Using Contribution Analysis to Address Cause-Effect Questions: Theory and Concepts

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Outline

- the idea
- theories of change
- contribution analysis
- complexity
- conclusions

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The challenge

- Attribution for outcomes always a challenge
- Strong evaluations (such as RCTs) not always available or possible
- A credible performance story needs to address attribution
- Complexity significantly complicates the issue
- What can be done?

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The idea

- Based on the theory of change of the program,
- Buttressed by evidence validating the theory of change,
- Reinforced by examination of other influencing factors,
- *Contribution analysis* builds a reasonably credible case about the difference the program is making

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Proving Causality

- The gold standard debate (RCTs et al)
- AEA and EES: many methods capable of demonstrating scientific rigour
- Methodological appropriateness for given evaluation questions
- Causal analysis: auto mechanic, air crashes, forensic work, doctors

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Contribution analysis: the theory

- There is a postulated theory of change
- The activities of the program were implemented
- The theory of change is supported by evidence
- Other influencing factors have been assessed

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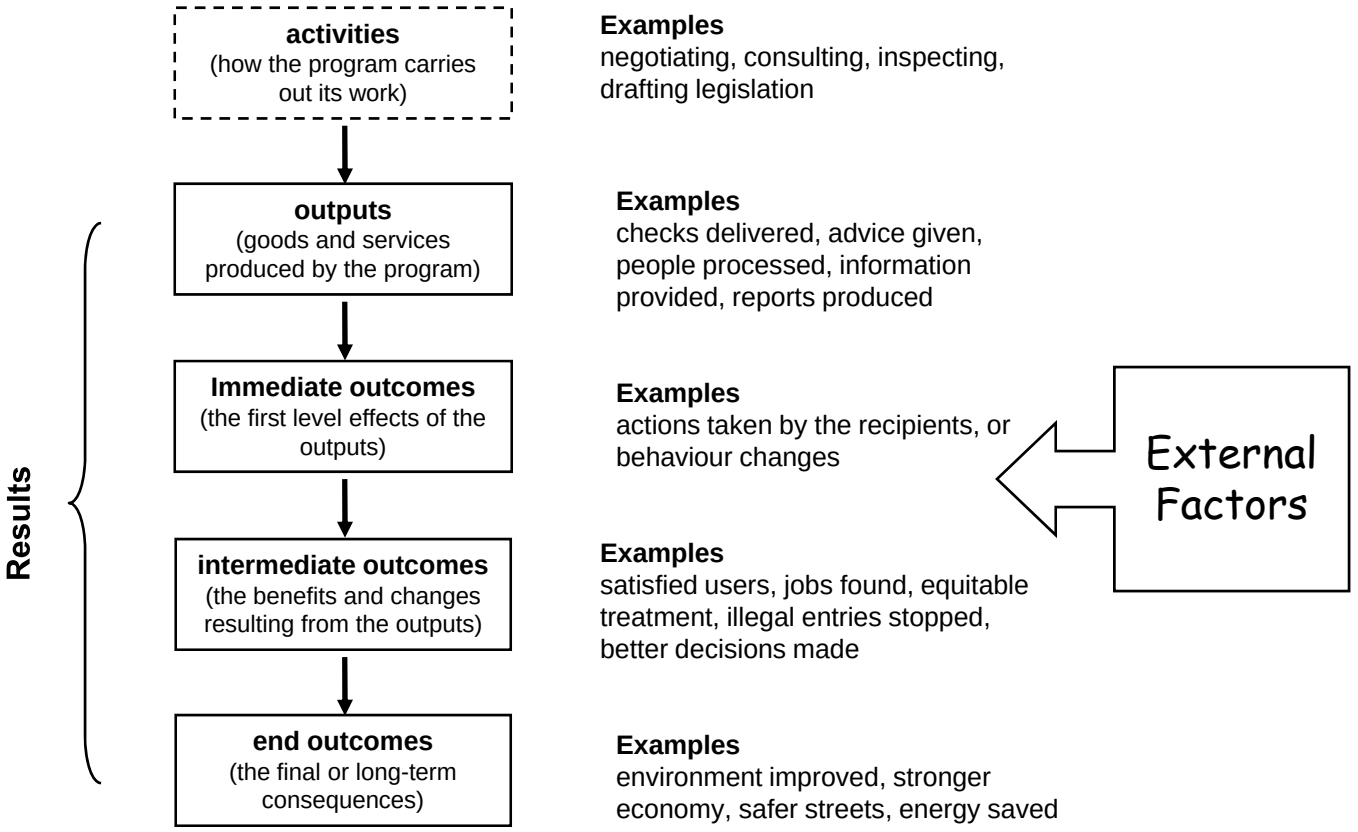
A results chain



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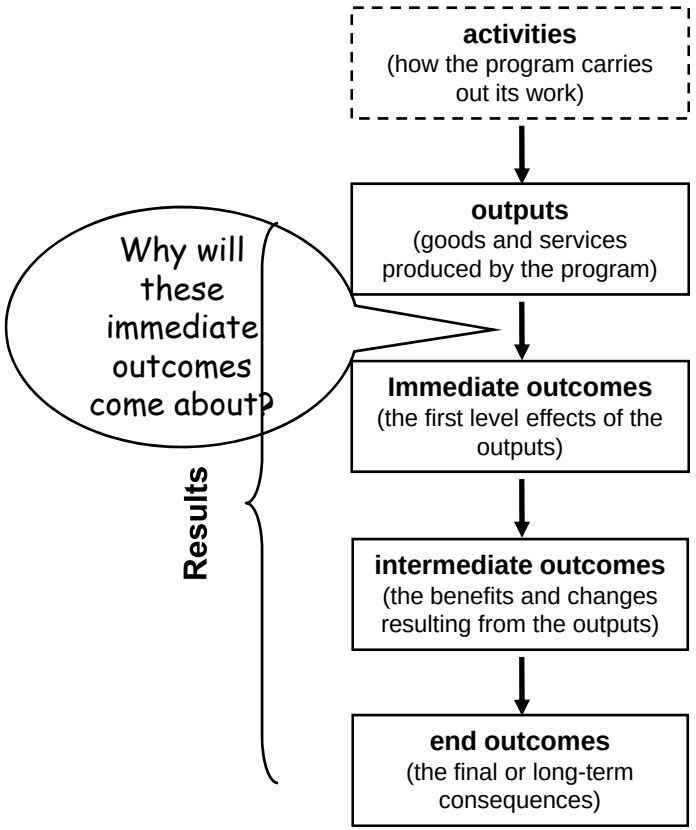
Results chain links



Examples
negotiating, consulting, inspecting, drafting legislation

Examples
checks delivered, advice given, people processed, information provided, reports produced

Examples
actions taken by the recipients, or behaviour changes

External Factors

Examples
satisfied users, jobs found, equitable treatment, illegal entries stopped, better decisions made

Examples
environment improved, stronger economy, safer streets, energy saved

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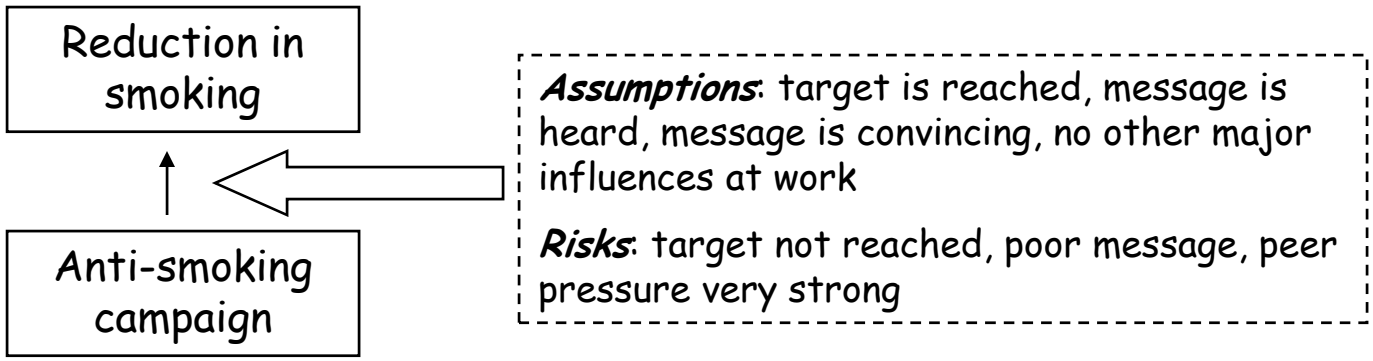
Theories of change

- A results chain with embedded assumptions and risks identified
- An explanation of why the results chain is expected to work; what has to happen



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Theory of change analysis

- Need to identify which of the links in the results chain have the weakest evidence
- Some may be supported by prior research
- Some may be well accepted
- But some may be a large leap of faith, or the subject of debate
- With limited resources, these contested links are where effort should be focused

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Steps in Contribution Analysis

1. Set out the attribution problem to be addressed
2. Develop the postulated theory of change
3. Gather the existing evidence on the ToC
4. Assemble & assess the contribution story
5. Seek out additional evidence
6. Revise & strengthen the contribution story
7. Develop the complex contribution story

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1. Set out the attribution problem

- Acknowledge the need to address attribution
- Scope the attribution problem
  - What is really being asked
  - What level of confidence is needed?
- Explore the "expected contribution"
- What are the other influencing factors?
- How plausible is a contribution?

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2. Develop the ToC and Risks to It

- Build the postulated results chain and ToC
  - Identify roles played by other influencing factors
  - Identify the risks to the assumptions
  - Determine how contested the ToC is

3. Gather existing evidence

- Assess the logical robustness of the ToC
- Gather available evidence on
  - Results
  - Assumptions
  - Other influencing factors

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4. Assemble and assess the contribution story

- Set out the contribution story
- Assess its strengths and weaknesses

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5. Seek out additional evidence

- Determine what additional evidence is needed
- If needed, refine the ToC
- Gather new evidence

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Strengthening Techniques

- Survey knowledgeable others involved
- Track program variations and their impacts (time, location, strength)
- Undertake case studies
- Conduct a component evaluation
- Identify and synthesize relevant research or evaluation
- Use multiple lines of evidence

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6. Revise and strengthen the contribution story

- Build a more credible contribution story
- Reassess its strengths and weaknesses
- Revisit step 5

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Causality in Complexity

- Many factors
- Many interventions
- No room for experimenting
- Not everything is planned
- Causality a real mess
  - How to know? Many theory strands
  - What to know?

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7. Develop the complex contribution story

- Develop the contribution story for each theory strand
- Develop the contribution story for any general theory of change

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Evaluating in Complexity

- Goal should be understanding not determining what works per se (Sanderson, Pawson)
- CA seeks to understand what is working and why
- Robust predictions cannot be made but we can observe the consequences and learn
- ToC will be revised frequently
- We will learn incrementally; CA can help

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Some References

- Sanderson (2000). Evaluating in Complex Policy Systems. *Evaluation* 6(4):433-454
- Pawson (2006). Simple Principles for the Evaluation of Complex Programmes. In *Public Health Evidence*. Oxford
- Sampson (2007). Developing Robust Approaches to Evaluating Social Programmes. *Evaluation* 13(4): 477-493
- Eoyang & Berkas (1998). Evaluating Performance in a Complex Adaptive System. http://www.winternet.com/~eoyang/CAS_Abstract.htm

Levels of contribution analysis

- Minimalist contribution analysis
- Contribution analysis of direct influence
- Contribution analysis of indirect influence

Contribution analysis

Builds evidence on

- Immediate/intermediate outcomes, the behavioural changes
- Links in the results chain
- Other influencing factors at play
- Other explanations for observed outcomes

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