The Long Road to Recovery: Rebuilding a Community After Disaster

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Disasters and Challenges

5 hurricanes & the nation’s largest environmental disaster in history have hit Louisiana in the last 9 years.
A Timeline of Disasters...

- 2005: Hurricane Katrina/Rita
- 2008: Hurricane Gustav/Ike
- 2009: H1N1 Pandemic
- 2010: Deepwater Horizon Oil Spill
- 2011: Mississippi River Flooding
- 2012: Hurricane Isaac
Challenges After Disasters...

• Mental Health
• Healthcare Infrastructure
• Public Health
Hurricane Katrina

- Made landfall Aug. 29, 2005
- Claimed 1,464 lives
- Destroyed more than 200,000 homes and 18,000 businesses
- 80% of the city was under water
- Total damage estimate of $108 billion
Hurricane Katrina
Hurricane Katrina
Healthcare Infrastructure

- Primary Care
- Behavioral Health
- Dental
- School-based Health Centers
- Specialty
Community-Based Health Care Centers by Primary Service Type (June 2010)

Some clinics only serve special populations. See the attached directory for more details.
Primary Care Stabilization Grant

- Network of health clinics
- Care for ~60,000 New Orleans area residents
- $11.3 million to sustain
- Funded until September 2014
Recent Recovery Projects

• $3 million in infrastructure improvements along Read Boulevard (2013)
• $7.6 million for New Orleans East Regional Library (2013)
• $5.8 for NOPD Seventh District Police Station (2013)
• $130 million New Orleans East Hospital (Summer 2014)
Largest Environmental Disaster

* Largest Oil spill – Kuwait Oil Spill
** Largest US Oil Spill – Lakeview Gusher Number One
*** Largest Environmental Disaster – Deepwater Horizon Oil Spill
Plaquemines Parish

Hurricane Katrina

Deep Horizon Oil Spill

Reoccurring disasters affect Mental Health
Unique Characteristics for Recovery

• Largest industries are oil, seafood and tourism
• All three were severely impacted by the Deepwater Horizon oil spill in 2010
  – presents a challenge when a disaster has a horizontal effect across different aspects crucial to the local economy
Deepwater Horizon Oil Spill

• 12:55 a.m. – (1st Notification) Offshore Explosion, 125 miles south of New Orleans, possibly 120 injured, Coast Guard helicopters en route

• 1:46 a.m. – Ambulances in place to receive patients; hospitals on alert; DRCs notified; Number of pts NOT determined at this time

• 2:39 a.m. – EMS standing by
Deepwater Horizon Oil Spill

• 3:15 a.m. – Per EMS, 10 patients arrived, no info on condition
• 5:14 a.m. – Update provided by leadership (summary)
• 6:52 a.m. – Hospital DRC and PHERC shared information and updates
• 7:10 a.m. – BP (responsible party) accountability report provided
Deepwater Horizon Oil Spill

• 8:49 a.m. – Federal assistance offered. Response was that more than enough EMS and LDHH involvement at the time.
• 9:41 a.m. – Workers (uninjured) being transported via boat to Port Fouchon. Hospitals notified, just in case.
• 10:18 a.m. – EMS report only minor injuries on boat with workers. Ambulances and Harbor police ready to receive workers, as needed
Deepwater Horizon Oil Spill

- April 20, 2010, at approx. 11:00 p.m.
- Explosion on Deepwater Horizon MC252 Platform
- 126 workers
  - 11 fatalities
  - 7 injuries (3 critical)
- Oil spilled for 87 days (~4.9M barrels = 210M gallons)
Oil Spill Impact

• Research of impact is ongoing:
  – Gulf ecosystem
  – Economy
  – Long-term health
Deepwater Horizon Oil Spill

• Immediate Impacts
  – Wildlife
  – Habitats
  – Fishing Communities
  – Commerce along coast (TX, LA, MS, AL, FL)
Fishing Community and Commerce

- Fish, shrimp, and shellfish are important to the economic health of the coastal region
- Seafood supply decreased
- Fisherman lost wages
Cleanup and Recovery

1. 80,000 sq miles of water closed (oiled and potentially oiled)

2. Oil removed

3. Scientists investigated impact and sampled seafood (sensory and chemical analysis)

4. Waters opened with ongoing monitoring
Seafood Safety Program

• Federal and state taskforce
• Unprecedented effort
• 3rd of waters were closed
• Ensured safety of seafood in the marketplace
Health Research – 4 Years Later

• NIEHS currently conducting a long-term study on potential health effects of spill
  – Physical
  – Mental

• Determining if exposure to oil may lead to short-term or long-term health effects in workers and volunteers
Health Research – 4 Years Later

• Health exams focus
  – Neurological, Respiratory, and Mental Health issues

• Initial exams, referred ~500 ppl to primary care providers

• Preliminary Observations
  – Cleanup workers ~30% more likely to have moderate to severe depression than residents (similar for anxiety)
Mental Health Issues

- Research team focused on mental health due to reports of high levels of anxiety, depression, and stress
- Same community impacted by multiple disasters
Current Recovery

- Dispelling rumors regarding seafood
- Studying mental and physical health impacts
- Recovering residual oil (April 2014)
- Cleaning shoreline (April 2014)
- Working on Coastal Restoration
“Category 1 Hurricane”
Hurricane Isaac

• Made landfall on Louisiana's coast at Plaquemines Parish on Aug. 28, 2012 as a Category 1 hurricane
• Went back over the Gulf of Mexico
• 2\textsuperscript{nd} landfall west of Port Fourchon in Lafourche Parish on Aug. 29, 2012
• Slow-moving storm
• Sustained strong winds and heavy rain through Aug. 30, 2012
Region 1
Hurricane Isaac

• Massive power outages to more than 900,000 homes and businesses
• Severe flooding due to storm surge in coastal parishes
• Heavy rainfall and backflow along inland waterways
• Approximately 17,000 homes flooded
Hurricane Isaac Recovery

- English Turn and Promised Land Cemeteries were damaged by the storm
- DHH coordinated with LSU to remove tombs from the highway
- OPH Support provided:
  - Assisted with data entry of remains and interment locations
  - Answered phone calls from loved ones
  - Tents with AC
  - Generators
  - Fuel
Post Hurricane Isaac - Plaquemines Parish Vaccination Clinic
Braithwaite Community Center
October 4, 2012
Disaster Cost

- Estimated $1 billion in damage
  - $914 million in housing need
  - $47.2 million in economic need
  - $114.4 million in infrastructure need

- HUD appropriated $106,778,000 to LA
  - $42,398,916 to Orleans, Jefferson, and St. Tammany parishes
  - $64,379,084 to the State, hence most impacted parishes

  - unmet housing, economic development, public service, infrastructure and other needs
Ways to Mitigate Challenges

• Educate the public – Community Outreach
• Plan for recovery before disaster
  – Ex. Evacuation and Repatriation
• Develop partnerships (Public and Private)
• Plan, train and exercise together
• Meet key stakeholders before the disaster
Successes

• Regional Coordination Center (RCC)
• Community Outreach
• Healthcare Coalition
• Public Private Partnership (PPP)
Regional Coordination Center (RCC)

• After Hurricane Katrina, Region 1 committed to share resources and information.
• On July 18, 2007, Jefferson, Orleans, Plaquemines, and St. Bernard parishes entered a formal agreement to provide mutual aid and assistance during emergencies.
• RCC was developed as the mechanism to deliver such aid.
Community Outreach

• Essential component of Preparedness and Recovery
  – Making individuals aware of recommended courses of action (SIP vs evacuate)
  – Motivating people to make personal plans
  – Connecting families with available resources and organizations
Region 1 Healthcare Coalition

• Foster planning, information and resource sharing throughout the healthcare:
  – Hospitals
  – EMS
  – Public Health
  – Nursing Homes
  – Hospice Agencies
  – Home Health
  – Blood Centers
  – Coroners and others
PPP Lessons Learned/Takeaways

• Communications: Diversify services so that you have a backup provider that services you from a different network

• Transportation: Sign-up for Road Closure Alerts from your state dept of transportation (i.e. winter storms)

• Fuel: Storms impact where fuel is sent during emergencies. Do you have an alternate fuel supply provider for your generators or fleets?
PPP Lessons Learned/Takeaways

• Health/Medical: Educate the public on Trauma Centers (multidisciplinary team available 24/7). Train the general public on use of a tourniquet. Patients who have a tourniquet applied following a severe accident have a high survival rate.

• Weather: Establish good liaison with National Weather Service before any disaster. Prepare and train!
THANK YOU