Maintaining Operational Excellence During a Disaster: Lessons Learned from Hurricane Katrina
• Remembering the storms
• Why it was possible
• Major challenges and lessons learned
Four Distinct Phases

• Hurricane
• Post-hurricane evacuation and social service needs
• Adjusting to high volume and displaced patients
• Ongoing high census
Our mission found its most complete expression in the days following Hurricane Katrina...
Saturday, August 27th
Woman’s Hospital entered storm readiness level one. Katrina quickly strengthened, and a Hospital Emergency Incident Command System (HEICS) meeting is called for the next day. Due to the mandatory evacuation of New Orleans, traffic in the city is at a standstill; evacuees begin presenting for care.

Sunday, August 28
HEICS Command Center is set up, and the hospital quickly moves to Level 4. Decisions are made on emergency pay, child care and arrangements for lodging for staff to work subsequent shifts.

Monday, August 29
Woman’s Hospital begins to lose power at 6:30 AM. The storm causes minor damage to the facility. Power outages are widespread in Baton Rouge. Email updates and frequent rounds keep staff informed. Power is restored at about 7 PM. It appears that normal operations will resume on Monday.
The HEICS Command Center is closed.
Tuesday, August 30
Large numbers of evacuees begin arriving for care. Elective surgeries are cancelled.

New Orleans is flooding. Evacuations of hospitals will be necessary. The Command Center is reestablished, and communication with the regional Office of Emergency Preparedness is initiated. A call from a New Orleans hospital for evacuation of neonates is redirected to the OEP per the state’s Emergency Preparedness Plan.

All telephone communications are compromised, as are many beeper systems. It becomes clear that the OEP system is time-consuming, cumbersome, and not up to the large numbers of patients in need of evacuation.

Woman’s Hospital’s management team decides that offering to coordinate the rescues is in order.
Tuesday, August 30 – Thursday, September 1
Woman’s Hospital seeks and is granted designation as the coordinating hospital for evacuation of newborns from New Orleans area hospitals.

Through a combination of transport teams sent out from Woman’s, ground ambulances, military helicopters and, in one notable case, river barge, 121 babies are safely evacuated.

In addition, Woman’s becomes a shelter for pregnant women and their families. Through coordination with local churches, women over 34 weeks gestation, mothers who had recently given birth, and many family members find refuge.
Wednesday, August 31

Woman’s begins receiving all types of patients and other evacuees via its helipad. Men, women, dialysis patients, patients with heart disease, or just people who had spent days awaiting rescue on the interstate in New Orleans – all were received with care, some given showers and meals, and sent on to appropriate facilities in the area. By so doing, Woman’s helped preserve precious helicopter time.

Woman’s also delivered ice, water, fresh uniforms and food to hospitals in New Orleans.

Woman’s – long known as the “Birthplace of Baton Rouge,” became a lifeline to New Orleans, its hospitals and the brave men and women staffing them.
Our Mission...

To improve the health of women and infants
Hurricane Katrina

Reuniting People

- A Family Center to reunite families and patients was established and fielded thousands of calls. All babies were reunited with families.

- A Physician-Patient Connection line was established to reunite patients with their physicians.
Other Needs

- A Shelter Shop was set up in the Medical library to receive and distribute donations of clothing and other supplies for evacuees with nothing except the clothes they arrived in.

- The Katrina Disaster Relief Fund is established for needs such as transportation to reunite families and special health needs.
Woman’s employees step up to the task

- Employees drove patients to shelters and took families into their homes
- Fielded over 2,000 phone calls and reconnected 107 families
- Assisted in reconnecting physicians and patients (over 550 calls)
- New Orleans physicians volunteered to triage patients in the Assessment Center and Treatment Room
- Disaster privileges were granted to displaced physicians (8 ob/gyns, 1 pediatrician, 2 MFM, 1 ped gastro)
- Human Resources hired almost 100 additional staff, most from affected areas
In the 28 days after Hurricane Katrina, Woman’s also:

- Performed 1,500 mammograms
- Converted to digital mammography
- Cared for 1,500 patients in the Assessment Center
- Performed 600 outpatient visits
- Delivered 669 Baton Rouge babies; 779 babies in all
- Cared for over 100 Baton Rouge NICU babies
Hurricane Katrina

Woman’s Hospital’s performance during both hurricanes demonstrated the concept that an expert organization with adequate capacity is critical for the emergency management of certain populations of fragile patients.

Combined with the notion of a “surge” hospital whose capacity is designed to expand during emergencies, the expert hospital as the coordinator of care for particular populations is an important lesson of these tragic events.
In the case of Hurricane Rita, evacuations took place before the storm.

- 18 NICU patients were evacuated from Lake Charles
- 8 NICU patients were evacuated from Lafayette
- 8 MFM patients were evacuated from Lake Charles (5 by ambulance and 3 by air)
The first Blackhawk lands. This pilot did not know that our helipad was rated for his craft; once pilots found out, they landed there day and night.
One of the heroic pilots
Social worker Aimee Moles works with a patient.
The former physician lounge becomes a shelter.
Friday morning – September 2
Transport Team member Elodie Chabert, RN made three trips into New Orleans before helping on Friday.
CEO Teri Fontenot helps unload babies, right

VP of Information Systems Paul Kirk helps also, left
More images of a miraculous day
Sharing a bassinet
Why It Was Possible

- Mission, Vision and Values
- Focus
- Capacity
- Planning
- Culture
- Habit
- Workforce
Mission
To improve the health of women and infants

Vision
Woman’s Hospital will be:
- Nationally known as a leader in women’s and children’s health
- Regionally acknowledged for its innovative practices and programs
- Locally recognized as the preferred health care workplace.
Values

- **Excellence** – continually improving everything we do
- **Commitment** – showing pride in, loyalty to, and ownership of the mission
- **Innovation** – securing our future through creating new dimensions of performance
- **Mutual Respect** – doing unto others as you would have them do unto you
- **Stewardship** – carefully and responsibly managing the resources of Woman’s Hospital
- **Sound Judgment** – making timely decisions based on the information available
Why It Was Possible

Focus

• Focus on the needs of women and children

Capacity

• 225 beds
• 82-bed NICU
• Excellent staffing
Why It Was Possible

Planning

• HEICS structure
• NICU Evacuation Drill
• Integrated planning processes
• Flexible space planning
Culture

- A culture of empowerment that facilitates decision-making at every level
- A culture of caring that led us to always seek to meet the need
Habit

• Well-developed plans, policies and habits in support of patient safety, even in the face of chaos
Workforce

• Staffing levels that meet or exceed national standards
• Low turnover among staff and management
• Stability in senior management; high levels of trust
Why It Was Possible

Workforce

• Emergency pay implemented before the hurricane struck and continued for about two weeks
• Flexible pay incentives
• Free food
Leadership

• The CEO and VPs present throughout
Why It Was Possible

More Change…

• Disaster privileging of physicians
• Participation in residency programs

And More to Come…

• Population estimates indicate that Baton Rouge has grown by 50,000 to 75,000 people.
Outcomes

• All babies survived the evacuation
• All high-risk moms survived the evacuation
• All babies reunited with family
• All postpartum moms placed in shelters that met their needs
Major Challenges

- Communication
- Space
- Staffing
- Equipment and supplies
- Security
- Social Services
- Public relations
• Continuous rounds- “situational awareness”
• Nursing management meetings every 2 hours
• VP meetings every 2 hours
• Medical staff meetings daily
• Daily summaries to staff
• Rumor control
• Spectralink phones
• Phone center for evacuee information
• Disaster phone line for employees
Space

- Shelters in conference rooms, lounges and offices
- Created triage center in the lobby
- Expanded Assessment Center into Day Surgery
- Moved Biomed 3 times in 2 days
- Expanded NICU into old well-baby nursery
- Created preoperative c-section space in a physicians lounge
- Housed clothing donations in the library
- Created postpartum discharge lounge
- Offered incentives for early discharge
- Added Mother/Baby discharge nurse
- Utilized real-time bed board report
• OR nurses for triage
• Emergency pay
• Emergency hires
• Volunteer pool
• Non-clinical nurses
• Emergency physician privileging
• Additional nursing supervisor
• 24 Hr Social Services
Food Services sustains patients, families, employees, physicians and others.

Meals were prepared and in many cases delivered to the busy staff.
• Standardized equipment
• Strong vendor support
• Transferring facility sent equipment with evacuees
• Storage & tracking
Organizational Strengths

• Helipad and transport team
• Leadership
  – Stability
  – Visibility
  – Mission-focused
• Strong medical staff leadership
• Emergency preparedness
• Knowledge of physical plant
Emergency Preparedness

- HEICS (Hospital Emergency Incident Command System)
  - System used to designate staged action plan in response to a disaster
  - Interdisciplinary table top drills were performed
- NICU evacuation drill (prompted by Houston flood)
  - Table tops drills followed by
  - Actual evacuation simulation exercise
Yellow dots indicate Air, O2 and suction availability

Blue dots indicate O2 and SuctionOnly

Delivery rooms 27, 28 Resuscitation Room A, and LDR 1 can hold 3 ventilated patients each.

LDR 2,3,4,& 5 can hold 5 ventilated patients each.

Non O2 dependent infants will be routed to annex
High Census Policy

• Approved by the Medical Staff in July, 2005
• RN Bed Coordinator appointed
• Overnight care in Day Surgery Department established
• High Census Alert displays on physician sign-in screens
• Process defined for including the medical staff in prioritizing patient admissions
• Contingency plans for staffing
We were not prepared for

- Multiple communication problems
  - Cell phones and beeper system
  - Agency coordination
- Lack of medical transportation equipment
- Lack of shelters for pregnant women or discharged patients
- Displaced physicians
- Media coverage
- Donations and volunteers
- Cash flow interruption
- The American Red Cross & FEMA
Lessons Learned

- A specialized emergency management plan for neonates is needed at the regional level
- Communications methods
  - Internal
    - working alternatives to landlines
    - scheduled staff communications
  - External - inbound communication with helicopters
- HEICS model worked well though the storm, but required a change in focus to deal with continued high census
- Community networking is vital
- Leadership must have some relief
- Rented and loaned equipment must be returned
Additional Leadership Tips

• Ask employees on the front line how you can help them do their jobs
• Be open and honest in communication
• Manage the rumor mill
• Celebrate!
Thank You