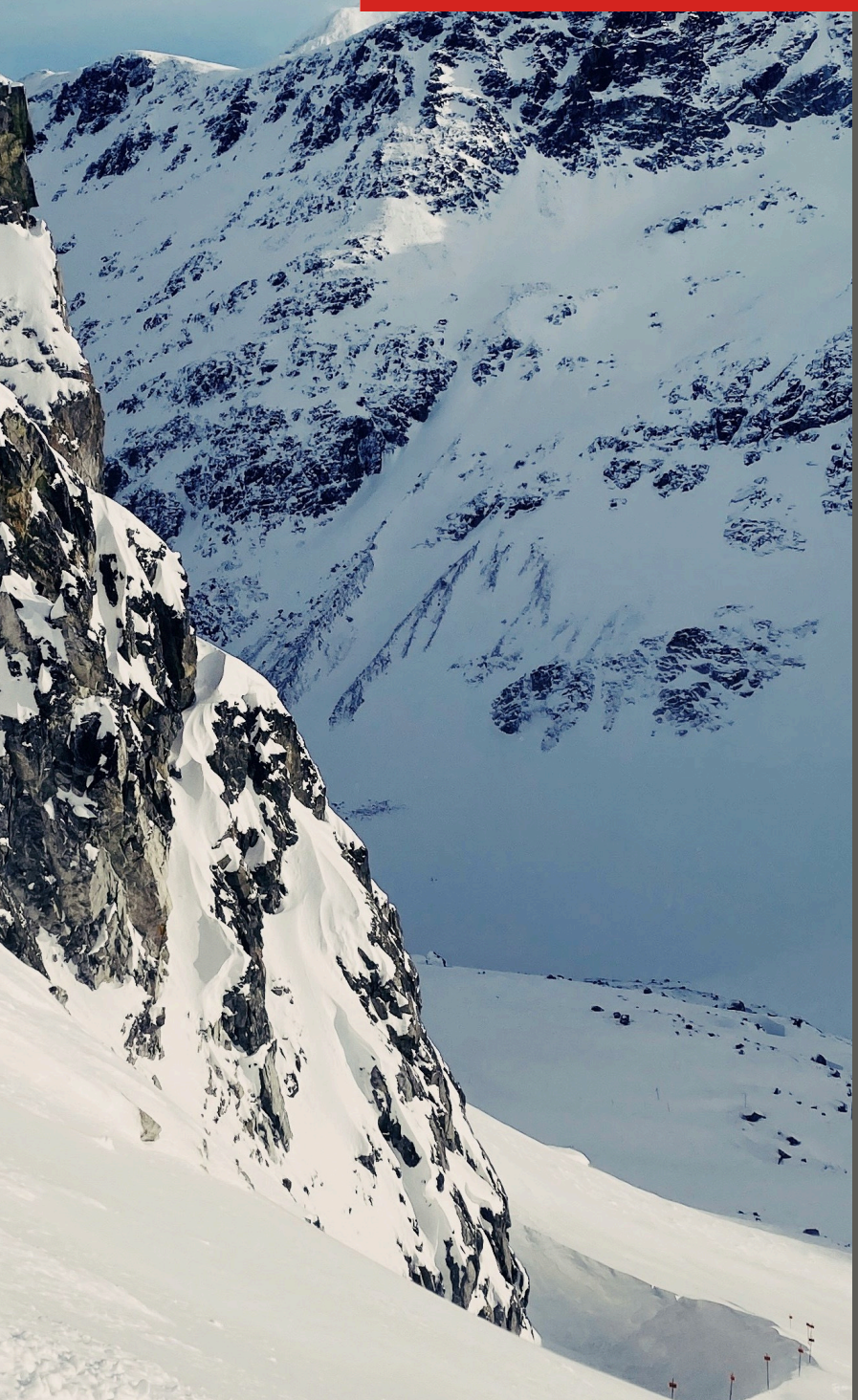
Mass Casualty Incident Framework for British Columbia Hospitals



GUIDANCE, TOOLS & RECOMMENDATIONS FOR HOSPITAL-BASED MASS CASUALTY MANAGEMENT

HEMBC
Health Emergency Management

Acknowledgements

The Direction of Land Claim Negotiations, 2013, 72 x 68”, Acrylic on Canvas

by Lawrence Paul Yuxweluptun (b.1957)

Health Emergency Management British Columbia (HEMBC) wishes to acknowledge that this work was developed on the traditional, ancestral, and unceded territories of British Columbia First Nations. We recognize, with respect, the inherent rights and title of the First Nations whose ancestral territories cover every inch of the province now known as British Columbia, including their unextinguished rights to land, self-determination, health and wellness.

As a provincial program, HEMBC supports a diverse population including First Nations, Métis Peoples and Inuit living in various settings and communities across British Columbia. We give thanks to be able to live, work and care together on these lands.

Contributors

We gratefully acknowledge the participation of the multiple experts from HEMBC, Fraser Health Authority, Interior Health Authority, Island Health Authority, First Nations Health Authority, Northern Health Authority, Provincial Health Services Authority, Vancouver Coastal Health Authority, British Columbia Emergency Health Services, Trauma Services British Columbia, and Emergency Care British Columbia Health Improvement Network who were involved in the development of this framework. Thank you all for your commitment to this endeavour and for sharing your knowledge and time.

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Executive summary

The Mass Casualty Incident (MCI) Framework for British Columbia Hospitals establishes a standardized, evidence-informed approach to strengthen the preparedness, response, and recovery capacity of acute care hospitals during large-scale emergencies that result in multiple casualties. Developed through the HEMBC Provincial MCI Project, the framework synthesizes best practices, literature, subject matter expertise, interest holder input, and lessons learned from BC's health system to guide consistent MCI planning and coordination across health authorities.

While each health authority operates within its own structures and capacities, the framework promotes alignment through shared principles, language, and processes to support interoperability across the provincial health system. Its scope is focused on acute care settings, recognizing that other system partners – such as BC Emergency Health Services (BCEHS), community health, and emergency management agencies – play critical but separate roles not addressed in detail here.

- **Mitigation** focuses on proactive actions to reduce risk and minimize impacts before an MCI occurs. This includes completing Hazard, Risk, and Vulnerability Analyses, prioritizing surge and business continuity planning, and promoting workforce wellbeing initiatives. Mitigation also includes building external awareness by maintaining liaisons with key partners such as municipalities, event organizers, and Environment and Climate Change Canada to anticipate potential triggers for MCIs, such as mass gatherings or extreme weather events.
- **Preparedness** builds the foundation for effective response through deliberate planning, training, and exercising. Central to preparedness is the development and regular maintenance of Functional Area Plans that outline MCI-specific actions for each department. The framework recommends a structured, progressive exercise program spanning seminars, workshops, tabletop and functional exercises that builds capacity toward a full-scale exercise. Preparedness also includes maintaining familiarity with site-specific MCI procedures, training staff on plans and roles, and utilizing iterative exercises and after-exercise reviews to contribute to a culture of continuous quality improvement.
- **Response** outlines the operational components that enable hospitals to act quickly and cohesively when an MCI occurs. This includes standardized notification and activation processes; establishment of Emergency Operations Centres with predefined roles; and a whole-of-hospital approach to decanting to free capacity across departments. Guidance is provided for additional response elements such as fan out, disaster triage, patient tracking, and effective internal and external communications. Together, these measures support timely, coordinated care and efficient information flow during complex, high-stakes events.
- **Recovery** focuses on restoring hospital operations to normal, replenishing supplies, and supporting the physical and psychological wellbeing of staff. Incorporating structured debriefings, psychosocial supports, and linkages with employee and family assistance programs strengthens organizational resilience and contributes to continuous improvement.

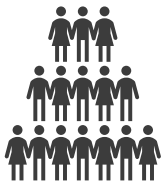
Collectively, these components offer a comprehensive, evidence-informed framework to guide acute care hospitals in planning for all phases of an MCI – before, during, and after an event. By adopting these recommendations, health authorities will enhance provincial coordination, standardize critical processes, and strengthen readiness to deliver timely, effective care during extraordinary circumstances.

How to use this framework

This framework is designed to serve as a practical and actionable guide to strengthen the preparedness and response capacity of acute care hospitals in British Columbia for MCIs. It provides a series of evidence-informed recommendations organized under the four phases of emergency management: mitigation, preparedness, response, and recovery. Each recommendation is accompanied by key actions for both Health Authorities and HEMBC, outlining how each organization contributes to implementation and system alignment.

Unit/Department Leaders

Unit/department leaders play a critical role in operationalizing the framework at the service level. They should ensure that department-specific Functional Area Plans are developed, updated, and exercised according to the guidance provided. These leaders should also ensure that staff are trained on site-specific MCI procedures and understand their roles during activation, response, and recovery.



Hospital Leads for Emergency Management

Hospital leads for emergency management are encouraged to review each recommendation within the context of their site's existing emergency management program. They should identify opportunities to integrate the recommendations into local emergency plans, training schedules, and exercise programs. Leaders should also engage multidisciplinary teams – including clinical, administrative, and support services – to ensure that all operational aspects of MCI response are addressed.

Regional Health Authority Leaders

Regional health authority leaders are responsible for coordinating system-wide planning and ensuring consistency across sites. They should use the framework to identify gaps, align regional plans with provincial standards, and support the integration of lessons learned from exercises or real-world events. Regional leaders should also establish processes to monitor and evaluate progress in implementing the framework's recommendations.

HEMBC

HEMBC's role is to provide subject matter expertise, coordination, and support to Health Authorities in the implementation of this framework. HEMBC will ensure that emergency management specialists are equipped with the knowledge and resources to advise on each component of the framework, facilitate collaboration across jurisdictions, and support continuous improvement through education, evaluation, and after-action review processes.

Groups Outside the BC Health System

While this framework was developed for BC's acute care system, many of its recommendations are relevant to hospitals across Canada. For organizations outside the BC health system, the same principles and recommendations apply, though key actions may be distributed differently depending on organizational structures and emergency management processes.

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Introduction

The Mass Casualty Incident (MCI) Framework for British Columbia Hospitals is grounded in the work of the Health Emergency Management British Columbia (HEMBC) Provincial MCI Project, which ran from December 2022 to December 2025. This multi-year initiative brought together experts, interest holders, and partners from across the health system to develop a comprehensive, evidence-informed foundation to allow for the planning and management of MCIs in hospitals across the province. The framework reflects the collective learning and consensus-building that took place over the course of the project and is intended to support consistent, high-quality coordination and care during major emergency events.

Background & approach

MCI mitigation, preparedness, response, and recovery is a complex and interdependent cycle that involves numerous interest holders across local, regional, and provincial levels of health care delivery. Delivering effective care during an MCI requires more than clinical expertise — it also demands the implementation of well-defined and practiced structures for command, operations, planning, finance, and logistics.

While each health facility's MCI response must be tailored to its specific context, such as rural and urban settings, available surgical services, and specialty resources, there are foundational approaches that should ideally be standardized. Establishing a common approach and issuing expert recommendations enables better coordination among facilities, health authorities, and external partners. Additionally, the ongoing development and distribution of consistent tools and resources ensures the health system remains aligned, agile, and capable of delivering coordinated care over time.

The Provincial MCI Project was initiated by HEMBC and operated through a dual governance structure. A HEMBC-led working group, composed of HEMBC Specialists from each of the regional health authorities, led the development of tools, guidance, and recommendations by reviewing academic and grey literature, industry standards, previous MCI events, and available subject matter expertise. This group was supported by a Provincial Steering Committee that included both an operational leader and a medical leader from each health authority in British Columbia. See Appendix B for the full project structure. In addition to reviewing, approving, and endorsing the materials produced by the working group, steering committee members also contributed specialized expertise on an ad hoc basis — including their expertise in pediatric care, rural health delivery, and cultural considerations — to ensure the recommendations were grounded in practical, system-wide knowledge.

Defining an MCI

This framework defines an MCI as any event that results in multiple casualties *and* has the potential to overwhelm the capacity of receiving hospitals. Unlike a fixed numerical threshold, the definition of an MCI is context-dependent: what constitutes an MCI will vary based on both static and point in time influences such as the resources, census, and capacity of a hospital. For example, a rural facility with limited staffing and beds may be overwhelmed by just a few critically injured patients, while a larger urban trauma centre may be able to accommodate significantly more before reaching capacity. This variability makes MCI identification and planning particularly complex, requiring flexible, scalable systems that can be adapted to local contexts while still supporting coordinated, system-wide response.

Scope

This framework was developed to guide and support **acute care hospitals** across BC to prepare for and manage MCIs in partnership with HEMBC. The scope of the project included the creation of this standardized health authority MCI emergency operations framework, evidence-informed summaries of key preparedness and response actions, and a set of consistent tools, procedures, and resources to assist health facilities in effectively planning for and responding to MCI events. The project focused specifically on in-hospital response. While the importance of coordinated community and pre-hospital response was recognized and informed work throughout the project life cycle, the recommendations that were developed exclude the pre-hospital and community settings. Furthermore, BC Emergency Health Services (EHS) was a key collaborator and contributed to the development of components that directly impact them, such as notification and activation processes. Given the complexity of MCI planning across diverse settings and partners, this work was intentionally scoped as a *minimum viable product* – designed to offer a strong foundation while remaining adaptable for future refinement and expansion.

Patient engagement

To ensure the MCI Framework reflects the needs and values of patients and communities, HEMBC undertook targeted patient engagement during the development of this work. Participants were identified through the Patient Voices Network and included individuals with lived experience related to MCIs, emergencies, and disaster events in British Columbia. Engagement was conducted through two facilitated virtual focus group sessions, supported by pre-session materials and guided discussions. Input was collected, themed, and shared with the project working group and steering committee, where it informed the development of recommendations and tools.

Themes from patient engagement

Cultural safety
Participants emphasized that lack of cultural safety can compound the harm caused by an MCI. Ensuring care is culturally respectful and responsive is essential – particularly for Indigenous peoples and other equity-deserving populations.

Mental health care
The psychological effects of an MCI often outlast physical injuries. Participants shared that follow-up mental health care is difficult to access and frequently left up to patients to navigate on their own.

Patient engagement & trust
Transparent communication and timely information were seen as critical to maintaining trust in emergency situations. Participants stressed the importance of patients understanding what is happening so they can feel a sense of control amid chaos.

Support for responders
Acknowledging and supporting healthcare workers and emergency responders during and after an MCI was viewed as essential. Participants recognized that providers often carry a sense of guilt or inadequacy when working under extreme constraints that are beyond their control.

Hospital preparedness
Participants highlighted the importance of strong emergency preparedness systems and training. They expressed concern that hospitals may not be adequately resourced or ready to manage large-scale emergencies.

While this engagement reflects the perspectives of a small group of individuals, their insights offer meaningful and relevant guidance that adds value to the overall framework. Their lived experiences provide important context for how emergency planning and response can better meet the needs of patients, families, and communities.

Implementation

The implementation of this framework builds on **the existing roles and responsibilities of the regional health authorities and HEMBC**. HEMBC provides emergency management subject matter expertise and plays a central role in supporting health authorities as they plan for and respond to MCIs. While the framework offers a standardized provincial approach, responsibility for developing and operationalizing site- and health authority-specific plans remains with each health authority.

To enable effective implementation, HEMBC staff are educated on all components of the framework. This ensures they are equipped to deliver guidance, resources, and targeted education to health authority partners as needed. HEMBC staff can act as advisors and facilitators, supporting health authorities in interpreting and applying the framework's recommendations in their local contexts.

Implementation of the framework will be embedded within the existing emergency management structures and processes already established across the health system. This includes integration into ongoing planning and preparedness activities through local and regional emergency management committees as well as the Health System Emergency and Disaster Management (HSEDM) Steering Committee. By aligning with these established structures, the framework can be sustainably adopted and adapted across diverse settings, while ensuring that all health authorities are using informed practices as the foundation for their MCI planning and response.

Renewal

Renewal of the Provincial MCI Project and this framework may be initiated by either the HEMBC or the HSEDM Steering Committee in response to emerging clinical or operational needs, new evidence, or changes in system priorities. Any renewal should be grounded in a review of current implementation progress, alignment with best practices, and lessons learned from MCI events or exercises.

To support effective renewal planning, it is recommended to allow sufficient time – at least five (5) years – for full implementation and operational integration of the current deliverables. Premature renewal may lead to duplication of work, disruption of uptake efforts, and dilution of focus. A renewal process should build upon existing foundations rather than restart or replace them, with a clear emphasis on evaluating impact, identifying gaps, and adapting tools and frameworks as needed.

Mitigation

Mitigation refers to the actions taken before an emergency takes place to reduce its potential impact on patients, staff, and health system operations. In the context of this framework, mitigation focuses on opportunities to identify and address vulnerabilities within the acute care setting to improve system resilience to MCIs. Effective mitigation lays the groundwork for a more coordinated and less disruptive response when an MCI occurs.

Mitigation activities

Understanding the local context of MCIs is foundational to effective mitigation planning. Hazard, Risk, and Vulnerability Analyses (HRVAs) are essential tools that can help health authorities and acute care sites identify the most likely MCI mechanisms in their regions – whether from transportation accidents, industrial events, natural disasters, or other risks. They also examine geographic and infrastructure limitations, while highlighting feasible opportunities for system improvement. These assessments are critical to informing mitigation strategies that are tailored, realistic, and grounded in local realities.

HRVAs offer a structured way to identify risks and develop targeted, evidence-informed mitigation strategies that strengthen system readiness and response capacity. While the availability of HRVAs varies, their role in assessing vulnerabilities and guiding planning priorities is universally acknowledged, thus forming a key component of informed MCI management.

Recommendations

1. **All health authorities should have a valid HRVA completed within the last five (5) years.**
   By ensuring that an HRVA has been completed or updated within the last five years, health authorities can better identify local risks and strengths, allowing for evidence-based mitigation and planning for MCIs.

   Key actions

Health authorities	HEMBC
☐ Participate in HRVA development by sharing relevant organizational information, including but not limited to infrastructure data and risk assessments	☐ Review the available HRVAs done by provincial government, local government, and health authorities and adapt as required ☐ If no HRVA exists and/or is out of date more than five (5) years, collaborate with health authorities and government partners to have one completed

2. **Health authorities should prioritize surge planning, business continuity planning, and workforce wellbeing strategies.**
   These emergency management-related components can reduce system vulnerabilities and enhance resilience to severe and catastrophic events, thus limiting the impact of MCIs on acute care hospitals.

   Key actions

Health authorities	HEMBC
☐ Develop and maintain surge capacity plans that outline how acute hospitals / the health authority can expand clinical and operational capacity	☐ Review the available HRVAs done by provincial government, local government, and health authorities and adapt as required.

during a mass casualty incident, including strategies for space, staff, and supplies. ☐ Integrate business continuity planning into emergency preparedness efforts to ensure that critical services can be sustained or rapidly restored during and after an MCI. ☐ Implement workforce wellbeing strategies that proactively address staff mental health, stress, and burnout, both in advance of and following high-impact events such as MCIs.	☐ If no HRVA exists and/or is out of date more than five (5) years, collaborate with health authorities and government partners to have one completed.

3. **HEMBC should liaise between health authorities and relevant external partners to routinely share timely information about upcoming events and environmental conditions.**
Special events and weather patterns may increase the risk or impact of an MCI. By liaising with key relevant external partners - including municipalities, event organizers, and subject matter agencies such as Environment and Climate Change Canada (ECCC) – HEMBC can provide the health authorities awareness about upcoming conditions to inform their planning and enhance their capacity should an MCI occur.

Key actions

Health authorities	HEMBC
☐ Upon receiving briefings, health authorities should make operational adjustments and enact any relevant plans, i.e. surge plans, inclement weather plans, as needed to ensure readiness for upcoming special events and environmental conditions.	☐ Establish and maintain communication channels with key external partners, including but not limited to local government, First Nations and other Indigenous governing bodies and councils, event organizers, and ECCC, to receive regular updates on planned events and emerging environmental risks. ☐ Provide regular updates to health authority emergency management leads about external events and environmental conditions that may elevate MCI risk, i.e. seasonal outlook briefings, special event guides, and weather alerts.

Preparedness

Preparedness involves planning, training, and exercising to ensure the health system is ready to respond effectively to an MCI. While mitigation focuses on reducing risk before an event, preparedness ensures that when an MCI does occur, health authorities and acute care sites are equipped to act quickly and efficiently. This includes developing functional area plans that clarify roles and responsibilities, conducting exercises, and maintaining the systems and resources needed for an organized response. Preparedness is a continuous process that strengthens system readiness, builds staff confidence, and improves the effectiveness of MCI responses.

Functional area plans

The purpose of a Functional Area Plan (FAP) is for a unit/department to outline its plan and process for responding to a sudden influx of patients following a mass casualty event. FAPs support the relocation, expansion, or temporary creation of a specialized department for the duration of a mass casualty event. They also outline key response actions such as the set up and preparation of the area, staffing requirements, the unit/department reporting structure, and decanting process. Once a Code Orange is activated by an acute care site, the functional area plans are activated.

While academic and grey literature on FAPs is limited, an extensive review of previously completed FAP's within BC led to the development of two (2) FAP templates for acute care sites to utilize. One template is focused on the Emergency Department (ED) and the specific sub-areas created within the department (e.g. triage, immediate treatment area, delayed treatment area, etc.). The second template is for the other departments/areas in the hospital, both clinical and non-clinical in nature. Once a department recognizes the need for a FAP and develops one, it is important that the plan be reviewed by all staff working in the area. FAPs are an excellent resource to be used in education and training for a Code Orange and should be incorporated into regular drills and simulations. See Appendix C for the FAP templates.

Recommendations

1. **All acute care hospitals should complete FAPs as part of their MCI preparedness, adapting the provided templates.**
   Completing FAPs is a foundational step in MCI preparedness, helping departments anticipate their roles and enhance their readiness. By adapting the standardized FAP templates provided in this framework, acute care hospitals can ensure alignment with broader hospital and health authority emergency operations while accounting for their unique workflows and resources.

   Key actions

Health authorities	HEMBC
☐ Complete the FAPs, ensuring accuracy and thoroughness of information. ☐ Educate staff working in the area on the contents of the FAP and their unique role.	☐ Provide templates and offer advisory support. ☐ Monitor for completion and follow-up with areas that still require plans.

2. **FAPs should be updated on a 3-year cycle from published date, unless significant changes within the department occur outside review cycle and/or the plans are activated for an MCI response.**
   To ensure FAPs remain relevant and effective, they should be reviewed and updated on a regular basis. A three-year review cycle allows departments to reflect changes that may affect their response during an MCI. If significant changes occur outside of the review cycle – such as departmental restructuring or updated clinical workflows – or if the FAP is activated during an actual MCI, an earlier review should be triggered. Regular updates support accuracy, staff familiarity, and operational alignment with broader emergency management plans.

Key actions

Health authorities	HEMBC
☐ Review and update FAPs at the end of 3-year cycle from published date. ☐ Alert HEMBC when significant changes (i.e. staffing, workflows, infrastructure, etc.) within the department occur, warranting review of FAPs. ☐ Review and update FAPs as part of After-Action Review (AAR) process following MCI response.	☐ Monitor and prompt review of FAPs at the end of 3-year cycle from published date. ☐ Prompt review of FAPs as part of AAR following MCI responses.

3. **FAPs should be posted on the health authority Intranet page and be available in the Emergency Response manual.**
   Easy access to these plans is critical to a timely activation of MCI response processes. Posting FAPs on the health authority's intranet ensures that personnel can quickly locate and review their department's response procedures as needed. In addition, including FAPs in the Emergency Response Manual ensures they are readily available during both planned exercises and real-time emergencies, including situations where digital access may be limited.

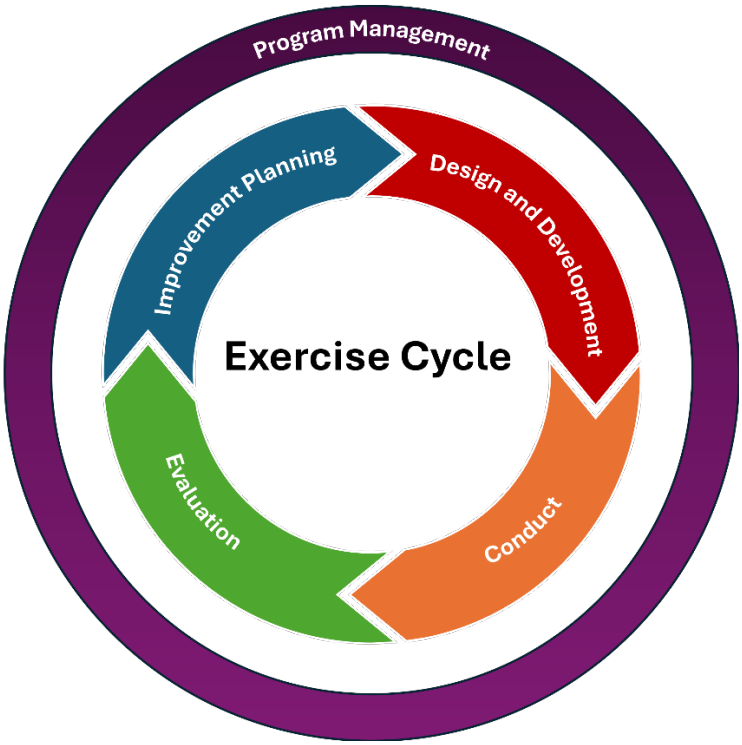
Key actions

Health authorities	HEMBC
☐ Ensure completed FAPs are in the Emergency Response Manual.	☐ Upload FAPs to health authority Intranet page.

Exercise resources

This section provides resources and guidance to support the planning and execution of MCI-focused exercises. Exercises are a critical component of MCI preparedness, providing an opportunity to test plans, build staff confidence, and strengthen coordination across departments and agencies. They allow teams to identify gaps, clarify roles, and practice critical decision-making in a controlled, low-risk environment. Exercising follows its own structured cycle: design and development, conduct, evaluation, and improvement planning (see Figure 1). Embedding this process into preparedness activities ensures continuous learning, system refinement, and sustained readiness over time.

Figure 1: Exercise and evaluation program cycle



Types of exercises

Full-scale exercises are widely recognized as the most realistic and comprehensive method for simulating an MCI. They allow for the testing of systems, processes, and roles under near-real conditions. However, a range of other exercise types – each with distinct benefits and limitations – can also support preparedness and should be selected based on the specific objectives of the planning team. Choosing the right type of exercise is essential to achieving meaningful outcomes, particularly when considering available resources, team experience, and system maturity (see Table 1).

Discussion-based exercises typically involve scenario-driven dialogue and are effective for exploring policies, procedures, and inter-organizational coordination in a low-pressure setting. These exercises help identify areas of misalignment or uncertainty and are particularly useful when organizations are in the early stages of planning or developing shared understanding across teams. They can also be used to address known challenges or complex decision-making scenarios where facilitated conversation is needed.

Operations-based exercises focus on the practical application of plans and procedures in response to a simulated incident. These exercises are most effective once participants have a baseline understanding of roles and expectations, and they are designed to validate response activities under dynamic conditions. Incorporating drills and functional exercises before attempting a full-scale exercise can help participants build capacity and confidence. Regardless of exercise type, it is considered best practice to conduct a structured evaluation and use the findings to guide improvement planning and further testing of any identified gaps.

Table 1: Types of exercises

Discussion-based exercises		
Type	**Best suited for**	**Considerations**
Seminar *An informal, lecture-based discussion used to orient participants to new or updated plans, policies, or procedures.*	• Participants new to a topic or needing a refresher. Appropriate for mixed-experience audiences. • Useful for awareness-building and foundational knowledge.	• Typical duration: 1-2 hours. • Casual atmosphere with minimal time constraints.
Workshop *A structured, collaborative session focused on producing a specific outcome such as a draft plan, policy, or exercise product.*	• Cross-functional teams, leadership, SMEs, and decision-makers who are actively working to build or revise tools, policies, or response elements.	• Typical duration: 2-4 hours with breaks. • Requires clear objectives, skilled facilitation, and breakout discussions.
Tabletop Exercise (TTX) *A discussion-based exercise in which key personnel walk through a simulated scenario to assess response strategies, plans, and coordination.*	• Operational leaders and emergency management staff. • Appropriate when exploring system readiness, roles, or new policies. • May only exercise portions of a plan.	• Typical duration: 2-4 hours including debrief. • Needs experienced facilitation. • Participants need a basic understanding of the MCI process. • Encouraged documentation of action items.
Game *A simulation exercise that often involves two or more teams using structured rules, roles, and data to explore decision-making in a competitive or collaborative environment.*	• Senior leadership, policy teams, or strategic planners. • Appropriate when exploring trade-offs, system dynamics, and organizational behavior.	• Typical duration: 1-2 hours. • Can be used early in planning or as a complement to other exercises.

Operations-based exercises		
Type	**Best Suited For**	**Considerations**
Drill *A supervised, task-specific simulation used to practice or validate a discrete function or skill (e.g., fan-out testing, triage area setup, etc.)*	• Operational staff and frontline responders practicing tactile tasks or technical steps in a controlled setting.	• Typical duration: 1-2 hours, or as part of a larger exercise). • Repetition builds proficiency. Materials and setup required, but often reusable. • Immediate feedback is critical.
Functional Exercise (FX) *A real-time simulation of an MCI response actions and decision-making without deployment of actual personnel and equipment.*	• Key site leadership and participant unit/department personnel validating plans and procedures. • Appropriate once systems and roles are clearly established.	• Typical duration: 3-6 hours. • Complex to design and deliver. • Requires injects and a Main Sequence of Events List (MSEL).
Full-scale Exercise (FSX) *A high-fidelity simulation involving multiple disciplines and/or agencies operating in real time with live resources and actors.*	• Entire system – leadership, command, frontline staff, external partners – working together in a coordinated, immersive scenario. • Involves actors and/or manikins simulating casualties	• Typical duration: 6-8 hours. • Highest resource and planning demand. • Needs experienced facilitation. • Participants need a strong understanding of the MCI process. • Requires 12–18 months of lead time and detailed MSEL. • Ensure support for regular operations during the event.

MCI exercise program

A well-designed MCI exercise program is essential for building site readiness and ensuring that a full-scale exercise yields meaningful value. Because full-scale exercises require significant planning lead time and interdepartmental coordination, they should be approached as the culmination of a progressive 18-month program (minimum). This program should incrementally develop the site's capacity through foundational activities such as creating plans and training staff on MCI plans before moving into more complex exercise formats. Sites are encouraged to use the full range of exercise modalities (e.g. seminars, drills, tabletop exercises, functional exercises, etc.) and select the format that best meets the specific objectives at each stage. The program should also incorporate a structured After Exercise Review (AER) process to capture lessons learned and translate them into actionable improvements.

A sample MCI exercise program is provided in Appendix D and can be adapted to reflect the scale, resources, and complexity of each site.

Recommendations

1. **All acute care hospitals should adopt an MCI exercise program, integrating MCI exercises into their routine emergency management cycle and scaling appropriately based on site capacity and readiness.** Regular exercising of MCI / Code Orange plans helps ensure that all staff understand their roles and site-specific response procedures as well as identify gaps and test interoperability between departments. Exercise type and complexity should align with site readiness (e.g. workshops and table-tops for early-stage or specific planning, full-scale for mature systems). This ensures feasibility and sustainability, while still reinforcing core preparedness competencies.

Key actions

Health authorities	HEMBC
☐ Develop and maintain an appropriate a multi-year training and exercise plan that includes MCI / Code Orange-specific objectives and timelines for each acute care site (see Appendix D for sample exercise program). ☐ Lead the design and planning of the exercises, identifying exercise priorities, risks, and logistics. ☐ Support interdisciplinary participation in exercises, including involvement of diverse clinical units/departments, leadership, and clinical and corporate support services. ☐ Monitor exercise participation and outcomes as part of broader emergency preparedness quality improvement efforts.	☐ Socialize the value of exercise programs as a systematic way to increase acute care sites' preparedness to MCI / Code Orange activations. ☐ Provide planning support and subject matter expertise in designing, facilitating, and evaluating Code Orange exercises. Ensure sites are informed of the requirements of exercise planning (time, resources, and budget). ☐ Liaise with external partners (e.g. BCEHS, Fire, Police, Emergency Management Climate Readiness, and local and regional governments) to participate as either observers or players in order to develop relationships and learn about agency capacity and abilities. ☐ Utilize the internal HEMBC templates and resources of MCI exercises (e.g. scenarios, patient casualty cards, facilitator guides, Main Sequence of Events List, evaluations tools) to support acute care sites with their exercise design and planning.

Response

The response to an MCI focuses on the immediate actions taken to manage the surge of patients, coordinate resources, and maintain continuity of critical services. Effective response requires rapid activation of MCI plans, clear communication, and strong collaboration between departments and responding partners such as BCEHS, supporting hospitals, and HEMBC. In this phase, acute care sites transition from routine operations to an emergency state, implementing FAPs, disaster triage protocols, and resource management strategies to deliver timely, high-quality patient care under extraordinary circumstances. The response phase builds on the preparedness work completed in advance, ensuring that decision-making is informed, coordinated, and adaptable to the evolving situation.

Notification & activation

The timely notification and activation of hospital MCI (Code Orange) processes are critical to an effective response. Notification refers to how hospitals are informed of an MCI, while activation involves the steps taken by hospital leadership to initiate their emergency response protocols.

Limited literature is available on hospital notification and activation processes, but what exists confirmed that notification most often comes from emergency medical dispatch or the fire department, which aligns with current practice in BC. Typically, BCEHS alerts nearby hospitals by notifying the charge nurse or patient care coordinator (PCC) via phone that the ED may soon receive patients. In some cases, however, patients or companions arriving directly at the hospital, law enforcement officers, or ambulance crews not directly involved in the response have been the first to provide information about an MCI. These varied experiences highlight the reality that MCI events evolve quickly, and hospitals may receive information from multiple sources of varying reliability.

A standardized notification process is essential to reduce uncertainty and provide hospitals with early, reliable information. Hospitals have consistently emphasized the importance of receiving notification as early as possible – even when information is incomplete – so they can begin preparations and establish Code Orange processes. Equally important is the early notification of HEMBC, which is critical to building situational awareness, validating information, and supporting hospitals with timely guidance. Early notification also enables the rapid establishment of local and regional EOCs, strengthening system-wide coordination and patient flow. At the same time, the need for early notification must be balanced with ensuring that frontline operational roles are not overburdened by administrative notification tasks.

The notification process as outlined in the *MCI Interagency Operations Flowchart* (see Figure 2) is designed to be efficient and preserve the ability of operational staff to focus on the urgent demands of the unfolding event. It is the responsibility of all key groups described in this flowchart to ensure they are aware of their role in the notification process and maintain the required contacts.

Recommendations

1. **All health agencies within BC should utilize the established notification process.**
   A consistent process improves efficiency and minimizes common notification pitfalls. See Figure 2 for the *MCI Interagency Operations Flowchart* for flow of notification.

Key actions

Health authorities	HEMBC
☐ Ensure all relevant leaders and staff are aware of notification process and their responsibilities.	☐ Ensure all HEMBC staff are aware of notification process and their responsibilities.

2. **All health agencies within BC should utilize the established notification process.**
   A consistent process improves efficiency and minimizes common notification pitfalls. See Figure 2 for the *MCI Interagency Operations Flowchart* for flow of notification.

Key actions

Health authorities	HEMBC
☐ Ensure all relevant leaders and staff are aware of notification process and their responsibilities. ☐ Develop and maintain further cascading internal notification processes to be activated once aware of a potential or actual MCI.	☐ Ensure all HEMBC staff are aware of notification process and their responsibilities. ☐ Review Code Orange / MCI plans for appropriate inclusion of notification processes.

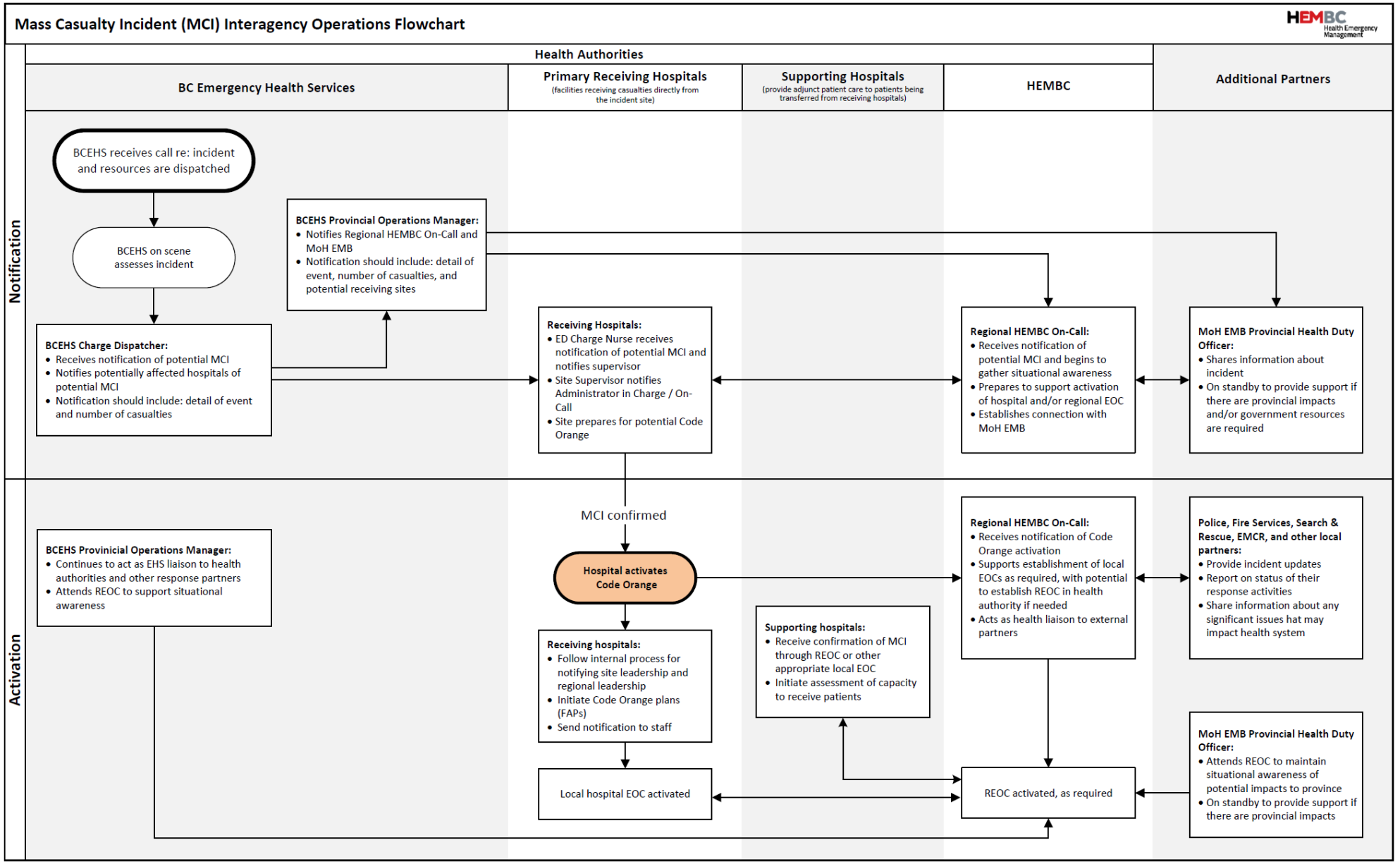
For future consideration

Although current notification processes rely primarily on phone calls and direct communication from BCEHS or other first responders, a key opportunity for improving notification lies in leveraging dispatch technology to provide automated early alerts:

Implement the required technology to send automated early notification from BCEHS Dispatch to potential receiving acute care sites and partners:
Using specific codes that are assigned to each BCEHS call as an automatic trigger, notification that there is a potential MCI situation evolving could be sent via text or existing dispatch platforms to hospitals and key partners. These early alerts would ideally include incident location and nature of the incident (i.e. fire, motor vehicle crash). For example, hospitals in the surrounding area and HEMBC response personnel could receive a notification such as “Emergency personnel are responding to a fire in your area.” This would provide hospitals with rapid situational awareness while detailed updates follow through established channels, and the automated nature of this approach would not cause any additional burden to frontline operational staff.

Technologies capable of supporting such notifications already exist and could be adapted for health system use. However, further exploration would be required to establish the criteria, processes, and funding needed to operationalize this approach. Targeted work in this area could significantly improve timeliness, reduce uncertainty, and support early activation of MCI/Code Orange processes across BC.

Figure 2: MCI Interagency Operations Flowchart



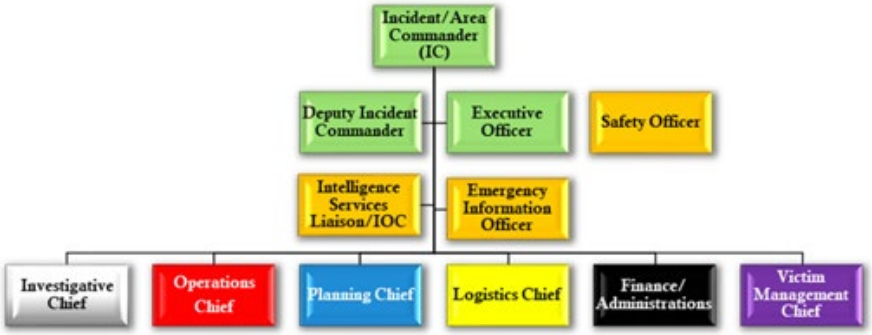
Emergency response structures

The Incident Command System (ICS) is a standardized management system designed to allow for the command, control, and coordination of an effective response to emergency incidents and planned events. Since the late 1980s, hospitals throughout North America and the world have used a version of ICS known as the Hospital Incident Command System (HICS) during emergency responses, including those to MCIs. HICS is designed to be flexible, scalable, and adaptable to any hospital and any hazard. It organizes a hospital's response into five sections: Command, Operations, Planning, Logistics, and Finance/Administration. The sections are differentiated by colour-coded vests, the system establishes a predictable chain of command with a suggested span of control, and roles come with prioritized action checklists. This is all designed to reduce role confusion, promote accountability, and improve interagency communication. Here in BC, hospitals are mandated to use HICS as their emergency management structure.

When considering HICS, past research has shown that a *culture of preparedness* within a hospital is essential to HICS' success to perform well when used in practice. This includes a commitment from senior management, regular training and drills, and interagency collaboration. Such a culture of preparedness is especially important to combat the known challenges that come with HICS usage in hospitals – mainly lack of unfamiliarity, infrequent usage, misalignment with routine hospital operations, high employee turnover, and cost of upkeep of training and materials. As well, despite its popularity, research on HICS remains limited overall limited and evaluation and frontline perspectives are particularity under researched.

In addition to the literature, there is subject matter expertise that must be considered. Emerging practices within partner response agencies, particularly policing, are highlighting that ICS structures should be adjusted to ensure the needs of impacted people are fully addressed. Specifically, police have noted that when psychosocial support roles are dispersed throughout their Emergency Operations Center (EOC), the focus on impacted people can sometimes be overshadowed by operational requirements. In light of that, policing services across Canada are adding a "Victim Management Chief" to their section chiefs within their EOC to highlight the importance of caring for and supporting victims and their families (see Figure 3). The health system can similarly benefit from recognition that supporting impacted people of an MCI, their families, and the responders themselves needs to be identified as a stand-alone priority and high-level role.

Figure 3: Victim Management in EOC Structure (Toronto Police, 2022)



Hospital EOC structures

MCI responses are more effective when responding leaders are trained in the HICS and understand their specific roles and responsibilities within the EOC structure. Establishing and defining an EOC for each site in advance significantly increases efficiency during activation, as the process becomes one of filling predetermined roles rather than building the structure in real time. Predetermining the EOC also allows for deliberate preparation of a leadership and coordination structure that is tailored to the hospital's size, capabilities, and context. While these predefined structures provide a strong starting point, EOCs should remain flexible and adaptable to address unforeseen requirements or circumstances during an actual MCI. See Appendix E for sample local hospital and regional health authority EOC structures.

Recommendations

3. **All acute care leaders should attend annual HICS / EOC training.**
   In order to improve familiarity with HICS and maintain competence, leaders (i.e. managers, directors, supervisors) working in acute care settings should commit to annual EOC training.

   Key actions

Health authorities	HEMBC
☐ Support leaders to be able to attend annual HICS / EOC training.	☐ Advocate for and provide regular HICS / EOC training. ☐ Include HICS / EOC training for all new administrators on-call.

4. **Local and regional MCI response plans should include pre-determined EOC structures.**
   Using the principles of HICS, sites and regional health authorities should have pre-determined EOC structures that outline the roles that will be needed in the EOC during an MCI event. Although these structures may be amended based on the availability of staff and needs of the event, having pre-determined organizational charts of the EOC will make the activation process more efficient. Sample organizational charts are noted in Appendix E.

   Key actions

Health authorities	HEMBC
☐ Using the sample EOC structures provided as a base, develop a pre-defined EOC structure that is specific to your site or health authority during an MCI.	☐ Review MCI / Code Orange plans to ensure they include a pre-defined EOC structure that can be utilized during an MCI.

5. **Local and regional EOCs should adopt a Psychosocial Section Chief.**
   Roles that deal with the psychosocial well-being of staff, patients, and family members are currently primarily under the Operations section in most EOCs, but this can result in an inadequate focus. Creating a Psychosocial Section Chief in EOCs and centralizing all the psychosocial-related roles in this section can ensure these considerations get the attention they deserve and would be in line with emerging practices among other MCI responders.

   Key actions

Health authorities	HEMBC
☐ Fill the Psychosocial Section Chief position with qualified HA staff.	☐ Advocate for adoption of Psychosocial Section Chief. ☐ Review plans to ensure this position is included.

6. **When appropriate, utilize HICS on a unit/departmental level.**
   In addition to site-wide EOCs, very large departments (like a large Emergency Department or Intensive Care Unit) should also consider using HICS on a unit/department level to organize their response more efficiently. This internal structure should align and be complimentary to site-wide EOC.

Key actions

Health authorities	HEMBC
☐ Review MCI / Code Orange plans for large departments and determine whether HICS could be beneficial to its response management. ☐ Update plans with unit/department HICS structures, as required.	☐ Advocate for utilization of HICS in large departments that require additional organizational structure. ☐ Provide education about HICS and support to units who can benefit from HICS implementation into their plans.

Fan out

Although not formally defined by the British Columbia Emergency Management System, the term *fan out* is commonly used to describe the process to contact off-duty staff or responders within a defined group to determine their availability to report to work during an emergency situation. Unfortunately, there is minimal literature available on fan out practices in health care settings. Although fan out is commonly referenced within specific health facility plans, there is a lack of peer-reviewed published documentation to base recommendations on.

The lack of literature should not be construed as a lack of importance. The absence of formal guidance places a burden on individual sites or programs to identify a process that will enable rapid communication with off-duty staff during an emergency. At present, there is significant variability across the health authorities related to the fan out including a lack of consistency between intra-health authority sites. This is not inherently negative and may be a result of telecommunication connectivity inconsistencies throughout the province. Thus, recommendations are based on reviews from health authorities on the efficacy of their processes during actual MCIs and/or exercises. A combination of the following tools is being used to support fan out and can reasonably be considered for adoption:

- Staffing services
- Mass text notifications
- Social media platforms
- Mobile messaging applications
- Manual phone calls

Recommendations

1. **Fan out should be incorporated as a standard component of all hospital MCI plans.**
   Each acute care site must ensure that a fan out process is assigned within its organizational structure with sufficiently detailed Job Action Sheets for timely response. Process should outline maintenance, tracking, and archival of data.

   Key actions

Health authorities	HEMBC
☐ Determine and document a fan out process for each site and, if required, each unit/department of the site. ☐ Prioritize units/departments who will receive casualties from the MCI first, i.e. EDs, Operating Rooms, Trauma/General Surgery, etc. ☐ Prioritize calling in staff who are the closest to the site to ensure additional staff arrives in time to support the acute phase of the MCI. Consider calling out based on geography from the hospital (i.e. those within 15 minutes, 30 minutes, 1 hour, etc.). ☐ Review security considerations for the chosen modality with your information technology (IT) department to ensure staff data will not be compromised. ☐ Ensure staff are trained on the fan out process. ☐ Ensure the fan out process is regularly tested, in alignment with overall MCI exercise program.	☐ Review MCI / Code Orange for fan out processes and advocate for completion.

2. **Where possible, utilize existing Staffing Services as part of fan out process.**
   Each health authority has an existing program that interfaces with staff and scheduling. When defining the process for maintaining and updating staff lists, the staffing services program should be consulted and engaged as determined to be appropriate by the health authority.

   Key actions

Health authorities	HEMBC
☐ Engage your Staffing Services to determine what capacity they have to facilitate fan out during an MCI.	☐ Review MCI / Code Orange for fan out processes and advocate for completion.

3. **Physician groups and other contracted health professionals should also have a fan out process.**
   Groups that are in charge of their own scheduling, such as physicians and nurse practitioners, must define their own fan out process in partnership with their unit/departments and operational leadership.

Key actions

Health authorities	HEMBC
☐ Engage with leadership of physicians or other contracted health professionals to ensure they have developed and tested a fan out process. ☐ Prioritize physicians and other contracted health professionals who will be required in the acute phase of an MCI, i.e. those who work in EDs, Operating Rooms, Trauma/General Surgery, etc.	☐ Review MCI / Code Orange for fan out processes for physicians and other contracted health professionals and advocate for completion.

4. **Fan out processes should include at least two separate communication modalities.**
Redundant communication modalities will increase the likelihood of successful communication to off-site staff. Chosen communication modalities should rely on different technology, e.g. (1) wired internet (e-mail) and (2) cellphone (mobile application or voice-call).

Key actions

Health authorities	HEMBC
☐ Determine and document two modalities for each fan out process.	☐ Review MCI / Code Orange for fan out processes and ensure two modalities have been identified.

5. **Fan out plans should include a process outlining regular unit/department check-ins regarding staffing levels and reporting staffing needs to the EOC.**
Part of a successful fan out process is ensuring that information about staffing needs flows through to the EOC. This ensures the EOC will have situational awareness about needs across the sites and can coordinate deployment of resources to areas in need.

Key actions

Health authorities	HEMBC
☐ Ensure roles assigned to do fan out (i.e. Staffing Services, unit/department leaders, etc.) include instruction to report staffing needs and availability to the EOC. Consider documenting this in the roles' Job Action Sheet.	☐ Review MCI / Code Orange for fan out processes and ensure integration into EOC reporting.

☐ **All acute care sites should include a Labour Pool functional area.**
Plans should provide a place for staff who show up spontaneously, for staff who choose to stay and help after their shifts have ended, and for those reporting to duty as requested through the fan out process. A Labor Pool functional area ensures that those staff have a place to present, ensuring staff accountability and resource management. Personnel deployed to the appropriate area based situational needs and their ability, clinical skill, and training.

Key actions

Health authorities	HEMBC
☐ Develop a functional area plan for the Labour Pool. Document its location at the site, the staff who will be responsible for setting up and leading the Labour Pool, and the process for communication to/from the EOC. ☐ Ensure staff are aware of the Labour Pool and where to present in the event of an MCI. Consider way-finding signage.	☐ Review MCI / Code Orange for fan out processes and advocate for inclusion of Labour Pool.

Decanting

Decanting, or reverse triage, is a strategy to rapidly increase hospital capacity during a disaster such as an MCI that involves the identification and early discharge of certain hospitalized patients who have a lower risk of serious complications. Unlike other commonly recommended techniques to rapidly increase hospital inpatient capacity during disasters, decanting does not require increased staffing, making it a more feasible approach. Review of literature showed that, conservatively, as much as 10-20% of hospital total bed capacity could be immediately made available with efficient decanting. However, while evidence supports decanting as an effective means of increasing hospital capacity during an MCI, it is often not utilized enough or fully incorporated into response plans.

Decanting effectiveness and patient flow strategies

In general, evidence emphasizes the utility of a pre-determined decanting plan, especially one that incorporates a phased approach and an inter-departmental patient flow system. Decanting plans tend to be most commonplace in EDs, as these departments are the first to receive casualties from an MCI and need to create capacity quickly. However, ED decanting necessitates simultaneous decanting of the other areas that will be involved in the patient journey such as perioperative areas, critical care areas, and inpatient units – a whole of hospital approach is required.

Effective decanting plans should also consider the possible injury types and nontraditional resources. Due to the nature of MCIs, patients will likely have similar injury types, so plans should prioritize decanting the treatment areas that these patients will require. Separate, specialized decanting plans for certain injury types (specifically, burns and exposure requiring decontamination) can increase preparedness for MCIs resulting in those injuries. Lastly, planners can consider ways to use nontraditional resources to support low acuity patients during decanting. Strategies like employing non-critical care staff to support low acuity patients and leveraging external resources such as telemedicine, primary care providers, and Urgent Primary Care Centres can be an effective way to safely decant a large volume of low acuity patients from the ED and various inpatient units.

Patient safety and ethics

Due to the limited and mixed evidence regarding patient safety after decanting, establishing a mechanism for reviewing and evaluating the safety of this process is important. This mechanism could be included in an MCI emergency response plan to ensure that, when decanting becomes necessary, a review process for patient outcomes after movement or discharge is already in place. There are also ethical dimensions to consider when

planning for, or conducting, decanting. Specifically, ethical analyses suggest that decision-makers should consider planning a scaled response to increasing capacity by defining thresholds for patient influx that would determine degree of decanting.

Patient disposition classification system

A current challenge with traditional approaches to decanting is that they are reliant on clinicians who are working at the time of the MCI to review the entire census for opportunities to decant. In large hospitals, that can be a very lengthy list of patients and, depending on the degree of familiarity the clinician has with those patients, this can be a very time-consuming process. As well, clinicians and different interprofessional roles are known to have different risk tolerances, thus making the decanting decisions not necessarily reproducible if different staff were working when the MCI occurred. To address these challenges, emerging evidence suggests that developing a pre-defined patient disposition classification system for decanting can increase efficiency, consistency in decision-making, and patient safety.

A patient disposition classification system would categorize patients by the likelihood of an adverse medical consequence if discharged early. This would allow clinicians to review patient charts who have been classified as the lowest risk first and then progress to higher risk classifications if the situation warrants it. A classification system still necessitates clinical judgements, but it has the potential to expedite decanting and introduce some reproducibility to the decisions. It also inherently facilitates a phased approach, ensuring the lowest risk patients and only as many as is required are decanted.

At present, there is no validated patient disposition classification system in BC, though some examples exist in the literature of how such a system could be developed an operationalized. Evidence suggests that each hospital department (ED, critical care, inpatient adult, inpatient pediatric, etc.) would require its own system to account for the diversity of patients in those areas. Systems could be adapted from existing acuity and prognosis scores and/or developed through expert consensus. Given that clinicians tend to demonstrate different tendencies when identifying patients for early discharge, classification systems are best developed with diverse expert input, including both nurses and physicians. This emerging practice has a lot of potential, so it is valuable to continue to explore its possibilities in our health system and future MCI planning.

Recommendations

1. **Decanting should be incorporated as a standard component of all hospital MCI planning.**
   Evidence demonstrates that decanting is a useful strategy when responding to a disaster like an MCI. Each acute care site should ensure that it has a thorough decanting plan that outlines how patients will be discharged and/or moved through the hospital to quickly create capacity.

   Key actions

Health authorities	HEMBC
☐ Determine and document a decanting plan for each site. This plan should outline the triggers for activation of decanting process, who has the authority to make decisions about decanting, how patients are identified for decanting, and how decanting is documented and tracked.	☐ Review MCI / Code Orange plan for decanting processes and advocate for completion.

☐ Test and exercise decanting plan regularly as part of the broader MCI exercise program.	

2. **Decanting should be approached as a whole-of-hospital strategy, with every department and service area developing internal decanting processes.**
   Effective decanting requires patients to move through the entire hospital. It is not sufficient to focus solely on clearing the ED if inpatient units do not simultaneously create capacity to receive admitted patients. A whole-of-hospital approach ensures that patient flow is maintained, bottlenecks are minimized, and capacity is available where it is most urgently needed.

   Key actions

Health authorities	HEMBC
☐ Ensure all relevant units of the hospital have detailed decanting processes in place, i.e. EDs, Operating Rooms, critical care areas, and inpatient areas. ☐ Designate a *Decanted Patients Area* at each hospital, where patients can wait for pick up or other transport home.	☐ Review MCI / Code Orange plan for whole-of-hospital decanting processes and advocate for completion.

3. **Decanting should prioritize treatment areas that will be required for the MCI injury type.**
   Different types of MCIs generate distinct injury patterns, for example, explosions may result in trauma and burns, while chemical incidents may require large-scale decontamination. It is essential that these specialized treatment areas have thorough decanting plans in place in advance, and that they are decanted as soon as the MCI mechanism is confirmed to ensure there are no delays in patient care.

   Key actions

Health authorities	HEMBC
☐ Identify and develop decanting plans for all specialized areas within hospital that would be required to care for patients of MCIs based on common injury types (i.e. Trauma, Burns, Plastics, etc.). ☐ Prioritize these areas during MCI responses to complete their decanting as quickly as possible.	☐ Review MCI / Code Orange plan for specialized units decanting processes and advocate for completion.

4. **Decanting should consider using nontraditional resources to care for low acuity patients.**
   Non-traditional resources can include employing non-critical care staff to support low acuity patients, incorporating non-traditional activities for certain health care professionals and other staff, and leveraging resources such as Primary Care, UPCCs and telemedicine.

Key actions

Health authorities	HEMBC
☐ Review units/departments who would *not* be directly involved in providing patient care for casualties of MCIs for opportunities to redeploy to support decanted patients (i.e. outpatient clinics). ☐ Review types of staff who could be redeployed to support decanted patients (i.e. Nurse Practitioners, Physicians Assistants, etc.) ☐ Connect and collaborate with nearby community services such as UPCCs and virtual health providers to identify workflows for engaging these resources during MCIs to provide care to low-acuity decanted patients.	☐ Review MCI / Code Orange plan for units/departments and staff who can support decanted patients and advise for integration of nontraditional resources. ☐ Facilitate planning meetings between acute and community services to outline workflows for transfer of decanted patients.

5. **Develop rapid decanting order sets and processes.**

To efficiently discharge or transfer patients during an MCI, develop rapid decanting order sets and processes that allow for movement to occur faster than usual.

Key actions

Health authorities	HEMBC
☐ Lead development of rapid admission order sets and workflow for the ED to admit consulted patients to hospital. ☐ Lead development of rapid transfer order sets and workflow for the high acuity areas to transfer appropriate patients to other inpatient units. ☐ Lead development of rapid discharge order sets and workflow for inpatient units to discharge appropriate patients home.	☐ Advocate for development of rapid order sets (admission, transfer, and discharge) and workflows as part of decanting planning.

6. **Use a scaled decanting approach.**

Decant in phases (only as many people as you need to) and start with the most stable/lowest risk

Key actions

Health authorities	HEMBC
☐ Outline scaled decanting as a key principle in all decanting plans. ☐ Integrate decanting into the EOC's situational awareness and planning cycle to dynamically adjust priorities as the event unfolds.	☐ Review MCI / Code Orange plan for consideration to take a scaled decanting approach and advocate for inclusion.

For future consideration

While current decanting practices leverage existing strategies to create capacity during an MCI, there are innovative approaches with significant potential that should be explored further. These concepts are not ready for implementation yet, but they represent important opportunities to advance hospital MCI management in the future:

1. **Develop and use a pre-determined patient classification system.**
   Use of a classification system that groups patients by degree of risk associated with an early discharge would be extremely beneficial during an MCI, however no such validated system exists yet. Differing systems would need be used for ED, ICU, general adult, and pediatric patient populations. This classification according to a formal system helps to make decision-making consistent and reproducible, which promotes fairness and transparency. It has also been shown to increase efficiency. Once categorization has been completed, clinical judgment will still need to be applied to make the final disposition decision.
2. **Leverage electronic health record (EHR) to automate patient classification.**
   To improve efficiency and alleviate clinician workload, decanting classification systems should be built-in as a function of existing EHRs. Existing classification systems or scales in the EHR can be leveraged to do so.

These areas present opportunities for innovation and should be the focus of future projects, partnerships, and research initiatives to enhance hospital decanting capacity in BC.

Disaster triage

Disaster triage is the process of rapidly prioritizing patients during an MCI when the number of injured individuals exceeds the immediate treatment capacity of the health system. Unlike routine triage, which focuses on individual patient outcomes by identifying the sickest patients within a context of assumed ample resources, disaster triage is designed to rapidly identify acuity amongst a collection of patients in order to hopefully minimize overall patient mortality and morbidity within a potentially resource austere environment. This approach requires clinicians to make difficult, time-sensitive decisions in dynamic and often resource-constrained environments. A standardized, evidence-informed triage approach enables consistency across sites and regions and ensures patients are directed to the most appropriate level of care as quickly as possible. Globally, there are a number of different disaster triage systems in use, each with a distinct combination of triage categories and scoring parameters. The systems reviewed by the working group are listed for reference in Table 2.

Table 2: Summary of reviewed disaster triage systems

Triage System	Triage Categories	Scoring Parameters
START	Immediate (red), delayed (yellow), minor (green), deceased (black)	Respiratory rate >30, radial pulse or capillary refill, following commands, walking, airway
JumpSTART	Immediate (red), delayed (yellow), minor (green), deceased (black)	Respiratory rate <15 or >45, palpable pulse, neurological assessment (AVPU), walking, airway
mSTART	Immediate (red), delayed (yellow), walking wounded (green), deceased (black)	Respiratory rate >30, palpable radial pulse, following commands, walking, airway
CareFlight	Immediate (red), urgent (yellow), delayed (green), unsalvageable (black)	Walking, airway, following commands, palpable radial pulse
SALT	Sorting (walking, movement, still) Life-saving interventions Assess (minimal, delayed, immediate, expectant, dead)	Respiratory distress, palpable radial pulse, following commands, walking, airway, hemorrhage, survivability
Triage Sieve	Immediate (red), urgent (yellow), delayed (green), expectant (blue), dead	Respiratory rate <10 or >20 or cap refill >2 sec, walking, airway
Sacco	High, moderate, slow (rate of deterioration)	Respiratory rate, palpable radial pulse, motor response
MPTT	Priority 1 (red), priority 2 (yellow), priority 3 (green), dead (black)	Walking, airway, Respiratory rate <12 >22, heart rate >100, GCS <14
MPTT-24	Priority 1 (red), priority 2 (yellow), priority 3 (green), dead (black)	Hemorrhage, walking, airway, responds to voice, respiratory rate <12 or >24, heart rate >100,
Military Triage	Immediate (treated first), delayed (6-8 hours), minor, expectant (death without vast resources)	Open airway

Comparison of Triage Systems (START vs. SALT)

There are numerous disaster triage systems available for use during an MCI. While many of these systems rely on similar components, like respiratory rate and mental status exam, to generate a triage category, they are nonetheless distinct from one another and have differing strengths and limitations. However, present study of disaster triage has not been able to prove superiority of one system in terms of patient-important outcomes, such as morbidity or mortality. Research in this area is inherently limited, as determination of outcome validity of these triage systems requires randomized and controlled studies, which is near impossible to complete within disaster scenarios. The majority of studies in disaster triage have thus been based on simulations or retrospective reviews, which while helpful in determination of usability, efficiency, accuracy, and construct validity of triage systems, this level of evidence is often limited in its ability to generalize to real-world MCI events. Moreover, on review of literature, it was determined that incorporation of the motor component of Glasgow coma scale (GCS) and the presence of a radial pulse improved a tool's ability to determine acuity. Considering the strength of evidence behind each triage system based on the mentioned factors (usability, efficiency, accuracy, construct validity, use of GCS and radial pulse), two tools – START and SALT – emerged as reasonable options. Both demonstrate comparable sensitivity and specificity, and have some supporting construct validity evidence, albeit limited. The definitions of "acuity" remain inconsistent across research, making direct comparison of these tools difficult from a construct validity perspective.

Consideration of the operational differences between these two systems provides further insight. START has been widely used for over 30 years but requires the paired use of JumpSTART for pediatric patients, adding to training demands. SALT, developed in 2008, integrates both adult and pediatric triage into a single algorithm, potentially reducing training burden. SALT also includes an "Expectant" category to account for survivability and resource availability, as well as additional Life Saving Interventions (LSIs), such as hemorrhage control and antidote administration. While evidence is lacking to show these features improve outcomes, they represent thoughtful considerations for austere resource settings.

Although START/JumpSTART and SALT differ in their structure and operational features, they are considered interoperable systems to each other. The triage categories they use are aligned such that the acuity of a *Red* in START is equivalent to a *Red* in SALT, and the same applies across other color designations (Yellow, Green, and Black/Expectant). This alignment ensures that, regardless of which system is applied at the site level, patients will be prioritized consistently, enabling effective coordination of care and communication across facilities and with pre-hospital providers.

In summary, both START and SALT are viewed as viable disaster triage systems within the BC health system context. START offers a long history of use and larger evidence base, but it requires dual training with JumpSTART. SALT offers operational advantages, including combined adult/pediatric applicability, survivability considerations, and expanded LSIs, though it has a more limited evidence base to date. From a provincial perspective, however, SALT is the recommended system to support interoperability across BC, while acknowledging that sites currently using START/JumpSTART may continue with that approach.

Recommendations

At the provincial level, interoperability and alignment are key priorities, and therefore the adoption of a single disaster triage tool is recommended across BC. Although both START/JumpSTART and SALT are acceptable options, standardization will improve interoperability across the province, reduce training burden, and strengthen coordinated response to MCIs:

1. **Adopt SALT at all acute care sites as the standard disaster triage system.**
   SALT demonstrates reasonable performance in construct validity, usability, and efficiency, while offering several operational advantages. It combines adult and pediatric triage into a single tool, which simplifies training staff and makes it easier to maintain competency. SALT incorporates survivability and resource allocation considerations, which can be extremely useful in hospitals that are significantly overwhelmed during an MCI. Finally, it includes an expanded list of LSIs which can expand the therapeutic window for patients waiting for treatment.

   Key actions

Health authorities	HEMBC
☐ Adopt disaster triage system, preferably SALT, as part of MCI / Code Orange planning and preparedness. ☐ Ensure front line staff are trained on how to conduct disaster triage, including routine refreshers. ☐ Maintain any associated disaster triage materials, i.e. colour-coded wristbands, tags, or patient packs. ☐ Ensure their EHR is aligned with disaster triage categories.	☐ Review MCI / Code Orange plans for inclusion of SALT disaster triage system.

Alignment across BC hospitals on a single disaster triage system presents an important opportunity to simplify the complex process of MCI training, education, preparedness, and response. Since hospitals are currently at different stages of adoption of a disaster triage system, standardization to SALT will require senior level endorsement across the health system. While there may be some one-time costs incurred related to replacing current systems in place, the long-term benefit of adopting a single tool far outweighs the initial operational burden.

Patient tracking

Patient tracking during an MCI is a complex and often imperfect process. Tracking patients from the scene to hospitals as well as between hospitals can be particularly challenging, as not all patients will arrive by ambulance and not all transported patients will require or receive care. The total number of affected individuals may remain unclear for hours or even days, as some may self-present to hospitals or clinics well after the event, while others may never seek medical attention.

In BC, the absence of a unified patient registration system across all the Health Authorities further complicates tracking. Multiple systems are currently in use, including Meditech, various versions of Cerner, and other interim platforms, which do not easily share data across organizations. When patients are transferred between facilities for higher levels of care or repatriation, they must be manually discharged from one hospital and admitted into another to avoid duplicating bed counts. This process, while necessary for hospital operations, disrupts seamless tracking of patient movement within and between health authorities.

Some registration systems now include features to identify "disaster patients," such as flags or Code Orange modes. These tools support local awareness and reporting by distinguishing patients directly impacted by the incident from those already in hospital care at the time of activation. However, these features currently function only at the site level and do not enable coordinated tracking across facilities or regions.

Given that current EHR systems across BC are not interoperable, a standardized manual tool can help bridge this gap during an MCI. The MCI Patient Tracking Template has been developed as a practical, province-wide resource to support consistent documentation and coordination (see Appendix F). This Excel-based tool captures a minimum essential data set – including patient name, date of birth or approximate age, sex, condition (critical, serious, non life-threatening, discharged, or deceased), and current location. The template can be adapted as needed during an event to include additional relevant markers; however, users should avoid collecting unnecessary information, as doing so increases operational burden and introduces potential privacy risks. Access to the tracking document should be strictly limited to those directly involved in patient management and coordination to protect patient confidentiality while ensuring accurate, timely information sharing.

Disaster Unknown-Patient Nomenclature

A further challenge lies in the naming of unidentified patients, a long-standing issue that becomes significantly amplified during an MCI. Without a standardized approach, hospitals often assign temporary identifiers such as *Unknown, Unknown-A* or triage color codes paired with numbers such as *Disaster, Red-One*. During large events, near-duplicate names can create confusion, delay tracking, and increase the risk of patient identification errors. Thus, establishing a standardized and effective approach to unknown-patient nomenclature is essential for ensuring accuracy and safety during an MCI. The naming convention used for unidentified patients must be simple, distinctive, and operationally compatible with existing EHR systems and emergency workflows.

The following principles can guide the development or adaptation of disaster unknown-patient nomenclature across all hospitals:

1. **Names must be sufficiently diverse to avoid confusion.**
   Each placeholder identity should be unique and easily distinguishable from others in the system. A diverse set of names minimizes the risk of duplicate or similar patient identifiers, which can lead to documentation errors, delayed record retrieval, and communication challenges during high-volume events.
2. **Names must meet system and interoperability requirements.**
   Nomenclature must align with the technical requirements of electronic systems and partner agencies, including:
   - Compatibility with EHR character limits and screen display constraints.
   - Inclusion of site identifiers or other mandatory components (as required by the health authority or vendor).

3. **Names should avoid potential sources of confusion.**
   To reduce the risk of error, nomenclature should:
   - Avoid real human names, which can inadvertently overlap with non-MCI patients in the system.
   - Avoid color-based identifiers, as emergency departments are often divided into color-coded treatment zones during Code Orange activations, which could cause miscommunication.
   - Avoid numerical identifiers, since numbers are commonly used to designate patient locations (e.g., bed or room numbers), leading to potential confusion in verbal and written communication.
   - Consider cultural appropriateness when developing generic naming nomenclature and what might be appropriate in one culture might be viewed as inappropriate in others.

These principles are intended to support each HA in designing or adapting a disaster unknown-patient naming convention that aligns with both local EHR functionality and provincial best practices, ensuring patient traceability while minimizing the risk of error during high-volume surge events.

Case Study: VCH Disaster Nomenclature Model

After identifying the need to improve their disaster nomenclature, VCH updated and validated a nomenclature system through a series of Code Orange exercises (2017–2019) and then implemented this approach at all VCH sites upon Cerner rollout in 2023. Under this model, all pre-created Code Orange patient identities follow a standardized, easily distinguishable naming convention (see Table 3). This model can serve as an *example* for other HAs to adapt to their region and requirements.

Table 3: VCH Disaster Unknown-Patient Nomenclature

Previous nomenclature

Last Name	First Name	Middle Name	Examples
[SITE]DISASTER	TRIAGE COLOUR-NUMBER	N/A	• [SITE]DISASTER, RED-ONE • [SITE]DISASTER, RED-TWO • [SITE]DISASTER, YELLOW-ONE • [SITE]DISASTER, YELLOW-TWO • [SITE]DISASTER, GREEN-ONE

Current nomenclature

Last Name	First Name	Middle Name	Examples
VPPD	MILITARY PHONIC-LETTER	SITE	• VPPD, KILO-L • VPPD, FOXTROT-Q • VPPD, BRAVO-Y • VPPD, DELTA-X • VPPD, ECHO-F

Recommendations

1. **Whenever reasonable, acute care sites should utilize actual patient identifiers to register incoming MCI patients.**

   Site MCI / Code Orange plans should specify that, time permitting, best practice is to register patients according to their actual and confirmed identity. Registering patients by their actual identifiers allows access to the medical history and reduces risks of clinical errors. However, full registration should not impede rapid patient care and entry to hospital, so it is appropriate to switch to pre-made disaster identities in the event of a rapid influx that overwhelms registration.

   Key actions

Health authorities	HEMBC
☐ Incorporate considerations for using actual patient identifiers whenever possible into triage and/or registration MCI / Code Orange plans. Provide guidance to staff to switch to pre-made disaster identities when required to avoid delays in patient care.	☐ Review MCI / Code Orange plans for triage or registration area to ensure considerations are included to utilize actual patient identifiers whenever reasonable.

2. **For "Unknown Patients" during an MCI, all acute care sites should utilize a standard nomenclature that minimizes risk of patient misidentification.**

   Near-duplicate names pose a significant challenge to patient tracking and increase the risk of clinical errors. When developing their disaster unknown-patient nomenclature, all sites must avoid names that are too similar in phonetic and spelling and ensure the nomenclature system works within their EHR. The principles of good disaster nomenclature, listed above, can serve as guidance for hospitals. Further, the nomenclature from VCH (MILITARY PHONIC- LETTER) has been tested and accepted and can be considered an example for the province.

   Key actions

Health authorities	HEMBC
☐ Implement a disaster unknown-patient nomenclature system that meets the outline guidance in this framework. ☐ Provide regular training to triage and registration staff on the use of disaster unknown-patient nomenclature during MCIs.	☐ Review MCI / Code Orange plans for appropriate disaster unknown-patient nomenclature and advocate for adoption of an approach grounded in the outlined principles.

3. **Acute care sites should reconcile registration for "Unknown Patients" during an MCI to their actual identities as soon as possible and reasonable.**

   As is the case during routine operations, acute care sites should prioritize reconciling patients who are registered as "unknown" under the above nomenclature to reflect their actual identity as soon as it is reasonable to do so. To support this work, sites should have a plan in place to increase support for registration staff following an MCI if there is a substantial number of identities to be reconciled.

Key actions

Health authorities	HEMBC
☐ Develop and maintain an MCI / Code Orange plan for the registration department, which includes guidance about how to work with disaster unknown-patient nomenclature and a process for increasing registration staff following an MCI. ☐ During planning, consider any downstream workflows that could be impacted during identity reconciliation and how to mitigate disruptions. ☐ Retain record of the unknown disaster nomenclature within the patient's EHR to ensure continuity of care.	☐ Review MCI / Code Orange plans for inclusion of registration staff considerations.

4. **All acute care sites should have pre-made disaster registration packs in-place for "Unknown Patients" during an MCI.**

To support effective utilization of standardized disaster nomenclature and to expedite patient care, acute care sites should have pre-made disaster packages prepared that include the barcodes, labels, and documentation that will be required for each incoming MCI patient.

Key actions

Health authorities	HEMBC
☐ Develop and maintain registration packs for MCI patients, to be utilized when the regular registration process is overwhelmed and/or unknown patients arrive. ☐ Ensure triage and registration staff are trained on using these registration packs.	☐ Review MCI / Code Orange plans for inclusion of pre-made disaster registration packs.

5. **All acute care sites should have a dedicated role in their EOC for patient tracking.**

Patient tracking has critical implications on family reunification and communications. To ensure reporting is done cohesively and without error, each site must identify a designated person who will be responsible for patient tracking, most easily accomplished through the inclusion of a dedicated role in their EOC. The sample EOC structures provided in this framework exemplify where such a role would be positioned (see Appendix E).

Key actions

Health authorities	HEMBC
☐ Assign a staff member to be the patient tracking lead, ensuring this person is well positioned to access patient information as required. ☐ Provide timely updates about number, identities, and condition of MCI patients in their care.	☐ Ensure local EOCs for MCIs / Code Orange have a patient tracking role.

6. **Regional or inter-health authority EOCs should also have a dedicated role for patient tracking which consolidates all the information from receiving sites.**
   When an MCI affects multiple sites or health authorities, the MCI Patient Tracking document can be used to identify and monitor the location of all MCI patients (see Appendix F). To enable this process, patient tracking leads from receiving sites must send their patient information to a regional patient tracking lead in order for cross-site/cross-health authority reconciliation to take place. The sample EOC structures provided in this framework exemplify where such a role in the regional EOC would be positioned (see Appendix E).

Key actions

Health authorities	HEMBC
☐ Assign a staff member to be the regional patient tracking lead, ensuring this person is well positioned to access patient information and provide updates as required.	☐ Ensure regional or inter-HA EOCs for MCIs / Code Orange have a patient tracking role. ☐ Support with establishing patient tracking processes, including managing the tracking until a more appropriate responsible party is identified.

For future consideration

While the MCI Patient Tracking Template provides an interim solution, the long-term goal should be to establish an integrated provincial patient-tracking system that enables real-time information sharing across HAs and with key partners such as BCEHS. Leveraging existing technologies or developing interoperable digital tools could significantly enhance situational awareness, improve coordination of patient transfers, and reduce the risk of duplication or data loss. Such a system has application beyond MCIs and would support patient tracking across any other type of emergency:

1. **Provincially, a system should be developed that supports real-time information sharing of patient information during an MCI.**
   In order to make the patient tracking process more efficient, a platform should be utilized that allows key relevant partners to input data and see updates immediately. MS Teams has sharing capabilities that could be utilized if privacy concerns can be mitigated.
2. **BCEHS, HEMBC, and HAs to explore utilizing live geo-tagging technology or other emerging technologies to support patient tracking from scene to hospital.**
   While preliminary at this point, technology is being developed and utilized in some contexts that could support live patient tracking from the scene to the hospital, and beyond. Future MCI planning between the HAs, HEMBC, and BCEHS should explore the possibility of incorporating this technology on a provincial scale.

These areas present opportunities for innovation that could significantly improve the way we track patients and the reduce the associated burden on operational staff. Achieving this outcome would require collaborative exploration of technical compatibility, privacy safeguards, and funding models, as well as the identification of clear governance structures to support system-wide implementation.

Communications

Effective communication is a cornerstone of a coordinated and successful response to an MCI. Communication systems serve multiple critical functions: supporting internal coordination, informing external partners, maintaining situational awareness, and managing public messaging. During an MCI, information must move rapidly and reliably within hospitals, between agencies, and to the public. However, communication is often strained or disrupted during large-scale incidents, and competing information streams can lead to confusion, misinformation, or delayed decision-making.

A well-designed communication plan anticipates these challenges by integrating redundancy, clarity, and flexibility. Hospitals and HAs should ensure that staff are trained in communication protocols, understand their roles within the MCI response structure, and can adapt when primary systems fail. Just as importantly, communication must extend beyond the acute response phase to include recovery and staff wellness messaging once the immediate event concludes.

Internal Communications

Internal communication ensures that hospital staff, leadership, and response teams receive timely, accurate, and coordinated information during an MCI. Clear internal messaging supports rapid activation of response structures, efficient use of resources, and staff safety. Internal communication systems must be resilient, adaptable, and supported by well-trained personnel who understand the established communication pathways and their specific roles within the emergency response. The following guidance supports effective planning for internal communication during an MCI:

- **Incorporate a robust staff notification system into the MCI communication plan.** Hospitals should establish reliable, multi-modal staff notification systems capable of reaching large numbers of personnel quickly. Plans must include contingencies in the event of infrastructure damage, power failure, or system overload to ensure continuity of communication.
- **Educate hospital staff on communication pathways, media protocols, and alternative tools.** Staff should receive education on established disaster communication procedures, including the use of non-traditional tools such as radios or satellite phones. Selected staff—such as charge nurses, critical care leads, or site commanders—should also receive basic media training to support professional, accurate communication with journalists who may arrive at the hospital site.
- **Incorporate staff debriefing and recovery communications.** Communications planning should extend beyond the response phase to include structured debriefing, wellness messaging, and psychological recovery communications for staff involved in the incident. Providing transparent, timely updates and recognition of staff efforts supports resilience and organizational learning.

External Communications

External communication connects hospitals and HAs with partners, patients, families, the public, and the media. Effective external communication promotes situational awareness, manages expectations, and supports public trust. During an MCI, external messaging must balance transparency with privacy and operational security, ensuring that accurate information is shared quickly while safeguarding patient confidentiality and maintaining focus on the clinical response. The following guidance supports effective planning for external communication during an MCI:

- **Incorporate contingency methods for external communication.**
  Plans must include backup methods for maintaining communication with HA leadership, emergency services, and other partners if primary systems fail or are overloaded.
- **Leverage social media for bi-directional communication.**
  Social media can be an important tool both for disseminating public information and for monitoring situational awareness. Hospitals and HAs should establish protocols for using verified social media channels to share accurate updates, while also monitoring community posts for early indicators of emerging patient presentations or evolving incident details.
- **Disseminate self-care and service information.**
  Communication plans should include strategies for distributing information to the public about available medical services, locations of care, and self-care instructions—particularly in cases involving contamination or infectious exposure.
- **Separate communication with media and the public from patient and family interactions.**
  Hospitals should ensure that patients and families are communicated with before, and separately from, the media and general public. Physical separation of media areas and family reception zones helps preserve patient privacy, reduce stress, and maintain professionalism in high-pressure situations.

MCI Communication Toolkit

To support hospitals in developing clear, coordinated, and timely communication during an MCI, the MCI Communication Toolkit has been developed as a practical, site-level resource (see Appendix G). The toolkit provides a collection of templates, sample scripts, and adaptable materials that can be incorporated directly into hospital emergency operations and communication plans.

The toolkit is designed to help communication leads and operational staff deliver consistent messaging during all phases of an MCI – activation, response, and recovery. It includes examples for internal notifications, staff updates, media holding statements, and public information releases, as well as guidance for message approval processes and documentation.

Hospitals are encouraged to review the toolkit in advance of an incident and tailor the materials to reflect their local context, organizational structure, and communication systems. By preparing and familiarizing staff with these standardized tools ahead of time, hospitals can reduce confusion, improve information flow, and ensure consistent, accurate messaging throughout an MCI response.

Recommendations

All acute care sites should adapt, scale and customize the MCI Communications Toolkit to their unique processes and realities.

The MCI Communications Toolkit is intentionally designed to be flexible, allowing each site to tailor the templates, scripts, and communication workflows to align with their existing emergency operations plans and to reflect the site's organizational voice and capacity. By scaling the toolkit appropriately – whether for small rural facilities or large tertiary hospitals – sites can ensure that communication during an MCI is both operationally feasible and contextually relevant, supporting a coordinated, timely, and effective flow of information throughout the event.

Key actions

Health authorities	HEMBC
☐ Incorporate the MCI Communications Toolkit into local MCI planning, adapting and scaling the materials as required (see Appendix G). ☐ Ensure the Communications role is filled in the EOC.	☐ Share the MCI Communications Toolkit with acute cares sites during MCI planning and review MCI / Code Orange plans for inclusion of the outlined guidance.

Recovery

The recovery phase of an MCI begins once the immediate threat has passed and the focus shifts from emergency response to stabilization, restoration, and long-term recovery. Recovery is an essential component of the disaster management cycle, encompassing not only the restoration of hospital operations and patient care services but also the well-being of staff, patients, and communities affected by the event.

Effective recovery planning ensures that acute health care facilities can transition smoothly from crisis operations back to normal functioning while capturing lessons learned to strengthen future preparedness. This phase involves a range of activities, including debriefing, psychosocial support, data collection, after-action reviews, and implementation of identified improvements. Recovery is not simply the conclusion of response—it is a deliberate process of reflection, adaptation, and resilience-building that reinforces the health system's ability to respond to future events.

Recovery activities

Recovery is a critical phase of the MCI cycle, encompassing the actions taken after the immediate response to restore services, support staff, and strengthen resilience for future events. As defined by the *Emergency Management Framework for Canada* and the *World Health Organization*, recovery involves restoring or improving health, social, and operational systems in alignment with the principle of "*building back better*" – ensure that lessons learned translate into stronger, more sustainable systems.

Within the acute care context, the World Health Organization further identifies recovery as the period following the clearance of MCI patients from the emergency department. During this phase, hospitals should focus on replenishing supplies, replacing damaged equipment, supporting staff recovery and debriefing, and restoring the department to baseline preparedness. Despite its importance, recovery is often underrepresented in hospital MCI plans and the published literature, underscoring the need for greater emphasis on this phase within acute care preparedness and response planning.

Recovery involves both operational and human dimensions. Operationally, hospitals must consider that an MCI can deplete resources beyond normal supply chain capacity. Incorporating business continuity and recovery planning into MCI preparedness supports early identification and mitigation of potential shortages of critical supplies, equipment, or blood products. Equally important are the psychosocial aspects of recovery: evidence shows that responding to MCIs can have lasting effects on healthcare workers' mental health and well-being. Integrating mental health and psychosocial supports, including but not limited to self-care, peer support, and access to formal debriefs or employee assistance programs, should be a routine part of recovery planning.

Currently, linkages between psychosocial support services and MCI responses are largely ad hoc across BC. Establishing formal connections between existing employee and family assistance programs, provincial psychosocial resources, and MCI response structures would provide a more consistent and proactive approach to staff recovery. Recognition of staff contributions during and after an MCI also plays a vital role in maintaining morale and supporting workforce resilience.

While MCIs cannot be predicted, deliberate recovery planning allows health authorities and acute sites to reduce harm to staff, restore system function, and strengthen preparedness for future incidents. Ongoing review of emerging evidence and best practices will be essential to refine recovery processes and ensure that recovery is treated as an integral phase of MCI management.

Recommendations

1. **All acute care sites should outline recovery needs of both health care staff and the health care system in their MCI plans.**
   Site MCI / Code Orange plans should incorporate pre-planned actions to address anticipated recovery needs of the health care staff and system. In addition to the anticipated recovery needs, each MCI will inherently have unique factors, necessitating recovery planning to take place within the EOC, through the planning section. During small MCI responses, the responsibility for recovery planning may be assigned to the Incident Commander / EOC Director.

   Key actions

Health authorities	HEMBC
☐ Define and document the anticipated needs of staff and supplies during an MCI. ☐ Outline procurement and replenishment procedures. ☐ Outline staff support processes. ☐ Ensure the recovery planning role is filled in the EOC.	☐ Review MCI / Code Orange plans for inclusion of health care staff and system recovery needs.

2. **All acute care sites should include a site-level position in their MCI response plans with the responsibility to liaise between all impacted departments and HA supply chain logisticians.**
   Front line staff and managers may not be positioned to independently identify the full consequences of an MCI related to supply chain, so they should be supported by the EOC for any MCI that exceeds their ability to re-supply through normal departmental processes. This is most efficiently accomplished by including a Supply Chain in the EOC or, if unavailable, as a function of the planning section. During small MCI responses, this responsibility may be assigned to the Incident Commander / EOC Director.

   Key actions

Health authorities	HEMBC
☐ Identify a staff member who can fill the supply chain role in the EOC.	☐ Review MCI / Code Orange plans for inclusion of supply chain in the EOC structure.

3. **All MCI activations should trigger automatic deployment of mental health and psychosocial resources for health care staff, patients, and families.**
   The minimum level of activation should be defined by the HA in consultation with subject matter experts, however it is critical that this important resource be included within MCI / Code Orange plans or processes and not be left to the ad hoc decisions of responding teams. It is recommended that a formal check-in or defusing be held within the first 24 hours after an MCI and that each HA defines the approach to scheduling formal debriefings in consultation with subject matter experts.

Key actions

Health authorities	HEMBC
☐ Outline available mental health and psychosocial resources for health care staff, patients, and families in local MCI / Code Orange plans. ☐ Include the role of a Psychosocial Section Chief in the EOC to ensure these resources are deployed effectively (see Emergency Response Structures and Appendix E). ☐ Plan to have psychological safety debriefs for all impacted staff as soon as possible following the event, ideally within 24 hours.	☐ Review MCI / Code Orange plans for inclusion of psychosocial resources for staff, patients, and families.

4. **MCI recovery should include recognition for those involved within the response.**
Site leadership should include recognition of the services provided by staff, volunteers, external personnel, and donors during MCI recovery based upon the response complexity and involvement. Recognition can include and is not limited to a mix of formal, informal, and peer-to-peer methods, from public awards and leadership messages to personal thank-you notes and team-based gestures like lunches or gift cards. Commemorating the response and responders through plaques or annual messaging can also be considered if appropriate.

Key actions

Health authorities	HEMBC
☐ Identify the services provided by staff, volunteers, external personnel and donors during MCI response and recovery. ☐ Provide recognition through a mix of formal, informal, and peer-to-peer methods or other existing avenues as appropriate.	☐ Support the HA with their identification and recognition of the services provided by staff, volunteers, external personnel and donors during MCI response and recovery. ☐ Conduct own internal identification and recognition of services provided by staff through a mix of formal, informal, and peer-to-peer methods or other existing avenues as appropriate.

5. **In partnership with HEMBC, all acute sites should complete a formal debrief as part of an After-Action Review (AAR) following all MCIs.**
AARs are an integral part to maintaining accountability over the response to an MCI, ensuring that successes and lessons learned are captured and actioned in future planning. In addition, this process can contribute to the psychological wellbeing of staff, helping them make sense of the event and find closure knowing their experience will contribute to improvements in future plans and responses.

Key actions

Health authorities	HEMBC
☐ Ensure staff are able to participate in debriefs and data collection activities, supporting psychological safety of participants.	☐ Facilitate the debriefs, ensuring the psychological safety of participants.

☐ Schedule debriefs as soon as possible and reasonable following the response to maximize recall and ensure lessons learned are captured. ☐ Adopt a formalized debrief process which starts with and cascades from debriefs for all impacted units/departments followed by a site-based debrief and culminating in a regional health authority debrief if required. ☐ Maintain responsibility for implementation of recommendations from the AAR report.	☐ Collect and analyze the information to identify successes, opportunities for improvement, and clear actional recommendations (i.e. generate AAR report).

Conclusion

MCIs are, by nature, unpredictable and high-impact events that test the resilience and coordination of the entire health system. While we hope that such events never occur, preparation remains essential to ensure that when they do, our response is timely, organized, and effective. This framework provides an evidence-informed foundation for improving provincial readiness and response by standardizing approaches, tools, and expectations across British Columbia's hospitals.

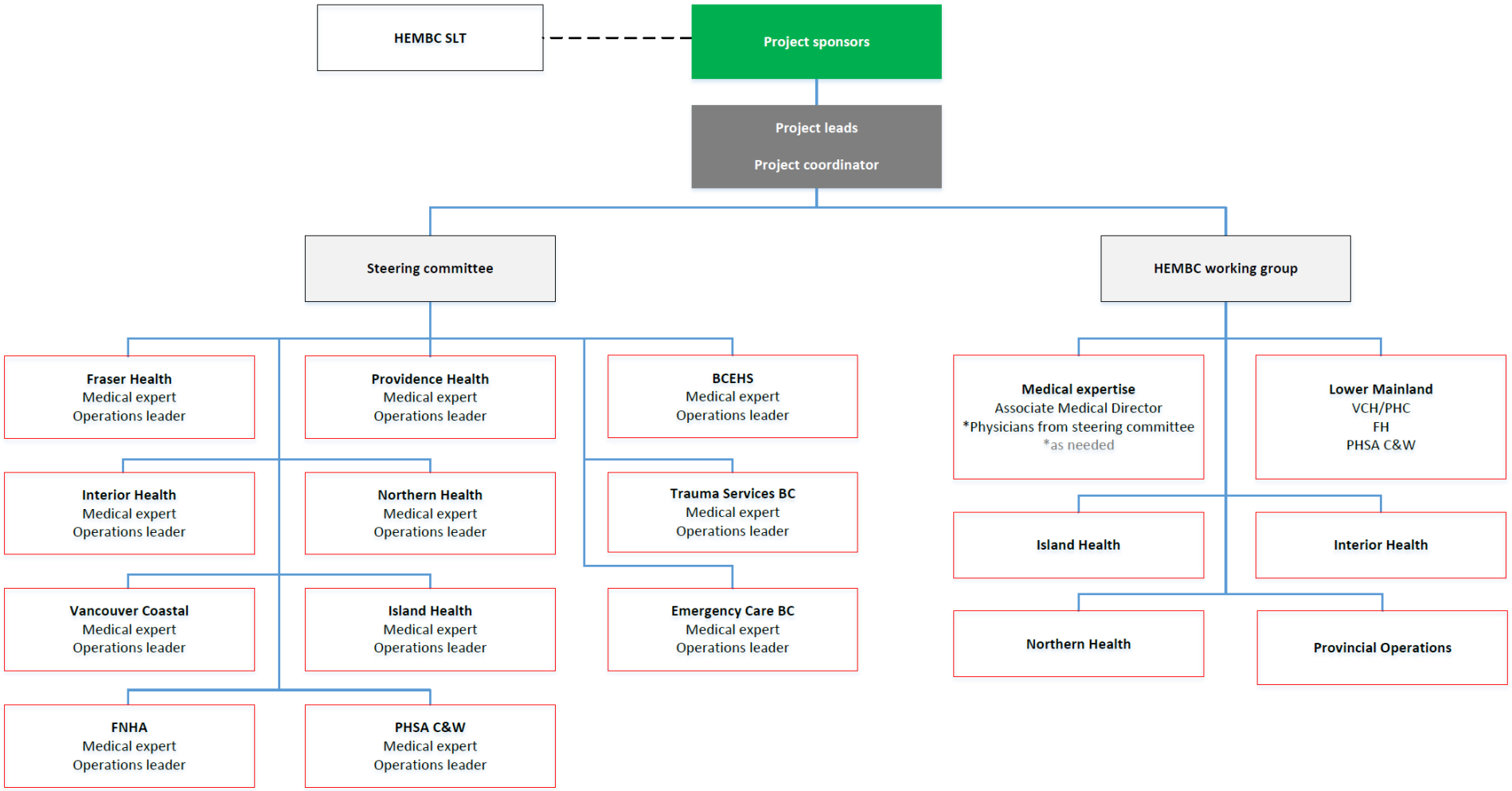
The recommendations outlined throughout this framework are based on current best practices, expert consensus, and lessons learned from both local and international experiences. Their adoption represents a critical opportunity to strengthen interoperability, enhance coordination between agencies, and ensure a consistent, system-wide approach to MCI preparedness, response, and recovery. Implementing this framework will also promote greater equity and efficiency in how hospitals across the province manage surge events, communicate during crises, and support patients and staff through the full disaster cycle.

Ultimately, preparedness for MCIs is not only about readiness for rare large-scale events but also about building everyday resilience within our health system. Through continued collaboration, training, and improvement, BC's health authorities can collectively build the structures, partnerships, and capabilities needed to safeguard patients, support healthcare workers, and sustain high-quality care under extraordinary circumstances.

Appendix A: Acronyms

Acronym	Definition
AAR	After Action Review
AER	After Exercise Review
BC	British Columbia
BCEHS	British Columbia Emergency Health Services
C&W	Children and Women's (Hospital)
ECCC	Environment and Climate Change Canada
ED	Emergency Department
EHR	Electronic Health Record
EOC	Emergency Operations Centre
FAP	Functional Area Plan
FNHA	First Nations Health Authority
HEMBC	Health Emergency Management British Columbia
HICS	Hospital Incident Command System
LSI	Life-Saving Intervention
MCI	Mass Casualty Incident
MSEL	Main Sequence of Events List
PHSA	Provincial Health Services Authority
VCH	Vancouver Coastal Health

Appendix B: HEMBC Provincial MCI Project Structure



Appendix C: Functional Area Plan Templates

For access to and support with completing the FAPs, please contact your regional HEMBC team. If you're unsure who to reach out to, email HEMBC@phsa.ca and we will direct your inquiry.

Functional area plan template: Emergency Department

[Insert specific health authority logo here]

Code Orange: Functional Area Plan
Emergency Department - [Specific Area]

Code Orange

Functional Area Plan

Emergency Department - [Insert specific area]

What is a Code Orange?
A Code Orange (mass casualty/disaster) is activated when an event stresses campus operations and impairs the organization's ability to maintain normal service levels.

Examples of potential events that could lead to Code Orange being activated:

- Natural disasters (earthquakes, snowstorms, floods)
- Mass casualty events (bus accident, plane crash)

Purpose/Objective
The purpose of this plan is to outline the needs and actions required by your unit/department to support the relocation, expansion or temporary creation of a specialized department for the duration of a Mass Casualty Event. This plan is complementary to and relies on the principles outlined in the Code Orange procedure found in the site's Emergency Response and Code Manual.

Contents

- Functional Area Information
- Code Orange Stages
- Map of Functional Area
- Code Orange Staffing
- Setup and Preparation of Area
- Decanting
- Reporting Structure
- Treatment areas & Patient flow
- Finalize Plan
- Plan Maintenance
- Appendix A – Job Action Sheet
- Appendix B – Mass Casualty Reporting Structure

Date of Plan: [Publish Date]

Document prepared by: [Unit/Department Manager]

Functional Area Information		
Functional Area Objective	What does your area do?	
Number of beds (for patient care areas)	**Current**	**Activation**
	Describe current number of beds in area.	Describe number of beds area could accommodate.
Location: [Building/Floor/Room]	Insert location	
Hours of Operation	Insert hours of operation	
Functional Area Contact Number	Insert unit/department phone number	
Reports to: (see Appendix B)	Insert reporting structure	
Emergency Operations Centre Location	Insert location of EOC	
EOC Telephone Number	Insert phone number, if applicable	
Location of Emergency Response Kit (if applicable)	Insert location of kit, if applicable	

Code Orange Stages

Code Orange can be activated at any stage.

Insert stage as it applies to your site

- Short definition of this stage

Stage

- Short definition of this stage

Stage

- Short definition of this stage

Functional Area Map

Insert functional area map here

Code Orange Staffing

Identify staffing levels and the skill sets required for your functional area.

1. Add positions/titles that are required in your functional area
2. Identify the number usually present
3. Identify the number required for a Code Orange functional area activation

Position		Ex: Registered Nurse	Insert position	Insert position	Insert position	Insert position	Insert position	Insert position	Insert position	Insert position
Regular Staffing	Day									
	Afternoon/ Evening									
	Night									
Additional # required for Code Orange activation	Day									
	Afternoon/ Evening									
	Night									

Setup and Preparation of Area

Identify any actions that need to be taken to prepare the physical space. For example, describe how you would convert the identified space, how long will it take to convert, and any limitations of this space.

If you are making a significant change to how your physical space functions, it is recommended that you include a map in this section.

Activity	Details
Ex: Identify Area Leader	Identify Area Leader, who will lead all actions
Review staffing needs	Asses staffing needs, activate fan out if necessary Designate roles to initiate calls. [insert where phone list is located]
Assess current capability	Assess and provide a Status Report of current patient care capabilities.
Decant patients out of the ED	Review emergency patients to determine who could be discharged/admitted or transferred to a less acute area. Use a scaled decanting approach. Initiate rapid decanting order sets/processes, if available.
Housekeeping	Have housekeeping clean any dirty rooms.
Assess supplies/equipment	Assess critical equipment and supply needs. Consider hyperlinking forms to this document Request equipment supplies from in-hospital replenishment Determine blood product supply
Click or tap here to enter text.	Click or tap here to enter text.

Decanting Process

Decanting is a process that is used to rapidly create inpatient surge capacity and refers to the identifying hospitalized patients who can be most safely discharged or transferred to a lower acuity level of care. Note, this section only applies to clinical areas.

Outline the decanting process in your functional area in the event of a Code Orange.

Person Responsible	Activity Details
Insert person responsible	Who is deciding on discharge? (physician in area + nurse?)
Insert person responsible	Consider ward staff availability to come to ED to transfer patients
Insert person responsible	Is there a waiting area for patients who can't be picked up right away but are safe for discharge?
Insert person responsible	What documentation exists to give to patients who are discharged due to a code orange?
Insert person responsible	Click or tap here to enter text.

If this section does not apply to your area, write N/A

Reporting Structure

Outline the reporting structure within your functional area in the event of a Code Orange.

Insert org chart below.

Treatment Areas and Patient Flow

SALT Mass Casualty Triage – Treatment Areas		Route to Transfer
RED	**Immediate**	Write where in the department these patients would be directed to
YELLOW	**Delayed**	Write where in the department these patients would be directed to
GREEN	**Minor**	Write where in the department these patients would be directed to
GREY	**Expectant**	Write where in the department these patients would be directed to
BLACK	**Deceased**	Write where in the department these patients would be directed to

Finalize Plan

After completing Functional Area Plan, please carry out the following activities:

Insert health authority and site/unit specific activities for plan finalization and maintenance below. See example:

☐ Print and insert the completed plan into the Emergency Response and Code Manual(s), behind the Code Orange tab or the Department tab.

☐ Print ten (10) copies of the form listed below and insert it into the Emergency Response and Code Manual(s), behind the Code Orange or the Department tab.

- Unit/Department Status and Request Form – link to your unit/site specific forms

☐ Email the completed plan to your HEMBC Specialist.

☐ Assemble Code Orange Supplies and Equipment, as applicable to your unit.

The above materials can be found in the following locations:

- Health Authority Emergency Management Intranet Page
- Emergency Operations Centre
- Emergency Response and Code Manual

HEMBC is responsible for posting the plan online and ensuring a copy is provided to the Emergency Operations Centre (EOC).

Plan Maintenance

This plan is intended to be reviewed annually and updated every three (3) years. The Unit/Department Manager is responsible for the activities below:

☐ Review the plan and supplies/equipment on an annual basis (12 months) from the publish date. There is no requirement to provide updates to your HEMBC Specialist, unless significant changes are made.

☐ Update the plan and supplies/equipment based on a three (3) year cycle from the publish date. Email the updated plan to your HEMBC Specialist.

If there are significant changes to the plan outside of the review cycle, update and email the revised plan to your HEMBC Specialist.

Appendix A – Job Action Sheet

[Role - leader of this area/process]

[High-level description of the purpose of this role]

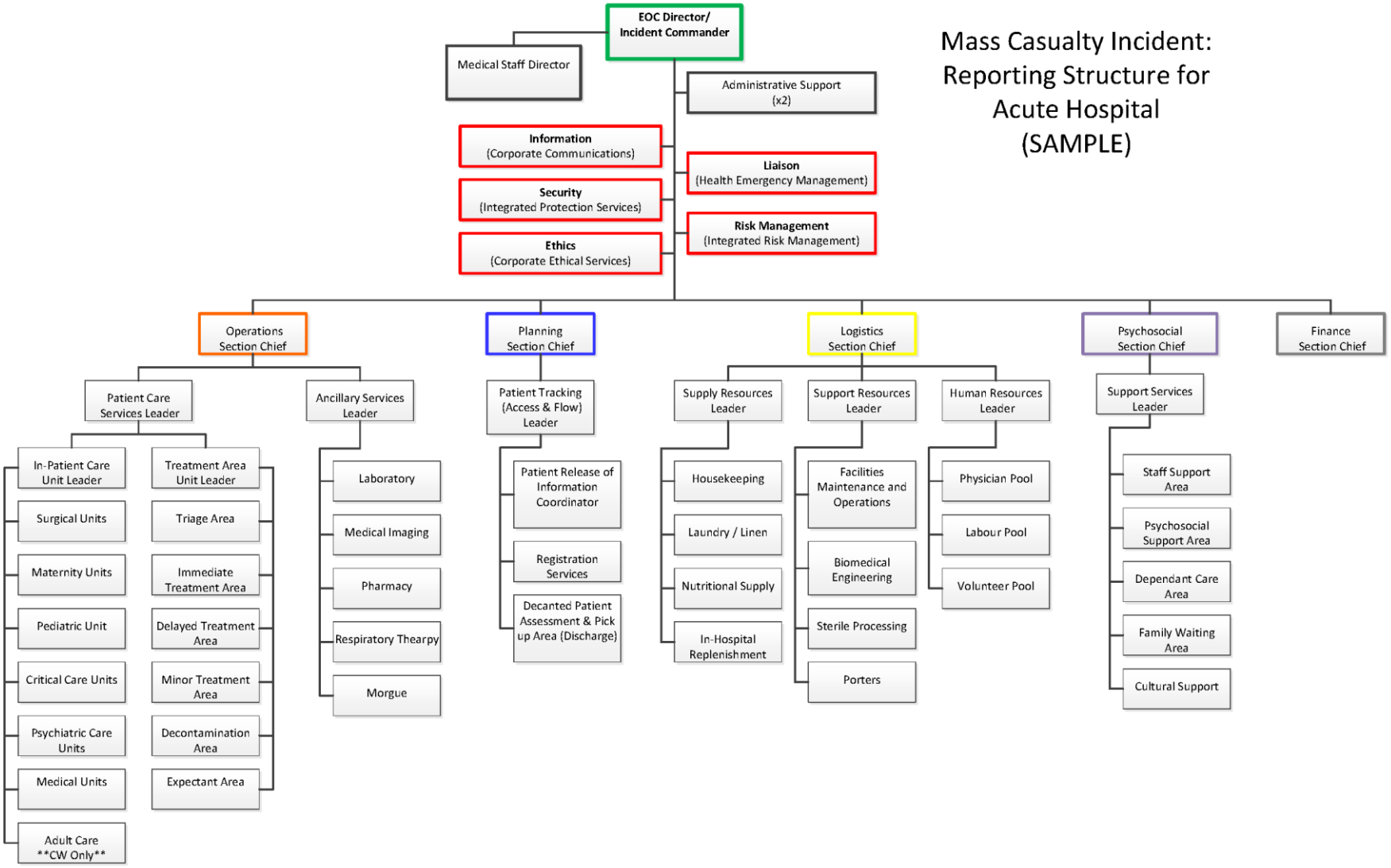
High Priority Actions

- ❑ X

Additional Actions

- ❑ X

Appendix B – Mass Casualty Reporting Structure



[Insert specific health authority logo here]

Code Orange: Functional Area Plan
[Specific Area]

Code Orange

Functional Area Plan

[Insert specific area]

What is a Code Orange?
A Code Orange (mass casualty/disaster) is activated when an event stresses campus operations and impairs the organization's ability to maintain normal service levels.

Examples of potential events that could lead to Code Orange being activated:

- Natural disasters (earthquakes, snowstorms, floods)
- Mass casualty events (bus accident, plane crash)

Purpose/Objective
The purpose of this plan is to outline the needs and actions required by your unit/department to support the relocation, expansion or temporary creation of a specialized department for the duration of a Mass Casualty Event. This plan is complementary to and relies on the principles outlined in the Code Orange procedure found in the site's Emergency Response and Code Manual.

Contents

Date of Plan: [Publish Date]

Document prepared by: [Unit/Department Manager]

Functional Area Information		
Functional Area Objective	What does your area do?	
Number of beds (for patient care areas)	**Current**	**Activation**
	Describe current number of beds in area.	Describe number of beds area could accommodate.
Location: [Building/Floor/Room]	Insert location	
Hours of Operation	Insert hours of operation	
Functional Area Contact Number	Insert unit/department phone number	
Reports to: (see Appendix B)	Insert reporting structure	
Emergency Operations Centre (EOC) Location	Insert location of EOC	
EOC Telephone Number	Insert phone number, if applicable	
Location of Emergency Response Kit (if applicable)	Insert location of kit, if applicable	

Code Orange Stages

Code Orange can be activated at any stage.

Insert stage as it applies to your site

- Short definition of this stage

Stage

- Short definition of this stage

Stage

- Short definition of this stage

Bed Capacity

[Unit/Department]					
Current Bed Capacity *(Regular functional capacity)*			**Additional Bed Capacity** *(Additional equipment and supplies required to support patient care)*		
		Total X			***Total*** X
Location	**# Capacity** *(Bed/Pt)*	**Details**	**Location**	**# Capacity** *(Bed/Pt)*	**Details**
X	X	X	X	X	X
X	X	X	X	X	X
X	X	X	X	X	X

Code Orange Staffing

Identify staffing levels and the skill sets required for your functional area.

1. Add positions/titles that are required in your functional area
2. Identify the number usually present
3. Identify the number required for a Code Orange functional area activation

Position		Ex: Registered Nurse	Insert position	Insert position	Insert position	Insert position	Insert position	Insert position	Insert position	Insert position
Regular Staffing	Day									
	Afternoon/ Evening									
	Night									
Additional # required for Code Orange activation	Day									
	Afternoon/ Evening									
	Night									

Setup and Preparation of Area

Identify any actions that need to be taken to prepare the physical space. For example, describe how you would convert the identified space, how long will it take to convert, and any limitations of this space.

If you are making a significant change to how your physical space functions, it is recommended that you include a map in this section.

Activity	Details
Ex: Identify Area Leader	Identify Area Leader, who will lead all actions
Review staffing needs	Asses staffing needs, activate fan out if necessary Designate roles to initiate calls. [insert where phone list is located]
Assess current capability	Assess and provide a Status Report of current patient care capabilities.
Initiate decanting processes	Review patients who could be discharged/transferred to alternate levels of care. Use a scaled decanting approach.
Housekeeping	Have housekeeping clean any dirty rooms.
Assess supplies/equipment	Assess critical equipment and supply needs. Consider hyperlinking forms to this document Request equipment supplies from in-hospital replenishment Determine blood product supply
Click or tap here to enter text.	Click or tap here to enter text.

Decanting Process

Decanting is a process that is used to rapidly create inpatient surge capacity and refers to the identifying hospitalized patients who can be most safely discharged or transferred to a lower acuity level of care. Note, this section only applies to clinical areas.

Outline the decanting process in your functional area in the event of a Code Orange.

Person Responsible	Activity Details
Insert person responsible	Who is deciding on discharge? (physician in area + nurse?)
Insert person responsible	Consider ward staff availability to present to ED to transfer patients
Insert person responsible	Is there a waiting area for patients who can't be picked up right away but are safe for discharge?
Insert person responsible	What documentation exists to give to patients who are discharged due to a code orange?
Insert person responsible	Click or tap here to enter text.

If this section does not apply to your area, write N/A

Reporting Structure

Outline the reporting structure within your functional area in the event of a Code Orange.

Insert org chart below.

Finalize Plan

After completing Functional Area Plan, please carry out the following activities:

Insert health authority and site/unit specific activities for plan finalization and maintenance below. See example:

☐ Print and insert the completed plan into the Emergency Response and Code Manual(s), behind the Code Orange tab or the Department tab.

☐ Print ten (10) copies of the form listed below and insert it into the Emergency Response and Code Manual(s), behind the Code Orange or the Department tab.

- Unit/Department Status and Request Form – link to your unit/site specific forms

☐ Email the completed plan to your HEMBC Specialist.

☐ Assemble Code Orange Supplies and Equipment, as applicable to your unit.

The above materials can be found in the following locations:

- Health Authority Emergency Management Intranet Page
- Emergency Operations Centre
- Emergency Response and Code Manual

HEMBC is responsible for posting the plan online and ensuring a copy is provided to the Emergency Operations Centre (EOC).

Plan Maintenance

This plan is intended to be reviewed annually and updated every three (3) years. The Unit/Department Manager is responsible for the activities below:

☐ Review the plan and supplies/equipment on an annual basis (12 months) from the publish date. There is no requirement to provide updates to your HEMBC Specialist, unless significant changes are made.

☐ Update the plan and supplies/equipment based on a three (3) year cycle from the publish date. Email the updated plan to your HEMBC Specialist.

If there are significant changes to the plan outside of the review cycle, update and email the revised plan to your HEMBC Specialist.

Appendix A – Job Action Sheet

[Role - leader of this area/process]

[High-level description of the purpose of this role]

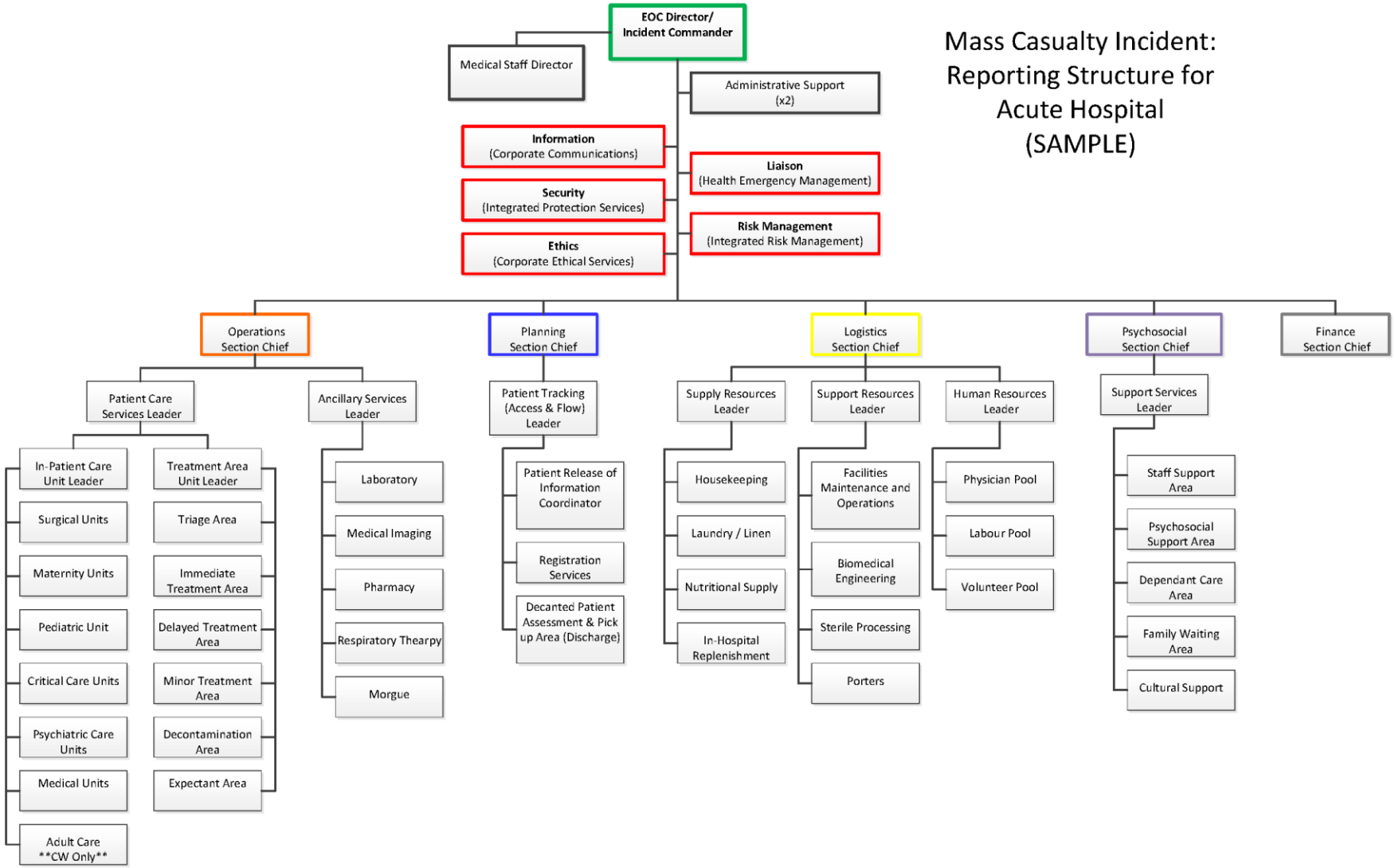
High Priority Actions

- ❑ X

Additional Actions

- ❑ X

Appendix B – Mass Casualty Reporting Structure



Appendix D: Sample Exercise Program

For access to and support with an MCI exercise program, please contact your regional HEMBC team. If you're unsure who to reach out to, email HEMBC@phsa.ca and we will direct your inquiry.

Note, the greyed-out section indicates a break in work based on the summer season, where there are often fewer staff able to assist with planning and training.

Task	Description	Q3			Q4			Q1			Q2			Q3			Q4		
		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar
1	**Planning & preparation**																		
1.1	Initial planning discussion																		
1.2	Confirm objectives																		
1.3	Develop work plan / project plan																		
1.4	Invitation to core planning team																		
1.5	Develop risk management plan																		
1.6	Meet with functional area leadership																		
1.7	Develop budget proposal / request																		
1.8	Approval of budget																		
1.9	Develop communication plan																		
1.10	Rollout communication plan																		
2	**Exercise development**																		
2.1	Develop scenario & narrative of events																		
2.2	Develop patient cards																		
2.3	Confirm patients (actors, cards or mannikins)																		
2.4	Finalise MSEL																		
2.5	Confirm key interest holder involvement																		

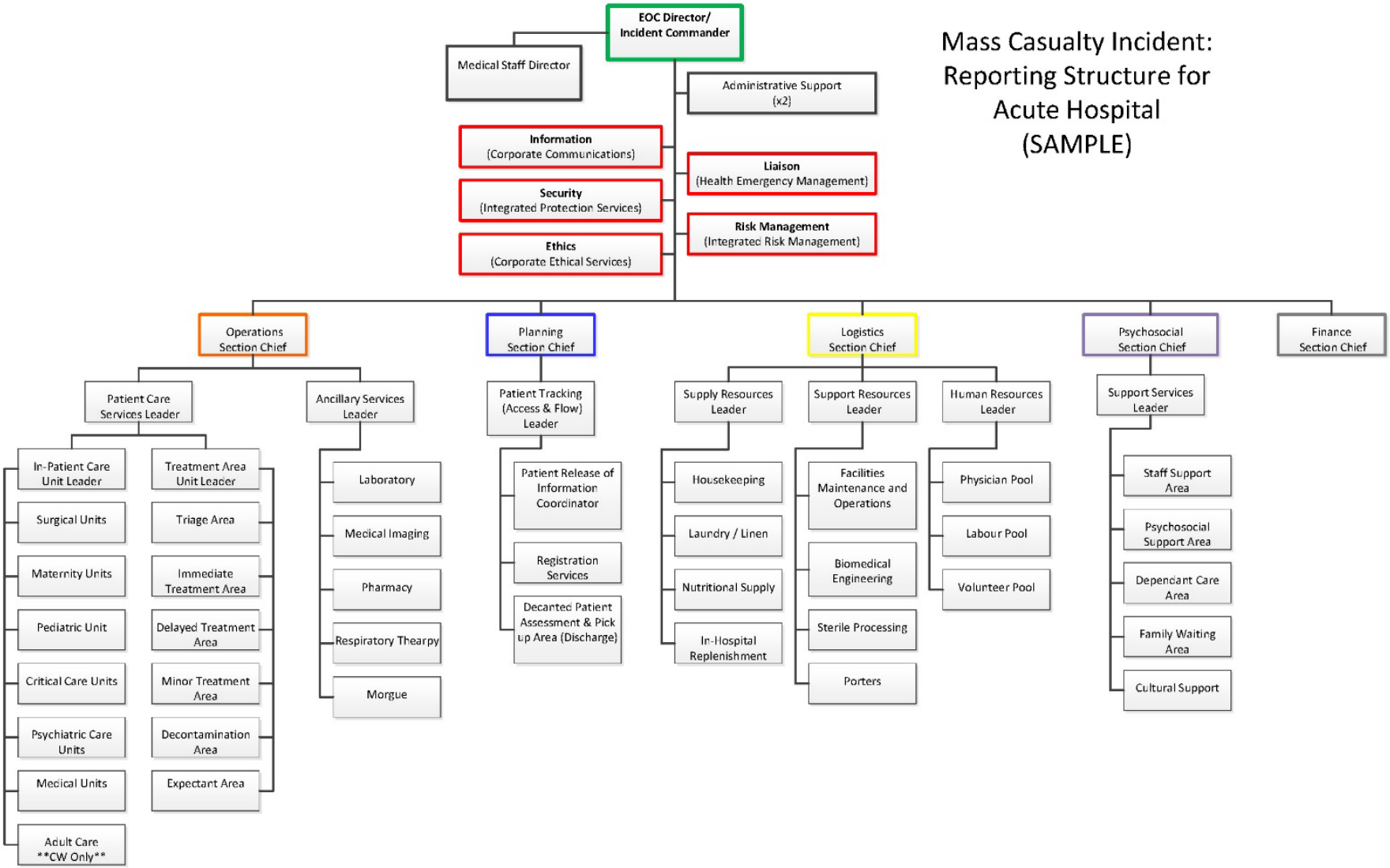
2.6	Schedule supporting staff																		
2.7	Finalize & send out handbooks																		
3	**Development of functional area plans**																		
3.1	Participating areas develop or update FAPs																		
4	**Education & training**																		
4.1	Seminar: Cultural safety during MCI (leaders)																		
4.2	Seminar: Cultural safety during MCI (physicians)																		
4.3	Seminar: Cultural safety during MCI (ED staff)																		
4.4	HICS training (leaders)																		
4.5	Drill: Activation & triage (ED staff)																		
4.6	Workshop: Decanting (ED staff & physicians)																		
4.7	Functional exercise (leaders)																		
4.8	Drill: Fan out (all staff)																		
4.9	Seminar: Previous MCIs & current plan (leaders)																		
4.10	Seminar: Previous MCIs & current plan (ED staff)																		
4.11	Seminar: Previous MCI & current plan (physicians)																		
4.12	Seminar: Previous MCIs & plan review (clinical)																		
4.13	Seminar: Previous MCI & plan review (non clinical)																		
4.14	Seminar: Previous MCIs & plan review (security)																		
5	**Preparation for exercise (2 weeks prior)**																		
5.1	Seminar, 15 min: MSEL & injects (leaders)																		
5.2	Huddle: Training on FAP & exercise (ED staff)																		
5.3	Huddle: Training on FAP & exercise (physicians)																		
5.4	Huddle: Training on FAP & exercise (clinical)																		

5.5	Huddle: Training on FAP & exercise (non clinical)																		
5.6	Huddle: Training on FAP & exercise (security)																		
6	**Conduct exercise (day-of)**																		
6.1	Pre-exercise check-in with staff																		
6.2	Full scale exercise																		
7	**After exercise report (AER)**																		
7.1	Deliver AER to leadership																		
8	**Action the AER improvement plan**																		
8.1	Seminar/drill: AER recommendations (leaders)																		
8.2	Seminar/drill: AER recommendations (physicians)																		
8.3	Seminar/drill: AER recommendations (ED staff)																		
8.4	Seminar/drill: AER recommendations (clinical)																		
8.5	Seminar/drill: AER recommendations (non clinical)																		
8.6	Seminar/drill: AER recommendations (security)																		

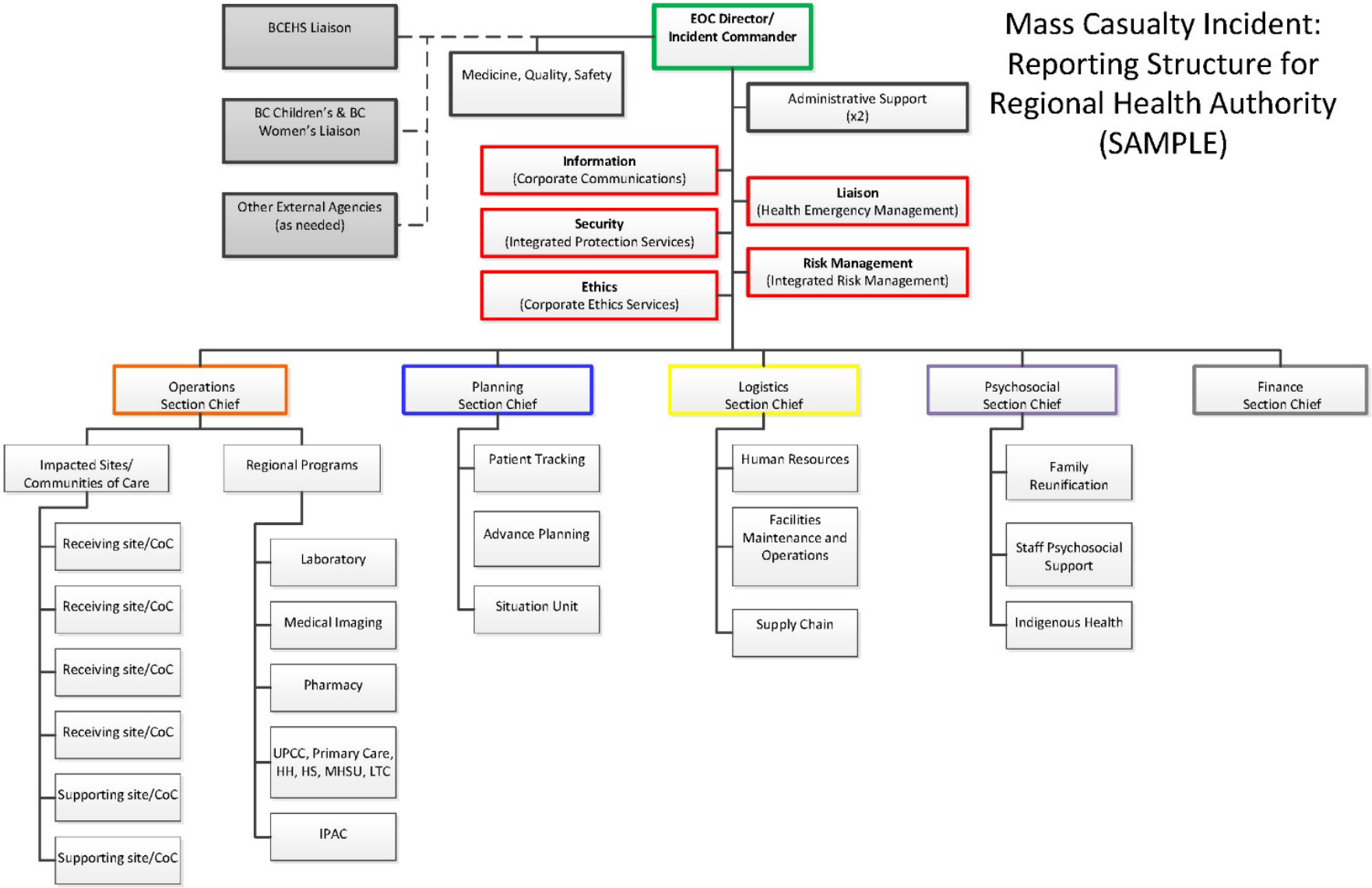
Appendix E: Sample EOC Structures

For access to and support with emergency response structures, please contact your regional HEMBC team. If you're unsure who to reach out to, email HEMBC@phsa.ca and we will direct your inquiry.

Local Hospital EOC Structure



Regional Health Authority EOC



Appendix F: MCI Patient Tracking Template

For access to this patient tracking template, please contact your regional HEMBC team. If you're unsure who to reach out to, email HEMBC@phsa.ca and we will direct your inquiry.

MCI patient tracker: [Event name]

Last updated: [DD-Mon-YYYY at HH:MM] Updated by: [Name, Role]

Disaster Nomenclature *Last name, First name*	Last Name *If known*	First Name *If known*	Sex *(M / F / Other)*	DOB or Approx Age *YYYY-MM-DD*	Patient Location *Current site*	Patient Status *Choose from drop down*	Disposition *Choose from drop down*	Being transferred to *Receiving site*	Additional Comments *i.e. accepting service, estimated time of transfer, etc.*

Appendix G: MCI Communication Toolkit

Mass Casualty Incidents: Communication Toolkit

For site-level communications and operations

HEMBC, Provincial MCI Project Team

HEMBC
Health Emergency Management

Communications Toolkit: Overview

What is a Mass Casualty Incident?

A mass casualty incident (MCI) is a sudden event that causes a surge of patients, which overwhelm the health system resources of one or more acute care facilities. Acute care facilities have Code Orange-MCI response plans for responding to and managing an MCI.

Purpose of this toolkit

This toolkit is intended to guide and recommend site-level communications when planning for, responding to, and recovering from MCIs by providing scalable templates and tools. This toolkit is not prescriptive, rather suggestive, to support the communications components of existing MCI plans.

Who is this toolkit for?

- MCI EOC Director, who delegates functions to:
  - Communications-command team
  - Operations section

The toolkit guides MCI communications tasks that are both for communications-command teams, as well operational teams. It is recommended that the EOC director delegate activities and pages within this toolkit to the respective team in charge of that work.

⚠ Tasks recommended for communication teams are noted with blue text boxes.

Tasks recommended for operational communications are noted with orange text boxes.

How to use this toolkit

1. Read the MCI job action sheet for site-level communications
2. Review the suggested MCI communications responsibilities for site-level communications teams, operational teams, health authority corporate communications teams
3. Go directly to the tool that supports your work

Target Audiences

Strategies and templates are included for communicating to 3 primary audiences:

1. Health care staff
2. Patients and families
3. Media and the public

Content Flow

- Job action sheet
- Roles and responsibilities
- Response
  - **Staff Communications**
    - Overhead announcement
    - Group chat alerts
    - "Keeping You Informed" Email to all-staff
    - Ground communications between units
  - **Patient and family communications**
    - Patient speaking notes
    - Family speaking notes
    - Call centre scripts
  - **Media and public communications**
    - Media protocol for health facilities
- Recovery
  - All clear email memo
  - Communications debrief
- Planning
  - MCI Planning all-staff email

MCI Job action sheet: Site-level Communications tasks

Action Items

- ☐ Receive briefing about the mass casualty incident from EOC director or designate

Upon direction of EOC, and if applicable:

- ☐ Ensure overhead announcement that Code Orange alert has been made
- ☐ Ensure Code Orange email notification has been sent through contact centre
- ☐ Notify leadership in impacted units and departments
- ☐ Contact health authority corporate communications team
- ☐ Review your Media protocol Communication Plan
- ☐ Establish runners or information form to send messages between operational units to ensure steady flow of information
- ☐ Distribute patient and family keynote cards to staff at family reception stations, patient care areas, patient information call-line
- ☐ Set up a Patient Information call line to dispatch a family's phone calls to appropriate receiving site
- ☐ Email a "Keeping You Informed" memo
- ☐ Once MCI is over, resend initial Code Orange email with "All-Clear" status
- ☐ Send an email concluding the MCI response and thanking all staff

Communications roles and responsibilities

Operational teams

- MCI communication between units within site
- Staff notifications and alerts
- Patient and family communications
- Alerting health authority corporate communications about the MCI

Communications teams

- Health facility staff communications
- Establishing Patient Information call-line
- Media and public communications, including media enquiries, social media messages, news releases
- Liaising with Ministry of Health and communications departments of responding agencies
- Determining communications lead if multiple jurisdictions involved
- Directing patient and families to the appropriate health facility and family reception centre

Response

Staff Communications

The following are placeholders and templates for communicating to staff during an MCI RESPONSE.

Overhead announcement

Use an overhead announcement to notify the site about an incoming MCI

[INSERT YOUR CODE ORANGE OVERHEAD ANNOUNCEMENT SCRIPT]

Example: CODE ORANGE: Insert MCI Descriptor has occurred on Date at Time. First patients expected to arrive in Insert Time. Please report to your station and supervisor to provide immediate support.

What to consider for you message:

- *Incorporate redundancies*—not all overhead speakers work
- *Use commands*—be direct about what you need from those receiving the message
- *Provide opportunity for follow up*—who can staff ask for more information? Where can they go to provide support? When will the next update be?

Direct alert notifications

Use this memo template for group chats, mass texts, SnapComms and other notification methods to notify operational teams about an incoming MCI/Code Orange.

Team,
Code orange: an [Insert MCI Descriptor] has occurred on [Date] at [Time]. The first patients are expected to arrive in [Insert Time]. For those currently working, please report to your station and supervisor to provide immediate support. To those on-call, please standby for possible call-in.
We will share patient compositions here as soon as we have them.
OR
Patient compositions are as follows:
X green
X yellow
X red

Email a "Keeping You Informed" memo to all-staff

⚠ Once Code Orange is in a prolonged state, use this email template to keep all site staff informed about Code Orange.

To: all staff operations, clinical and administration
Subject: CODE ORANGE Status Update: Keeping You Informed
Mark as urgent

Dear staff,

Background
"This message is to notify staff of [Insert Hospital] that [Insert MCI Descriptor] has occurred on [Date] at [Time]. [Insert Hospital]'s physical environment and staff safety [is/is not] affected by this incident.
Provide guidance on how staff can help safeguard the internal environment, if necessary.

EOC status
The EOC is located in [room #] and continues to be operate 24/7 or from [time] to [time], daily. Food is delivered periodically. A staff sleeping and rest room has been set up in [room #].
[X staff] will be coming in at [time] to provide relief for staff working in the EOC. Please ensure thorough handovers.

Next steps
To those currently working, please report to your unit and supervisor to provide support to ongoing patients. To those on-call, please standby for possible call-in.

Safety and Wellness [If staff and staff family are affected]:
We recognize that staff and their family could be affected by this incident and we stand with you. Please speak with your supervisor about your family safety and wellness needs at this and we will support you. Please take care yourself and your family. You are our priority during this difficult time and we will get through this as a team.

We will continue to relay information through direct reporting lines, as well as by email and group chat channels to keep you informed and to identify where support is needed. The next Keeping you Informed email will be sent at [time]

Thank you for your dedication and service to providing patient-centred care,

Signature

Ground communications between units

How are units communicating with each other about what they need?

Charge runners or distribute forms with exchanging information between key response function including, but not limited to, the EOC, the emergency department, perioperative units, critical

Sourcing information:

- **Information flows:** Is there any information you need from another unit that I can get for you?
- **Information baselines:** Do you have all the information you need to do your job right now?
- **Resource intelligence:** Are there any resources that I can check the status of for you? What resources are you uncertain about that you need right now?

Sending information:

- **Information flows:** X person from Y unit needs to know Z. Do you have that information? IF NO, where can I go to get it?
- **Information baselines:**
  - X unit needs a direct line of communication to Y unit.
  - B unit is getting overwhelmed and needs less information requests from C unit
- **Resource request:** D unit is critically low on E resource and needs more X OR needs to suspend Z

Documents:

Use this document to inform the EOC of Units/Departments status and capability:

Unit-department-status-report.docx

Use this document support communication and requests for equipment and supplies between the EOC and Units/Departments:

Unit-department-equipment-supply-reques

Patient and family communications

The following are templates for communicating to patients and family during an MCI RESPONSE.

Patient speaking notes

Use these speaking notes for patient assurance and identification prompts

Background for patient

- Good [morning/afternoon/evening], [patient's name]. I'm Dr. [Your Name], and I'll be taking care of you today.
- You were in an accident at [location, incident description], and the medical team has been working to stabilize your condition. I'm here to help you through this process of recovery."
- Right now, you are in [hospital/ward], and we are monitoring your vital signs closely.
- You're going to be ok.

Addressing immediate concerns

- Our team has already performed [mention any emergency procedures, surgeries, or interventions] to address immediate concerns
- "Moving forward, our goal is to manage your pain, promote healing, and support your overall well-being."

Patient and family reunification

- What is your name? Who can we contact for you?
- Your family has been contacted and they are on their way.

Assurances

- You're right where you need to be. You're healing and getting better. You need to stay here a little longer so you can continue to heal.
- You are so strong. You are doing great. This will get better, and you will be out of here soon.
- It's normal to feel a range of emotions after such an event. We have counseling services to support you.
- I'll be checking in regularly, and our team is available 24/7. If you need anything please let us know.
- Thank you for trusting us with your care. Your trust is not taken lightly, and we are dedicated to providing you with the best possible support throughout your recovery journey.

Family speaking notes

Provide these speaking notes to staff at family reception centres or over the phone at a patient information call line to guide patient and family reunification dialogue

By phone:

If patient is on registry:
YES: I do see that we have a patient by that name here at [Insert Hospital]. When you arrive, please check in at the [Insert Arrival Location] and we will direct you to your loved one's current location at that time.

If patient is not on registry:
NO: Unfortunately, I do not see any patients by that name here registered at [Insert Hospital] right now. However, it takes some time for us to confirm patient identity; if you can call us back in one hour, we may have additional information available at that time.
If pressed for answer:
I apologize--because of the overwhelming number of requests, I am unable to provide callbacks at this time; we are trying to speak with as many people as we can to reunite family members.

In person

If patient is on registry:
Yes, I do see that we have a patient by that name here at [Insert Hospital]. Please check in at the [FLOOR HOSPITAL UNIT] and we will direct you to your loved one's current location.

If patient is not on registry:
Unfortunately, I do not see any patients by that name here at [Insert Hospital] right now. However, it takes some time for us to confirm patient identity; please come back in 1 hour to see if there are any updates.
If pressed for answer: I understand this is scary and you want to know how your loved one is doing. We're doing everything we can right now. Please come back in 1 hour for any updates.

Call Centre script

Use this template to build out a call centre script and a job action sheet at patient call lines to guide the dispatching of families and receiving sites. Use in combination with the above family key messages.

[Insert Location] Switchboard [Insert Phone Number]

Purpose: To provide families a call number to obtain the location of their loved ones following [Insert MCI Descriptor].

Actions:

- Call taker is to provide the hospital location and phone number to callers looking for their loved ones.
- List information only contains patients who have registered at [Insert Health Authority] facilities.

➢ [Insert Location] Switchboard [Insert Phone Number]
➢ [Insert Location] Switchboard [Insert Phone Number]
➢ [Insert Location] Switchboard [Insert Phone Number]
➢ [Insert Location] Switchboard [Insert Phone Number]

Q1. What if loved one is not on the [Insert Health Authority] list?

- Our list only contains patients that have registered at [Insert Health Authority] facilities. There are still some patients in transport or transport between facilities.
- As well we know some patients did not require medical care and have been provided hotel accommodations.
- As more patients are identified, we may be able to connect you with your loved-one. Can I please get their name, your name and your phone number in case we're able to identify them. [ADD NAME TO REGISTERED MISSING AND SUSPECTED PATIENT LIST]

Q2. What condition is my loved one in?

- The medical team at the facility will be able to confirm that information. You will need to call the site and be transferred to the unit caring for your loved one.

If you are receiving questions you are not able to answer, please call [Insert Name] at [Insert Phone Number].

Media and public communications

The following are templates for media communication during an MCI RESPONSE.

Media protocol for health facilities

⚠ Refer media to your health authority corporate communications office or consult your media protocol crisis communications plan.

Your health authority corporate communications team is responsible for media and public communications. In the event of a Mass Casualty Incident, please arrange a coordination call with your strategic communications contact as soon as possible so they can begin crisis management communications.

Holding line to media

If pressed:

Thank you for your enquiry. Please contact our health authority communications team @XXXX for media requests. Our communications team can help with your request.

Recovery

 **All-Clear email memo**

⚠ Send an email to all staff at the facility notifying the MCI response has concluded. Send in addition to an updated all-clear status on the initial Code Orange email notification.

To: all staff operations, clinical and administration
Subject: MCI deactivation and situation update
Mark as urgent

The Mass Casualty Incident that occurred at [Insert MCI Descriptor] on [Date] has now concluded and this facility is returning to regular operations.
{Provide an update of patient care activities, number of patients in care, and units involved}

We would like to acknowledge the dedication of [Insert Hospital's] staff to responding to this MCI. Thank you for your service and dedication to patient care.

A debrief will be scheduled at a later date OR a debrief will be scheduled at [DATE and TIME].

This is also a reminder of the health and wellbeing resources available to you at [Insert Hospital] or through the health authority, listed below. [Insert link to health and wellbeing resources]

Communications Debrief

Consider the below questions to guide discussion during a debrief with Communications teams who responded to the MCI.

	Questions	Responses
1.	What were our goals during this incident?	
2.	Did we accomplish our goals? Why or why not?	
3.	What steps were taken by Communications during the event?	
4.	What went well during the incident? Why?	
5.	What organizational constraints or barriers did we face? How did we overcome them, or did we?	
6.	What can be improved? How? Who will be responsible for resulting action items?	
7.	Did the Communications team meet sufficiently often and work productively together?	
8.	Could time pressures have been alleviated by organizing the work differently?	
9.	Do we need to modify any part of our Crisis Communications Plan? Which part(s)? Who will be responsible for modifications to the plan?	
10.	Do we need to share 'lessons learned' with our Health Emergency Management contacts? Anyone else?	
11.	Who will report out to the broader Communications & Public Engagement team? The incident team?	

*Courtesy of Interior Health Communications

Planning

MCI planning all staff email

Prepare staff for what communications they will expect during a mass casualty incident

To: all staff operations, clinical and administration
Subject: FYI only, no action required: Preparing for a Mass Casualty Incident, what to expect
Message:
Dear Colleagues, The purpose of this email is to prepare staff about this facility's process for alerting a code orange, mass casualty incident response.

What is a Mass Casualty Incident (MCI)?
A mass casualty incident is a sudden event that causes a surge of patients, which overwhelm the health system resources of this facility.

How will I be notified?
When an MCI occurs, you may be alerted by overhead announcement, email, group chat message alert, and/or phone call
This notification will be sent by your supervisor, facility communications team, or HEMBC contact

What information will I receive when I am notified?
Your safety is our first priority, so you will be alerted whether the health facility and health care personnel are at risk and what precautions you need to take to protect yourself.
If the health facility is not directly affected but will be receiving patients from the incident, you will receive the following details and direction:

- A brief background of the incident that has occurred, based on early reports
- Patient numbers and composition, as available
- How you are needed to assist incoming patients
- What units need prepping
- Who to report to

What can I do to prepare for an MCI?

- Discuss with your supervisor about your individual and team role during an MCI event. Identify for job action and station.
- Review Insert site's MCI plan If available
- Review insert Health authority Code orange training module
- Contact insert HEMBC Specialist or MCI site lead for any further questions or comments insert Include contact details

This toolkit has been developed by:

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This toolkit has been reviewed by:

Ari Indyk, Director of public affairs VCH—November 27, 2023
Eryn Collins, Regional Director of Communications & Health Program NH—December 4, 2023
Amory Wong, Consultant, Communication FH—December 1, 2023
Amelia Nezil, Manager of Community Communication VCH—December 5, 2023
Island health—NIL
Interior health—NIL
PHSA—PENDING
Gloria Hertz, MCI project manager—November 21, 2023
Marina Aravena, MCI project manager –December 5, 2023
Dr. Chris Lee, MCI project manager –December 5, 2023

Appendix H: Reference Guide

HEMBC Health Emergency Management

Reference Guide
Provincial MCI Project

Phase	Deliverable	Document	Facilitator(s)	
			HEMBC	Health authorities
Mitigation	Mitigation activities	Evidence summary & recommendations	X	X
Preparedness	Functional area plans (FAPs)	Evidence summary & recommendations	X	X
		FAP template: Emergency department		
		FAP template: Non-emergency areas		
	Exercise resources	Evidence summary & recommendations	X	X
		Training plan		
Response	Notification & activation	Evidence summary & recommendations	X	X
		Interagency operations flowchart		
	Emergency response structures	Evidence summary & recommendations	X	X
		Sample local EOC structure		
		Sample regional EOC structure		
	Fan Out	Evidence summary & recommendations		X
	Decanting	Evidence summary & recommendations		X
	Disaster triage	Evidence summary & recommendations		X
	Patient tracking	Evidence summary & recommendations	X	X
		Patient tracking template		
	Communications	Evidence summary & recommendations		X
		Toolkit (templates)		
Recovery	Recovery activities	Evidence summary & recommendations	X	X
Appendixes	Appendix A	Notification & activation		
	Appendix B	Decanting		