10 Years of Emergency Management as Seen Through The Eyes of The Joint Commission

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Goals of Presentation

- Emergency Management at the end of the 20th Century
- What has changed in these 10 years?
- What has lagged behind?
- How to keep moving forward?
Brief Hx of Joint Commission and Emergency Management

30+ years of emergency management
- Disaster based planning
- Primary focus – Response to disaster
  - Snow storm
  - Tornado
  - Bus accident
  - Plane crash
- No large scale disasters
- Community’s healthcare structure assumed intact
- Evacuations within same building or local hospital
Revamping Emergency Management Standards

- By 2000; Urged by DoD, VA & others
- The world was a more dangerous place for US
- Little interest found in healthcare industry

TERRORISM NOT SEEN AS REAL THREAT
New Emergency Management Standards
January, 2001

- Hazard vulnerability analysis (risk)
- 4 phases of emergency response
  - Mitigation, Preparation, Response, Recovery
- All hazard approach
- Cooperative planning with near-by hospitals
- Integration with community response
- Scaleable response
Decision to start debriefings

Tropical Storm Allison
- Memorial Hermann Hospital – closed for a month
- Texas Children – never closed
- Connected by same tunnel system

Natural disaster could assess true resilience and planning

With some chance of extrapolation
Shortly Afterwards: 9-11-2001

- To the entire country, the unlikely event became likely
- Money became available
- Great interest in how to prepare
- The hospital emergency manager status elevated
- The largest number (in a 5 year period) of large scale disasters hit the US
First 5 Years of Debriefings
Hospital/Community Debriefings:

1. Power Outage – Summer 2003
2. S. California Wild Fires – Summer 2003
3. Hurricane Isabel – Fall 2003
4. SARS (Asia/Toronto) Spring 2003
5. Florida Hurricanes – August/Sept 2004
6. Hurricane Katrina – Sept 2005
7. Hurricane Rita - Sept 2005
8. Hurricane Wilma – Sept 2005
Critical Problems Surfaced Repeatedly

- Problems with communication
- Inadequate emergency generator backup
- Faulty Incident Command Systems
- Lack of involvement with EOC
- The extend of an organization’s planning is dictated by the impact of their worst recent disaster
Critical Parameters

- Utilities
- Staff
- Supplies (medical and non-medical)
- Security
- Communication
Summary (2006)

- Hospitals can handle emergencies within intact community
- Non-hospital systems collapse, increasing hospital stress
- Hospital on their own longer than anticipated
- Few hospitals are truly self-sustaining
- Hospitals with dedicated supply lines supported outside of disaster zone do the best
- The citizens cannot be expected to be law-abiding
- Few large community prepared to handle large scale evacuations of acute and chronically ill
Improvement Occurs with Repetition

- San Diego
  - Wild fires – 2003
  - Wild fires - 2007

- Houston
  - Tropical Storm Allison – 2001
  - Hurricane Rita – 2005
  - Hurricane Ike - 2008
The Significant Changes

- Community Planning that includes healthcare
- Communication
  - Reverse 911 – landline
  - AlertSanDiego – registration of cell phones & email
  - Emergency Alert System (EAS) – ongoing communication to population – AM/FM/Cable/TV
  - 211 – where to seek social services (use in H1N1)
  - 311 – questions about government services
  - Web-based EOC systems
  - Effective use of local media
A Summary

HCO Stress

High

Low

Community Stress

Low

High

II

- Supply lines intact
- Local evacuation
- Success rate high
- Focus of most drills

IV

- Few options available
- No new supplies
- Altered care standards
- System meltdown
- Almost no drilling

I

- Low risk
- No evacuation

III

- Supply lines cut
- Improvisation
- Shelter in place?
- Inadequate drilling
As we know, there are known knowns. There are things we know we know.

We also know there are known unknowns. That is to say we know there are some things we do not know.

But there are also unknown unknowns, the ones we don't know We don't know.

Donald Rumsfeld
Preparing for the Unknown

HCO Stress

Low

High

Community Stress

Low

High

I
- Low risk
- No evacuation

II
There are things we know we know.

Most drills

III
Where drills need to occur

IV
unknown unknowns, the ones we don't know we don't know.

Loyal capable staff – Enlightened Leadership

The Joint Commission
Unanswered Questions

How well prepared can a hospital/community be for an atypical disaster?

How well prepared can a hospital/community be for a completely novel disaster?
Over The Years, US has Modest Experience With Disasters On Our Soil
December 29, 1975 – NYC – LaGuardia Airport

- Bomb placed in coin operated locker
- 11 dead, 75 hurt –
- Responsible party remains unknown
Domestic Terrorism as of January 2000

- 1995 (April 19) – Murrah Federal Building – Oklahoma City
- 1993 (Feb 26) World Trade Center –

And before that?
Deadliest Earthquakes in Continental US of Last 100 Yrs

Fatalities greater than 150?
Deadliest World-Wide Earthquakes Last 23 Years (up through Haiti)

Fatalities greater than:

- 1000 16
- 10K  8
- 50K  4
3 US Disasters > 1000 Deaths
(last 100 years)

- 2005 - Hurricane Katrina - <2000 dead
- 2001 - 9-11 3000 dead
- 1980 – Summer heat wave <2000 dead
Fatalities for all Presidential Declared Disasters 1960-2006

26,314*

*Some underreporting of fatalities related Hurricane Katrina and heat events

From SHELDUS
HVRI
(last slide) Quote Mark Twain

It ain't what you don't know that gets you into trouble.
It's what you know for sure that just ain't so.

Mark Twain
My Working Hypothesis:
If the disaster has not recently occurred, preparedness wanes and response is uneven.

On to Joplin Missouri
Joplin
50K population 174K Metropolitan area

- 5/22/2011 – largest tornado since 1957
- Up to one mile wide and 13 miles long
- One of US’s costliest tornado: up to 3 billion
- One of US’s deadliest tornados with 159 deaths

- 8000 building and 18000 vehicles destroyed
- Mercy St. John Hospital took a direct hit, shifting building off foundations (9 stories)

- 5/05/1971 – 1 dead – 1500 building destroyed
- 5/11/1973 - 3 dead – 60 families displaced
## What a Difference 10 Years Makes

<table>
<thead>
<tr>
<th>Hospitals not part of Community EOC</th>
<th>Mercy St. John has a seat</th>
</tr>
</thead>
<tbody>
<tr>
<td>LTC not part of emergency planning</td>
<td>LTC integrated into ongoing planning</td>
</tr>
<tr>
<td>Incident Command System not used</td>
<td>Mercy St. John used ICS</td>
</tr>
<tr>
<td>Drilling with limited realism</td>
<td>Mercy St. John’s drills included vertical evacuation using stairwells and people</td>
</tr>
<tr>
<td>Inadequate planning for alternative site</td>
<td>Good cache of equipment available for alternative site (though destroyed)</td>
</tr>
</tbody>
</table>
## What a Difference 10 Years Makes

<table>
<thead>
<tr>
<th>Staff retention not well planned</th>
<th>Next day Corporation helped staff</th>
</tr>
</thead>
<tbody>
<tr>
<td>Leadership often uninvolved with planning</td>
<td>Mercy’s leadership has long history of involvement</td>
</tr>
<tr>
<td>Emergency Manager had low status</td>
<td>Emergency Manager has substantial influence</td>
</tr>
<tr>
<td>Minimal planning for alternative site</td>
<td>Planning well developed including a trailer and supplies</td>
</tr>
<tr>
<td>Evacuation planning limited to horizontal</td>
<td>Realistic vertical evacuation drilled</td>
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</tbody>
</table>
Problems Remain

- Communication: loss of cell phones, satellite phone, radios (requiring fixed antenna), internet
- Supplies quickly ran out (96 hours prep)
- Loss of back up generators
- Patient tracking difficult (post evacuation)
Summary

- Many parts of country have made significant progress, but probably patchy
- Slow consolidation of planning is occurring
- Lack of realistic drilling remains a serious issue
- Few US disaster means response to major disaster will have holes
The Future

- Emphasis must be on community response
- Incorporate all of healthcare into planning (e.g. LTC, physician offices, home care, pharmacy)
- Hospitals must be considered a target
- Must develop strategy to prepare a low probability target to respond to a high-risk low probability disaster
Questions?