Testimony of

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before a hearing of the

U.S. Senate Committee on Small Business and Entrepreneurship

on

"A Year Later: Lessons Learned and Progress Made after Hurricane Ike"

September 25, 2009

Senator Landrieu and members of the Senate Committee on Small Business and Entrepreneurship, I appreciate the opportunity to share the perspective of The University of Texas Medical Branch on Hurricane Ike as we enter our second year of recovery from the storm.

Before assuming the presidency of Texas' first medical school and academic health center, I served as CEO of the UCLA Health System and, prior to that, as Executive Vice President and Chief Operating Officer at the UT MD Anderson Cancer Center. In these positions, I played a key role in helping both institutions formulate responses to and plan for the threat of natural disasters. I can honestly say that I have never been prouder to be part of an institution than I am of my association with UTMB.

Clearly, Hurricane Ike had a profound effect on UTMB. More than 1 million square feet of first-floor space sustained damage from salt water flooding. This included critical components of our health system—a major source of revenue for an academic medical center that is Galveston County's largest employer.

Our recovery has proceeded more quickly than anyone expected and I can assure you our outlook today is infinitely more positive than it was a year ago. The written testimony we have submitted for the record goes into greater detail about UTMB's progress and what we have learned from this experience. I want to take this opportunity to express the university's deep appreciation for the tremendous effort put forth by the federal government to make resources available to help UTMB recover and rebuild after Hurricane Ike.

The people who staff agencies such as FEMA have been spectacular in their efforts to help us get back on our feet and move beyond the storm. And we have been gratified to find agencies not normally thought of as having a disaster relief mission offering to help us. One example is the willingness on the part of the National Institutes of Health to extend grant deadlines so that our researchers would not be disadvantaged by Hurricane Ike.

That said, we do feel that the process and length of time necessary to access critical funds needed for rebuilding can be improved. While we certainly understand the need for FEMA and other agencies to exercise due diligence when responding to a major disaster, we also feel it is worth exploring whether we as a nation can strike a better balance between fiscal prudence and timely recovery.

But perhaps our biggest concern is that the critical infrastructure that supports our city—water distribution system, wastewater treatment facilities, natural gas supply and the electrical grid—will not be sufficiently restored to better withstand future major storms. Thanks to our work with FEMA, the University of Texas System and others, UTMB has a comprehensive plan to "harden" our facilities, especially our hospital and

its critical emergency room and trauma center, against floods and windstorm. UTMB will not be able to resume vital operations in a timely manner after future storms if the city's infrastructure is not significantly improved and similarly "hardened." We are concerned that the current FEMA process and funding mechanisms will not allow our city access to sufficient resources to accomplish this.

For UTMB, one of the "silver linings" in Hurricane Ike has been renewed awareness of the university's importance to our region's health infrastructure and economy. We are most thankful for the investment FEMA is making in our recovery, because it will allow us to continue our 118-year tradition of serving the health needs of Texas. We encourage you to consider ways to ensure that an aging municipal infrastructure not hinder our recovery in any future storm.

Thank you again for the opportunity to speak to you today. And thank you for your efforts to protect the Texas gulf coast and other regions in our nation from the economic effects of natural disasters.

Initial and continued critical collaborations

- Federal government e.g., FEMA, DMAT, USN Nassau
- State of Texas e.g., Governor's Office, Legislature, DSHS, HHSC, National Guard
- City/County government and community leaders
- The University of Texas System, many UT institutions, other Texas academic institutions, many health care providers across the state
- Professional organizations e.g., AAMC, ACGME, Society for Microbiology
- Alumni, local communities, friends

APPENDIX

The following comments describe our general approach to protecting and preserving UTMB's campus assets before, during and after Hurricane Ike.

Preparing for weather-related events

- Campus-wide preparation and training for hurricanes is routinely conducted at UTMB, consistent with our institutional disaster preparedness policy
- A hurricane simulation disaster drill was conducted two weeks prior to the storm
- Extensive communication channels with the Texas State Emergency Operations Center and local/regional emergency response teams were in place well before the storm's arrival
- A comprehensive Incident Command Structure was in place and ready for activation prior to the event
- A maximum of \$100 million in disaster insurance coverage was secured by The University of Texas System Board of Regents for the Houston-Galveston region's campuses
- Contracts for disaster response services were in place through UT System's Office of Risk Management
- Stocks of fuel, water, food and medical supplies, as well as alternative power sources, were available on the UTMB campus or staged at nearby locations in advance of the storm
- Employees essential to the provision of security, facility operations, emergency health care and emergency management functions were designated ahead of the event and positioned for response

A staged approach to Hurricane Ike

- Phased cessation of research activities, cancellation of clinic visits and elective surgeries, discharge of hospital patients able to safely return home, and the relocation of academic and vital support functions (e.g., finance), commenced 48 hours before the storm
- Campus facilities were secured according to pre-storm standards
- Closure of the Galveston National Laboratory and all other UTMB biosafety-level labs was completed "by the book" and without incident
- Essential personnel were notified to make plans to be in assigned locations at assigned times in advance of the storm's arrival
- Regular communications with local, state and federal officials were maintained, primarily through the State Emergency Operations Center under the direction of Chief Jack Colley and the Office of the Governor
- Effective evacuation of non-essential personnel, students and hospitalized
 patients (including prisoners) was conducted according to protocols, with no
 significant adverse event, thanks to an incredible effort on the part of UTMB
 personnel and with invaluable support from Captain Colley, the staff of the EOC,
 and on-site representatives Charles "Boo" Walker and David Popoff, who worked
 to secure essential transportation assets and transfer locations

During and immediately after Hurricane Ike

- 1 million square feet of UTMB's first floor space was flooded as a result of salt
 water storm surge from the Galveston Bay; flood levels ranged from a few inches
 in UTMB's Moody Medical Library and the School of Nursing and Health
 Professions Building, to three feet in John Sealy Hospital, to eight feet in "Old
 Red," the state's first medical school building
- UTMB's incident command team and on-site staff focused on providing emergency medical services and on protecting and preserving campus assets while securing essential emergency services for the campus—food, power, water, natural gas, communications
- UTMB provided emergency medical services for community members and first responders who were on the island during and immediately after the storm
- Due to the intense demands on personnel fulfilling essential duties during and after the hurricane, a rotating "buddy system" was implemented to ensure personal safety and continued fitness for duty
- Cleaning and restoration of campus facilities began immediately, supplemented with contracted disaster management workers who arrived within a day of the storm
- UTMB's highly trained security officers provided a safe environment for staff and kept the campus free of intruders

UTMB's top priorities were to attend to the medical needs of a steady stream of
patients seeking emergency care or shelter, to provide a safe environment for
on-site UTMB and contract personnel, and to preserve and protect campus
facilities and equipment

Immediate post-lke priorities

- Addressing the needs of patients, students and employees
 - Relocated 597 Galveston-based medical residents to alternative clinical training sites
 - Established off-campus student and employee support services
 - Placed 3^{rd-} and 4^{th-}year medical students in clinical rotations off campus
 - Provided for continuity of patient care by quickly restoring access to the university's Call Center, patient ACCESS line, Internet services and Electronic Medical Record systems
 - Implemented plans immediately after initial damage assessments to relocate critical patient services to mainland locations
 - Established collaborations with local hospitals to provide for UTMB physician privileges and practice opportunities
 - Provided support services for employees and students during the transition; support included housing assistance, assistance with FEMA registration, student financial aid, counseling services, and uninterrupted payroll operations
- Protecting and preserving UTMB's research capabilities
 - o Preserved critical frozen research specimens and major equipment
 - o Restored research labs to functionality as quickly as possible
 - Located alternative areas to conduct vital research projects that needed to proceed without interruption
- Restoring campus functions
 - Initiated a complete assessment of damages, in concert with UT System
 Risk Management
 - Began clean-up and dehumidification of damaged buildings within 36 hours of the arrival of tropical storm force winds
 - Developed a prioritized schedule based on the damage assessment to return buildings to their designated use as quickly as possible
 - Note: Basic services such as water, sewer, natural gas and electricity were dependent upon the City of Galveston's aged utility infrastructure and took more than a week to restore; this significantly limited UTMB's restoration efforts in the immediate aftermath of the hurricane

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Restoring services

- Over the past 20 weeks, UTMB has been able to restore most of its research services:
 - o 95% of research space above the first floor can be occupied
 - The Galveston National Lab was essentially unharmed; the facility was formally dedicated less than two months after the storm and a number of its containment labs are already operational
 - The Robert E. Shope biosafety level 4 lab was unharmed and is operational
 - The Truman Blocker Medical Research Building sustained very little damage and is operational
- UTMB's School of Medicine returned to operations with no significant interruption in the students' academic experience:
 - Academic services are operational; on-campus classes for 1^{st-} and 2^{nd-} year medical students resumed October 20
 - Clinical programs for 3^{rd-} and 4^{th-}year students have continued through collaborative agreements with other health care facilities in Texas; these students began a phased return in January and all will be back under the direct supervision of UTMB faculty by June
- UTMB's schools of Nursing, Health Professions and Graduate Biomedical Sciences are operational
- All four schools are accepting applications for next year and their 2009 commencements will take place on schedule
- Clinical services have been restored and/or are now available at:
 - UTMB's network of Regional Maternal and Child Health Clinics (these clinics began seeing patients two days after the storm); approximately 80 clinics on and off the island currently offer a full range of primary and specialty services
 - John Sealy Hospital
 - Beds for women/newborns available one month after Ike

- Reopened Jan. 5 with an initial configuration of 200 full-service beds (including beds for TDCJ patients)
- Services include women's, infants' and children's care, medical/surgical and critical care, acute care for the elderly (ACE Unit), transplant services, burns care, among others
- Emergency room (operating on a treat-and-transfer basis) in the John Sealy Hospital
- Inpatient units at collaborating hospitals
 - Christus St John (Nassau Bay)
 - Clear Lake Regional Medical Center (HCA Clear Lake)
 - Mainland Medical Center (HCA Texas City)
 - St. Joseph Medical Center (Houston)

Why the number of beds in John Sealy Smith Hospital is lower than pre-lke level

- Restoring essential support services requires relocating them above the first floor (taking space once devoted to patient beds):
 - Inpatient pharmacy
 - Sterile processing for the operating rooms
 - o Blood bank services
 - Food services
 - Radiation oncology services
- Renovated inpatient units will require more space per bed to comply with code and accommodate necessary equipment
- Reduced population (demand) anticipated on Galveston Island

Why UTMB cannot yet reopen its Level One Trauma Center

- Damage to critical support areas such as pharmacy, blood bank, sterile processing, food service
- Loss of essential, expensive medical equipment
- Difficulty in meeting staffing requirements (physician availability)
- Working with Texas Department of State Health Services to determine appropriate trauma center designation based on current capacity

Challenges to UTMB's recovery

• 59% of UTMB's annual budgeted revenue was derived from patient care operations; that revenue stream has been significantly reduced due to

- hurricane-related damage the John Sealy Hospital and campus outpatient clinics sustained
- UTMB outpatient clinical services are operational in primary care and specialty services on the mainland but productivity is limited by space availability
- UTMB's operating expenses related to campus clean-up efforts and ongoing payroll has resulted in rapid depletion of cash reserves; these reserves are being rebuilt gradually through reimbursements and expense reductions such as the reduction in force announced in November 2008
- Lack of long-term source of working capital limits UTMB's ability to restore facilities and equipment necessary to return to full functionality in all mission areas, particularly the clinical enterprise

Actions UTMB has taken to address financial challenges

Short term:

- Reduction in force affecting approximately 2,300 positions is enabling UTMB to bring its payroll in line with current staffing needs and has helped in reducing projected business losses from \$276.4 million to \$169 million
 - Employees affected by the RIF received a minimum of 60 days' notice with full pay, as well as continuing access to numerous programs to assist with their job search, including "internal candidate" consideration for openings at other UT System institutions
- Ongoing work with FEMA to determine extent of damage, potential level of reimbursement and mitigation needs (UTMB has received \$72.6 million in FEMA advances and reimbursements as of Jan. 31)
- Ongoing work with state, federal and local governments and with UT System to determine most appropriate financing options

Long Term:

- Work with state leadership to determine UTMB's health care mission for the state, as well as the best means for fulfilling that mission
- Kurt Salmon Associates study requested by the Governor's Office and funded by UT System to help determine options for structuring UTMB's health care system in future, including analyses of costs and potential revenues
- Work with local communities on health care financing options, including formation of hospital district(s)/health service district(s)

Possible mitigation strategies

- Improving City of Galveston utilities infrastructure (water, sewer, power, natural gas, communications) to ensure rapid return to operations for UTMB
- Raising essential services to the second floor or higher in all buildings
- "Hardening" existing buildings where feasible (e.g., installing floodgate systems similar to those used in the Texas Medical Center to protect the core area of the UTMB campus)
- Developing a "hardened" facility to better support animal research by eliminating the need to transport animals during weather-related emergencies
- Developing a "hardened" facility with reliable power and fuel sources to maintain the research enterprise's frozen specimens ("Freezer Farm")
- Relocating vulnerable services to the mainland on property already being developed by UTMB as an ambulatory surgical, imaging and specialty care center

The University of Texas Medical Branch is working to protect and preserve vital capabilities and precious resources as we plan for the future. All avenues of potential funding and support are being pursued. We are working closely with state leadership and with the Texas Health and Human Services Commission to analyze the impact of our suspended clinical services on the citizens of Texas and the budget implications for the State of Texas.

UTMB Hurricane Ike recovery needs (as of January 2009)

- UTMB has identified the following needs, and is continuing to work with the state on timing of expenditures and methods of finance (insurance proceeds, FEMA, other federal funding, bonding, state funds, etc):
 - \$169M to restore business losses
 - \$167M State's share of FEMA-estimated capital repair and mitigation costs
 - Access to a source of funds over the next five years to be repaid with expected \$500M in FEMA reimbursements for capital costs

Factors that could adjust needs estimates

- Ongoing FEMA negotiations regarding damage assessments and allocation of approximately \$100 million in insurance between capital needs and business losses
- External factors outside of UTMB's control (e.g., Shriners of North America's recent decision to close Shriners Hospital for Children-Galveston, located on Galveston Island and staffed by UTMB faculty)
- State Auditor review of UTMB

Potential sources being explored to finance UTMB's recovery and extend its success

- An advance against expected FEMA reimbursement from the Federal government
- Access to lines of credit or revolving fund to be repaid by FEMA reimbursements
- Social Services Block Grant funding
- Community Development Block Grant funding
- Other federal funding (e.g., stimulus bill, changes in state-match requirement for FEMA reimbursement, etc.)
- Tuition Revenue Bonds
- State General Revenue support
- Funding for UTMB exceptional items for programs of academic excellence

Potential recovery support from the Galveston community

- Sealy & Smith Foundation and other philanthropic sources
- Formation of a County Hospital District/Health Services District
- Continued collaboration with mainland-area hospitals for clinical care, student and resident education, and research

UTMB has an outstanding track record of fulfilling its vital missions of producing a diverse and highly skilled health professions workforce and applying our research to improve the diagnosis, treatment and prevention of killer diseases like Alzheimer's, Parkinson's and diabetes. Our educational and research programs came through Hurricane Ike a bit battered and bruised, requiring us to make permanent repairs, as well as mitigate against future damage. That said, both enterprises are functioning well, are highly productive and are proceeding with their very important work.

Unfortunately, our health system facilities were more heavily damaged. The clinical enterprise is critical to UTMB for two reasons. First, it is the principle training site for our education programs and there are no facilities nearby that can easily substitute as training locations. Second, the health system provides almost 60 percent of the annual budgeted revenues that support UTMB's primary missions of education and research. Additionally, UTMB provides critical health services to the entire Houston-Galveston region.

We need to restore our health system and its premier programs – such as our nationally acclaimed trauma center – so that the region and state we serve can continue to benefit

from the knowledgeable health professionals we train, the research advances we make possible, and the patient care we so ably provide. While UTMB faculty and staff have worked tirelessly to restore the health system, the extent of the damage has limited recovery efforts. Without the assistance and guidance of the Texas Legislature, it will likely be impossible for us to restore critical facilities and reconfigure UTMB for the future. Both are necessary to ensure financial viability and preserve UTMB's continued ability to contribute to the health of Texas.

Thank you.