

DISASTER PREPAREDNESS

LESSONS LEARNED

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LSU HCSD Northshore CEO

November 15, 2006



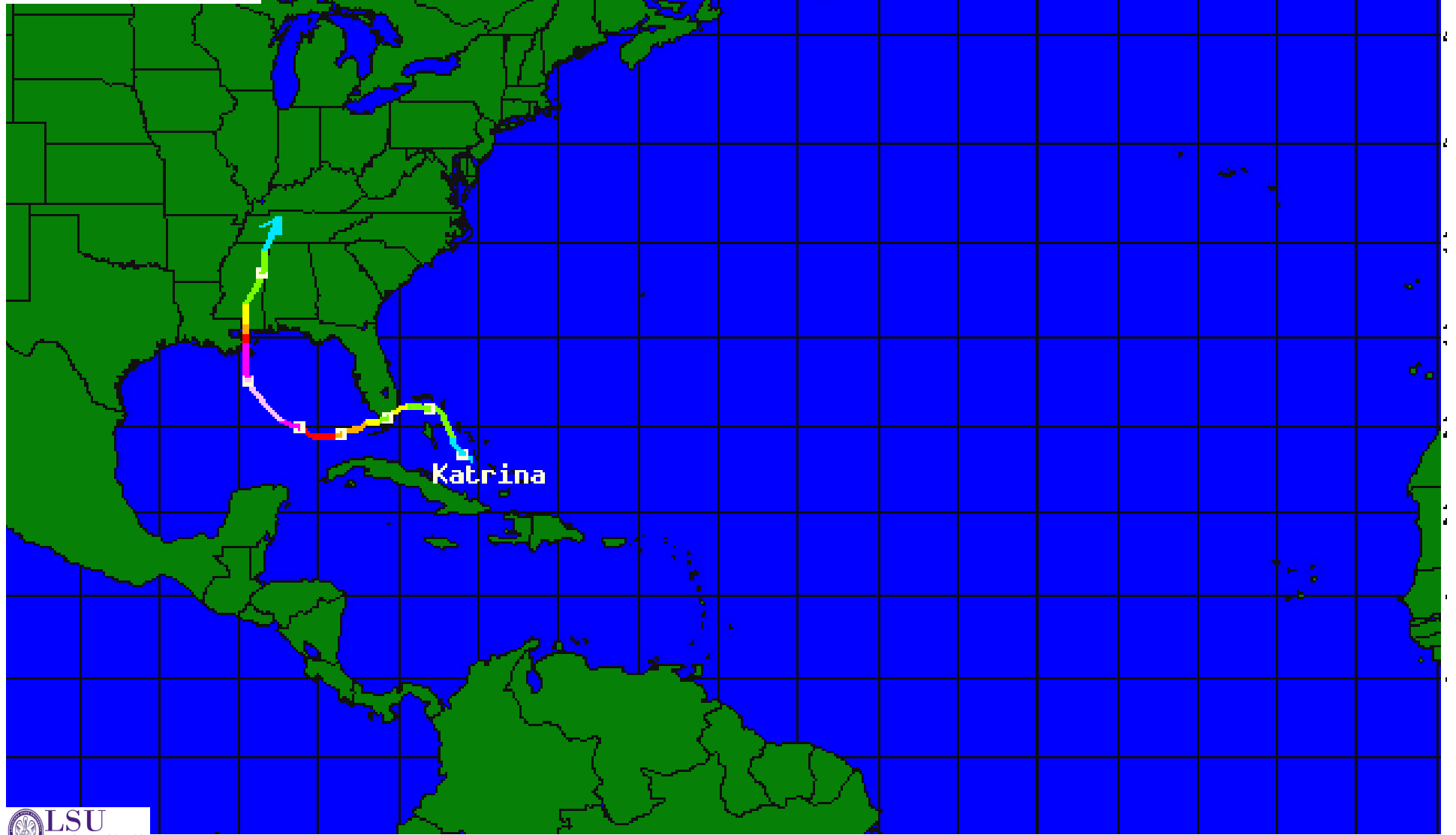


Storm Category

- Tropical Depression
- Tropical Storm
- 1 (74 - 95 mph)
- 2 (96 - 110 mph)
- 3 (111 - 130 mph)
- 4 (131 - 155 mph)
- 5 (> 155 mph)

- 00 GMT positions

Hurricane Katrina
Maximum Sustained Winds 175 mph
Minimum Central Pressure 902 mb
08/23 - 08/30 2005









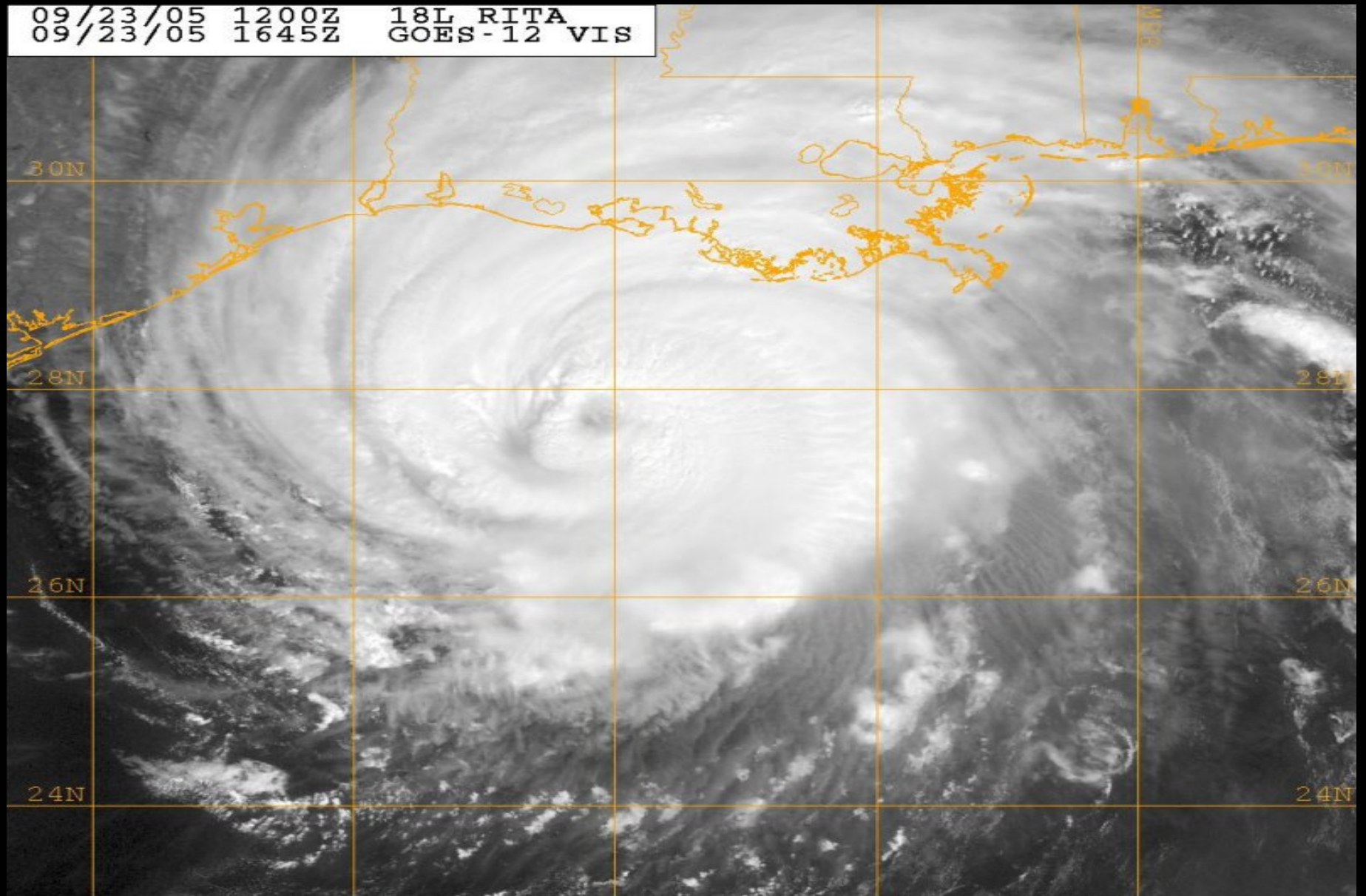


Humanity St





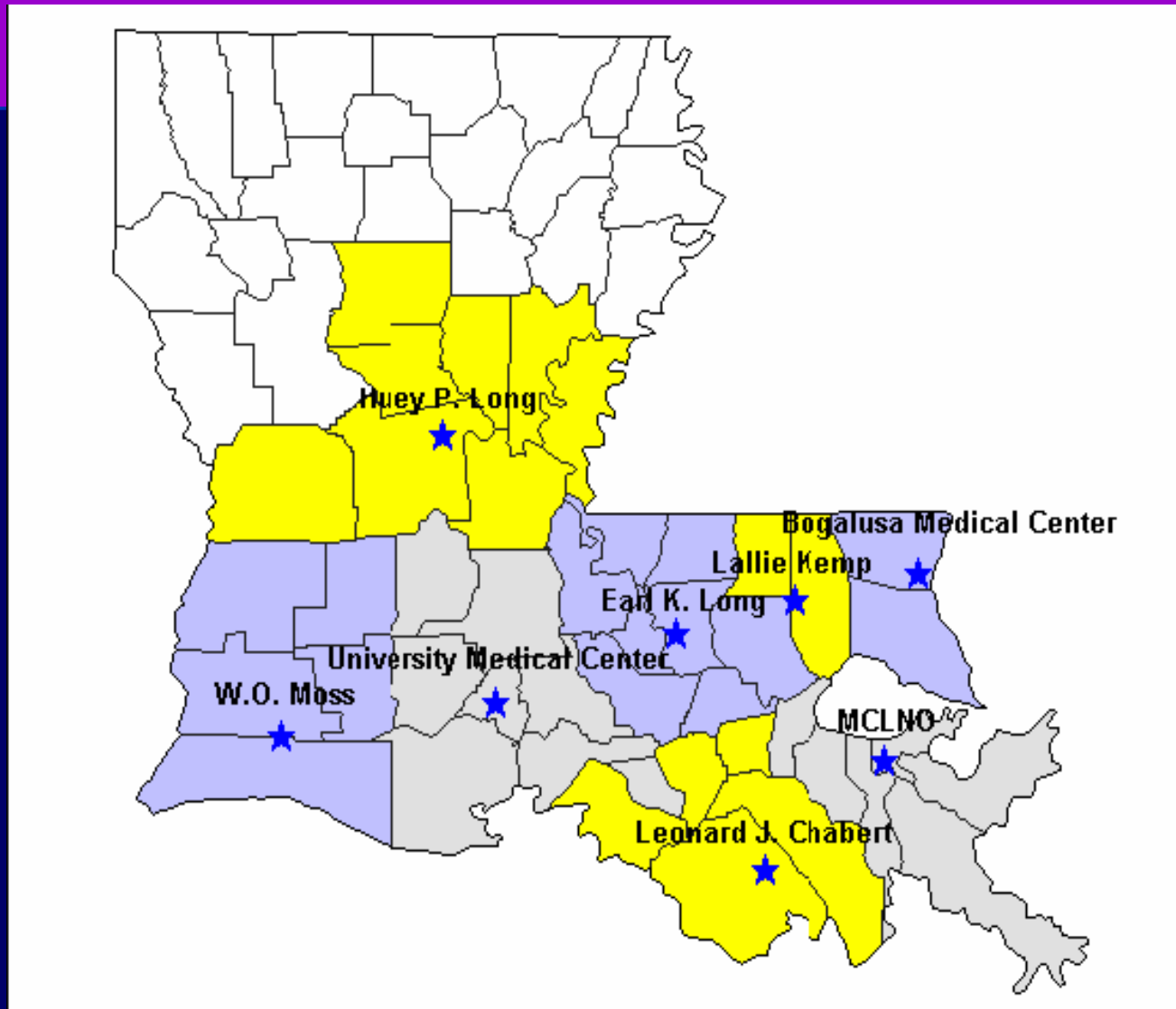
09/23/05 1200Z 18L RITA
09/23/05 1645Z GOES-12 VIS



Naval Research Lab http://www.nrlmry.navy.mil/sat_products.html
<-- Visible (Sun elevation at center is 58 degrees) -->



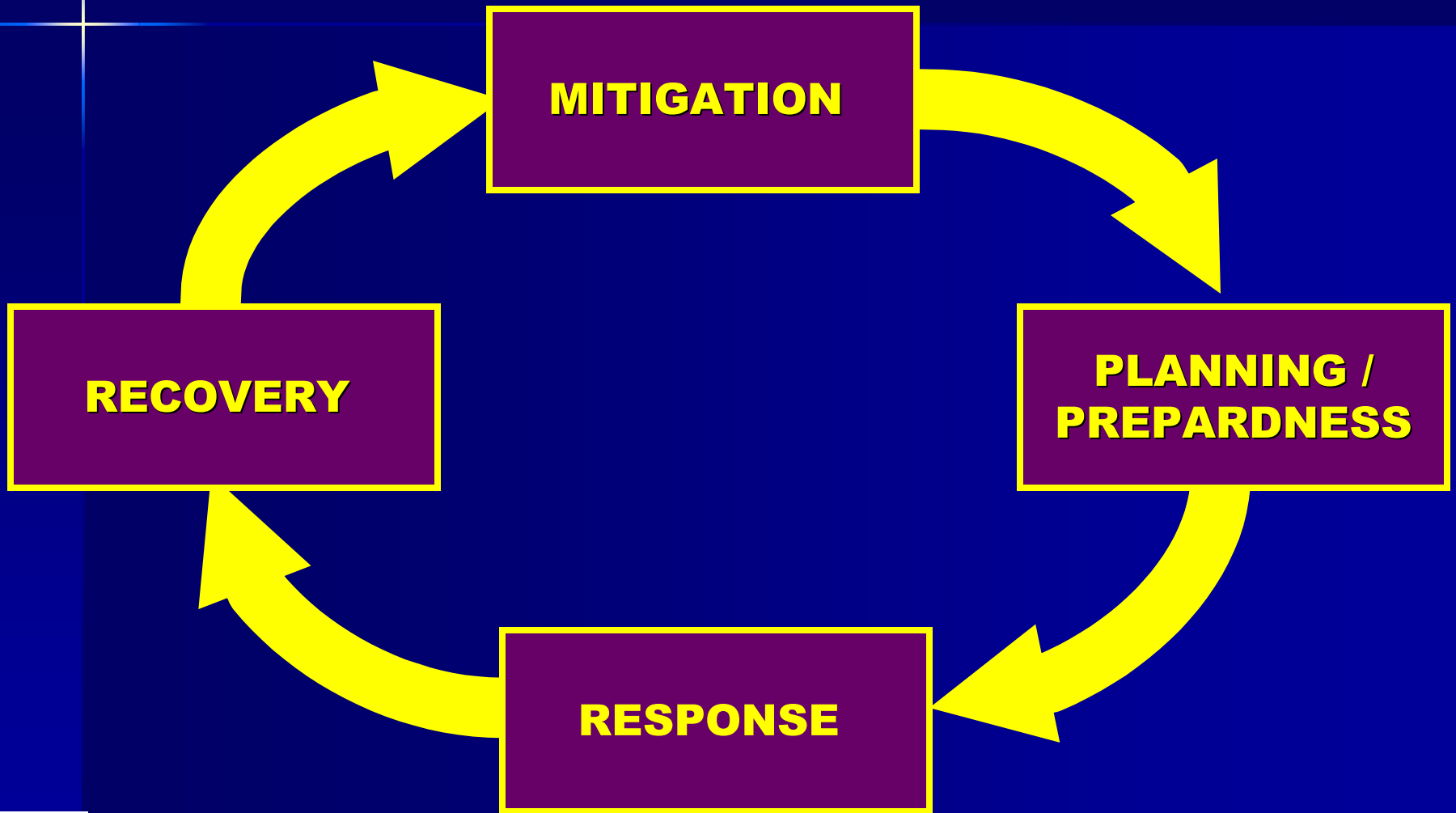
LSU HCSD Hospitals



GOALS

- Share *Lessons Learned* from a true disaster
- Review elements of the Disaster Cycle
- Provide insightful information for consideration in developing your Disaster mitigation, planning/preparedness, response, and recovery plan.

DISASTER CYCLE

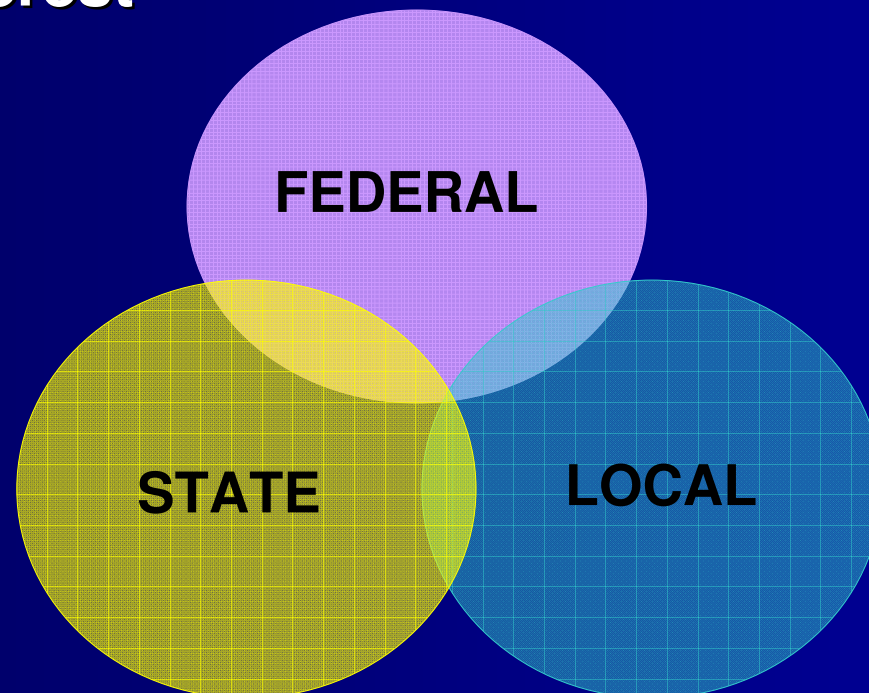


DISASTER CYCLE

MITIGATION

MITIGATION: *The Known*

Leadership has participated and coordinated the development of an emergency management plan that includes internal and external organizations with similar interest



MITIGATION: *The Known*

- **The Plan has been approved, distributed, and implemented**
- **Staff members have been educated regarding their roles and responsibilities**
- **Staff competencies include assessment of these roles**
- **Critiques of drills**

MITIGATION: *Lessons Learned*

Evacuate vs. Shelter-in-Place

Evacuation:

- When? When not?
- Where do you go? How do you go?
 - Agreements for transportation & sheltering
- Allow for variables – *economics, contra flow, traffic*
- Who stays & who goes?
- What goes? *Supplies, medical charts, medications*

MITIGATION: *Lessons Learned* **Evacuate vs. Shelter-in-Place**

Shelter-in-Place:

- **Emergency Command Center Structure**
 - **Add Depth**
 - Cross training of roles
 - Backup personnel for designated roles
- **Prepare for 8 days of self-sufficiency**
 - Non-perishables for 2-3 weeks
 - Vendor Disruptions
 - Staff Rotation - TEAMS

MITIGATION: *Lessons Learned* **Evacuate vs. Shelter-in-Place**

Shelter-in-Place:

- **Communication**
 - Limited to none
 - 4 - 5 days
 - Redundant systems – *LAN lines, cellular, satellite, HAM Radio, Voice Over Internet, OEP Radio, Courier Service*
 - Portable radios & television (with an antenna!)

MITIGATION: *Lessons Learned*

Evacuate vs. Shelter-in-Place

Shelter-in-Place:

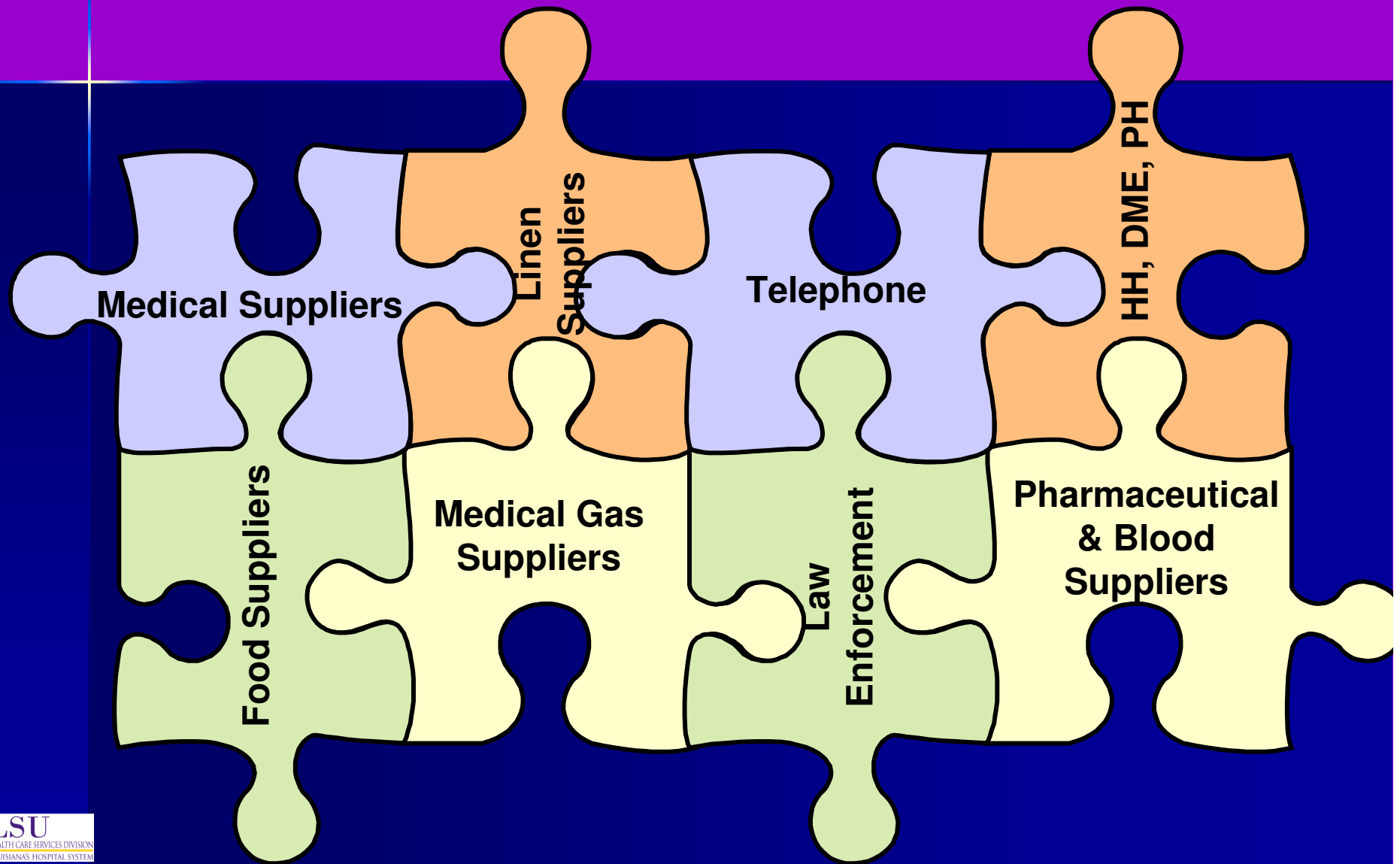
- **Electrical**
 - **Sustained Outages**
 - **Generator Capacity**
 - **What is on Emergency Power?**
 - *HVAC system*
 - **Assess need for Redundant Systems**
 - **Clinical Contingency Plans**
- **Sewer systems**
- **Water systems**

MITIGATION: *Lessons Learned*

Other Tips:

- Information Technology Infrastructure
- Pre & Post Photos of Buildings
- FEMA Regulations
- Special Needs Shelters
- Medical Gas Supply

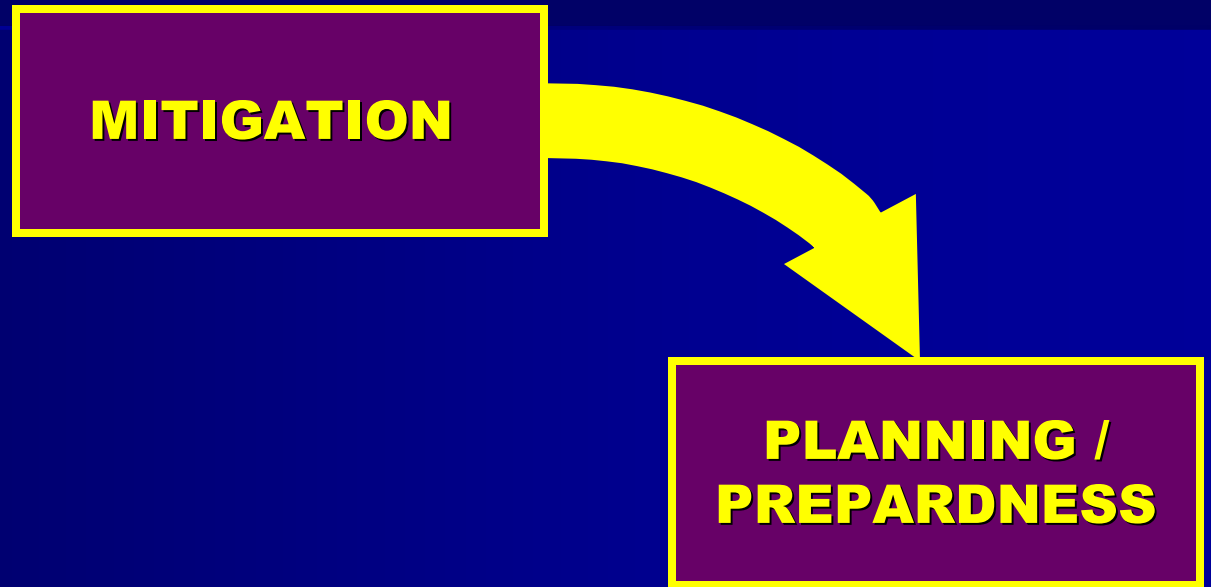
MITIGATION: *Lessons Learned*



HAZARD VULNERABILITY ANALYSIS

LKMC 2005 Hazard Vulnerability Analysis								
EVENT	PROBABILITY	SEVERITY (magnitude-mitigation)						RISK
	Likelihood to occur	Human Impact	Property Impact	Business Impact	Preparedness	Internal Response	External Response	Rrelative threat
		Possibility of death	Physical losses & damage	Interruption of services	Pre-planning	Time, effectiveness, resources	Community/ Mutual Aid Staff & Supplies	
Probability x Severity (Human + Property + Business + Preparedness + Internal + External) = Risk								
SCORE 1 = Low 2 = Moderate 3 = High								0-100%
Hurricane	18/2.25	18/2.25	19/2.375	22/2.75	20/2.5	20/2.5	19/2.375	14.67%
Chemical Exposure, external	19/2.375	18/2.25	12/1.5	12/1.5	18/2.25	18/2.25	15/1.875	12.20%
Transportation Interruption	19/2.375	18/2.25	13/1.625	15/1.875	14/1.75	13/1.625	12/1.5	11.15%
Tornado	16/2.00	16/2.00	18/2.25	19/2.375	17/2.125	17/2.125	13/1.625	11.05%
Flood, adjacent area and facility	16/2.00	15/1.875	18/2.25	18/2.25	16/2.00	15/1.875	14/1.75	10.61%
Mass HAZMAT incident	17/2.125	16/2.00	12/1.5	12/1.5	18/2.25	17/2.125	15/1.875	10.57%
Flood, external	15/1.875	15/1.875	17/2.125	17/2.125	15/1.875	15/1.875	14/1.75	9.63%
Outage of major source or generator	15/1.875	14/1.75	12/1.5	12/1.5	17/2.125	15/1.875	15/1.875	8.80%
Terrorism, biological	11/1.375	18/2.25	13/1.625	13/1.625	16/2.00	15/1.875	13/1.625	6.69%
Ice Storm	10/1.25	13/1.625	11/1.375	11/1.375	11/1.375	11/1.375	10/1.25	4.63%

DISASTER CYCLE



PLANNING/PREPAREDNESS:

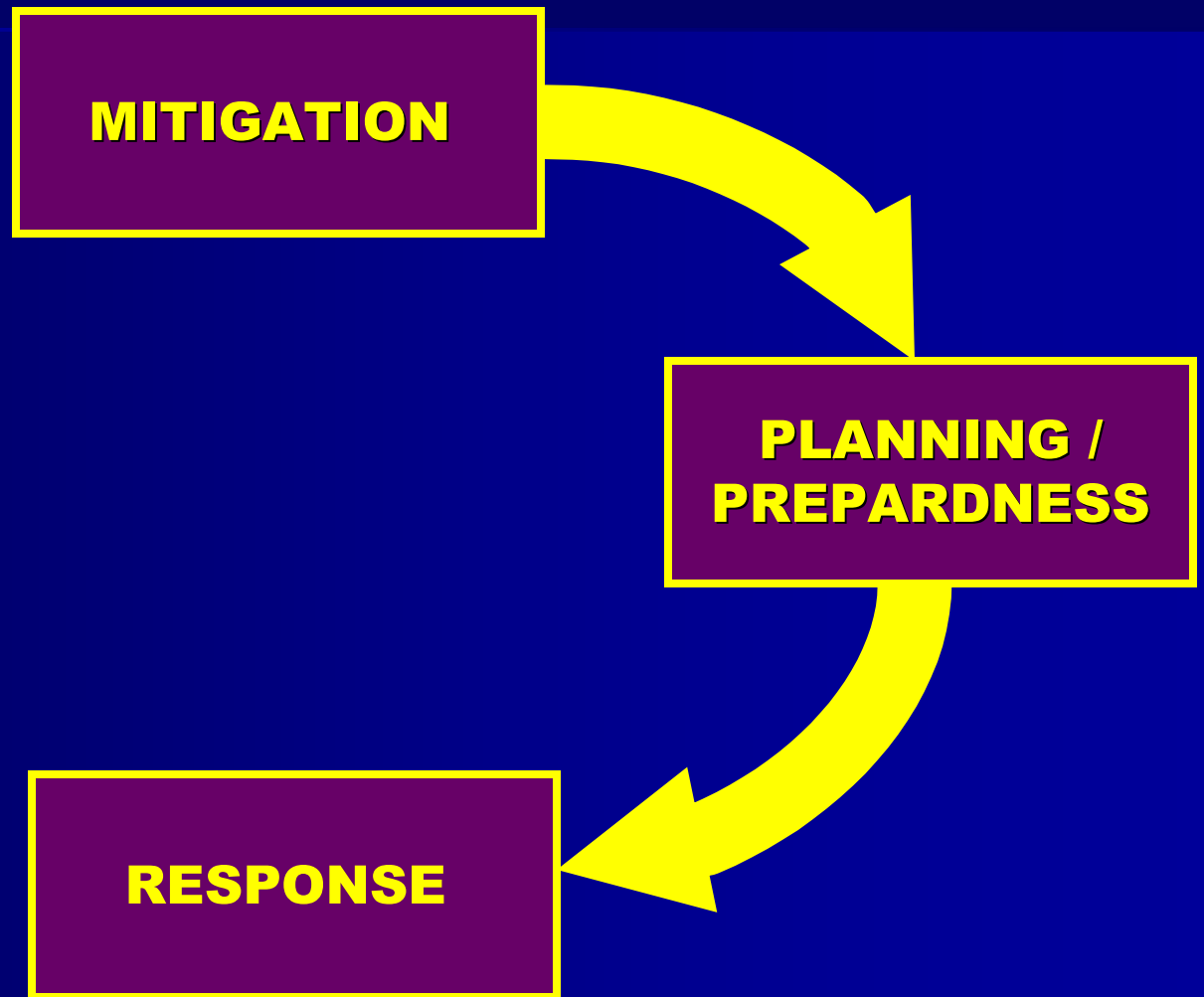
The KNOWN

- **Creating an inventory of resources that may be needed in an emergency, including prearranged agreements with vendors and other appropriate service providers**
- **Maintaining an ongoing planning process**
- **Holding staff orientation on basic response actions**
- **Implementing initial table-top drill test, followed by regular drills (stay with identified high hazards from the HVA Process)**

PLANNING/PREPAREDNESS: *Lessons Learned*

- **ICE!**
- **Statewide Drills**
 - **Participate!**
- **Healthcare Leadership Course in Anniston, AL**

DISASTER CYCLE



RESPONSE: *The KNOWN*

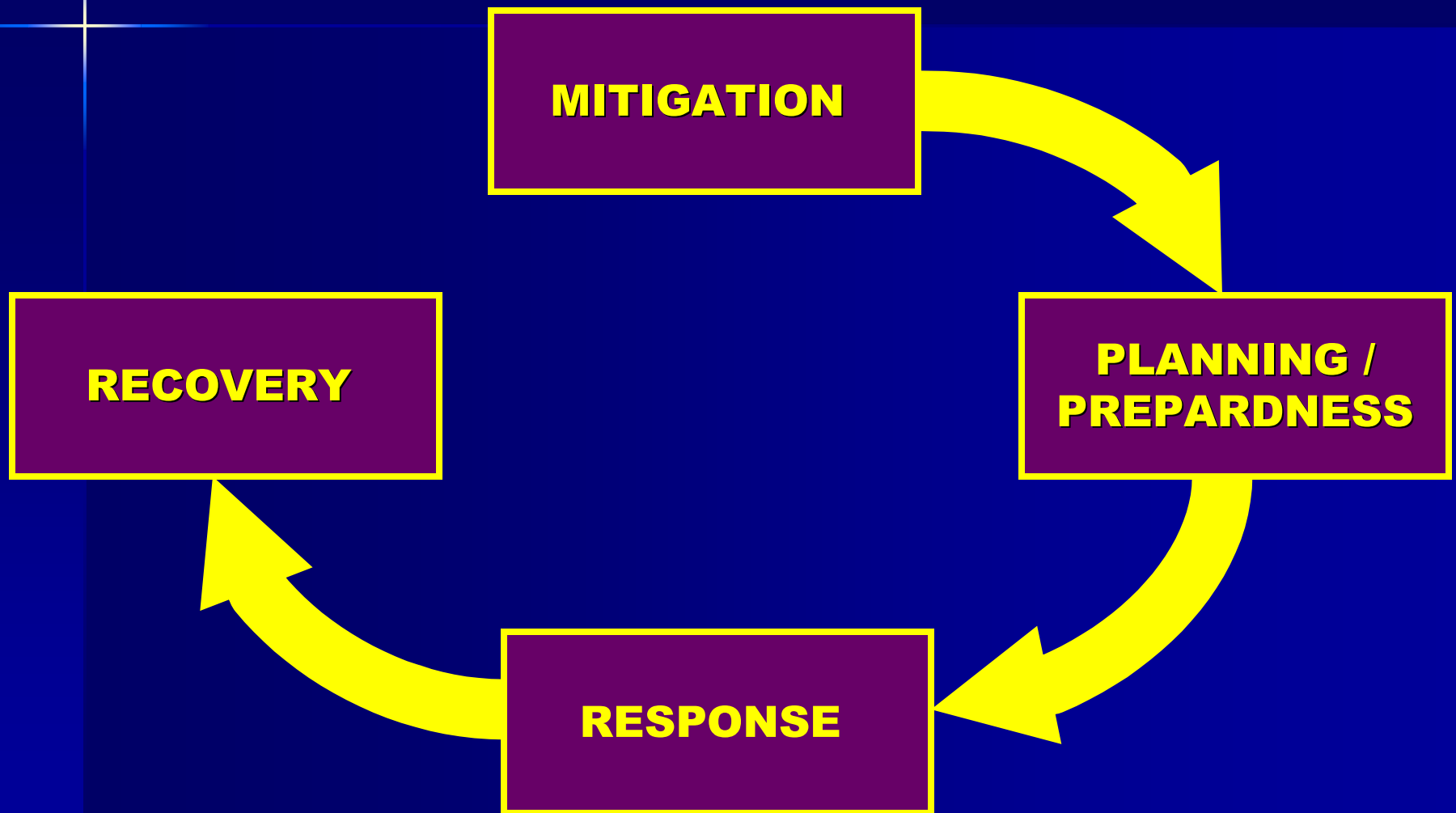
- **Leaders initiating the plan, assessing the situation, issuing warning, notification announcements, setting objectives and priorities, activation contacts with external individuals (EMS) and groups, and giving direction to staff**
- **Monitoring the effectiveness of response actions staff must take in the emergency**
- **Implementing backup plans to deliver patient medication when interrupted; reducing the secondary impact to the service system**

RESPONSE:

Lessons Learned

- **Staff functioned well during the actual time of the disaster**
- **Your best asset and strongest link during a hurricane is your staff.**
- **Euthanasia issues**

DISASTER CYCLE



RECOVERY: *The KNOWN*

- **Restoring full service delivery and assessing effectiveness of actions taken to accomplish full recovery; implement ongoing monitoring and maintain as long as needed to affirm full recovery**
- **Assessing and addressing staffing issues with actions as appropriate**
- **Assessing the financial impact with actions as appropriate**

RECOVERY:

Lessons Learned

- **Message Boards for communicating with staff**
 - Assign staff to constantly monitor radio / TV for updates. Post updates.
- **Security**
 - National Guards with M16s
 - Marshall Law
 - Loiterers
 - Limit access to buildings
 - Identify sensitive buildings & remove signage (i.e. Pharmacy, Warehouse)
 - Color band employees/visitors/patients each day
 - Keep account of all persons in the building (s)
 - Use of force
- **Chaos / Rumors**

RECOVERY:

Lessons Learned

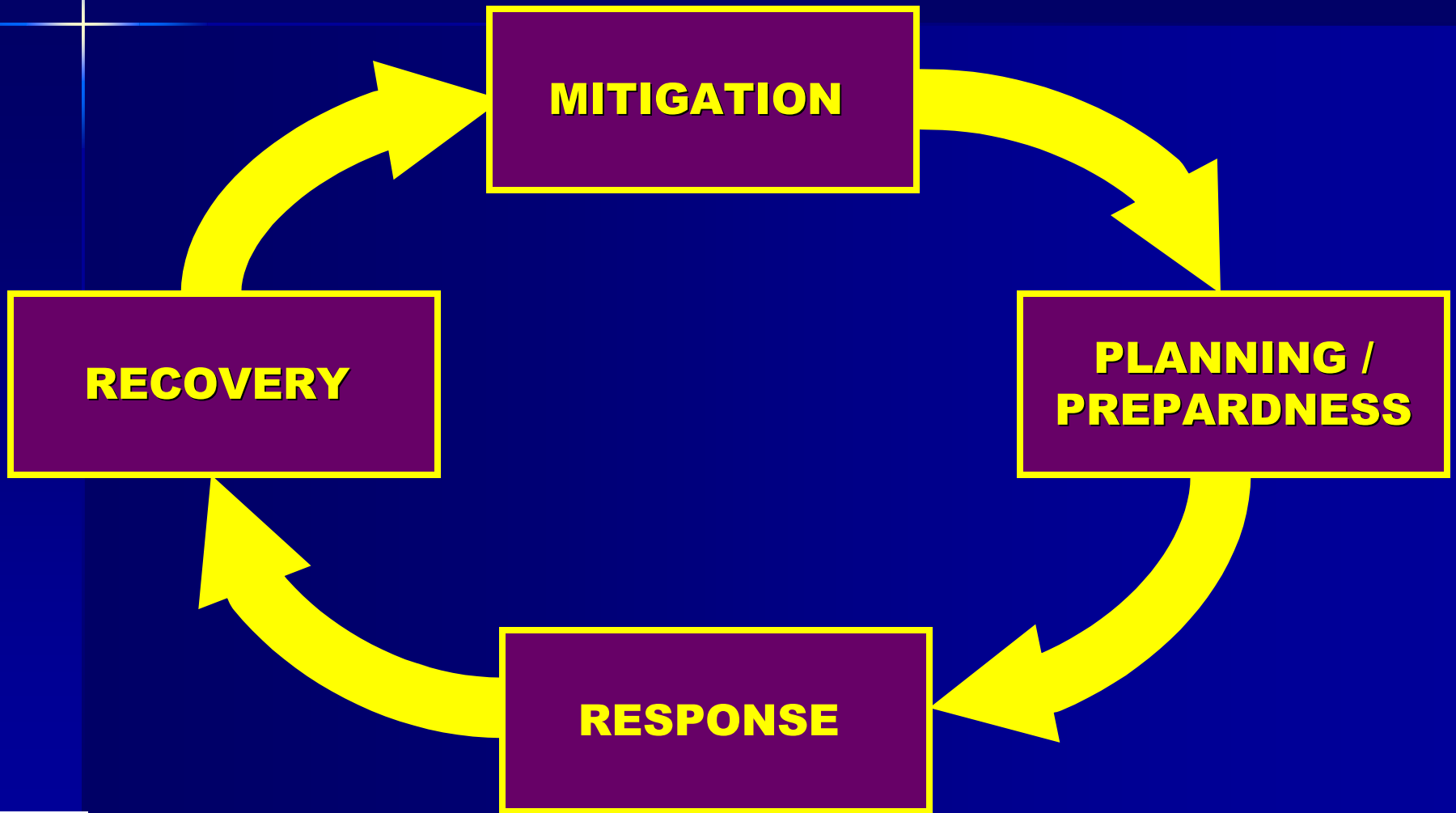
- **Community Response**
 - Distressed, Needy & Unpredictable people
 - Plan for and utilize volunteers
 - Collaborate with local pharmacists
- **Doing those things to protect life and limb**
- **Democracy goes out of the window – Dictatorship/survival**
- **National Drug Reserve**
- **Mental health for employees & community**
 - Assess staff ability to fulfill their obligations
- **Reorganization of services to meet your new population needs**
- **Fuel for employees, hospital fleet, sustained generator use**

RECOVERY:

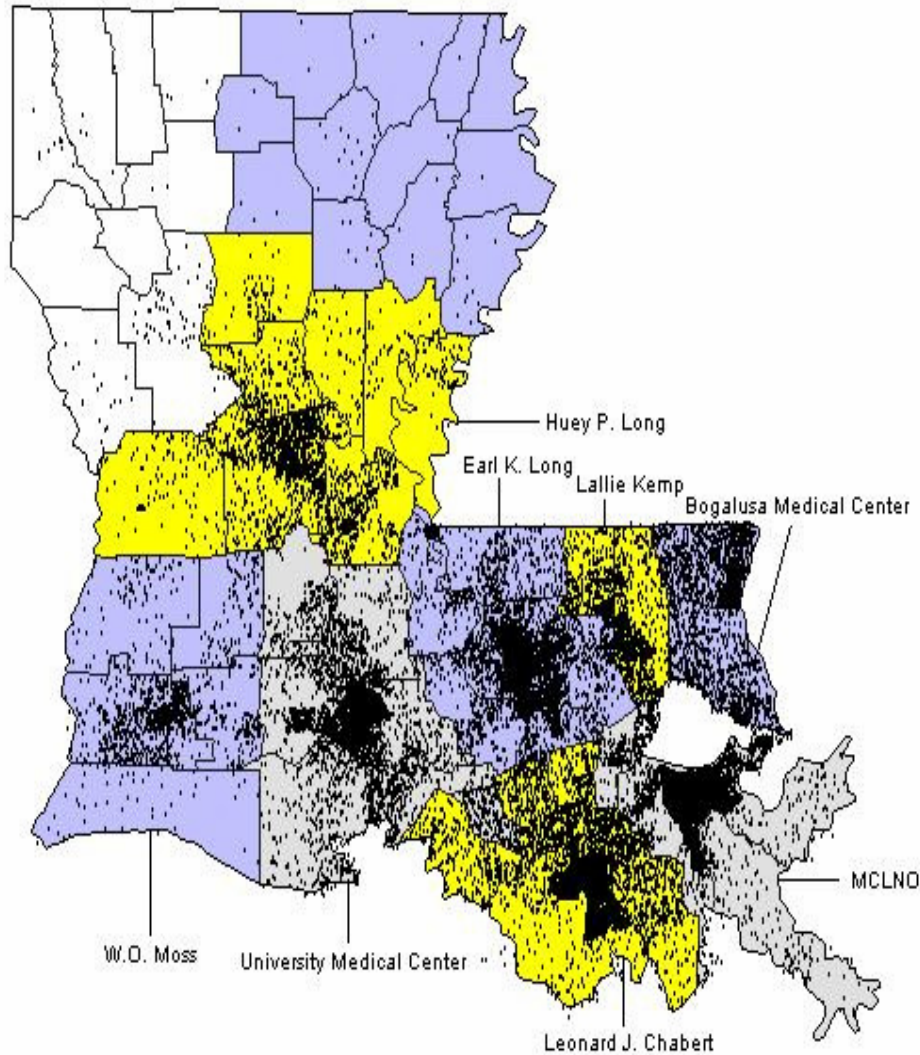
Lessons Learned

- **Disaster Credentialing**
- **Transportation**
 - Ambulance
 - Resource Delivery
 - Ground Transportation
 - Carrier Pigeon / Smoke Signals
- **Public Health Issues**
 - No water, sewer
 - Immunization needs – frequent CDC policy changes
- **Change in the delivery of care**
 - Medical health professional evacuated & permanently relocated
 - Assess your new patient population
 - Numerous inquiries regarding services offered

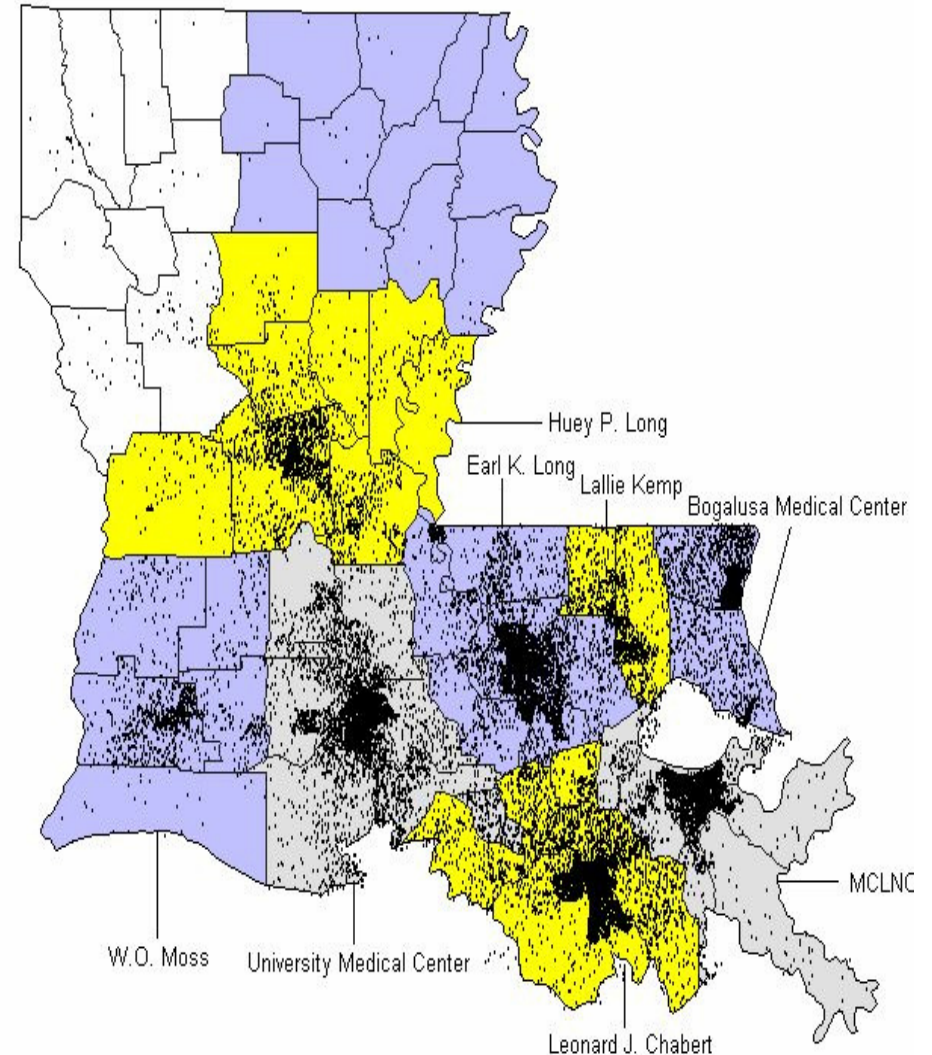
DISASTER CYCLE



HCS D System Admissions

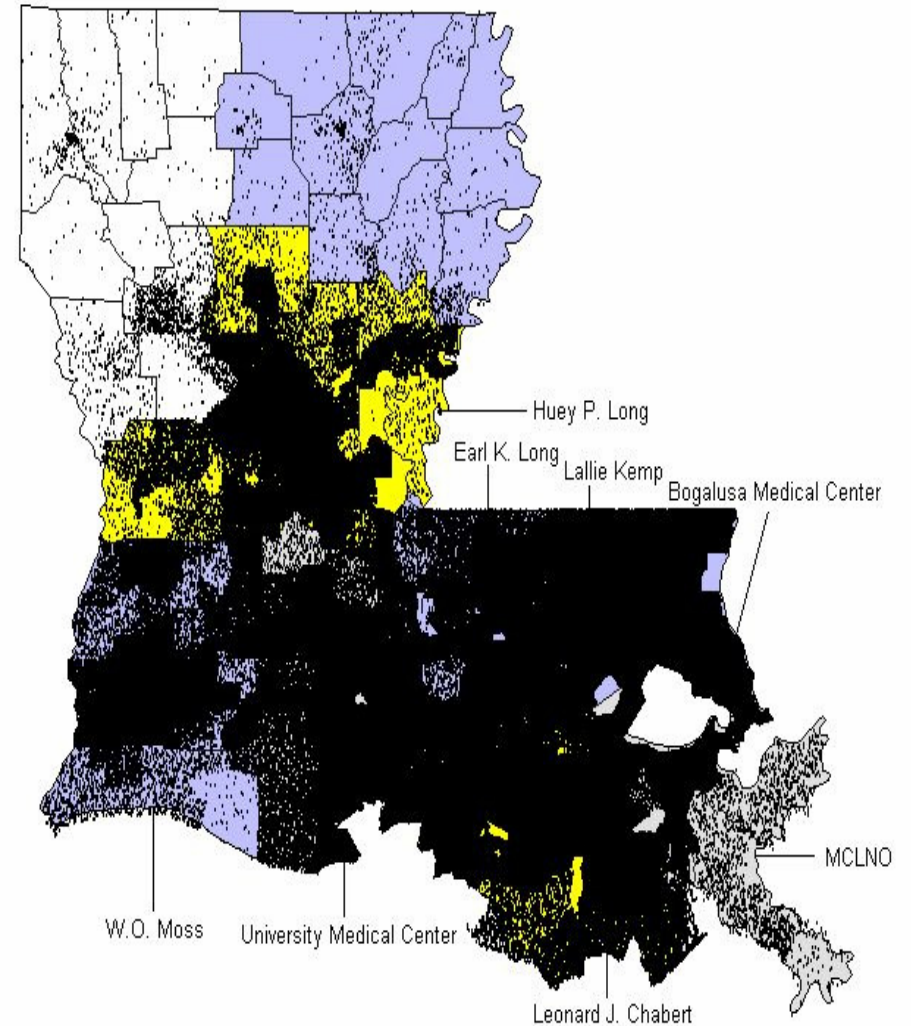
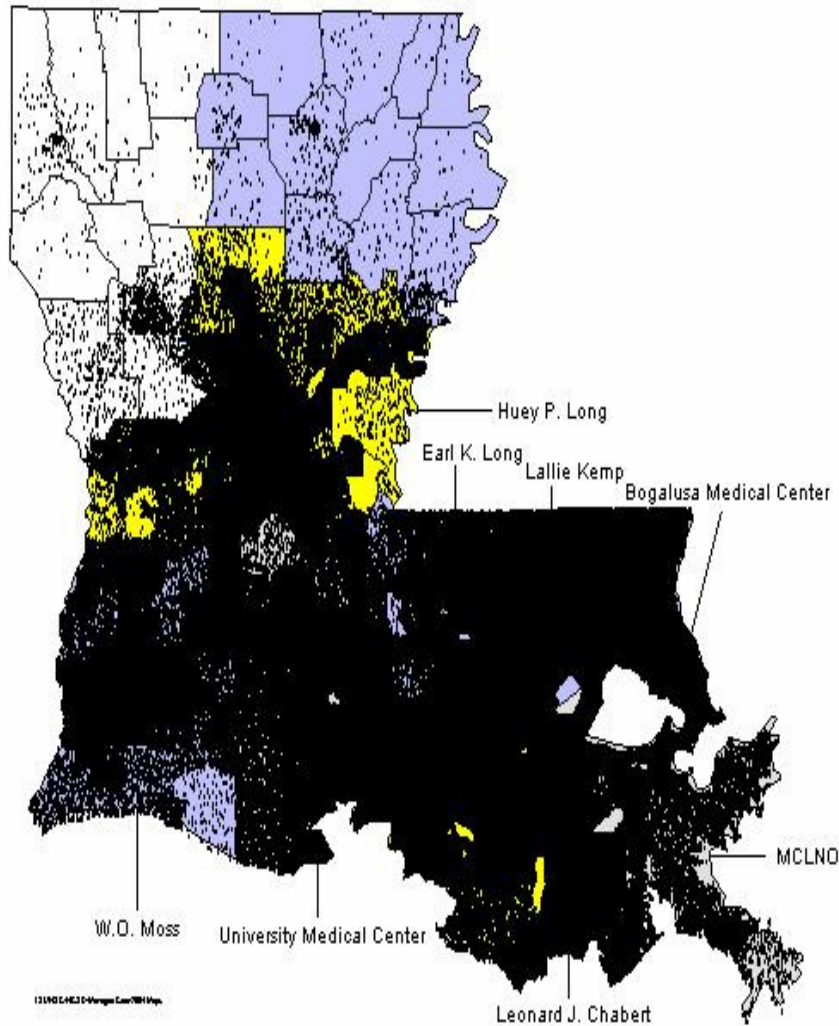


FY 2005 = 49,117



FY 2006 = 31,022

HCS D System Visits



FY 2005 = 1,214,929

FY 2006 = 971,580

QUESTION

&

ANSWER



LSU
HEALTH CARE SERVICES DIVISION
LOUISIANA'S HOSPITAL SYSTEM