## Practical (Progress) Measurement And (Impact) Evaluation For Initiatives In Complex Environments

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Information. Insight. Improvement.



## **Agenda**

- Complex environments, analysis and synthesis (tools comparison)
- An evolving approach needs, results and measures (models, cases and group work)
- Implications for evaluation



 Without changing our patterns of thought, we will not be able to solve the problems we created with our current patterns of thought.

Things should be made as simple as possible
not simpler.

-Albert Einstein



### The Current [Typical] Policy / Program Situation:

- Accountability
- Complexity
- Dynamism
- Tools for performance measurement and assessment are inadequate
  - Scorecards Dashboards [Simple Matrices]
  - Compliance rates
  - Process measures
  - Audit
  - Evaluation



## Simple-Complicated-Complex

## Simple

Following a Recipe

- The recipe is essential
- Recipes are tested to assure replicability of later efforts
- No particular expertise;
   knowing how to cook
   increases success
- Recipes produce standard products
- Certainty of same results every time

## Complicated

A Rocket to the Moon

- Formulae are critical and necessary
- Sending one rocket increases assurance that next will be ok
- High level of expertise in many specialized fields + coordination
- Rockets similar in critical ways

## Complex

Raising a Child

- Formulae have only a limited application
- Raising one child gives no assurance of success with the next
- Expertise can help but is not sufficient; relationships are key
- Every child is unique

(Zimmerman 2003)



### **Audit and Evaluation in Public Management**

	Audit	Evaluation
DEFINITION	checking, comparing, compliance, assurance	assessment of merit, worth, value of administration, output and outcome of interventions
TYPES	traditional – financial and compliance performance audit – substantive – systems and procedures	wide variability – many 'types' noted in the literature
WHO DOES IT?	internal auditors – part of organization external auditors – independent agency	internal evaluators – part of organization 'external' contracted consultants – not really independent?
ROLES	- provide assurance - public accountability - improve management	not as well articulated -increase knowledge -improve delivery and management -(re) consider the rationale varies by a long list of potential clients
METHODS	file review, interviews, focus groups, surveys, observations	wide variety of methods, from scientific and quasi scientific designs to purely qualitative and interpretative methods and methods linked to testing program theory
REPORTING	- attest to legislatures - direct to management	-management -various stakeholders
STRENGTH	- strong reputation - supported by professional associations - well established and followed standards - addresses issues of public concern (e.g. waste mismanagement etc.)	- addresses attribution - explains why? - acknowledges complexity and uncertainty - flexible in design and practice
CHALLENGES	<ul><li>dealing with complexity</li><li>operating in a collaborating state</li></ul>	- credibility - perceived relevance

Source: Mayne, John (2006) Audit and Evaluation in Public Management, The Canadian Journal of Program Evaluation Vol. 21, No. 1



### **Measurement and Evaluation**

MEASUREMENT MONITORING	EVALUATION	
Continuous	Periodic: at important milestones such as the mid-term of program implementation; at the conclusion of the program, or after a substantial period of time following program conclusion (3-5 years)	
Keeps track of programmatic evolution; analyses and documents progress	In-depth analysis; compares planned with actual achievements	
Focuses on inputs, activities, outputs, implementation processes, continued relevance, likely results at purpose level Answers what activities were implemented and what results were achieved	Focuses on: outputs in relation to inputs; results in relation to cost; processes used to achieve results; overall relevance; impact; and sustainability  Answers why and how results were achieved; contributes to building theories and models for change	
Alerts managers to problems and provides options for corrective actions	Provides managers with strategy and policy options	
Self-assessment by program managers, supervisors, community stakeholders, and donors	Internal and / or external analysis by programme managers, supervisors, community stakeholders, donors, and/or external evaluators	

Sources: UNICEF, 1991; WFP, May 2000, World Bank International Finance Corporation, January 2006



## Problem: The Reasons for Doing Performance Planning, Measurement and Evaluation

Contrasting World Views and Paradigms



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## The Problem with Traditional Measurement and Accountability Applied to Modern Public [Regulatory] Performance:

- Most Performance Measurement is "disaggregationist", while strategic management requires synthesis
- Balanced vs. integrated thinking (Sparrow)
- Tendency to emphasize linear thinking
- Standardized metrics (e.g. speed, compliance level – Sparrow)
- Implied command and control
- Efficiency over effectiveness (Sparrow)



## Case Example: Walkerton

- Thousands rendered ill, 7 die from ecoli contaminated municipal water
- Regulations 'stiffened' almost immediately lots of risk shifting and paper burden to small community well operators
- 2 year O'Connor enquiry
- Blame essentially laid on local officials
- Assessment of water regulations? / risk management?
- Was this a deeper systems problem?



### The Need:

- Recognize a different definition of accountability based on learning and managing for results (i.e. You are accountable for learning and adapting, not for a given outcome per se)
- Tell a Performance Story
  - How, Who, What, Why
- Change our mental models to recognize
  - synthesis
  - interaction
  - 'communities' (people with some common task, function or identity in the system)
  - performance measures as progress markers



## A Deeper Aspect of the Current Problem

- Many results models for programs prove inadequate in describing programs, initiatives and cases
  - Too linear
  - Either too complex or too simple
  - Miss key community behaviours
  - Analysis vs. synthesis
  - Miss an important question: What problem(s) are we solving?



## Analysis vs. Synthesis

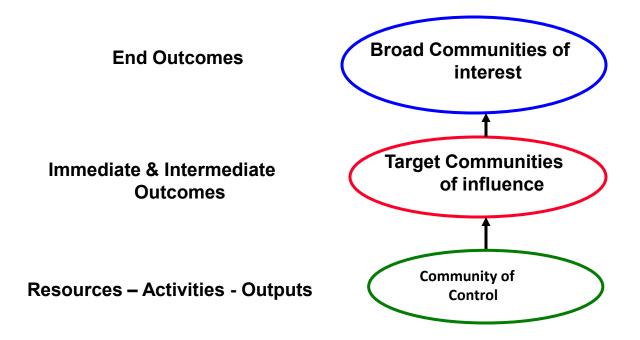
In analysis, something that we want to understand is first taken apart. In synthesis, that which we want to understand is first identified as a part of one or more larger systems.

In analysis, the understanding of the parts of the system to be understood is ... aggregated in an effort to explain the behavior or properties of the whole. In synthesis, the understanding of the larger containing system is then disaggregated to identify the role or function of the system to be understood.

- Ackoff



## Need to Recognize That Results Occur In Different 'Communities' or Levels



In fact, these communities are related and interact with each other.



### **Sparrow's Classification of Regulatory Results**

#### Table 8-1. Classifications of Business Results

Tier 1. Effects, impacts, and outcomes (environmental results, health effects, decline in injury and accident rates)

#### Tier 2. Behavioral outcomes

- a. Compliance or noncompliance rates (significance...)
- b. Other behavioral changes (adoption of best practices, other risk reduction activities, "beyond compliance," voluntary actions, and so on)

#### Tier 3. Agency activities and outputs

- Enforcement actions (number, seriousness, case dispositions, penalties, and so on)
- b. Inspections (number, nature, findings, and so on)
- c. Education and outreach
- d. Collaborative partnerships (number established, nature, and so on)
- e. Administration of voluntary programs
- f. Other compliance-generating or behavioral change-inducing activities

#### Tier 4. Resource efficiency, with respect to use of

- a. Agency resources
- b. Regulated community's resources
- c. State authority

Source: Sparrow, Malcolm K. (2002) <u>The Regulatory Craft Controlling Risks, Solving Problems, and Managing Compliance,</u> The Brookings Institution, Washington, p119



#### **Spheres of Influence** (Sparrow meets Van Der Heijden)

## State (Why?- Tier 1)

Your environment of indirect influence

e.g., Broad international communities, communities of interest where you do not make direct contact

## Behavioural Change (Who and What? – Tier 2)

Your environment of direct influence

e.g., People and groups in direct contact with your operations

Changes to Support Climate Participation / Reaction

Awareness / Understanding

Ability / Capacity

Action / Adoption

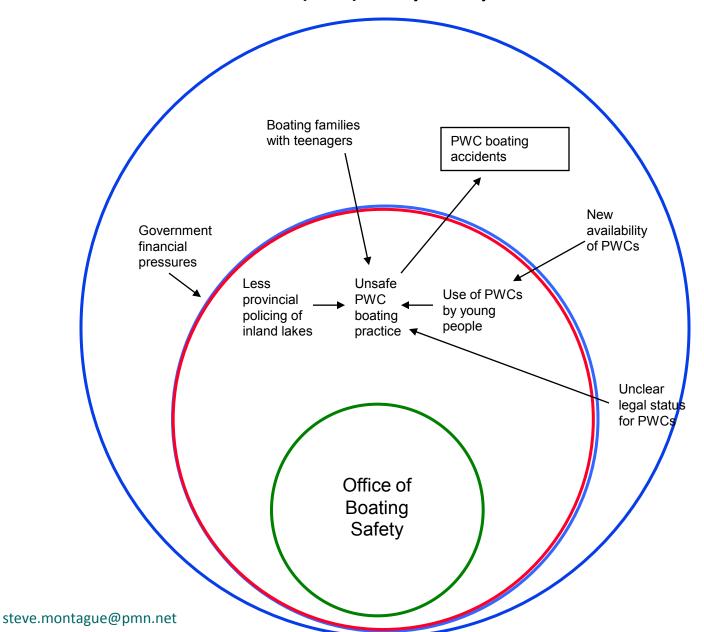
### Operational

(How? – Tier 3)

Your operational
environment
You have direct control
over the behaviours within
this sphere



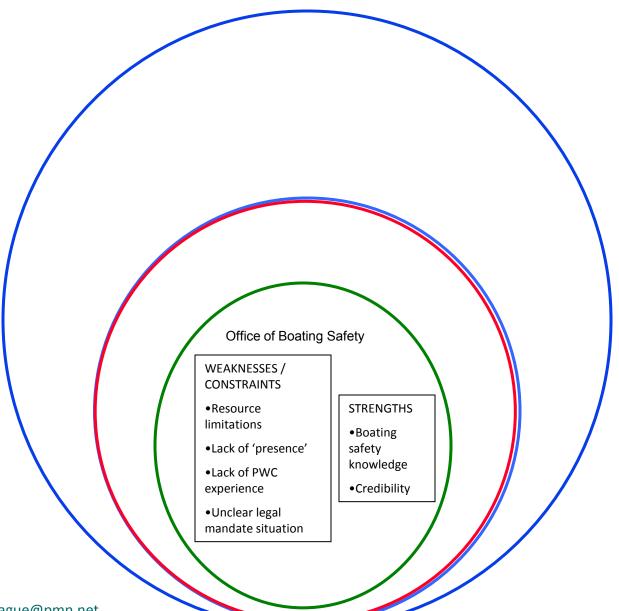
#### Personal Water Craft (PWC) Safety – Early 2000s External Assessment



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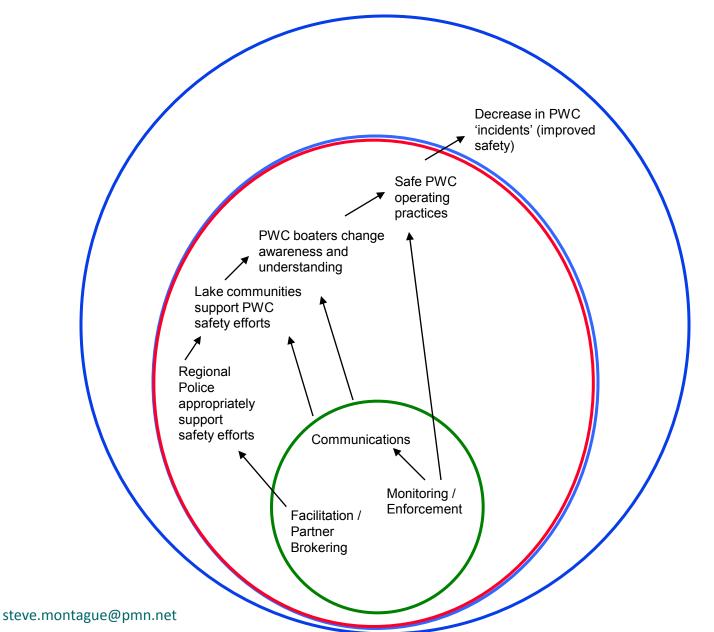


#### Personal Water Craft (PWC) Safety – Early 2000s Internal Assessment





#### Personal Water Craft (PWC) Safety Strategy



Note that the above logic involves garnering regional police and community support to help influence PWC operators. Also note that as the behaviours occur farther and farther away from the operational circle, an organization's ability to influence change is reduced. In this fact lies the analogy of behavioural 'wave' sharp and forceful near the origin, broader and weaker (subject to disruption by other forces) as it moves outward.

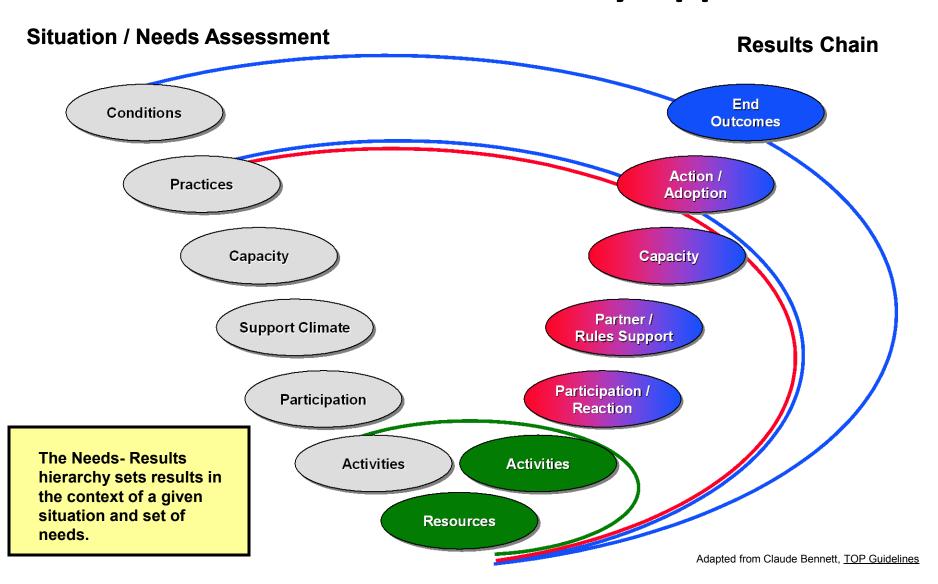


# Developing a Needs-Results Hierarchy as a 'Front End'

- Focus on important problems and priorities
- Develop a chain of results leading to outcomes
- Focus on human change
- Distinguish control from influence

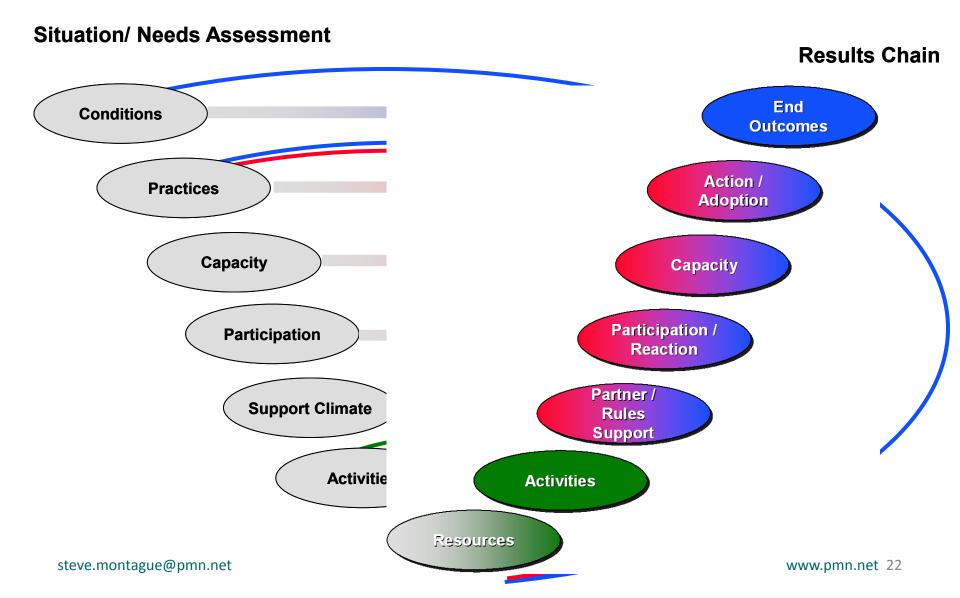


## A Needs-Results Hierarchy Approach





## **Shaping the Results Hierarchy**





#### **Example: Storage and Transportation of Dangerous Goods**

(Source: Transportation of Dangerous Goods, Transport Canada, 2002)

2002

#### **Situation/ Needs Assessment**

1997

#### **Results Chain**

#### Conditions

Unsafe transportation and storage of anhydrous ammonia

#### **Practices**

- 100% non-compliance in all 43 high priority (C1) sites
- Few facilities voluntarily registered with the Association

#### Capacity

 Little knowledge of the program and lack of understanding of the technical aspects of compliance requirements by individual nurse tank owners

#### **Participation**

 Lack of awareness, engagement and support by high priority sites

#### **Support Climate**

 Little cooperation with Ammonia Safety Council and TC headquarter specialist to improve the Ammonia Field Tank Safety Program

#### **Activities**

- · Lack of audit compliance rigor
- Outreach activities highly IPS-based
- · High number of repeat inspections

#### Resources

- · 10 Inspectors for 43 anhydrous sites
- · High travel dollars

End Outcomes

- Safe transportation and storage of anhydrous ammonia
- Anhydrous nurse tank operators are selfregulating

Action / Adoption

- 95% compliance with the TDG regulations, the Ammonia Safety Council Program
- All facilities in Ontario operating nurse tanks in anhydrous service are registered with the Association

Capacity

Individual nurse tank owners have the tools to comply and self-regulate

Participation / Reaction  Increased awareness, engagement and support by high priority sites

Partner / Rules Support  Increased cooperation with the Ammonia Safety Council and TC headquarter specialist to improve the Ammonia Field Tank Safety Program

**Activities** 

- Improved audit function to verify compliance and revoke certificates
- Continued outreach activities especially in terms of awareness building workshops
- Decrease in inspections

Resources

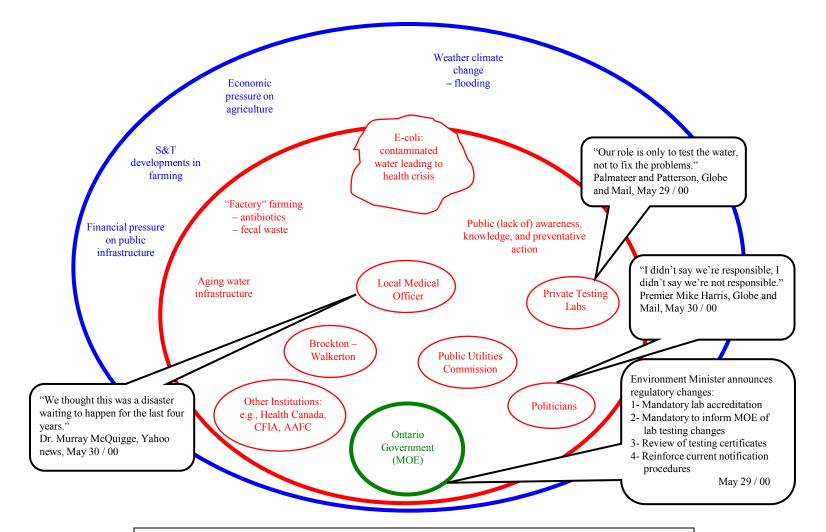
- 1 Inspector for 43 anhydrous sites
- Decrease in travel dollars

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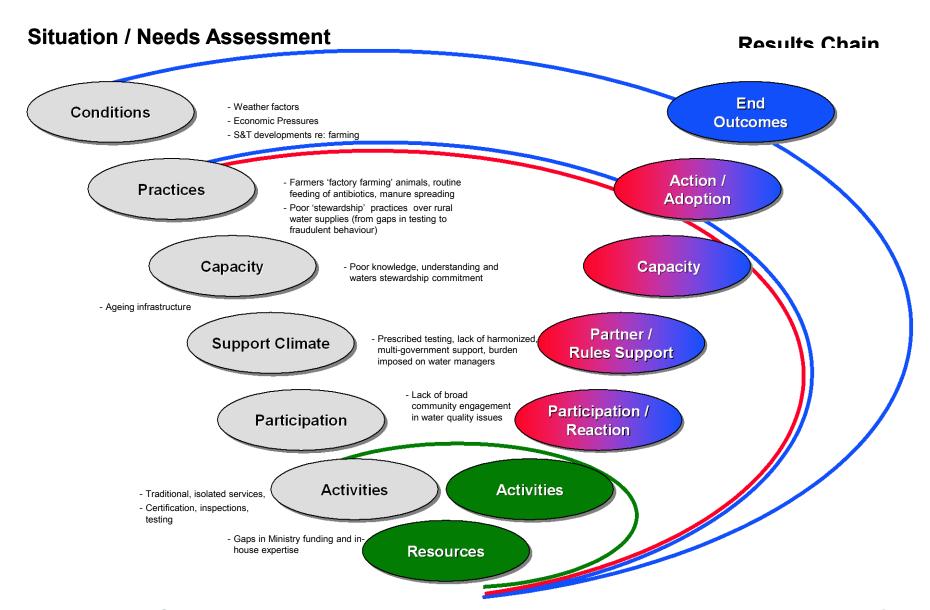
## A Case Study in [lack of] Complex Systems Thinking / Problem Solving – The Walkerton Water Situation



A two year inquiry held two town officials almost completely to blame. Deeper systems surrounding the situation were not extensively reviewed.

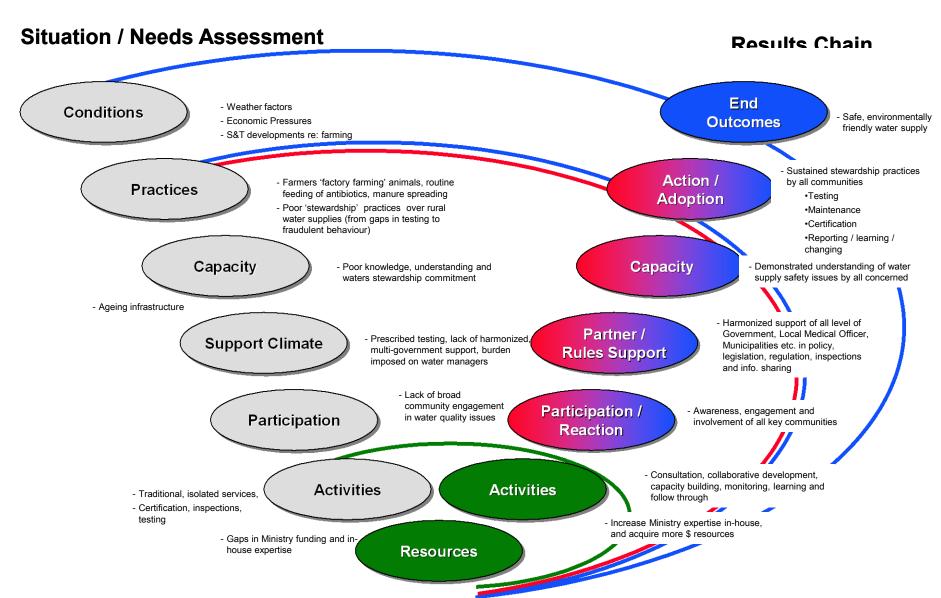


#### A Needs-Results Hierarchy Approach – Walkerton





### A Needs-Results Hierarchy Approach – Walkerton





## **Needs – Questions**

**Conditions** 

What need/gap is your group/policy/program trying to fill?

What is the current state of affairs?

**Practices** 

What are the practices currently being employed?

How do your partners and those you are trying to reach influence the current state of affairs?

Capacity

What gaps exist in your key reach groups Knowledge? Abilities? Skills? Aspirations?

**Support Climate** 

What is the current state of the support climate? What gaps exist in terms of support climate? (i.e., Are there gaps in legal rules, current international, federal, provincial, regional (governmental or non-governmental) institutional policies, etc...?)

**Participation** 

Are there problems or gaps in the participation/engagement of groups which are key to achieving your objectives?

**Activities/Outputs** 

Are there activities or outputs which represent barriers or gaps to achieving your objectives? (e.g., inappropriate delivery practices, incomplete or inappropriate assessment criteria, gaps in communications, etc).

Resources

What level of financial, human, and "technical" resources are currently at your disposal? Are there gaps?



## **Results – Questions**

End Outcomes

What is the ultimate state that your group is contributing towards?

What is your vision of a "perfect world", as it relates to your area of work?

Action / Adoption What are the practices that are required to reach this ultimate goal?

How would your partners and those you are trying to reach act in a "perfect world"?

Capacity

What knowledge, aspirations, skills, and abilities would your partners / intermediaries + target groups have in a "perfect world"?

Partner / Rules Support What partner / intermediary support do you need to achieve your vision?

What kind of a support climate would you need to achieve your vision?

Participation / Reaction

Whose participation/engagement do you need to address the identified gaps?

**Activities** 

What tasks need to be done by your group in order to address this issue?

What outputs should be produced by your group?

Resources

What resources are required to accomplish your activities?



## Example Needs-Results Chart – Sun Safety

Move from Needs to Results – Sun Safe*				
Needs / Situation		Desired Results		
Conditions • Increasing incidence of sun related cancer	<b></b>	End Result (WHY)  Reduced rate of sun related cancer		
Practices Problematic level of unsafe sun and tanning behaviours		Practice and Behavior Change (WHO & WHAT)  • Improved / increased `Sunsafe' behaviours  • Reduced risky tanning practices  • Shade policies implemented for public areas		
Capacity (Knowledge, Abilities, Skills and Aspirations)  Key segments do not know appropriate Sunsafe precautions for various UV levels  Lack of awareness / reactions to UV warnings  Lack of apparent awareness of need for shade in public spaces		Capacity (Knowledge, Abilities, Skills and Aspirations) (WHO & WHAT)  • Understanding of what precautions to take at various UV levels  • Improved awareness of UV levels and their implications  • Pick-up of need for shade messaging by media and various public institutions		
Support Climate Inadequate institutional support for shade and tanning bed policies  Support Climate	<b></b>	Support Climate (WHO & WHAT)  Improved institutional support for shade and tanning bed policies		
Participation / Engagement / Involvement  Lack of public / institutional / other related agency involvement in Sunsafe promotion  Lack of opportunity for concerned group involvement		Engagement / Involvement (WHO & WHAT)  Media pick-up of Sunsafe messaging  Involvement of physicians groups in sun safe cases		
Activities  • Gap in promotional / educational activities	<b></b>	Activities (HOW)     Promotional / educational activities and information / communication to key target groups		
Resource Inputs  • Gaps in resources committed to area		Inputs (HOW)  • Level of people, skills, knowledge, \$ applied to Sunsafe area		

<sup>\*</sup>Source: Canadian Cancer Society with permission



## **Small Group Exercise**

- Look at a case
- Suggest some situational needs / risks
- Then consider some results

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#### **Needs-Results Chart**

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Needs / Situation		Desired Results
Conditions		End Result (WHY)
Practices		Practice and Behavior Change (WHO & WHAT)
Capacity (Knowledge, Abilities, Skills and Aspirations)		Capacity (Knowledge, Abilities, Skills and Aspirations) (WHO & WHAT)
Support Climate		Support Climate (WHO & WHAT)
Participation / Engagement / Involvement	-	Engagement / Involvement (WHO & WHAT)
Activities		Activities (HOW)
Resource Inputs		Inputs (HOW)
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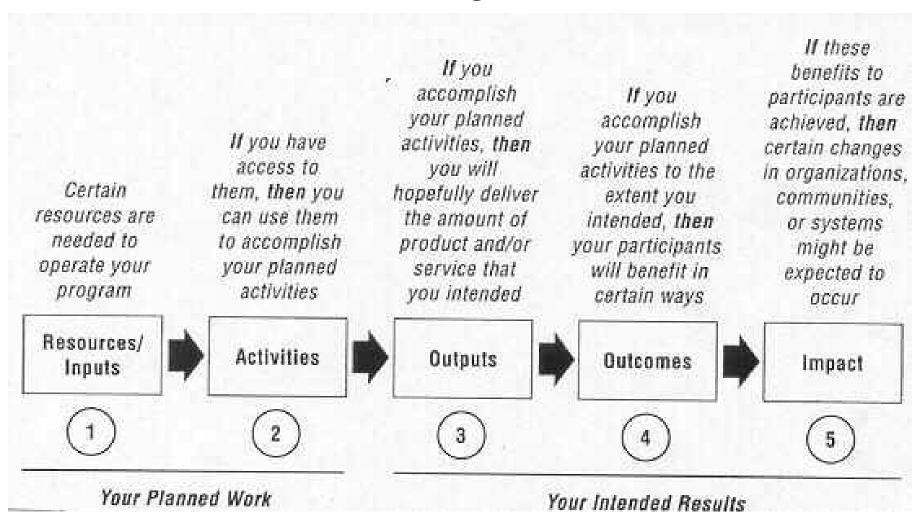
## **Logic Model Implications**

- 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?



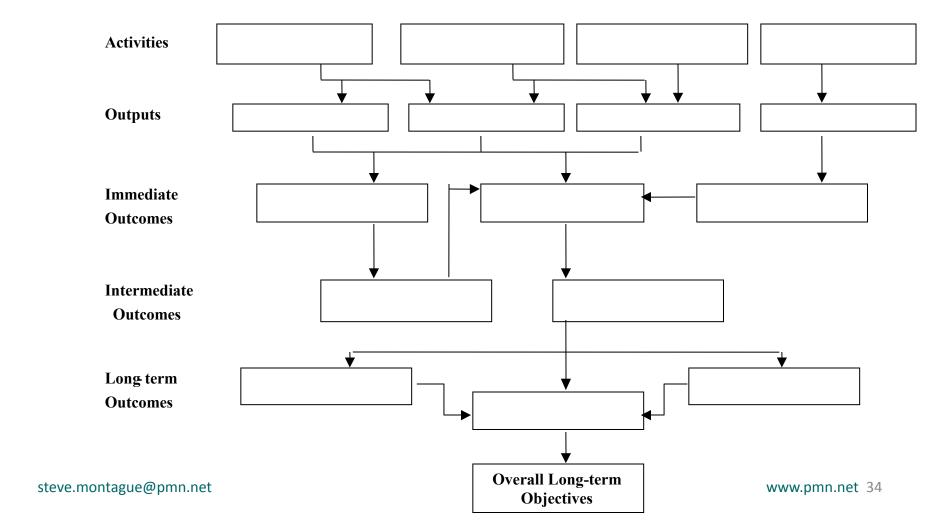
## The [International] 'Classic' Results Logic

- Rogers 2006





## The [Canadian] 'Classic' Results Logic





## 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:

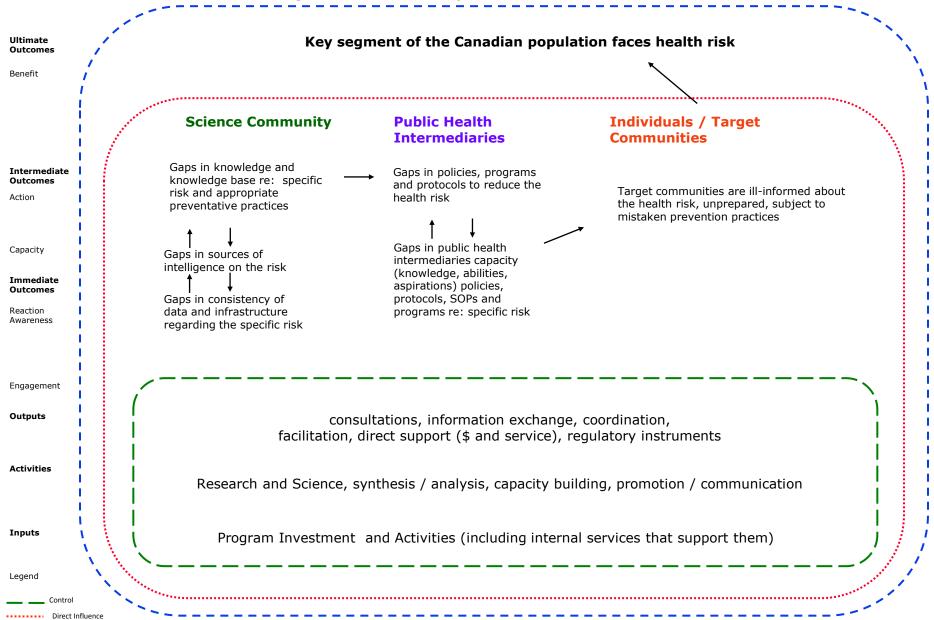
#### A Information and Support Program to Improve the Health of an 'At Risk' Group

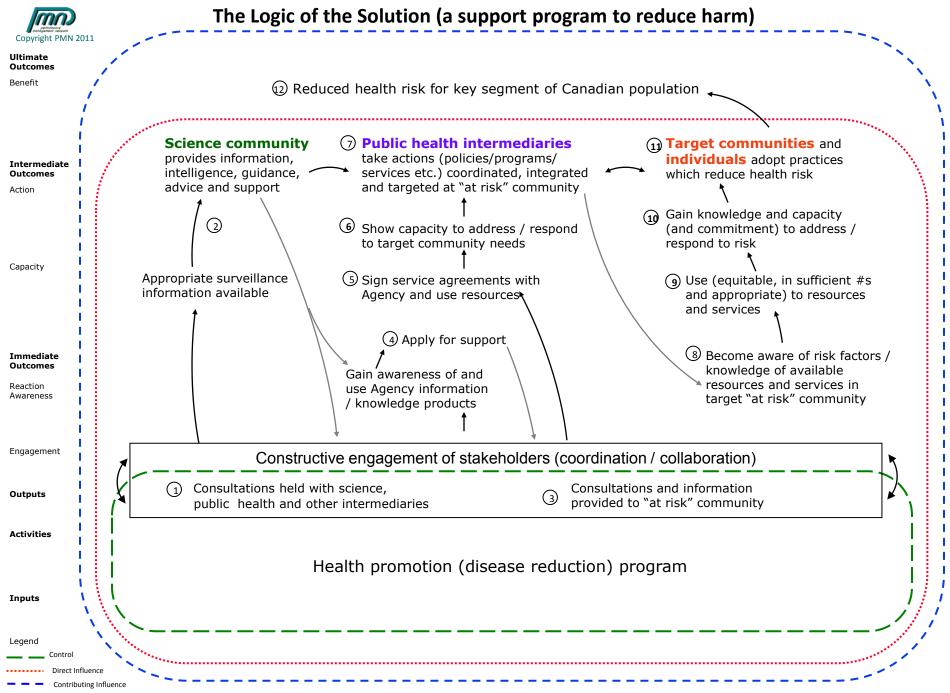
A health promotion / disease prevention program is initiated to reach a key "at risk" community to help them achieve health improvements. This can be represented as a logical sequence as follows:

- 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
- Solution is signed and appropriate resources are used by organizations / institutions deemed eligible and deserving of assistance from the Agency
- Assisted delivery organizations demonstrated the capacity, ability, skills competence, capability and commitment to deliver appropriate services to target community
- Service delivery is integrated, coordinated and appropriately targeted to the 'at risk' community
- ® 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
- Target community members gain the ability, skills competencies and ultimately the 'capability' to cope and to take actions to reduce their risks
- (1) Target community members adopt and / or adapt actions to lower their health risks
- Health is improved in target community



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







# **Making it Practical**

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?



#### **Sunsafe Example**



	AREA OF CCS MISSION / OBJECTIVES: Reduce incidence and mortality from cancers associated with U.V. exposure						
	2 4 0 1	Needs-Results Plan Worksheet					
	Results Chain	T0 [Current Needs]	T1 [Desired]	T2 [Desired]	T3 <sup>(+)</sup> [Desired]		
WHY?	7. 'End' Result  Describe the overall trends with regard to the CCS mission and Board Ends.	• Increasing incidence of sun related cancer			• Reduced rate of sun related cancer		
WHAT	6. Practice and Behaviour Change  Describe the practices and behaviour of individuals, groups, and partners over time.  5. Knowledge, Ability, Skill and / or Aspiration Changes  Describe the level of knowledge, abilities, skills and aspirations / commitment of individuals, groups, and/or communities.	Problematic level of unsafe sun and tanning behaviours  Key Segments do not know appropriate sunsafe precautions for various UV levels					
BY WHOM?	4. Reactions  Describe feedback from individuals, groups, and partners: satisfaction, interest, reported strengths and weaknesses.  3. Engagement / Involvement  Describe the characteristics of individuals, groups, and co-deliverers: numbers, nature of involvement	Lack of awareness / reactions to UV warnings Lack of apparent awareness of need for shade in public spaces  Lack of public / institutional / other related agency involvement in sunsafe promotion  Lack of opportunity for concerned group involvement	<ul> <li>Improved awareness of UV levels and their implications</li> <li>Pick-up of need for shade messaging by media and various public institutions</li> <li>Media pick-up of sunsafe messaging</li> <li>Involvement of physicians groups in sunsafe cause</li> </ul>				
HOW?	2. Activities / Outputs  Describe the activity: How will it be implemented? What does it offer?	• Gap in promotional / educational activities	Promotional / educational activities and information / communication to key target groups				
	1. Inputs / Resources  Resources used: dollars spent, number and types of staff involved, dedicated time.	• Gaps in resources committed to area	• Level of people, skills, knowledge, \$ applied to sunsafe area				



#### **Sunsafe Example**



	AREA OF CCS MISSION / OBJECTIVES: Reduce incidence and mortality from cancers associated with U.V. exposure						
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	Results Chain	T0 [Current Needs]	T1 [Desired]	T2 [Desired]	T3 <sup>(+)</sup> [Desired]		
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HOW?	2. Activities / Outputs  Describe the activity: How will it be implemented? What does it offer?	Gap in promotional / educational activities	Promotional / educational activities and information / communication to key target groups	Promotional / educational activities and information / communication to key target groups			
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#### **Sunsafe Example**



	AREA OF CCS MISSION / OF	BJECTIVES: Reduce incidence	and mortality from cancers as	sociated with U.V. exposure	
	Doorth Obstr		Needs-Results	Plan Worksheet	
	Results Chain	T0 [Current Needs]	T1 [Desired]	T2 [Desired]	T3 <sup>(+)</sup> [Desired]
WHY?	7. 'End' Result  Describe the overall trends with regard to the CCS mission and Board Ends.	• Increasing incidence of sun related cancer			• Reduced rate of sun related cancer
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WHOM:	3. Engagement / Involvement  Describe the characteristics of individuals, groups, and co-deliverers: numbers, nature of involvement	<ul> <li>Lack of public / institutional / other related agency involvement in sunsafe promotion</li> <li>Lack of opportunity for concerned group involvement</li> </ul>	various public institutions  • Media pick-up of sunsafe messaging  • Involvement of physicians groups in sunsafe cause	various public institutions  • Media pick-up of sunsafe messaging  • Involvement of physicians groups in sunsafe cause	various public institutions  • Media pick-up of sunsafe messaging  • Involvement of physicians groups in sunsafe cause
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## **Consider your Case**

- Can you expand your needs-results hierarchy into a results plan?
- Form work teams
- Use post-it notes to develop a 3 year (+?)
   results plan using the placemat

January politicasis politicasis			Needs-Results Plan Worksheet						
Copyright PN	N 2011 Results Chain	T0 [Current Situation/Needs]	T1 [Desired]	T2 [Desired]	T3 <sup>(+)</sup> [Desired]				
WHY?	7. 'End' Result  Describe the overall trends with regard to the mission.								
	6. Practice and Behaviour Change  Describe the practices and behaviour individuals, groups, and partners over time.								
WHAT BY	5. Knowledge, Ability, Skill and / or Aspiration Changes  Describe the level of knowledge, abilities, skills and aspirations / commitment of individuals, groups, and / or communities.								
WHOM?	4. Reactions  Describe feedback from individuals, groups, and partners: satisfaction, interest, reported strengths and weaknesses.								
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	2. Activities / Outputs  Describe the activity: How will it be implemented? What does it offer?								
HOW?	1. Inputs / Resources  Resources used: dollars spent, number and types of staff involved, dedicated time.								
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## **Measurement Implications**

- 1. Think of it as 'progress' measurement, rather than performance measurement.
- 2. Multiple stages = Multiple metrics over time.
- 3. Focus on concrete human behaviours.
- 4. Indicators directly relate to Needs-Results statements.



## Sun Safety – from Results to Measures

Desired Results		
End Result (WHY)  Reduced rate of sun related cancer		Level of UV related melanoma (and non-melanoma)
Practice and Behavior Change (WHO & WHAT)  Improved / increased 'Sunsafe' behaviours  Reduced risky tanning practices  Shade policies implemented for public areas		% of adults applying sun-screen (and other precautionary measures)
Capacity (Knowledge, Abilities, Skills and Aspirations) (WHO & WHAT)  • Understanding of what precautions to take at various UV levels • Improved awareness of UV levels and their implications • Pick-up of need for shade messaging by media and various public institutions		% of public knowing safety precautions at various UV levels
Support Climate (WHO & WHAT)  • Improved institutional support for shade and tanning bed policies		Shade policy passed, legislation and / or regulations / instruments passed (and monitored / enforced)
<ul> <li>Engagement / Involvement (WHO &amp; WHAT)</li> <li>Media pick-up of Sunsafe messaging</li> <li>Involvement of physicians groups in sun safe cases</li> </ul>		Level of media pick-up (# stories, space, reflection of message)  Demonstrated support from Physicians groups
Activities (HOW)  Promotional / educational activities and information / communication to key target groups	<b></b>	# of activities conducted, milestones and deliverables met
Inputs (HOW)  • Level of people, skills, knowledge, \$ applied to Sunsafe area	<b></b>	Level of \$ and FTE's invested

<sup>\*</sup>Source: Canadian Cancer Society with permission

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#### **Ornamental Pesticides**

		Needs-Results Plan Worksheet				
	Results Chain	T0 [Current Situation/Needs]	T1 [Desired]	T2 [Desired]	T3 <sup>(+)</sup> [Desired]	
WHY?	7. 'End' Result  Describe the overall trends with regard to the CCS mission and Board Ends.	■Scientific link established between certain pesticide chemicals and some cancers				
WHAT	6. Practice and Behaviour Change.  Describe the practices and behaviour of individuals, groups, and partners over time.  5. Knowledge, Ability, Skill and / or Aspiration Changes  Describe the level of knowledge, abilities, skills and aspirations / commitment of individuals, groups, and/or communities.	Limited direct actions to ban chemical pesticides in specific countiesvoluntary bans are the norm  Growing awareness among some health authorities re: risks in the cosmetic use of certain pesticides				
WHOM?	4. Reactions  Describe feedback from individuals, groups, and partners: satisfaction, interest, reported strengths and weaknesses.  3. Engagement / Involvement  Describe the characteristics of individuals, groups, and co-deliverers: numbers, nature of involvement	■Pesticides not considered an important priority (i.e. no response to early information pieces) by many national media and key health advocacy groups  ■Some minor engagement of activist groups in the pesticide issue (not specific)				
HOW?	2. Activities / Outputs  Describe the activity: How will it be implemented? What does it offer?	■Limited actions taken by the Cancer Society to specify dangerous chemicals in pesticides and / or to suggest appropriate use / banning of key substances				
	1. Inputs / Resources	<ul> <li>Limited investment of generic (i.e. non specified) human resources and financial resources in the pesticides issue</li> </ul>				



#### **Ornamental Pesticides**



		Needs-Results Plan Worksheet					
	Results Chain	T0 [Current Situation/Needs]	T1 [Desired]	T2 [Desired]	T3 <sup>(+)</sup> [Desired]		
	7. 'End' Result	<ul> <li>Scientific link established between certain pesticide chemicals and</li> </ul>			Reduced cancer linked to		
WHY?	Describe the overall trends with regard to the CCS mission and Board Ends.	some cancers					
	6. Practice and Behaviour Change	Limited direct actions to ban chemical pesticides in specific		■Formal ban on use of chemical pesticides by key	Ban on use of chemical pesticides (all) counties /		
	Describe the practices and behaviour of individuals, groups, and partners over time.	countiesvoluntary bans are the norm		counties / regions Increased adoption of healthy behaviours related	regions Increased adoption of healthy behaviours related to pesticide		
WHAT	5. Knowledge, Ability, Skill and / or Aspiration Changes	<ul> <li>Growing awareness among some health authorities re: risks in the cosmetic use of certain pesticides</li> </ul>	<ul> <li>Increased understanding and knowledge of the risks in the cosmetic use of certain</li> </ul>	to pesticide use (precautionary approach) •Increased understanding	use (precautionary approach)  Strong consensus re: the risks of the cosmetic use of certain		
BY	Describe the level of knowledge, abilities, skills and aspirations / commitment of individuals, groups, and/or communities.	cosmetic use of certain pesticides	pesticides among health authorities	and knowledge of (and consensus regarding) the risks in the cosmetic use of certain pesticides among health authorities	pesticides among health authorities		
	4. Reactions	■Pesticides not considered an important priority (i.e. no response	■Pick-up of pesticides messaging by media and key	Increased pick-up of pesticides messaging by	■Increased pick-up of pesticides messaging by media and clear		
WHOM?	Describe feedback from individuals, groups, and partners: satisfaction, interest, reported strengths and weaknesses.	to early information pieces) by many national media and key health advocacy groups	health advocacy groups	media and key health advocacy groups	priority consideration by key health advocacy groups		
	3. Engagement / Involvement	■Some minor engagement of activist groups in the pesticide issue (not	■Involvement of health advocacy groups	■Involvement of health advocacy groups and	■Involvement of health advocacy groups and		
	Describe the characteristics of individuals, groups, and co-deliverers: numbers, nature of involvement	specific)	, , ,	government officials  Broader public engagement in issue	government officials  Broader public engagement in issue		
	2. Activities / Outputs	Limited actions taken by the Cancer Society to specify dangerous	■Provide information / communication re: dangerous	■Provide information / communication re:	■Provide information / communication of dangerous		
HOW?	Describe the activity: How will it be implemented? What does it offer?	chemicals in pesticides and / or to suggest appropriate use / banning of key substances	chemicals in pesticides to target groups  Suggest appropriate use and cosmetic use ban of key substances to target groups	dangerous chemicals in pesticides to target groups  Suggest (cosmetic pesticide ban) policy to target groups	chemicals in pesticides to target groups  •Promote banning of key chemical pesticides substances to target groups		
	1. Inputs / Resources	<ul> <li>Limited investment of generic (i.e. non specified) human resources and financial resources in the pesticides issue</li> </ul>	<ul> <li>Increase human and financial resources in the pesticides issue area</li> </ul>	Increase human and financial resources in the pesticides issue area	<ul> <li>Increase human and financial resources in the pesticides issue area</li> </ul>		



#### **Ornamental Pesticides**

performance management network	ornamental i esticiaes						
		RESULTS CHAIN PLA	.N		PROGRESS MEASUREME	NT STRATEGY	
	T0 [Current Situation/Needs]	T1 [Desired]	T2 [Desired]	T3 [Desired]	Indicators	Data Source	
7. 'Ultimate' Result/End	•Scientific link established between certain pesticide chemicals and some cancers			•Reduced cancer linked to pesticide chemicals	■Cancer incidence rates	•Annual Canadian Cancer Statistics	
6. Practice and Behaviour Change	•Limited direct actions to ban chemical pesticides in specific countiesvoluntary bans are the norm		■Formal ban on use of chemical pesticides by key counties / regions ■Increased adoption of healthy behaviours related to pesticide use (precautionary approach)	■Ban on use of chemical pesticides (all) counties / regions ■Increased adoption of healthy behaviours related to pesticide use (precautionary approach)	■Increase # of municipal bylaws and legislation passed (banning use) ■Decrease in non-essential use by general public	■Environmental scan of existing external data sources ■Self reported use	
5. Knowledge, Attitude, Skill and/or Aspiration Changes	Growing awareness among some health authorities re: risks in the cosmetic use of certain pesticides	•Increased understanding and knowledge of the risks in the cosmetic use of certain pesticides among health authorities	•Increased understanding and knowledge of (and consensus regarding) the risks in the cosmetic use of certain pesticides among health authorities	•Strong consensus re: the risks of the cosmetic use of certain pesticides among health authorities	■Level of increase in general public knowledge ■% of health authorities committed to (cosmetic ban) policy	■Market research ■'Survey' of health authorities	
4. Reactions	Pesticides not considered an important priority (i.e. no response to early information pieces) by many national media and key health advocacy groups	■Pick-up of pesticides messaging by media and key health advocacy groups	•Increased pick-up of pesticides messaging by media and key health advocacy groups	•Increased pick-up of pesticides messaging by media and clear priority consideration by key health advocacy groups	-Level of media attention -Attendance at community fora -# requests for meetings and briefings from government officials -# requests for CCS presentations and displays	■Media tracking service ■Prevention Strategy Reporting Template	
3. Engagement / Involvement	•Some minor engagement of activist groups in the pesticide issue (not specific)	■Involvement of health advocacy groups	Involvement of health advocacy groups and government officials Broader public engagement in issue	■Involvement of health advocacy groups and government officials ■Broader public engagement in issue	## meetings & briefings with government officials ## partnerships and collaborations ## website visits ## Cancer Information Service pesticide inquiries ## communities holding public forums	■Prevention Strategy Reporting Template ■Agreement records ■Web usage statistics ■Cancer Information Service usage statistics	
2. Activities / Outputs	•Limited actions taken by the Cancer Society to specify dangerous chemicals in pesticides and / or to suggest appropriate use / banning of key substances	■Provide information / communication re: dangerous chemicals in pesticides to target groups ■Suggest appropriate use and cosmetic use ban of key substances to target groups	■Provide information / communication re: dangerous chemicals in pesticides to target groups ■Suggest (cosmetic pesticide ban) policy to target groups	■Provide information / communication of dangerous chemicals in pesticides to target groups ■Promote banning of key chemical pesticides substances to target groups	## education workshops/sessions given to staff and volunteers #presentations provided to general public # displays # prevention Forum held Municipal health official and Government official breakfasts attended	■Prevention Strategy Reporting Template	
1. Inputs / Resources	•Limited investment of generic (i.e. non specified) human resources and financial resources in the pesticides issue	•Increase human and financial resources in the pesticides issue area	•Increase human and financial resources in the pesticides issue area	•Increase human and financial resources in the pesticides issue area	•FTEs •\$ spent www.p	•HR records •Financial statements mn.net 48	

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# **Small Group Work**

- Consider your case
- What would you see or hear if this is working?

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## What About Risk?

- Can risk 'map' onto the results logic?
- Can evaluative thinking help risk management?



	Results – Risks – Mitigation / Contingency Plans and Responsibilities							
Desired Results	Particular Concerns / Risks and Impacts (Damages & Liabilities, Operational Effects, Reputation loss)	Existing Mitigation* Measures	Risk Level	Incremental Mitigation* Measures	Responsible Party			

<sup>\*</sup> Note that mitigation strategies become contingency plans when risks are beyond the sphere of direct influence.

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## The Implications for Evaluators

- Three fundamentals
  - Issue driven
  - Results logic based
  - Multiple lines of evidence
- Keep the fundamentals, but adapt them to complexity



## Issues

- LESS: Aggregates, averages, efficiencyeffectiveness and simple minded "value for money"
- MORE: What works (to what extent) for whom in what conditions and why?



# **Results Logic**

- LESS: Linear, one-way, unexplained, contextabsent box and wire diagrams
- MORE: 'Situated', described, systems oriented models describing theories of implementation as well as theories of change with key actors

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## **Lines of Evidence**

- LESS: 'Standardized' approaches ranked by predetermined hierarchies of 'value'...and approach 'worship'...in studies conducted by cloistered 'experts'.
- MORE: Flexible, adapted and integrated measures and approaches fundamentally guided by issues and results logic (theories of change and implementation) and drawing on a diversity of sources and perspectives using networks and communities as active participants.



## **Implications for Evaluation Process**

- So that is 'What', but what about the 'How'?
- How should evaluation position itself?

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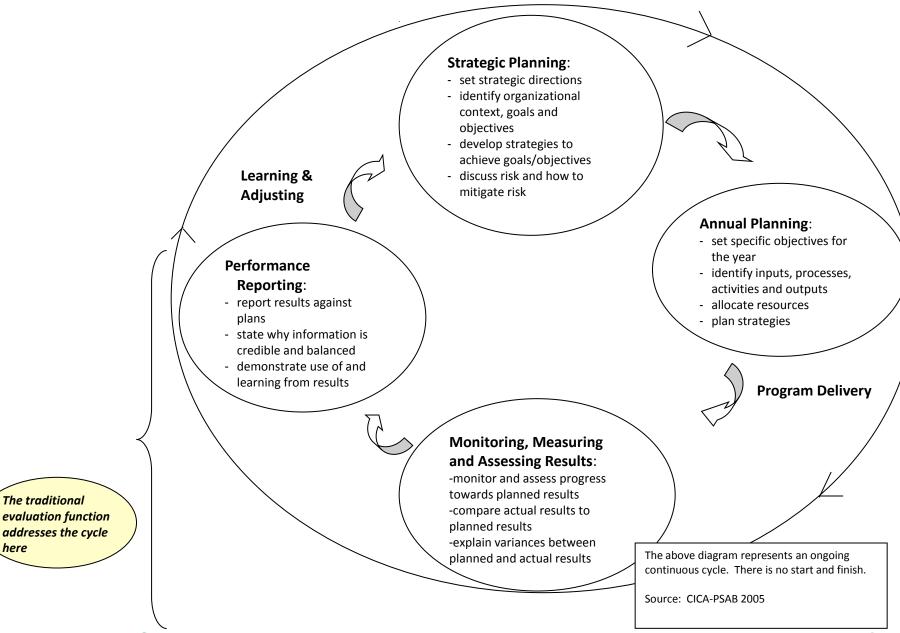


# The Positioning of Evaluation and Strategic Management

- Evaluation thinking needs to influence all aspects of organizational management
- Structured situation / needs assessment and reach-results thinking can help:
  - Strategic Planning
  - Annual Planning
  - Delivery
  - Monitoring
  - Performance Reporting
  - Learning and Adjustment



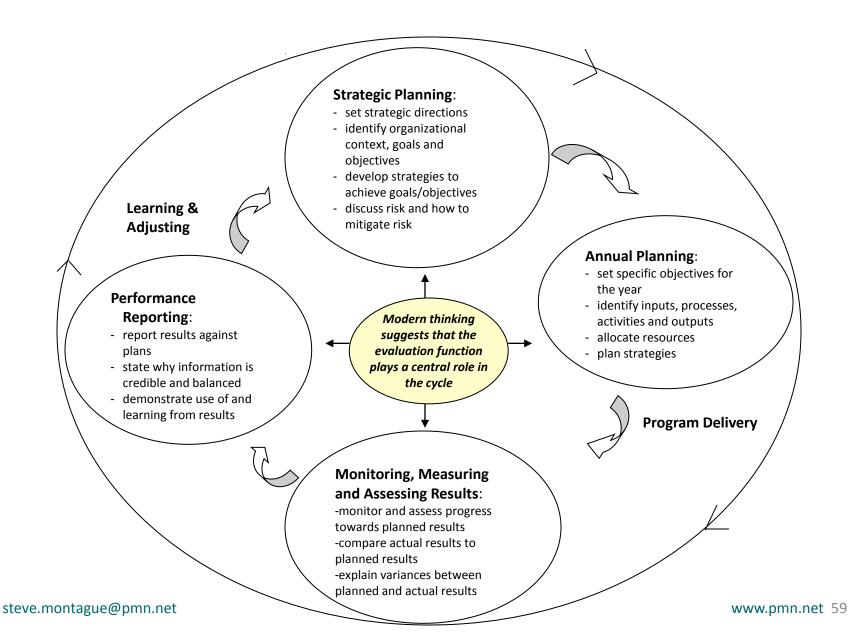
#### **Continuous cycle of a Performance Management Framework**



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### Continuous cycle of a Performance Management Framework





## **Conclusions**

- Use a context-oriented needs assessment and reach-results chain to:
  - Plan
  - Refine results
  - Set targets
  - Define measures and monitor results
  - Conduct evaluations
- Integrate:
  - Approaches
  - Stakeholders
  - Processes
- Cultivate (rather than engineer) the process



## Questions

- Does the critique of current measurement, audit and evaluation approaches – as typically applied to complex public systems ring true?
- Can the notions of structured situation assessment, systems thinking and reach communities be effectively incorporated into performance planning, measurement and reporting?
- What are the implications for performance measurement and evaluation?
  - Strategically
  - Structurally
  - 'Politically'



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#### A Basic Results Chain Measurement 'Menu'

Initiative Chain of Results	Hierarchy of Evaluation Criteria / Evidence	Typical Indicators*	Typical Sources / Methods
End outcomes	Measures of impact on overall problem, ultimate goals, side effects, social and economic consequences	Overall 'state' statistics (incidence, mortality, morbidity, quality of life)	<ul> <li>Specialized analyses / evaluations**</li> <li>Statistical agency data</li> <li>Analytical and specialized policy and analysis groups</li> </ul>
Practice and behaviour change	Measures of adoption of new practices and behaviour over time	<ul> <li>Observed physical behaviours / actions</li> <li>Observed / recorded policies, protocols</li> <li>Observed compliance to requirements</li> <li>Self-assessed practice / behaviour</li> </ul>	<ul> <li>Physical observation</li> <li>Inspections, reviews</li> <li>Surveys</li> <li>Evaluation studies**</li> </ul>
Knowledge, attitude, skill and aspiration change	Measures of individual and group changes in knowledge, abilities, skills and aspirations	<ul> <li>Demonstrated capability</li> <li>Preparatory actions (policies, training sessions)</li> <li>Self-assessed learning</li> <li>Level of recall of key knowledge</li> </ul>	<ul> <li>Independent review of target group</li> <li>Content analysis of evaluation* information</li> <li>Survey, group self-assessment</li> <li>Testing / certification</li> </ul>
Reactions	What participants and clients say about the program; satisfaction; interest, strengths, and weaknesses	<ul> <li>Repeat / increased use of service, participation in initiative</li> <li>Complaints</li> <li>Observed / solicited feedback</li> </ul>	<ul> <li>Usage / participation tracking</li> <li>Correspondence content analysis</li> <li>Survey(s)</li> </ul>
Engagement / participation	The characteristics of program participants and clients; number, nature of involvement, and background	<ul> <li>Downloaded material</li> <li>Participation (quantity and quality) in online, or physical events</li> <li>Attendance at meetings</li> <li>Enquiries / questions received</li> </ul>	<ul> <li>Web use tracking</li> <li>Correspondence content analysis</li> <li>Observation of meetings / events</li> <li>Meeting attendance records</li> <li>Client relationship management / tracking</li> </ul>
Activities & outputs	Implementation data on what the program actually offers	Number of outputs     Achievement of delivery milestones	Project / initiative tracking     Project reports     Content analysis or records
Inputs 💃 🕏	Resources expended; number and types of staff involved; time expended	Dollars expended by activity area     Time expended by activity area	Budget analysis     Time, reporting and budget / plan review     Activity-based costing

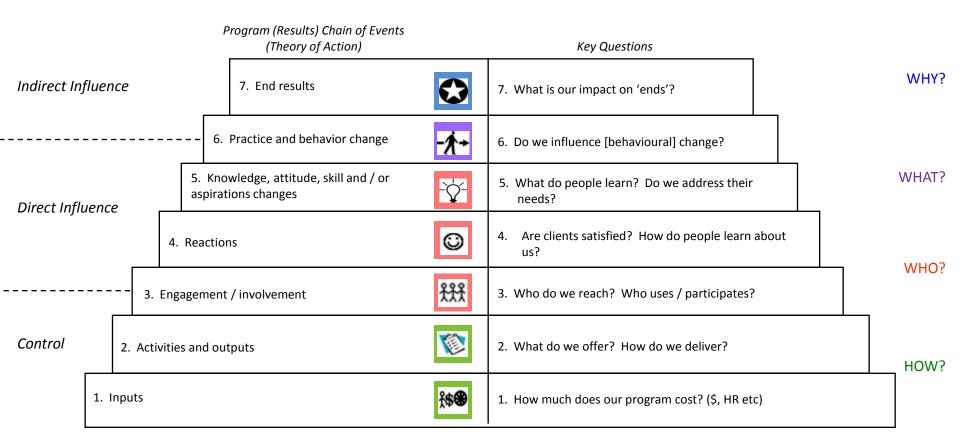
<sup>\*</sup> All of the indicators in this column would typically be stated in the form of [rate, #, %, level] of [target group] [participating, reacting, doing, taking action, etc.] e.g. % of users reporting positive change in (specific) risk reduction behaviour / ability to cope / support etc.

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<sup>\*\*</sup> While evaluation studies are noted as particularly relevant at the higher levels of the chain, they can and should be used to vertically 'connect' all levels of performance.



#### 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, <u>Utilization-Focused Evaluation</u>: The New Century Text, Thousand Oaks, California, 1997, p 235.

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