



PANDEMIC INFLUENZA RESPONSE PLAN

SECTION FOURTEEN - MASS FATALITIES TABLE OF CONTENTS

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CARE OF THE DECEASED

Target Audience

All staff in Assiniboine Regional Health Authority (ARHA) facilities and programs, local governments and funeral services.

Introduction

The risk of influenza transmission to funeral service workers will be through their contact with families and friends of the deceased, not the deceased. There is no additional risk of transmission of influenza to funeral home workers related to handling bodies of persons suspected of having or confirmed to have died from influenza. Deceased bodies (confirmed or suspected to have influenza during inter-pandemic or pandemic periods) require routine infection control precautions only.

The number of deaths resulting from the influenza pandemic could easily overwhelm local morgues and funeral homes. An important task in pandemic preparation is the estimation of regular capacity and a prediction of the need for additional resources and space in temporary morgues. This section is intended as a resource for specific infection control information and contact information for funeral homes and potential sites for temporary morgues.

INFECTION CONTROL GUIDELINES

During the influenza pandemic, adherence to infection control practices is extremely important to prevent or minimize transmission of influenza. These guidelines for the management of pandemic influenza in traditional and other settings are based on published guidelines from the Public Health Agency of Health Canada (<http://www.phac-aspc.gc.ca/index-eng.php>), as well as the Canadian, Manitoba, Ontario and British Columbia Pandemic Influenza Plans.

For further information refer to:

<http://www.gov.mb.ca/health/>

Pandemic Period

Routine practices and additional precautions to prevent the transmission of infection during a pandemic are important. Some infection control strategies may be achievable only in the early pandemic period and other recommendations may not be achievable as the pandemic spreads and resources (equipment, supplies, private rooms, and human resources) become scarce.

The complexity of management of high-risk clients will be greatest in acute care hospitals that will continue to admit clients with other communicable respiratory diseases. It is possible that infection control resources may need to be prioritized to the acute care settings.

Masks may be useful in the pandemic alert and early pandemic periods during face-to-face contact with coughing individuals, especially when immunization and antivirals are not yet available. The use of masks may not be practical or helpful when transmission is widespread in a facility and in the community.

Management of Mass Fatalities during Pandemic Influenza

The number of deaths (including all other causes) during a pandemic wave of six to eight weeks is estimated (*Appendix 1*) 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 already in place are:

- 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 Chief Medical Examiner of the Province of Manitoba has indicated that they will provide guidelines on the management of mass fatalities.

The funeral service sector will be significantly affected by increased rates of mortality, employee absenteeism and possibly shortage of supplies. It is recommended that contingency plans be developed in order to address such issues as supplies, equipment, vehicles and personnel.

Refer to the Surge Impact Chart in *Section 3-Response Levels* in the ARHA Pandemic Plan (Page No. 3-9) for estimated number of deaths per day for a period of eight weeks.

Table 14.1 Roles and Responsibilities

Federal	Provincial	Regional
Inter-pandemic and Pandemic Alert Periods		
	<ul style="list-style-type: none"> ▪ Identify source for body bags, in case large numbers are needed ▪ Ministry of Health Emergency Management personnel provide regions with training support for identified funeral home personnel and temporary morgue facilities on the handling and disposal of infected bodies and disinfection guidelines 	<ul style="list-style-type: none"> ▪ Identify available morgue space. ▪ Identify temporary morgue space. ▪ Determine local capacity (bodies per day) of existing crematoriums. ▪ Identify mechanism to distribute body bags in the event of shortages ▪ Identify method of transportation for bodies to funeral homes or other temporary morgue facilities from private homes or health care facilities ▪ Provide funeral homes/other temporary morgue facilities with training on handling and disposal of infected bodies and disinfection guidelines
Pandemic Period in Canada		
	<ul style="list-style-type: none"> ▪ Distribute supplies of body bags to regions 	<ul style="list-style-type: none"> ▪ Ensure identified individuals at funeral homes/temporary morgue facilities and coroners are vaccinated ▪ Ensure other temporary morgue facilities are ready to receive the bodies. ▪ Ensure identified individuals at funeral homes/temporary morgue facilities and coroners have infection control standards and apply them correctly
Post-pandemic Period		
<ul style="list-style-type: none"> ▪ Review and revise handling and disposal of the deceased 	<ul style="list-style-type: none"> ▪ Evaluate handling and disposal of the deceased ▪ Estimate costs associated with handling and disposal of the deceased 	<ul style="list-style-type: none"> ▪ Evaluate handling and disposal of the deceased ▪ Estimate costs associated with handling and disposal of the deceased

Table 14.2 ARHA Funeral Home Contact List

Note: None of the facilities below have a cooling system

Funeral Home	Contact Address	Telephone Number	Body Capacity (Embalmed)	No. of Personnel Requiring Vaccination
Boissevain Funeral Home	No facilities/office only Use Killarney office	204-523-7791 Fax: 204-523-7156	8	3
Killarney Funeral Home	Box 864 Killarney, MB R0K 1G0			
Smith Funeral Home	Box 413 Deloraine, MB R0M 0M0	204-747-2088	3	
Brockie Donovan Ltd.	332- 8th Street Brandon, MB R7A 3X4	204-727-0694 fax: 204-726-1297 tlumbard@brockiedonovan.com	20	17
Memories Chapel	330-18th Street N. Brandon, MB R7A 7P3	204-727-0330 fax: 204-725-0971 memorieschapel@mts.net	10	8
Rosewood Memorial Chapel	Site 200 Box 44 RR #1 Highway 1A West Brandon, MB R7A 5Y1	204-725-2061	50	3
White's Funeral Home	Carberry Office Directed to Neepawa	204-476-2848	30	8
White's Funeral Home	Box 326 Neepawa MB R0J 1H0	204-476-2848		
Minnedosa Funeral Services	Box 1680 Minnedosa, MB R0J 1E0	204-867-3868		
Campbell Funeral Home	Box 89 Hamiota, MB R0M 0T0	204-764-2744 fax: 204-764-2597 campbells@inetlinkwireless.ca	4	3

Table 14.2 Cont'd

Funeral Home	Contact Address	Telephone Number	Body Capacity	No. of Personnel Requiring Vaccination
Redpath Funeral Home	Box 970, Melita, MB R0M 1L0	204-522-3361 fax: 204-522-3135	3	4
Jamieson's Funeral Service Ltd.	Box 369 Glenboro, MB R0K 0X0	204-827-2480 fax: 204-827-2093	5 – 10 embalmed	3
Clarke's Funeral Home	Box 3 Gladstone, MB R0J 0T0	204-385-2274 Fax: 204-385-2073 bwclarke@mts.net		
Budz Funeral Service Ltd.	Box 388 Holland, MB R0G 0X0	204-526-2380 fax: 204-526-2380	4	8
Nairn Chyz Funeral Home	Box 910 Roblin MB, R0L 1P0	204-937-2111 fax: 204-937-4343	25 – 30	5
Braendle-Bruce Funeral Home	Box 538 Russell MB R0J 1W0	204-773-2747 fax: 204-773-3332	100 (9 homes)	12
Rae's Funeral Home	Box 167 Shoal Lake MB R0K 2C0	204-759-2160 fax: 204-759-2529 raesfs@mts.net		5
Kowalchuk's Funeral Home	Box 730 Souris MB R0K 2C0	204-483-2167 fax: 204-483-2859	4	1
G.R. Carscadden Funeral Chapels Ltd.	240 2 nd Street Reston MB R0M 1X0	204-748-1876 fax: 204-748-3803	6	4
G.R. Carscadden Funeral Chapels Ltd.	Box 1780 Virden MB R0M 2C0	204-748-1876 fax: 204-748-3803 DougGatey@rfnw.com		

Note: Facilities shaded together have the same owners.

Table 14.3 ARHA Hospital Morgue Capacity:

Baldur Health Centre	NO
Birtle Health Centre	NO
Boissevain Health Centre	NO
Boissevain - Westview Lodge	NO
Bren Del Win Lodge - Deloraine	NO
Carberry Health Centre	NO
Cartwright Health Centre	NO
Deloraine Health Centre	NO
Elkwood Manor	NO
Erickson Health Centre	NO
Glenboro Health Centre	NO
Hamiota Health Centre	2
Hartney Health Centre	NO
Melita Health Centre	NO
Minnedosa Health Centre	2
Neepawa Hospital	2
Neepawa – Country Meadows PCH	NO
Reston Health Centre	NO
Rivers Health Centre	NO
Rosburn Health Centre	NO
Russell Health Centre	2
Sandy Lake PCH	NO
Sherwood Nursing Home, Virden	NO
Shoal Lake-Strathclair Health Centre	NO
Souris Health Centre	NO
Tiger Hills Health Centre, Treherne	NO
Tri Lake Health Centre, Killarney	NO
Virden Health Centre	NO
Wawanesa Health Centre	NO
Westman NH, Virden	NO

Table 14.4 Standard Process for Managing the Deceased - 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 • Body bags 	<ul style="list-style-type: none"> • 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 6 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 a stretcher • Outside hospital: informed person(s), a stretcher and a 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

Table 14.4 Cont'd
Standard Process for Managing the Deceased - Corpse Management

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 *see below	<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 **see below	<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

Table 14.4 Cont'd
Standard Process for Managing the Deceased - Corpse Management

STEPS	REQUIREMENTS	LIMITING FACTORS	PLANNING FOR POSSIBLE SOLUTIONS/EXPEDITING STEPS
3. Funeral Service	<ul style="list-style-type: none"> • Appropriate location(s), casket or urn 	<ul style="list-style-type: none"> • Availability of caskets / urns 	<ul style="list-style-type: none"> • Contact suppliers to determine lead time for casket manufacturing and discuss possibilities for rotating 6 month inventory
	Funeral director	<ul style="list-style-type: none"> • Availability of location for service and visitation 	<ul style="list-style-type: none"> • 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. 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

Temporary Morgue Facilities

Additional temporary cold storage facilities may be required during a pandemic, for the storage of corpses prior to their transfer to funeral homes. A temporary morgue must be maintained at +4 to +8 degrees Celsius. However, corpses will begin to decompose in a few days when stored at this temperature. 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. In jurisdictions where a timely burial is not possible due to the lack of facilities or frozen ground, corpses may need to be stored for the duration of the pandemic wave (6 to 8 weeks).

The types of temporary morgue facilities to be considered may include refrigeration trucks, cold storage lockers, ice arenas and curling rinks. Use of local businesses, ice rinks or arenas for the storage of human remains is not recommended and should only be considered as a last resort. The post-pandemic implications of storing human remains at these sites can be very serious and may result in negative impact on business with ensuing liabilities.

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 Manitoba. 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. Keeping in mind the estimated mortality rate in pandemic influenza, it is expected that the funeral service 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 healthcare facilities is limited. Certain services may need to be adapted so that capacity of the system can be utilized in the most efficient way.

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

- **Pronouncement of Death** - Pronouncement of death is traditionally done by someone with either medical training (Registered Nurse, paramedic, physician) or by someone in a position of authority (police officer). However, only a physician can certify a death. Deaths warranting further investigation have to be reported to the Medical Examiner (Fatalities Inquiry Act)
- **Certification of Death** - A Medical Certification of Death must be completed by the medical examiner or a physician within 48 hours of death. This certificate is to be available to the funeral director. (*The Vital Statistics Act*)
- **Registration of Death** - The funeral director then completes the Registration of Death and forwards it along with the Certification of Death to Vital Statistics.
- **Burial Permit** – Upon completion of the above mentioned forms a burial permit is issued.

In the pandemic situation, with the increased number of deaths, each jurisdiction must have a body collection plan in place to ensure that there is no unnecessary delay in moving to the (temporary/permanent) morgue. If the person's death does meet any of the criteria for needing to be reported to the medical examiner, then the person could be moved to a holding area soon after being pronounced dead (if the physician is willing to pronounce). A physician could be designated, on a daily basis, to complete a Medical Certification of Death.

In the case of a "planned or anticipated death at home", where the physician has signed the "End of Life Directive and Notice of Anticipated Death" and the death occurs, the designated family member contacts the funeral director and informs them of the death. Once contacted, the funeral director may with a copy of the physicians letter and having determined death has take place (the funeral director has no concerns regarding the circumstances of the death) may sign the death certificate on behalf of the attending physician. The body may then be removed to the funeral home for the planned arrangements. If the cause of death is thought to be suspicious, the funeral director shall notify the RCMP, physician or hospital.

- **Transportation** – No special vehicle or driver's license is required for transportation of a corpse. Therefore, there are no restrictions on families transporting bodies of family members if they have a death certificate. Transportation of bodies from their place of death to their place of burial may become an issue if this requires air transport.
- **Morgue storage** – In order to deal with the increase in fatalities, it will be necessary to develop strategies to augment funeral home and healthcare facilities' storage. If the body is not going to be cremated, plans to expedite the embalming process should be developed, since bodies may have to be stored for an extended period of time. Temporary storage facilities must be considered. **(See Table 14.4)**
- **Autopsy** - Many deaths in a pandemic would not require autopsies, since autopsies are not indicated for the confirmation of influenza as the cause of death. However, for the purpose of public health surveillance (i.e confirmation of the first cases at the start of the pandemic), respiratory tract specimens or lung tissue for culture or direct antigen testing could be collected post-mortum. Permission will be required from next of kin for this purpose, where the death has not been subject to investigation.
- **Funeral Service** – Orders from the Chief Medical Examiners, in regard to the cancellations of large gatherings (funerals), may affect this sector.
- **Infection Control** – The Infection Control Section of the ARHA Pandemic Plan provides general recommendations on infection control for healthcare facilities during a pandemic. However, specific infection control measures are not required for the handling of a person who dies from influenza, as the body is not contagious after death. Funeral homes should take routine infection control precautions with deaths from influenza. The risk of influenza transmission to the funeral service workers will be through their contact with families and friends of the deceased, not the deceased. Additional training in the routine infection control practices and additional precautions may be available through the Funeral Service Association of Canada (FSAC) at <http://www.fsac.ca/>.

Funeral Service

It may be useful to have a supply of masks and alcohol-based hand sanitizers available for anyone attending the funeral service if the death was from influenza or there is a possibility that some of the attendees may have been exposed to the influenza.

- **Burials** – 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. Cremation has 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.
- **Supply Management** – The Funeral Service Association of Canada (FSAC) has recommended to funeral directors that they do not need to 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 (i.e. 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.
 - For information and a list of Canadian suppliers of funeral supplies and equipment go to the Funeral Association of Canada (FSAC) website www.fsac.ca

Psychosocial Considerations

People impacted by a disaster, including pandemics, have to adjust to significant changes in their lives. The resulting psychosocial, 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 their losses, deal with personal and 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.

Appendices

Appendix 1 Trucking Companies with Refrigeration Trucks (**Table 14.5**)

Table 14.5 Trucking Companies with Refrigeration Trucks in ARHA

Company	Community	Home #	Work #
W.E. Bicknell Ltd. (not guaranteed)	Birtle	842-3342	842-5281
Decker Colony	Hamiota	764-2859	764-2861
Gardwine North	Neepawa	n/a	476-3376
Earle's Transfer (2 trailers)	Treherne	723-2733	723-2733