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1.0 Introduction

This report summarizes the work of the March 29th workshop held in Ottawa for National Collaborating Centre for Environmental Health (NCCEH) stakeholders.

2.0 Observation from the Workshop Session

Participants worked diligently through self-selected cases using the concepts, framework and model presented at the session. (See the presentation deck – available under separate cover.)

Some participants seemed to appreciate:

- The risk control / regulatory craft lens which help distinguish a risk management / harm reduction mission from other types of public (or other) services.

- Notions of spheres of control vs. spheres of influence as distinguishing features in a results story.

- The need to start with a strong (hopefully empirical) understanding of the situation and needs involved in an area before launching an initiative. (e.g. teams apparently changed their strategies with regard to the use of policy instruments and strategies and tactics from going through the process. This suggests that the framework and approach was valued as a planning tool.)

- The value of the approach modeled in the workshop as a basis for strategic, tactical and operational planning as well as for performance measurement, monitoring and reporting.
### 3.0 Example Results Plan

Example results plans were presented in the presentation deck. They are based on the example model in Figure 1 below. These follow the basic logic of Table 1.

**Figure 1: A Basic Results Plan**

<table>
<thead>
<tr>
<th>WHY?</th>
<th>Time Periods – Usually Fiscal Years</th>
<th>WHOM?</th>
<th>HOW?</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Results Chain</strong></td>
<td><strong>T0 [Current Needs]</strong></td>
<td><strong>T1 [Desired]</strong></td>
<td><strong>T2 [Desired]</strong></td>
</tr>
<tr>
<td>7. 'End' Result</td>
<td>Recent health, safety, security, economic (and / or other)</td>
<td>Current level of practices re: need/problem area</td>
<td>Current awareness + satisfaction level with information, services etc.</td>
</tr>
<tr>
<td>Describe the overall trends with regard to the desired ends</td>
<td><strong>Reactions (satisfaction level)</strong></td>
<td><strong>Level of usage / engagement / participation</strong></td>
<td><strong>Level of usage / engagement / participation</strong></td>
</tr>
<tr>
<td>6. Practice and Behaviour Change</td>
<td><strong>Observed behaviour changes, adaptation, action</strong></td>
<td><strong>Observed or assessed learning / commitment</strong></td>
<td><strong>Reactions (satisfaction level)</strong></td>
</tr>
<tr>
<td>Describe the practices and behaviour of individuals, groups, and partners over time.</td>
<td><strong>Observed or assessed learning / commitment</strong></td>
<td><strong>Reactions (satisfaction level)</strong></td>
<td><strong>Reactions (satisfaction level)</strong></td>
</tr>
<tr>
<td>5. Knowledge, Ability, Skill and / or Aspiration Changes</td>
<td><strong>Current level of knowledge, ability, skills and/or aspirations / commitment of individuals, groups, and/or communities.</strong></td>
<td><strong>Current level of knowledge, ability, skills and/or aspirations re: issue area and services etc.</strong></td>
<td><strong>Observed behaviour changes, adaptation, action</strong></td>
</tr>
<tr>
<td>Describe the level of knowledge, abilities, skills and aspirations / commitment of individuals, groups, and/or communities.</td>
<td><strong>Observed behaviour changes, adaptation, action</strong></td>
<td><strong>Observed or assessed learning / commitment</strong></td>
<td><strong>Reactions (satisfaction level)</strong></td>
</tr>
<tr>
<td>4. Reactions</td>
<td><strong>Observed or assessed learning / commitment</strong></td>
<td><strong>Reactions (satisfaction level)</strong></td>
<td><strong>Reactions (satisfaction level)</strong></td>
</tr>
<tr>
<td>Describe feedback from individuals, groups, and partners: satisfaction, interest, reported strengths and weaknesses.</td>
<td><strong>Observed or assessed learning / commitment</strong></td>
<td><strong>Reactions (satisfaction level)</strong></td>
<td><strong>Reactions (satisfaction level)</strong></td>
</tr>
<tr>
<td>3. Engagement / Involvement</td>
<td><strong>Current level of usage / participation / involvement</strong></td>
<td><strong>Level of usage / engagement / participation</strong></td>
<td><strong>Level of usage / engagement / participation</strong></td>
</tr>
<tr>
<td>Describe the characteristics of individuals, groups, and co-deliverers: numbers, nature of involvement</td>
<td><strong>Current level of usage / participation / involvement</strong></td>
<td><strong>Level of usage / engagement / participation</strong></td>
<td><strong>Level of usage / engagement / participation</strong></td>
</tr>
<tr>
<td>2. Activities / Outputs</td>
<td><strong>Current activities + outputs (type and level)</strong></td>
<td><strong># Outputs</strong></td>
<td><strong># Outputs</strong></td>
</tr>
<tr>
<td>Describe the activity: How will it be implemented? What does it offer?</td>
<td><strong>Milestones Achieved</strong></td>
<td><strong>Milestones Achieved</strong></td>
<td><strong>Milestones Achieved</strong></td>
</tr>
<tr>
<td>1. Inputs / Resources</td>
<td><strong>Current and historical $ and HR spent</strong></td>
<td><strong>$ and HR spent</strong></td>
<td><strong>$ and HR spent</strong></td>
</tr>
<tr>
<td>Resources used: dollars spent, number and types of staff involved, dedicated time.</td>
<td><strong>Needs re: Agency capacity</strong></td>
<td><strong>Improvements to Agency capacity</strong></td>
<td><strong>Improvements to Agency capacity</strong></td>
</tr>
</tbody>
</table>
Table 1: Basic Theory of (behavior) change hierarchy

<table>
<thead>
<tr>
<th>Results Areas</th>
<th>Hierarchy of Evaluation Criteria / Evidence</th>
</tr>
</thead>
<tbody>
<tr>
<td>End outcomes</td>
<td>Measures of impact on overall problem, ultimate goals, side effects, social and economic consequences.</td>
</tr>
<tr>
<td>Behaviours (Actions / Adoptions) Practices (Donations) [Achieving expected outcomes]</td>
<td>Measures of the adoption, adaptation, and / or sustained behavioural change over time.</td>
</tr>
<tr>
<td>Knowledge, abilities, skills, aspirations, commitments [Achieving expected outcomes]</td>
<td>Measures of individual and group changes in learning, knowledge, abilities, skills, aspirations, commitments, perceptions, beliefs, etc.</td>
</tr>
<tr>
<td>Reaction [Are our clients satisfied? Needs being met?]</td>
<td>The reactions of participants / users / stakeholders. What do they say about us?</td>
</tr>
<tr>
<td>Engagement / Participation (Reach) [who uses our programs?]</td>
<td>The characteristics of program participants and clients: number, nature of involvement, awareness, participation level, relationships and reactions (includes satisfaction).</td>
</tr>
</tbody>
</table>


Plans developed at the workshop session on March 29th are provided on the following pages. These should be considered as examples only. All models would likely need more time, attention and review in order to be finalized for use.
<table>
<thead>
<tr>
<th>Results Chain</th>
<th>Workshop Example A: Modified Food Facility HAACP Needs-Results Plan Worksheet</th>
<th>Measures</th>
</tr>
</thead>
<tbody>
<tr>
<td>WHY? 7 End Results</td>
<td>- Situation: current program prevent food-based illnesses (FBI) Compliance as surrogate=lower risk of FBI, may have effect but cannot measure - Needs: expectation by public and politician to inspect and comply; accountability - Pilot test to determine if modified HAACP program can result in change in behaviour and acceptance - take responsibility - reduce FBI - Long term continuous change</td>
<td>- # / % incidents</td>
</tr>
<tr>
<td>6. Practice and Behaviour Change</td>
<td>- No behavioural Change - Compliance culture - High staff turn-over; P/T workers -HU staffing issue (inadequate resource), no after hours or weekend inspection and lack of knowledge -Evaluation found increase in staff knowledge and less violations</td>
<td>- Change in behaviour and culture from reactive/compliance to preventive/protection - Increase knowledge and proactive actions by owners and staff. Accountable for their action. Improve food safety program through own audit and continuous improvement - Health unit staff change from enforcement culture to consultation and audit - self assessed behaviour - observed behaviours (compliance)</td>
</tr>
<tr>
<td>5. Knowledge, Ability, Skill and/or aspiration changes</td>
<td>- Misconception that inspection/compliance equate to lower risk of FBI - Restaurant operators lack knowledge and resource to develop SOPs. Problem with internal policies</td>
<td>Continuous evaluation of program and increase knowledge - Public/politician/media positive attitude to food safety - Consumer confidence Staff aware of food safety practices and increase food safety at home - stakeholders find disclosures meaningful - public comments (web etc.) - media - self-assessed (survey)</td>
</tr>
<tr>
<td>4. Reactions</td>
<td>- Client (public and politicians) satisfy with number of inspection and disclosure system, but not talking about FBI and outbreaks - 80% of EHOs and 92% of operators positive about program</td>
<td>Increase participation from food operators - Buy-in from operators and health staff - Effective in dealing with continuous staff changes, resource problem, language and cultural issues - Level of positive reaction - requests - downloads - feedback (formal or informal)</td>
</tr>
<tr>
<td>3. Engagement / Involvement</td>
<td>- For places with no disclosure, no engagement of public, food operators or health unit staff. For places with disclosure, involve all parties. - Both health and food staff may resist changes since use to doing things certain ways. May not want to take on new duties - Lack of proper regulation and legal support - Operators volunteered to join program - Increase work load for staff</td>
<td>- Change in disclosure program so it is more meaningful - Involve media and politicians - Peer pressure for other food operators to join program - Positive award program incentive to achieve higher level of compliance - tracking of participation - level of participation of key target group</td>
</tr>
<tr>
<td>2. Activities/Outputs</td>
<td>Inspected 3 to 4 times per year Education and enforcement - Baseline study to determine knowledge and present state of violations - Resource to develop SOPs - Both health and food staff increase knowledge and be satisfy with program</td>
<td>Continuous evaluation - achievement of delivery milestones and project data</td>
</tr>
<tr>
<td>1. Inputs/Resources</td>
<td>What really have, priorities and resource needed Depend on # of inspectors and # of inspection needed Other program may not be adequately staffed - Modified HAACP program involving 88 restaurants as pilot testing - Dedicated staff and knowledge - Shift in resource</td>
<td>Increase resources for program - Decrease resource with upper management support - Balance resource for other programs - $ expended by activity area - time expended by activity area</td>
</tr>
</tbody>
</table>
### Workshop Example B: Meat Inspection Needs-Results Plan Worksheet

<table>
<thead>
<tr>
<th>WHY?</th>
<th>Results Chain</th>
<th>T0 [Current Situation/Needs]</th>
<th>T1 [Desired]</th>
<th>T2 [Desired]</th>
<th>T3(\phi) [Desired]</th>
<th>Progress Measures (Indicator)</th>
</tr>
</thead>
<tbody>
<tr>
<td>7. 'End' Result</td>
<td>Describe the overall trends with regard to the mission.</td>
<td>• Non inspected meats for sale at farm</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>WHAT</td>
<td>6. Practice and Behaviour Change</td>
<td>Describe the practices and behaviour of individuals, groups, and partners over time.</td>
<td>• Pressure from CFIA on regulator and operator re: SRM meat inspection</td>
<td>• Identify funding options to do upgrades and meet regulation</td>
<td>• Legislative change</td>
<td>• Increase in compliance of inspected facilities</td>
</tr>
<tr>
<td>BY</td>
<td>5. Knowledge, Ability, Skill and / or Aspiration Changes</td>
<td>Describe the level of knowledge, abilities, skills and aspirations / commitment of individuals, groups, and / or communities.</td>
<td>• Want access to specialty foods (emu, ostrich)</td>
<td>• Increase public education re: risk</td>
<td>• Self inspection following certification (provincial)</td>
<td>• Increase engagement with farmers to identify concerns and issues</td>
</tr>
<tr>
<td>WHOM?</td>
<td>4. Reactions</td>
<td>Describe feedback from individuals, groups, and partners: satisfaction, interest, reported strengths and weaknesses.</td>
<td>• USDA has set standards and leads public to think it is safe</td>
<td>• Increase farmers awareness of risks (education materials)</td>
<td>• Co-ordinate slaughterers to improve efficiencies of service</td>
<td>• Level of engagement with other stakeholder groups</td>
</tr>
<tr>
<td>HOW?</td>
<td>3. Engagement / Involvement</td>
<td>Describe the characteristics of individuals, groups, and co-deliverers: numbers, nature of involvement</td>
<td>• Government wants to assist local market / produce practices / buy local</td>
<td>• Interaction between government and stakeholder groups</td>
<td>• Continued engagement of key stakeholders</td>
<td>• Pre-test of knowledge</td>
</tr>
<tr>
<td></td>
<td>2. Activities / Outputs</td>
<td>Describe the activity: How will it be implemented? What does it offer?</td>
<td>• Purchasers don’t know what the rush is</td>
<td>• Increase engagement with farmers to identify concerns and issues</td>
<td>• Continued engagement of key stakeholders</td>
<td>• Post-test (after intervention)</td>
</tr>
<tr>
<td></td>
<td>1. Inputs / Resources</td>
<td>Resources used: dollars spent, number and types of staff involved, dedicated time.</td>
<td>• No activities to address it other than internal discussions</td>
<td>• Evidence how meat inspection protects public health CD surveillance</td>
<td>• Economic incentives needed to motivate compliance</td>
<td>• Participation at events / meetings</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- Non inspected meats for sale at farm
- Reduced / avoided illness
- # slaughtered animals
- All meat sold to public is inspected by someone
- Increase in compliance of inspected facilities
- Pre-test of knowledge
- Post-test (after intervention)
## Workshop Example C: Local Marketplace Needs-Results Plan Worksheet

<table>
<thead>
<tr>
<th>Results Chain</th>
<th>T0 [Current Situation/Needs]</th>
<th>T1 [Desired]</th>
<th>T2 [Desired]</th>
<th>T3[+][Desired]</th>
<th>Progress Measures (Indicator)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>WHY?</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. ‘End’ Result</td>
<td>Describe the overall trends with regard to the mission.</td>
<td>● High risk foods on sale at farms</td>
<td>● Increased sales of farm produces</td>
<td>● Increase entire conventional food supply chain</td>
<td>● Lack of data</td>
</tr>
<tr>
<td><strong>WHAT</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Practice and Behaviour Change</td>
<td>Describe the practices and behaviour of individuals, groups, and partners over time.</td>
<td>● Misperceptions of ‘safe’ natural food</td>
<td>● Lack of understanding of food safety concepts</td>
<td>● Public perceptions of high levels of hygiene at local markets</td>
<td>● Facilities are in compliance</td>
</tr>
<tr>
<td>5. Knowledge, Ability, Skill and / or Aspiration Changes</td>
<td>Describe the level of knowledge, abilities, skills and aspirations / commitment of individuals, groups, and / or communities.</td>
<td>● Cultural change for local food</td>
<td>● Food safety not primary</td>
<td>● Diversified market models</td>
<td>● Support for regulations if necessary</td>
</tr>
<tr>
<td>4. Reactions</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Engagement / Involvement</td>
<td>Describe the characteristics of individuals, groups, and co-delivers: numbers, nature of involvement</td>
<td>● New knowledge in practices</td>
<td>● Knowledge re: ‘myths’ changed i.e. natural not always ‘good’</td>
<td>● Appropriate application and adherence to good practice</td>
<td></td>
</tr>
<tr>
<td><strong>BY</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>WHOM?</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Activities / Outputs</td>
<td>Describe the activity: How will it be implemented? What does it offer?</td>
<td>● Gaps in risk knowledge</td>
<td>● Engage key groups / markets</td>
<td>● Develop educational materials</td>
<td>● Regulations need to be framed on the basis of capabilities of local produces</td>
</tr>
<tr>
<td>1. Inputs / Resources</td>
<td>Resources used: dollars spent, number and types of staff involved, dedicated time.</td>
<td>● Vendor behavior knowledge</td>
<td>● Increase government knowledge an issue</td>
<td>● Plans for market operators</td>
<td>● Achievement of delivery milestones</td>
</tr>
<tr>
<td></td>
<td></td>
<td>● Engage ‘local’ stakeholders</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**WHY?**

7. ‘End’ Result

Describe the overall trends with regard to the mission.

- High risk foods on sale at farms
- Increased sales of farm produces
- Increase entire conventional food supply chain
- Lack of data
- Local market food can come from unsafe source

**WHAT**

6. Practice and Behaviour Change

Describe the practices and behaviour of individuals, groups, and partners over time.

- Misperceptions of ‘safe’ natural food
- Lack of understanding of food safety concepts
- Public perceptions of high levels of hygiene at local markets
- New entrant / new products
- Cost pressure
- Supply pressure
- Poplar support for markets
- Fragmented market management / oversight

**WHOM?**

2. Activities / Outputs

Describe the activity: How will it be implemented? What does it offer?

- Gaps in risk knowledge
- Vendor behavior knowledge

**HOW?**

1. Inputs / Resources

Resources used: dollars spent, number and types of staff involved, dedicated time.

- Availability of resources varies
- Joint health / agriculture funding

**Progress Measures (Indicator)**

- Equivalent food safety of farmer’s market compared to other food
- Food quality survey
- Market vs. other food
- Assessment of hygiene at markets
- People buying ‘safe’ and ‘local’
- Price differential for ‘safe’ food
- Attitude survey (consumers / producers)
- Complaints
- Web metrics
- Voluntary training for suppliers
- Level of engagement of key (targetted) local stakeholders
## Workshop Example D: Game Meats Case Needs-Results Plan Worksheet

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>7. ‘End’ Result Describe the overall trends with regard to the mission.</td>
<td>• Consumption of contaminated game meat leads to human illness</td>
<td></td>
<td></td>
<td>• Less illness</td>
<td>• Epi assessment of diseases • Increased game meat consumption</td>
</tr>
<tr>
<td>6. Practice and Behaviour Change Describe the practices and behaviour of individuals, groups, and partners over time.</td>
<td>• Unsafe dressing / cooling procedures in bush – transportation / stage • Killing diseased critters</td>
<td>• Safe behaviours: - improved dressing/cooling procedures - proper transportation</td>
<td>• Recognition of diseased critters • Engage stakeholders in doing education / outreach • Stakeholders are knowledgeable in proper procedures • Identification of risky areas</td>
<td>• Reduced rate of consumption of contaminated game meat • Stakeholder delivery of materials • Recognition of diseased critters • Stakeholders are knowledgeable in proper procedures • Stakeholders are aware of risk areas</td>
<td>• Observed change in behaviours • Self assessed learning (by key stakeholders) • Level of feedback from (satisfaction of) stakeholders • Level of engagement of key target groups</td>
</tr>
<tr>
<td>5. Knowledge, Ability, Skill and / or Aspiration Change Describe the level of knowledge, abilities, skills and aspirations / commitment of individuals, groups, and / or communities.</td>
<td>• Key groups do not know proper handling / processing procedures • Lack of awareness of risks of contaminated meat</td>
<td>• Assess what are the (stakeholders) safe and traditional methods • Do research – where the stakeholder problems / risks may be</td>
<td>• Engage interested parties to do consultation / research</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Reactions Describe feedback from individuals, groups, and partners: satisfaction, interest, reported strengths and weaknesses.</td>
<td>• Receptiveness of safe food messaging</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Engagement / Involvement Describe the characteristics of individuals, groups, and co-deliverers: numbers, nature of involvement</td>
<td>• Groups: local gun clubs, Aboriginal elders, individual hunters, others • Lack of regulatory involvement in discussion of game meat safety</td>
<td>• Government departments engaged with stakeholders</td>
<td>• Key groups stay engaged • Consultation with stakeholders (Stakeholder consultations appropriate)</td>
<td>• Key groups stay engaged • Consultation with stakeholders (Stakeholder consultations appropriate)</td>
<td></td>
</tr>
<tr>
<td>2. Activities / Outputs Describe the activity: How will it be implemented? What does it offer?</td>
<td>• Gap in outreach and educational materials • Research re: how broad is this issue? • Reluctance of government to look at sector that is difficult to regulate • Not much information on where problems are</td>
<td>• Instigate research efforts</td>
<td>• Development of education materials • Knowledge transfer: in-person, website, other similar sessions</td>
<td>• Continued education and promotion</td>
<td>• # of outputs • Achievement of delivery milestones</td>
</tr>
<tr>
<td>1. Inputs / Resources Resources used: dollars spent, number and types of staff involved, dedicated time.</td>
<td>• Engagement efforts / resources</td>
<td>• Resource allocation</td>
<td>• Resource allocation</td>
<td></td>
<td>• $ expended by activity area • Time expended by activity area</td>
</tr>
</tbody>
</table>
4.0 Conclusions and Recommendations

Participants appeared to appreciate the important key regulatory story concepts and practical focus applied to key risk management initiatives in public health contexts.

The NCCEH may wish to consider even more directly solicited and pre-meditated solicitation of subject areas and key stakeholders to apply the approach with a view to delivering a risk-oriented results plan and monitoring/evaluation framework. The use of such a trial could provide a more fulsome test with regard to ultimately addressing results management needs in the sector.

4.1 Some Proposed Principles

In order to take this work forward some key principles are recommended:

The evolution of health and safety related regulatory practices with regard to health, regulation and other complex environments include the following key elements: 1

1. Start with context and situation analysis, needs, problems, and risks (the terrain).
2. Trace the theory of change (results) pathways and relationships.
3. Develop performance (progress) indicators.

Guiding Principles: Logic (Results) Models for environmental health initiatives should follow certain key principles

1. Create a high level picture: The logic model provides a symbolic picture of the relationships among elements in an agency’s performance story. It is not:
   - a template for performance indicators
   - a basis for targets
   - a ‘mandatory feature’
   - an ‘accountability framework’

   It is:
   - a basis to describe strategy
   - a framework to tell a performance story
   - a touchstone or basic heuristic to guide results thinking and logic
   - a structure to describe realistic achievement over time

The results chain model suggested for health initiatives is intended to inspire the more detailed logic models, results frameworks, plan and strategy descriptions of any agency. As such – specific logic models and descriptions will likely embellish, alter, deviate from or occasionally ignore parts of the overall map.

2. Contain key elements: The key elements of the logic (results) model include activities, outputs, reach and (expected) outcomes. They are shown at a high enough level to be broadly representative – but are focused enough to clearly distinguish important relationships and sequences.

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3. **Recognize Spheres of Influence:** The relationship of activities-outputs-reach and outcomes can be understood as following three spheres of influence. These might be considered key map boundaries. It is the mapping of the basic ‘terrain’ – to use the map metaphor.

In the first sphere, our sphere of control, we spend resources, conduct activities (i.e. we plan, consult, organize, deliver, monitor etc.) and deliver outputs (i.e. we put on events, deliver information or services). We have choices in this sphere as to how much we want to invest in our activities and services – as well as how many we do and how well we do them. This is our sphere of control.

In the second sphere, our sphere of direct influence, we can say that we directly reach clients, intermediaries, partners or stakeholders with our products or services. The people we directly reach, and their reactions, use, knowledge, aspiration or behaviour changes represent our sphere of influence. Note that we cannot control the people or institutions in this sphere – they do not work for us. They enter work with us as partners or intermediaries (e.g. Outside groups who help us develop policies, pass on key messages or deliver services) or they are direct users or clients of our services.

In the third sphere, our sphere of indirect or contributing influence, we seek to see changes in broad communities. These groups are sectors or communities of interest where we do not make direct contact with our initiatives or services. Furthermore, the results in this sphere tend to be related to our ultimate goal such as the rate of disease incidence or death, the overall state of health and relative health inequities.

4. **Show that an agency reaches different groups to influence change.** Health regulatory agencies must reach and influence different groups in order to achieve their outcomes. The reach can be subdivided into many categories – but for the purposes of the high level map or results plan – it is important to identify two key groupings or pathways:

   i. Organizations and Institutions must:
      - become aware of and then use information and knowledge products to support their decisions re: policy, programs and services
      - develop capacity (knowledge, capabilities, commitment) to address and respond to public health needs
      - take actions in terms of policy, practice, programming, compliance to requirements and provision of services which contribute to strategic outcomes

   ii. Individuals / Communities (population) must:
      - become aware of risk and protective factors (both immediate and longer term) and gain knowledge re: available resources and services
      - appropriately use resources and services
      - gain capacity (knowledge, abilities, skills and aspirations)
      - adopt changes in their individual, household and community practices which contribute to health and well being

Note that not all stages of (check points on) the pathways need to be examined for each situation – however it will be useful to consider a basic standard set of outcomes types and indicators to serve as a reference point for different types of initiatives. (See Annex A.)

5. **Start with the context, situation, needs and risks in mind.** Agency initiatives are intended to help to improve the health of Canadians, reduce health inequities and prevent and mitigate harm and injury. In other words—the mission is to reduce problems, risks and challenges related to the health of Canadians. Logically then, any performance story for health and
safety oriented agencies must start with a description of the context, needs and challenges. These should in fact serve to fundamentally condition results expectations and initiative strategies.

6. **Recognize engagement as an early outcome**: In order for any initiative to succeed it must reach and constructively engage at least one of the outside groups noted in principle #4. For this reason results stories should consider reach and engagement – or the ‘constructive’ engagement of key health system and target community stakeholders as part of the logic model for any initiative.

In most cases – the constructive engagement and participation of key health system sector (e.g. food sector) and target community stakeholders results in feedback which actually improves agency ‘outputs’. This relationship should be recognized in results stories (logic models, performance reports etc.) as a legitimate outcome (as opposed to a process, activity or output under an agency’s complete control).

7. **Acknowledge that results ‘pathways’ are interconnected**: As any health related agency’s mandate relates to areas of high complexity (i.e. improving health, preparing for and addressing food borne illnesses and / or health related emergencies across systems, jurisdictions and geography) an agency must recognize that many results paths are interconnected.

8. **Provide a basis for systems thinking**: Following from 7 above, not only are the pathways interconnected – but in fact they are complex, non-linear and dynamic. Results pathways can often be ‘emergent’ – in terms of changing from what was initially expected – due to the interplay of the various systems. For this reason the high level logic model should inspire dialogue and discussion about progress at different policy, program and initiative levels. It should be careful not to seem overly prescriptive in its sequencing, timing or implied targets.

### 5.0 Select References

A significant portion of the thinking in this approach can also be found in the explanatory tables found in the annexes to the following document:


Other references made in the workshop:

Annex A: A Basic Measurement Menu
<table>
<thead>
<tr>
<th>Initiative Chain of Results</th>
<th>Hierarchy of Evaluation Criteria / Evidence</th>
<th>Typical Indicators*</th>
<th>Typical Sources / Methods</th>
</tr>
</thead>
</table>
| 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) | • Specialized analyses / evaluations**  
• Statistical agency data  
• Analytical and specialized policy and analysis groups |
| Practice and behaviour change | Measures of adoption of new practices and behaviour over time | • Observed physical behaviours / actions  
• Observed / recorded policies, protocols  
• Observed compliance to requirements  
• Self-assessed practice / behaviour | • Physical observation  
• Inspections, reviews  
• Surveys  
• Evaluation studies** |
| Knowledge, attitude, skill and aspiration change | Measures of individual and group changes in knowledge, abilities, skills and aspirations | • Demonstrated capability  
• Preparatory actions (policies, training sessions)  
• Self-assessed learning  
• Level of recall of key knowledge | • Independent review of target group  
• Content analysis of evaluation* information  
• Survey, group self-assessment  
• Testing / certification |
| Reactions                   | What participants and clients say about the program; satisfaction; interest, strengths, and weaknesses | • Repeat / increased use of service, participation in initiative  
• Complaints  
• Observed / solicited feedback | • Usage / participation tracking  
• Correspondence content analysis  
• Survey(s) |
| Engagement / participation  | The characteristics of program participants and clients; number, nature of involvement, and background | • Downloaded material  
• Participation (quantity and quality) in online, or physical events  
• Attendance at meetings  
• Enquiries / questions received | • Web use tracking  
• Correspondence content analysis  
• Observation of meetings / events  
• Meeting attendance records  
• Client relationship management / tracking |
| 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 |

* 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.

** 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.

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_A Basic Results Chain Measurement ‘Menu’_