

Chapter 6 Emergency Planning

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Chapter 6

Emergency Planning

1.0 Introduction

Emergency measures address coordination and preparation of services needed to maintain public safety and order during a pandemic. These include security for vaccine transportation and clinics, location and acquisition of space for clinics and emergency operations as required, volunteer management and mass fatality issues. As per the City of Toronto Emergency Plan, Toronto Public Health is the lead agency for Psychosocial Response and Recovery and Animal Protection Operational Support Functions (OSF). Shelter, Support and Housing Administration is the lead City agency for Donations and Volunteer Management and Mass Care OSFs. Toronto Police Services and Office of the Chief Coroner are the lead agencies for Mass Fatality OSF. Toronto Public Health will continue to support these agencies in the further development and operationalization of these components for the circumstances of pandemic influenza. Other key stakeholders include Office of Emergency Management, Corporate Security, Toronto Fire Services, Toronto Emergency Medical Services, other key City Divisions, Toronto Transit Commission, Canadian Red Cross, St. John Ambulance, Funeral Home Association, Ontario Hospital Association and the Greater Toronto Hotel Association.

2.0 Elements of the Emergency Plan

2.1 Vaccine Security

Toronto Police Services will provide security for the transportation of vaccine. Vaccine will be picked up at a designated provincial site and transported to either Toronto Public Health or directly to a mass vaccination site.

Next Steps

Consultation with City of Toronto Corporate Security will need to occur in order to effectively plan for vaccine security at mass vaccination clinics.

2.2 Public Order Security

Toronto Police Service will provide perimeter control in high traffic areas such as hospital parking lots. In the event of societal disruption, Toronto Police Services have identified the need to mobilize every available officer for public order needs. Toronto Police Services respond to all 911 calls in collaboration with Emergency Medical Services and Toronto Fire Services. As a viable part of the tiered emergency call response in Toronto, further planning is needed in order to review Police Services roles in responding to influenza related calls. Police officers may also be called upon to enforce public health orders. Planning needs to occur as to how this will occur during a pandemic.

2.3 Alternate Care Sites

Alternate care sites are temporary health care sites that could be opened during a pandemic influenza to deal with the overflow of patients seeking medical attention.

Toronto Public Health conducted a health care service capacity survey of Toronto hospitals in 2004. It was found that there is no surge capacity in Toronto hospitals to deal with the expected volume of patients who will seek medical attention during a pandemic influenza. There will be a shortage of health care providers required to keep the doors of Toronto hospitals open. The key stakeholder group planning health services and emergency measures felt strongly that alternate care facilities are not feasible at this time due to the lack of surge capacity and the lack of human resources in the current health care settings.

Provincial planning for alternate care sites will continue in 2005/06 in the form of a literature review/environmental scan/feasibility study and will address the viability and the feasibility of these sites and look at the required supplies, equipment and HR resources.

2.4 Isolation Framework for Community Living Settings

The issue of isolating individuals in community living settings who are unwilling/unable to be isolated is a complex issue. Settings would include shelters, rooming houses, boarding homes, university residences, correctional facilities, group homes for developmentally challenged individuals, etc. It is an assumption that not everyone who is ill in these settings will be able to be sent to an acute care facility for health services. Care in place will need to occur.

In order to begin to address this issue, Toronto Public Health initiated a stakeholder advisory group of homeless services providers. This group worked on developing a framework for dealing with ill residents of shelters, rooming houses, boarding homes and drop-in centers. Since this population can be quite migratory during the day seeking community services, the potential for infection is great. Overcrowding and living in close proximity means that influenza is likely to spread quickly throughout these community living settings. Resources are already limited and most facilities have little or no health care provider support.

The framework provides homeless services providers in the City of Toronto with a decision making tool to deal with progressive numbers of ill residents in a shelter situation. Each shelter or facility is physically set up differently so decisions need to be made by looking at individual settings and keeping in mind the numbers of individuals who are ill. Infection control practitioners provided infection control expertise in the development of this framework. While the ideal situation may be to provide an isolated, physically separate living situation for the ill homeless population, the reality is that because of the volume of ill individuals, most people will need to stay in the shelter or other setting. An overview of the framework is in Appendix 1, under the heading Planning Guide for Homeless Service Providers.

The isolation issue is not specific to the homeless population. There are other community living settings where isolation of ill individuals will be difficult. Students living in university/college residences will have nowhere else to go when ill. Correctional facilities will not be able to send all ill inmates to hospitals because there will be no capacity available. Working with these agencies/facilities will need to occur in the future in order to further plan for the issues of isolation in community living settings.

2.5 Child Care/Supportive Care Issues

It is expected that the need for child care will increase throughout the pandemic. While the mortality rate for children infected with pandemic influenza will be low, the infection of parents and other caregivers is likely to have a more significant impact on the welfare of their children. Protecting children whose parents and/or family are unable to care for them either on a temporary or permanent basis will be necessary.

To plan for this, discussion has been initiated with the Executive Directors of each of the four Toronto child welfare agencies. Through their Executive Director meeting, a process will be established to review each of their existing or developing emergency response plans to ensure that they address pandemic influenza and to facilitate co-ordination across the four agencies.

Other vulnerable populations may also be affected by ill or deceased care providers. The issue of provision of support in the community will need to be addressed in the future. This may include vulnerable seniors, disabled individuals, etc.

Next Steps

Discussion/consultation with stakeholders working with vulnerable populations will need to occur in order to plan effectively for support to this community.

2.6 Maintaining Critical Essential Services

The planning for maintenance of critical essential services in our community will need to continue.

The role of City government will include: declaration of an emergency to free up required resources and reallocation of staff, provision of essential services, ensuring the health and safety of City workers and communication with staff and the public. It is important that all divisions in the City develop service continuity plans to ensure the continued delivery of essential services.

For more details, please refer to Appendix 1 for the City Division Planning Guide.

2.7 Psychosocial Services

People impacted by a disaster, including pandemics, have to adjust to significant changes in their lives. The resulting psychological, social and economic disruptions affect the well-being of individuals, families and the community as a whole. During these events, people may have to grieve for their losses, deal with personal or family crises, or perhaps look for a new job. Many will need to learn to talk about their feelings and experiences and how to face the challenges of an unknown future. As part of Toronto Emergency Plan, an Operational Support Function has been drafted to address psychosocial issues.

Toronto Public Health's Psychosocial Services offer victims of disasters timely and appropriate information and services to help them better understand, express, and manage the psychosocial effects of disasters and their consequences and facilitate their journey to recovery and healing.

In a pandemic, Toronto Public Health will co-ordinate with partner agencies and will identify, monitor, track and respond to psychosocial needs and requirements with those affected. Based on this ongoing assessment, the delivery of psychosocial services to affected populations will be mobilized and coordinated.

Trauma-affected individuals, families, communities and cultures have inherent strengths and resilience. Toronto Public Health along with community partners will coordinate a psychosocial response to enhance these strengths and promote healing and recovery. Toronto Public Health and partner agencies will facilitate opportunities for social support, education to maximize access to existing resources.

2.8 Volunteer Management Plan

Volunteer agencies played a key role in SARS response and it is anticipated that they will play an integral role in a future pandemic. In collaboration with the City of Toronto's Office of Emergency Management, Corporate Human Resources and the volunteer sector, a volunteer management plan has been developed. The Plan outlines a process through which volunteers would be referred to an affiliate agency utilizing the Donation and Volunteer Operations Centre (DVOC). Meetings with volunteer organizations have been held to further the development of the framework, with a view to developing memoranda of understanding for volunteer management. For information related to health and safety issues for volunteers, please refer to Appendix 1 for the Volunteer Sector Planning Guide.

2.8.1. Pandemic Influenza Volunteer Management Plan

It is estimated that in the City of Toronto there will be 392,000 to 914,000 people clinically ill, with 161,000 to 701,000 requiring outpatient care, 1,600 to 14,000 requiring hospitalization and 630 to 4,300 people will die. Response activities will include not only direct provision of health care, but also dealing with issues such as mass fatalities and increased pressure on other public services.

Many of these response activities will need to occur simultaneously and within each phase. The health care system may become overwhelmed within a short period of time and there will be a great need for additional human resources within the public service sector.

The issue of volunteerism will therefore become another key element in responding to a pandemic influenza. The City is undertaking a number of measures to put systems in place that would allow for efficient mobilization and utilization of volunteer resources. Volunteer agencies played a key role in the SARS outbreak and it is anticipated that they will play an integral role in a future pandemic.

Pandemic volunteer management planning is based on Toronto Emergency Plan, Canadian Pandemic Influenza Plan, Ontario Health Plan for an Influenza Pandemic, and learning from the SARS experience. Toronto Emergency Plan provides an outline for volunteer management which can be implemented in any emergency situation, and establishes a consistent framework for coordinating with many volunteer organizations that would be required to support a response.

Based on the above documents and in collaboration with the City of Toronto Office of Emergency Management (OEM) and Corporate Human Resources, Toronto Public Health (TPH) leads the development of a pandemic volunteer management framework. Meetings with major volunteer organizations have been held to further the development of this framework, with a view to developing memoranda of understanding for volunteer management. The framework identifies possible roles and responsibilities of different agencies within the pre-pandemic, pandemic and post-pandemic periods (see pg.72 and 73).

2.8.2. Pre-pandemic Period

During the pre-pandemic period, the Office of Emergency Management will work with Toronto Public Health and Shelter, Support and Housing Administration, as well as volunteer agencies to develop the volunteer framework further so that it can be operationalized in the pandemic period. Roles and responsibilities of different agencies involved still need to be clarified and agreed upon.

As the existing volunteer agencies will be the primary source of already screened and trained volunteers, ongoing communication and planning with these agencies is one of the focus areas for TPH. A separate planning guide has been developed in order to assist volunteer agencies with their contingency planning related to pandemic influenza (See Appendix 1).

Efforts to educate all the stakeholders, including the general public about the expected pandemic are ongoing. This also includes messaging related to the promotion of volunteerism and the expected great need for human resources.

2.8.3 Pandemic Period

Activities related to volunteer management during the pandemic period will be four-fold:

a) Needs Assessment

During the initial phase of the pandemic period and as part of the overall response, needs assessment will be conducted to determine the extent of the emergency and to develop response objectives. Based on this and having in mind already available resources, areas in which it may be necessary to engage volunteers will be identified.

b) Volunteer agencies supportive assistance

Volunteer agencies may be providing supportive assistance to the emergency response. For example, during SARS the Canadian Red Cross and The Salvation Army were delivering medical kits to people in quarantine. The decision to do this will be made based on the needs assessment and other service related considerations (efficiency, skill-sets required, cost savings, etc.).

c) Registration of new volunteers

It is expected that during the pandemic period, many people will come forward to volunteer their time or give donations. In order to manage this influx of offers, a Donation and Volunteer Operations Centre (DVOC) will be set up to coordinate activities of voluntary efforts and deal with incoming offers and requests. The types of calls that will come to this centre may include the following:

- offers from individuals to volunteer their time
- offers of assistance from volunteer agencies
- offers of financial donations
- offers of in-kind donations from individuals
- offers of goods and services from organizations both public and private
- offers of assistance from outside of Toronto
- requests for assistance from individuals (both goods and services)
- requests for assistance from organizations (both goods and services)

As the information comes into the DVOC, it will be entered into a database and assigned a tracking number. The information will undergo an initial assessment with the following decisions being made:

- Offer from individuals to volunteer their time will be referred to Volunteer Toronto, who will refer the individuals to the most appropriate volunteer agency (based on the matching of the individual's skill set with needs of particular volunteer agencies).
- Offers of assistance from volunteer agencies will be processed further based on needs assessment and response activities.
- Offers of financial donations will be directed to identified volunteer organizations or bank accounts (if established).
- Offers of in-kind donations will be discouraged. Experience shows that financial donations are the most efficient, as they reduce (or eliminate) the time necessary to process donations, transportation and handling costs. Financial donations also ensure that the goods purchased are the most appropriate ones, which may also be a risk-management tactic.
- Offers from outside the Toronto area will be referred to the Province (EMO) for coordination.
- Requests for assistance will be assessed, prioritized and referred to the most appropriate service provider. This can include a volunteer agency, a City service or an external organization.

The responding agency or organization for each of the above scenarios will be accountable for their particular response.

d) Utilization of volunteers by the City

In certain service areas it may be possible that newly registered volunteers are temporarily and directly engaged by the City, provided they have the required skill sets. Examples of these service areas include: providing admin support to mass vaccination clinics, greeting at mass vaccination centers, providing support to homeless shelters, etc.

2.8.4 Post-pandemic Period

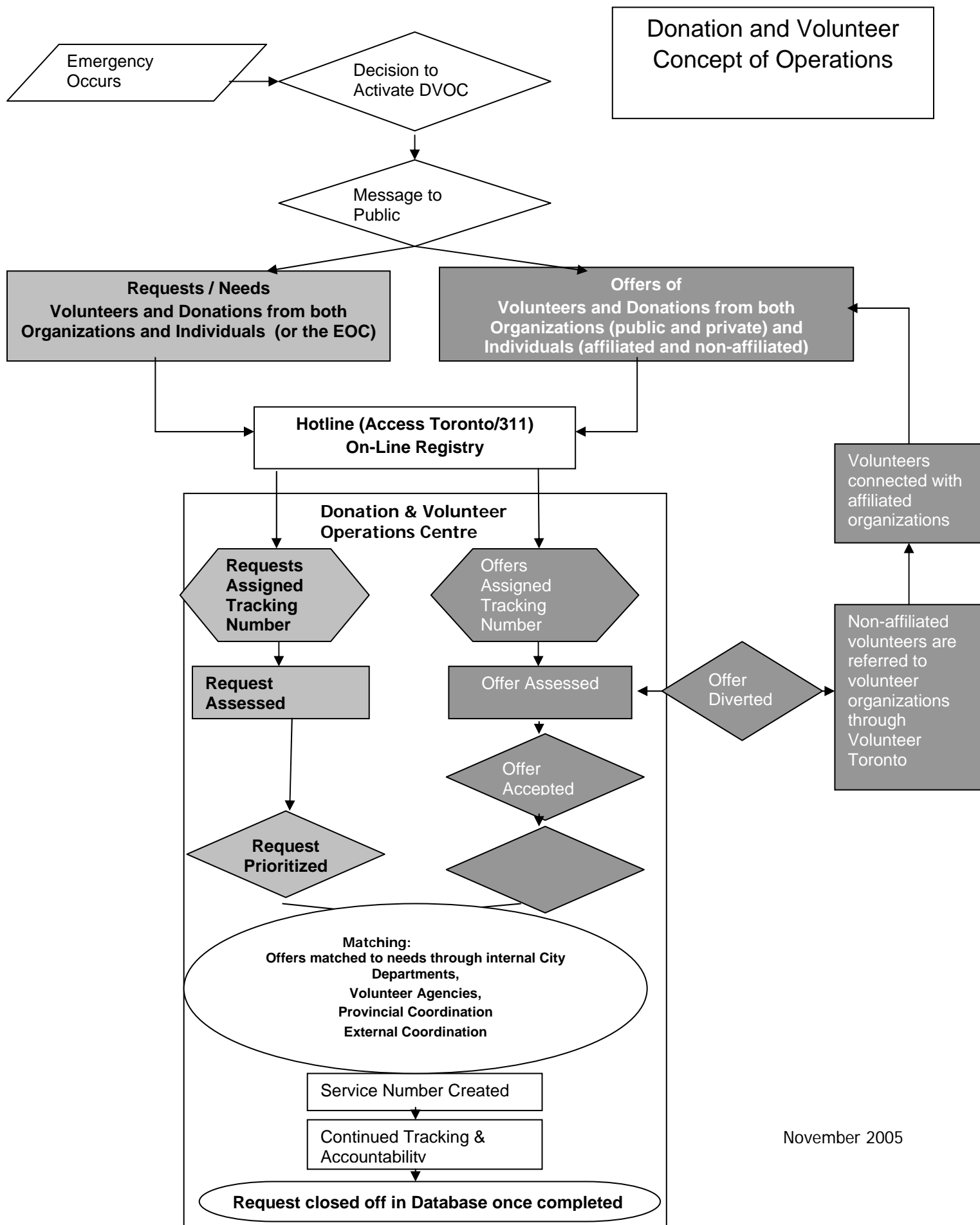
Volunteer agencies are encouraged to conduct debriefing sessions with their volunteers. In addition, EMO will organize debriefing meetings with partnering volunteer agencies to identify achievements and areas of improvement. Volunteer management plans will be revised to reflect the learning and new best practices.

Volunteer Management Plan

	Pre-pandemic period	Pandemic period	Post-pandemic period
Office of Emergency Management (OEM)	<ol style="list-style-type: none"> 1. Follow up with Shelter, Support & Housing Administration regarding further development of Donations and Volunteer Management OSF as part of Toronto Emergency Plan. 2. Development of policies and procedures for setting up a Donation and Volunteer Operations Centre (DVOC) and ensuring that systems are in place. 3. Support the efforts of volunteer agencies to promote volunteerism. 	Ongoing communication with TPH, Shelter Support & Housing Administration and volunteer agencies in order to address issues as they come up.	<ul style="list-style-type: none"> - Participate in volunteer appreciation/recognition events as appropriate. - Utilize findings from volunteer debriefings to identify areas of improvement.
Toronto Public Health (TPH)	<ol style="list-style-type: none"> 1. Relationship with volunteer agencies established. 2. Support further development of a framework for volunteer management for the circumstances of pandemic influenza. 	<ol style="list-style-type: none"> 1. Ongoing communication with OEM and volunteer agencies. 2. Ongoing messaging through media to the public to encourage the most efficient ways of assisting with the response activities. 	<ul style="list-style-type: none"> - Participate in volunteer appreciation/recognition events as appropriate. - Utilize findings from volunteer debriefings to identify areas of improvement.
Volunteer Agencies	<ol style="list-style-type: none"> 1. Pre-pandemic recruitment: <ul style="list-style-type: none"> - volunteer position descriptions in place - screening/interviews - references and documentation - criminal record searches, where required/appropriate - placement, orientation and training 2. Policies and procedures in place for recruitment and orientation of volunteers during the pandemic period (referred by the DVOC, or walk-in volunteers). 	<ol style="list-style-type: none"> 1. Continued communication with TPH. 2. Upon receiving a request from TPH for support to specific response actions organize for a deployment of volunteers by: <ul style="list-style-type: none"> - scheduling - providing briefing, instructions, training as needed - on-going support and management of volunteers 3. As needed, implement policies and standards for the recruitment of new volunteers referred by the DVOC, or walk-in volunteers. 	<ul style="list-style-type: none"> - Debriefing and response evaluation - Volunteer appreciation/recognition events and activities

Next Steps

While the concept of operations for volunteer management has been identified (flowchart provided on page 74) it still needs to be operationalized and address issues such as the location of the DVOC, lead implementation agency, identification of service areas for volunteer engagement, etc.



November 2005

2.9 Mass Fatality Plan

A Mass Fatality Plan has been developed with key stakeholders. The Regional Coroner's Office is working with this stakeholder group to outline a plan for managing deaths that occur in the community as a result of pandemic influenza. This plan will outline the assessment of the deceased in their home, pronouncement protocols to follow transportation of the body to the funeral home and death certification. This will involve screening at 911 to help assess the situation. The draft plan has been sent from the Coroner's Office to the Provincial Infectious Disease Advisory Committee for consultation.

Toronto Public Health continues to meet with key stakeholders in the funeral home sector to further planning for body management issues. Education sessions continue to be provided.

2.9.1. Management of Mass Fatalities during Pandemic Influenza

The total number of deaths (including all other causes) during a pandemic wave of six to eight weeks is estimated to be similar to that which usually occurs over a period of six months. Planning for mass fatalities is therefore necessary as there will be a strain on the current system for a prolonged period of time. Some of the issues that need to be addressed include:

- pronouncement and certification of deaths
- transportation of bodies
- morgue capacity, including in acute care facilities
- planning and gathering at funerals
- supply management

A few documents providing guidance for planning around these and other related matters are already in place:

- ✓ The Canadian Pandemic Influenza Plan provides an annex that contains guidelines to assist local authorities and other relevant agencies in planning for the management of mass fatalities during a pandemic influenza, including dealing with issues such as corpse management, temporary morgues, transportation, social/religious considerations, etc.
- ✓ The Ontario Health Plan for an Influenza Pandemic outlines a requirement to develop a plan at the local level for mass fatalities resulting from a pandemic influenza.
- ✓ The Office of the Chief Coroner of Ontario has prepared a Provincial Multiple Fatality Plan. This plan has a recent addition that reflects the anticipated increased mortality of a pandemic influenza.

Toronto Public Health is collaborating with the City's Office of Emergency Management in the development of a mass fatality plan, which could be utilized in the event of a pandemic. In addition to that and as part of the development of Toronto Pandemic Influenza Plan, Toronto Public Health has established an advisory committee of key stakeholders in the funeral home sector to examine the above issues and develop specific plans for addressing them. Meetings with the Regional Coroner's Office have occurred to further the development of this plan and to address local capacity issues.

The following table identifies roles and responsibilities of different agencies within the pre-pandemic, pandemic and post-pandemic period. The list is not exhaustive and is subject to change, based on the future planning considerations. The Planning Guide for Funeral Homes and Crematorium Services in Appendix 1 provides further planning considerations for the sector.

Table: Mass Fatality Plan

	Pre-pandemic period	Pandemic period	Post-pandemic period
Office of Emergency Management (OEM)	<p>Developed a draft Mass Fatality OSF as part of Toronto Emergency Plan, together with Toronto Police, Coroner's Office, Transportation Safety Board, TPH and other agencies.</p> <p>■ Next Steps: Identify the lead to ensure that the plan is finalized and systems in place for implementation as needed.</p>	<ol style="list-style-type: none"> 1. Ensure mass fatality issues are communicated to affected stakeholders through the Emergency Operating Centre (EOC). 2. Maintain contact with the Provincial Emergency Operations Centre and Office of the Coroner. 3. Establish if Funeral Directors Association representation is required at the City's Emergency Operations Centre. 	<ul style="list-style-type: none"> - Conduct evaluation of the response as it relates to dealing with mass fatalities. - Utilize findings to identify areas of improvement.
Toronto Public Health (TPH)	<ol style="list-style-type: none"> 1. Relationship with relevant agencies, including Coroner's Office, Funeral Directors Association, and Toronto Police Service, established. 2. Planning Guide for Funeral Homes developed to assist in their planning on how to reduce and deal with the impact of the high number of fatalities on the sector. <p>■ Next Steps: Keep in close contact with relevant agencies and provide expert advice as to how to deal with the effects of a pandemic.</p>	<ol style="list-style-type: none"> 1. Establish representation at the City's Emergency Operations Centre. 2. Ongoing communication with relevant agencies in order to address issues as they come up. 3. Ongoing monitoring of necessity of measures to protect public health (e.g. restricting attendance at funerals). 4. Ongoing communication with the general public through media and other appropriate channels to inform them regarding the above public health measures. 5. Ensure provision of psychosocial support to the families of the deceased. 6. Provide care for ownerless pets. 7. Through Toronto Health Connection hot line 416-338-7600, provide information and/or referrals. Information related to fatalities is also going to be posted on TPH's web site. 	<ul style="list-style-type: none"> - Conduct evaluation of the response as it relates to dealing with mass fatalities. - Utilize findings to identify areas of improvement.
Toronto Police Service	<p>As one of the lead agencies for dealing with mass fatalities, Toronto Police Service was involved in developing the Mass Fatalities Operational Support Function (OSF), as part of Toronto Emergency Plan.</p> <p>■ Next Steps: Ensure systems are in place to implement the OSF as needed.</p>	<ol style="list-style-type: none"> 1. Establish representation at the City's Emergency Operations Centre. 2. Implement the Mass Fatalities Operational Support Function as outlined. 	<ul style="list-style-type: none"> - Conduct evaluation of the response as it relates to dealing with mass fatalities. - Utilize findings to identify areas of improvement.
Toronto Regional Coroner's Office	<p>Participated and provided expert advice to the development of the mass fatality plan and recommendations for dealing with the impact of pandemic on the sector.</p> <p>■ Next Steps: Ensure systems are in place to implement the OSF when needed.</p>	<ol style="list-style-type: none"> 1. Ensure communication between Provincial EOC and Toronto EOC related to mass fatality issues. 2. Based on the needs assessment, provide consultative advice on identification of morgue site and/or temporary short-term storage facility. 3. Provide advice on notification of the next of kin, if needed. 4. Communicate with the Office of the Chief Coroner of Ontario, in particular regarding the need to activate the Provincial Multiple Fatality Plan. 	<ul style="list-style-type: none"> - Provide input to the response evaluation and help identify "best practices" for future implementation.
Hospitals	<p>As part of pandemic influenza planning, develop specific plans for dealing with high mortality rates in hospitals due to pandemic.</p>	<ol style="list-style-type: none"> 1. Based on need, enlarge morgue capacity or adapt alternate space to accommodate a higher than normal mortality rate. 2. Notify TPH of all deaths with influenza as the cause or contributing cause. 	<ul style="list-style-type: none"> - Provide input to the response evaluation and help identify "best practices" for future implementation.
Funeral Homes and Crematoriums	<ol style="list-style-type: none"> 1. Develop preparedness plans to address issues such as supplies, equipment, vehicles and personnel. 2. Maintain a six months inventory of supplies in stock. 	<ol style="list-style-type: none"> 1. Implement preparedness plans. 2. Raise issues of concern with TPH or through the Board of Funeral Services and/or the office of Toronto and Regional District Funeral Directors. 3. Maintain a six months inventory of supplies in stock. 	<ul style="list-style-type: none"> - Provide input to the response evaluation and help identify "best practices" for future implementation.

2.9.2 Care of Deceased and other Technical Considerations

As the practice and legal requirements in the care and management of the deceased vary by province, it is important to outline requirements specific to Ontario. Under regular circumstances, what happens with the body of the deceased depends largely on the services selected and the final destination for the deceased. The executor and/or next of kin bear legal responsibility in the disposition of the deceased. Having in mind the estimated rate of mortality in pandemic influenza, it is expected that the funeral services sector will be significantly affected and funeral directors overwhelmed. Body storage and limited resources will be the main issue since capacity in funeral homes and hospitals is limited. Certain services may need to be adapted so that the capacity of the system is utilized in the most efficient way.

The following is an outline of the usual steps, along with some technical considerations that may be of influence in the situation of pandemic influenza:

Pronouncement of Death: In Ontario, there is no statutory requirement for who can pronounce death, although traditionally it has been done by someone with either medical training (nurse, paramedic, physician), or by someone in a position of authority (police officer). Death can be certified, however, only by a physician, or in certain specified circumstances by a Registered Nurse, Extended Class. Deaths warranting further investigation have to be reported to a coroner (deaths under circumstances listed in section 10 of the Coroners Act). The attending physician, or in some cases the coroner, completes the *Medical Certificate of Death* and submits it to the funeral home who takes it along with the Statement of Death (see below) to the local Division Registrar of the Office of the Registrar General of Ontario.

A family member or Funeral Director completes the *Statement of Death* with information about the deceased and submits it to the local Division Registrar of the Office of the Registrar General of Ontario. The Office of the Registrar General is responsible for registering deaths and issuing certified death certificates. They are required for such purposes as settlement of estates, insurance and access to or termination of certain government services, if the Proof of Death provided by the funeral home is not accepted.

Once the Certificate of Death and Statement of Death are completed, the next step is to obtain a *burial permit*. Burials and cremations cannot be performed until the burial permit is issued. Funeral Directors look after this requirement for the family. If the death occurs in Ontario but the burial is to take place outside of Ontario, the body cannot be removed until an Ontario burial permit is obtained. If the death occurs outside of Ontario but the burial or other disposition is to take place in Ontario, a burial, transit or removal permit is required from the jurisdiction where the death occurred.

If the deceased had expressed a wish to donate organs for transplant or the entire body for scientific research, arrangements are made quickly because there are specific time limits for making such donations. Donations can be refused for a range of reasons and the process for dealing with this issue in a pandemic is yet to be developed, although organs or bodies from potential donors who have died as a result of a contagious disease would not likely be accepted.

Because of the expected increased mortality rates in a pandemic the Emergency Management Unit of the Ministry of Health and Long-Term Care is working to develop an expedited process for pronouncement, certification and registration of deaths that would minimize potential roadblocks and backlogs.

Transportation: The deceased is transported to a provider, cemetery or other destination, depending on the services selected. Funeral Directors usually look after this for the family. There are no special legal requirements in terms of driver license or vehicle for transportation of a corpse.

Morgue Storage: In order to deal with the increase in fatalities, it may be necessary to develop strategies to augment funeral home and hospital morgue capacities. If the body is not going to be cremated, plans to expedite the embalming process should be developed since in the case of a pandemic, bodies may have to be stored for an extended period of time.

Temporary storage facilities must be considered. These may include refrigerated trucks. Use of local businesses for the storage of human remains is not recommended and should only be considered as a last resort. The post-pandemic implications of storing of human remains at these sites can be very serious and may result in negative impacts on business with ensuing liabilities.

The Office of the Chief Coroner has a morgue with a capacity for 100 bodies, while the combined capacity of Toronto removal services is between 25 and 50 bodies. The Office of the Chief Coroner has had discussions with the Ontario Trucking Association to access resources through their communication channels.

Autopsy: In order to establish the facts of death and to increase the medical knowledge about the disease the Coroner can order an autopsy. Many deaths in a pandemic would not require an autopsy. However, for the purpose of public health surveillance, respiratory tract specimens or lung tissue for culture or direct antigen testing could be collected post-mortem. Permission will be required from the next-of-kin for this purpose where the death has not been the subject of a coroner's investigation.

Embalming is not required in Ontario, but may be necessary under some circumstances. Cremated bodies are usually embalmed less often than bodies being buried.

Funeral Service: Funeral homes should implement infection control measures to reduce the risk of influenza transmission through contact with families and friends of the deceased. Deceased bodies are not "contagious" and infection control measures are not required for the handling of persons who died from influenza. For specific infection control measures, refer to Chapter 10.

Burial: Bodies to be buried may or may not be embalmed and may need to be stored in a temporary vault prior to burial.

Cremation: Most crematoriums can handle one body every four hours but could run 24 hours to cope with increased demand. Cremations have fewer resource requirements than burials and, where acceptable, may be an expedient and efficient way of managing large numbers of corpses during a pandemic. Cremated bodies are embalmed less frequently. Families may choose to have a funeral service followed by cremation or to have the body cremated first and a memorial service later.

The table below from the Canadian Influenza Plan outlines limiting factors and possible solutions for each step in the management of a corpse.

Table 2: Corpse Management

Steps	Requirements	Limiting Factors	Planning for possible solutions/expediting steps
Death pronounced	<ul style="list-style-type: none"> Person legally authorized to perform this task 	<ul style="list-style-type: none"> If death occurs in the home then one of these authorized persons will need to be contacted Availability of people able to do this task 	<ul style="list-style-type: none"> Provide public education re: how to access an authorized person Consider planning an on call system 24/7 specifically for this task
Death Certified	<ul style="list-style-type: none"> Person legally authorized to perform this task 	<ul style="list-style-type: none"> Legally, may not necessarily be the same person that pronounced death 	<ul style="list-style-type: none"> Consider collecting corpses and having one authorized person perform this task en masse to improve efficiency
Body wrapped	<ul style="list-style-type: none"> Person(s) trained to perform this task 	<ul style="list-style-type: none"> Body bags Supply of human and physical (body bags) resources If death occurs in the home: the availability of these requirements 	<ul style="list-style-type: none"> Consider developing a rotating six month inventory of body bags, given their shelf life Consider training or expanding the role of current funeral home staff to include this task Provide this service in the home in conjunction with pronouncement and transportation to morgue
Transportation to the morgue	<ul style="list-style-type: none"> In hospital: trained staff and stretcher Outside hospital: informed person(s), stretcher and vehicle suitable for this purpose 	<ul style="list-style-type: none"> Availability of human and physical resources 	<ul style="list-style-type: none"> In hospital consider training additional staff working within the facility Consider keeping old stretchers in storage instead of discarding Look for alternate suppliers of equipment that could be used as stretchers in an emergency e.g. trolley manufacturers Outside hospital: provide public education or specific instructions re: where to take corpses if the family must transport

Steps	Requirements	Limiting Factors	Planning for possible solutions/expediting steps
Morgue storage	<ul style="list-style-type: none"> • A suitable facility that can be maintained at +4 to +8 ° Celsius 	<ul style="list-style-type: none"> • Capacity of such facilities 	<ul style="list-style-type: none"> • Identify and plan for possible temporary morgue sites
Autopsy if required/requested	<ul style="list-style-type: none"> • Person qualified to perform autopsy and suitable facility with equipment 	<ul style="list-style-type: none"> • Availability of human and physical resources • May be legally required in some circumstances 	<ul style="list-style-type: none"> • Ensure that physicians and families are aware that an autopsy is not required for confirmation of influenza as a cause of death
1.Cremation*	<ul style="list-style-type: none"> • Suitable vehicle for transportation from morgue to crematorium • Availability of cremation service • A cremation certificate 	<ul style="list-style-type: none"> • Capacity of crematorium/speed of process • Availability of coroner or equivalent official to issue certificate 	<ul style="list-style-type: none"> • Identify alternate vehicles that could be used for mass transport • Examine the capacity and surge capacity of crematoriums within the jurisdiction • Discuss and plan appropriate storage options if the crematoriums become backlogged • Discuss and plan expedited cremation certificate completion processes
2.Embalming**	<ul style="list-style-type: none"> • Suitable vehicle for transportation from morgue • Trained person • Embalming equipment • Suitable location 	<ul style="list-style-type: none"> • Availability of human and physical resources • Capacity of facility and speed of process 	<ul style="list-style-type: none"> • Consult with service provided regarding the availability of supplies and potential need to stockpile or develop a rotating 6 month inventory of essential equipment /supplies • Discuss capacity and potential alternate sources of human resources to perform this task (e.g. retired workers or students in training programs) • Consider "recruiting" workers that would be willing to provide this service in an emergency
3. Funeral Service	<ul style="list-style-type: none"> • Appropriate location(s), casket (if not cremated), Funeral director 	<ul style="list-style-type: none"> • Availability of caskets • Availability of location for service and visitation 	<ul style="list-style-type: none"> • Contact suppliers to determine lead time for casket manufacturing and discuss possibilities for rotating 6 month inventory • Consult with the Funeral Services Association of Canada (FSAC) to determine surge capacity and possibly the need for additional sites (e.g. use of churches etc. for visitation)
3a.Transportation to a temporary burial site	<ul style="list-style-type: none"> • Suitable vehicle and driver 	<ul style="list-style-type: none"> • Availability of human and physical resources 	<ul style="list-style-type: none"> • Identify alternate vehicles that could be used for this purpose • Consider use of volunteer drivers
3b.Temporary storage	<ul style="list-style-type: none"> • Access to and space in a temporary storage area 	<ul style="list-style-type: none"> • Temporary storage capacity and accessibility (e.g. ice rinks, curling rinks, cold storage lockers or refrigerated trucks) 	<ul style="list-style-type: none"> • Expand capacity by increasing temporary storage sites
3c. Burial	<ul style="list-style-type: none"> • Grave digger, space at cemetery 	<ul style="list-style-type: none"> • Availability of grave diggers and cemetery space • Extreme cold and heavy snow fall 	<ul style="list-style-type: none"> • Identify sources of supplementary workers

* Cremated bodies are not usually embalmed; families may choose to have a funeral service followed by cremation or to have the body cremated first and a memorial service later.

** Bodies to be buried may be embalmed and may need to be stored in a temporary vault prior to burial.

2.9.3. Funeral Homes in Toronto

The funeral services sector will be significantly affected by increased rates of mortality, employee absenteeism, and possibly shortages of supplies. Public health measures, such as cancellations of large gatherings may also affect this sector. In order to mitigate the disruption, it is recommended that funeral homes develop continuity plans for pandemic influenza to address issues such as supplies, equipment, vehicles and personnel.

A list of funeral homes in Toronto can be accessed from www.funeralboard.com

2.9.4. Supply Management

The Funeral Service Association of Canada (FSAC) is recommending to funeral directors that they do not order excessive amounts of supplies such as embalming fluids, body bags, etc. but that they have enough on hand in a rotating inventory to handle the first wave of the pandemic (e.g. enough for six months of normal operation). Fluids can be stored for years, but body bags and other supplies have a limited shelf life. Cremations generally require fewer supplies since embalming is less frequent. As the funeral homes are the only non government 'agency' involved in handling of bodies, the cost of these supplies may be a burden on many and therefore options will need to be considered provincially to support this sector.

Families having multiple deaths are unlikely to be able to afford multiple higher-end products or arrangements. Funeral homes could quickly run out of lower-cost items (e.g. inexpensive caskets) and should be prepared to provide alternatives.

2.9.5. Social/Religious Considerations

A number of religious and ethnic groups have specific directives about how bodies are managed after death and such needs must be considered as a part of pandemic planning. The wishes of the family will provide guidance, however, if no family is available local religious or ethnic communities can be contacted for information. As a result of these special requirements, some religious groups maintain facilities such as small morgues, crematoria and other facilities, which are generally operated by volunteers. Religious groups should be contacted to ensure these facilities and volunteers are prepared to deal with pandemic issues.

Religious groups should be involved in planning for funeral management, bereavement counseling, and communications, particularly in ethnic communities with large numbers of people who do not speak the official languages.

2.10 Animal Care and Relief Services

Because of the impact of the pandemic influenza in terms of the morbidity and mortality rates, it is expected that there will be an increased need for the provision of animal care and relief services. As many pet owners will become ill, their concerns as to their pet's welfare can add significantly to their sense of despair. Many pets will also become ownerless, due to increased mortality rates.

As a lead agency for animal protection as designated by the Toronto Emergency Plan, TPH has developed a draft Operational Support Function to address animal care and relief services. The City's capacity to respond to animal care and relief issues may become overwhelmed as a result of a pandemic. Animal care and relief services include but are not limited to the following:

- Animal rescue
- Recovering lost or injured animals
- Evacuating animals and assisting with the housing and care of pets belonging to hospitalized or deceased persons, if needed
- Emergency veterinary services
- Providing information and referral to the public
- Registration
- Managing special needs, donations and services

During a pandemic, Toronto Public Health will co-ordinate with partner agencies and will identify, monitor, track and respond to animal care and relief needs and requirements. Based on this ongoing assessment, Animal Care and Relief Services Committee (ACRSC) will mobilize and co-ordinate the delivery of animal care and relief services to affected populations. ACRSC is a partnership of animal care and relief agencies and organizations that collaborate in providing immediate and short term services and programs for adequate care and proper disposition for companion animals, livestock and wildlife.