

The Long Road to Recovery: Rebuilding a Community After Disaster

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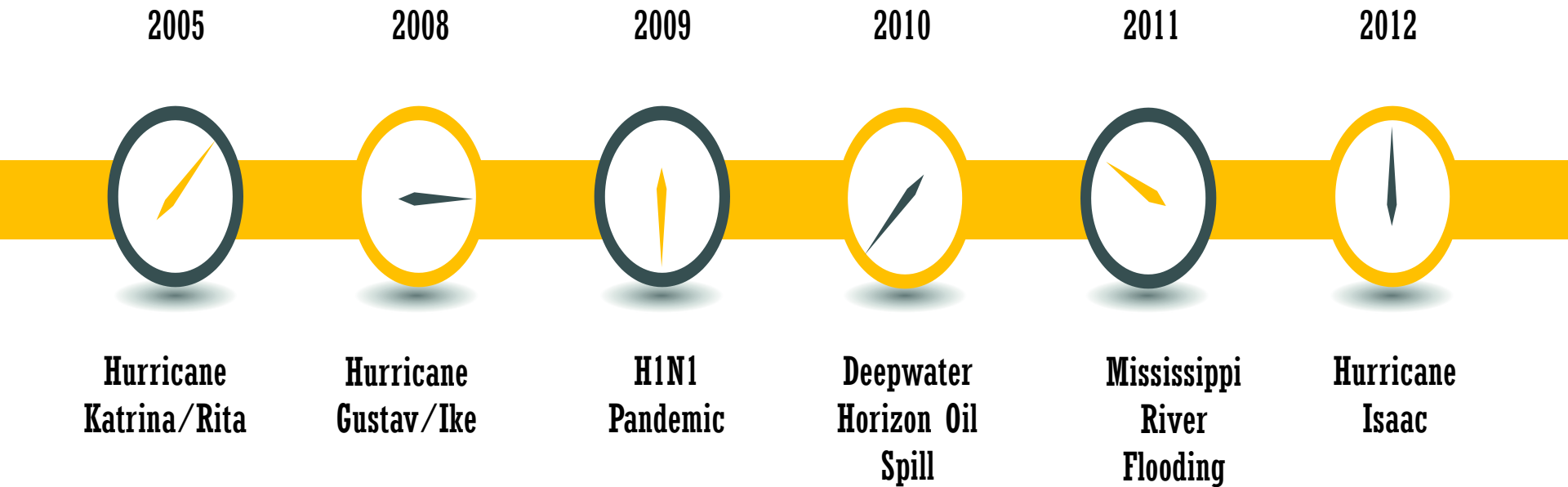
Louisiana Office of Public Health

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...



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



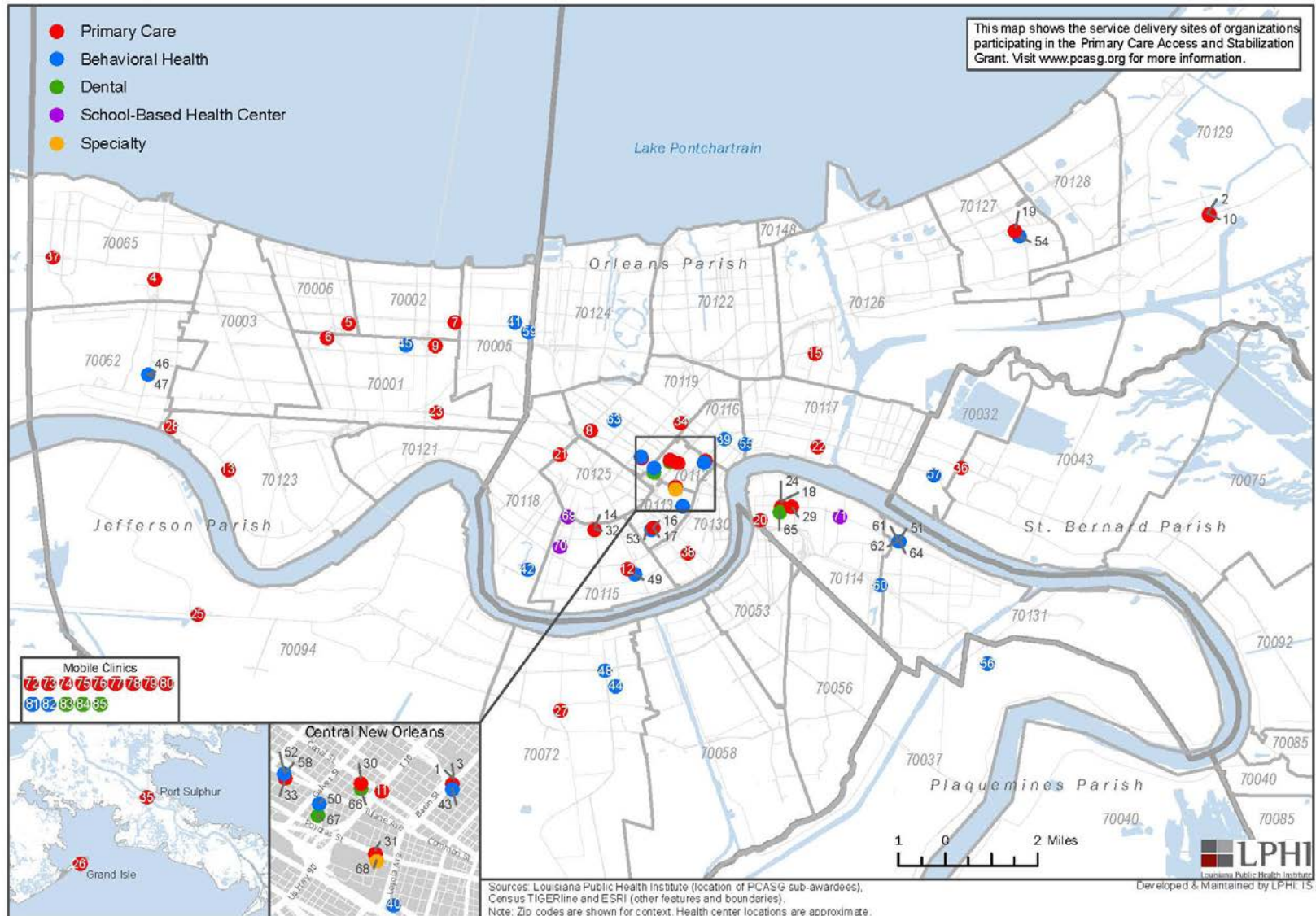
Healthcare Infrastructure

- 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.

Next Page: Directory of locations and services



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

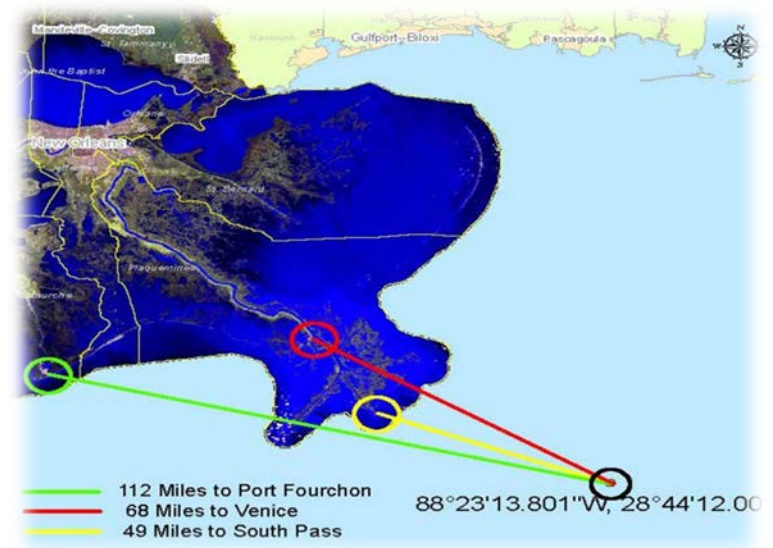
Deepwater Horizon Oil Spill

- 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)

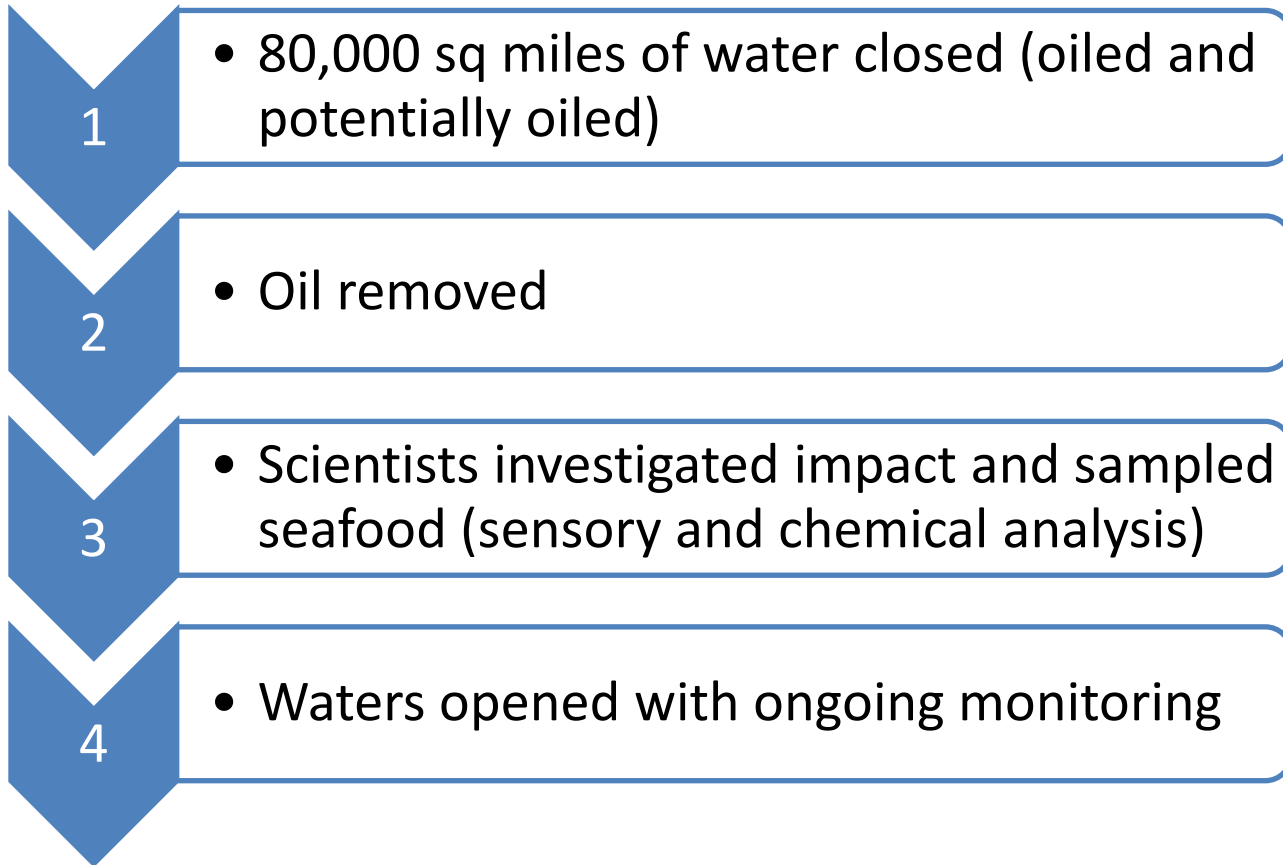


Fishing Community and Commerce

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



Cleanup and Recovery



Seafood Safety Program

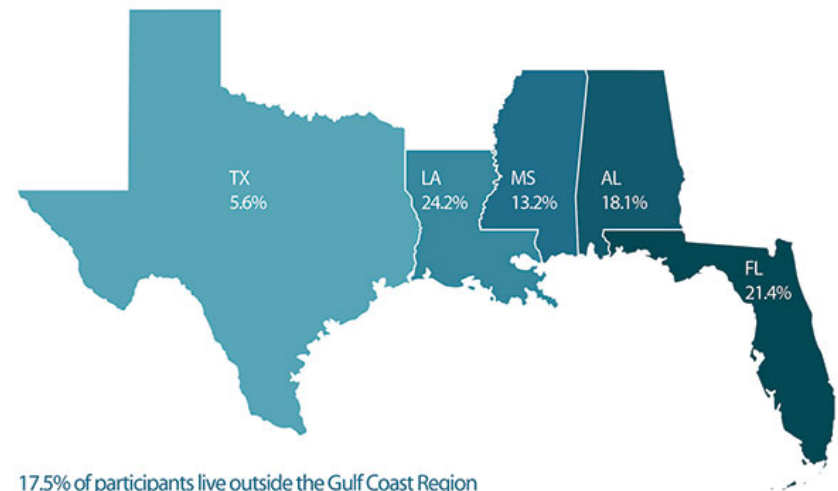
- Federal and state taskforce
- Unprecedented effort
- 3rd of waters were closed
- Ensured safety of seafood in the marketplace



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

Where Participants Live



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

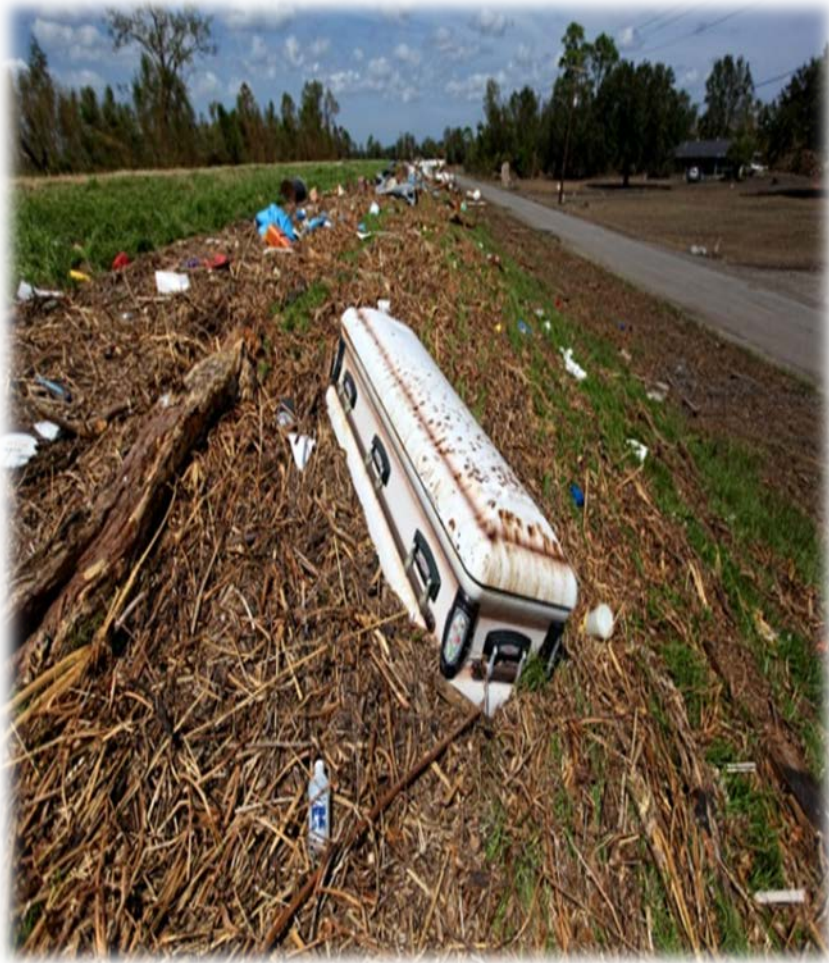
“Category 1 Hurricane”



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
- 2nd 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