A Thread of Preparedness Within Health Care
A National Disaster Healthcare System

David Marcozzi, MD, MHS-CL, FACEP
Director, National Healthcare Preparedness Programs
Office of Preparedness and Emergency Operations
Office of the Assistant Secretary for Preparedness and Response
Our Current Situation

• The United States health care delivery system is focused on cost reduction which includes service retraction resulting in “just-in-time” (JIT) operating principles and staffing.

• While United States health system emergency preparedness and response mechanisms are established and operational, they can be fragmented and are restrained by a JIT approach.

• The United States continues to experience overcrowding in emergency departments with limited mechanisms to reallocate patients throughout the hospital or the community.

• Our day to day system does not serve us well; therefore, it is not likely to serve us well on “game day.”

Darling, M, Wise, S.  Not Your Father’s Supply Chain, MATERIALS MANAGEMENT IN HEALTH CARE, APR 2010
Hospitals Failing to Address Patient Boarding (2012) www.acapnews.com/index.php?id=514&tx_ttnews%5Btt_news%5D=1555&cHash=2125d52f1ab0ae31328f2440243e7f70
National Healthcare System Capacity

Decreasing Capacity

Coalition Preparedness

100% Prepared

Gap

Coalitions

National Healthcare System Capacity
Preparedness and Health Care Delivery

Coalition Preparedness

100% Prepared

Gap

Coalitions

National Healthcare System Capacity

Preparedness and Health Care Delivery
• National Health Expenditures grew 4.0% to $2.5 trillion in 2009, or $8,086 per person, and accounted for 17.6% of Gross Domestic Product (GDP).

• 2010, hospital expenditures were $814 Billion (CMS)
  - According to the American Hospital Association, there are 5,754 hospitals in the United States
  -Average Hospital Expenditures = approx $141 million

• The Hospital Preparedness Program 2012 budget is $347 million (0.0001% of overall National Health Expenditures)
Our Current Need

- A comprehensive national preparedness and response health care system that is scalable and coordinated to meet local, State and National needs

- A dual use application to preparedness, integrating with and improving the efficiencies of daily health delivery

- A financially sustainable approach to preparedness

- A population based health delivery model for disaster response

- Defined Healthcare Preparedness Capabilities and Performance Measures
National Healthcare Preparedness Capabilities

1) Health Care System Preparedness *(Health Care Coalitions)*
2) Health Care System Recovery
3) Emergency Operations Coordination
5) Fatality Management
6) Information Sharing
10) Medical Surge *(Immediate Bed Availability)*
14) Responder Safety and Health
15) Volunteer Management

Health Care Coalitions (HCC)

- Alternative Care Sites
- Behavioral Health
- Community Based Organizations
- Community Health Centers
- Dialysis Facilities
- Emergency Management
- Emergency Medical Services
- Faith Based Organizations
- Hospitals
- Long Term Care Facilities
- National Disaster Medical System
- Primary Care Providers
- Public Health
- Private Insurance
- Urgent Care Facilities
- Volunteers
Health Care Coalition (HCC)
The New “Medical Surge”

1. Evidence Informed
2. Operationally Tenable
3. Economically Sustainable
4. Ethically Grounded
Immediate Bed Availability (IBA)

• Goal: To quickly provide higher-level care to more serious patients during a disaster with no new space, personnel, or equipment

• HPP 2012 Medical Surge Capability Performance Measure

• Ability (of coalitions) to provide no less than 20% bed availability of staffed members’ beds, within 4 hours of a disaster
• Engages a Health Care Coalition in response
• Builds on and strengthens daily delivery of care
• Promotes an integrated local, State and national health care system to respond to disasters
• Minimizes the need to transition to Crisis Standards of Care
• Provides definitive planning factors for victims in disasters
“Medical Surge”

Former Construct

New Construct
Immediate Bed Availability

**Hospital(s)**
- Stroke/MIs
- High Acuity Psychiatric patients
- ICU Patients
- Acute Surgical Patients
- Imminent OB delivery
  - Convalescing
  - Awaiting discharge
  - Behavioral Health Issues
  - Social Issues
  - Acute
    - Post Operative Patients
    - Elective Procedures Cancelled

**HCC Partners**
- Long Term Care
- Community Health Centers
- Home
Strategic Linkages

• National Disaster Medical System

• Implementation of the Patient Protection and Affordable Care Act

• Institute of Medicine Crisis Standards of Care
### IOM Crisis Standards of Care Work

Incident demand/resource imbalance increases  
Risk of morbidity/mortality to patient increases  
Recovery

<table>
<thead>
<tr>
<th>Space</th>
<th>Conventional</th>
<th>Contingency</th>
<th>Crisis</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Usual patient care space fully utilized</td>
<td>Patient care areas re-purposed (PACU, monitored units for ICU-level care)</td>
<td>Facility damaged/unsafe or non-patient care areas (classrooms, etc.) used for patient care</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Staff extension (brief deferrals of non-emergent service, supervision of broader group of patients, change in responsibility, documentation, etc.)</td>
</tr>
<tr>
<td>Staff</td>
<td>Usual staff called in and utilized</td>
<td></td>
<td>Trained staff unavailable or unable to adequately care for volume of patients even with extension techniques</td>
</tr>
<tr>
<td>Supplies</td>
<td>Cached and usual supplies used</td>
<td></td>
<td>Critical supplies lacking, possible re-allocation of life-sustaining resources</td>
</tr>
<tr>
<td>Standard of care</td>
<td>Usual care</td>
<td>Functionally equivalent care</td>
<td>Crisis standards of care</td>
</tr>
</tbody>
</table>

Normal operating conditions  
Indicator: potential for crisis standards$^6$  
Trigger: crisis standards of care$^c$

Source: IOM Crisis Standards of Care Report
Questions