

**Track 2 – Hospital Preparedness**  
**Emergency Isolation & Treatment Shelter Solutions for**  
**Bed Surge Capacity in Disasters: Lessons Learned**  
**Saturday, February 5, 2005**      **10:30am ~ 11:30am**

**Emergency Isolation and  
Treatment Shelter  
(EITS)**

Presented by  
**Eric Poach, BS.Ed., EMT/P**

**Emergency Isolation and  
Treatment Shelter**

- Brief History of the Concept
  - 1999 Region 13 Reviewed the negative pressure isolation room capacity among its 65 member hospitals, total of 128 rooms. This was in preparation for a smallpox drill. The drill showed inadequate capacity.
  - Feb 2002 a contagious patient arrived at GPIA and was transported to Mercy Hospital of Pgh. The patient was held in ER in isolation.

**Emergency Isolation and  
Treatment Shelter**

- Hospital Issues
  - What are the regulations that interact with MMRS objectives.
  - Regulations that require decontamination and isolation.
  - Emergency management plans.

**Emergency Isolation and  
Treatment Shelter**

- JCAHO Regulations
  - Environment of Care Standard 1.4 The organization has an emergency management plan

This is the standard that describes a hospital's emergency management plan

**Emergency Isolation and  
Treatment Shelter**

- JCAHO intent:
- The emergency management plan identifies locations for radioactive, and chemical decontamination.
  - The plan must also identify the location for the isolation of patients exposed to a biological agent.
  - Establishment of alternate care sites.
  - Evacuation of entire facility.

**Emergency Isolation and  
Treatment Shelter**

- Where will a hospital evacuate patients that require isolation?
- Where can a hospital evaluate infectious patients?
- Can a hospital evacuate patients to a part of a facility that posses engineering controls to prevent cross contamination?
- What about hotels and public bldgs.?
  - Remember the Bellevue Stratton
  - We use it, recovery costs buy it.

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**Emergency Isolation and  
Treatment Shelter**

- End of Feb of 2002 a focus group of MMRS members assembled to brainstorm ideas.
- General outline and parameters established
- Working plan available March 2002
- Special project submitted in July accepted in August 2002 by MMRS.

**Shelter Requirements**

- Must be multi-purpose (isolation, day care, mass care...)
- Prevention of secondary cases
- Must fit with existing disaster plans
- Must be modular
- Quickly deployed
- Easy to decontaminate
- LOW COST

**Emergency Isolation and  
Treatment Shelter**

- Concept of Operations
  - Develop a transportable low cost facility for 6 different missions
    - An Isolation Facility either stand alone or attached to existing hospitals to assist with surge capacity
    - Shelter for Mass care
    - An acute care center
    - Neighborhood emergency Health Center
    - Immunization Center
    - Localized Command and Control Facility

**Emergency Isolation and  
Treatment Shelter**

- Isolation Facility
  - EITS can help existing facilities with bed surge capacity.
  - Free standing facility (500) bed
    - Goals:
      - 150 bed unit in 24 hours or less
      - 300 bed unit in 48 hours
      - 500 bed unit in 72 hours
  - 12-15 men working in 8 hour shifts for assembly
  - The should posses significant negative pressure capabilities

**Emergency Isolation and  
Treatment Shelter**

- EITS as mass care shelter
  - Shelter displaced as a result of natural or man made occurrence the American Red Cross defines a mass care shelter as:
    - Shelter from the elements
    - A place to eat
    - Central place to receive relief supplies

**Emergency Isolation and  
Treatment Shelter**

- As an acute care center
  - Capable to function as acute care centers in the event of local facilities being destroyed. Airflow requirement will be a plus
  - Must be able to accept military mobile surgical equipment :
    - USA DEPMEDS
    - USN Fleet Hospital
    - USAF SPEARS Unit

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## Emergency Isolation & Treatment Shelter Solutions for Bed Surge Capacity in Disasters: Lessons Learned

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### Emergency Isolation and Treatment Shelter

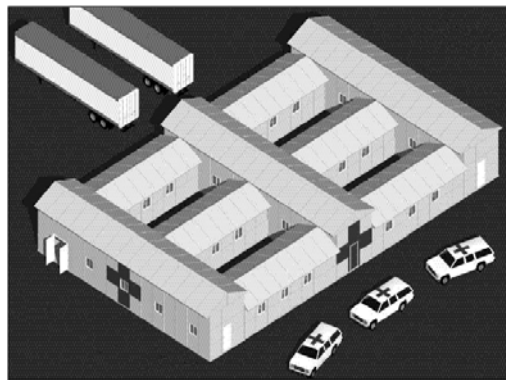
- Neighborhood Emergency Health Center
  - Deployed to provide primary care in areas where regular facilities are overwhelmed or destroyed.
  - Shall be able to accept an NDMS DMAT Level one Team
    - Minor casualty collection and triage
    - Primary care treatment and referral centers

### Emergency Isolation and Treatment Shelter

- Emergency Field Headquarters
  - Command and Control EOC for long term incident
    - Aircraft disaster and recovery
    - Sever Weather or flooding
  - Eating, Sleeping and sanitary facilities for the Command Staff and rescuers.
  - Regular incident action briefings and meetings

### Emergency Isolation and Treatment Shelter

- Community immunization center
  - In the event of an outbreak and patients that might be contagious and are seeking immunization can be triaged to an isolation section of the facility then immunized without the threat of contaminating an existing facility.



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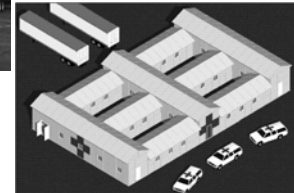
### Emergency Isolation and Treatment Shelter

- Keys to Success
  - A surveillance system
  - People system (RISC Team, Civilian Reserve Corp)
  - Shelter system EITS
  - The integration of Public Health function with Public Safety

### Emergency Isolation and Treatment Shelter



- Transport to specialized isolation & treatment facilities



### EITS Exercise September 2003

Photos by Paul Kapsar



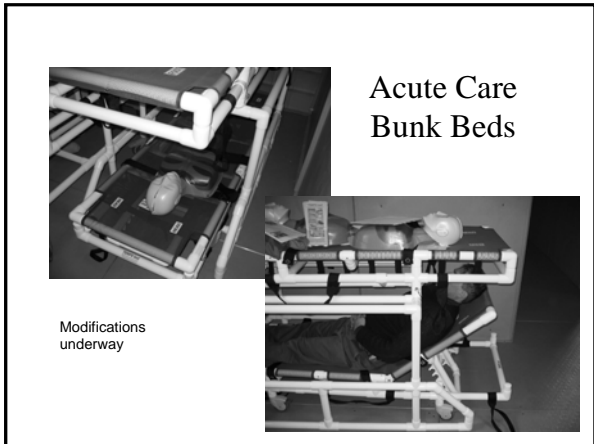
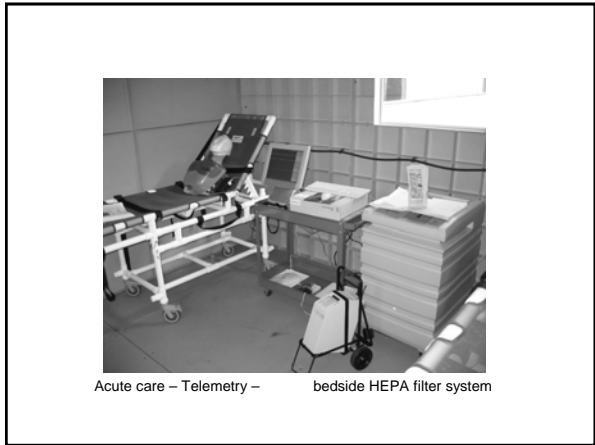
View from the Parking Lot



Front Door



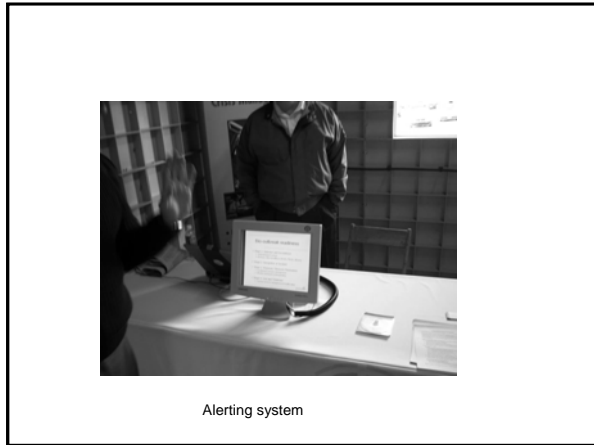
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### Bio-outbreak readiness

**Stage 1: Detection and Surveillance**  
epidemiological surveys  
electronic data surveillance (RODS, FREDS, NEDSS)

**Stage 2: Recognition of Incident**

**Stage 3: Response / Resource Mobilization**  
coordinated resource management  
effective alerting & communication ( Response of the Emergency Isolation and Treatment Shelter)

**Stage 4: Care and Treatment**  
ongoing resource management & reallocation

