Preparing for the next COVID-19 wave in Canada: managing the crisis facing emergency management leaders in healthcare organisations

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INTRODUCTION

The ability of health system leaders to coordinate emergency responses to the novel coronavirus SARS-CoV-2 pandemic known as COVID-19 is a significant global issue. An effective response to emergencies in health organisations is predicated on the enactment of robust emergency management (EM) planning and activities. While these activities vary between countries, they share fundamentals that include the Hospital Emergency Incident Command System (HEICS), which is often led by the organisation's chief executive. This incident command system has been used in the USA and other countries since 1991.[1] Events such as the 1995 Tokyo Subway Sarin attack and the 2003 SARS outbreaks in Asia and Toronto, Canada, have transformed the requirements for hospital EM.[1] While health emergency planning is widespread in the UK, it is not clear whether health organisations in that country are integrated into the emergency response, and whether they function effectively as a system.[2] In the USA, several healthcare systems have attributed successful outcomes such as effective ventilator management to the implementation of HEICS.[3–5] Meanwhile, in Canada, COVID-19 has tested these systems, and weaknesses are beginning to show in the capabilities of hospitals to provide a prolonged disaster response.[6] Moreover, there is inconsistency across the Canadian provinces in the standardisation of incident command structures. The application of EM systems by Canadian healthcare leaders seems inconsistent and underused.[7 8] Internationally, healthcare leadership (HL), those individuals in key positions of power whose decisions have considerable influence on emergency response activities, are not well integrated with EM systems and practices.[2]

The COVID-19 pandemic is a generational crisis that has significantly impacted the Canadian healthcare system. To date, the virus has not been contained, and while vaccinations have begun in Canada, future logistical and distribution challenges mean COVID-19 is still an ever-present concern. Globally, there have been over 167 million COVID-19 cases resulting in 3.4 million fatalities with case counts in Canada surging past 1.3 million and 25 000 deaths.[9] Early in the pandemic, it seemed that Canada had effectively managed the response to the pandemic based on lessons learnt from the 2003 SARS and 2009 H1N1 pandemics, which killed 44 and 428 Canadians, respectively.[10] The second wave of the pandemic, however, has surged across Canada and has rapidly overwhelmed resources, resulting in record numbers of COVID-19 infections and increased fatalities across Canada.[11] Announcements by pharmaceutical companies Pfizer, Moderna and BionNTech made in the fall of 2020 have demonstrated that vaccines are more than 90% effective. To date, 21 million vaccinations have been administered; however, the third wave of COVID-19 infections including variants of concern are on a steep upward trajectory necessitating continued pragmatic organisational planning and response.[12 13] Hospitals across Canada continue to face significant challenges resulting from workforce shortages, rising bed occupancy rates and surge management vulnerabilities.[14]

Emergency managers play a key role in preparing Canadian healthcare organisations for disasters and emergencies. They are responsible for creating and maintaining plans, and ensuring logistics and communication systems function effectively in times of crisis. The establishment of formal lines of communication and accountability are a key aspect of EM. Within the health sector, the most widely adopted EM coordination structure is the HEICS,[15] enacted to provide hospital leaders clarity on their roles in the organisation's emergency response.[16]

Empowering and training healthcare leaders in EM can be problematic, as they typically lack the knowledge and experience in managing crises effectively. This commentary addresses the global EM competency gap and the need for better integration with HL, using the specific case of Canada to develop policy recommendations, while raising awareness of these concerns internationally. Through a review of early provincial evidence and conversations with Canadian national EM leaders, we build on our own EM experience to summarise the challenges and potential opportunities for HL as they manage the ongoing COVID-19 crisis, and plan for future disasters.

BACKGROUND: EM IN CANADIAN HEALTHCARE ORGANISATIONS

In Canada, universal healthcare is embedded at a federal level, while each province has responsibility for the design and delivery of its health system. Federal legislation and the Canadian Health Act provide coverage for medically necessary care, while individual provinces have discretion over the provision of other services. This variation in service provision challenges Canada's ability to mount a coordinated and standardised response to the

COVID-19 national health crisis. This has also led to untested and uncoordinated EM plans between levels of government, and struggles over jurisdictional issues.[17 18]

EM is a developing profession in Canadian healthcare, and the value of an emergency manager is not yet fully understood by HL. In some organisations, the EM role is not dedicated and has been thrust on clinical leaders, often from the nursing ranks, who typically lack sufficient training and experience to effectively lead a disaster response.[19] Dual roles create operational inefficiencies when the nurse leader is required to prioritise immediate life-saving patient care in the emergency department while concurrently leading a disaster or crisis response.[20–22]

EM IN THE CANADIAN COVID- RESPONSE

The EM role in monitoring COVID-19 in Canada started in late 2019, with interagency situational awareness calls led by public health entities. Collaborative planning activities within the health sector gained momentum in late February 2020; however, these timelines varied both provincially and regionally. By early March 2020, efforts were underway to prepare hospitals, as case counts around the world increased dramatically and the WHO declared COVID-19 a global pandemic.[23] This triggered provincial and municipal states of emergency being declared across Canada.[24] Immediate efforts included postponing elective surgeries, personal protective equipment sourcing and stewardship, launching testing sites and using technology to provide alternate consultations, such as telephone or virtual care platforms.[25]

We know that provincial health systems are attentive to what their neighbours are doing, and learn from each other to redesign their governance structures with an emphasis on improvement capacity. However, to our knowledge, no assessment of divergences and convergences in the EM structures adopted by provinces prior to or during COVID-19 has been completed. Further, there is a paucity of information describing the use of HEICS in healthcare settings across the Canadian provinces.

ADDRESSING THE EM COMPETENCY GAP FOR LEADERS

To date, there are few studies that discuss the significance of HL's role in successful hospital emergency preparedness and response.[2] One explanation for this may be competing interests, whereby EM falls lower on HL agendas than other issues they perceive to be more pressing.[26]

EM activities, such as triggering the HEICS system in mid-crisis or for planned events, may not be entirely understood by HL. There is a gap in understanding and under-estimation of the value of EM to the organisation. Simply put, EM may not be at the decision-making table, or not aware of competing priorities within the organisation. Findings from our recent survey of health EM professionals' perspectives on COVID-19 Preparedness and Response in Canadian Healthcare Organizations show that just over half of response teams were led solely by a healthcare leader, and that more than a quarter of those healthcare leaders had not received any training in their role, nor on the system.[27]

Our early findings showing the appointment of executives to leading EM positions in Canadian healthcare is encouraging, as they are of sufficient influence and power to enact disaster response effectively. With good support and training from EM professionals, these executive leaders should be well positioned to make effective decisions.

THE NEED TO INTEGRATE HEALTH LEADERSHIP WITH EM

Traditionally, emergency services personnel (paramedics, firefighters, etc) tended to be appointed to EM roles in health organisations. While these individuals are equipped with operations level expertise, their ability to engage at a strategic level is lacking. Hence, leaders with decision-making authority who can address both the public and ethical dimension of emergencies must take a role in EM.[2] As suggested by Khan *et al* incorporating an ethical leadership perspective enhances health emergency preparedness.[28] For example, deciding who will receive life-saving vaccines 'cannot be informed solely by science, and failure to acknowledge underlying value judgements can result in a loss of public trust'.[28]

Before the emergence of COVID-19, EM within healthcare organisations may not have been viewed as a priority among HL. This may be more common in areas that have not experienced recent disasters. Another culprit is likely competing healthcare priorities that have undermined the strategic importance of EM, whereby the value was inherent in so far as it was required for compliance with Accreditation Canada standards for Emergency and Disaster Management Programs.[29] These standards, however, are not requirements. In many organisations once a hospital accreditation or reaccreditation cycle is completed or a crisis has passed it is back to business as usual. Further, the Canadian Standards Association Z-1600 (2017) aimed at EM and business continuity programmes has not been widely adopted by healthcare organisation across Canada.[29] As a result, many healthcare organisations in Canada remain chronically unprepared for mass casualty events, active shooters or global pandemics.[6] It is often individuals holding leadership positions that determine the level of organisational commitment to EM.[10]

OPPORTUNITIES TO IMPROVE CURRENT AND FUTURE PANDEMIC RESPONSE

Policy recommendation: reinstate National Training Programme for EM

Currently, there is a lack of consistent formalised training of HEICS in hospitals settings. This applies not only to leadership but laso from the individual hospital unit level upwards. With few exceptions, the effectiveness of unit response is a reflection of the best efforts and emergent team problem solving versus using a definitive EM structure.

The Canadian Emergency Management College was a federal institution created in the 1950s to train and prepare leaders across the country to respond to disasters and emergencies.[30] In 2012, Canada closed the Canadian Emergency Management College, the national equivalent to the USA's Federal Emergency Management Agency's Emergency Management Institute.[30]

It is unknown to what extent losing this training and preparedness resource has impacted the healthcare operational capacity to respond to a public health emergency. Opportunities for leaders to gain EM experience, with the exception of mock drills and exercises, are now almost entirely dependent on the occurrence of crisis events. Advanced training opportunities, outside of the organisation, may be difficult to access due to a combination of barriers, including lack of funding and restrictions on the availability of training programmes. We recommend the Canadian government reinstate the Canadian Emergency Management College as part of an empirically-derived and theoretically informed strategy for implementing a sustainable EM framework for local/regional public health response. This strategy aims to compliment the Emergency Management Framework for Canada 3rd edition, and strengthen hospital emergency preparedness capabilities by providing ongoing leadership training for hospital staff and administrators in HEICS and overall emergency preparedness.[27 28 31]

Leadership recommendation: consider EM as an essential core competency of health leadership

Following up on the competency gap addressed earlier, we believe the core competencies of hospital leaders should include integration of EM skills. This would, at a minimum, see health leaders learning about the 'incident commander' position in HEICS, or similar incident management systems, prior to the occurrence of a crisis. Ideally, health leaders will obtain and maintain certification in the operational aspects of EM alongside their organisation's EM professionals. As an alternative measure, we suggest incorporating the EM function within a health organisations senior leadership team. Such a change might involve a senior health leader adopting an EM responsibility and representing EM around the senior leadership table. Making this transition requires an integration of both technical EM skill sets and the ability to apply business and healthcare operations at a strategic level, including ethical considerations and public engagement.[32]

FUTURE DIRECTIONS FOR EM AND LEADERSHIP RESEARCH

There is a paucity of research pertaining to how leaders behave in emergencies and their role in disaster preparedness. Additional research is needed to improve understanding of how healthcare leaders have integrated and used EM structures and professionals in response to crisis. Further consideration must be given to uncovering issues related to how the overall EM system is organised globally in comparison to Canada, how it engages with the public and how its effectiveness and outputs can be measured and compared against systems elsewhere. In order to adequately support Canadian HL, we must first understand how EM is effectively integrated with existing organisational management and leadership systems. By developing this understanding, we can better support leaders to make informed decisions about how EM expertise can be used to improve future pandemic preparedness and response.

The Canadian Institutes of Health Research is the source of federal health research funding. In setting the priorities for health services and policy, it has funded several rapid research grant projects during COVID-19. Additional resources and specific grant funding announcements need to be made to study the role of EM and leadership integration across Canadian hospitals to ensure future pandemics, climate change induced disasters and crises can be managed effectively.[33]

CONCLUSION

The COVID-19 pandemic further highlights the important role of healthcare emergency managers, and the need for them to be incorporated into the executive leadership teams of healthcare organisations. Making that transition requires an integration of both technical EM skill sets and the ability to apply business and healthcare operations at a strategic level.[32]

As a model that can be used globally, Canadian policy-makers should consider providing both the funding and regulatory structures to ensure healthcare emergency managers are integrated into the leadership structure of healthcare systems. Regulatory frameworks should explicitly mandate the requirement to hire full-time dedicated emergency managers, and outline the structures required for various healthcare institutions. Funding must be provided to sustain comprehensive EM programmes that form an integrated clinical and business solution for healthcare organisations, and to ensure public health resiliency and preparedness. Healthcare leaders must also consider the integration of EM professionals and incident management structures such as HEICS as the systematic framework for organising and managing all phases of hospital EM, including mitigation, preparedness, response and recovery. This most importantly includes leaders taking up the mantle as champions of EM within their organisations. COVID-19 is not the time to abandon an EM system framework, but it must be better understood. With global implications, healthcare systems would be best served by using a well-planned, structured approach to crises that integrates smoothly into the overall regional emergency response system, thereby enhancing community resiliency.

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