



SCHOOL OF PUBLIC HEALTH
UNIVERSITY AT ALBANY State University of New York

University at Albany
Center for Public Health Preparedness

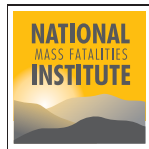
Grand Rounds Series



Speaker

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Sponsored by

Centers for Disease Control and Prevention (CDC)
Centers for Public Health Preparedness (CPHP)
Program

In collaboration with the
Association of Schools of Public Health (ASPH)

All Centers accessible at
www.asph.org/cphp

Call-In

Phone: 800-452-0662

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Evaluation

UAlbanyCPHP.org/evals

Nursing Contact Hours,
CME & CHES Credits Available

"Our purpose is not to change minds, but to open minds and to make the agony of decision making so intense that one can only escape by thinking."

Fred W. Friendly
"That Delicate Balance"

Mass Casualty Incidents

- Multiple victims requiring intervention by medical responders.
- Generally considered to be large number of injured
- May be a relatively small number if the community is overtaxed

Mass Fatalities Incidents

- Overwhelm locally available resources
- Fewer than *Mass* fatalities = *Multiple*
- Different for each community
- Factors:
 - Number of deaths
 - Scope of destruction/contamination
 - Rate of recovery

From America's Beginning



- Mass grave for the Mayflower voyage decedents in the winter of 1620

1900 Hurricane



- September 8, 1900
- Galveston, TX
- 8000 deaths in 18 hours
- 700 buried at sea
- Unknown number of mass burials
- Structures/bodies burned in lieu of removal



Influenza Pandemic - 1918

- Portage Township Cambria County, PA Prospect Cemetery
- 170 in mass grave
- 800,000 deaths in US 6 Million worldwide
- Other mass graves exist in US and Europe



1928 Florida Hurricane

- September 16 and 17, 1928
- Lake Okeechobee
- 2500 deaths
- 1600 in mass cremation and burial

Chicago – 1997



- 733 dead in heat wave
- 78 in mass grave
- Not a departure from normal process

NYC – Hart Island



- New York City “Potter’s Field”
- Over 750,000 burials in the largest cemetery in the US
- Ongoing use

U.S. Experience

- Historical US perspective is based on conventional incidents
 - Commercial air crashes
 - Local Natural disasters (Floods, tornados, etc.)
 - Focused violence (e.g. Murrah Building in Oklahoma City)

Earmarks of a Conventional Incident

- Single local site
- One geo-political jurisdiction
- Contained in a defined space
- Risk returns to zero after initial event
- Rapidly quantified damage and deaths
- Response peaks in hours to days

Conventional Incident

Response:
Peaks Within Hours to Days

Recovery:
Peaks Within Weeks to Months

Hospitals

- Will have victims in-house before agent is recognized and well before it is identified
- ED/In-patient staffs contaminated
- Will have potential problems with “locked-in” staff and “locked-out” visitors
- May not have Coroner/ME engagement



Fatality Management

DO:

- Create a consortium now
- Report deaths to appropriate authority (ME/Coroner/Public Health)

DON'T:

- EMS - don't move dead bodies
- Don't take ownership of a problem that isn't yours

REMEMBER:

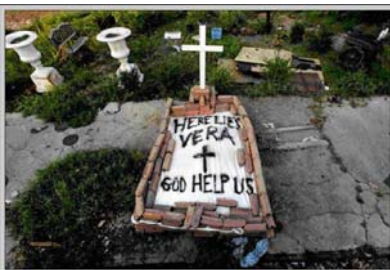
- Institutions cannot function in isolation
- Refrigerated storage may be an issue

Immediate Impact on Providers

- Genesis of incident may produce staff fatalities outright
- Staff members become secondary victims
- Refusal to work due to fear of exposure
- Refusal to work due to family safety risks

Psychological Impacts

- First wave of employee loss de-motivates others
- Remaining staff over-taxed physically and psychologically (Exacerbated with time)
- Acute, atypical incidents will cause individual shutdown
- Grief, stress and acute trauma will diminish staff efficiency and effectiveness



1. Memorial built on a New Orleans street corner on Sept. 11, 2001, in honor of a body that had been lying on the ground for days in the wake of Hurricane Irene.

WMD & Common Sense

- Understand the Agents of WMD
- Place the risks in context of reality
- Evaluate safety measures used now
- Understand decontamination basics
- Employ outside resources to help
- Focus on the one real threat

"If the oxygen masks drop from the overhead compartment, the first thing to do is...Stop Screaming!"



(Regional airline circa 1995)

"If you are traveling with a child, or someone who acts like a child, put on your own mask first."

Responding to WMD

- Measured, thoughtful plans
- Protection of response personnel

Recognizing WMD

Concussive event, perpetrators claiming credit for bombing

or

People become suddenly ill (6 Ps) in a common location and fill the EDs.

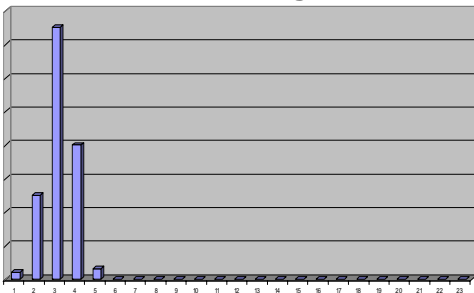
or

Unidentified illness stresses the primary medical resources in your area.

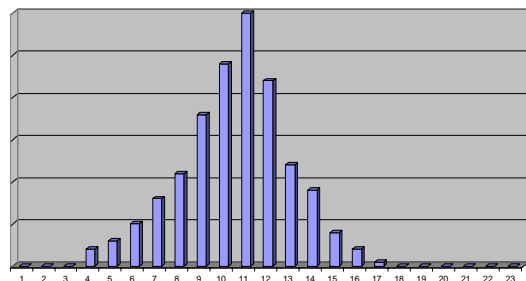
WMD: 3 Thresholds of Awareness

- Awareness of anomaly
- Agent identification
- Confirmation of natural vs. man-made

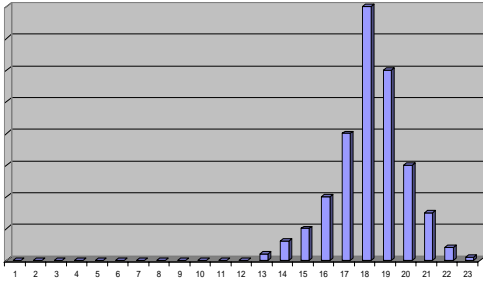
Epidemic Curve (per Hour): Chemical Agents



Epidemic Curve (per Day): Bacterial Agents



Epidemic Curve (per Day): Viral Agents



Biological WMD – Key Points

REMEMBER:

- Biologicals cannot be decontaminated
- All of the tools you need to stay safe are already in everyday use

DO:

- Protect your staff! (PPE is the rule.)
- Use universal precautions – and isolate
- Communicate with Public Health
- Use prophylaxis and pathogen specific treatment (Post Exposure)

Environmental Issues

- Contaminants will be captured and disposed of by commercial process
- Equipment must be decontaminated and may have to be discarded
- Facility will have to be decontaminated and may be destroyed



Plan Now for an Incident

- Plan to operate with diminished staff
- Understand local laws that govern disaster response and mass fatalities (Talk to Coroner/Medical Examiner)
- Explore refrigerated storage alternatives
- Initiate training for staff to cope with impacts of a large scale incident





Handling Human Remains

- **Do Not rush**
- Don't handle unidentified agent (*Requires PPE Level A indoors, B outdoors)
- Properly protect personnel
- Place in body pouch/bag and decon the outside with water/bleach/soap solution
- Place in second bag, tag clearly, and isolate from routine cases

Family Assistance

- Management of the needs of the family members of victims influence the level of success of the entire operation.
- Planning for a Family Assistance Center must be initiated immediately.
- Identify ownership of the process
- Purpose – Identification/reunification of victims with loved ones.



Pre Planning

- Routinely observe prescribed practices for personal protection
- Arrange with 911 to be notified of all anomalous events IMMEDIATELY!
- Plan, exercise and drill regularly and often
- Allow for psychological effects on staff
- Anticipate staffing shortages
- Stock Atropine, Pralidoxime Cl (2PAMCL), Diazepam and Lilly Cyanide Kit



Summary: Planning For Mass Fatalities

- Pre-plan, train, test the system
- Think. No imperative to rush
- Understand nature and scope of the threat
- Consult with other authorities
- Make flexible decisions
- Decon according to the agent
- Protect your personnel

Disposition Issues

- Routine embalming process and standard burial?
- High risk agent or overwhelming numbers require mass burial?
- Public Health Agency mandate cremation?

“Often times life’s journeys take us to places we never intended or wanted to go. How we behave along the way, what we learn and how we use that knowledge are the things that are important; not where we start or end.”

“In Search of Evil and the Perfect Donut”
– Rich Nable FCPD



‘Training for Tomorrow’

Self Awareness Consultancy, Inc.

www.sac-int.com

Evaluation

UAlbanyCPHP.org/evals

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January 11, 2007

Engaging the Public in
Pandemic Flu Planning

Roz D. Lasker, MD - Director, Division of
Public Health and Director, Center for the
Advancement of Collaborative Strategies
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Medicine