A whole city approach to mass casualty planning

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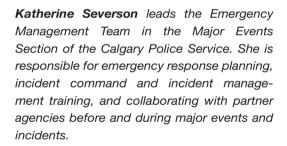
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ABSTRACT

Traditionally, the response to mass casualty incidents has focused on the front line. However, effective management of these incidents relies on the seamless coordination of emergency, municipal and community services activities. The coordinated, complex planning required for response and recovery requires a holistic planning perspective, extensive engagement and collaborative problem-solving approach. This case study looks at the challenges, opportunities and solutions encountered by the Calgary Emergency Management and Calgary Police Service in its collective planning process for mass casualty incidents. The intent of Calgary's mass casualty incident plan is to provide an

overarching framework to outline how all of the individual organisational plans come into effect to provide comprehensive response and recovery efforts. It does not provide an in-depth look at the frontline emergency services response, but rather looks at how these critical efforts can work in conjunction with a range of additional municipal, private and non-governmental agencies to provide for the full spectrum of needs victims, families and the community will have during and following a mass casualty incident.

Keywords: mass casualty, collaboration, emergency and disaster management, response planning

INTRODUCTION

Traditionally, the response to mass casualty incidents (MCIs) has focused on the front line and has been the domain of emergency services organisations. As the frequency and severity of these events have grown globally, emergency services and municipalities have gained greater appreciation for the potential scale of such incidents. Further, the experiences of different cities highlights the range of services municipalities must be prepared to offer to the public, victims, families and any individuals impacted by the event.

The City of Calgary defines an MCI as any event with casualties and/or fatalities that overwhelms the ability of local



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Journal of Business Continuity & Emergency Planning Vol. 14, No. 2, pp. 122–135 © Henry Stewart Publications, 1749–9216 emergency services to manage the incident with existing resources and capabilities. When initial consideration was given to MCI preparedness in the City in 2017, the Calgary Emergency Management Agency (CEMA) undertook a review of the existing all-hazards plan, known as the Municipal Emergency Plan, to assess whether it provided appropriate guidance for an MCI. It was determined that the plan did not adequately address some of the unusual or unique responsibilities that different partners would have during an MCI. In addition, it did not identify or address areas where the ability of a partner organisation might be challenged to scale its response to address an incident with hundreds of injured and deceased.

In Calgary, a whole city approach to mass casualty planning means including all of the emergency, municipal, private and non-governmental organisations that would be involved in the response and recovery. The intent of Calgary's MCI plan is to provide an overarching framework to outline how all of the individual organisational plans come into effect to provide comprehensive response and recovery efforts. It considers the holistic picture of an event from the first moments through to such time afterwards that the community, victims and those impacted by the event have received the support and care they require to return to the new state of normal. Those involved in managing the series of sub-plans that support the larger, overarching response plan are encouraged to include non-traditional agencies in preparing and supplementing their response. Groups involved in areas such as public transportation, financial services, and hotel and lodging services must be considered in plans to address potential gaps in services the municipality cannot provide. These non-traditional groups can also be leveraged to better assist those impacted by an incident with the care, safety and counsel they need in the days and months that follow as they navigate the road to recovery.

The planning for a coordinated MCI response was undertaken by a two-person team consisting of a public safety planner from CEMA and a sergeant from the Calgary Police Service. CEMA is the business unit responsible for the response to and recovery from, large-scale emergencies and disasters in Calgary. Using a network of 60 agency members representing all City business units and approximately a dozen external organisations, including major utilities, school boards and business associations, CEMA is responsible for coordinating a collaborative response effort. The Calgary Police Service is the police of jurisdiction that would take a lead agency role in MCIs that are the result of an attack or criminal activity. In incidents involving terrorism or a risk to national security, the Royal Canadian Mounted Police, the federal police agency, would assume the primary role and the Calgary Police Service would conduct all operations in support.

The planning team was responsible for looking at an MCI response from start to finish and identifying all of the stakeholders that would be required to ensure an appropriate response and recovery. Rather than build a large team with multiagency representation, the planning team engaged subject matter experts from across the city and selected external organisations to help advance the sub-plans and processes required to support the larger overall response plan. The planning team was not granted any authority to direct groups to complete planning or alter their processes. Rather, it relied on advocacy and influence to encourage organisations to evaluate their plans for scalability, identify gaps where more work was needed, and develop processes that supported the larger picture of a whole city response.

THE RISK OF AN MCI

Within Canada, there is very little tracking or comprehensive research on the causes of MCIs. According to the available data, the number of deaths and injuries associated with MCIs has been relatively low over the past 19 years (Table 1). For purposes of evaluating the number of MCIs, events involving targeted killings, including those perpetuated through gang or domestic violence, are not included.

Fatalities and casualties associated with large-scale shooting or vehicle attacks have been low compared with those associated with transportation and natural disasters. Due to the differences in political, cultural, social and demographic factors between Canada and the USA, it is difficult to compare statistics; however, the nature, severity and frequency of such incidents within the USA have resulted in an abundance of after-action reports and lessons learned that have been instrumental in developing solutions and plans for Calgary.

Within Canada, there have been additional shooting and vehicle attacks on smaller scales that do not meet the criteria of a mass casualty incident. However, these events point to the potential of such events occurring and serve as important indicators of the potential complexity of some incidents. For example, in October 2014, a

shooting at the National War Memorial in Ottawa, Ontario, resulted in the death of Canadian military officer, Nathan Cirillo. The intersection of four different policing agencies in the area where the shooting and pursuit took place,¹ the movement of the shooter between different areas² as well as reports of another possible shooting during the incident,³ all introduced layers of complexity to be considered in the City's and Calgary Police Services' planning and exercising of mass casualty plans.

Alberta has been home to seven of Canada's top ten costliest disasters in history, five of which impacted Calgary directly.⁴ In addition, the top 13 risks to Calgary as identified in the City's 2018 Disaster Risk Report⁵ include events such as tornado, rail incident, catastrophic flooding and mass casualty attacks. The risk environment within Alberta and Calgary demonstrates the potential for an MCI resulting from any number of natural and anthropogenic sources.

STAKEHOLDERS AND THE PLANNING PROCESS

In Calgary, the MCI planning process was launched with a half-day workshop, facilitated by CEMA and the Calgary Police Service, involving the key stakeholders

Table 1 Mass casualty incidents in Canada, 2000-19

Incident	Location	Year	Deaths	Injuries
Tornado ¹⁷	Pine Lake, Alberta	2000	12	140
Train derailment ¹⁸	Lac-Megantic, Quebec	2013	47	Unavailable
Bus crash ¹⁹	Ottawa, Ontario	2013	6	30
Nursing home fire ²⁰	L'isle Verte, Quebec	2014	32	Unavailable
Mosque shooting ²¹	Quebec City, Quebec	2017	6	19
Bus crash ²²	Ainsley, Saskatchewan	2018	16	13
Vehicle attack ²³	Toronto, Ontario	2018	10	16
Shooting ²⁴	Toronto, Ontario	2018	2	13
Bus crash ²⁵	Ottawa, Ontario	2019	3	23
Total			134	254

that would be responsible for different components of the response, namely:

- Calgary Police Service (including Homicide/Investigative Unit, Victim Assistance Support Team, Missing Persons Unit and Strategic Communications representatives);
- Alberta Health Services both Emergency Medical Services (EMS) and Health (hospital management);
- Calgary Fire Department;
- · Calgary 911;
- Emergency Social Services;
- Alberta Office of the Chief Medical Examiner; and
- City Communications.

Through the workshop, stakeholders were invited to share their current plans as well as concerns and questions about any aspect of the response or recovery. Following the session, an incident timeline was developed with plans plotted from the initial response through to return to normality (or the 'new' normal) for the community (Figure 1).

Emergency services operational plans

Several of the key plans identified in the stakeholder review included the operational plans of emergency services to address the immediate management of casualties and fatalities:

- Rescue Task Force: In the event of a criminally-caused MCI, the Calgary Police Service would commence the formation of Rescue Task Forces consisting of armed officers and first responders from the Calgary Fire Department and/or Alberta Emergency Medical Services. Their work is guided by the protocols set out in a tri-services agreement.
- Alberta Emergency Medical Services MCI Plan: The plan addresses the triaging and transport of victims of an MCI.
- Alberta Health Services MCI Plan: The plan outlines the management of patients and facilities in Calgary and the surrounding region to accommodate the influx of large numbers of victims, including those transported by EMS as well as those who self-transport to a medical facility.

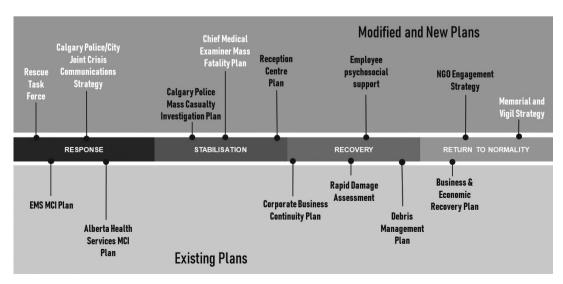


Figure 1 Timeline of existing, modified and new response plans

• Calgary Police Mass Casualty Investigation Plan: The plan identifies the processes and resources to be employed to manage a large-scale, multi-site investigation, including victim identification, scene management and evidence collection.

It was important to understand the scope and scalability of the frontline operational plans to ensure overall preparedness for an MCI. Enhancements to emergency services planning to ensure capacity and capability to respond to a large-scale MCI or one that occurs across multiple sites are the responsibility of the respective emergency services and not within the scope of the overarching Calgary MCI plan.

However, as part of the workshop, emergency services were encouraged to identify areas where additional planning might be needed to effectively manage the numbers of casualties and fatalities identified from the research and discussed below. Where gaps were identified, emergency services undertook additional internal planning to address these through operational changes. CEMA provided assistance where requested to help emergency services connect with municipal and nongovernmental organisations that could offer additional support, personnel or expertise to address gaps the services could not manage with their existing resources. The focus of the workshop and further collaborative planning efforts was on the municipal service coordination that would be required to support those elements of the response that focused on the impacted families, individuals and community.

Existing plans

Plans shown along the lower part of Figure 1 were identified as completed and deemed scalable to a large-scale MCI. When discussing the numbers of casualties and fatalities plans should be prepared to manage, the planning team encouraged

stakeholders to consider the MCI scenarios experienced in Canada. Given that shooting and vehicle attacks in Canada have been smaller scale, stakeholders were also encouraged to consider some of the events in the USA. While not statistically comparable to the events seen in Canada, some of the US attacks represent the types of large-scale scenarios against which capacity planning could be assessed. When Calgary's planning began in 2017, the Orlando Pulse nightclub shooting of 2016 was one of the largest and most recent shooter attacks of the time, with 49 deaths and 53 injuries.⁶ The number of victims provided an upper-end metric that stakeholders could consider when determining the ability of their organisations to scale up operations.

Modified plans

A larger number of plans, shown along the top of Figure 1, were determined to be in place or under development but requiring modification to allow scaling up of resources to accommodate an incident where there would be large numbers of casualties and fatalities. One example of increasing the scale of planning to support an MCI response was the Calgary Police Mass Casualty Investigation Plan. Although the investigation of homicides in Calgary is supported through robust plans, processes and procedures, the number of deceased, witnesses and missing persons from an MCI would exceed the existing protocols and number of specialised investigators trained to respond. This, coupled with the predicted scrutiny of victims' families and the public, required expanded plans that captured new roles and responsibilities, staffing plans and perhaps most uniquely, how CEMA could support the police response with logistics and advanced planning. Through the plan review process, CEMA and the Calgary Police Service identified an opportunity

to leverage CEMA's experience classifying and securing buildings for reception centres. Using this logistical capability, CEMA can support evidence collection teams in finding large spaces for the storage and organisation of physical evidence or the personal effects of victims.

The City's Reception Centre Plan was designed to provide for the temporary care and lodging of citizens displaced from their homes due to an emergency. When reviewed through the lens of an MCI, it was determined that modifications to the plan were needed to ensure the types and sizes of spaces required to support family members waiting for information on loved ones. In addition, the types of services traditionally made available through a reception centre needed to be reconsidered in light of the different needs of families and those impacted by an MCI. The Calgary Police Service's Victim Assistance Support Team was also expected to be a major player in the support for families of victims, and its role in the centre had to be identified and properly integrated into the planning. This planning also needed to consider how the way non-governmental organisations have traditionally provided an array of social and psychosocial support for disaster victims could be engaged to help the families and victims of an MCI.

Additionally, the City has a set of programmes designed to provide emotional, counselling and psychosocial support to employees. However, support for those that have been through a traumatic event have generally been focused on first responders. In an MCI, it is expected additional City staff will be called upon to provide support at or near a scene or within centres where families and victims may be present. Consequently, consideration needed to be given to extending emergency services' critical incident stress management support to a broader range

of City staff who would not traditionally work in such environments or roles.

New plans

In a few cases, shown in white along the top of Figure 1, plans were either currently under development or identified as required to support the response and recovery. Like many cities, Calgary has introduced the Rescue Task Force concept to support the rapid extrication and treatment of individuals injured in an MCI and in particular, shooting attacks. The planning for this work was well underway at the time of Calgary's MCI plan development and is now complete with regular testing of teams taking place. Consideration is being given to whether such teams can also be used in natural disaster responses to provide for rapid response, treatment and triaging of victims.

The City has a crisis communications plan that is enacted when its emergency operations centre is open. The Calgary Police Service has its own 24/7 communications team that supports its operations and manages media and public messaging for all police-involved incidents. These two groups would overlap in any criminally-caused MCI, pointing to the need for improved clarity regarding what information could be released by which organisation. Together, the teams have developed pre-approved, prepared messaging to be shared in the early moments of an incident. They have also established guidelines regarding the types of information each group has the authority to release as well as processes for verifying incident-related information.

At the same time that Calgary began its planning, the Office of the Chief Medical Examiner was drafting its Mass Fatality Plan. As a result of these early stakeholder discussions, the Mass Fatality Plan was developed to align with the City's broader approach to managing

both casualties and fatalities, recognising that the Chief Medical Examiner's focus would remain on fatality management. In addition, the planning recognised that an assistance centre and victim reconciliation process would be established by municipalities like Calgary to assist families. As a result of its involvement early in the City's MCI discussions, the Chief Medical Examiner's planning and processes were developed to dovetail with Calgary's planned approach.

As the wider community begins its healing and returns to its new normal following an MCI, the City recognises the importance placed on vigils and memorials to recognise those impacted by the event. Calgary has bylaws in place to address smaller-scale memorials erected due to traffic accidents or other similar incidents. This consideration needs to be further expanded into a more comprehensive vigil and memorial strategy that addresses how sites with temporary and permanent structures can be managed in a way that respects the needs of the community, families and city as a whole. The City's Community Standards and Community & Neighbourhood Services business units will lead the future planning for this work, based on their responsibilities for day-to-day work with citizens and groups on community initiatives and guidelines.

GAPS IN THE MCI RESPONSE

Once the current state of plans was determined, workshop discussions focused on identification of areas where there was overlap or confusion regarding roles and processes. The identification of issues formed the basis of the next steps to be undertaken by the planning team.

How could a large influx of calls for information and missing persons reports be handled most efficiently and effectively?

Following the Las Vegas Route 91 Harvest Festival shooting on 1st October, 2017, the initial telephone line used to provide information and take missing persons calls was not staffed sufficiently to address the volume of calls.⁷ As a result, more than 14,000 calls for information and reports of missing persons were received through three different hotlines.⁸ The outcome was a lack of coordination, disparate information being collected and a lack of unison among the different processes.⁹

In Calgary, citizens can normally report missing persons through 911 and, when required, reports are investigated through the Calgary Police Services' Missing Persons Unit. Neither group felt confident it had the capacity to handle a sudden, extended surge in calls that would accompany a large-scale MCI. In addition, 911 wanted to maintain its phone lines strictly for emergency calls for assistance resulting from the MCI and ensure its ability to continue to support other emergency calls taking place in the rest of the city.

How can families locate their deceased, injured and/or missing loved one most quickly and efficiently?

A review of more than 50 after-action reports from mass shootings identified 'there needs to be a single victim list that is coordinated with police, hospitals, EMS and the coroner to ensure that victims' families are the first to learn the status'. The Kerslake Report from the 2017 Manchester Arena bombing 'heard that many people experienced confusion in trying to find their missing relative or friend. Not knowing what to do, where to go or whom to contact added to the trauma experienced'. 11

The intent of any processes established to assist families with determining the location and status of their loved ones must focus on reducing the chaos, unease and uncertainty for these individuals as much as possible during this time.

Calgary, like most Canadian cities, has a combination of municipal and provincial agencies that make up the chain of services that will play critical roles in an MCI. For example, deceased persons at the incident site will be the responsibility of the Chief Medical Examiner and will be identified in partnership with police. Victims transported to hospital will be in the custody of Alberta Health Services, and likely treated in one of several different sites across the city.

Consequently, a family member looking for a loved one could call 911, visit any or all of the five primary hospital sites, visit the incident site, call police and fire non-emergency lines, contact the Chief Medical Examiner or call the City's general information line at 311. The lack of a consolidated approach to helping families find their loved ones was a significant gap identified by stakeholders and echoes the findings of the Kerslake Report. There were no formal connections established between the various organisations to assist families when one track of their search proved unsuccessful.

How does the City support families and impacted individuals during and following an MCI?

During a review of the response to the Manchester Arena bombing of 2017, the Mayor of Greater Manchester directed the review panel to place the experiences of bereaved families and those impacted by the event at the heart of the process. ¹² Taking into consideration how this direction applies to Calgary, the needs of impacted families must be the primary driver of the decision-making and planning process.

Following the Orlando Pulse nightclub shooting in 2016, the Orlando Regional Medical Center was completely overwhelmed with the convergence of family and friends of victims. It requested the local Office of Emergency Management set up a family reunification centre where families could be redirected to wait for information.¹³ Similarly, in a large-scale MCI in Calgary, individual hospital sites would not have the capacity to respectfully accommodate all families looking for missing family members. However, hospitals do have planning in place to establish family information & support centres (FISCs) at each hospital site that receives victims of an MCI. While the support provided by FISCs is invaluable for families whose loved ones have been confirmed as being in hospital, it is not right type of support for families unsure of where their loved ones may be.

As demonstrated in Orlando, cities must establish a family assistance centre must to provide general incident information and support for families while they wait for news on the location and status of their loved ones. These family assistance centres serve as an initial entry point for families, while FISCs serve as the next step for families with loved ones confirmed as being in hospital. To avoid conflict in the roles of FISCs and family assistance centres, planning must reflect how hospitals and the City will work in concert to meet the needs of families and provide a structure and flow for when families transition from one to the other.

Once the immediate and short-term needs of family reunification are met, the longer-term needs of victims need to be considered. Following the Pulse nightclub shooting, the Orlando United Assistance Center was established to serve as a navigation point to assess the needs and provide information, support and resources to those directly affected by

the incident. It provides long-term family services and mental health and counselling services.14 The Vegas Strong Resiliency Centre¹⁵ was likewise set up as a place of healing and support dedicated to serving as a multi-agency resource and referral centre for residents, visitors and responders affected by the shooting at the Route 91 Harvest Festival in 2017. As of the writing of this paper, both centres are still open to provide continuity of care to those impacted by the events, pointing to the need for a long-term strategy for centre management and operations. These types of centres point towards the need in Calgary to consider both short and longterm needs of victims and families.

WHOLE CITY SOLUTIONS

Based on the gap assessment, the planning team used the network of agency partners to begin to identify and build out solutions for the three identified gaps.

Singular hotline for incident information and missing persons reporting

Calgary's 311 Citizen Services is a single point of contact for local government and non-emergency services. Through engagement by the planning team, 311 identified it had the capacity and capability to provide a missing persons reporting line and system that would support a large and immediate influx of reports. Working together with Calgary 911 and the Calgary Police Services' Missing Persons Unit, 311 developed a telephone, online and mobile phone app reporting module that could be activated in the early minutes of an MCI. Telephone reporting will be accessible through a ten-digit phone number that will be shared with the public during an event, but remains dark until required.

A team of up to 93 staff can be mobilised within a small window of time to

take reports. In addition, this call centre can share information with public about the incident and locations of centres where families and friends can seek additional assistance. A dark website has also been established by City Communications for MCIs that is pre-populated with the telephone line information and a link to online reporting. The website will also provide the same information shared by the call centre using messaging consolidated by the Calgary Police Service and the City.

The missing persons reports will be assessed and used by police to help identify victims that are deceased or in hospital without identification or unable to communicate. The process is intended to help focus police investigative resources where they are most required and reduce the time it takes to identify deceased or injured persons and notify families about their status and location. Each report will be a password-secured file that can be updated or closed by the reporting family member if they are able to get in touch with the person they reported as missing. Remaining reports will be accessed by investigators who will triage the reports for follow up and matching through a multi-services victim reconciliation team. When necessary, reports can used by the police to reconcile unidentified remains.

This system will alleviate the strain usually placed on law enforcement, emergency, hospital and coroner call-taking services. In an MCI, Calgary's 911 line will have a message that redirects people calling about missing family members or with questions about the incident to the missing persons hotline. All services will be asked to publish the hotline through their own phone lines and communications to help streamline the reporting and information process for families.

Multi-services victim reconciliation team

Following an MCI, Calgary recognises the importance of notifying and reuniting families as soon as possible. When examining best practices in this area, the planning team was inspired by the UK model of a casualty bureau with a nominals matching unit responsible for the reconciling of missing persons reports and information held by police, healthcare and coroner agencies. ¹⁶

In Calgary, the rapid and accurate consolidation of victim information will be the responsibility of a multi-services team known as the Victim Reconciliation Task Force (VRTF). The VRTF will consist of representatives from Alberta Health Services, the Calgary Police Service, the Chief Medical Examiner's Office, and other organisations as needed, such as foreign consulates or governments, airlines and airport authorities. By forming a task force, much like emergency services establish unified command to coordinate situational awareness and action in an emergency, agencies can share information necessary to connect missing persons reports with individuals in their care. All agencies continue to adhere to their respective legislative and policy requirements but are able to share the minimum required information about the people in their care and custody to facilitate the appropriate notification to families.

The VRTF will physically co-locate during an MCI; however, they will be in constant communication with their home agencies, who may be conducting operations at their own facilities or tactical operations centres. It is the responsibility of each VRTF representative to ensure they have processes and plans in place to allow for the rapid sharing of information with their home agency to support the reconciliation process. Specific roles and responsibilities include:

- Calgary Police Service: Police will receive and investigate incoming missing persons reports from the hotline and online reporting. They will support the Chief Medical Examiner to identify deceased persons at the incident scene, and jointly provide death notifications to next of kin. They participate in the VRTF to reconcile missing persons reports with information from the Chief Medical Examiner and Alberta Health Services.
- Chief Medical Examiner. The Chief Medical Examiner has jurisdictional authority for the investigation of fatalities in Alberta and subsequent notification of next of kin. The Office of the Chief Medical Examiner will participate in the VRTF to match the deceased identities with missing persons reports.
- Alberta Health Services: Alberta Health Services will identify and support the injured who are treated at healthcare sites and participate in the VRTF to verify the victim identities at health sites. They will also support the Chief Medical Examiner in confirming the identity of victims who die after being transported to the hospital. Alberta Health Services would also open centres within hospitals to support families of victims being treated. The Alberta Health Services representative in the VRTF is responsible for interfacing with these centres.

Following, or concurrent with the work of the VRTF, there will be a need to notify families as quickly as possible regarding the status of their loved ones. There will be significant pressure to conduct notifications quickly, and it is expected all agencies will be criticised for any failure to do it well. Within Calgary, it is agreed that once a deceased victim match is made by the VRTF, these notifications will be made by task forces of law enforcement

and medical examiner personnel. Alberta Health Services staff would be responsible for confirming injured person status and their location within a hospital.

Short and long-term help for families and victims

Using the City's existing Reception Centre Plan, Emergency Social Services and the Calgary Police Services' Victim Assistance Support Team were engaged to develop a supplement to the plan to identify the additional considerations for establishing short and long-term assistance centres. The existing Reception Centre Plan was already exercised in actual events and demonstrated great capability in being able to:

- Identify and secure well-located, large facilities:
- Scale operations for upwards of thousands of people;
- Open within the first hours of an incident; and
- Engage external organisations to provide a range of services for citizens.

The family assistance centre Plan was developed to meet the short-term needs of families of victims and missing persons. The intent of these centres is to provide a safe, protected space where families can come together while they wait for information and easily access any of the services they may need at that time. Services at the centre may include:

- Incident or investigative information and updates, as provided by the Calgary Police Service and the City;
- Psychosocial support and referral resources in a 'one-stop' model (including faith-based counselling and support);
- Missing persons reporting and support for investigative interviews as required by the Calgary Police Service; and

 Other informational or support services as identified depending on the nature of the MCI.

In addition to public spaces for the sharing of general incident information, the family assistance centre will provide for private spaces for counselling and interviews. The division of spaces will reflect the differing needs of those dealing with the death of a loved one, waiting for more information, and being informed of where their loved one is receiving medical treatment. The range of services provided within any centre will also reflect the cultural, religious and social differences of Calgarians.

If during their time at the family assistance centre a family is notified that their missing loved one is at a hospital, they will be directed to the FISC at that hospital where they will be connected with staff to help them from there. This process provides a continuum of care for families and weaves together the efforts of multiple stakeholders into a unified process to better support these impacted individuals.

Once the short-term needs of reconciling victims and families have been addressed, the centre would then transition to focus support on the needs of victims of the incident and their families. This long-term centre, expected to remain open as long as victims require it, will provide access to the services and supports needed to assist their recovery. Services at the family assistance centre may then morph to include:

- Access to financial assistance that may be made available from provincial or federal sources;
- Counselling, psychosocial services and referral resources;
- · Medical and health services; and
- Access to insurance, banking, financial companies and other services to that support recovery of individuals.

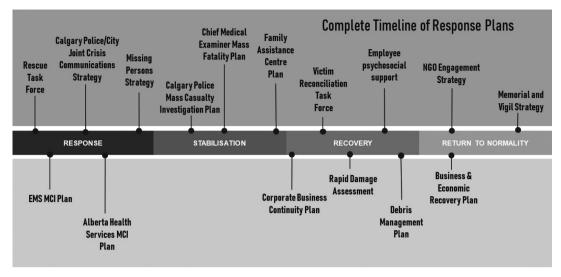


Figure 2 Complete timeline of response plans

The City's Community & Neighbourhood Services business unit is a key driver of community initiatives throughout the city. This unit has been identified as the lead in helping establish the long-term management of the family assistance centre and engaging Calgary's extensive non-governmental organisation sector in its operation. The intent is to have community groups that serve citizens and those impacted by trauma involved in helping these victims recover to the fullest extent possible.

Figure 2 illustrates how the solutions developed for Calgary serve to fill the gaps identified by stakeholders through the planning process.

CONCLUSION

Influenced by the experiences of other cities impacted by an MCI, Calgary has adopted a comprehensive, whole city planning approach to its management of a similar event. The full spectrum of agencies that would assist and support citizens during and following an MCI have come together to offer their resources

and solutions to collaborate in ways that would not be typical for other types of emergencies in the city. At the core of the decision-making process has been a focus on the experience of families during an MCI. Planning for a single missing persons reporting process, a unified victim reconciliation process, and the rapid opening of family assistance centres all come from a common desire to reduce the chaos and build up the support for families as much possible.

Emergency management agencies must be actively involved in helping develop the overall MCI response plan for a municipality. Every city will have different solutions to the challenges presented by an MCI based on their specific limitations and opportunities, and emergency management must be a problem-solving partner in the planning process. These agencies provide the big picture perspective to response and recovery, and serve as vital linkages to the public and private sector with the resources, capacity and capabilities needed when an MCI overwhelms the traditional first responder organisations.

REFERENCES

- (1) McCarthy, S. and Grant, K. (2014) 'Potential flaw in parliamentary security pointed out in the 2012 report', Globe and Mail, 22nd October, available at: https://www.theglobeandmail.com/news/national/potential-flaws-in-parliamentary-security-pointed-out-in-2012-report/article21225945/ (accessed 10th October, 2019).
- (2) Duffy, A. (2014) 'The day after: Shooter was not on RCMP watch list, commissioner says', *Ottawa Citizen*, 23rd October, available at: https:// ottawacitizen.com/news/local-news/ ottawa-awakens-to-day-after-gunmansrampage (accessed 10th October, 2019).
- (3) Duffy, A. (2015) 'Day of chaos in the capital leaves soldier and terrorist dead', Ottawa Citizen, 21st October, available at https://ottawacitizen.com/news/national/soldier-shot-at-war-memorial-in-ottawa (accessed 10th October, 2019).
- (4) The City of Calgary, Calgary
 Emergency Management Agency (2018)
 'Disaster Risk Report', available at:
 https://www.calgary.ca/CSPS/cema/
 Documents/Disaster-Risk-Report-2018.
 pdf (accessed 3rd October, 2019).
- (5) *Ibid*.
- (6) Mother Jones (2019) 'Mass Shootings Database, 1982–2019', available at: https://docs.google.com/spreadsheets/d/1b9o6uDO18sLxBqPwl_Gh9bnhW-ev_dABH83M5Vb5L8o/edit#gid=0 (accessed 10th October, 2019).
- (7) Federal Emergency Management Agency (2018) '1 October After-Action Report', 24th August, available at: https://www.hsdl. org/?abstract&did=814668 (accessed 4th October, 2019).
- (8) Las Vegas Metropolitan Police Department (2019) '1 October After-Action Review', available at: https:// www.lvmpd.com/en-us/Documents/1_ October_AAR_Final_06062019.pdf (accessed 5th October, 2019).

- (9) Federal Emergency Management Agency, ref. 7 above.
- (10) Schaenman, P. and Stambaugh, H. (2019) 'Lessons learned from mass shootings: A real-world overview of critical preparedness issues', *PM Magazine*, 3rd May, available at: https://icma.org/articles/pm-magazine/lessons-learned-mass-shootings (accessed 5th October, 2019).
- (11) Kerslake Arena Review (2017) 'The Kerslake Report: An independent review into the preparedness for, and emergency response to, the Manchester Arena attack on 22nd May 2017', available at https://www.kerslakearenareview.co.uk/ (accessed 6th October, 2019).
- (12) Ibid.
- (13) Straub, F., Cambria, J., Castor, J., Gorban, B., Meade, B., Waltemeyer, D. and Zeunik J. (2017) 'Rescue, Response and Resilience: A critical incident review of the Orlando public safety response to the attack on the Pulse nightclub', available at: https://cops.usdoj.gov/RIC/Publications/copsw0857-pub.pdf (accessed 12th October, 2019).
- (14) Ibid.
- (15) See https://www.vegasstrongrc.org/ (accessed 12th October, 2019).
- (16) See, https://www.app.college.police.uk/app-content/civil-emergencies/casualty-bureau/ (accessed 12th October, 2019).
- (17) Graney, J. (2016) 'Pine Lake tornado:
 One the eve of the 16th anniversary,
 a look back at the day 12 people
 were killed', Edmonton Journal,
 12th July, available at: https://
 edmontonjournal.com/news/
 local-news/pine-lake-tornado-on-the16th-anniversary-a-look-back-at-theday-12-people-were-killed (accessed
 20th September, 2019).
- (18) Sparks, R. (2014) 'Lac-Megantic: Police now believe 47 people died in blast', Montreal Gazette, 4th June, available at: http://www.montrealgazette.com/news/mégantic+police+believe+people+die

- d+blast/8684301/story.html (accessed 15th October, 2019).
- (19) Associated Press (2013), 'Six die in crash between bus and train in Ottawa', *Guardian*, 18th September, available at: https://www.theguardian.com/world/2013/sep/18/ottawa-bus-train-crash-fatalities (accessed 15th October, 2019).
- (20) Wojtek, G. (2015), 'Coroner investigating 32 deaths, rules all nursing homes should have sprinklers', *Radio Canada International*, 12th February, available at: https://www.rcinet.ca/en/2015/02/12/coroner-investigating-32-deaths-rules-all-nursing-homes-should-have-sprinklers/ (accessed 15th October, 2019).
- (21) Lum, F. (2017) 'The Quebec City mosque attack: What we know so far', Globe and Mail, 30th January, available at: https://www.theglobeandmail.com/news/national/quebec-city-mosque-shooting-what-we-know-so-far/article33826078/ (accessed 20th September, 2019).
- (22) The Canadian Press (2019) 'Truck driver in Broncos crash pleads guilty', *TSN*,

- 8th January, available at: https://www.tsn.ca/truck-driver-in-broncos-crash-pleads-guilty-1.1238043 (accessed 20th September, 2019).
- (23) Gillies, R. (2019) 'Toronto van attack suspect said he "accomplished my mission", *AP News*, 27th September, available at: https://apnews.com/c5c9beca1b3543128b92d10313287863 (accessed 28th September, 2019).
- (24) CBC News (2018) 'Woman and girl dead, 13 other people injured in Danforth shooting in Toronto', CBC, 22nd July, available at: https://www.cbc.ca/news/canada/toronto/danforthlogan-shooting-1.4757409 (accessed 20th September, 2019).
- (25) Reuters (2019) 'Ottawa bus crash:
 Three dead as double decker hits
 transit shelter', *Guardian*, 12th
 January, available at: https://www.
 theguardian.com/world/2019/jan/12/
 ottawa-bus-crash-three-dead-as-double-decker-hits-transit-shelter (accessed 15th
 October, 2019).