During the Disaster and Aftermath

2015 National Tornado Summit
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EF5 Tornado Impact on Joplin
- 13.8 mile long path – ¾ to 1 mile wide
- 8,000 structures destroyed or severely damaged
- 400 business destroyed or severely damaged
- 8 school buildings destroyed or severely damaged

EF5 Tornado Impact on Mercy Hospital
- Direct Hit
- Windows and Walls blown out
- Portions of roof pulled off
- Building infrastructure severely damaged
  - Generators destroyed
  - All communication lost
  - Water, sprinkler, gas and sewer pipes disrupted
  - Liquid O2 tanks damaged
  - Massive debris throughout building

EF5 Tornado Impact on Mercy Hospital
- 86 Medical Staff Member’s Offices
  - destroyed or severely damaged
- Medical Office building on property heavily damaged
- Rehab building heavily damaged
  - some generator power
- Helicopter destroyed
- Disaster trailer destroyed

EF5 Tornado Impact on Joplin
- 18,000 vehicles destroyed or severely damaged
- 4,500 jobs displaced
- 161 deaths
Take-Aways

- You do what you practice/drill
  - Evaluate drills/responses to improve your plan
  - Drill until you fail
  - Add patient slippers/shoes to your weather plan

- When under storm watches announce periodically to keep staff informed.

- Know your contacts
  - Local EOC-Coalition
  - Strong community group that plan and drill together
  - State level positions
  - Hospital Association

- Store emergency response supplies where you will need to use them

Take-Aways continued

- Make emergency supplies easily portable
  - Grab bags at locations throughout facility
  - Paper and pen
    - Record where patients are evacuated
  - Gloves
  - Flashlights & batteries

- Consider marking rooms that have been searched and evacuated

- Establish communications as rapidly as possible – especially with other key sites
  - Cell phone # - texting

Take-Aways continued

- Respond to disaster situations with name badge
- Educate

- Security needs increase rapidly

- Take care of yourself, your staff and their families
  - Employee Assistant Program (EAP) – debriefing
  - Consider your staffing needs for Day #1 through?
Storm Hardening

- **Durable Exterior Skin**
  - Precast concrete exterior
  - No metal panels
  - No plastered exteriors
  - Poured concrete roof
  - No ballast
  - No metal decking
  - Hurricane-grade entry doors
  - Reinforced Penthouse
    - Designed for high impact/high wind

- **Protected interiors**
  - Hallway safe zones
    - Heavy-duty storm doors
    - Reinforced walls
    - Additional ceiling supports
    - Ante room and storm doors at hallway ends
  - Emergency storage next to stairwells
  - Battery-powered lighting

- **Power on**
  - Generator partially buried in reinforced concrete structure
  - All fuel tanks buried – 96 hours of run time
  - Two independent power feeds from different power stations
  - All utilities connect to building via underground tunnel
  - All critical care ventilator and bassinets on uninterrupted power sources
    - Function for 2 hours

- **Cost**
  - 2-3% addition to construction cost
  - $10 - $12 million

Completion Date: March 2015

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