

## **Interim guidance: Management of mass fatalities during the coronavirus disease (COVID-19) pandemic**

The Public Health Agency of Canada, in collaboration with Canadian public health and infection prevention and control (IPC) experts and the Funeral Services Association of Canada, has developed this guidance on public health measures for the management of mass fatalities from COVID-19. The guidance is for local and regional planners, community leaders, funeral service workers, medical examiners, and coroners.

The guidance outlined in this document reflects the latest scientific evidence and current expert opinion. As such, the advice in this document is subject to change as new information on the disease becomes available.

Based on experiences with COVID-19 in other countries, it is important to be prepared for increase in the number of COVID-19 related deaths in Canada that may overwhelm traditional capacity for funeral services. Deaths from other causes may also increase due to pressures on health system capacity. Funeral services and the management of human remains is an important part of pandemic mitigation measures in Canada.

This document should be used in conjunction with *Interim guidance: Death care services and handling of dead bodies during the coronavirus (COVID-19) pandemic*.

### **Preamble**

During this pandemic, local authorities should be prepared to manage additional deaths due to COVID-19, over and above the deaths from other causes. This guideline aims to assist local and regional planners, community leaders, funeral service workers, medical examiners, and coroners preparing to manage the surge in deaths relating to the pandemic. Mitigation strategies should be discussed in Indigenous communities with Elders and other community leaders.

Planning for mass fatality situations should be guided by the following principles:

- culturally-safe consideration of the dignity of deceased persons;
- culturally-safe respect for the bereaved;
- recognition about logistical and human resource constraints; and
- ensuring the identification and traceability of deceased persons.

This document is intended to provide general guidance. Planners should be aware of the specific requirements and terminology of legislation in their jurisdiction regarding management of the dead (e.g. *Coroners Act*, *Bereavement Sector Acts*, emergency management) and will need to customize pandemic planning for their jurisdiction accordingly.

### **Planning for a Surge in Deaths**

It is expected that most COVID-19 deaths will occur in a health care facility; therefore, hospitals, nursing homes, and other institutions (including non-traditional sites) should plan for rapid processing of human remains. Given the anticipated burden on the health care system, jurisdictions which typically require transportation of a body to hospital or other health care

facility before transfer to other funeral services should consider adjusting their current processes.

Planning for the management of mass fatalities is not exclusive to the health sector, and often requires co-ordination across civil, governmental, and police authorities, at the national and regional level.

In remote and isolated communities, local health care personnel, community leadership, and other authorities should work together to plan for rapid processing of human remains. For example, Elders in some communities may prefer to be cared for and/or die at home.

To identify planning needs for the management of a surge in deaths during a pandemic, it is important to examine the management of a deceased person under normal circumstances and then identify what the limiting factors would be if the number of deceased persons rapidly increases over a short period of time. Table 1 “Factors to consider for mass fatalities planning” identifies the usual steps. Possible solutions or planning requirements are discussed in further detail in the sections that follow this table.

Table 1. Factors to consider for mass fatalities planning

<b>Steps</b>	<b>Requirements</b>	<b>Limiting Factors</b>	<b>Planning for Possible Solutions/Expediting Steps</b>
<b>Death pronounced</b>	<ul style="list-style-type: none"> <li>person designated to perform this task. Refer to “Death Registration” section below.</li> </ul>	<ul style="list-style-type: none"> <li>if death occurs in the home then one of the designated people (e.g. coroner) will need to be contacted</li> <li>availability of people able to do this task</li> </ul>	<ul style="list-style-type: none"> <li>provide public education on the proper steps to take, designated number to call</li> <li>set up an on-call system 24/7 specifically for this task or develop strategies to utilize the existing emergency response system (i.e. 911)</li> </ul>
<b>Death certified</b>	<ul style="list-style-type: none"> <li>person legally authorized to perform this task (e.g. attending physician)</li> </ul>	<ul style="list-style-type: none"> <li>may not necessarily be the same person that pronounced the death, as in the case of nurses or paramedics</li> </ul>	<ul style="list-style-type: none"> <li>consider setting up a process to allow completion of death certification documentation centrally, to reduce burden on funeral service workers</li> </ul>

			<ul style="list-style-type: none"> <li>consider having one authorized person collect deceased persons to relocate them centrally and improve efficiency</li> </ul>
<b>Body wrapped</b>	<ul style="list-style-type: none"> <li>person(s) trained by funeral services or healthcare providers to perform this task</li> <li>body bag or pouch, or cloth if not available (2)</li> </ul>	<ul style="list-style-type: none"> <li>supply of human and physical (body bags or pouches) resources</li> <li>if death occurs in the home: body bags or pouches, or cloth, and people trained in these requirements may not be available</li> <li>WHO recommends that cloth can be used (2)</li> </ul>	<ul style="list-style-type: none"> <li>consider training or expanding the role of relevant healthcare personnel to include this task.</li> <li>provide this service in the home in conjunction with pronouncement and transportation to morgue, or ideally directly into the care of a funeral home.</li> </ul>
<b>Transportation to the morgue, or to a temporary morgue</b>	<ul style="list-style-type: none"> <li>in hospital: trained staff and stretcher</li> <li>outside hospital: stretcher and vehicle with suitable capacity for this purpose</li> <li>need for Personal Protective Equipment to fulfill this requirement including gloves, gowns, and if splashing is unavoidable face shield and mask.</li> <li>refer to section on “Temporary Morgues” below</li> </ul>	<ul style="list-style-type: none"> <li>availability of human and physical resources</li> <li>availability of Personal Protective Equipment to fulfill this requirement</li> </ul>	<ul style="list-style-type: none"> <li>encourage prompt transfer from the place of death directly into the care of a funeral home with specific direction for disposition, to reduce burden on morgues.</li> <li>in hospital: consider training additional staff working within the facility</li> <li>consider keeping old stretchers in storage instead of discarding or designating one or more stretchers for this exclusive use</li> <li>look for alternative suppliers of</li> </ul>

			<p>equipment that could be used as stretchers in an emergency, e.g. trolley</p> <ul style="list-style-type: none"> <li>manufacturers</li> <li>outside hospital: provide public education or specific instructions through a toll-free phone service or another pre-designated contact regarding where to take deceased persons if the family must transport.</li> </ul>
<b>Morgue storage</b>	<ul style="list-style-type: none"> <li>a suitable facility that can be maintained at 4°- 8° C.</li> <li>air transport for deceased in remote and isolated communities may be needed if local morgue or burial capacity is overwhelmed</li> </ul>	<ul style="list-style-type: none"> <li>capacity of such facilities</li> </ul>	<ul style="list-style-type: none"> <li>identify and plan for possible temporary morgue sites, e.g. community arena ice surface.</li> <li>consider short term storage in temporary refrigerated containers.</li> </ul>
<b>Autopsy if required/ requested</b>	<ul style="list-style-type: none"> <li>person qualified to perform autopsy and suitable facility with equipment</li> </ul>	<ul style="list-style-type: none"> <li>availability of human and physical resources</li> <li>may be required in some circumstances</li> </ul>	<ul style="list-style-type: none"> <li>ensure that physicians and families are aware that an autopsy is not required for confirmation of COVID-19 as cause of death</li> </ul>
<b>1), Cremation</b>	<ul style="list-style-type: none"> <li>suitable vehicle of transportation of the deceased to a crematorium that</li> </ul>	<ul style="list-style-type: none"> <li>capacity of crematorium/speed of process</li> </ul>	<ul style="list-style-type: none"> <li>identify alternative vehicles that could be used for mass transport that</li> </ul>

<p>*</p>	<p>complies with provincial/territorial regulation and legislation.</p> <ul style="list-style-type: none"> <li>• availability of cremation service</li> <li>• a cremation certificate in some jurisdictions</li> <li>• remains typically need to be identified by next of kin prior to cremation process</li> <li>• need for caskets or containers suitable for cremation</li> </ul>	<ul style="list-style-type: none"> <li>• availability of coroner or equivalent official to issue certificate</li> <li>• requirement for identification of remains prior to cremation</li> <li>• availability of caskets or containers suitable for cremation.</li> </ul>	<p>maintain compliance with provincial/territorial regulation and legislation</p> <ul style="list-style-type: none"> <li>• examine the capacity and surge capacity of crematoriums within the jurisdiction</li> <li>• discuss and plan appropriate storage options if the crematoriums become backlogged</li> <li>• discuss and plan expedited cremation certificate completion processes</li>   <li>• consider a new protocol for identification of remains prior to cremation</li>   <li>• consider training additional staff (e.g. funeral services students) on how to complete cremations. This is a skill that requires sufficient training to address the relative danger and associated risk. A cremation chamber operates at a temperature ranging between 1400 to 1800 degrees Fahrenheit.</li> </ul>
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			<ul style="list-style-type: none"><li>• collaboration of major suppliers to consider consolidation, sharing, and distribution of existing available casket and container inventory to enhance supply and assist front line retail providers to meet demand. Local manufacture of simple cremation containers could assist to meet demand.</li></ul>
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<p><b>2)Embalming</b></p> <p>*</p>	<ul style="list-style-type: none"> <li>• suitable vehicle for transportation from morgue</li> <li>• trained person</li> <li>• embalming equipment</li> <li>• suitable location that maintains compliance with provincial/territorial regulation and legislation</li> <li>• need for Personal Protective Equipment to fulfill this requirement including gloves, mask, gowns, and face shield.</li> </ul>	<ul style="list-style-type: none"> <li>• availability of human and physical resources</li> <li>• capacity of facility and speed of process</li> <li>• availability of Personal Protective Equipment to fulfill this requirement including gloves, mask, gowns, face shield, and N95 respirators (if aerosol generating procedures) – <i>Interim guidance: Death care services and handling of dead bodies during the coronavirus (COVID-19) pandemic</i></li> </ul>	<ul style="list-style-type: none"> <li>• Explore options to reduce need for embalming</li> <li>• consult with service providers regarding the availability of supplies and potential disruptions to the supply chain</li> <li>• discuss capacity and potential alternative sources of human resources to perform this task, e.g. retired funeral services workers or students in training programs</li> <li>• consider “recruiting” workers who would be willing to provide this service in an emergency</li> <li>• consider building an inventory of Personal Protective Equipment to fulfill this requirement. If there is a shortage of Personal Protective Equipment - share inventory with colleagues, look for replacement options to standard Personal Protective Equipment.</li> </ul>
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<p><b>Funeral service</b></p>	<ul style="list-style-type: none"> <li>• appropriate location(s), casket, funeral director or designated person</li> </ul>	<ul style="list-style-type: none"> <li>• availability of caskets</li> <li>• availability of location for service and visitation</li> </ul>	<ul style="list-style-type: none"> <li>• contact suppliers to determine lead time for casket manufacturing and discuss possibilities for rotating inventory</li> <li>• Prioritise virtual services via video</li> </ul>
<p><b>2a) Transportation to temporary vault or burial site</b></p>	<ul style="list-style-type: none"> <li>• Suitable capacity vehicle and designated driver</li> </ul>	<ul style="list-style-type: none"> <li>• availability of human and physical resources</li> </ul>	<ul style="list-style-type: none"> <li>• identify alternative vehicles that could be used for this purpose</li> <li>• standard protocols are acceptable for transport. Specialized caskets, vehicles, or driver's licenses are not necessary</li> <li>• consider use of volunteer drivers, if necessary. Funeral Service Association of Canada strongly recommends that the care, handling and transport of remains be accomplished by trained workers rather than temporary untrained labour sources, and some jurisdictions have requirements to this effect.</li> </ul>
<p><b>2b) Temporary vault storage</b></p>	<ul style="list-style-type: none"> <li>• access to and space in a temporary vault (non-insulated storage facility for remains that have been embalmed, put into caskets and are awaiting burial)</li> </ul>	<ul style="list-style-type: none"> <li>• temporary vault capacity and accessibility</li> </ul>	<ul style="list-style-type: none"> <li>• expand capacity by increasing temporary vault sites, e.g. refrigerated arenas, refrigerated trailers</li> </ul>



<p><b>2c) Burial</b></p>	<ul style="list-style-type: none"> <li>• gravedigger, space at cemetery</li> <li>• Need for caskets or containers necessary for burial.</li> </ul>	<ul style="list-style-type: none"> <li>• availability of gravediggers and cemetery space</li> <li>• extreme cold and heavy snowfall</li> <li>• flooding and fires</li> <li>• availability of Caskets or containers necessary for burial.</li> </ul>	<ul style="list-style-type: none"> <li>• identify sources of supplementary workers, e.g. local excavators</li> <li>• collaboration of major suppliers to consider consolidation, sharing, and distribution of existing available casket and container inventory to enhance supply and assist front line retail providers to meet demand. Local manufacture of simple cremation containers could assist to meet demand.</li> </ul>
<p>* Families may choose to have a funeral service followed by cremation or burial without having embalming. Necessity of embalming should be carefully considered. Embalming would delay the onset of decomposition in cases of long transport or delayed burial, but necessitates additional infection prevention and control precautions (including Personal Protective Equipment) and increases risk of exposure to COVID-19. If possible, delaying the memorial service until after the cessation of the Pandemic should be encouraged.</p>			

**Autopsies**

For recommendations on autopsies during the COVID-19 pandemic, please refer to *Interim guidance: Death services and handling of dead bodies during the coronavirus (COVID-19) pandemic*

**Preparations for Funeral Homes and Crematoriums**

Individual funeral homes should be encouraged to make specific plans such as collaboration with other funeral homes, utilizing part-time or retired funeral providers or accessing volunteers from local service clubs or churches who may be able to take on tasks such as preparing graves under the direction of current staff.

Crematoriums will need to look at the surge capacity within their facilities. Most crematoriums can handle about one body every 4 hours and could probably be run over 24 hours to cope with increased demand. Cremations have fewer resource requirements than burials and, where acceptable, this may be an expedient and efficient way of managing large numbers of deceased during a pandemic. However, in some religions and cultures, including some Indigenous communities, cremation is not culturally acceptable.

### **Planning for Temporary Morgues**

Additional temporary facilities may be required during a pandemic for the storage of human remains before transfer to funeral homes or to support storage by funeral homes. A temporary morgue must be maintained at 4°-8°C. However, human remains will begin to decompose in a few days even when stored at this temperature. Embalming may delay decomposition until the time of disposition (i.e. burial or cremation), but should be carefully considered and used only if necessary (e.g. to preserve for transport, for cultural/religious imperatives, or temporary storage) as this process typically involves splashing and aerosol-generating procedures that generally increase infection risk. Refer to *Interim guidance: Death services and handling of dead bodies during the coronavirus (COVID-19) pandemic* for further information about embalming and personal protective equipment. If the remains are not going to be cremated, plans to expedite the embalming process should be developed since, in the case of a pandemic, remains may have to be stored for an extended period of time. In jurisdictions where a timely burial is not possible because of frozen ground or lack of facilities, remains may need to be stored for the duration of a pandemic wave. Temporary morgues in rural and remote settings should have hard walls so that animals cannot access the remains.

Regional co-ordination should support each municipality to make pre-arrangements for temporary morgues according to local availability and requirements, including support logistics to maintain these such as backup power generators, security services, road access. The resource needs (e.g. body bags or pouches) and supply management for temporary morgues should also be addressed. The types of temporary cold storage to be considered may include refrigerated trucks, cold storage lockers or arenas.

Refrigerated trucks can generally hold 25-30 bodies without additional shelving, although it would not be consistent with traditional dignity practices for remains to be placed directly on the floors of trucks without a shelving or pallet system. To increase storage capacity and to support respectful body storage, temporary wooden shelves can be constructed of sufficient strength to hold the bodies, but should ideally be painted with enamel paint to facilitate washing and disinfection. Shelves should be constructed in such a way that maintains dignity of the decedent and allows for safe movement and removal of bodies (e.g. storage of bodies above waist height is not recommended). To prevent liability for business losses, municipalities should avoid using trucks with markings of a supermarket chain or other companies, as the use of such trucks for the storage of remains may result in negative implications for business.

Arenas and curling rinks, where the required temperature of 4°-8°C can be maintained, may be other options for temporary morgues. Municipalities should consider whether they can maintain ice in arenas through the spring and summer to maintain ideal temperatures for this purpose. Using 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 human remains at these sites can be very serious, and may result in negative impacts on business with ensuing liabilities.

In the unlikely event that an unidentified person dies of COVID-19, every effort must be made to identify bodies and to notify next of kin. This may require alternative systems and procedures to track bodies, outside of typical practice, in the case of temporary morgues. Burial of bodies in mass graves (i.e. indiscriminate burial of more than two bodies in the same hole with no identification of the bodies buried) is not justified on public health grounds and will have negative humanitarian consequences. Mass and commingled burials (pit burials) traumatize families and communities and may have serious legal consequences (i.e., inability to recover and identify remains) (3). However, in some cases, the orderly coordinated burial of identified remains in coffins in common trenches could be used to mitigate burial capacity issues.

### **Capacity of and Access to Vaults**

A vault is a non-insulated storage facility for remains that have been embalmed, put into caskets and are awaiting burial. In most places in Canada, extra storage facilities already exist, as they are often needed from January to April when the ground is frozen and burials are difficult to perform. Although larger cities may be able to open burial plots in winter, smaller communities do not have the equipment or permanent staff to do this.

The accessibility of vaults during the winter should be assessed. A vault may be situated in the back of cemeteries, with entrances that are partially below ground level or in close proximity to headstones, so that a snow blower or plough would have difficulty creating a path of access without damaging some headstones.

In preparation for a pandemic, each community should identify the capacity of existing vaults and address access issues for temporary storage. In addition, the need for the creation of new temporary vaults to meet the increased demand during a pandemic should be addressed. This temporary vault should be non-insulated and have some security features such as covered windows and locks on doors.

### **Other Technical Considerations Death Registration**

Death registration is a provincial/territorial (P/T) responsibility and each jurisdiction has its own laws, regulations and administrative practices to register a death. There is a distinction between the practices of pronouncing and of certifying a death. For example, physicians, nurses and, in some circumstances, police and paramedics in Ontario may pronounce a person dead. Only physicians and a small group of designated nurses in narrowly defined circumstances may certify death.

In a pandemic, if there is an increased number of deaths, each jurisdiction must have a plan in place to ensure that there is no unnecessary delay in moving remains of a deceased directly into the care of a funeral home, or to the (temporary) morgue. If the person's death does not meet any of the criteria needed for reporting to a coroner or medical examiner's service, then the remains could be moved to a holding area soon after death has been pronounced. Then, presumably on a daily basis, a physician could be designated to complete the death certificate to prevent delays in processing.

Funeral directors generally have standing administrative policies that prohibit them from collecting remains from the community or an institution until there is a completed medical

certificate of death. In the event of a pandemic with many deceased persons, funeral directors are encouraged to work out a more efficient process if directed by central authority (e.g. the provincial Attorney General, Registrar of Vital Statistics). These special arrangements should include consideration of the regional differences in resources, geography and population. Because of the long disease course of COVID-19 over days and weeks, it is unlikely that deaths will occur without opportunity for identification of the deceased. But in the event the identity is unknown, existing protocols and practices to identify the deceased individual should be followed. This generally includes a family representative identifying the deceased visually prior to disposition; it may be accomplished by photo recognition rather than having the next of kin attend the funeral home in person.

## **Handling of dead bodies**

For recommendations on handling dead bodies during the COVID-19 pandemic, please refer to *Interim guidance: Death care services and handling of dead bodies during the coronavirus (COVID-19) pandemic*

## **Supply Management**

Supply of some materials may experience disruptions and shortages. Families having multiple deaths are unlikely to be able to afford multiple expensive products or arrangements. Funeral homes could quickly run out of lower-cost items (e.g. inexpensive caskets made of cloth and some wooden caskets) and should be prepared to provide alternatives.

## **Social/Religious Considerations Special Populations**

A number of religious, ethnic groups and Indigenous communities have specific approaches about how bodies are managed after death. Indigenous peoples, and people of the Jewish, Hindu, and Muslim faiths all have specific directives for the treatment of bodies and for funerals and these needs should be accommodated as much as possible. These groups may represent close to 10% of the national population, which will vary significantly according to region. Regional and municipal planning should consider the size and age distribution of these communities to anticipate the types of services required. Religious and Indigenous leaders should be involved in planning for funeral management to ensure that funeral ceremonies continue to be culturally and religiously appropriate. Religious and Indigenous leaders should also be engaged for bereavement counselling and communications around acceptable solutions for end of life plans during pandemics, particularly in ethnic communities with large numbers of people who may speak a variety of languages. Where there is a need for burial in a home country or region for cultural or religious reasons, please refer to “Repatriation of dead bodies: in *Interim guidance: Death care services and handling of dead bodies during the coronavirus (COVID-19) pandemic*.

The wishes of the family will provide guidance. However, if no family member is available, local religious, ethnic or Indigenous communities can be contacted for information. For example, in the case of Indigenous peoples, if families are not available, mechanisms currently exist to communicate with band councils for this purpose (typically established to deal with archeological issues) and where the coroner or medical examiner is investigating the death, they should contact the band council of the deceased individual where this is possible. In other circumstances, the coroner or medical examiner may be directing the local municipality to arrange for disposition, for example, as occurs under the *Anatomy Act* in Ontario.

As a result of these special requirements, some religious groups maintain facilities such as small morgues, crematoriums, and other facilities, which are generally operated by volunteers. Religious groups should be contacted to ensure that these facilities and volunteers are prepared to deal with pandemic issues.

### **Remote and Isolated Communities**

Remote and isolated communities face particular issues in dealing with large numbers of deaths. The following factors make the preparation, storage and burial/disposal of large numbers of human remains very challenging in such communities:

- The lack of funeral service personnel and other resources
- The extreme cold weather and/or heavy snowfalls in winter result in difficulties with burials and with the transportation of remains
- In remote areas where families live vast distances apart, remains may have to be transported long distances for burial/disposition. This may be challenging for areas with few plane flights and no road access or with poor road surface conditions. The large distances also pose a challenge for the transportation of funeral directors and funeral supplies.
- Permafrost, boggy land and other geographical features also pose a challenge to transportation and burial.

Planners responsible for these jurisdictions should ensure that local pandemic plans address such issues.

Indigenous peoples have rich heritage and traditions relating to end of life practices and ceremonies. Often, trained funeral providers are not available to more remote locations and the handling of deceased persons is left to volunteer community members that handle the body and provide for the requirements associated with ceremonies and burial practices. Embalming is generally not available in these remote communities. Geographic remoteness and the difficulty to access these communities make it more difficult to provide assistance, resources and equipment. At a minimum, Personal Protective Equipment such as body pouches, gloves, masks, impermeable gowns, shoe and hair covers should be provided together with necessary information to educate potential users of the appropriate method for use and removal of Personal Protective Equipment. In some cases where requirements exceed capacity, temporary morgues may need to be established as outlined in the above section “Planning for Temporary Morgues”. Secure refrigerated sea containers could be used for temporary storage of remains if burial is not immediately possible due to seasonal restrictions. A refrigerated sea container can hold approximately 20 deceased persons in body pouches without racks. Refrigeration is generally presumed to extend the life of the virus on surfaces so extra care should be taken to ensure thorough disinfection and sanitization after use and while handling the remains.

Equipment and facilities used in the care and handling of a COVID-19 deceased should be disinfected and sanitized in a consistent and comprehensive protocol for cleaning and personal hygiene. A diluted bleach solution (0.1% sodium hypochlorite) or 70% ethanol may also be used to disinfect, as these solutions are expected to significantly reduce coronavirus infectivity on surfaces within 1 minute (1). Regular household cleaning products are not sufficient to disinfect surfaces contaminated with SARS-CoV-2 in a mortuary care setting. Please refer to instructions on [Hard-surface disinfectants for use against coronavirus \(COVID-19\)](#), and Health Canada's approved [List of hard-surface disinfectants for use against coronavirus \(COVID-19\)](#). *Interim guidance: Death care services and handling of dead bodies during the coronavirus (COVID-19) pandemic* contains information that is relevant to handling of dead bodies in Indigenous communities in remote areas. Advice on burial by family members or for deaths at home can be found in the World Health Organization's [Infection Prevention and Control for the safe management of a dead body in the context of COVID-19](#), noting that the Public Health Agency of Canada recommends 2 metres of distance for those observing the preparation of the body, greater than the 1 metre minimum suggested by the World Health Organization.

### **Homeless populations**

Homeless and transient populations present a unique challenge in the event of pandemic related deaths. Some deaths from COVID-19 will occur among hospitalised homeless patients, while other deaths may occur out of hospital in a shelter setting or on the street for those who were unable to access medical care. Every effort should be made to identify the deceased through communication between hospitals, police, other health and social services and homeless shelters. Follow local and regional procedures, and prioritise notification of family members to allow for burials or ceremonies that will alleviate anxieties and grief of the bereaved. In some cases, municipalities/regions may need to plan for an increase in remains where next of kin cannot be immediately identified or no claimant could be located. Jurisdictions may consider reducing or waiving waiting periods for disposition of unclaimed remains to avoid exacerbating future surges.

### **Considerations for community deaths**

Although the majority of deaths from COVID-19 have been in hospitals, authorities that will manage dead bodies in the community, such as paramedics, police and general practitioners, should have access to Personal Protective Equipment. This is particularly important if they have reason to suspect that the deceased was a COVID-19 case. Please refer to *Interim guidance: Death care services and handling of dead bodies during the coronavirus (COVID-19) pandemic* for information on PPE and procedures for transporting and handling dead bodies. Workers should be advised of the current processes for where to bring bodies suspected or confirmed to have COVID-19 if they differ from the standard local protocol. In remote and isolated communities, deaths may occur in the community, and in some cases, bodies may be kept in family homes following death. In some cases, these bodies will later be moved by community members where other funeral service personnel are not available; communities should refer to *Interim guidance: Death care services and handling of dead bodies during the coronavirus (COVID-19) pandemic* for information on PPE and procedures for transporting and handling dead bodies. Advice on burial by family members or for deaths at home can be found in the World Health Organization's [Infection Prevention and Control for the safe management of a dead body in the context of COVID-19](#).

## **Psychosocial considerations**

### **Bereavement and grief support**

Although in general people will find their own ways to mark the loss of family and friends, some may need some specific psychosocial support to manage their grief, particularly in the face of multiple losses and the uncertainty of more, the absence or disruption of social support networks and, potentially the loss of a primary caregiver for a child or aging adult. Further, some survivors of COVID-19 may be faced with long-term physical health, employment, and other social issues that give rise to a grief reaction.

Psychosocial teams should work closely with those engaged in the planning for and delivery of coroners' and funeral related death care service providers to establish an integrated response to the needs of bereaved individuals and families. Particular attention should be paid to the potentially unusual arrangements that may need to be employed to address a lack of adequate resources (human or material) to deal with the volume of human remains and the increased need for coroners' mortuary and burial services that may occur during the COVID-19 pandemic. The extent of the demand may interfere at times with the burial and service wishes of the bereaved, which in turn may generate complications in the grieving process. Psychosocial teams should include or partner with those involved in the delivery of spiritual and religious care and support.

Encourage the use of technology when making funeral arrangements or holding bereavement rights and ceremonies. Phone, email, or video are good alternatives to a physical meeting, and consider e-signature applications to sign required paperwork (documentation). Webcasting or other virtual technology can be used during services to assist with the bereavement process, particularly for those who may otherwise have not been able to attend. Funeral associations are already assisting to educate and facilitate these options.

Publicly orchestrated events (commemorations, public memorial ceremonies) can provide citizens an opportunity to mourn collectively, and these events recognize both the shared individual and collective or social impacts of the pandemic. Such events can enhance the psychosocial healing process for individuals, organizations and communities, and should be considered once the pandemic has become manageable and mass gatherings are no longer a high-risk activity. The psychosocial importance of saying goodbye one last time in a safe non-medical environment is important for grieving families and their mental health.

Given the possibility of a surge in deaths or mass fatalities stemming from COVID-19, funeral service personnel and others who handle dead bodies may be at increased risk of mental health challenges such as Post-traumatic Stress Disorder. Psychological assistance should be considered for these sectors.

1. Kampf G, Todt D, Pfaender S, Steinmann E. Persistence of coronaviruses on inanimate surfaces and their inactivation with biocidal agents. *Journal of Hospital Infection*. 2020;104(3):246-51.
2. World Health Organization [Infection Prevention and Control for the safe management of a dead body in the context of COVID-19](#) (WHO reference number: WHO/2019-nCoV/IPC\_DBMgmt/2020.1)
3. Pan American Health Organisation. 2006. Management of Dead Bodies after Disasters: A Field Manual for First Responders. ISBN 92 75 12630 5  
[https://www.icrc.org/en/doc/assets/files/other/icrc\\_002\\_0880.pdf](https://www.icrc.org/en/doc/assets/files/other/icrc_002_0880.pdf)