WHO Conference on Health Aspects of Tsunami Disaster in Asia

Phuket, Thailand
4–6 May 2005
DISASTER PLANNING FOR MASS FATALITY MANAGEMENT

PROTECTING THE PUBLIC HEALTH

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Director of Investigations
Office of Chief Medical Examiner
City of New York
EFFECTIVE MASS FATALITY MANAGEMENT:

A public health function which ensures the safety of the living through examination and appropriate processing of the dead.
MEDICAL EXAMINER PROTOCOLS

• Determine cause and manner of death
  Discovery of the sentinel case
  Identification of the agent

• Final Disposition of remains
  Decontamination
  Containment of the agent
NEW THREATS?

- Emerging biological agents
- Terrorism
- Hazardous material use
- Nuclear waste
ALL DISASTERS ARE GLOBAL

SMALLPOX

NEW YORK

BANGKOK

JAKARTA

PARIS

RIO DE JANIÑERO

BEIRUT
WHAT SHOULD YOU PLAN FOR FIRST?

What disasters are you likely to face?
THE BIG QUESTIONS

• WHO IS IN CHARGE?
• WHO WILL DO THE WORK?
• WHERE WILL THEY WORK?
• WHAT WILL WE DO?
• HOW WILL WE DO IT?
• WHAT DO WE NEED?

• WHY ARE WE DOING IT??
Disaster Planning
Short Term

- Work space for external staff
- Overnight accommodations
- Food
- Procurement, delivery and storage of supplies
Disaster Planning  
Long Term

• Expand your staff to meet workload
  – Managers
  – Line staff
  – Support staff

And find the money to pay for it all…
FIND THE KEY PERSON

USE HIM OR HER TO:

GATHER INFORMATION

COORDINATE THE AGENCY DEPARTMENTS

GET TRAINING FOR THE TEAMS

DEVELOP PLANS
Federal

- U.S. Department of Homeland Security, Center for Domestic Preparedness, Anniston, AL.
- Federal Bureau of Investigation, W.M.D. Coordination Unit, New York, NY
- Homeland Defense, Improved Response Program, Aberdeen Proving Ground, MD
- National Disaster Medical System, Weapons of Mass Destruction Team (DMORT-WMD), Rock Hill, SC
- U.S. Center for Disease Control, Medical Examiner and Coroner Information Unit, Atlanta, GA

- U.S. Department of Health & Human Services, U.S. Public Health Service, Regional Emergency Coordinator, New York, NY
- Homeland Defense, Crisis/Consequence Management, Counter Terrorism Operations Support, Las Vegas, NV
- U.S. Department of Justice, Center for Domestic Preparedness, Anniston, AL
- U.S. Occupational Safety & Health Administration, New York, NY
Local

- FDNY Training Division, HAZMAT Team, Randal's Island, NY
- NYPD Forensic Investigation Division, Jamaica, NY
- NYPD Emergency Services Unit, Hazmat Team, Floyd Bennett Field, NY
- NYPD Counter Terrorism Bureau, New York
- NYPD Arson and Explosion Squad, New York, NY

- City of New York, Office of Emergency Management, Brooklyn, NY
- Bureau of Emergency Management, Department of Health & Mental Hygiene, New York, NY
- New York State, Department of State, Office of Fire Prevention and Control, Albany, NY
Private Sector

- Titan Systems Corporation, Emergency Management Division, Gunpowder, MD
- Kenyon International Emergency Services, Houston, TX
- Modec Inc, Denver, CO
- EAI Corporation, Technical Emergency Response Training, Anniston, AL
- National Association of Medical Examiners
- Bechtel Nevada, Las Vegas
- National Funeral Directors Association
- Sandia Labs, NM
- Louisiana State University, National Center for Biomedical Research and Training, Baton Rouge, LA
United States Military

- U.S. Army Mortuary Affairs Center, 54th Quartermaster Unit, Ft. Lee, VA.
- 2nd WMD Civil Support Team, Scotia, NY
- Joint Task Force Civil Support – (JTF-CS) United States Northern Command, Ft Monroe, Hampton, VA
- U.S. Army SBCCOM, Aberdeen Proving Ground, MD
- New York State Army National Guard, Safety & Occupational Office, Latham, NY
- USAMCICD, Chemical Casualty Care Division, Aberdeen Proving Ground, MD
- USAMRIID, U.S Army Institute of Infectious Diseases, Ft. Detrick, MD
- AFRRI, Armed Forces Radiobiology Research Institute
- AFIP, Armed Forces Institute of Pathology:
  - Chief Medical Examiner
  - DNA Lab
NYC OCME SPECIAL OPERATIONS

OCME HAZMAT TEAM
43 members total

CORE TEAM
16 Hazmat Technicians

SUPPORT
27 Hazmat Operation Level Specialists

MLI (17)
15 HT
1 OPS
1 AWR

EVIDENCE (12)
2 OPS
10 AWR

DNA (28)
21 OPS
7 AWR

OPERATIONS SUPPORT (5)
1 HT
1 OPS
3 AWR

MORTUARY SERVICES (2)
2 AWR

ME (2)
2 OPS
OCME CERTIFICATIONS

AWARENESS LEVEL CERTIFICATION
• OSHA Hazmat Awareness Cert. (4 hrs)
• DOJ WMD Awareness Cert. (4 hrs)

OPERATIONS + LEVEL CERTIFICATION
• OSHA Hazmat Operations Cert. (8 hrs)
• DOJ WMD Operations Cert. (8 hrs)
• NYFD SCBA Cert. (8 hrs)
• NYFD Chemical Protective Clothing Cert. (8 hrs)

CORE HAZMAT TEAM TRAINING & CERTIFICATION
• OSHA Hazmat Technician Upgrade Cert. (16 hrs)
• NYPD ESU WMD-Hazmat Technician Cert. (40 hrs)
• US DOE Radiological Hazmat Tech Cert. (40 hrs)
• US DOJ WMD Hazmat Tech (COBRA) Cert. (40 hrs)
• US DOJ Incident Command Course (24 hrs)
• US DOJ Emergency Response To Domestic Biological incidents (32 hrs)
NYC MASS FATALITY PLAN

Notification Phase

Activate Evaluation Team

Report to Incident Command Center

Assemble Joint Agency Fatality Evaluation Team

Plan Development & Implementation Phase

Establish Mobile Response Teams (MRT)

Establish Temporary Examination Centers (TEC)

Establish Body Collection Points (BCP)

Designate Staff for Disaster Service Center (DASC)

Designate Staff for Emergency Operation Center (EOC)

Fatality Evaluation Phase

Final Disposition Phase

Determine Transportation & Storage

Establish Offsite Morgue Operations
ID Flow Chart

Chart from processing area

MLI REVIEW

ID NO

FINGER PRINTS
DENTAL
DNA

MLI REVIEW

ID YES

ID YES/NO

CHECK FOR PRIOR DEATH CERTIFICATE

2ND VIP REVIEW

OCME NOTIFIES NYPD

ISSUE DEATH CERTIFICATE

NYPD NOTIFIES FAMILY

BODY RELEASED TO F/H

FAMILY NOTIFIES F/H

FAMILY GIVES F/H DM #
<table>
<thead>
<tr>
<th>BIO-AGENTS</th>
<th>HANDLING</th>
<th>EMBALMING</th>
<th>VIEWING</th>
<th>CONTAINMENT</th>
<th>BURIAL TYPE</th>
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<tbody>
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<td>SMALLPOX</td>
<td>Standard &amp; Contact Precautions</td>
<td>NO (5)</td>
<td>NO</td>
<td>BIO-SEAL AND / OR ZEIGLER CASE (3)</td>
<td>RESTRICTED PERMIT (2,4)</td>
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<td>RESTRICTED PERMIT (2,4)</td>
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<td>REGULAR</td>
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<td>TULAREMIA</td>
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1. If possible, personnel should be vaccinated prior to handling smallpox victims.
2. “Restricted Burial Permit” would be issued to limit handling and prohibit exhumation of remains.
3. Burial is an acceptable method of disposition if strict precautions are followed in accordance with CDC guidelines.
4. Cremation is the preferred method of disposition in cases of highly infectious agents such as smallpox and hemorrhagic fever viruses.
5. Embalming is a high risk, invasive procedure.
# CHEMICAL - RADIOLOGICAL

<table>
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<tr>
<th>AGENT</th>
<th>HANDLING</th>
<th>EMBALMING</th>
<th>VIEWING</th>
<th>CONTAINMENT</th>
<th>BURIAL TYPE</th>
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<td>NERVE</td>
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<td>VESICANT</td>
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1. Personnel should continue to wear PPE including an approved APR while handling previously decontaminated remains.
2. Embalming is a high risk, invasive procedure.
3. Burial may be acceptable. Cremation of contaminated remains is always the safest form of disposition.
4. A special category burial permit that would limit handling and exhumation should be considered if remains cannot be made "safe."
5. Due to the possibility of persistent, non-detectable contamination, remains should be placed in a containment device to ensure safety.
6. If radiologically contaminated remains cannot be made safe they should be placed into a containment device.
LESSONS LEARNED

• COMMUNICATE

• ASSESS THE SITUATION

• DEVELOP STRATEGIES
LESSONS LEARNED

• MAKE PLANS…
  but keep them flexible

• HOPE FOR THE BEST…
  but train for the worst
Office of Chief Medical Examiner
City of New York
Along With Federal, State, City, and Volunteer Organizations

THANK YOU

9-11-01