



Mass Fatality Planning For Hospitals


Presented by
Iowa Department of Public Health
Center for Disaster Operations and Response
and the State Medical Examiner's Office
Iowa Homeland Security & Emergency Management
Iowa Funeral Directors Association

January 16, 2008


Welcome

- Special offering by CDOR
- Multiple sites linked to the broadcast
 - ICN, Telemedicine, webcast and R5 Tandberg
 - Archived webcast available
- High numbers of participants
- Program is funded through federal preparedness grants



Thanks

- State Medical Examiner's Office
- Iowa Homeland Security and Emergency Management
- Iowa Funeral Director's Association
- University of Iowa, Center for Public Health Preparedness



Technical Considerations

- Due to high number of sites and participants – no question/answer period
- Audio or visual issues – contact your site coordinator
- Please do not depress your microphone during the presentation



Speaker's Slides

- Slides have been posted on the following website
http://www.idph.state.ia.us/adper/education_training.asp
- Archived webcast viewers have access to slides upon launching the course



Evaluation and Sign-in Sheets

- Fill out an evaluation at the end of the session

Return evals and sign-in sheets to:
Iowa Department of Public Health
Center for Disaster Operations and Response
321 E. 12th Street
Des Moines, IA 50319
515-281-0488 (fax)



Speakers

- John Kraemer – State Medical Examiner's Office
- Craig Kramer – President, Iowa Funeral Director's Association/Kramer Funeral Home
- Stu Turner – Iowa Homeland Security and Emergency Management



John Kraemer

State Medical Examiner's Office
Iowa Department of Public Health

Mass Fatality Planning For Hospitals

The purpose is to provide guidance to hospitals and their community partners to prepare for an infectious disease event that may result in a regional or state mass fatality response.



Program Objectives

- Describe Iowa's Medicolegal System
- Define Roles and Responsibilities
- Discuss Hospital Mass Fatality Planning
- Discuss Supply and Equipment Needs



Types of Decedent Flow Patterns

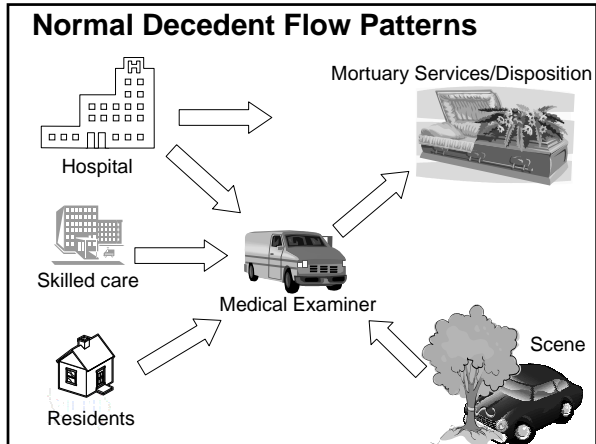
- Normal
- Acute or Immediate
- Long-term (infectious)



What is a Mass Fatality Event

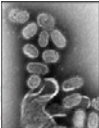


An event that causes more deaths than can be adequately managed by *intact* community resources and processes

Such an incident can be acute or long term



Types of Mass Fatality Scenarios

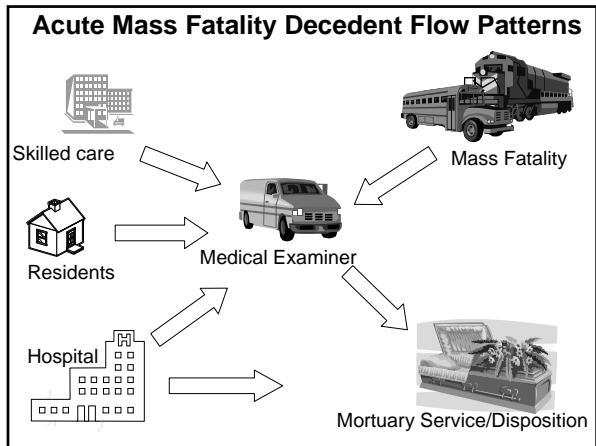
- Natural Disasters
- Mass Transportation Accidents
- Industrial Accidents
- Acts of Terrorism
- Pandemic/Infectious Diseases

Acute or Immediate Mass Fatality

- Limited in duration
 - Usually executed within 1 to 3 operational periods
 - Usually a single event in one location

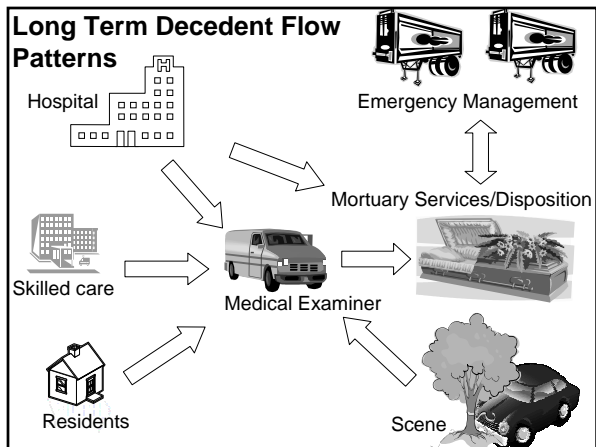
United Flight 232 (1989) 111 dead
Denison Grain Rail Car (2002) 11 dead
- Number of deaths or probable deaths are usually immediately known



Long-Term Mass Fatality

- Unknown in duration
 - Usually lasting many operational periods
- Extended over a large geographical area
- Incident will likely be a disease process (pandemic), an act of terrorism or natural disaster

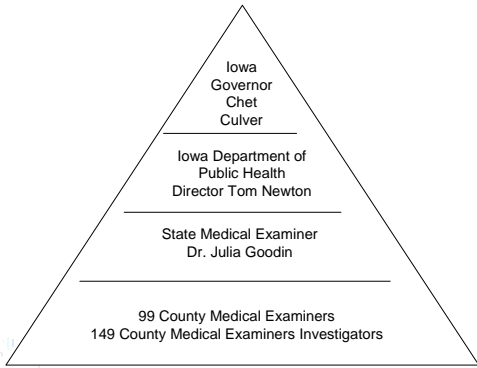
Canada SARS Outbreak (2003)
 Hong Kong Flu (1968-69) 34,000 dead (US)



A mass fatality event may result in changes of normal patterns of resource availability and responses in which we normally would expect



State of Iowa Medicolegal System



State of Iowa Medicolegal System

- 99 Physician County Medical Examiners
149 Medical Examiner Investigators

- Responsible for investigating deaths that are violent, suspicious and /or unnatural
- Responsible for investigating deaths that occur in or out of hospitals
- May defer decedent to the State Medical Examiner for further investigation or autopsy



County Medical Examiner's Role in a Mass Fatality Event

- County Medical Examiner
 - Assist in identification
 - Determine if an autopsy is necessary
 - If an autopsy is not necessary, determine cause and manner of death and certify death
 - Release bodies to funeral homes chosen by the next-of-kin



State Medical Examiner's Role in a Mass Fatality Event

- State Medical Examiner
 - Assist and confirm identification of decedent
 - Perform investigation/autopsy to determine cause and manner of death
 - Certify deaths
 - Release bodies to funeral homes chosen by the next-of-kin



Response Capabilities in an Acute Mass Fatality Event

- Staffing normally unaffected
- Resources briefly extended
- Short duration



Response to a Long-term Mass Fatality Event

- Decrease in staffing due to sickness or social commitments of responders and providers
- Extended mitigation
- Operational resources may be compromised
- Increase mortality resulting in delays in the processing of the decedents



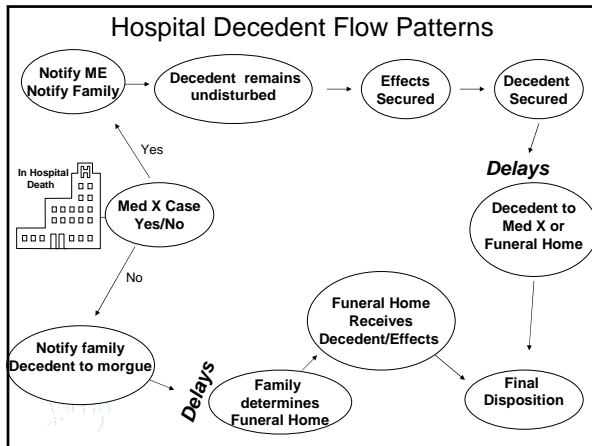
Medical Examiner's Perspective of a Pandemic Mass Fatality Event

- Initial deaths will be investigated documenting that the disease is now prevalent in Iowa
- Not all deaths will fall under Medical Examiner jurisdiction
- Investigations will then focus on out of hospital deaths
- Priority for decedent management will be out of hospital deaths ie. scenes and residences

Medical Examiner Quick Summary

- Acute Phase
 - Deaths in emergency rooms and operating rooms
- Sub-Acute Phase
 - Deaths in Critical Care areas
- Chronic Phase
 - Deaths occurring on general floors

*Normal daily caseload still continues



Hospital Mass Fatality Planning Considerations

- Anticipate Delays
- Institutionalize the Plan
- Postmortem Care

Hospital Planning Considerations

Anticipate Delays

- Develop your plan to temporarily secure decedents and their personal effects
- Determine your institutions trigger mechanism

Hospital Planning Considerations

Institutionalize

- Determine a storage area
 - Separate from patient care and general public
 - Restrict access
 - Close to non-public exit
 - Climate controlled
- Administrative
 - Medical records
 - Death certificates
 - Chain of custody



Hospital Planning Considerations

Postmortem Care

Equipment/Environmental Considerations

- Sealed body bags
- Restricted access
- Climate controlled
- Dignity



Craig Kramer

President
Iowa Funeral Director's
Association

Funeral/Mortuary Service Response to Mass Fatality

- Funeral service is already resilient
 - Handle surge within normal operations
 - Carries supplies for 2 – 6 months
- Response time may vary according to nature of incident and location of decedent
 - Acute or Immediate
 - Long term



The Funeral Experience Needs Do Not Change

- Organized, purposeful, group centered, time limited reaction to loss
- Public affirmation of loss
- Socially accepted time to grieve
- Ritual has been around since the dawn of humankind
- “A good funeral gets the dead where they need to go and the living where they need to be.” (Thomas Lynch, Funeral Director, Author, Poet)



Removal or Release

- Be aware of time factors
 - Receive Notification
 - Dispatch
 - Get Equipment
 - Cot/Body Bag/Stretcher/Gloves/Mask/ID
 - Tags/Vehicle
 - Paperwork
 - General Price List/Information Packet
 - Travel to location



Removal or Release

- Prepare body for transportation
 - Cot
 - Body bag and seal
- Transfer remains to funeral home or location specified by ME
- Prepare for disposition or await autopsy



Embalming Defined

- Chemical disinfection and preservation of dead human remains.
 - Aesthetic
 - Disinfection
 - Preservation
 - Restore natural appearance - viewable
 - Legal
 - Communicable disease
 - 48 hour rule
 - Transport by common carrier



Process of Embalming and Beginning of Restorative Art

- Assess the Body
- Set Features (disinfect and close eyes and mouth, shave, clean, position body)
- Find Injection Points
- Determine and Mix Chemicals
- Inject Using Vascular System
- Preserve Untreated Tissue Hypodermically or Topically
- Treat Cavity
- Sew Incisions, Control Leakage
- Bathe and Dry, Dress, Cosmetize and Casket
- **Time involved**



The Arrangement Conference

- Gather information (death certificate and obituary)
- Planning a meaningful event
- Setting the schedule of events
- Selection of appropriate services and merchandise
- Communication regarding restorative efforts
- Coordination with clergy, disposition, friends, florists, suppliers, caterers, obituaries, accommodating special requests/disabilities

Spring

Disposition Options

- Earth Burial
 - Grave space in a cemetery
- Cremation
 - Identification
 - Permit and authorization
 - Incineration
 - 1600 - 2200 degrees
 - Reduce human remains to bone fragments and ash
 - Pulverization
 - Inurnment
 - No Commingling
 - Disposition of cremated remains

Spring

Funeral Home Acute Mass Fatality

- Limited in Scope
 - Numerically
 - Single funeral service can rely on nearby colleagues for help and supplies
 - Geographically
 - Local incident
 - Will not have to go far for help or supplies
 - Temporarily
 - Funeral services can probably handle limited surge for two months

Spring

Funeral Home Long Term Mass Fatality

- Broad in Scope
 - Numerically
 - Could be expressed in percentage of population
 - Our staff will be compromised also
 - Geographically
 - Regional rather than local
 - No outside help
 - Temporally
 - Surge may double death rate for 6 – 18 months



Seasonal Influenza

- Globally - 250 - 500 Thousand Deaths Per Year
- US - 36 Thousand Deaths Per Year
 - Greater Than 200 Thousand Hospitalized
 - \$37.5 Billion In Economic Costs



Pandemic Ever-Present Threat

- 1918 Spanish Flu
 - Severest on record
 - Chosen as model for level of preparedness
- 1957 Asian Flu
- 1968 Hong Kong Flu

- Plan Now
 - Rather Than Be Tomorrow's Headlines



Mortuary/Funeral Services Role

- Funeral Services and Final Disposition
 - Priority Deaths Will Be Out of Hospital
 - 1.Home/Scene
 - 2.Medical Examiner
 - 3.Hospital/Skilled Care
 - Respect and Dignity



Mortuary/Funeral Services Role

- Funeral Services and Final Disposition (cont.)
 - Family Assistance
 - Provide info rather than gather
 - Mandated Protocols
 - Limited Public Gatherings
 - Private graveside services
 - Reporting
 - Timely and Accurate Death Certificates



Mortuary/Funeral Services Needs

- Time
 - Storage and Transportation of Remains
- Priority Access to Resources
 - "First Responder Status"
 - Vaccine, Fuel, Utilities, Labor, Supplies, Transportation, Security, Communication Bandwidth
- Licensing and Rules Considerations
 - Communication and Cooperation With EMA, ME and Board of Mortuary Sciences



Stu Turner
Iowa Homeland Security and
Emergency Management

**Emergency Management's
Perspective to a Mass Fatality Event**

- Resources and response personnel may be diminished by the event
- Emergency Management's mass fatality plan is responsive to the community
- Emergency Management's mass fatality plan will assist in supporting the institution

**County Emergency Management
Agencies**

- Play a support role to the hospitals during a mass fatality event
- County EMA will have a lead role in securing needed resources
 - Refrigerated trucks
 - Dry ice

Emergency Management
Considerations

There could be multiple events occurring simultaneously, involving County Emergency Management staff/resources

How will multiple events be handled?

Emergency Management
Considerations

Many resources identified for use by a hospital during a mass fatality event may be already in use.

What are the backup plans for personnel and resources?

Emergency Management
Considerations

Hospitals in the neighboring counties may be at or beyond capacity.

What are the plans for acquiring additional medical support?

Emergency Management Considerations

There are contingencies in Emergency Management for acquiring additional staff/resources during a disaster i.e. mass fatality



Emergency Management Assistance Compact (EMAC)

- Ratified by Congress in 1996
- Mutual Aid agreements between states
- Administered by the National Emergency Management Association (NEMA)



Iowa Mutual Aid Compact (IMAC)

- Signed into law in 2002, based upon EMAC
- Voluntary, Cities and Counties signed on, activated by a local/state disaster declaration
- 92 Counties and 442 Cities have signed on (January 2008)



Questions and Next Steps

- Forward your questions to:
david.keenan@idph.state.ia.us
- Questions will be collected
- Used as a format for a future broadcast sponsored by HSEMD
- February/March 2008 (tentative)



Reminders

- This session will be available as an archived webcast via Prepare Iowa (www.prepareiowa.com)
- Complete evaluations and forward to:
Iowa Department of Public Health
321 E. 12th Street
Des Moines, Iowa 50319
515-281-0488 (fax)



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