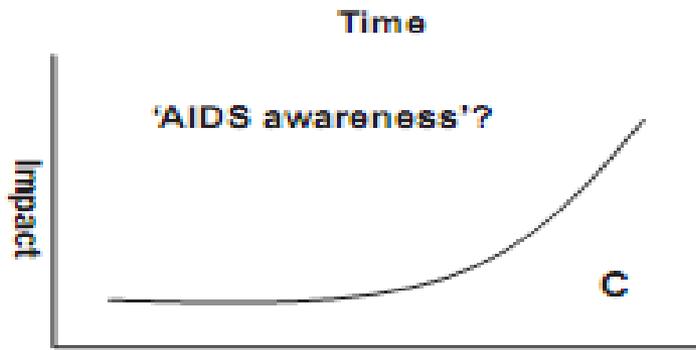


4. Expected Performance Trajectory



4. Anticipated Timeline of Impact





B. Structure of Evaluation Influence

5. Framework of Learning
6. Pathways of evaluation influence

Five types of learning

Policy
Learning

Organisational
Learning

Process
Learning

Risk Landscape of
Clients

Individual-Level
Impacts

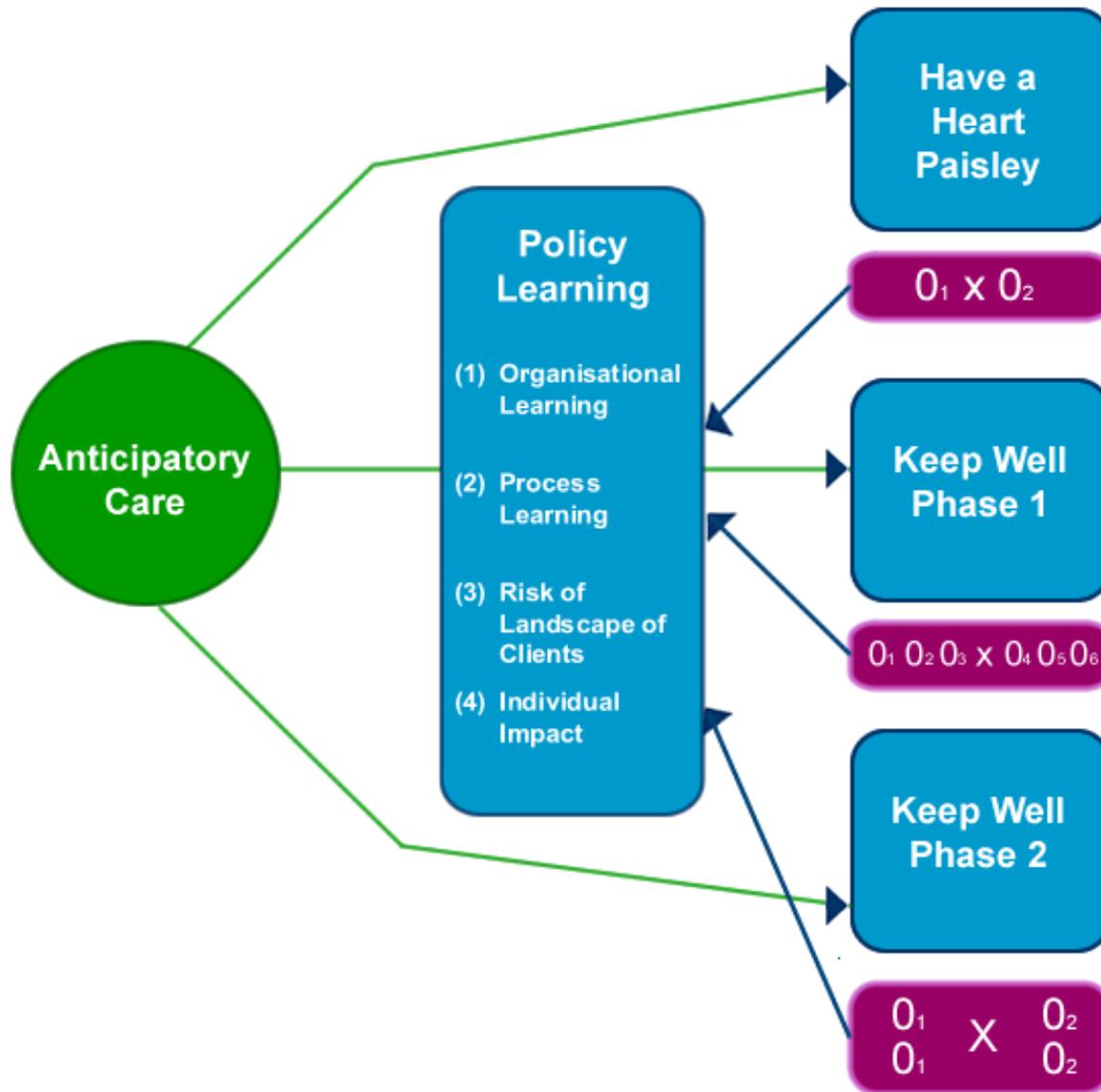
7. Design principles

- Continues to be surprisingly inadequate
- Respond to threats to internal, external validity
- Connect with program theory;
- Connect to a framework of learning;
- Connect to an anticipatory trajectory of impact;
- Leverage innovative methods;
- Pay attention to the policy landscape

Ideas/Questions

Learning

Programmes



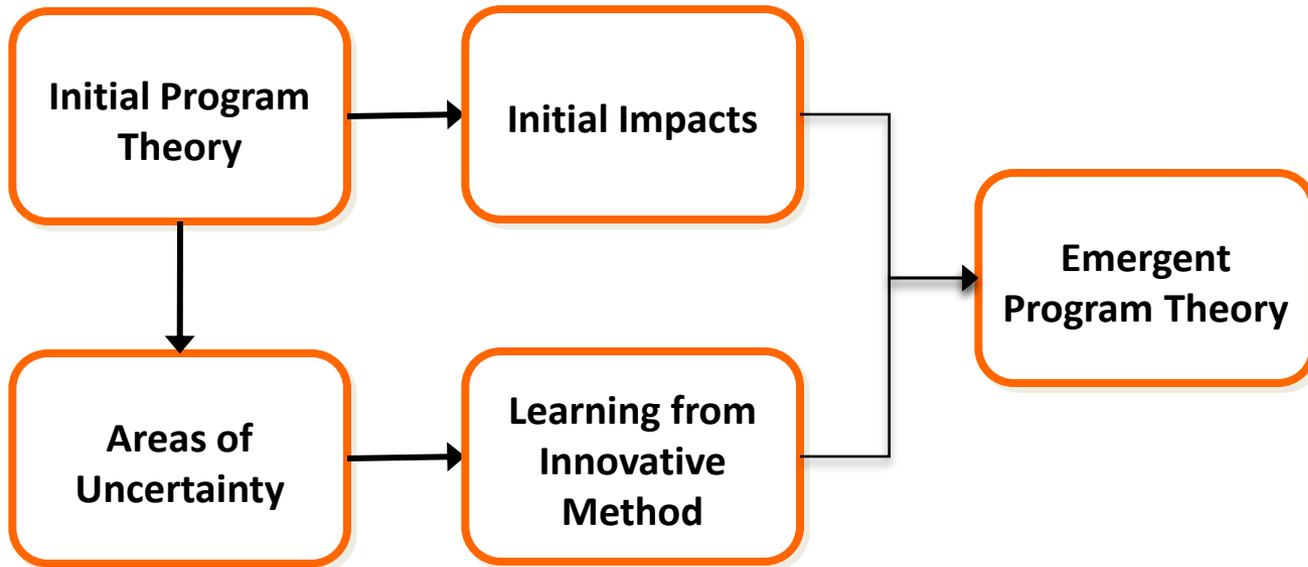
Research design

(8) Learning from Methods

Scenario 1

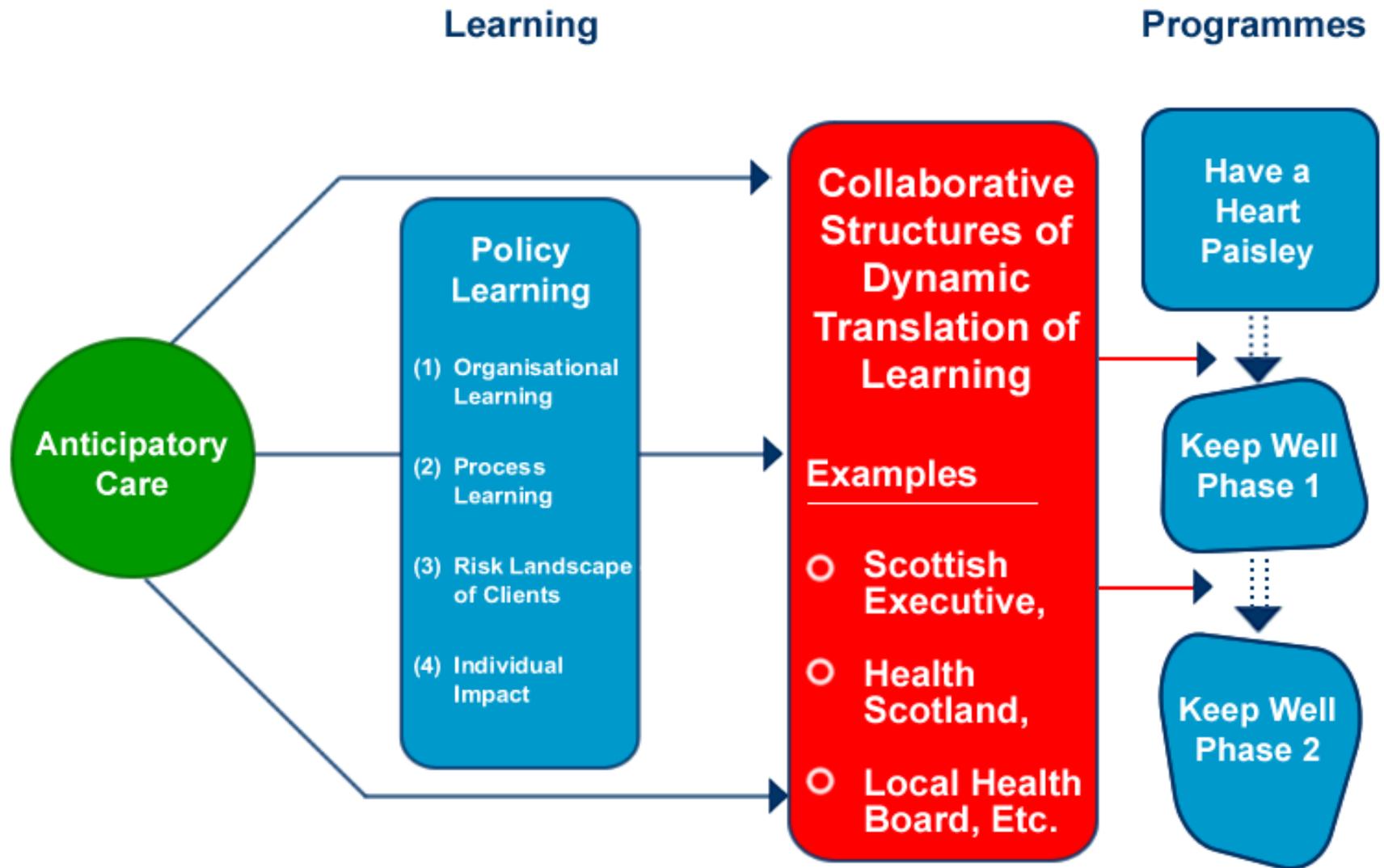


Scenario 2

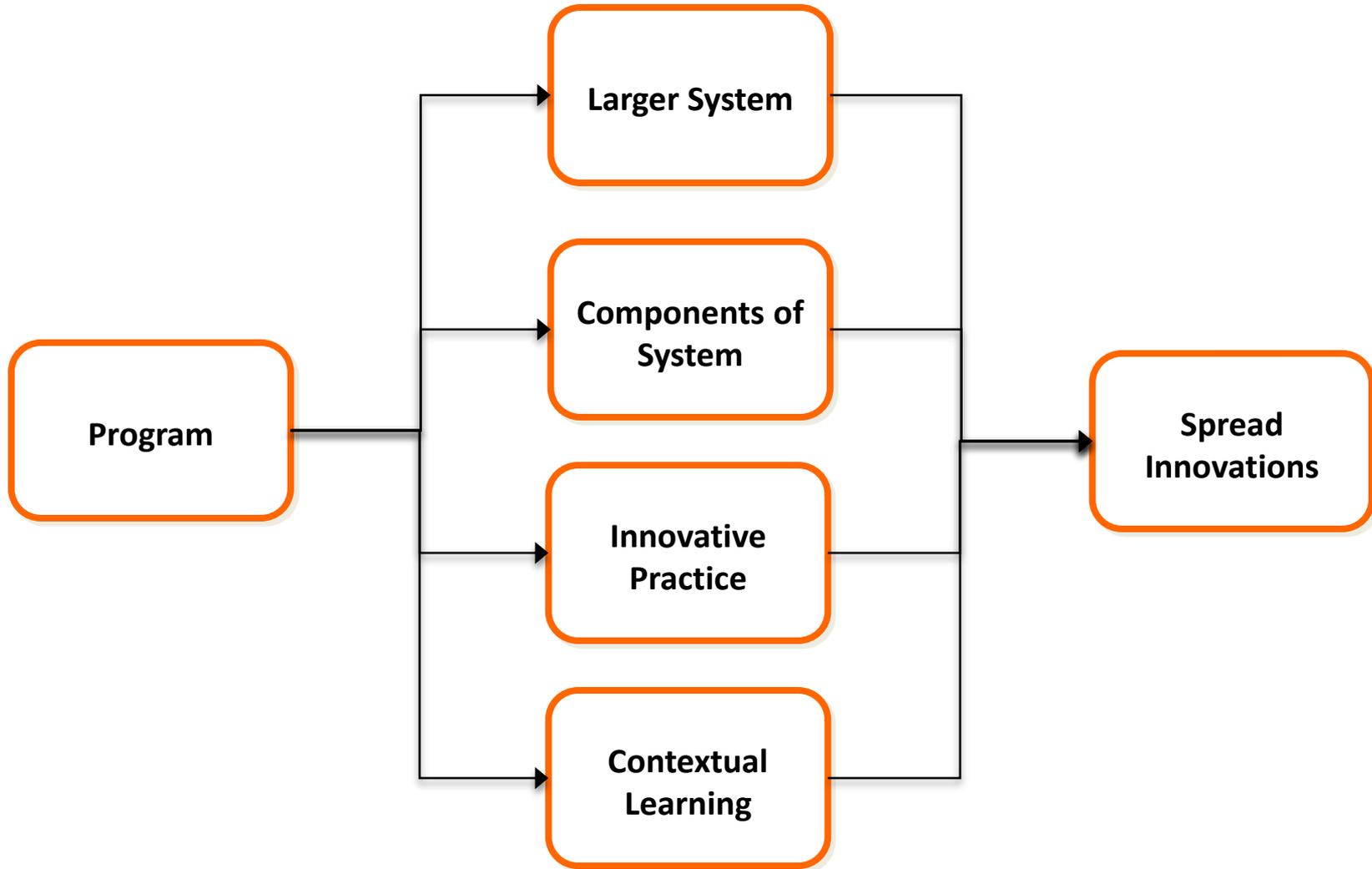


9. Spread and Sustainability

Ideas/Questions



(9) Framework of Spread



(10) A Framework for Sustainability

