KENYON INTERNATIONAL EMERGENCY SERVICES

COVID-19: Planning Factors and Expectations

1. A larger number of deaths from COVID-19 could exceed capabilities of local medical examiners, coroners, hospitals and funeral service providers.

2. Because of reduced working capacity / hours / staff distancing, the completion and issuance of death certificates, release documentation, transit, burial and cremation permits could take much longer than usual, resulting in the need for increased holding capacity at the government level.

3. Because of limitations on gatherings of people and shelter in place requirements, funerals could be delayed, resulting in the need for increased holding capacity at the funeral service level.

4. This is not a short-term problem and operational requirements should take into account needs lasting for six to eight months in some areas.

5. Supplies used for the care of the deceased, such as PPE or human remains pouches, may be hard to replenish.

6. Certain jurisdictions, most notably those that have large at-risk populations or facilities with large concentrations of people unable to achieve social distancing (e.g.; correctional facilities), could experience spikes and sudden large numbers, despite efforts to flatten the curve.

7. Anecdotally, the numbers of other deaths, such as those from violent crime, may decrease due to bar or venue closures that serve alcohol and attract large crowds.

8. Anecdotally, there is likely to be an increase in suicides.

Key Planning Areas

1. **Autopsy**

    a. Decision
    b. Protocol
    c. Sample Collections

2. **Establishment and Operation of Temporary Holding & Autopsy Areas**

    a. Layout & Flow
    b. Staff
    c. Data Management
    d. Other Considerations

3. **Public Communications**

4. **Final Thoughts**

Planning Considerations

1. **Autopsy**

   a. **Decision**

   Will you test all deceased for the presence of COVID-19?

   b. **Protocol**

   What are your protocols for those deaths suspected of illness only and will you perform an autopsy on those individuals?

   People who have died of trauma, homicide, drug overdose may also have COVID-19 and testing may be needed as part of contact tracing or for other reasons.

   c. **Sample Collections**

   Attached to this document are the latest recommendations on postmortem specimen collection from the US Centers for Disease Control (CDC).

   Consider standardizing the cause / manner / mechanism of COVID-19 deaths for data collection.

2. **Temporary Holding & Autopsy Areas**

   This is a logistical issue and one that can be straightforward to solve. It will require resources and we recommend that you consider establishing these as joint areas between large hospitals and municipalities.

   a. **Layout & Flow**

   Select an area that can accommodate several refrigeration trailers which can be placed side by side and connected to a single large generator or consistent power source.

   Build an internal racking system (plywood works) within those trailers, remembering to keep extra area around the refrigeration unit clear for air circulation.

   Connect external temperature monitoring / alarm systems to each trailer.

   Build access ramps for gunnery use.

This area should also have security and should have as much as possible shielded by a tent-type structure. At a minimum, it should cover the open part of the trailers and any movement of human remains.

There should be an office area for staff to manage paperwork; an area to collect noninvasive postmortem samples, as needed; an autopsy area, if required by your circumstances; a personal effects storage area; an area to change into PPE; and hygiene facilities.

b. Staff

Staff should be organized into basic functions, each with training and checklists. We would organize them as:

Admins – for data management, tracking of documents and management of personal effects

Morgue / Autopsy Attendants / Funeral Directors – for the movement of human remains, to assist with noninvasive sample collections and, if qualified, for autopsy

Maintenance Specialists – for maintaining and checking on power and refrigeration equipment

Spiritual Advisors, as needed

Mental Health Support, available to staff

Security

c. Data Management

Mistakes that are made in mass fatality situations are often the result of bad data management. Using a system that all workers are familiar with, or one that is straight forward / simple, is crucial.

Establishing strict protocols for the receipt and release of human remains is also critical. This should include multiple barcode / machine-produced tags / bracelets attached to the deceased, the exterior of the human remains pouch and the number trailers.

Protocols will also be needed to match incoming release documents and authorizations to release the deceased to specific funeral service providers.

Consider a file system that includes a single folder for each deceased. Each folder should have a checklist that is issued as a final quality control document prior to release.

d. Other Considerations

Consider, if possible, an area where families can come for viewing, or a remote viewing station. This can be a single room but one that is isolated from the generator noise.

Location is very important. If it is a shared facility, a central location is best but look at the surrounding area. The term we have used for these facilities is “memorial park.” Think about what people see driving to it, about drive times, about the smells from nearby industries.

3. Public Communications

When this pandemic passes, and it will, people will look back and judge how we cared for the dead. While the numbers will increase, and people will be, at times, overwhelmed and exhausted, the dead should be treated with respect and dignity.

These types of facilities are not new. We have used them in multiple events, including those in the US, though, not very recently. There are still no new lessons, just new people learning old lessons.

The current focus has been on prevention. Now it has shifted to control. Undoubtedly, as the number of dead increases, so does public awareness and media awareness of issues in fatality management. Governments, Hospitals, Funeral Directors and Vital Records Offices should be ready with handouts or information on what families / public should expect and how your agencies / groups are prepared to deal with the increased numbers.

In my experience, talking about the deceased and plans for handling large numbers scare political leaders and others. A straightforward approach is to not focus on the numbers. I remind people that each deceased is a person who had a family and loved ones. I explain that our plans for their dignified treatment are scalable and that we are capable of responding to the surges of increased deaths and the resultant delay in releases.

4. Final Thoughts

While it may be prudent to plan for numbers that will require mass internment, I would focus on the above first. I will write and produce some considerations for mass graves, though, my expectation is we do not reach that point at this stage.

From the US CDC

If an autopsy is performed, collection of the following postmortem specimens is recommended:

- Postmortem clinical specimens for testing for SARS-CoV-2, the virus that causes COVID-19:
  - Upper respiratory tract swabs: Nasopharyngeal Swab AND Oropharyngeal Swab (NP swab and OP swab)
  - Lower respiratory tract swab: Lung swab from each lung
- Separate clinical specimens for testing of other respiratory pathogens and other postmortem testing as indicated
- Formalin-fixed autopsy tissues from lung, upper airway and other major organs

If an autopsy is NOT performed, collection of the following postmortem specimens is recommended:

- Postmortem clinical specimens for testing for SARS-CoV-2, the virus that causes COVID-19, to include only upper respiratory tract swabs: Nasopharyngeal Swab AND Oropharyngeal Swab (NP swab and OP swab)
- Separate NP swab and OP swab specimens for testing of other respiratory pathogens

Source: https://www.cdc.gov/coronavirus/2019-ncov/hcp/guidance-postmortem-specimens.html