

Using (Reach and) Results Chains to Understand (Plan, Measure and Evaluate) Complex Multi-level Interventions

The Evaluation Centre for Complex Health Interventions

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Information. *Insight*. Improvement.

Agenda

- The Problem – our mental models are too simplistic
- The (Proposed) Solution
 - (Reach and) Results Chains
 - Contribution Analysis
 - Results Planning
 - Multi-level Application

Theories of Change and Results Logic

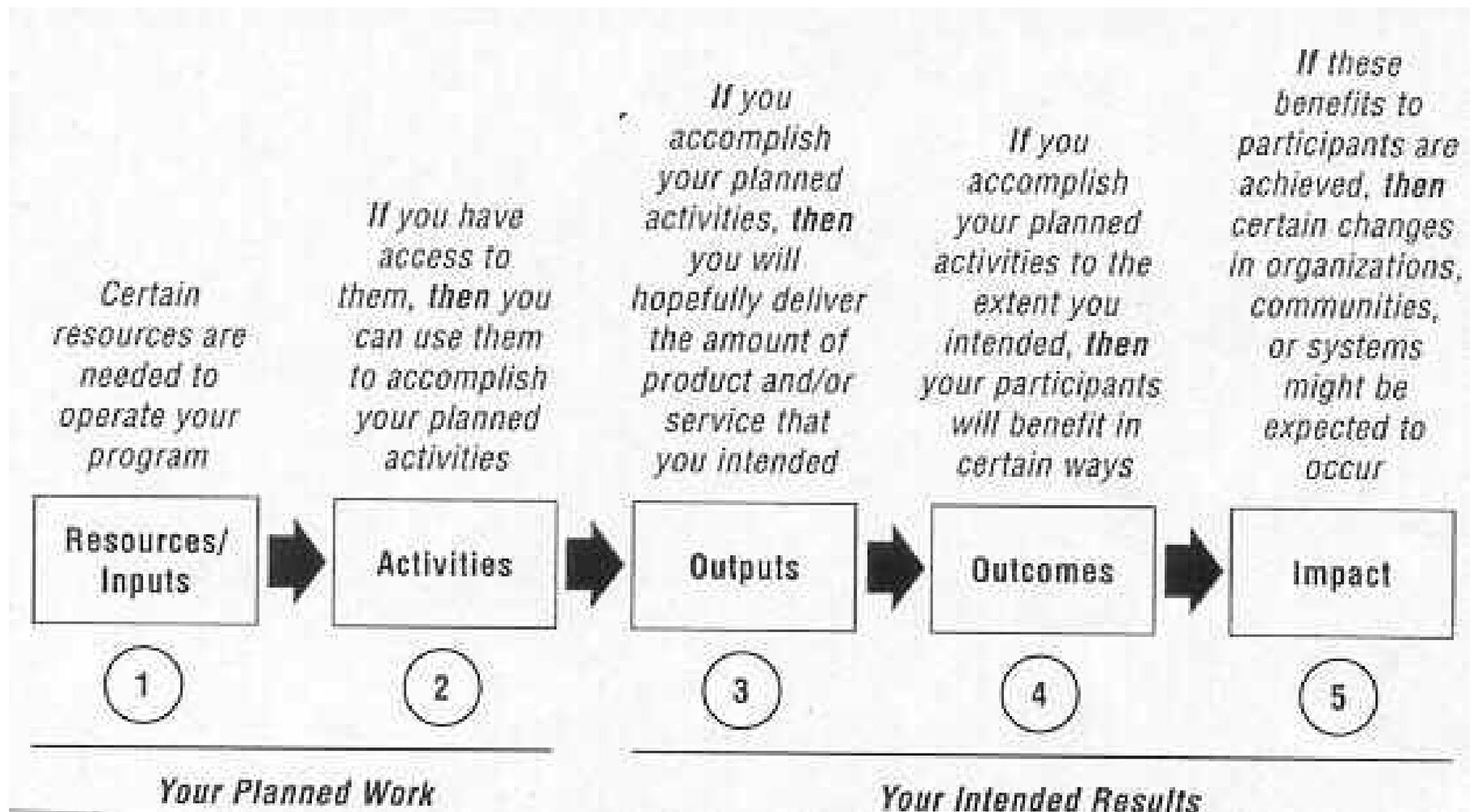
- Describing policies and programs in terms of results logic is a 40 year (+) tradition
- Various formats used, but current ones tend to:
 - Be linear
 - Miss outside factors (context)
 - Focus on how and what (not who)

Logic Model Implications

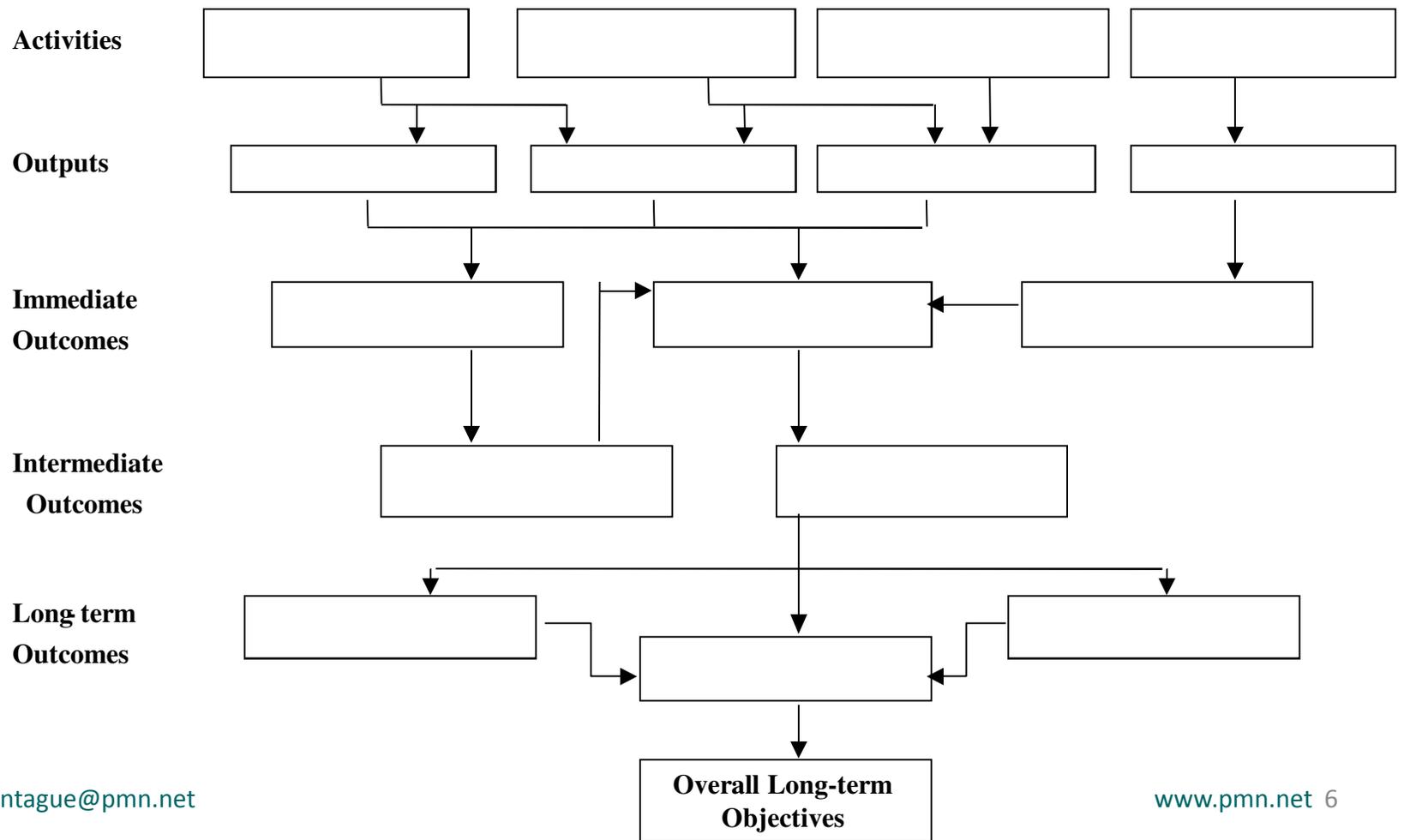
- Start with issues / implications
- Recognize ‘communities’ / systems and behaviours in them
- Acknowledge ‘engagement’ and ‘feedback’ as key results elements
- How might an alternative logic model look?

The [International] 'Classic' Results Logic

– Rogers 2006



The [Canadian] 'Classic' Results Logic



Reach Defined

- Reach is defined as the target that a given program or organization is intended to influence, including individuals and organizations, clients, partners, and other stakeholders.

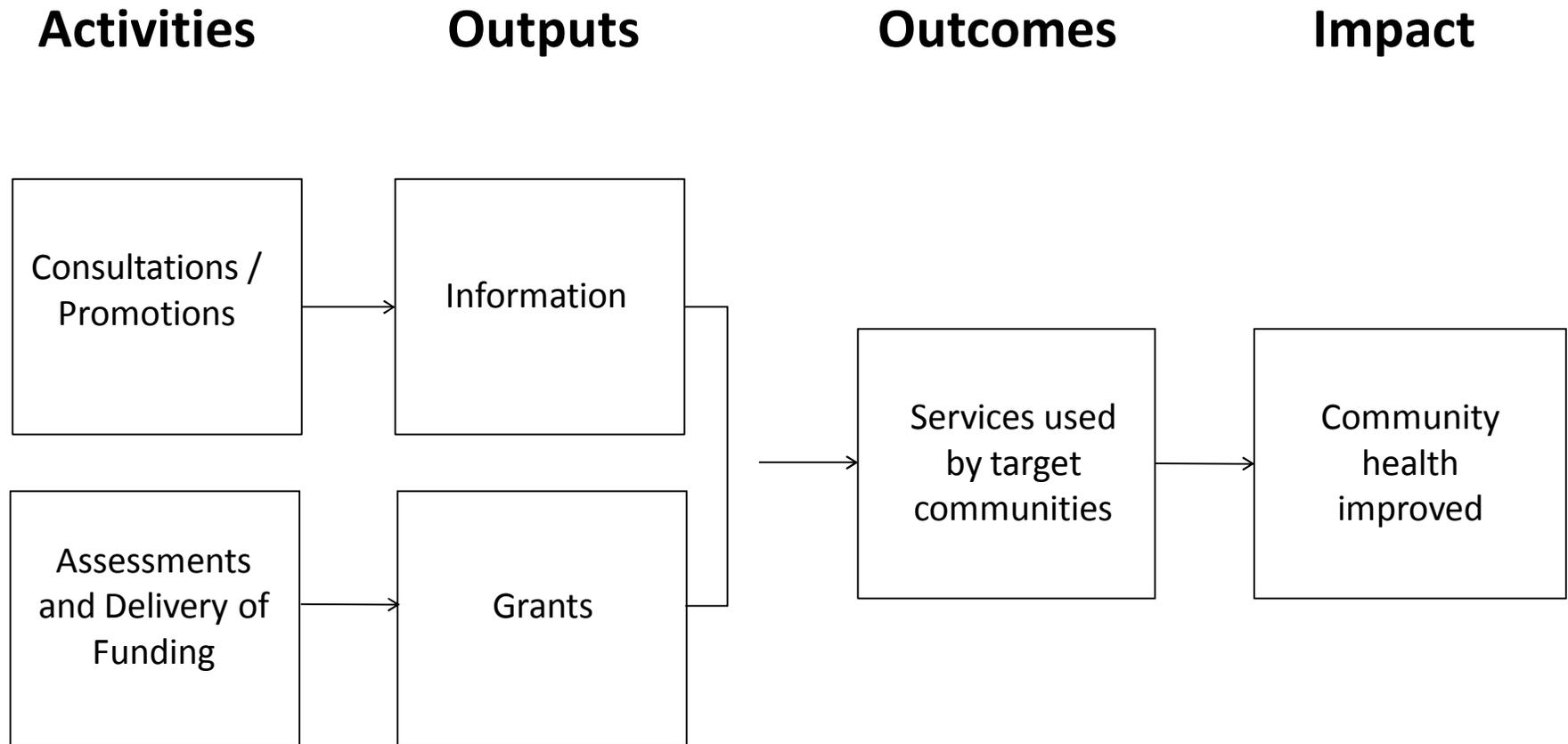


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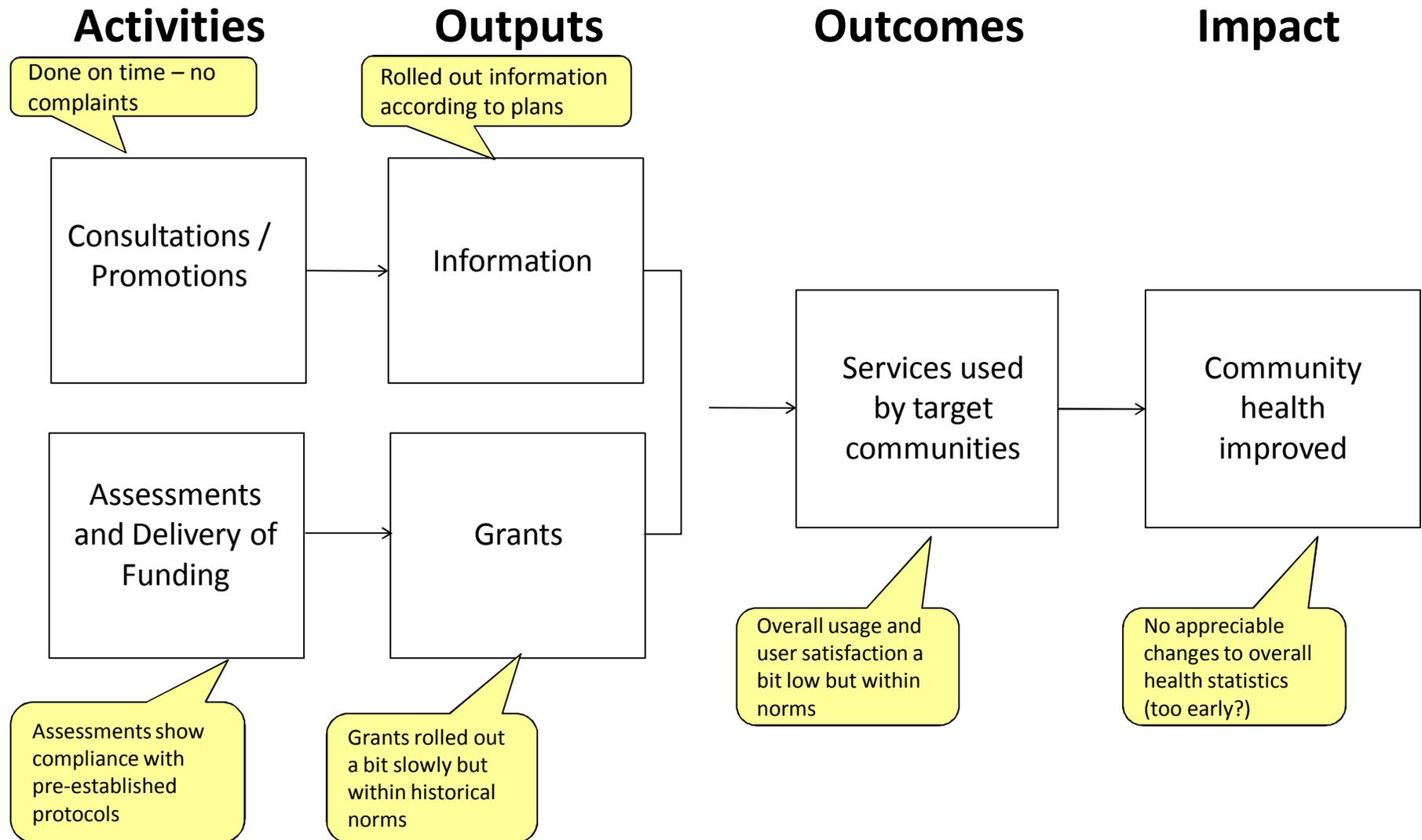
Logic Models and Frameworks Without Reach

1. Lack sensitivity to the impacts on different participant groups
2. Miss engagement as an important result
3. Do not recognize reach vs. results tradeoffs
4. Conspire against equity issues

Consider an Example



The Findings From 3 Year Review

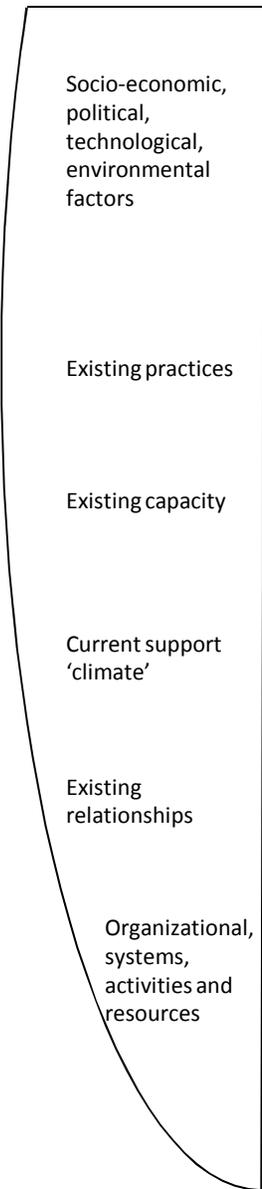


Adherence, Averages and Aggregations Hide the Reality and Hinder Analysis

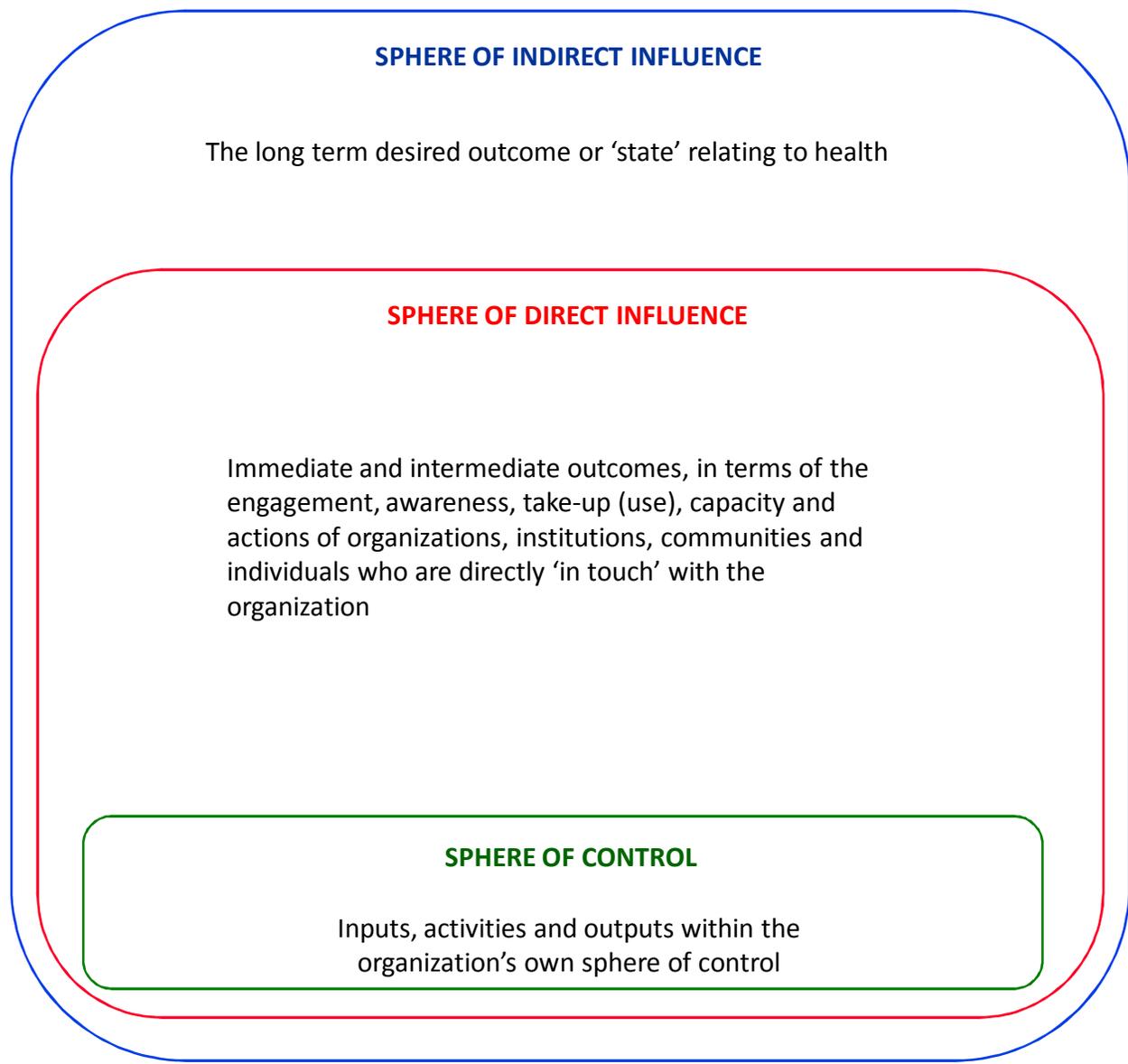
- The information generated:
 - Quantifies process and speed
 - Averages and aggregates use and acceptance (e.g. satisfaction)
 - Gives broad statistics on longer term outcomes
 - These measures mask the real situation for key processes and results for key groups
 - A more precise implementation and results logic (with reach) can enlighten

A General Results Map The 'Main Routes'

'The Terrain' Conditions / Factors



—————> Results Map <—————



'Check Points' Progress Indicators

- 'State' or level of health, disease, incidence etc.
- ↑
- # or % of entities or individuals showing (intended) actions/adoptions
- ↑
- Level (% , #) of participation by key stakeholders, and their constructive early 'reactions' (e.g. take-up, expressed feedback)
- ↑
- # of outputs (information, \$, service transactions)
- Delivery milestone achievement
- Level of expenditure

Conditions-Results-Indicators: A G&C Program to Improve Health of At Risk Group

Conditions / Factors Determinants of Health

1. Income & social status
2. Social support networks
3. Education & literacy
4. Employment & working conditions
5. Social environments
6. Physical environments
7. Healthy child development
8. Biology & genetic endowment
9. Health services
10. Gender
11. Culture

12. Personal health practices & coping skills

- Existing practices
- Specific gaps in health practices
- Gaps in existing capacity
- Gaps in coping skills
- Current support 'climate' gap
- Gaps in existing awareness of resources, relationships and program participation
- Organizational, systems, activities and resources

Expected Results 'Terrain'

SPHERE OF INDIRECT INFLUENCE

The long term desired outcome or 'state' relating to the health impacts

SPHERE OF DIRECT INFLUENCE

Improved health practices in specific at risk group

Improved ability to cope in specific at risk group

Improved support climate for specific at risk group

Improved relationships between groups and participation in program offerings

SPHERE OF CONTROL

Inputs, activities and outputs within Ministry / Department / Agency sphere of control: investment and delivery of new (improved) programming

Progress Indicators

'State' or level of health, disease, incidence etc.
Improved health status in target group

or % of entities or individuals showing (intended) actions / adoptions / adaptations to address gaps and cope

Level (% , #) of participation by key stakeholders, and their constructive early 'reactions' (e.g. take-up, expressed feedback)

of outputs (information, \$, service transactions)

Delivery milestone achievement

Level of expenditure

An Example [Quasi-Hypothetical]

The Problem:

Information suggests that a key segment of the Canadian population faces a preventable health risk. There are both science related knowledge gaps and gaps in the policies, practices and programming of intermediary groups (including policy makers and program delivery agents at various levels of government and in related non-government organizations).

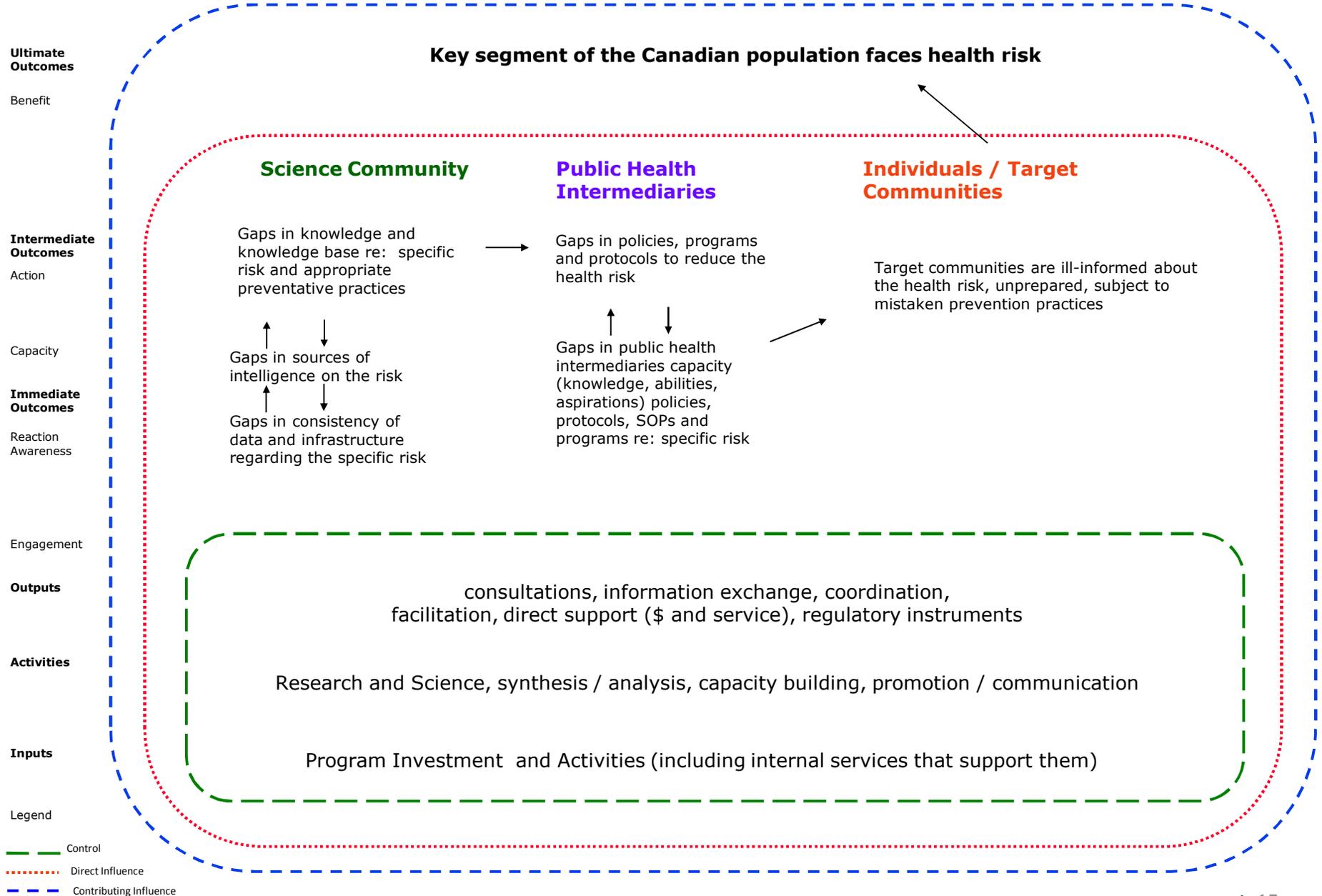
The Solution:

A Information and Support Program to Improve the Health of an 'At Risk' Group

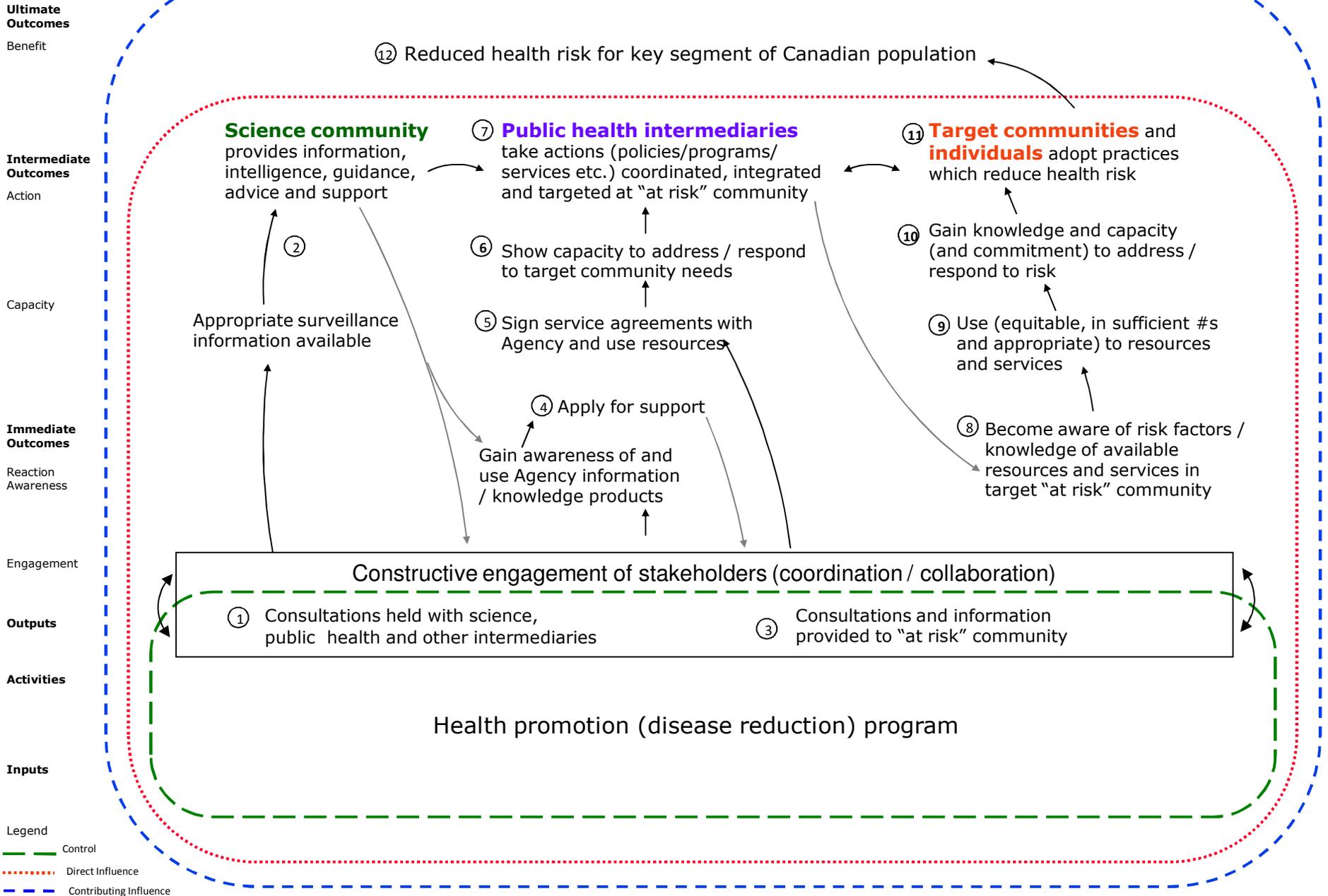
A health promotion / disease prevention program is initiated to reach a key "at risk" community to help them achieve health improvements. This can be represented as a logical sequence as follows:

- ① Consultations are held with both science and public health intermediaries
- ② Initial information on the program is provided to organizations / institutions eligible to deliver in conjunction with / on behalf of the Agency
- ③ Consultation / information is provided to target 'at risk' community
- ④ Organizations / institutions eligible to deliver services to target community appropriately apply for funding
- ⑤ An agreement is signed and appropriate resources are used by organizations / institutions deemed eligible and deserving of assistance from the Agency
- ⑥ Assisted delivery organizations demonstrated the capacity, ability, skills competence, capability and commitment to deliver appropriate services to target community
- ⑦ Service delivery is integrated, coordinated and appropriately targeted to the 'at risk' community
- ⑧ Target community members become better aware of risks and / or key factors and available supports and resources
- ⑨ Target community members (in sufficient #s, appropriately) use resources and services
- ⑩ Target community members gain the ability, skills competencies and ultimately the 'capability' to cope and to take actions to reduce their risks
- ⑪ Target community members adopt and / or adapt actions to lower their health risks
- ⑫ Health is improved in target community

The Logic of the Problem (preventable harm, risk or threat)



The Logic of the Solution (a support program to reduce harm)



Making it Practical for Monitoring and Evaluation

- O.K. That shows us systems and non-linear relationships....

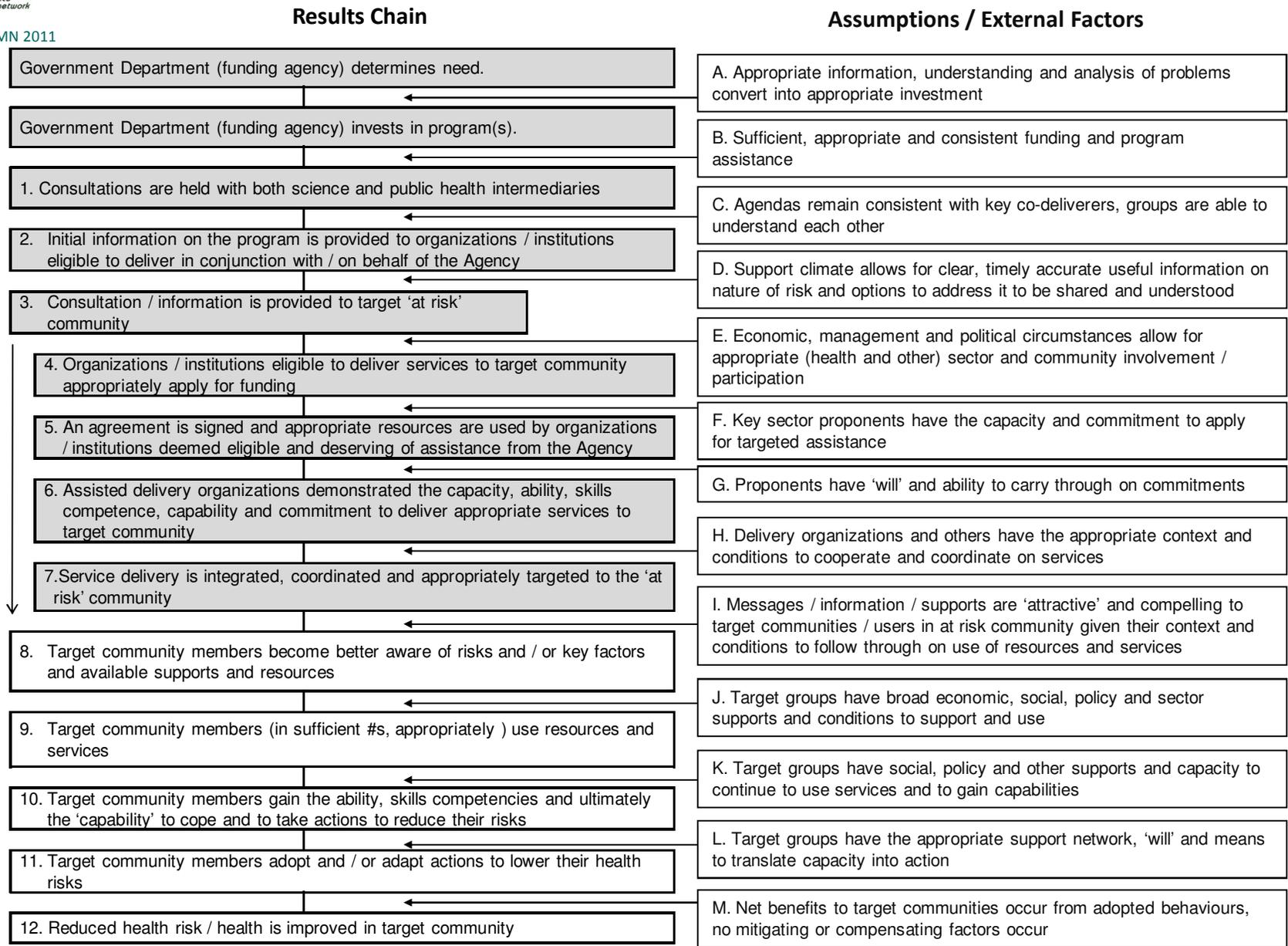
BUT

- I like my straight lines and boxes!
- Can we acknowledge 'systems' while keeping it (relatively) simple?



Community Health Initiative Results Chain with Assumptions and External Factors

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Making it Practical for Results Planning

- O.K. That's fine for evaluation, how can I use this to change planning?
- Can complex systems needs, reach and results chains be part of planning?
- Can we address multi-levels?

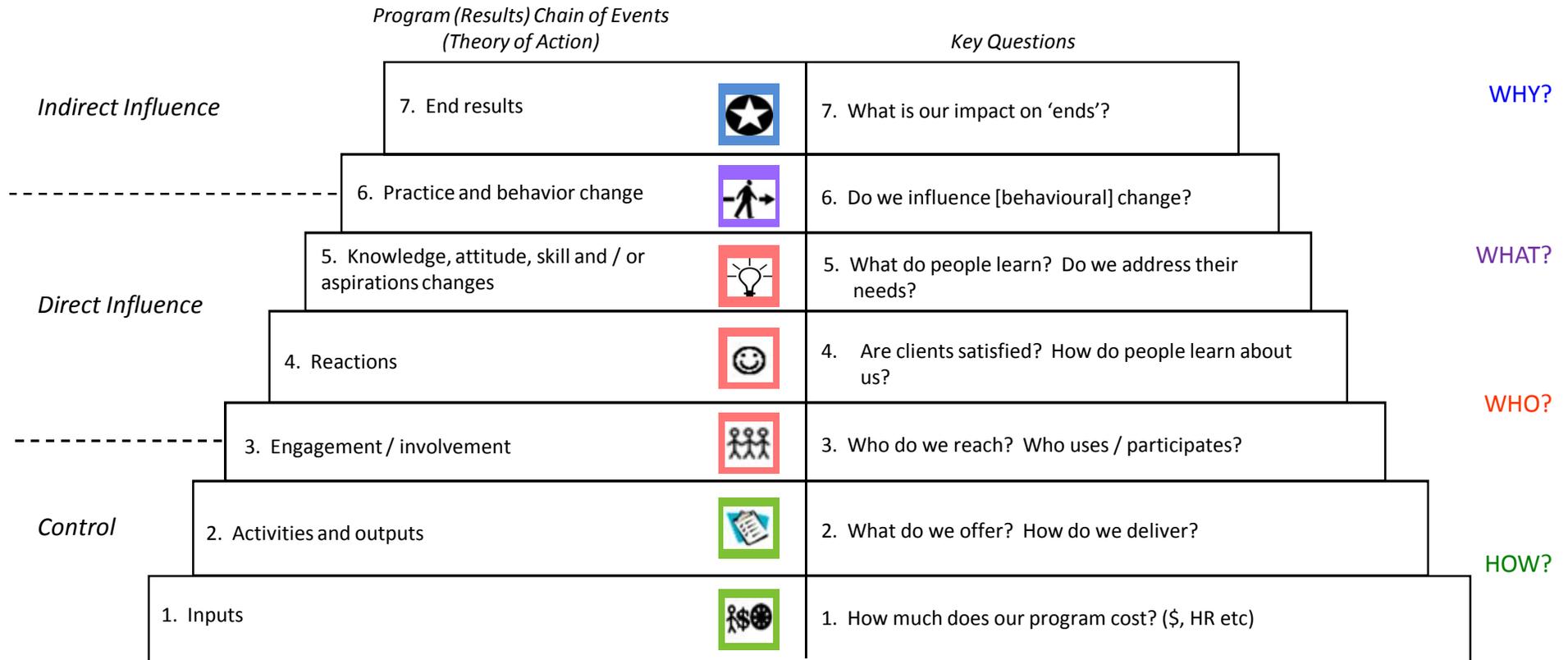
Case: The Canadian Cancer Society

- Fund raises for own operations (Very low dependence on Government \$)
- Huge volunteer base (both core and occasional)
- Prevention, Advocacy, Information, Support Services + Research (funding large institute)
- Facing high complexity + diversity in terms of mandates, issues and challenges across Canada

Monitoring and Evaluation (M&E)

- Support to Carver Policy Governance
- Multiple Contexts (from policy/advocacy to direct service delivery)
- Board ends reporting (often a business culture) mixed with public health 'operational improvement' culture
- Strong evaluation tradition – applied at the program level by outside academically based organization

A Basic Results Chain With Key Questions



Source: Adapted for the Canadian Cancer Society by Steve Montague from Claude Bennett 1979. Taken from Michael Quinn Patton, Utilization-Focused Evaluation: The New Century Text, Thousand Oaks, California, 1997, p 235.



A Related Sequence of Needs / Problems

A related sequence of problems:

Summary: Thousands of members of Community Y put themselves at risk of skin cancer due to excessive exposure to the sun's UV rays. This can be shown as a sequence of issues as follows:

- ❏ The incidence of sun-related cancers is rising in Community Y.
- ❏ Community Y shows self-assessed ratings of sun-safe precautions (e.g. clothing, sunscreen etc.) for given UV exposures which are lower than the national average.
- ❏ Community Y does not currently have a shade policy for public spaces.
- ❏ Market research data shows that X% of Community Y members are unaware of what appropriate precautions to take at 'high' or 'medium' levels of UV exposure.



Defining the need - Sunsafe Example

Levels (from the Results Chain)	Problems from an Environmental Scan
<p><u>7. Conditions</u> What is the current 'state' of cancer? (Health-incidence, mortality, morbidity, quality of life, <i>social, technological, economic, environmental, political</i> [S.T.E.E.P], trends) What broad need or gap can / should CCS be trying to fill?</p>	<ul style="list-style-type: none"> • The incidence of sun-related cancers is rising in Community Y.
<p><u>6. Practices</u> What are the current (problematic) practices in place re: cancer prevention and / or support in the target communities of interest?</p>	<ul style="list-style-type: none"> • Unsafe precautions taken by members of Community Y are below the national average. • Tanning bed use - especially among young adults - continues to suggest risks of inappropriate exposure.
<p><u>5. Capacity</u> Are there gaps in delivery support? What gaps exist in the CCS's target communities in terms of knowledge, abilities, skills and aspirations?</p>	<ul style="list-style-type: none"> • Community Y does not currently have a shade policy. • X% of Community Y members are not aware of the appropriate precautions to take at given UV levels.
<p><u>4. Awareness / Reaction</u> Are there gaps in terms of target community awareness of and / or satisfaction with current information, support services, physical support, laws and regulations, or other initiatives to support needs? What are the perceived strengths and weaknesses?</p>	<ul style="list-style-type: none"> • X% of Community members are aware of the risks of UV and the risks of tanning bed exposure. This is low compared to possible levels (reference: Australia)
<p><u>3. Participation / Involvement</u> Are there problems or gaps in the participation, engagement or involvement of groups who are key to achieving the CCS's desired outcomes?</p>	<ul style="list-style-type: none"> • Groups of concerned citizens or professionals have not yet been mobilized in this community. • No other group has yet picked up this cause. • Media attention has not been given to this subject.
<p><u>2. CCS Activities / Outputs</u> Are there activities or outputs which the CCS does which represent barriers or gaps to achieving its objectives?</p>	<ul style="list-style-type: none"> • CCS has not focussed attention on this area, other than distributing pamphlet information.
<p><u>1. CCS Resources</u> What level of financial, human and technical resources are currently at the CCS's disposal? Are there gaps?</p>	<ul style="list-style-type: none"> • Minimal human and \$ support has been invested in this area.



Move from Needs to Desired Results		
Needs / Situation		Desired Results
Conditions <ul style="list-style-type: none"> Increasing incidence of sun related cancer 	➡	End Result <ul style="list-style-type: none"> Reduced rate of sun related cancer
Practices <ul style="list-style-type: none"> Problematic level of unsafe sun and tanning behaviours 	➡	Practice and behaviour Change <ul style="list-style-type: none"> Improved / increased 'Sunsafe' behaviours Reduced risky tanning practices Shade policies implemented for public areas
Knowledge, Abilities, Skills and Aspirations <ul style="list-style-type: none"> Key segments do not know appropriate Sunsafe precautions for various UV levels 	➡	Knowledge, Abilities, Skills and Aspirations <ul style="list-style-type: none"> Understanding of what precautions to take at various UV levels
Awareness / Reactions <ul style="list-style-type: none"> Lack of awareness / reactions to UV warnings Lack of apparent awareness of need for shade in public spaces 	➡	Reactions <ul style="list-style-type: none"> Improved awareness of UV levels and their implications Pick-up of need for shade messaging by media and various public institutions
Engagement / Involvement <ul style="list-style-type: none"> Lack of public / institutional / other related agency involvement in Sunsafe promotion Lack of opportunity for concerned group involvement 	➡	Engagement / Involvement <ul style="list-style-type: none"> Media pick-up of Sunsafe messaging Involvement of physicians groups in sun safe cases
Activities <ul style="list-style-type: none"> Gap in promotional / educational activities 	➡	Activities <ul style="list-style-type: none"> Promotional / educational activities and information / communication to key target groups
Resource Inputs <ul style="list-style-type: none"> Gaps in resources committed to area 	➡	Inputs <ul style="list-style-type: none"> Level of people, skills, knowledge, \$ applied to Sunsafe area

Information on needs should always inform the setting of expected / desired results.



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Results Chain			Needs-Results Plan Worksheet						
			T0 [Current Needs]	T1 [Desired]	T2 [Desired]	T3 ⁽⁺⁾ [Desired]			
WHY?	7. 'End' Result <i>Describe the overall trends with regard to the CCS mission and Board Ends.</i>		<ul style="list-style-type: none"> Increasing incidence of sun related cancer 				<ul style="list-style-type: none"> Reduced rate of sun related cancer 		
WHAT	6. Practice and Behaviour Change <i>Describe the practices and behaviour of individuals, groups, and partners over time.</i>		<ul style="list-style-type: none"> Problematic level of unsafe sun and tanning behaviours 						
BY	5. Knowledge, Ability, Skill and / or Aspiration Changes <i>Describe the level of knowledge, abilities, skills and aspirations / commitment of individuals, groups, and/or communities.</i>		<ul style="list-style-type: none"> Key Segments do not know appropriate sunsafe precautions for various UV levels 						
WHOM?	4. Reactions <i>Describe feedback from individuals, groups, and partners: satisfaction, interest, reported strengths and weaknesses.</i>		<ul style="list-style-type: none"> Lack of awareness / reactions to UV warnings Lack of apparent awareness of need for shade in public spaces 	<ul style="list-style-type: none"> Improved awareness of UV levels and their implications Pick-up of need for shade messaging by media and various public institutions 					
	3. Engagement / Involvement <i>Describe the characteristics of individuals, groups, and co-deliverers: numbers, nature of involvement</i>		<ul style="list-style-type: none"> Lack of public / institutional / other related agency involvement in sunsafe promotion Lack of opportunity for concerned group involvement 	<ul style="list-style-type: none"> Media pick-up of sunsafe messaging Involvement of physicians groups in sunsafe cause 					
HOW?	2. Activities / Outputs <i>Describe the activity: How will it be implemented? What does it offer?</i>		<ul style="list-style-type: none"> Gap in promotional / educational activities 	<ul style="list-style-type: none"> Promotional / educational activities and information / communication to key target groups 					
	1. Inputs / Resources <i>Resources used: dollars spent, number and types of staff involved, dedicated time.</i>		<ul style="list-style-type: none"> Gaps in resources committed to area 	<ul style="list-style-type: none"> Level of people, skills, knowledge, \$ applied to sunsafe area 					



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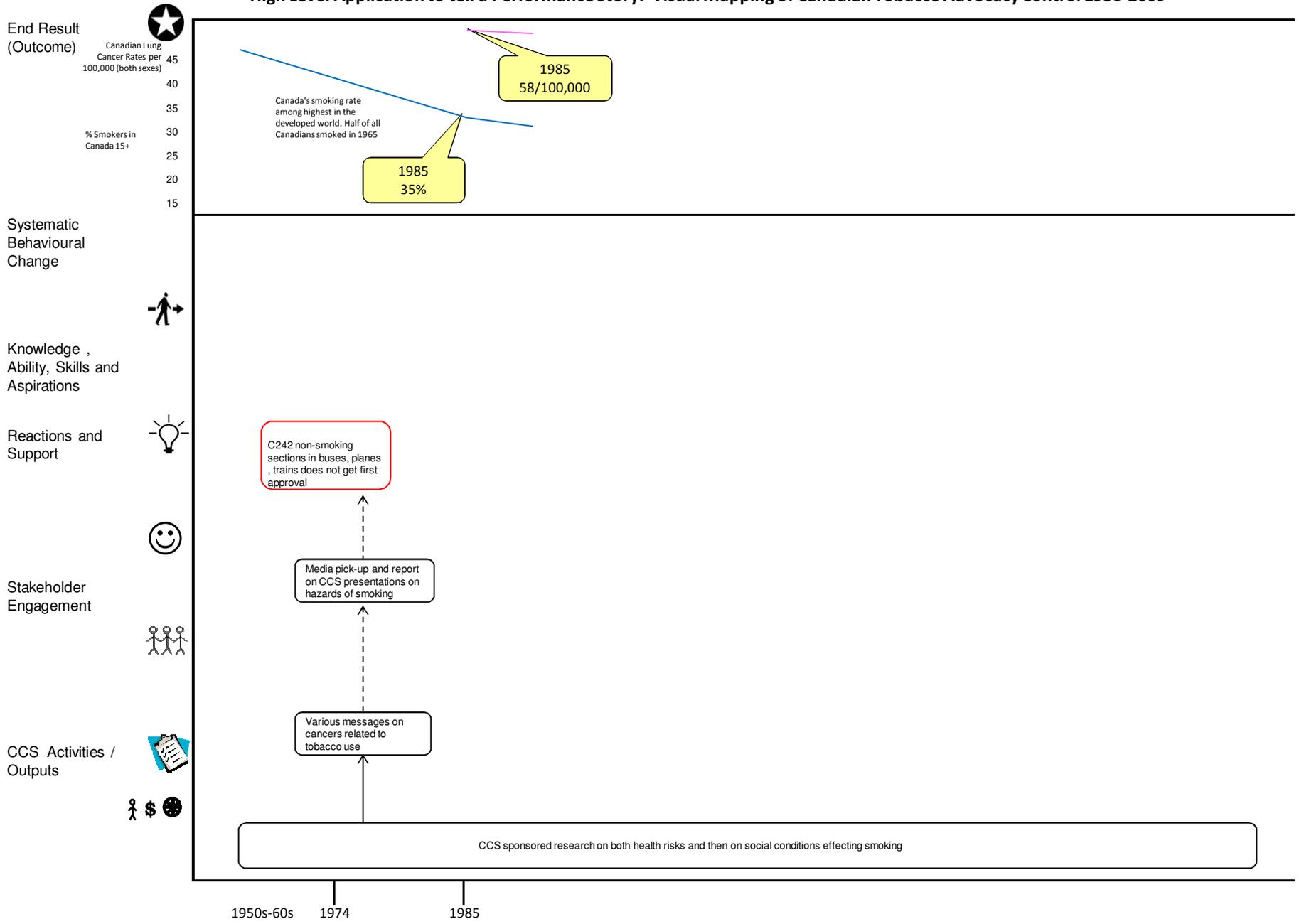


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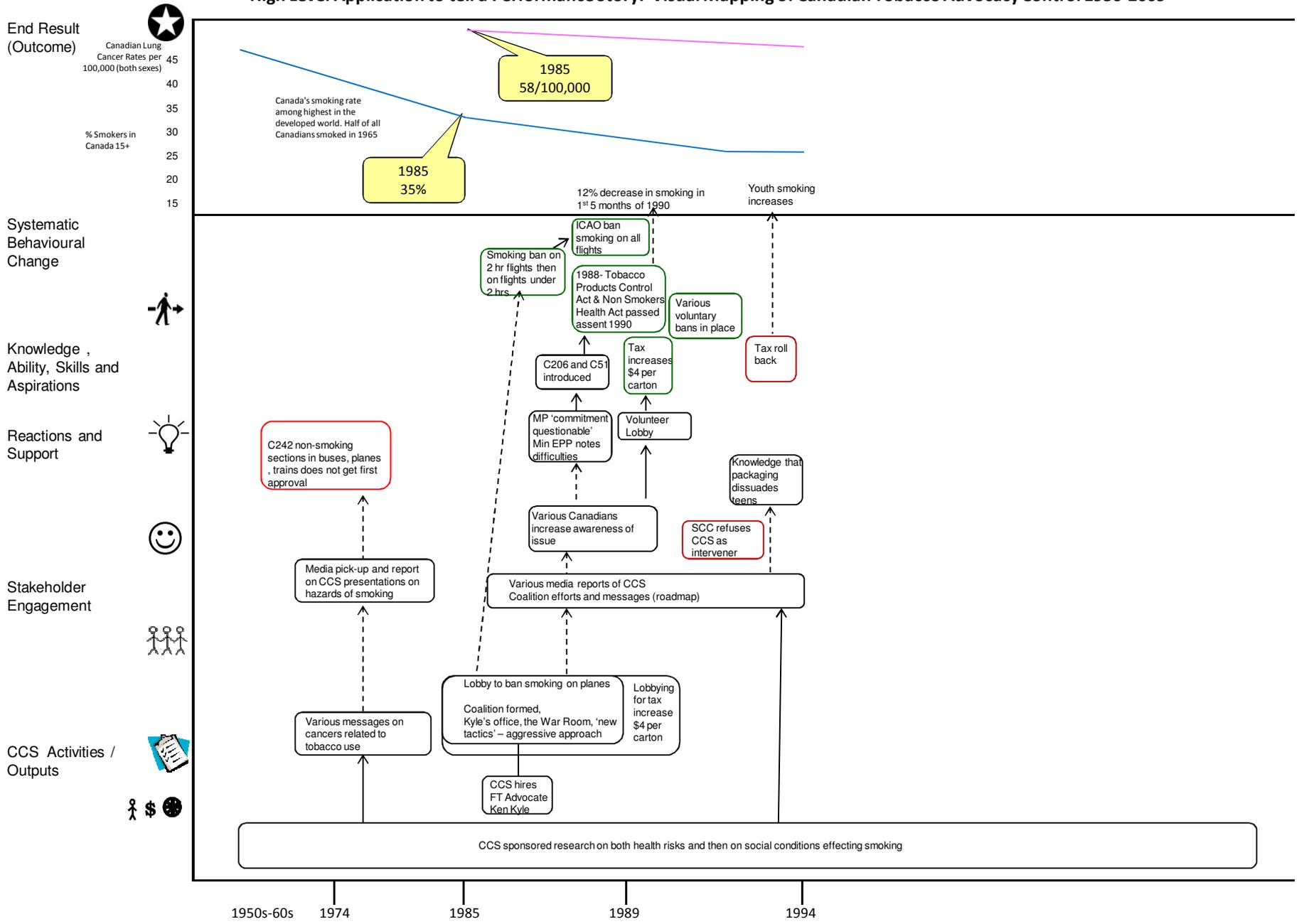
High Level Application to tell a Performance Story: Visual Mapping of Canadian Tobacco Advocacy Control 1950-2009



Key Legend: → = direct link established [Red Box] = Negative change
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High Level Application to tell a Performance Story: Visual Mapping of Canadian Tobacco Advocacy Control 1950-2009

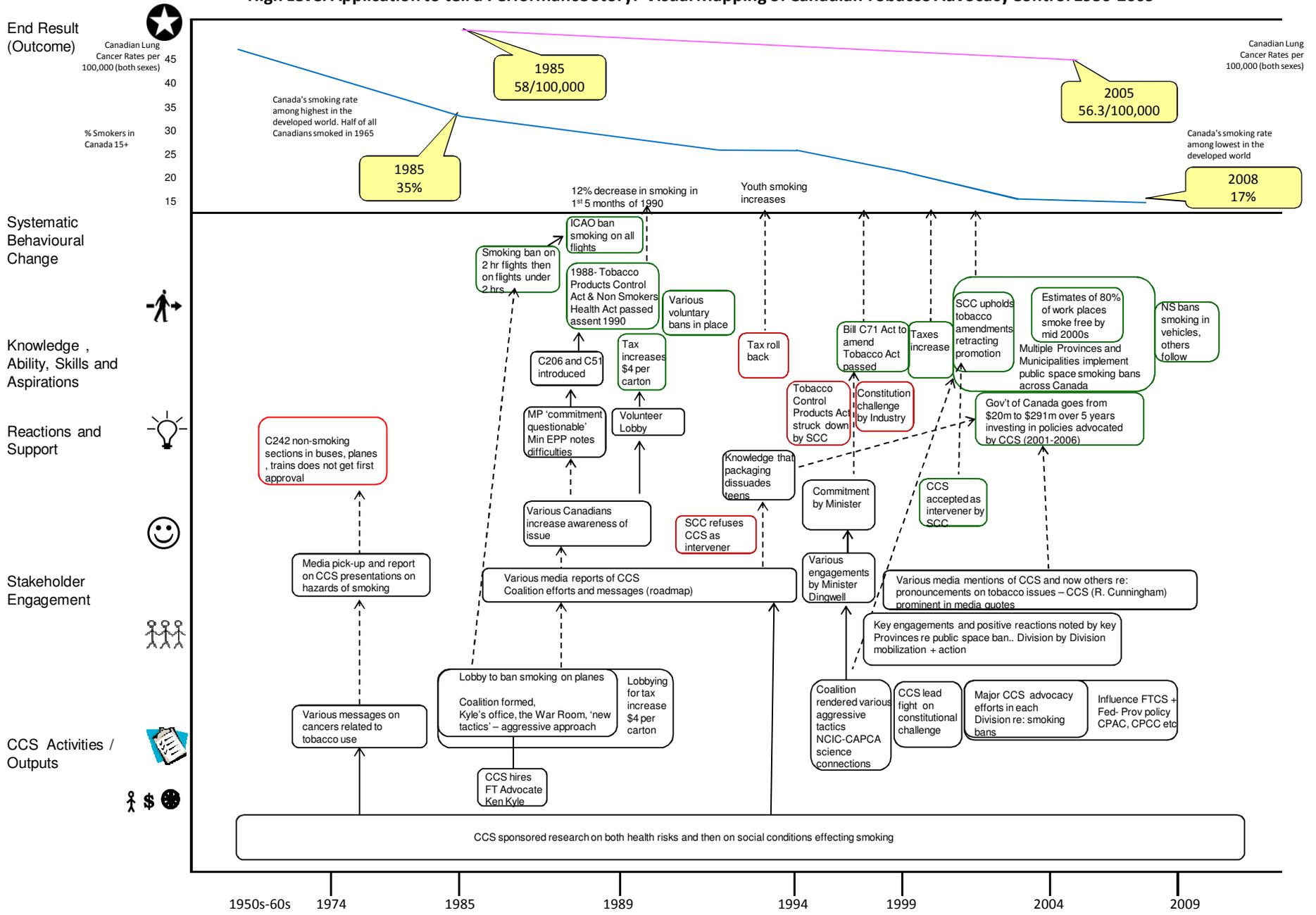


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Public (Health) Management: Conclusions

- Evaluators need to:
 - Facilitate evaluative activities
 - Facilitate evaluative learning
 - Create evaluative information
- Recognize reach as well as results
- Take a systems approach, but adapt it to linear culture
- Need to provide common:
 - Lense
 - Language
- Use common lens and language for multi level, complex initiatives planning, measurement, evaluation and management