

# Public Health Emergency Preparedness Framework and Indicators

A Workbook to Support Public Health Practice



May 2020

## Public Health Ontario

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# Purpose of this Document

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This document is intended for practitioners in the fields of public health and health emergency management. It provides a high-level orientation to the findings from a Canadian Institutes of Health Research-funded study. The two-phase study involved developing a framework for public health emergency preparedness (PHEP) and identifying and defining corresponding indicators for guiding performance measurement and improvement for PHEP in Canada. This document can also be used for self-assessment related to public health emergency preparedness and management (see Appendix). More details on this work is found in the following publications:

- Khan Y, O’Sullivan T, Brown A, Tracey S, Gibson J, Généreux M, et al. Public health emergency preparedness: a framework to promote resilience. BMC Public Health. 2018;18(1):1344. Available from: <https://doi.org/10.1186/s12889-018-6250-7>
- Khan Y, Brown AD, Gagliardi AR, O’Sullivan T, Lacarte S, Henry B, et al. Are we prepared? The development of performance indicators for public health emergency preparedness using a modified Delphi approach. PLoS ONE. 2019;14(12):e0226489. Available from: <https://doi.org/10.1371/journal.pone.0226489>

## Why is this Work Important?

The burden of morbidity and mortality from emergencies and disasters can be severe, resulting in large time and resource investments toward preparedness. While emergencies tend to raise awareness about the significance of being prepared, public health agency readiness activities operate largely in the background until an event occurs. Despite the importance of upstream readiness, a persistent challenge for public health practitioners is defining what it means to be prepared.

The challenge of ensuring readiness is exacerbated by the fact that preparedness investments change over time due to many factors, often independent of actual preparedness, which influences the resources agencies may access for health protection activities. Measuring PHEP allows managers and decision-makers to understand the current state of readiness for serious public health threats and the necessary steps to drive quality improvement to enhance capacity and resilience.

This study presents a framework and corresponding set of indicators to measure PHEP performance in Canada. The findings from this study address a knowledge gap in approaching local and/or regional public health agency readiness activities.

### **Implications for practice**

This study presents indicators relevant and useful for local/regional public health agencies to assess practice in PHEP and guide improvement. It addresses a knowledge gap in the literature in developing an indicator set specific to local/regional public health agencies in Canada.

The indicators are situated in a framework that includes empirically-derived essential elements for PHEP for local/regional public health agencies, relevant governance structures and ethics and values as principles.

Given the ability of emergencies to spread beyond tidy jurisdictional boundaries, it will be important to have pan-Canadian and continued global approaches to PHEP measurement.

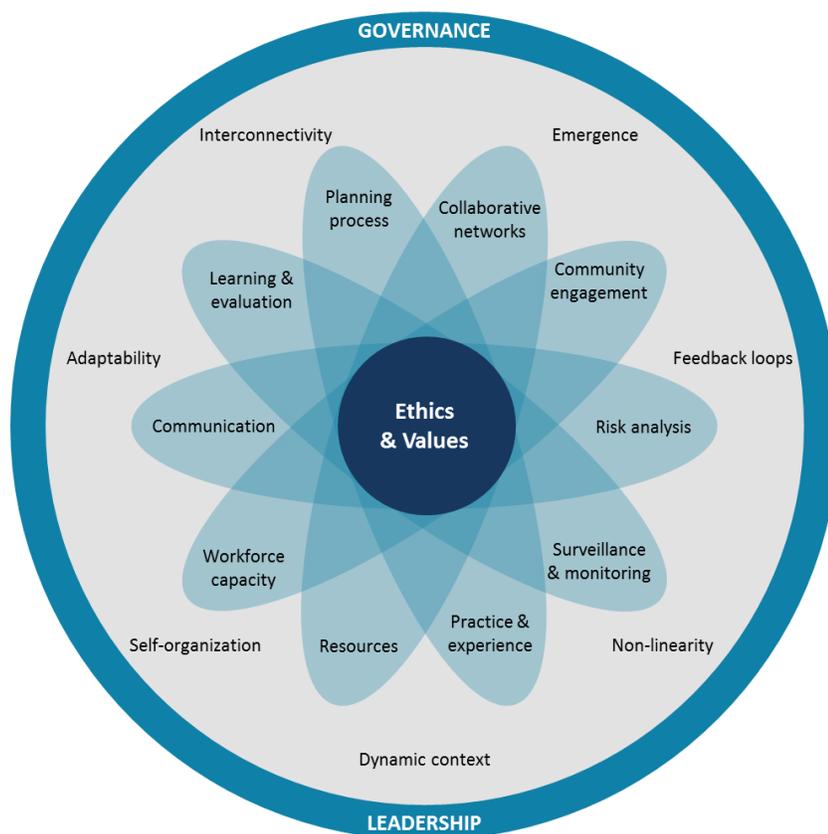
These indicators can be used for assessment and for quality improvement purposes.

# Public Health Emergency Preparedness: A Framework to Promote Resilience

The framework identifies 11 essential elements and how they interact as a complex adaptive system. There is one cross-cutting element (Governance and Leadership) and 10 distinct, linked elements. With an upstream orientation, the framework applies to all aspects of emergency management – encompassing readiness, response and recovery – and promotes resilience in the public health system. A set of 67 indicators corresponding with the 11 elements was defined using a consensus-based process that involved a national expert panel.

A visual concept was developed to represent the framework. The figure below reflects the interconnectedness of the elements which overlap at the centre to represent a symbolic connection in the core of the framework.

**Figure 1. Resilience Framework for Public Health Emergency Preparedness**



**Source:** Khan Y, O’Sullivan T, Brown A, Tracey S, Gibson J, Généreux M, et al. Public health emergency preparedness: a framework to promote resilience. BMC Public Health. 2018;18(1):1344. Available from: <https://doi.org/10.1186/s12889-018-6250-7>. Used with permission available from: <http://creativecommons.org/licenses/by/4.0/>

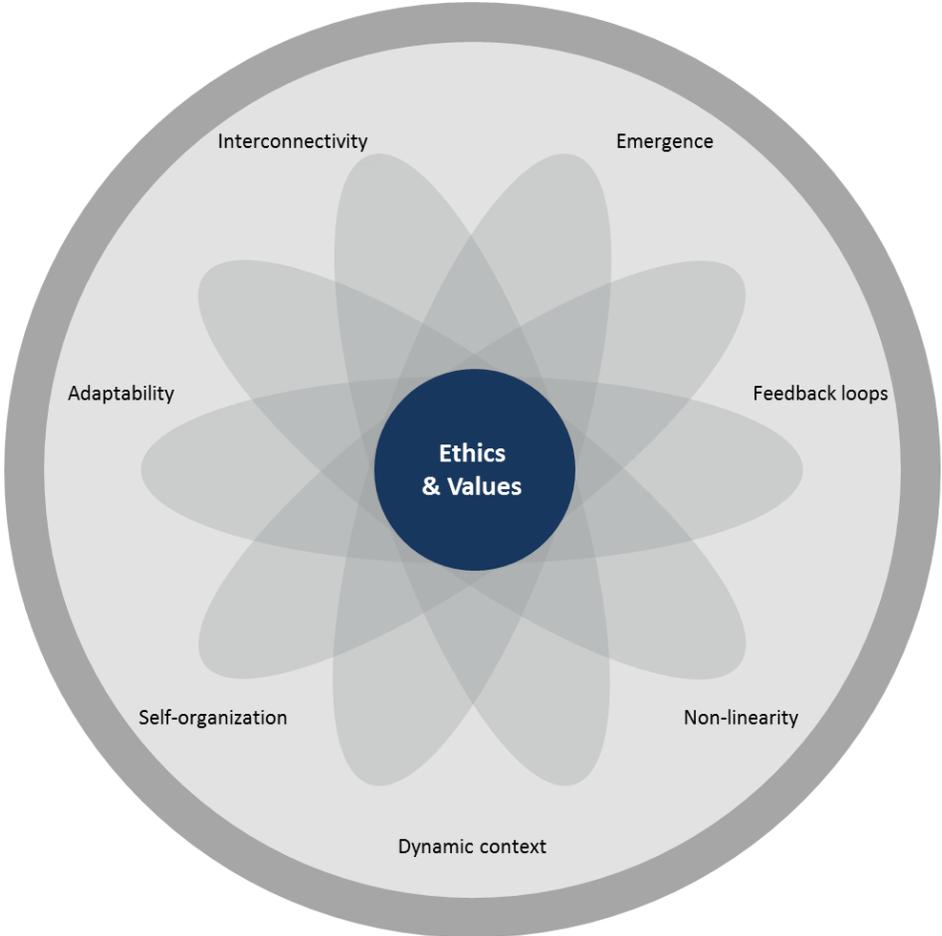
# Ethics and Values

The framework represents an integration of the 11 essential elements of PHEP for infectious and non-infectious emergencies, with the ethical values and processes deemed by participants to be core to all elements. Examples of values and processes seen as integrated within and important to PHEP in Canada include equity, trust, public protection, reciprocity, duty to care, stewardship and solidarity. In addition to values, approaches to PHEP actions and decision-making include processes such as inclusiveness, accountability, transparency, responsiveness and reasonableness.

# Complex Adaptive Systems

Complexity theory was applied as a lens in developing the framework to understand the context of the complex adaptive system operating in public health emergencies. Characteristics of complex systems were accounted for in the framework and elements. For example, the dynamic, rapidly evolving context; interconnectedness of the system; feedback from within and outside the system and features of change such as self-organization and adaptability.

**Figure 2. Ethics, Values and Complexity Represented in the Framework**

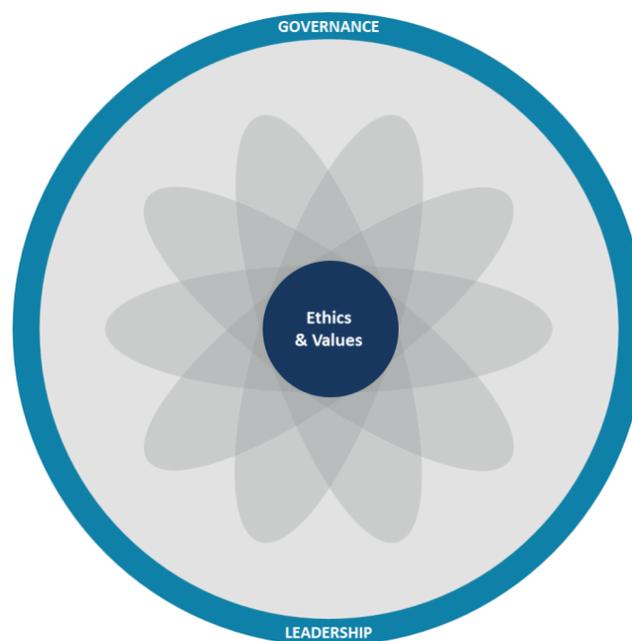


# Governance and Leadership

## Integrated Structures, Partnerships and Accountabilities with Clear Leadership

- Vertically and horizontally integrated structures, partnerships and accountabilities to support coordinated and interoperable system functioning
- Clear leadership to define roles and responsibilities and enable flexibility

**Figure 3. Governance and Leadership**



## Indicators

1. The public health agency is a member of a local/regional structure for health-sector emergency management that aims to coordinate health system preparedness for emergencies. Network partners involved in this structure may include, for example, acute care, primary care or emergency medical services, depending on the jurisdiction.
2. The public health agency's policies describe the authority and procedures under which it would respond to an emergency as the lead agency.
3. The public health agency's policies define the conditions and procedures for using incident management structures and processes to coordinate agency activities in emergencies.
4. The public health agency aligns its emergency plans and/or protocols with provincial, territorial and/or federal policy on public health and emergency management.

5. The public health agency's policies describe the authority and procedures under which it would respond to an emergency in a supportive role to the lead agency.
6. The public health agency's policies define the conditions and procedures for escalating response to an emergency, including processes for declaring an event multi-jurisdictional.
7. The public health agency is a member of a local/regional multidisciplinary structure that aims to reduce community risks to emergencies and disasters. Network partners involved in this structure may include transportation, planners, industry, local/regional elected officials.
8. The public health agency's policies align with requirements for reporting to the provincial/territorial and/or federal public health authority on community health risks in the context of an emergency; for example, radio-nuclear, chemical or biosecurity events.
9. The public health agency engages with policymakers to address gaps in policy and/or legislation that pertain to the effectiveness of its emergency management plans and/or protocols.
10. The public health agency's policies define processes for establishing a clear leader in the context of emergency.
11. The public health agency's plans are linked to the mandate of network partners in vertical or horizontal multi-jurisdictional response to emergencies; for example, responsibilities for different levels of government.
12. The public health agency has defined leadership competencies for individuals that may act as agency leaders in an emergency. These may include established effective relationships, local knowledge, credible, flexible, trusted and ethical.

# Planning Process

## Develop a Plan through a Dynamic, Collaborative Planning Process

- Planning is a dynamic process anchored in development of relationships and clear responsibilities.
- Establish priorities for the allocation of limited resources during planning and processes to support difficult decision making.

**Figure 4. Planning process**



## Indicators

1. The public health agency reviews its emergency plans and/or protocols with involved departments and/or programs internal to the agency.
2. The roles and responsibilities of the public health agency for responding to all-hazards emergencies are defined in agency plans and/or protocols.
3. The roles and responsibilities for the public health agency in ensuring business continuity during an emergency are established in agency plans and/or protocols.
4. The public health agency has a process to support priority-setting decisions in the allocation of limited resources in the context of emergencies.
5. The public health agency's emergency management plans and/or protocols relate to all phases of a disaster (i.e., prevention/mitigation, preparedness, response and recovery).
6. Linkages between the public health agency and network partners' emergency plans and/or protocols are discussed with involved network partners.

# Collaborative Networks

## Develop Relationships, Partnerships and Strong Networks

- Partnerships with relevant external stakeholders support collaborative and coordinated actions that promote resilience.
- Strong networks enable access to expertise for a range of hazards and impacts.
- Collaborative networks are enabled by memoranda of understanding and formal outreach.

**Figure 5. Collaborative networks**



## Indicators

1. The public health agency has mechanisms for contacting network partners in the event of an emergency.
2. The public health agency has demonstrated the ability to perform cooperative activities with network partners. This ability may be demonstrated, for instance, during real or simulated emergencies.
3. The public health agency has partnerships and/or mechanisms to access specialized expertise relevant to community risks; for example, environmental health, biosecurity, toxicology, transportation companies, legal advice.
4. The public health agency has mutual aid agreements in place with health-sector network partners that describe how resources and/or services will be shared during an emergency, including meeting demands for surge capacity.

# Community Engagement

## Understand and Engage with the Community

- Engaging inclusively with the community enables a consideration of community risks, assets and values and facilitates transparency.
- Be proactive in understanding community priorities and values and consider community risks and risk perceptions.

**Figure 6. Community engagement**



## Indicators

1. The public health agency provides and/or endorses education programs directed at the public to raise awareness about preparedness for relevant community risks.
2. The public health agency dedicates time for the continuous development of relationships with community organizations relevant to preparedness for local risks and the agency context; for example, building relationships with members of the public and/or advocacy groups that represent the public.
3. The public health agency has or participates in an established structure to facilitate inclusion of community considerations in relevant aspects of public health emergency management; for example, a community advisory committee to inform emergency mitigation, planning and/or recovery including members of the public and/or advocacy groups that represent the public.
4. The public health agency and/or its network partners engage with Indigenous communities regarding emergencies and related risks. Engagement may include community-specific risk assessments, plans and/or protocols and inclusion of Indigenous knowledge where possible and appropriate.

# Risk Analysis

## Robust Understanding of Community Hazards and Risks

- Risk analysis is a proactive process of identifying, assessing and mitigating risks for the community.

**Figure 7. Risk analysis**



## Indicators

1. The public health agency uses the results of the risk assessment to inform relevant plans/protocols for emergency management, business continuity and/or risk reduction.
2. The public health agency's risk assessment process includes an analysis of organizational capacity to manage the identified risks.
3. The public health agency uses locally relevant data to inform risk assessment. Examples of data sources may include communicable diseases, vector-borne diseases, food and water testing, population health determinants, non-communicable diseases, such as injuries.
4. The public health agency conducts a comprehensive risk assessment for all-hazards emergencies at regular intervals (e.g., annually or when a new threat is identified) to adapt to emerging risks.
5. The public health agency's risk assessment process considers the preparedness capacity of populations that may be at increased risk in the context of emergencies.

# Surveillance and Monitoring

## Timely Information to Provide Situational Awareness and Guide Action

- Timely data and information facilitates awareness in advance and impacts of actions during events to guide response.
- Robust surveillance and information processes are linked with connectivity within the system, key stakeholders and the community.
- Information links with capacity for risk analysis and notification.

**Figure 8. Surveillance and Monitoring**



## Indicators

1. The public health agency has the capability for or access to enhanced and/or event-based surveillance systems relevant to local/regional risks.
2. The public health agency has protocols and/or processes for information-sharing with network partners for purposes of surveillance of relevant risks; for example, with agricultural, veterinary or environmental surveillance systems.
3. The public health agency uses a syndromic surveillance and/or other early warning systems to detect potential public health emergencies in a timely manner.
4. The public health agency has the capability to conduct rapid health risks and/or needs assessments for communities recently impacted by emergencies.

# Practice and Experience

## Invest in Testing and Practicing Plans and Processes

- Opportunities for exercises, simulations and/or practice promote familiarity with plans and potential areas for adjustment.

**Figure 9. Practice and Experience**



## Indicators

1. The public health agency practices its plans and/or protocols that are relevant to emergency management; for example, the agency emergency response plan, the business continuity plan. Practice may include table tops, exercises, simulations or activations for emergencies.
2. The public health agency conducts regular needs assessments to determine the needs for organizational practice of emergency plans and/or protocols; for example, the emergency response plan, the business continuity plan. The assessment may consider recent table tops, exercises, simulations or activations in response to emergencies.
3. Public health agency management and staff have demonstrated the ability to adjust plans and/or protocols for emergencies in the context of new knowledge, uncertain science and/or differences in professional opinions. This ability may be demonstrated during real or simulated emergencies.
4. The public health agency has sufficient resources to practice plans and/or protocols relevant to emergency management; for example, the emergency response plan, the business continuity plan. Practice may include table tops, exercises or simulations.
5. Public health agency practice of emergency management activities (e.g., table tops, exercises, simulations) includes the regular attendance of both management and staff.

# Resources

## Ensure Dedicated Resource Capacity and Mobilization Capacity

- Promote adaptive capacity by considering scalability of resources and sufficient physical infrastructure.
- Ensure capability for activating, mobilizing and adapting the resources linked to plans.
- Essential public health capacities link to other themes: communication, surveillance, risk analysis, evaluation and community engagement.

**Figure 10. Resources**



## Indicators

1. The public health agency has established procedures to facilitate timely dispensing of physical resources to the community in the context of emergencies (e.g., may include medical prophylaxis and/or treatment).
2. The public health agency has or has access to a dedicated emergency preparedness coordinator or similar position, led by an individual experienced in emergency management.
3. The public health agency has mechanisms to secure or reallocate financial resources to support response to and recovery from an emergency.
4. The public health agency has or has access to a system to support management of physical resources relevant to emergencies; for example, equipment, supplies or medical prophylaxis and/or treatment (e.g., may include tracking, monitoring and/or reporting components).
5. The public health agency is familiar with established procedures for the exceptional procurement of physical resources relevant to the emergency context, including procedures for

procurement outside of business hours; for example, equipment, supplies or medical prophylaxis and/or treatment from the provincial, territorial or federal government.

6. The public health agency has dedicated financial resources to support planning and preparedness activities for emergencies.

# Workforce Capacity

## Develop and Support Knowledgeable Staff and Resilient Staff

- Well trained and knowledgeable people promote resilience in the system.
- Consider public health workforce responses in planning, to promote business continuity, sufficient redundancy and staff resilience.

**Figure 11. Workforce capacity**



## Indicators

1. The public health agency has a roster of its workforce available for the management of, or potential for, emergencies on a 24/7/365 basis.
2. The public health agency has established policies and procedures for supporting staff during an emergency with respect to their health and wellbeing; for example, on personal safety, mental wellbeing, family commitments.
3. The public health agency has a structure and/or mechanism to support multi-disciplinary emergency management relevant to community risks; for example, a multi-disciplinary team of public health professionals, epidemiologists, and environmental health officers.
4. The public health agency has a workforce professional development plan for training its staff that is specific to emergency management topics; for example, content of emergency plans/protocols, incident management systems, communications.
5. The public health agency workforce has demonstrated the ability to perform cooperative activities as an organization in the context of emergencies. This may be demonstrated, for instance, during exercises or activations.

6. The public health agency has an up-to-date inventory of staff trained in emergency management topics; for example, content of emergency plans/protocols, incident management systems, communications.
7. The public health agency conducts needs assessments regularly to determine the emergency management training needs of its workers.

# Communication

## A Strategy to Deliver Clear, Consistent Messaging across Networks and the Public

- Communication is a strategy to convey understandable information and potential actions to diverse audiences, supported by sufficient capacity.

**Figure 12. Communication**



## Indicators

1. The public health agency has a mechanism to formally or informally coordinate joint messaging with relevant network partners in a timely manner.
2. The public health agency has structures to ensure message consistency with network partners; for example, regular network partner coordination meetings, incident management systems.
3. The public health agency has capacity for redundancy in communication platforms in the context of an emergency; for example, using alternate platforms in power outages or if regular communication channels are down.
4. The public health agency communication strategy uses multiple communication platforms to facilitate timely information-sharing in the context of an emergency; for example, town hall meetings, websites, social media, spokespersons, information call lines/centres.
5. The public health agency has identified trained spokesperson(s) for the agency relevant to community risks and the emergency context.
6. The public health agency has access to communications personnel that are dedicated to the emergency and appropriately trained in crisis communication.

7. The public health agency has a process for monitoring the media, including social media, to rapidly identify rumours and correct misinformation.
8. The public health agency communication strategy includes plans and/or procedures for ensuring cultural competency and/or sensitivity to impacted communities for relevant risks and the emergency context. This includes procedures for translation of messages to relevant languages.
9. The public health agency has developed communication strategies for multiple audiences in advance of emergencies, based on its risk assessment.
10. The public health agency has a process for the public and media to ask questions and voice concerns; for example, town hall meetings, social media, information call lines/centres.
11. The public health agency communication strategy includes procedures for directly reaching citizens during an emergency, if required; for example, door-to-door, giving out pamphlets, engaging in informal street/neighbourhood gatherings.

# Learning and Evaluation

## Evaluation as a Strategy to Build Resilience

- Evaluate response to single and multiple incidents (or practice of plan) to assess and action improvements for better preparedness and response.
- Evaluation of preparedness and response is key to recovery and successful if timely, prioritized and invested in.

**Figure 13. Learning and Evaluation**



## Indicators

1. The public health agency applies a self-assessment process to emergency management. This process may be applied to tests, exercises, simulations and/or emergency plan activations and agency responses.
2. The public health agency self-assessment process is used to identify capabilities, strengths and/or assets to describe successes relevant to emergency management.
3. The public health agency self-assessment process is used to inform improvement actions; for example, identifying responsible groups for corrective actions and establishing timelines for change.

## Appendix: Worksheet

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This Appendix was developed as a worksheet which can be used for self-assessment related to public health emergency preparedness. It is intended for practitioners working in local/regional public health agencies.

The following worksheet contains 11 essential elements of a resilient public health system, each with several indicators. Every indicator features two columns to self-assess and provide evidence on each agency's public health emergency preparedness. Public health agencies may decide to capture self-assessment details as text or in a scale, depending on what works for their context. In the last section, local/regional public health agencies can use their self-assessment results to identify priority areas, required resources and an action plan to address their priorities.

## Governance and Leadership Indicators

| Indicators                                                                                                                                                                                                                                                                                                                                        | Self-Assessment (i.e., How are we doing?) | Evidence/Example (i.e., How do we know?) |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|------------------------------------------|
| <p>The public health agency is a member of a local/regional structure for health-sector emergency management that aims to coordinate health system preparedness for emergencies. Network partners involved in this structure may include, for example, acute care, primary care or emergency medical services, depending on the jurisdiction.</p> |                                           |                                          |
| <p>The public health agency's policies describe the authority and procedures under which it would respond to an emergency as the lead agency.</p>                                                                                                                                                                                                 |                                           |                                          |
| <p>The public health agency's policies define the conditions and procedures for using incident management structures and processes to coordinate agency activities in emergencies.</p>                                                                                                                                                            |                                           |                                          |
| <p>The public health agency aligns its emergency plans and/or protocols with provincial, territorial and/or federal policy on public health and emergency management.</p>                                                                                                                                                                         |                                           |                                          |
| <p>The public health agency's policies describe the authority and procedures under which it would respond to an emergency in a supportive role to the lead agency.</p>                                                                                                                                                                            |                                           |                                          |
| <p>The public health agency's policies define the conditions and procedures for escalating response to an emergency, including processes for declaring an event multi-jurisdictional.</p>                                                                                                                                                         |                                           |                                          |
| <p>The public health agency is a member of a local/regional multidisciplinary structure that aims to reduce community</p>                                                                                                                                                                                                                         |                                           |                                          |

| Indicators                                                                                                                                                                                                                                                           | Self-Assessment (i.e., How are we doing?) | Evidence/Example (i.e., How do we know?) |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|------------------------------------------|
| risks to emergencies and disasters. Network partners involved in this structure may include transportation, planners, industry, local/regional elected officials.                                                                                                    |                                           |                                          |
| The public health agency's policies align with requirements for reporting to the provincial/territorial and/or federal public health authority on community health risks in the context of an emergency; for example, radio-nuclear, chemical or biosecurity events. |                                           |                                          |
| The public health agency engages with policymakers to address gaps in policy and/or legislation that pertain to the effectiveness of its emergency management plans and/or protocols.                                                                                |                                           |                                          |
| The public health agency's policies define processes for establishing a clear leader in the context of emergency.                                                                                                                                                    |                                           |                                          |
| The public health agency's plans are linked to the mandate of network partners in vertical or horizontal multi-jurisdictional response to emergencies; for example, responsibilities for different levels of government.                                             |                                           |                                          |
| The public health agency has defined leadership competencies for individuals that may act as agency leaders in an emergency. These may include: established effective relationships, local knowledge, credible, flexible, trusted, ethical.                          |                                           |                                          |

## Planning Process Indicators

| Indicators                                                                                                                                                                    | Self-Assessment (i.e., How are we doing?) | Evidence/Example (i.e., How do we know?) |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|------------------------------------------|
| The public health agency reviews its emergency plans and/or protocols with involved departments and/or programs internal to the agency.                                       |                                           |                                          |
| The roles and responsibilities of the public health agency for responding to all-hazards emergencies are defined in agency plans and/or protocols.                            |                                           |                                          |
| The roles and responsibilities for the public health agency in ensuring business continuity during an emergency are established in agency plans and/or protocols.             |                                           |                                          |
| The public health agency has a process to support priority-setting decisions in the allocation of limited resources in the context of emergencies.                            |                                           |                                          |
| The public health agency's emergency management plans and/or protocols relate to all phases of a disaster (i.e., prevention/mitigation, preparedness, response and recovery). |                                           |                                          |
| Linkages between the public health agency and network partners' emergency plans and/or protocols are discussed with involved network partners.                                |                                           |                                          |

## Collaborative Networks Indicators

| Indicators                                                                                                                                                                                                                           | Self-Assessment (i.e., How are we doing?) | Evidence/Example (i.e., How do we know?) |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|------------------------------------------|
| <p>The public health agency has mechanisms for contacting network partners in the event of an emergency.</p>                                                                                                                         |                                           |                                          |
| <p>The public health agency has demonstrated the ability to perform cooperative activities with network partners. This ability may be demonstrated, for instance, during real or simulated emergencies.</p>                          |                                           |                                          |
| <p>The public health agency has partnerships and/or mechanisms to access specialized expertise relevant to community risks; for example, environmental health, biosecurity, toxicology, transportation companies, legal advice.</p>  |                                           |                                          |
| <p>The public health agency has mutual aid agreements in place with health-sector network partners that describe how resources and/or services will be shared during an emergency, including meeting demands for surge capacity.</p> |                                           |                                          |

## Community Engagement Indicators

| Indicators                                                                                                                                                                                                                                                                                                                                                                            | Self-Assessment (i.e., How are we doing?) | Evidence/Example (i.e., How do we know?) |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|------------------------------------------|
| <p>The public health agency provides and/or endorses education programs directed at the public to raise awareness about preparedness for relevant community risks.</p>                                                                                                                                                                                                                |                                           |                                          |
| <p>The public health agency dedicates time for the continuous development of relationships with community organizations relevant to preparedness for local risks and the agency context; for example, building relationships with members of the public and/or advocacy groups that represent the public.</p>                                                                         |                                           |                                          |
| <p>The public health agency has or participates in an established structure to facilitate inclusion of community considerations in relevant aspects of public health emergency management; for example, a community advisory committee to inform emergency mitigation, planning and/or recovery including members of the public and/or advocacy groups that represent the public.</p> |                                           |                                          |
| <p>The public health agency and/or its network partners engage with Indigenous communities regarding emergencies and related risks. Engagement may include community-specific risk assessments, plans and/or protocols and inclusion of Indigenous knowledge where possible and appropriate.</p>                                                                                      |                                           |                                          |

## Risk Analysis Indicators

| Indicators                                                                                                                                                                                                                                                                    | Self-Assessment (i.e., How are we doing?) | Evidence/Example (i.e., How do we know?) |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|------------------------------------------|
| <p>The public health agency uses the results of the risk assessment to inform relevant plans/protocols for emergency management, business continuity and/or risk reduction.</p>                                                                                               |                                           |                                          |
| <p>The public health agency’s risk assessment process includes an analysis of organizational capacity to manage the identified risks.</p>                                                                                                                                     |                                           |                                          |
| <p>The public health agency uses locally relevant data to inform risk assessment. Examples of data sources may include communicable diseases, vector-borne diseases, food and water testing, population health determinants, non-communicable diseases, such as injuries.</p> |                                           |                                          |
| <p>The public health agency conducts a comprehensive risk assessment for all-hazards emergencies at regular intervals (e.g., annually or when a new threat is identified) to adapt to emerging risks.</p>                                                                     |                                           |                                          |
| <p>The public health agency’s risk assessment process considers the preparedness capacity of populations that may be at increased risk in the context of emergencies.</p>                                                                                                     |                                           |                                          |

## Surveillance and Monitoring Indicators

| Indicators                                                                                                                                                                                                                              | Self-Assessment (i.e., How are we doing?) | Evidence/Example (i.e., How do we know?) |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|------------------------------------------|
| The public health agency has the capability for or access to enhanced and/or event-based surveillance systems relevant to local/regional risks.                                                                                         |                                           |                                          |
| The public health agency has protocols and/or processes for information-sharing with network partners for purposes of surveillance of relevant risks; for example, with agricultural, veterinary or environmental surveillance systems. |                                           |                                          |
| The public health agency uses a syndromic surveillance and/or other early warning systems to detect potential public health emergencies in a timely manner.                                                                             |                                           |                                          |
| The public health agency has the capability to conduct rapid health risks and/or needs assessments for communities recently impacted by emergencies.                                                                                    |                                           |                                          |

## Practice and Experience Indicators

| Indicators                                                                                                                                                                                                                                                                                                                                           | Self-Assessment (i.e., How are we doing?) | Evidence/Example (i.e., How do we know?) |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|------------------------------------------|
| <p>The public health agency practices its plans and/or protocols that are relevant to emergency management; for example, the agency emergency response plan, the business continuity plan. Practice may include table tops, exercises, simulations or activations for emergencies.</p>                                                               |                                           |                                          |
| <p>The public health agency conducts regular needs assessments to determine the needs for organizational practice of emergency plans and/or protocols; for example, the emergency response plan, the business continuity plan. The assessment may consider recent table tops, exercises, simulations, or activations in response to emergencies.</p> |                                           |                                          |
| <p>Public health agency management and staff have demonstrated the ability to adjust plans and/or protocols for emergencies in the context of new knowledge, uncertain science, and/or differences in professional opinions. This ability may be demonstrated during real or simulated emergencies.</p>                                              |                                           |                                          |
| <p>The public health agency has sufficient resources to practice plans and/or protocols relevant to emergency management; for example, the emergency response plan, the business continuity plan. Practice may include table tops, exercises or simulations.</p>                                                                                     |                                           |                                          |
| <p>Public health agency practice of emergency management activities (e.g., table tops, exercises, simulations) includes the regular attendance of both management and staff.</p>                                                                                                                                                                     |                                           |                                          |

## Resources Indicators

| Indicators                                                                                                                                                                                                                                                                                                                                                        | Self-Assessment (i.e., How are we doing?) | Evidence/Example (i.e., How do we know?) |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|------------------------------------------|
| <p>The public health agency has established procedures to facilitate timely dispensing of physical resources to the community in the context of emergencies (e.g., may include medical prophylaxis and/or treatment).</p>                                                                                                                                         |                                           |                                          |
| <p>The public health agency has or has access to a dedicated emergency preparedness coordinator or similar position, led by an individual experienced in emergency management.</p>                                                                                                                                                                                |                                           |                                          |
| <p>The public health agency has mechanisms to secure or reallocate financial resources to support response to and recovery from an emergency.</p>                                                                                                                                                                                                                 |                                           |                                          |
| <p>The public health agency has or has access to a system to support management of physical resources relevant to emergencies; for example, equipment, supplies or medical prophylaxis and/or treatment (e.g., may include tracking, monitoring and/or reporting components).</p>                                                                                 |                                           |                                          |
| <p>The public health agency is familiar with established procedures for the exceptional procurement of physical resources relevant to the emergency context, including procedures for procurement outside of business hours; for example, equipment, supplies or medical prophylaxis and/or treatment from the provincial, territorial or federal government.</p> |                                           |                                          |

| Indicators                                                                                                                  | Self-Assessment (i.e., How are we doing?) | Evidence/Example (i.e., How do we know?) |
|-----------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|------------------------------------------|
| The public health agency has dedicated financial resources to support planning and preparedness activities for emergencies. |                                           |                                          |

## Workforce Capacity Indicators

| Indicators                                                                                                                                                                                                                                                                 | Self-Assessment (i.e., How are we doing?) | Evidence/Example (i.e., How do we know?) |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|------------------------------------------|
| <p>The public health agency has a roster of its workforce available for the management of, or potential for, emergencies on a 24/7/365 basis.</p>                                                                                                                          |                                           |                                          |
| <p>The public health agency has established policies and procedures for supporting staff during an emergency with respect to their health and wellbeing; for example, on personal safety, mental wellbeing, family commitments.</p>                                        |                                           |                                          |
| <p>The public health agency has a structure and/or mechanism to support multi-disciplinary emergency management relevant to community risks; for example, a multi-disciplinary team of public health professionals, epidemiologists and environmental health officers.</p> |                                           |                                          |
| <p>The public health agency has a workforce professional development plan for training its staff that is specific to emergency management topics; for example, content of emergency plans/protocols, incident management systems, communications.</p>                      |                                           |                                          |
| <p>The public health agency workforce has demonstrated the ability to perform cooperative activities as an organization in the context of emergencies. This may be demonstrated, for instance, during exercises or activations.</p>                                        |                                           |                                          |
| <p>The public health agency has an up-to-date inventory of staff trained in emergency management topics; for example,</p>                                                                                                                                                  |                                           |                                          |

| Indicators                                                                                                                         | Self-Assessment (i.e., How are we doing?) | Evidence/Example (i.e., How do we know?) |
|------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|------------------------------------------|
| content of emergency plans/protocols, incident management systems, communications.                                                 |                                           |                                          |
| The public health agency conducts needs assessments regularly to determine the emergency management training needs of its workers. |                                           |                                          |

## Communication Indicators

| Indicators                                                                                                                                                                                                                                                                    | Self-Assessment (i.e., How are we doing?) | Evidence/Example (i.e., How do we know?) |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|------------------------------------------|
| <p>The public health agency has a mechanism to formally or informally coordinate joint messaging with relevant network partners in a timely manner.</p>                                                                                                                       |                                           |                                          |
| <p>The public health agency has structures to ensure message consistency with network partners; for example, regular network partner coordination meetings, incident management systems.</p>                                                                                  |                                           |                                          |
| <p>The public health agency has capacity for redundancy in communication platforms in the context of an emergency; for example, using alternate platforms in power outages or if regular communication channels are down.</p>                                                 |                                           |                                          |
| <p>The public health agency communication strategy uses multiple communication platforms to facilitate timely information-sharing in the context of an emergency; for example, town-hall meetings, websites, social media, spokespersons, information call lines/centres.</p> |                                           |                                          |
| <p>The public health agency has identified trained spokesperson(s) for the agency relevant to community risks and the emergency context.</p>                                                                                                                                  |                                           |                                          |
| <p>The public health agency has access to communications personnel that are dedicated to the emergency and appropriately trained in crisis communication.</p>                                                                                                                 |                                           |                                          |

| Indicators                                                                                                                                                                                                                                                                                    | Self-Assessment (i.e., How are we doing?) | Evidence/Example (i.e., How do we know?) |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|------------------------------------------|
| <p>The public health agency has a process for monitoring the media, including social media, to rapidly identify rumours and correct misinformation.</p>                                                                                                                                       |                                           |                                          |
| <p>The public health agency communication strategy includes plans and/or procedures for ensuring cultural competency and/or sensitivity to impacted communities for relevant risks and the emergency context. This includes procedures for translation of messages to relevant languages.</p> |                                           |                                          |
| <p>The public health agency has developed communication strategies for multiple audiences in advance of emergencies, based on its risk assessment.</p>                                                                                                                                        |                                           |                                          |
| <p>The public health agency has a process for the public and media to ask questions and voice concerns; for example, town hall meetings, social media, information call lines/centres.</p>                                                                                                    |                                           |                                          |
| <p>The public health agency communication strategy includes procedures for directly reaching citizens during an emergency, if required; for example, door-to-door, giving out pamphlets, engaging in informal street/neighbourhood gatherings.</p>                                            |                                           |                                          |

## Learning and Evaluation Indicators

| Indicators                                                                                                                                                                                                      | Self-Assessment (i.e., How are we doing?) | Evidence/Example (i.e., How do we know?) |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|------------------------------------------|
| <p>The public health agency applies a self-assessment process to emergency management. This process may be applied to tests, exercises, simulations and/or emergency plan activations and agency responses.</p> |                                           |                                          |
| <p>The public health agency self-assessment process is used to identify capabilities, strengths and/or assets to describe successes relevant to emergency management.</p>                                       |                                           |                                          |
| <p>The public health agency self-assessment process is used to inform improvement actions; for example, identifying responsible groups for corrective actions and establishing timelines for change.</p>        |                                           |                                          |

## Summary of Self-Assessment

1. Self-assessment (high-level summary)
2. Priority areas for the public health agency
3. Resources required
4. Barriers and facilitators in implementing strategies
5. Action plan for public health agency towards addressing priorities

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