

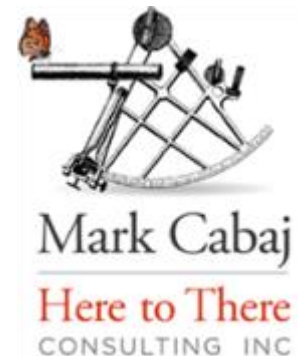


# Evaluating Community Impact

**CAPTURING AND MAKING SENSE  
OF COMMUNITY OUTCOMES**



# Special thanks to our event partners



#ECISASK2017

[www.tamarackcommunity.ca](http://www.tamarackcommunity.ca)



# Module 9:

## Contribution Analysis

Find an example of  
where you are  
wondering if your efforts  
or intervention had some  
influence on a  
community change or  
result.







"Dear Mr. Gandhi, We regret we cannot fund your proposal because the link between spinning cloth and the fall of the British Empire was not clear to us."

*Written by M. M. Rogers and illustrated by Arif R. Firdzal, Widyu S., Ary W.S.  
Creative team for Search for Common Ground in Indonesia*



## Main Ideas

- Social innovators – and those who support them – want to get a sense of the extent to which their **activities are responsible** for hoped for outcomes, results or changes.
- The traditional approach to assessing attribution – **experimental designs**, including randomized controlled trials – are **impractical** except in a few niche situations.
- The alternative is **contribution analysis**, an approach that is in early phase of development.
- The contribution analysis **framework includes five steps** – with examples, techniques and principles – that can guide other contribution analysis innovators.
- It will take a **lot of practice** and peer sharing to more fully develop a strong pattern of contribution analysis practice.

# The Challenge

## Table Exercise

- From 1974 to 1989, incidences of violent crime increased 80% in the US. Within years, dropped back to levels not seen since 1950s.
- What are the top three reasons for this drop?



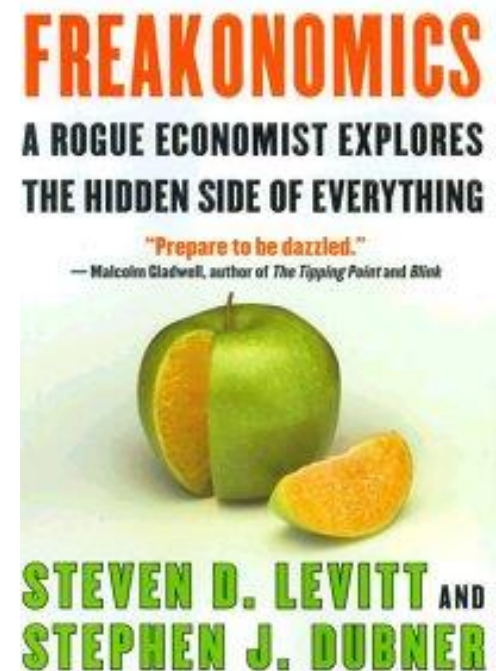


# Popular Crime Drop Explanations in Media and Research

Crime Drop Explanation	Number of Citations
1. Innovative Police Strategies	52
2. Increased Reliance on Prisons	47
3. Changes in crack/drug markets	33
4. Aging of population	32
5. Tougher gun control	32
6. Strong economy	28
7. Increased # of police	26
8. All other (capital punishment, concealed weapons laws, buybacks, etc.)	34

## Results of Contribution Analysis

- Top Three Likely Reasons:
  - Crack Bubble Bursts – a key driver of violent crime.
  - Tougher prison sentencing – prevents existing offenders from reoffending (for the time being). .
  - Wade Versus Roe = Reduction in the number of at-risk young men – demographic dip and legalized abortion



## The Challenge:

*What would have happened in absence of the intervention (aka the counterfactual)?*

The counterfactual starts at the same level as the treatment, but shares the trend of the control

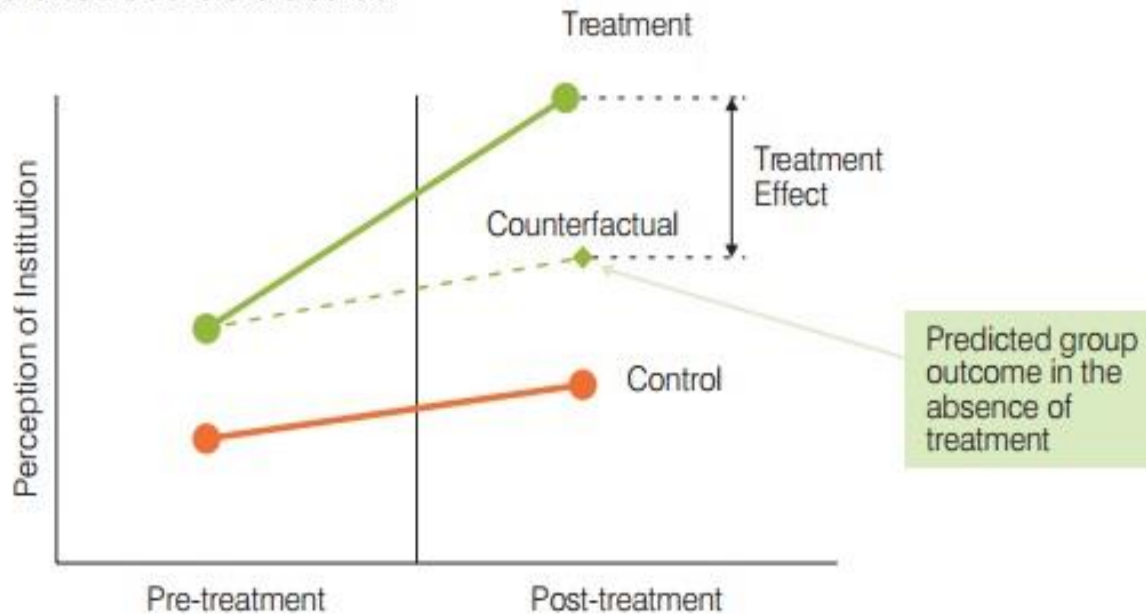
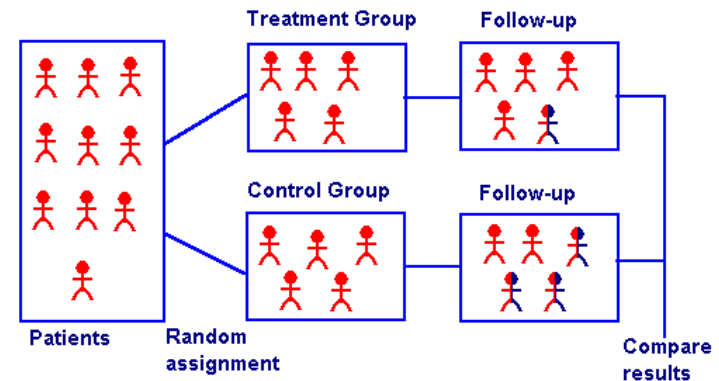


Figure 5. Illustration of Difference-in-Difference Estimation

# The Traditional Approach: Attribution Analysis

- The traditional approach to establishing the counterfactual or assess attribution, is experimental design, used to be the widely accepted 'gold standard'.



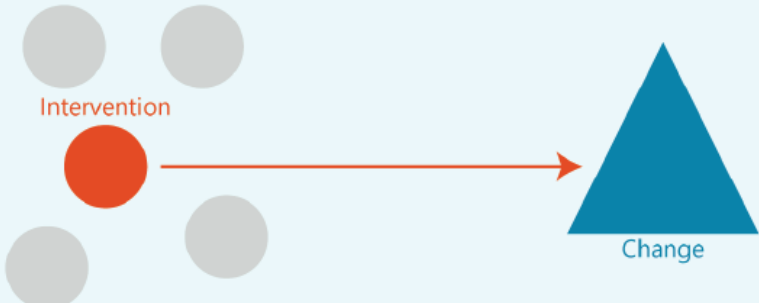
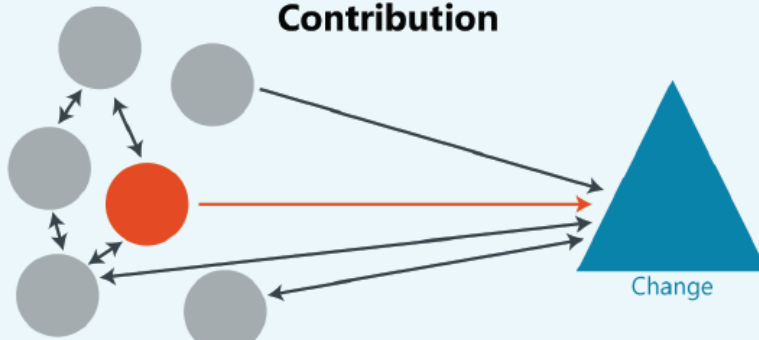
- Experimental designs are impractical, except in a few niche situations, because of costs, time, requirements imposed on intervention, ethics and complexity of many community change interventions.

## Experimental Methods

- Randomized Controlled Trials
- Quasi-Experimental Designs
- Comparison Groups
- Various Statistical Models & Techniques

# The Alternative

# Attribution Versus Contribution

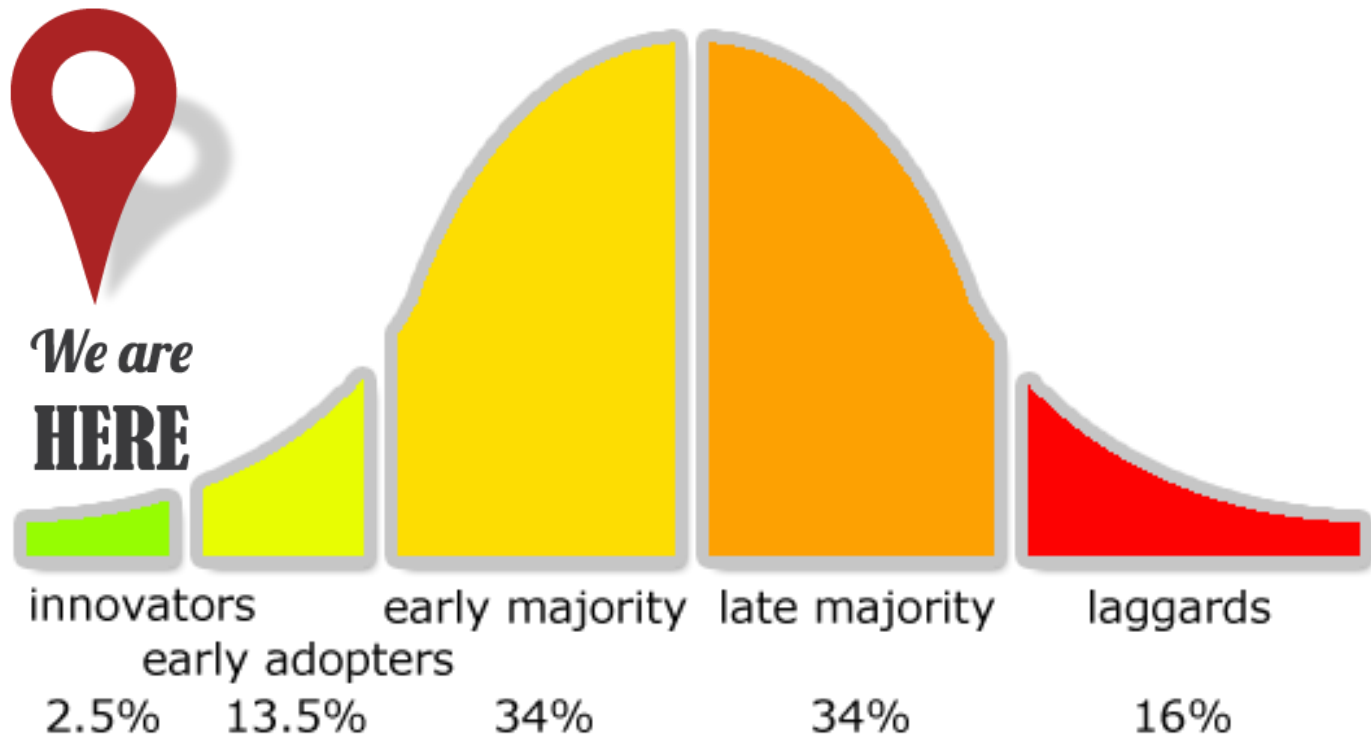
<p style="text-align: center;"><b>Attribution</b></p> 	<p style="text-align: center;"><b>Contribution</b></p> 
Attribution Analysis	Contribution Analysis
<p>Employs a narrow-angle lens that assumes a linear cause-and-effect relationship between intervention activities and observed changes.</p>	<p>Embraces a wide-angle lens on the non-linear cause-and-effect relationships between intervention and non-intervention factors that influence changes.</p>
<p>Asks: To what extent did our intervention cause the change?</p>	<p>Asks: To what extent did our intervention contribute to the change?</p>
<p>Seeks to prove the link between activities and change.</p>	<p>Seeks to establish a plausible link between the intervention and change.</p>
<p>Privileges experimental design as the 'gold standard' methodology.</p>	<p>Emphasizes triangulation of methods and stakeholder verification of findings.</p>



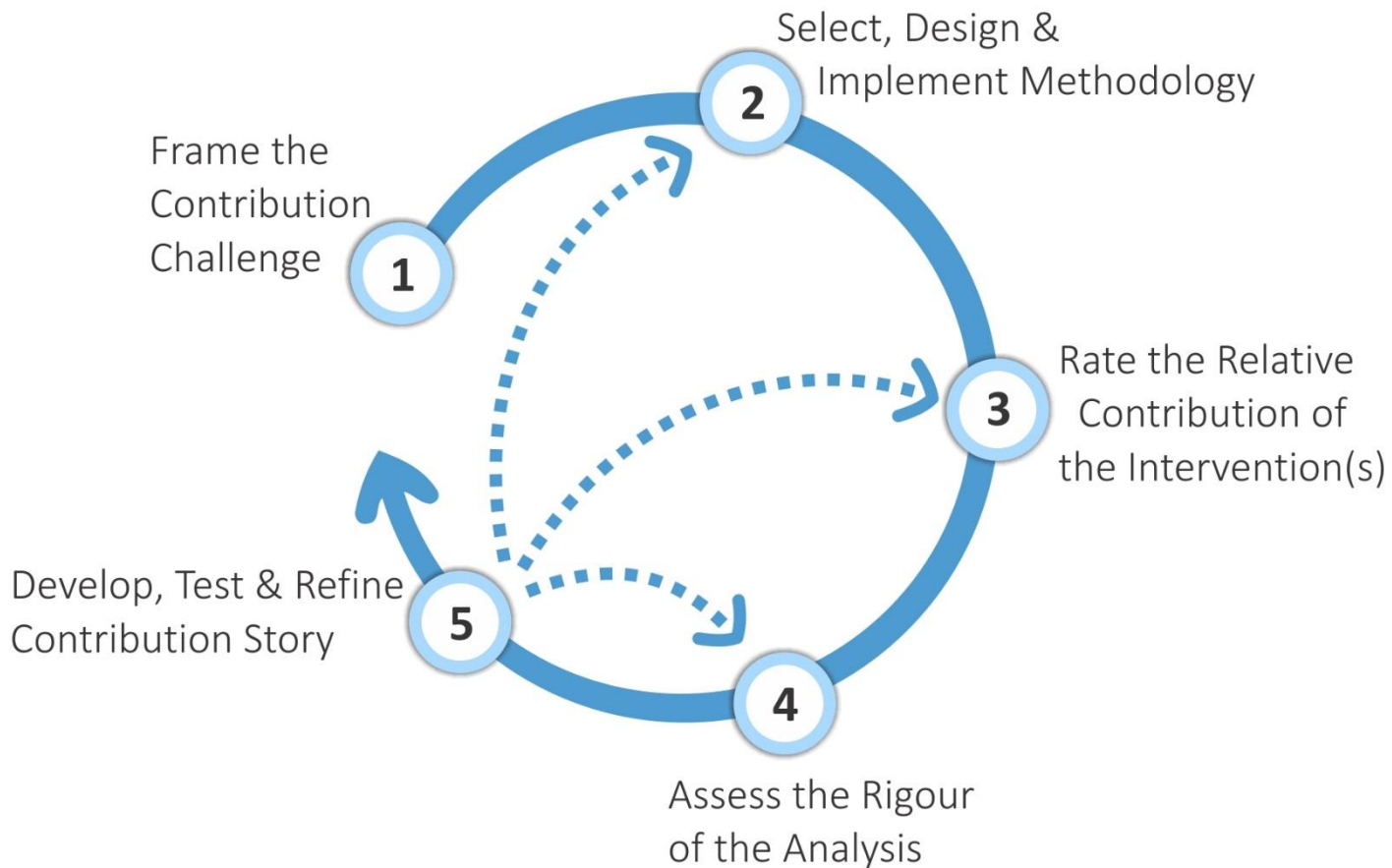
"Far better an approximate answer to the right question, which is often vague, than an exact answer to the wrong question, which can always be made precise."

John Tukey, Mathematician

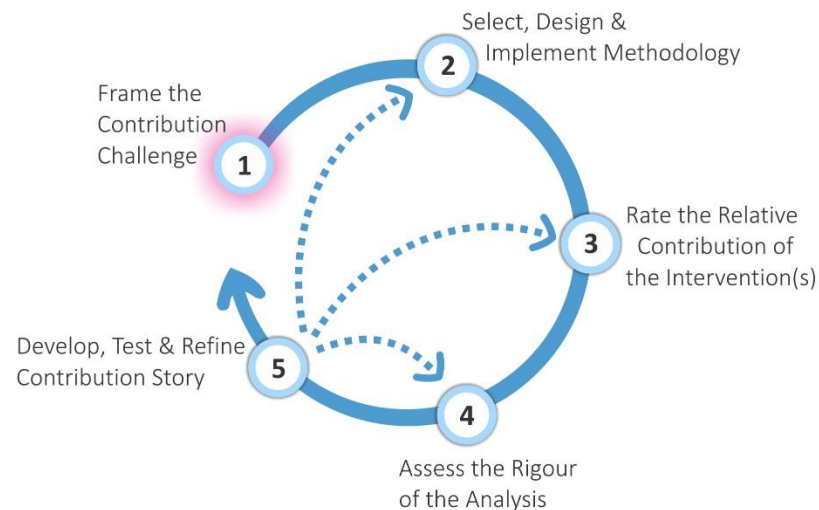
## Early Days in the Practice



# Five Steps



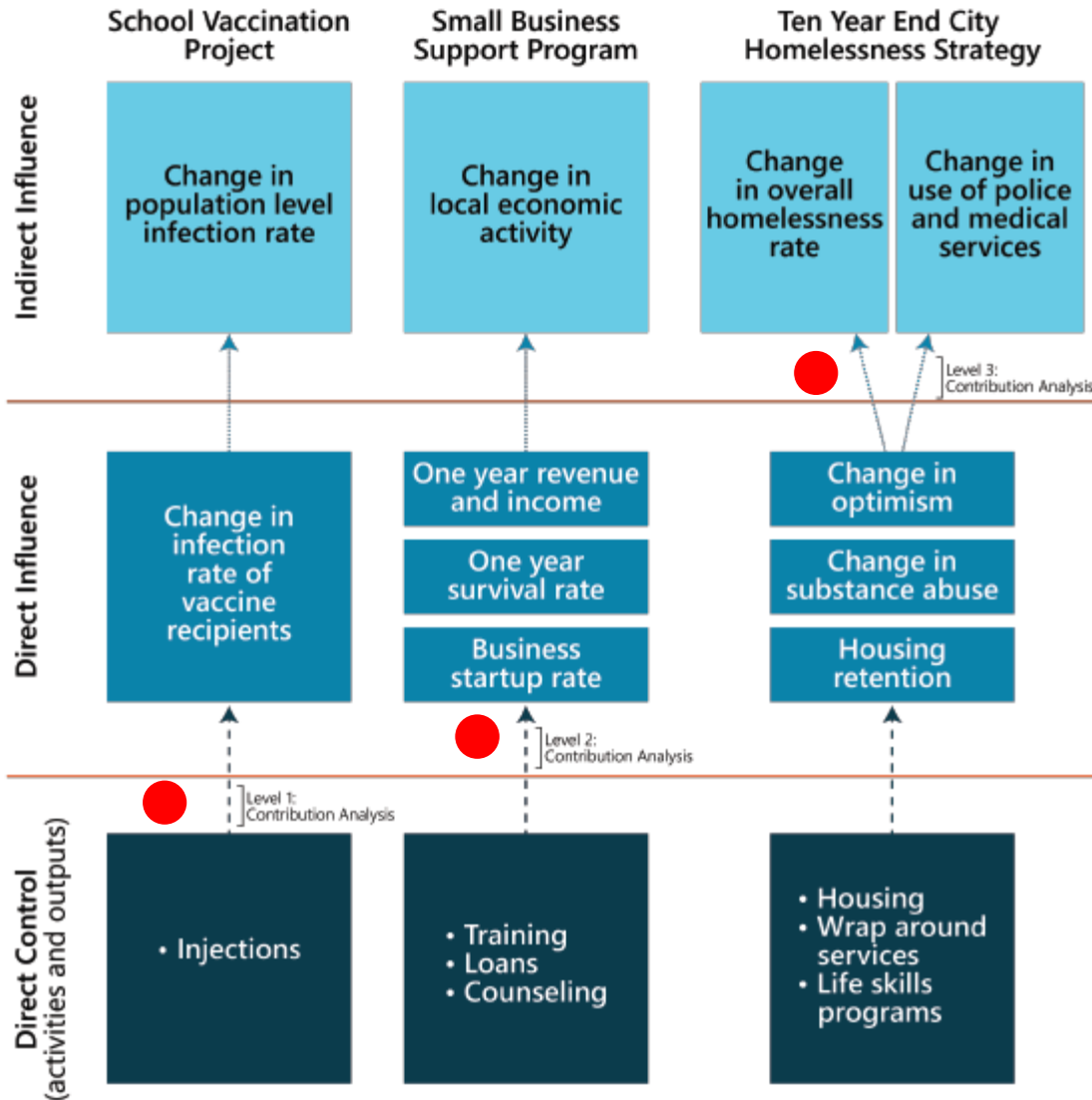
# Step 1: Frame Contribution Challenge



## Tasks

- Select the outcome(s) for which you want to assess contribution.
- Determine if they are direct or indirect analysis.
- Confirm audience and implications for assessment.

# Task: Select Outcomes & Level of Analysis



More Complex, More Efforts  
Less Confidence in Results



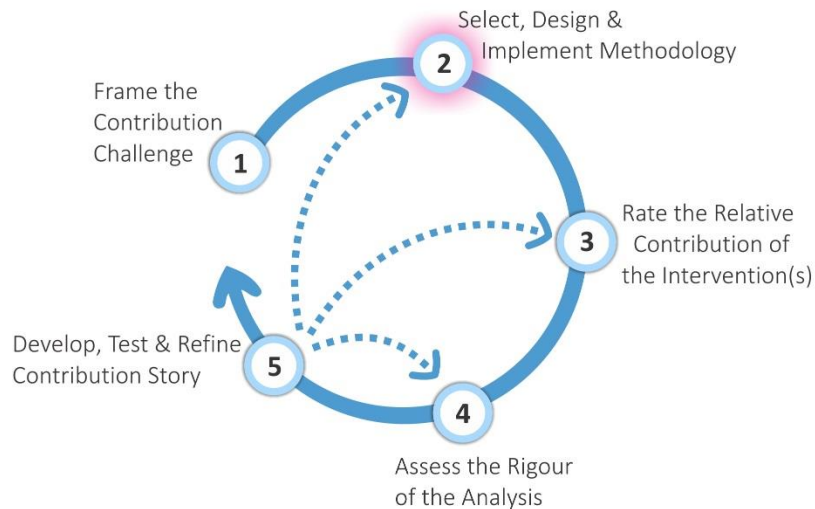
Less Complex, Less Effort  
More Confidence in Results

## *Task 2: Confirm User & Use*

Type	User/Use	Implications
Developmental or Formative	To help innovators get feedback to affirm or guide changes in direction.	Internal document; level of rigor requires varies.
Summative	To determine the merit or worth of an intervention.	External document: high level of rigor and transparency required.
Accountability or Marketing	To demonstrate progress and/or secure more resources to external bodies (e.g., funders, policy makers, public).	Greater level of suspicion about the credibility of results; third party verification important; important to be careful about claims.



# Step 2: Select Method



## Tasks

- Select methodology.
- Design, implement and adapt.

# #1: Stakeholder Assessment: (aka The Journalist)

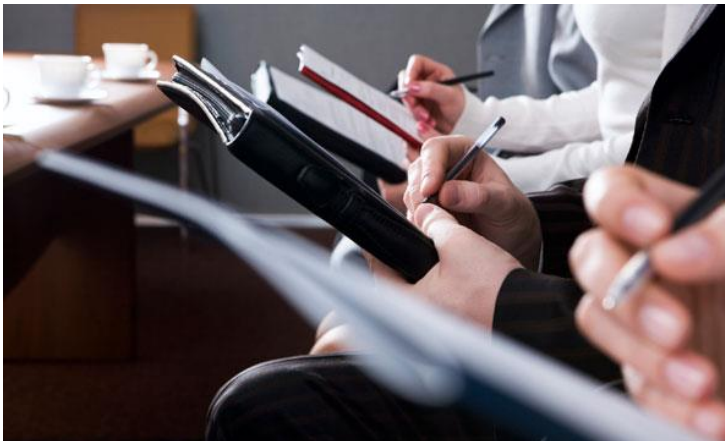


## Aim

- To engage stakeholders in assessing the relative contribution of an intervention to an observed outcome.

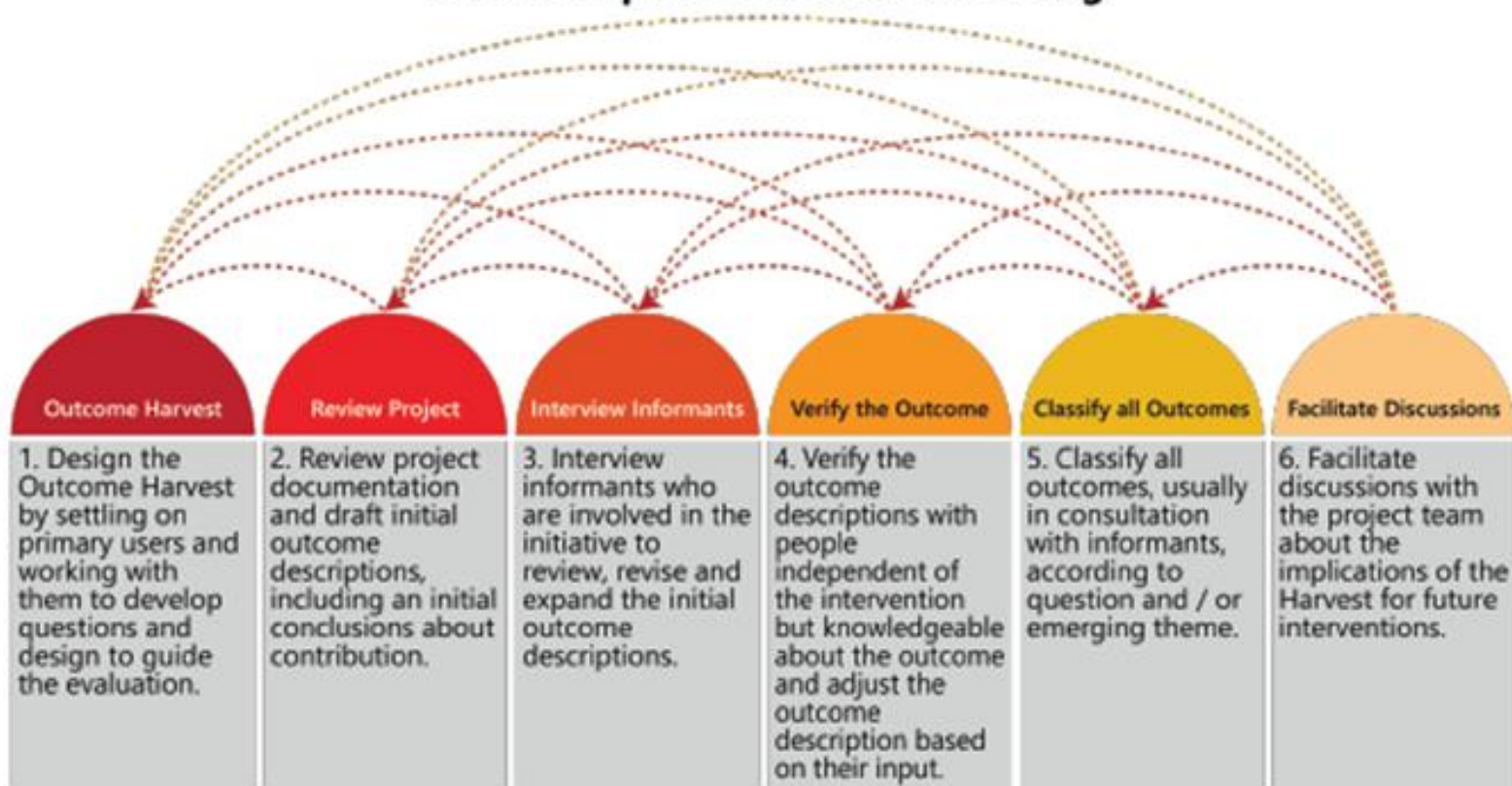
## Steps

1. What are the possible factors underlying this outcomes?
2. Which ones – based on our evidence – can be eliminated?
3. Which explanations are the most compelling?



# Example: Outcome Harvesting

## The Six Steps of Outcome Harvesting



See Wilson-Grau, 2015

Source: <http://outcomeharvesting.net/>





---

## Chakua Hatua: Tanzania 2012/13




---

The Chukua Hatua (CH) is a five-year governance and accountability initiative being implemented by Oxfam GB and partners in five regions in Tanzania. The goal of Chukua Hatua is to increase the accountability and responsiveness of government to its citizens. The programme aims to achieve this by creating active citizenship; that is citizens who know their rights and responsibilities, are demanding them, and are able to search for and access information. The programme's approach rests on three key assumptions:

1. If we build citizen's awareness and capacity, assist them to overcome fear, and action is in the interest of their livelihoods, then they will act.
2. If there is increased pressure from citizens, then duty bearers will be increasingly compelled to respond.
3. If we increase capacity of local elected leaders then the proportion of positive responses to citizens will increase.

The Chukua Hatua programme has been continuously evolving since its inception, in response to changes in the context and learning about what works and what doesn't.

# Sample of Outcome Contributions

Outcome	Rating	Commentary	Contribution of other evidenced explanations (high, medium, low)
Outcome 1: Councillors more responsive and aware		Outcome realised in full & evidence that intervention made a crucial contribution	<p>The outcome would not have occurred without CH.</p> <p><b>Other contributing factors:</b></p> <p>High profile of public accountability issues (medium)</p> <p>Existence of traditional accountability systems (medium)</p> <p>Other NGOs (medium)</p> <p>Implementing partner experience (medium)</p> <p>Laws and guidelines (medium)</p> <p>Community project funds (low)</p> <p>Timely planning guidelines (low)</p>
Outcome 2: Animator mobilisation		Outcome realised in part & evidence that intervention made a crucial contribution	<p>The project was crucial in securing the outcome and for pace and extent of outcome achievement, building on base of past training of animators</p> <p><b>Other contributing factors:</b></p> <p>Past and current inputs of other NGOs (medium)</p> <p>Animator experience (medium)</p> <p>Responsive leaders (medium)</p> <p>Existence of traditional accountability systems (medium)</p> <p>High profile of public accountability issues (low)</p>
Outcome 3: Community forest ownership		Outcome realised in full & evidence that intervention made a crucial contribution	<p>The outcome would not have happened without CH.</p> <p><b>Other contributing factors:</b></p> <p>Prior NGO inputs on land rights (medium)</p> <p>Councillor inputs (medium)</p> <p>High profile of public accountability (low)</p> <p>Prior village sensitisation / mobilisation (low)</p>

# #2: The General Elimination Method (aka Detectives)



## Aim

- To trace the ‘factors’ that may have led to an outcome or event and then systematically eliminating factors – one by one - until the most compelling explanation(s), supported by the evidence, remains.

## Steps

1. What are the possible factors underlying this outcomes?
2. Which ones – based on our systematic review of evidence – can be eliminated?
3. Which explanations are the most compelling?



# Method: Process Tracing

## #1: Set Context & Surface Hypotheses

Table 2  
Overview of “Silver Blaze”

### Causal Puzzle

To explain the murder of John Straker and, secondarily, the disappearance and whereabouts of the racehorse Silver Blaze.

### Main Characters

*Silver Blaze*, the racehorse that is the favorite for the Essex Cup, has disappeared.

*John Straker*, the horse’s trainer, has been killed by a terrible blow that shattered his head.

*Fitzroy Simpson*, a prime suspect, has been lurking around the stable seeking inside information about the race.

*Ned Hunter*, a stable boy, has been drugged with opium concealed in curried mutton. He therefore fails to guard Silver Blaze on the night of the horse’s disappearance.

*Colonel Ross* is the owner of King’s Pyland Stables and of Silver Blaze.

### Hypotheses

Independent Variables	Intervening Variables	Dependent Variables
H1. Romantic entanglement started chain of events	H3. Straker abducted horse	H6. Simpson killed Straker
H2. Chain of events started in Straker household	H4. Straker planned to harm horse	H7. Straker killed himself
	H5. Straker practiced the injury	H8. Horse killed Straker

## #2: Review evidence, spot clues and dig.



## #3: Draw Conclusions



Straw in the Wind: maybe, investigate further.



Hoop Test: promising, keep looking.



Smoking Gun: points in this direction.



Doubly Decisive: appears conclusive

# Example: NGO Efforts to Advocate For a Specific Supreme Court Decision in the USA



## Evaluation Conclusion

Based on a thorough review of the campaign's activities, interviews with key informants and key knowledgeable, and careful analysis of the Supreme Court decision, we conclude that:

The coordinated final-push campaign contributed significantly to the Court's decision.



# Method #3: Counterfactual Scenarios (aka Time Machine Travelers)



Tested in refugee resettlement programs, climate change, sustainable development, public health, with the Federal government.

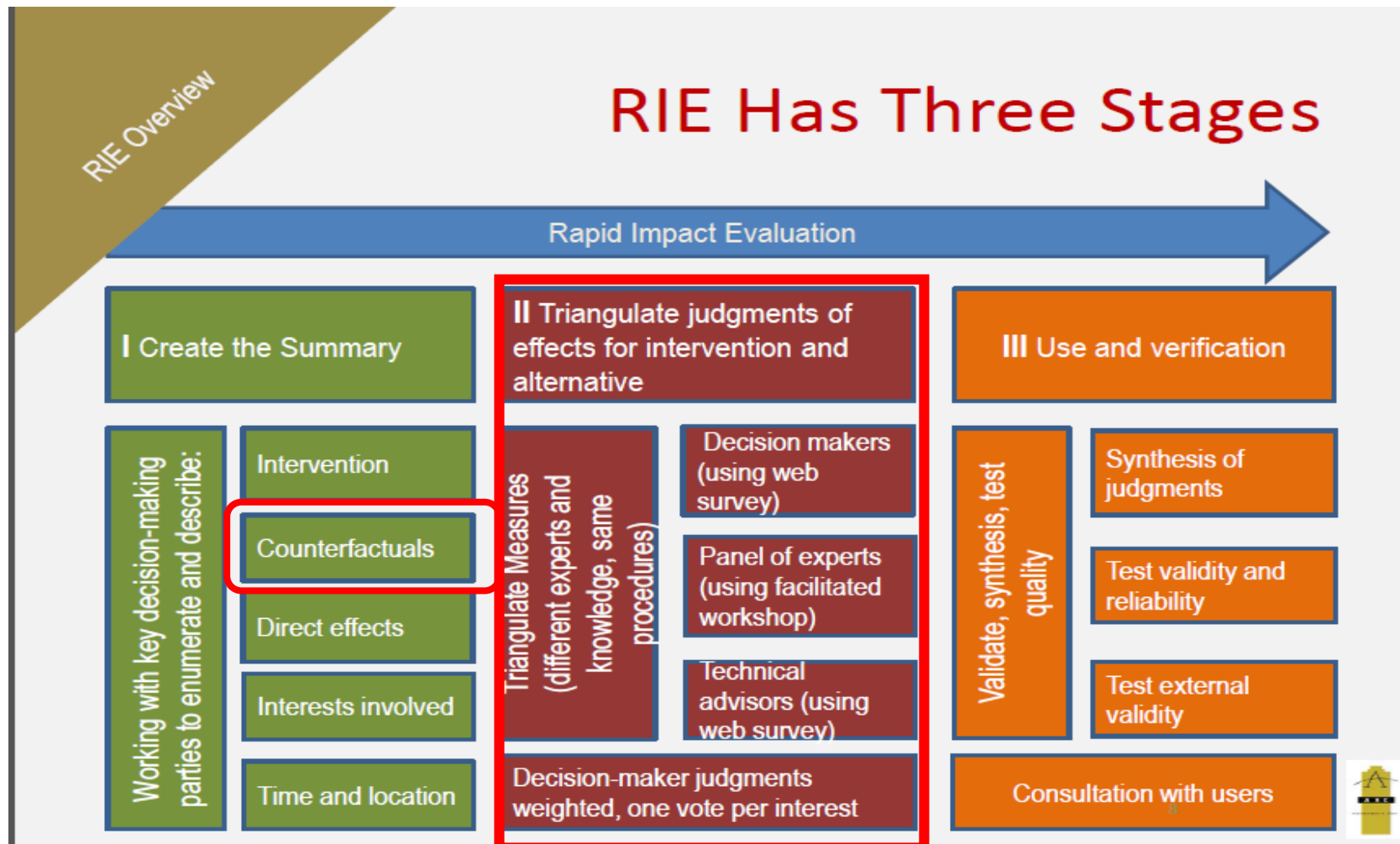
## Aim

- To explore 'counter-factual scenarios' that are logical, plausible, feasible and likely to imagine what else may or may not have occurred by 'triangulating' the perspectives of stakeholders, experts and decision-makers.

## Questions

1. What are other plausible scenarios – including 'do nothing' - for how we could have approached this challenge?
2. What are the estimated (direct) effects of each scenario?
3. What is the difference between the scenarios?

# Example: Rapid Impact Evaluation



# Producing Estimates

Estimating  
Impacts

## Producing Our Estimates

Each expert in the three groups judges probability and magnitude for each effect for intervention and alternative

Weight so each interest has one vote, combine probability and magnitude to form an index for each effect and for each expert group, calculate difference between intervention and alternative for each effect to estimate change attributable to intervention

Using external knowledge sources identify and weight effects by relative contribution to impacts, combine to estimate impacts expressed as a % change attributable to the intervention

Assess validity of estimates of effects and impacts using external data and consultations

**Estimates of changes in impacts attributable to intervention and quality of estimates**







## Example: Addressing Collapse of Fish Stocks In a Region of Fiji

### Do Nothing

There is an ad-hoc approach to fishery management, with community piggeries generating waste into water system, the uncontrolled cutting of mango trees, and mismanaged local and regional harvesting of fish.

### Local Fisheries Mgmt

Establish and enforce a (no take) zone on the reefs, prevent poaching by local and outside fishers, stop dynamic fishing, yet allow for ceremonial harvests of select species.

Offer fishing community technical assistance for resource management and new harvesting methods, conduct regular stock assessments on reel and shoulder areas.

### Conservation

International NGO funded to enforce a no-take zone, with support from conservation authorities.

Entry would be permitted for traditional or ceremonial purposes, but no harvesting would be allowed.

National government is cooperative, with resistance – and possibly non-compliance – from national fisheries, local community and national politicians..



# Method #4: Theory Based Evaluation (aka The Scientist)



## Aim

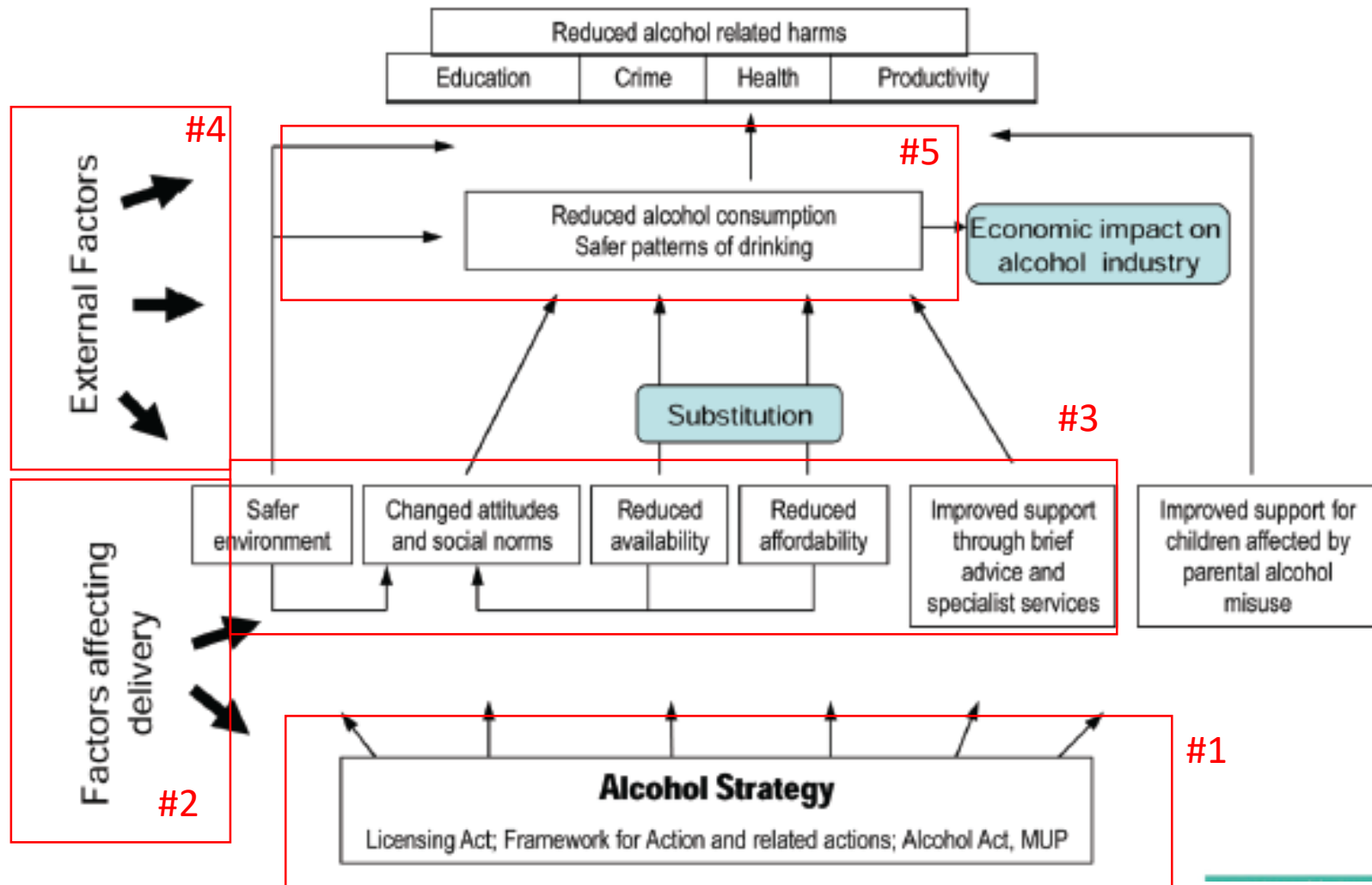
- To explore the extent to which a group's theory of change – or other factors – provides a reasonable explanation for observed outcomes.

## Questions

1. What is our theory of change? Is it plausible?
2. To what extent did our theory unfold as planned?
3. To what extent are the key elements confirmed by new or existing evidence?
4. To what extent have other influencing factors been identified and account for?
5. To what extent have the most relevant alternative explanations been disproved?

Reports from this evaluation can be found at <http://www.healthscotland.com/scotlands-health/evaluation/planning/MESAS.aspx>

coming



## Conclusion

Alcohol-related harm in Scotland has declined in recent years. There was evidence that the evidence-based interventions studied were implemented, although there were difficulties operationalising some aspects. There was evidence of impact on several of the intermediate outcomes, although lack of data and/or data limitations meant impact was not assessable for others.

Two factors external to the strategy were considered to have made a contribution to the mortality trends: falling disposable income (and hence alcohol affordability) for people living in the most deprived areas, and a vulnerable cohort responsible for a wave of alcohol-related mortality, that increased in the 1990s and decreased from the mid-2000s as the cohort aged and died.

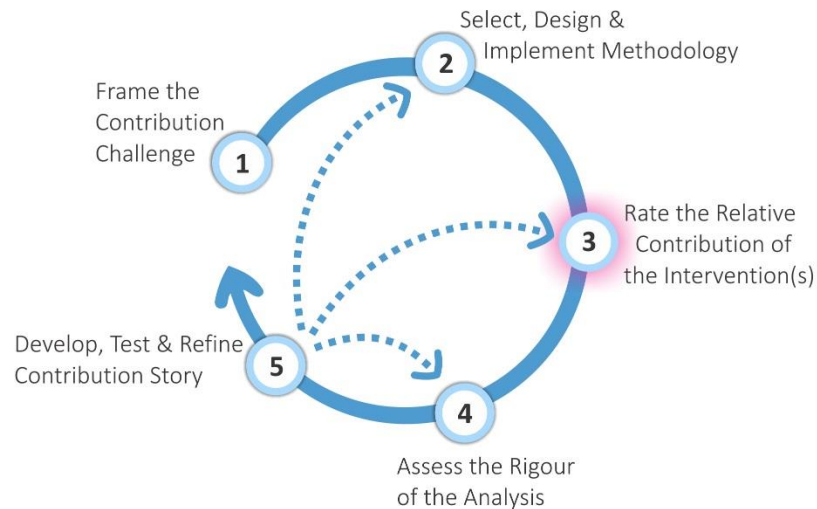
It was impossible to quantify precisely the impact of these external factors, nor determine the relative contribution of the external factors and the strategy to the declines. The declines in both mortality rates and hospitalisation rates have been much steeper in Scotland than England/England & Wales and, given the evidence-base, the strategy may be contributing to these improvements.

Despite these recent improvements, rates of alcohol-related mortality and morbidity in Scotland continues to be higher than in the 1980s and higher than England & Wales. Inequalities in alcohol-related harm persist, with those living in the most deprived areas, especially men, having the highest rates. There is, therefore, a continued need for action to further reduce alcohol-related harm in Scotland and to address these health inequalities. Minimum unit pricing has not been implemented and this is likely to have constrained the strategy's contribution to declining alcohol consumption and related harm. There is some evidence that the downward trends in both alcohol consumption (sales) and alcohol-related mortality may have stalled, with no decreases in 2013 and 2014. To say whether this marks the start of a longer-term change in trend requires continued monitoring.



Approach	Stakeholder Assessment	General Elimination Method	Theory-Based	Counterfactual Scenarios
Evaluator Role	Journalist	Detective	Scientist	Story Teller
Unique Methods	Outcome Harvesting	Process Tracing	Theory of Change	Rapid Impact Evaluation
Strengths	Easy to understand; can handle a lot of outcomes; flexibility in approach.	Thorough process that is culturally credible in western cultures.	Works well with existing theories of change; designed to tackle 'complex' causal packages.	Very useful when a group faced with different strategies.
Limitations	Sensitive to stakeholder biases; not thorough in addressing other factors.	Can take a long time to complete.	Can take a long time to complete; approach still in development with some unclear steps.	Important to follow model with high fidelity; may not be perceived as credible by external people.
Expertise	Modest expertise required; effort varies.	Specialist skills in GEM and process tracing required.	Strong facilitation skills; wide range of evaluation skills.	Requires multiple types of 'content' expertise.

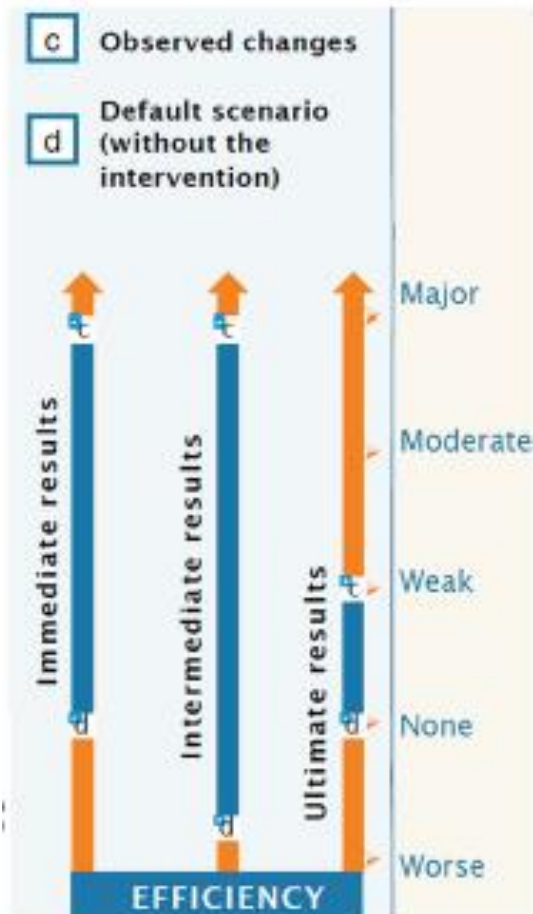
# Step 3: Rate the Contribution



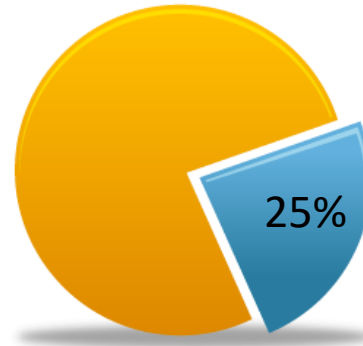
## Tasks

- Assess the relative strength of the contribution of the intervention to the outcome(s).

# Some Rating Options

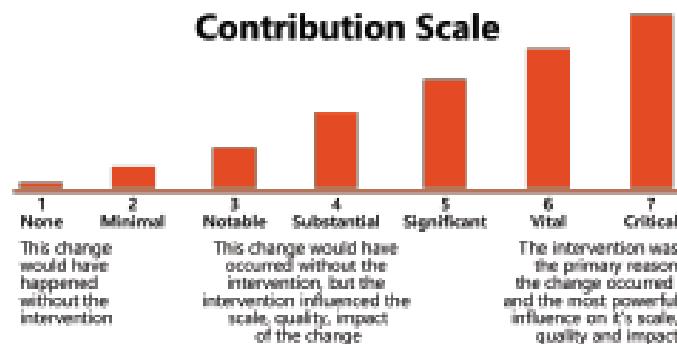


*Our project had major contributions to immediate results and weak contribution to impact results.*  
International Development Program



*We feel that the program can claim 25% credit of the start-up businesses from this program.*

Canadian Business Development Program



*Local partners felt that the contribution of Opportunities Niagara (a collective impact Group) to a new housing Project was a 6.5 out of 7.*

Local Heroes: CAW

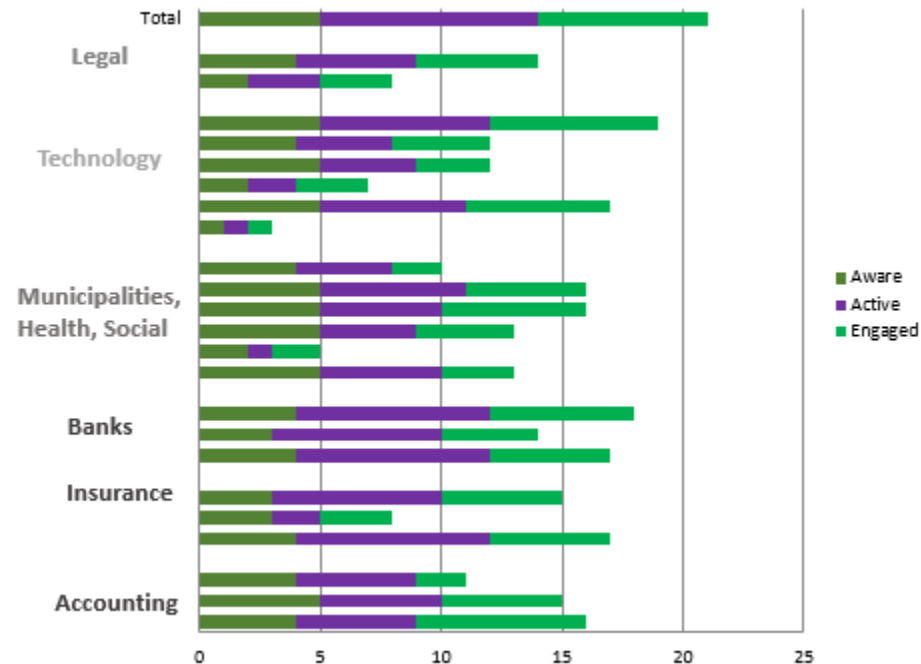


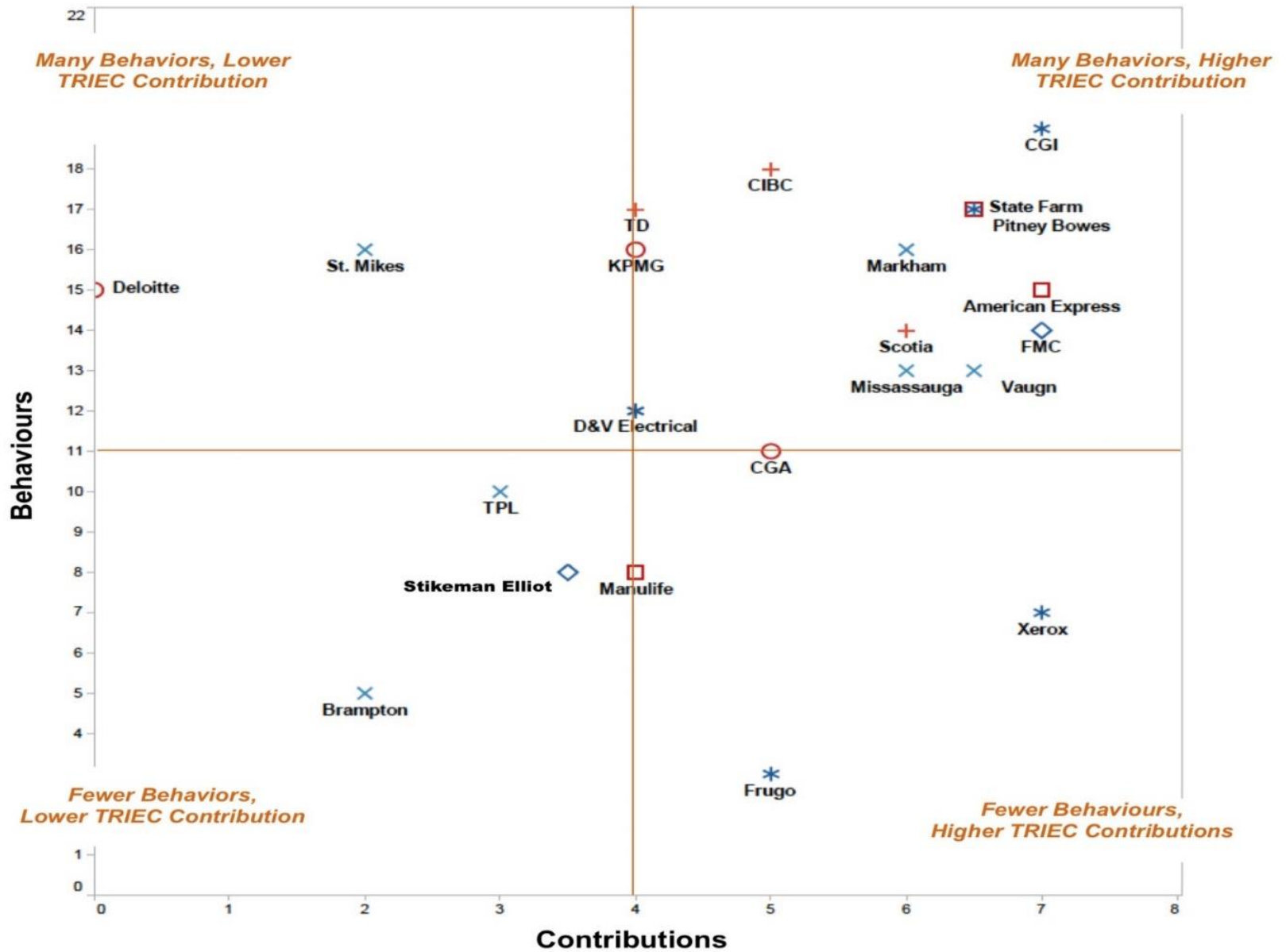
# Example: The Toronto Region Immigrant & Employment Council



To what extent did  
TRIEC's cluster of  
programs and supports  
contribute  
To employers' efforts to  
learn more, hire and  
promote skilled  
immigrants?

**Survey Results: Employer Behaviours by Sector**



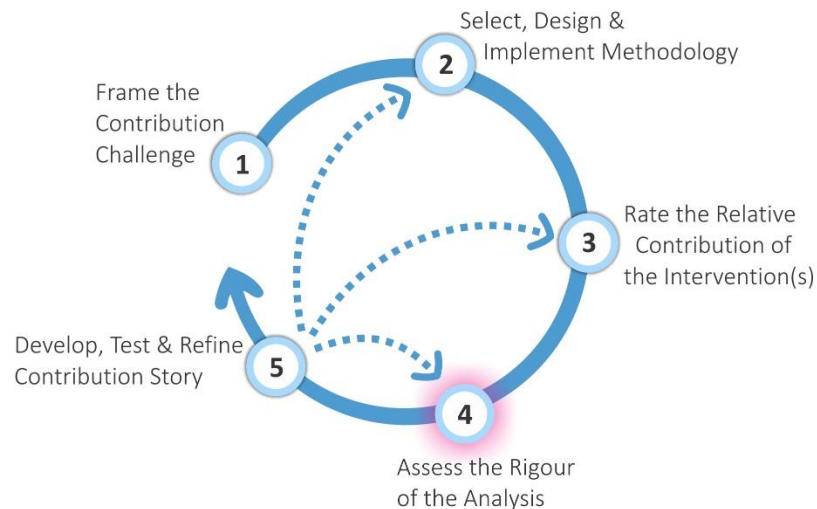




# Step 4: Assess Rigor (optional)

## Tasks

- Assess the overall strength of the contribution analysis.



## Box 2: Standards of Rigorous Analysis

### #1 Hypothesis Exploration: the extent to which the analysts consider multiple hypotheses in explaining observed outcomes.

Low Rigor: minimum weighing of alternatives.

High Rigor: incorporating multiple hypotheses and identifying best / most probable explanations.

### #2 Information Search: the depth and breadth of the search process used in collecting data.

Low Rigor: does not go beyond routine and readily available data sources.

High Rigor: attempts to exhaustively explore all data potentially available.

### #3 Information Validation Process: the level at which data sources are corroborated and cross-validated.

Low Rigor: little effort is made to use converging evidence to verify source accuracy.

High Rigor: a systematic approach for verifying information.

### #4 Stance Analysis: the evaluation of data with the goal of identifying the stance or perspective of the source and placing it into a broader context of understanding.

Low Rigor: analyst may notice a bias in the source.

High Rigor: research into data source background with the intent of gaining insight into how their perspective on the data or analysis.

### #5 Sensitivity Analysis: the extent to which the analyst considers and understands the assumptions and limitations of their analysis.

Low Rigor: explanation seems appropriate and valid on the surface.

High Rigor: analyst employs a strategy to consider the strength of explanations if individual supporting sources were to prove valid.

### #6 Specialist Collaboration: the degree to which an analyst incorporates the perspectives of domain experts into their assessment.

Low Rigor: little effort made to seek out expertise.

High Rigor: analyst talks to, or may be, a leading expert in the domain area under study.

### #7 Information Synthesis: refers to how far beyond simply collecting and listing data an analyst went in their process.

Low Rigor: an analyst simply compiles the relevant information in a unified form.

High Rigor: an analyst extracts and integrates information with a thorough consideration of diverse interpretations of the data.

### #8 Explanation Critique: refers to how many different perspectives were incorporated into examining the primary hypotheses.

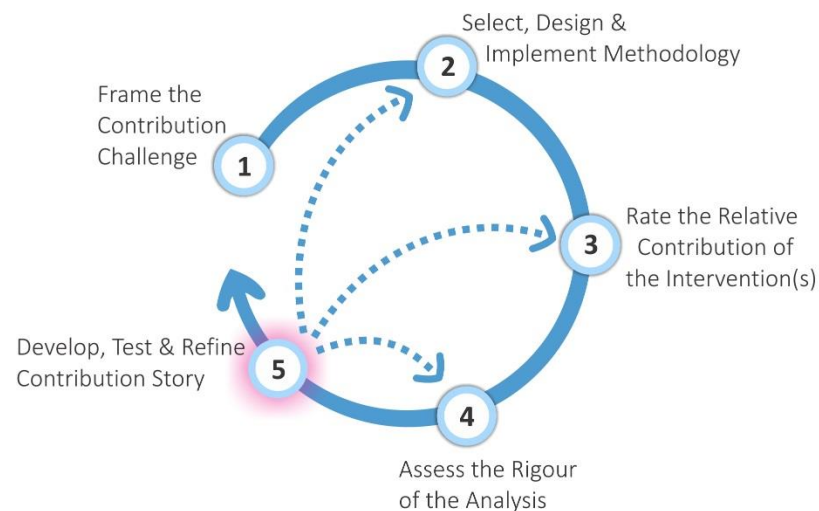
Low Rigor: little use of other analysts to give input into explanation quality.

High Rigor: peers and experts have examined the chain of reasoning and explicitly identify which inferences are stronger and weaker.

One  
Framework

#ECISASK2017

# Step 5: Develop Contribution Story



## Tasks

- Develop a contribution story, test it with key stakeholders, and refine it based on feedback, include returning to earlier steps if necessary.

# Elements of a Contribution Story

- The context of the intervention
- The causal package (factors and outcome) being analyzed
- The methodology & limitations
- The findings and claim
- Additional insights and questions





## Main Ideas

- Social innovators – and those who support them – want to get a sense of the extent to which their activities are responsible for hoped for outcomes, results or changes.
- The traditional approach to assessing attribution ‘ – **experimental designs**, including randomized controlled trials – are **impractical** except in a few niche situations.
- The alternative is **contribution analysis**, an approach that is in early phase of development.
- The contribution analysis **framework includes five steps** – with examples, techniques and principles – that can guide other contribution analysis innovators.
- It will take a **lot of practice** and peer sharing to more fully develop a strong pattern of contribution analysis practice.



1. An innovator willing to help build a contribution practice.
2. An early adopter keen to proceed once the practice and results are more clear.
3. A prospective early/late majority that is open to contribution analysis but will wait until the evidence, practice and ecology are firmly established.
4. A skeptic that would prefer overwhelming evidences to be convinced or has a 'funny feeling' about this.
5. Other



1. What **insights or questions** (if any) emerged for you during this session?
2. Where might you employ contribution analysis in your **evaluation scope of work**?



# Questions?







[tamarackcommunity.ca](http://tamarackcommunity.ca)

Building a connected force for community change.

- Online Learning Communities
- Communities of Practice
- Monthly online seminars
- A monthly online journal – Engage! magazine
- Face to face learning events

To learn more email: [tamarack@tamarackcommunity.ca](mailto:tamarack@tamarackcommunity.ca)

