

# Disaster Medical Operations: Surveillance, Mitigation and Recovery

David Persse, MD FACEP  
Public Health Authority  
EMS Physician Director  
City of Houston

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## Greater Houston

- 4<sup>th</sup> Largest City in US
- 4<sup>th</sup> Largest Airport System in World
- 8<sup>th</sup> Largest Seaport
- Oil Capital of World
- Space City, USA
- World's Largest Health Care Complex



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## Local Cooperation



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## HMMRS

- Houston Metropolitan Medical Response System
- Nunn-Lugar-Domenici WMD Act of 1996
- Training
- Equipment
- NIMS

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## Goals for the HMRS

- Enhance Local and Regional Surveillance Systems
- Mass prophylaxis of exposed or potentially exposed populations
- Mass patient care
- Mass fatality management
- Environment health surety

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## Components of the HMRS (Pre Season)

- Public Health
  - Surveillance Reporting/Capacity Monitoring
  - Vaccination
  - Education
  - Planning
- Law Enforcement
  - Intelligence Gathering/Analysis
- Fire/EMS
  - Monitoring
  - Training
- Houston Medical Strike Team

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## BioWatch

- Air Monitoring
- “Frequent” Sampling
- Undisclosed Number
- Undisclosed Location
- Undisclosed Capabilities
- “Positives”

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## Community Health Monitoring

- Pharmaceutical Sales
- ED Admission Chief Complaints
- Laboratory Testing
- SYNDROMIC SURVEILLANCE




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## Components of the HMRS (Game Day)



- Chem/Nuclear/Explos
  - Fire/EMS, Law Enforce.
    - Mitigation
    - Containment
    - Decon/Treatment
    - Investigation
  - HMST
  - Public Health
    - Epi
    - Quarantine, Isolation

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### Capabilities of the HMST Houston Medical Strike Team

- Identification of Agents
  - HFD Hazardous Materials Response Team (HMRT)
  - LABORATORY RESOURCE NETWORK



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### Capabilities of the HMST

- Perform Operations in
  - Level A
  - Level B
  - Level C



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## Capabilities of the HMST

- Enhanced Triage
- Treatment
- Decontamination




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## Components of the HMRS (Game Day)

- Pure Biologic Event
  - Public Health
    - Surveillance
    - Recognition
    - Epidemiology
    - Quarantine/Isolation
    - Vaccination
    - Mass Treatment
    - Maintenance of Health Care System
    - Mental Health Support
    - Public Info./Education




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## Capabilities of the HMRS

<ul style="list-style-type: none"> <li>■ Unified Command for Health Incidents               <ul style="list-style-type: none"> <li>- City</li> <li>- County</li> <li>- Region</li> <li>- State</li> </ul> </li> <li>■ Govt. Organizations               <ul style="list-style-type: none"> <li>- Veterans Administration</li> <li>- Dept. of Justice</li> <li>- Dept. of Defense</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>■ Hospital Organizations               <ul style="list-style-type: none"> <li>- HAHEMC</li> <li>- TMC</li> </ul> </li> <li>■ Other Health Care Organizations               <ul style="list-style-type: none"> <li>- Non-Governmental Organizations (MHMRA)</li> </ul> </li> </ul>
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## Capabilities of the HMRS

- Integrate State and Federal Agencies



Houston Department of Health and Human Services



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## Capabilities of the HMRS

- Maintain a Viable Health System





HOUSTON, YOU HAVE A PROBLEM

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## Capabilities of the HMST

- Maintain Local Caches to treat 1,000 Patients
- Initiate Treatment
- Decon
- Transport Uncontaminated/Decontaminated Patients

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### Hospital Preparedness Programming HAHEMC

- To upgrade the preparedness of the regional hospitals and collaborating entities to respond to bioterrorism.
- To develop and implement regional plans to improve the capacity of hospitals, their emergency departments, outpatient centers, and other collaborating health care entities.
- Enhance response to incidents requiring mass immunization, treatment, isolation and quarantine in the aftermath of bioterrorism or other outbreaks of infectious disease.

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### National Strategic Pharmaceutical Stockpile

Life-Saving  
pharmaceuticals,  
Antidotes, Medical  
supplies & Equipment



Will be received by the  
State of Texas then  
Redistributed

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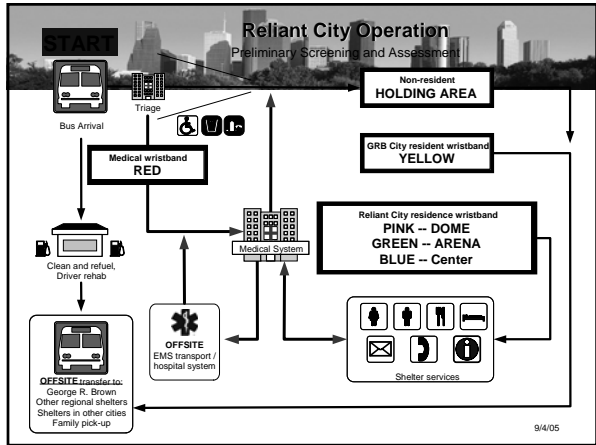
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### Awaiting "Medic C-130"



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### NDMS Triage in a Hangar



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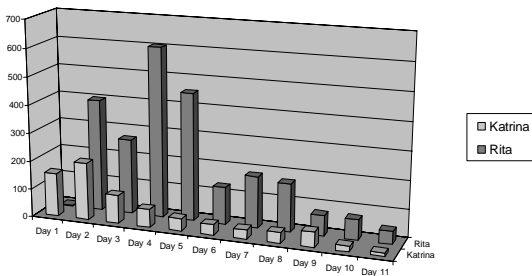
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### Comparison of DMUC Transfer Volumes Between Hurricanes Katrina and Rita



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# Houston Emergency Center



Houston Metropolitan Medical Response System

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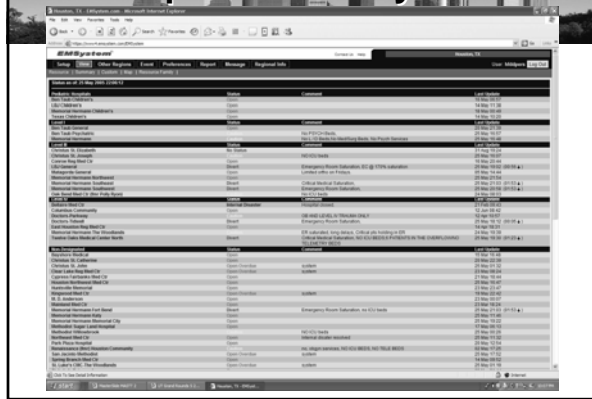
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# Hospital Status System



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# Thank You



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