

Mississippi After Action Review Emergency Support Function #8 Executive Summary of Best Practices

History

On August the 23, 2005 hurricane Katrina formed over the Bahamas and progressed to the southern tip of Florida as a Category 1 storm before making a second landfall on August 29 at 11:00 AM in southern Mississippi as a category 3 storm. The storm did not lose hurricane strength until it reached Jackson, MS 150 miles inland. This storm created a storm surge of 37 feet.

Katrina formed August 23 and dissipated August 31 having been recorded with wind speeds sustained at 175 mph. This storm was one of the strongest for its size in the history of the United States. Katrina devastated areas 100 miles from its center creating chaos and havoc in large expanses of landmass across the gulf counties and inland Mississippi. The storm is estimated to have caused 115 billion US dollars in damages and a death toll of 238 people for the state of Mississippi.

On August 25, 2005 Mississippi Department of Health, Office of Health Protection, Office of Emergency Planning and Response began ramping up by notifying their healthcare facilities of the impending threat of hurricane Katrina and putting all Emergency Response Coordinators on stand by for possible activation. At this time, the position of Director for OEPR had not been filled and the responsibility rested chiefly on Jim Craig and the Office of Health Protection.

The Mississippi Department of Health, Health Protection Office had a designated Command Center in Jackson, Mississippi at the main office just blocks from the State Emergency Operations Center housed within Mississippi Emergency Management Agency. Initial contact was set up between MDH and MEMA concerning operational periods and activations.

On the evening of August 26, 7:00 P.M. over 45 MDH employees were asked to report to the MDH Command Center for deployment orders as it was stood up for operations. Two Emergency Response Coordinators were sent to each of the gulf counties for operations subsequently to begin the next morning. Two other OEPR staff led by Mark Chambers were sent to Camp Shelby in Hattiesburg, Mississippi to stage with the State Emergency Response Team. Special Needs Shelters were identified and staff designated across the Gulf with Nurses identified to care for those with medical needs. Communications with the shelters was established via telephone with contact information reviewed and confirmed.

At 2:30 PM the first Health Alert Network message went out to all hospitals and health departments requesting hourly bed reports and disseminating the state EOC number for bed reports. Reports begin to come in from shelters of patients and family members. The following morning ambulances from Texas, Atlanta, and Alabama arrived under Mutual Aid Agreements and the Bureau of Emergency Medical Services deployed credentialed teams. At 0600 a mandatory evacuation was issued for Hancock County.

On August 28, forty one people were being housed in Biloxi High School. Hancock Special Medical Needs Shelter relocated its' twenty five patients to Kiln. Cellular service became sporadic around 4:30 PM as the Mobile Command Center was relocated as well to Lincoln County.

MDH set up a hotline on August 29 to handle the questions and needs that poured into the Jackson office from the general public. Biloxi High School reports four patients of their forty self evacuating. MDH sent out a message to all hospitals to review emergency operations plans via the Health Alert Network. Hudspeth Center notified MDH they were opening up a Special Needs Shelter as the storm hit the coastline at 1100. NDMS is activated and request made for Medical Strike Teams. Hospital bed reports continue to come in hourly along with the message that satellite phones are all still working. This was to be the beginning of many days and many tasks for the State Health Department.

Purpose

The Mississippi ESF 8 After Action Review shows areas of needed improvement and/or systems that may need to be expanded or made more robust. It is important to note that MDH purposely requested the AAR to primarily focus on shortfalls in order to facilitate the development of a performance improvement plan more rapidly. The purpose of this addendum is to look at the total response of lead agency in ESF 8 and to point out areas that the Mississippi Department of Health did well and should be commended on. These areas will be addressed by category outlined by disaster health and medical priorities. These categories are **Planning** for overall emergency response and recovery. **Personnel** for Health and Medical personnel needed for triage and treatment of patients. **Pharmacy** for prescriptive services for home bound patients as well as ALS meds for pre hospital and acute care services. **Physical Plant** for the provision of infrastructure supportive of health and medical assets and **Product** for medical product needed for treatment.

Planning

- MDH and US DHHS jointly developed and implemented the Nation's first Federal ESF 8 transition plan for Federal demobilization and recovery. This plan will be used as a model for impacted states during future disasters and has been the basis for revitalized recovery plans in some states.
- Pre-storm planning efforts put forth by the hospital preparedness program were widely remarked as essential and life saving during the response.

Personnel

- MDH successfully mobilized over 1400 non disaster personnel to fill vital response roles for more than ten weeks. All staff fell within the Incident Command System successfully and received just in time training for positions within the system requiring critical thinking of senior staff to manage and monitor transition into the new roles.
- MDH was the first Emergency Support function to perform a rapid needs assessment (RNA) of health care assets and

- infrastructure. These RNAs allowed for early information and reporting from coast and subsequently early requests for medical assets to be mobilized into the affected areas.
- MDH successfully instituted a Forward Command Operations Cell. This Forward Command allowed a more seamless Command structure with the locals allowing accurate information in and out in the earliest stages of the storm.
 - MDH led the only ESF to have secure communications pre and post storm with the previous purchase of satellite phones and radio network. These Satellite phones were vital in the communications with hospitals across the state and were purchased with National BT Hospital Preparedness Funds from the Health Resources and Services Administration as well as CDC Public Health Preparedness funds. Immediately post storm, this communication system was the only communication system passing information from the coast outside amateur radio.
 - MDH implemented personnel assets early on within the local Emergency Operations Centers streamlining communication and augmenting the local systems. This staff augmentation facilitated a more cohesive response between State, Region, and Local agencies and entities.
 - MDH Integrated Federal assets into the state and regional response. An example of this was the use of DHHS personnel to assist with key decision making in regards to response and recovery efforts. Request for resources were discussed between both Federal and State thus ensuring appropriate resource allocation in a more timely selection process.
 - MDH requested and coordinated services with seventeen Disaster Medical Assistance Teams, one State Medical Assistance Teams, one Emergency MED plus twenty five unit, one International Relief, and two large Mobile Dental Clinics. These were coordinated for extended periods with major logistical challenges in which they were able to overcome.
 - MDH provided on site staff during the response and recovery phases at severely impacted hospitals. This staff assisted with the response and recovery efforts for extended periods.

Pharmacy

- MDH was able to successfully request, receive, stage, and distribute the Strategic National Stockpile making it the first State in US History to complete the entire cycle prescribed for the SNS and providing pharmaceuticals for the state.
- MDH made provisions for Pharmaceuticals for field hospitals and other medical treatment assets. This included the provision of prescriptive services, Advanced Life Support Services, and over the counter pharmacy support.
- MDH utilized the United State Public Health Service to its full potential leveraging all personnel assets including pharmacy support.

Product

- MDH coordinated the mobilization of medical logistics to healthcare facilities in need. Immediate Rapid Needs Assessments and satellite communications enabled strong indications of accurate need in the devastated area.
- MDH coordinated well with Federal and other State assets to deploy appropriate resources to all devastated areas.
- MDH successfully demobilized medical assets from coastal counties while balancing the sensitive financial infrastructure with the needs of the citizens. This demobilization of the NC Field Hospital was very sensitive and was handled very well allowing Hancock Medical Center to reestablish services without denying access to healthcare to Mississippians.

Physical Plant

- Provided on site staff during the response and recovery phases at severely impacted hospitals.
- Immediately secured air assets for physical plant inspection and brought US Army Corp of Engineers in immediately to assist with site evaluation.

- Simultaneously commanded local state and federal assets directing the response to water safety issues, private well issues, waste water issues, food safety issues, and food safety.
- Mass Fatality management was coordinated for the first time with the County Coroners and Disaster Mortuary Operations Taskforces. Body recovery and identification issues were paramount and required much collaboration and inclusion from MDH. The outcome of this operation impacted other states and serves as a catalyst to develop in state and regional teams which have the recovery and forensics components.
- PH surveillance was instituted and was done daily at all sites by MDH staff in coordination with ground medical units. Daily coordination served the community well in that the amount of disease outbreak was minimal for poor living conditions and information was shared at a reasonable rate. EMAC and CDC assets were properly utilized to ensure accurate effective surveillance.
- MDH started vector control immediately post storm with an initial assessment of the Gulf coast and recommendations for overall control. Vector issues were mitigated by early assessment and intervention. Minimization of vector issues was paramount to the medical responders and field hospitals as patients were treated in austere locations as well as citizens living outdoors.
- Medical surge capacity was provided for all coastal hospitals by the deployment of medical assets early on thus making the access to healthcare rate 98%. This rate is phenomenal during a catastrophic disaster.
- Special Medical Needs Shelters were set up prior to storm as well as large shelters. Shelter personnel were provided for local sheltering of Special Medical Needs patients in heavily impacted areas. The provision of personnel for these specific areas of need was large and coordination was well focused and streamlined. The use of personnel in these instances has spurred new formations of teams in other states to create like mobilized assets.

- Air Medical Assets were mobilized from the Coast Guard and provided patient transports for injured and critical patients. FEMA, Guard, and private assets were mobilized as well for further patient and product support.
- Staff supported medical stations across the state to provide needed logistics for over 7 field medical stations. Evacuation was successful in that no deaths were attributed to evacuation efforts.
- Coordinated EMAC quickly for rapid mobilization with requested assets. Appropriate assets were mobilized and placed for optimum access to healthcare for all Mississippians as evidenced by the less than 2% service rate referenced above.

In closing , North Carolina has learned from the examples Mississippi Department of Health has set for other states. NC has established its' Health and Medical Strategic Plan based on these lessons learned. Fourteen projects have now been started all in relation to the results of this After Action Review. The North State hopes to model several of its' new initiatives after the successes of MDH and look to them for expert consult during the developmental phases. North Carolina Office of Emergency Medical Services, North Carolina Division of Public Health, and the North Carolina Division of Emergency Management thank Mississippi for the opportunity to learn.