Emergency Management Guideline, 2024

Ministry of Health
Effective: February, 2024

ISBN 978-1-4868-7720-1 [PDF]

Citation: Ontario. Ministry of Health. Emergency Management Guideline, 2024. Toronto, ON: King's Printer for Ontario; 2024.

Ontario

Preamble

The Ontario Public Health Standards: Requirements for Programs, Services, and Accountability (Standards) are published by the Minister of Health under the authority of section 7 of the *Health Protection and Promotion Act* (HPPA) to specify the mandatory health programs and services provided by boards of health.[1,2] The Standards identify the minimum expectations for public health programs and services. Boards of health are accountable for implementing the Standards including the protocols and guidelines that are referenced in the Standards. Guidelines are program and topic-specific documents which provide direction on how boards of health shall approach specific requirement(s) identified within the Standards.

Purpose

A robust public health emergency management program must be capable of addressing disruptions*, planned events, and/or emergencies that may affect Ontario's public health system. To achieve provincial and local readiness, boards of health must develop their own public health emergency management programs which complement the emergency management programs of municipal, provincial, and health sector partners. This Guideline is intended to assist boards of health in developing, implementing, and evaluating their public health emergency management programs according to the requirements of the Standards, while aligning with national and international evidence-informed approaches to emergency management. These minimum expectations are based on criteria established in the former Public Health Emergency Preparedness Protocol. For the purpose of this Guideline, a public health emergency management program

*A board of health's ability to maintain and restore their functions/services amidst a disruption to normal activities at pre-defined recovery time objectives (RTO) (i.e., non-stop, within 24 hrs etc.) and acceptable service levels (i.e., full, partial) is part of its business continuity plan/planning. Each board of health shall pre-define their own RTOs and service levels based on their comfort against the maximum tolerable length of time and service capacity that their functions/services can be down after a disruption and/or emergency event.

considers the activities that support foundational components of emergency management in: prevention, mitigation, preparedness, response, and recovery.

In reviewing this Guideline, the References to the Standards section cite the specific references to emergency management in the Standards. The Context section provides an overview of key legislation and approaches to inform program planning, implementation, and evaluation. The Roles and Responsibilities section identifies the core functions that boards of health shall consider in addressing their responsibilities for emergency management under the Foundational Standards. The remainder of this Guideline provides operational advice and guidance, including resources, on specific elements of a public health emergency management program. To support this Guideline, see the Glossary.

Reference to the Standards

This section identifies the standard and requirement to which this guideline relates:

Emergency Management

Requirement 1: The board of health shall effectively prepare for emergencies to ensure 24/7 timely, integrated, safe, and effective response to, and recovery from emergencies with public health impacts, in accordance with ministry policy and guidelines.

Context

The legal authority for emergency management in Ontario is established in the *Emergency Management and Civil Protection Act* (EMCPA) and Order in Council 1739/2022. The EMCPA and its Regulation (O. Reg 380/04) require ministries and municipalities to develop and implement an emergency management program consisting of emergency plans, training programs and exercises, and public education. This includes identifying and regularly monitoring and assessing the various hazards and risks to public health that could give rise to emergencies, and identifying the necessary goods, services, and resources to respond to the hazards and risks identified.[4]

The legal authority for the delivery of public health programs and services in Ontario is established in the *Health Protection and Promotion Act* (HPPA). The HPPA provides for the powers and responsibilities of local boards of health, medical officers of

health, the Minister of Health, and the Chief Medical Officer of Health.[2] Its purpose is to "provide for the organization and delivery of public health programs and services, the prevention of the spread of disease, and the promotion and protection of the health of the people of Ontario".[2] Health promotion and protection are cornerstones of the HPPA and of public health activities in Ontario.[2] Boards of health are responsible for identifying, preventing, reducing, or eliminating health hazards and addressing communicable diseases in their public health units. The HPPA provides legal authority for the boards of health to respond to a public health emergency that has been determined to be a health hazard or as the result of a communicable disease under the HPPA.[2]

As emergencies vary in scope, scale, duration and time of onset, public health emergency management programs must be broadened to adopt an all-hazards approach to risks. Since public health impacts can emerge from hazards of different origins including natural (e.g., communicable diseases, major storms), human-induced (e.g., civil disorder, terrorism), or technological (e.g., cyber-attacks, infrastructure failures), focusing on common roles and responsibilities, and processes and procedures can ensure more effective and scalable responses and plans. Understanding and prioritizing hazards also enables boards of health to plan and prepare for mixed types of emergencies to inform strategies and priorities in prevention, mitigation, preparedness, response, and recovery activities. This can better ensure appropriate focus is placed on high-priority risks, priority populations, and system resilience. As each board of health may be exposed to its own unique risks and have its own population characteristics and resource limitations, hazard identification and risk assessments should assess the potential level of risk in terms of likelihood and consequences in each board of health's community to inform strategies and set priorities. Risk assessments must regularly integrate changing risks, adapting to evolving probabilities and consequences of events, especially in light of dynamic factors like climate change.

Public health emergency management programs should adopt a disaster risk reduction and whole-of-society approach to emergency management which are seen as essential for managing risks and impacts, and supporting the resilience of communities. Disaster risk reduction supports resilience by aiming to prevent new and reduce existing disaster risk through systematic efforts to analyze and mitigate the causal factors of disasters. For example, assessing the evolving nature of climate change and its impacts on human health from extreme weather. A whole-

of-society approach leverages the capacities and opportunities across sectors and community partners to reduce risk, vulnerabilities, and impacts of emergencies.[6,7,15] For example, a global pandemic response that leverages both public and private sector stakeholders in health and non-heath sector, including individuals, families, religious institutions, academia, the media etc., to work together to develop and/or apply integrated policies and programs towards the achievement of their interdependent goals.

Public health emergency management programs shall adopt, or incorporate concepts and/or principles consistent with the Incident Management System (IMS) as a standardized approach to emergency management response encompassing personnel, facilities, equipment, procedures, and communications operating within a common organizational structure.

Roles and Responsibilities

Emergency management is one of the Foundational Standards of the Ontario Public Health Standards: Requirements for Programs, Services, and Accountability (Standards). As such:

1) The board of health shall consider emergency management in all public health program development, implementation, and evaluation.

Population health assessment, health equity, and effective public health practice are also Foundational Standards. As such:

2) The board of health shall consider the above in the development, implementation, and evaluation of the board of health's emergency management program.

3) In addition, the board of health shall consider Program Standards in the development, implementation, and evaluation of the board of health's emergency management program, including:
    a) Substance Use and Injury Prevention Requirements 1 and 2
    b) Food Safety: Requirement 5
    c) Healthy Environments: Requirements 1, 2, 5, 6, 7, 8, 9, and 10
    d) Immunization: Requirement 6
    e) Infectious and Communicable Diseases Prevention and Control: Requirements 1, 5, 6, 20, and 21

f) Safe Water: Requirements 1 and 8

General

4) The board of health shall:
   a) Develop and maintain networks of health sector and community partners for coordination and collaboration in the board's emergency management program activities as described in this section.
      i. Encourage cultures of collaboration by engaging with communities, local partners, and government organizations across sectors to identify and minimize health inequities as per the Health Equity Guideline, and promote enduring relationships as per the Relationship with Indigenous Communities Guidelines.
      ii. Focus on continuous improvement and building resiliency in the board's emergency management program activities as described in this section.
      iii. Encourage cultures of continuous improvement by adopting a complexity theory lens to account for the dynamic and interdependent nature of emergencies, environments, and systems through the use of public health emergency preparedness tools (found on page 11 in the Public Health Emergency Preparedness Framework and Indicators).

Health Hazards Identification and Risk Assessment (HIRA), Awareness and Surveillance

5) The board of health shall, in collaboration with health sector and community partners as applicable, conduct processes that maintain ongoing awareness of:
   a) Public health hazards and risks particular to the health unit area that may give rise to an emergency.
   b) Hazards and risks particular to the health unit area (e.g., extreme weather, respiratory season, climate change, other community risks, etc.) that may give rise to emergencies, planned events or disruptions with public health impacts.

6) The board of health shall use the results of their risk assessment to consider priority populations in the community and the potential for them to experience

disproportionate health impacts from emergencies, planned events, or disruptions.

a. Population health assessment strategies to identify priority populations and monitor their health are outlined in the Population Health Assessment and Surveillance Protocol, and the Health Equity Guideline.

7) The board of health shall use the results of their risk assessment to inform relevant preparedness plans/protocols for emergency management and business continuity and risk reduction.

8) The board of health shall publicly post results of their risk assessment or link to their municipality's publicly posted HIRA.

9) The board of health shall, in collaboration with health sector and community partners as applicable, ensure public education and awareness of public health hazards and risks.

Emergency Planning

10) The board of health shall, in coordination and collaboration with health sector and community partners as applicable, conduct planning for the public health sector, including:
    a) Continuity of operations plans. Planning shall:
        i. identify the time-critical public health functions/services for which the board of health is responsible;
        ii. assess the dependencies and interdependencies (i.e., systems, infrastructure, assets, technology, and resources) upon which the time-critical public health functions/services rely;
        iii. identify recovery time objectives (e.g., non-stop, within 24hrs, within 5 business days, etc.) and the acceptable service levels (e.g., full, half) for each time-critical public health function/service, accounting for disruptions of varying lengths, scope, and scale;
        iv. identify recovery strategies and assign resources required for the maintenance/resumption of time-critical public health functions/services;
        v. include a human resource strategy;
            i. encourage cross-functionality and adaptive skills in key public health functions (e.g., immunization, outbreak management etc.).

   ii. consider rapid recruitment and training models, including potential contributions from partner organizations to support surge capacity for disruptions of varying lengths, and redeployments for training.
vi. contain a mental health and wellness strategy, including considerations for healthy work environments and access to resources, to support staff and well-being (e.g., psychosocial supports);
vii. identify the applicability of workplace health and safety rights and responsibilities, such as the Occupational Health and Safety Act and its Regulations;
viii. adopt an all-hazards approach;
ix. include a communications strategy for internal and external stakeholders;
x. be reviewed and updated annually, as needed;
xi. engage the senior management team and be approved by the Medical Officer of Health; and
xii. be shared with relevant health sector and community partners, as applicable (e.g., other public health units, Community Emergency Management Coordinators).

b) Emergency response plans. Planning shall:
   i. include a clear governance and organizational structure that is, at a minimum, consistent with roles and responsibilities established in the HPPA;[2] and IMS structures.
   ii. identify and align with the corresponding response plans of other relevant organizational and government bodies, including but not limited to relevant local health sector, municipal, provincial and federal government response plans;
   iii. assign responsibilities to staff to implement the emergency response plan as directed by the local Medical Officer of Health, Community Emergency Management Coordinator (CEMC), or appropriate individuals, as outlined in IMS structures and/or local public health unit plans;
   iv. leverage network of health sector and community partners to enable integrated planning and response;

i. consider contributions (e.g., staff and other resources) by partner organizations that can support local public health with their emergency response roles;

v. include a human resource strategy;
   i. encourage cross-functionality and adaptive skills in key public health functions (e.g., immunization, outbreak management etc.).
   ii. consider rapid recruitment and training models, including identifying potential contributions from partner organizations to support surge capacity for emergencies of varying lengths, and redeployments for training.

vi. contain a mental health and wellness strategy, including considerations for healthy work environments and access to resources, to support staff and community mental health and well-being (e.g., psychosocial supports);

vii. identify the applicability of workplace health and safety rights and responsibilities, such as the Occupational Health and Safety Act and its Regulations;

viii. adopt an all-hazards approach;

ix. considers recovery capabilities as part of pre-disaster recovery planning to effectively enable recovery efforts;

x. contain a communications strategy for internal and external stakeholders;

xi. be reviewed annually and updated as needed;

xii. engage the senior management team and be approved by the Medical Officer of Health; and

xiii. be shared with relevant health sector and community partners, as applicable (e.g., other public health units, Community Emergency Management Coordinators)

11) The board of health shall incorporate concepts consistent with IMS in emergency plans and planning.

12) The board of health shall ensure their plans are tested and/or exercised annually.

Communications and Notifications

13) The board of health shall ensure access to the Medical Officer of Health or designate during and after business hours.

14) The board of health shall develop, implement, and maintain 24/7 notification protocols for communications with board of health staff, community partners, and governmental bodies, including the ministry. Protocols for communication shall outline processes for receiving, notifying, and responding to reports of an emergency, planned events or disruption, a potential health hazard, or a reportable or communicable disease including institutional and hospital outbreaks.

15) The board of health shall ensure that 24/7 notification protocols across all programs and services are coordinated to ensure alignment and consistency in coverage and response.

16) The board of health shall identify and maintain a range of communication modalities (e.g., voice, text, video) and platforms (e.g., traditional and social media) to ensure the dissemination of timely and accurate information.

17) The board of health shall develop clear and transparent evidence-based communication to increase health literacy and build trust.

18) The board of health shall develop communication strategies for multiple audiences (e.g., communications in relevant languages, accessible content) including leveraging joint messaging efforts, in coordination and collaboration with health sector and community partners as applicable, to target and reach priority and diverse populations (e.g., requests to community leaders to disseminate information with identified audience).

19) The board of health shall maintain and/or have access to personnel that maintain competencies in crisis and risk communication, including identifying and using communication platforms (e.g., social media, town halls) and approaches (e.g., two-way communication) that supports building transparency, credibility, and trust to address false or misleading information.

20) The board of health shall ensure communication and notification protocols are embedded in their emergency plans.

Learning and Practice, Training and Exercises

21) The board of health shall ensure, in coordination and collaboration with health sector and community partners as applicable[†], learning and training for board of health staff (including senior leadership) at intervals that supports a culture of excellence in professional practice and promotes a skilled and resilient workforce, which includes:
    a) a workplace orientation for new board of health staff members;
    b) knowledge of foundational emergency management and public health legislations and frameworks, including key concepts governing health equity (e.g., social determinants of health), mental health promotion (e.g., community-based interventions), healthy environments (e.g., climate change impacts), and population health (e.g., priority populations).
    c) 24/7 notification protocols, or crisis/risk communications for staff and board of health leadership with a role in emergency planning and response;
    d) cross training of staff in key emergency response roles to facilitate staff rotation, staff respite, and staff redeployment for surge response; and
    e) concepts consistent with IMS.

22) The board of health shall ensure any training and/or certification for board of health staff is documented for internal awareness purposes.

23) The board of health shall ensure a timely debrief/after-action-review is conducted following a disruption, planned event or emergency. The board of health may choose to engage in an intra- or in-action review during emergency responses as well.

24) If no lived experience from disruptions, planned events or emergencies occurred in the past 12 months, the board of health shall conduct an exercise once every year. Exercises may include discussions-based exercises (e.g., tabletops), functional or full-scale exercises. Exercises should:

[†] Per the EMPCA sec. 2.1, municipalities shall provide training and exercises to include employees of the municipality and other persons with respect to the provision of necessary services and the procedures to be followed in emergency response and recovery activities. Boards of health should communicate with municipalities to identify streamlined options for applicable emergency management training.

a) simulate a disruption against time-critical public health functions/ services, or an emergency selected from a range of hazards;
b) provide the opportunity to test assumptions, relationships, and plans, and identify and address key problems or gaps;
c) include board of health staff members and board of health leadership with a role in emergency planning, emergency response, 24/7 notification protocols, and crisis communications;
d) include engagement with health sector and community partners, and other stakeholders as appropriate to the scenario;
e) graduate in difficulty over time or adjusted to the skillset and expertise of the attending players so it provides for continuous learning and quality improvement; and
f) include a debrief session/after-action review to identify learnings and provide recommendations to future responses and plans, to be further documented in an improvement plan (IP) that promotes ongoing program improvement.

25) The board of health shall, in coordination and collaboration with health sector and community partners as applicable, ensure a culture of continuous organizational self-improvement and adaptive learning.

Glossary

After-Action Report (AAR): A report that documents the performance of tasks related to an emergency, exercise, or planned event and, where necessary, makes recommendations for improvements.[11]

After-Action Review: qualitative review conducted after the end of an emergency response to identify best practices, gaps, and lessons learned. AAR This allows stakeholders to reflect on shared experiences and perceptions of a response, and work together to identify what worked well, what did not work, why, and areas for improvement.[23]

All-Hazards Approach: an emergency management approach to risk assessments that helps identify, analyze, and prioritize the full range of potential threats when planning for response capacities and mitigation efforts.[15]

Community Emergency Management Coordinator (CEMC): an employee of a municipality or a member of the municipal council responsible for the development and implementation of the municipality's emergency management program.[5]

Complexity Theory: A lens to understand the complex adaptive system operating in public health emergencies. Characteristics of complex systems include 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.[10]

Continuity of Operations Plan (COOP): A plan developed and maintained to direct an organization's internal response to an emergency.[11]

Critical Infrastructure (CI): Interdependent, interactive, interconnected networks of institutions, services, systems, and processes that meet vital human needs, sustain the economy, protect public safety and security, and maintain continuity of and confidence in government.[11]

Disaster Risk Reduction (DRR): a systematic, whole-of-society approach to identifying, assessing and analyzing the causal effects of disasters and reducing the risks and impacts of disaster based on risk assessment.[15]

Disruption: Disruptive events or disruptions are time-limited events that impact, or are likely to impact, the ability of the health system to maintain regular health services and where required, to support individuals negatively impacted as a consequence of the disruption.[11]

Emergency: A situation or an impending situation that constitutes a danger of major proportions that could result in serious harm to persons or substantial damage to property and that is caused by the forces of nature, a disease or other health risk, an accident or an act whether intentional or otherwise.[11]

Emergency Management: Organized activities undertaken to prevent, mitigate, prepare for, respond to, and recover from actual or potential emergencies.[11]

Emergency Management Program: A risk-based program consisting of prescribed elements that considers components of emergency management such as prevention, mitigations, preparedness, response and recovery.[11]

Exercise: A simulated emergency in which players carry out actions, functions, and responsibilities that would be expected of them in a real emergency. Exercises can be used to validate plans and procedures, and to practice prevention, mitigation,

preparedness, response, and recovery capabilities. Exercises can be discussion-based (e.g., seminars, workshops, table-top exercises) or operations-based (e.g., drills, functional exercises, full-scale exercises).[12]

Hazard: A phenomenon, substance, human activity, or condition that may cause loss of life, injury or other health impacts, property damage, loss of livelihoods and services, social and economic disruption, or environmental damage. These include natural, technological, or human-caused incidents or some combination of these.[11]

Hazard Identification and Risk Assessment (HIRA): A structured process for identifying the nature and extent of risk of those hazards which exist within a selected area and defining their causes and characteristics.[11]

Health Hazard: Chemical, physical, or biological factors in our environment that can have negative impacts on our short- or long-term health. Exposure can occur through touch, inhalation, and ingestion.[14]

Health Sector and Community Partners: A range of health care and community-based or focused organizations and/or individuals. This may include Ontario Health, Public Health Ontario, hospitals, long-term care homes, paramedic services, Indigenous health services providers, Community Emergency Management Coordinator(s) (CEMCs), local authorities (e.g., community police, emergency social services) and any other relevant community partners, in addition to board of health staff and governmental bodies.[8,9]

Improvement Plan (IP): For each task, the Improvement Plan (IP) lists the corrective actions that will be taken, the responsible party or agency, and the expected completion date. The IP is included at the end of the After-Action Report.[22]

Incident Management System (IMS): A standardized approach to emergency management encompassing personnel, facilities, equipment, procedures, and communications operating within a common organizational structure. The IMS is predicated on the understanding that in any and every incident there are certain management functions that must be carried out regardless of the number of persons who are available or involved in the emergency response.[11]

Intra- or In-Action Review (IAR): qualitative review conducted during an emergency response to identify opportunities for ongoing learning and allow for implementation of actionable items to improve the response. The IAR and AAR

process is similar except the IAR is smaller in scope, follows a shorter timeframe, and can inform a longer-term response.[20]

Mitigation: Actions taken to reduce the adverse impacts of an emergency or disaster. Such actions may include diversion or containment measures to lessen the impacts of a flood or a spill.[11]

Priority Populations: those that are experiencing and/or at increased risk of poor health outcomes due to the burden of disease; factors for disease; determinants of health, including social determinants of health; and/or the intersection between them. They are identified using local, provincial and/or federal data sources, emerging trends, local context, community assessments, surveillance, and epidemiological and other research studies.[9]

Preparedness: Actions taken prior to an emergency or disaster to ensure an effective response. These actions include the formulation of emergency response plans, business continuity/continuity of operations plans, training, exercises, and public awareness and education.[11]

Prevention: Actions taken to stop an emergency or disaster from occurring. Such actions may include legislative controls, zoning restrictions, improved operating standards/procedures or critical infrastructure management.[11]

Recovery: The process of restoring a stricken community to a pre-disaster level of functioning or higher level of functioning. This may include the provision of financial assistance, repairing building, and/or restoration of the environment.[11] The recovery, rehabilitation and reconstruction phase is a critical opportunity to build back better.[21]

Recovery Time Objective (RTO): The period of time within which systems, applications, or functions must be recovered after an outage. RTOs are often used as the basis for the development of recovery strategies, and as a determinant as to whether or not to implement the recovery strategies during a disaster situation.[11]

Resilience: The ability to resist, absorb, accommodate and recover from the effects of a hazard in a timely and efficient manner.[11]

Response: The provision of emergency services and public assistance or intervention during or immediately after an incident in order to protect people, property, the environment, the economy and/or services. This may include the provision of resources such as personnel, services and/or equipment.[11]

Risk: The product of the probability of the occurrence of the hazard and its consequences.[11]

Risk Communication: an evidence-based approach to communicating effectively with the public in times of controversy.[16]

Shall: This term is used to specify mandatory requirements.

Should: This term is used to specify recommended practices.

Time Critical Service (TCS): These are services that cannot be interrupted for more than a predetermined period of time without significantly impacting the organization.[11]

Vulnerability: The susceptibility of a community, system or asset to the damaging effects of a hazard.[11]

Whole of Society: a means by which residents, emergency management practitioners, organizational and community leaders, and government officials can collectively understand and assess the needs of their respective communities and determine the best ways to organize and strengthen their assets, capacities, and interests.[19]

References

1. Ontario. Ministry of Health. Ontario Public Health Standards: requirements for programs, services, and accountability. Toronto, ON: Queen's Printer for Ontario; 2021. Available from: https://files.ontario.ca/moh-ontario-public-health-standards-en-2021.pdf
2. *Health Protection and Promotion Act,* RSO 1990, c H.7. Available from: https://www.ontario.ca/laws/statute/90h07
3. Ontario. Ministry of Health. Ontario Public Health Standards: requirements for programs, services, and accountability. Toronto, ON: Queen's Printer for Ontario; 2021. Available from: https://files.ontario.ca/moh-ontario-public-health-standards-en-2021.pdf
4. *Emergency Management and Civil Protection Act*, RSO 1990, c E.9. Available from: https://www.ontario.ca/laws/statute/90e09

5. Ontario. Treasury Board Secretariat. Governance [Internet]. Toronto, ON: King's Printer for Ontario; 2021 [modified 2024 Jan 16; cited 2024 Jan 17]. Figure 6, structure of documents and authorities. Available from: https://www.ontario.ca/document/emergency-management-framework-ontario/governance#section-3

6. United Nations Office for Disaster Risk Reduction (UNDRR). Sendai framework for disaster risk reduction 2015-2030. Geneva: UNDRR; 2015. Available from: https://www.preventionweb.net/files/43291_sendaiframeworkfordrren.pdf

7. Ontario. Ministry of the Solicitor General. Incident Management System (IMS) guidance [Internet]. Version 2.0. Toronto, ON: Queen's Printer for Ontario; 2021 [cited 2024 Jan 17]. Available from: https://files.ontario.ca/solgen-ims-guidance-version-2.0-en-accessible.pdf

8. Ontario. Ministry of Health and Long-Term Care, Population and Public Health Division. Health equity guideline, 2018. Toronto, ON: Queen's Printer for Ontario; 2018. Available from: https://files.ontario.ca/moh-guidelines-health-equity-guideline-en-2018.pdf

9. Ontario. Ministry of Health and Long-Term Care, Population and Public Health Division. Population health assessment and surveillance protocol, 2018. Toronto, ON: Queen's Printer for Ontario; 2018. Available from: https://files.ontario.ca/moh-population-health-assessment-surveillance-protocol-2018-en.pdf

10. Ontario Agency for Health Protection and Promotion (Public Health Ontario). Public health emergency preparedness framework and indicators: a workbook to support public health practice. Toronto, ON: Queen's Printer for Ontario; 2020. Available from: https://www.publichealthontario.ca/-/media/documents/w/2020/workbook-emergency-preparedness.pdf?la=en

11. Emergency Management Ontario. Emergency management glossary of terms [Internet]. Toronto, ON: King's Printer for Ontario; 2021 [modified 2023 Dec 12; cited 2024 Jan 17]. Available from: https://www.ontario.ca/page/emergency-management-glossary-terms

12. National Collaborating Centre for Determinants of Health (NCCDH). Glossary of essential health equity terms. Antigonish, NS: NCCDH; 2022. Available from: https://nccdh.ca/glossary/entry/vulnerable-populations

13. Ontario Agency for Health Protection and Promotion (Public Health Ontario). Health hazards [Internet]. Toronto, ON: King's Printer for Ontario; c2023 [cited 2024 Jan 17]. Available from: https://www.publichealthontario.ca/en/Health-Topics/Environmental-Occupational-Health/Health-Hazards

14. Public Safety Canada. Canada's Platform for Disaster Risk Reduction [Internet]. Ottawa, ON: Government of Canada [modified 2023 Jan 27; cited 2024 Jan 17]. Available from: https://www.publicsafety.gc.ca/cnt/mrgnc-mngmnt/dsstr-prvntn-mtgtn/pltfrm-dsstr-rsk-rdctn/index-en.aspx

15. Public Safety Canada. All-Hazards Risk Assessment [Internet]. Ottawa, ON: Government of Canada [modified 2022 Jan 06; cited 2024 Jan 17]. Available from: https://www.publicsafety.gc.ca/cnt/mrgnc-mngmnt/mrgnc-prprdnss/ll-hzrds-rsk-ssssmnt-en.aspx

16. Ontario Agency for Health Protection and Promotion (Public Health Ontario), Brecher RW, Copes R. EOH fundamentals: risk communication. Toronto, ON: Queen's Printer for Ontario; 2016. Available from: https://www.publichealthontario.ca/-/media/documents/f/2016/fundamentals-risk-comm.pdf?la=en

17. Emergency Management Ontario. A safe, practiced and prepared Ontario: Provincial Emergency Management Strategy and Action Plan. Toronto, ON: King's Printer for Ontario; 2023. Available from: https://files.ontario.ca/tbs-pemsap-a-safe-and-prepared-ontario-report-en-2023-02-03.pdf

18. Moore K. Being ready: ensuring public health preparedness for infectious outbreaks and pandemics. 2022 annual report of the Chief Medical Officer of Health of Ontario to the Legislative Assembly of Ontario. Toronto, ON: King's Printer for Ontario; 2023. Available from: https://files.ontario.ca/moh-cmoh-annual-report-2022-en-2023-03-15.pdf

19. World Health Organization. Glossary: whole-of-government, whole-of-society, health in all policies, and multisectoral. Geneva: World Health organization Organization; 2016.

20. Ontario Agency for Health Protection and Promotion (Public Health Ontario). Best practices for conducting in- and after-action reviews as part of public health emergency management [Internet]. Toronto, ON: Queen's Printer for Ontario; 2022 [cited 2024 Jan 17]. Available from: https://www.publichealthontario.ca/-/media/Documents/B/2022/best-practices-after-action-review-phem.pdf?sc_lang=en

21. Ontario Agency for Health Protection and Promotion (Public Health Ontario). Response and recovery from public health emergencies: assessment activities. [Internet]. Toronto, ON: Queen's Printer for Ontario; 2022 [cited 2024 Jan 17]. Available from: https://www.publichealthontario.ca/-/media/Documents/nCoV/focus-on-response-recovery-from-public-health-emergenices.pdf

22. U.S. Federal Emergency Management Agency (FEMA), Emergency Management Institute. Glossary [Internet]. Available from: Emergency Management Institute - IS-361: Public Health Emergency Management Toolkit Glossary. Emmitsburg, MD: FEMA; [cited 2024 Jan 18]. Improvement Plan (IP). Available from: https://training.fema.gov/programs/emischool/el361toolkit/glossary.htm#I

23. World Health Organization. Glossary of health emergency and disaster risk management terminology. Geneva: World Health Organization; 2020. Available from: https://iris.who.int/bitstream/handle/10665/331716/9789240003699-eng.pdf


Ontario