

After the storm

New Orleans still bears the scars of Hurricane Katrina, but some neurologists see the rebuilding of its healthcare system as an opportunity to get things right. Norra MacReady reports.

In the 3 years since Hurricane Katrina, much of life in New Orleans has returned to a semblance of normality, but reminders of its effects linger in the city's landscape and in its healthcare community.

In the immediate aftermath, all local hospitals shut down. Nearly 6000 doctors left New Orleans because of the destruction of their homes or offices, the loss of most of their patients, or a combination of the three. Joaquin Wong, a staff neurologist at the Children's Hospital of New Orleans, remembers Katrina well. He was in California when the hurricane hit. His home was flooded and he could not return for 6 weeks. "A handful of doctors freaked out and left," whereas others were laid off or retired, he recalled. Two of the hospital's four neurosurgeons lost their homes. For at least 2 years afterwards, many patients came to the neurology department complaining of headaches due, mostly, to the stress of living in trailers or homes that were seriously damaged by water and wind. "Psychiatry reported lots of [cases of] anxiety, depression, and

ADHD, and the parents were affected as well as the children," Wong said recently.

Today, "we are providing basic services in neurology, but there are still problems," said John England, chairman of the neurology department at Louisiana State University (LSU) School of Medicine. "It's been a challenging process to move forward after Katrina." Neurologists are in short supply, but they're not the only ones; England noted that the numbers of primary-care physicians, psychiatrists, and psychologists also are not back to their pre-Katrina levels.

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In the months after the storm, the department of neurology at Tulane University School of Medicine, also in New Orleans, lost nine of its 14 faculty members, although it kept all but one of its 12 residents, who subsequently left for personal reasons. Because of the damage sustained in the storm, most of the university closed its classrooms for part of the fall semester. The medical school sent students and faculty members to other medical schools in Texas, to preserve as much continuity as possible. The participating universities in Texas also provided the Tulane medical faculty with offices and research space on their campuses. Consequently, the medical school was the only division of the university to remain open for the entire semester. Nevertheless, according to Jeffrey S Nicholl, assistant professor of neurology at Tulane, the

department now has only five full-time and ten part-time members compared with 15 of each before the hurricane.

In most disasters, the poor are hit hardest, and Katrina was no exception. All of New Orleans's hospitals are back up and running, except one: Charity Hospital, the second-oldest hospital in the USA and the country's second-largest hospital (about 600 beds). "Big Charity," as the locals called it, and University Hospital, the other public hospital in the city, lost 3000 workers between them. But Charity Hospital was also the main centre of clinical studies for LSU and Tulane medical schools, a level I trauma center for all of southeastern Louisiana, and where most of the area's poor people went for their medical care. The hospital was flooded beyond repair and will not reopen. In May, 2008, the National Trust for Historic Preservation placed the hospital and the surrounding neighbourhood on its list of America's most endangered places. So, "the biggest impact was on the uninsured," said Frank Culicchia, chief of neurosurgery at LSU. He estimated that before Katrina, uninsured patients comprised perhaps 5% to 8% of the patients seen by local neurologists, but they now make up as much as 25% of some practices. This is because of the loss of the Charity Hospital. "It had some of the highest per capita emergency room visits in the country because that's where the indigent went for their primary care as well as emergencies," Culicchia explained.

A new hospital is being planned, but will probably not open for 5 to 7 years. In the meantime, the breach is being filled by the 250-bed University Hospital and several private hospitals and health systems



Satellite image of Hurricane Katrina

in the area, including West Jefferson Medical Center, Touro Infirmary, and the Ochsner-Baptist Health System. This means that care is now more fragmented than it was before Katrina, because there is no centralised public facility except for University Hospital, and "that's pretty crowded," England said.

Because Charity Hospital provided primary as well as emergency care, its demise leaves many former patients scrambling to find follow-up care for chronic conditions, such as diabetes, heart disease, hypertension, and kidney disease. Those patients "now have limited access to care, except for the private hospitals, and those hospitals are not equipped to provide care the way Charity did," Culicchia points out. "I'm sure we're seeing more hypertensive haemorrhage, diabetic neuropathy, and kidney failure as a result."

The one bright spot is Children's Hospital: it escaped the storm virtually unscathed, thanks to its location 17 feet above sea level, which prevented it from being flooded. "We were back up-and-running pretty quick," said Stephen Deputy, associate professor of neurology at LSU and a staff neurologist at the hospital. The hospital is a referral centre for the entire state of Louisiana, and the neurology service has five full-time neurologists and a 4–6 month waiting list. "Our practice really has not skipped a beat," Deputy maintains.

The state of medical research is less heartening; it still is not back to where it was before Katrina, England notes. Some basic equipment, such as freezers, are scarce. Money is a sensitive subject. "We lost tens of millions of dollars in research funding," and replenishments have been slow in coming, at least from the federal government. In fact, the Bush administration initially denied requests from the National Institutes of Health (NIH) and the National Science Foundation for extra funds to assist New-Orleans-based grant

recipients, which prompted many researchers, including some LSU neurology investigators, to move elsewhere, permanently. Since then, Congress has approved only a small budget increases for the NIH, further hindering its ability to provide some relief to researchers whose projects were demolished by Katrina. All in all, "recovery in New Orleans has been due, in large measure, to private contributions," says England, although the government has finally started to provide funds to repair research facilities. England also pointed out that the American Academy of Neurology had an important role in restoring neurology practice and research in New Orleans by presenting the neurologists' positions on crucial topics, such as quality of care, access to care, and reimbursement, to state and federal legislators.

The recruitment of faculty members is another ongoing challenge, but "it's difficult to say if Katrina is the real reason we're having problems attracting people to New Orleans," Culicchia points out. Candidates were reluctant to come to the city, even before the hurricane because of perceptions of a high crime rate and poor educational system. Frequently, what persuaded them to settle there was a bond, such as family or friends in the area. But recruitment is even harder now, "because of the destruction and the media coverage." And, in his opinion, the media coverage has been the more harmful of the two. "If you can get people to come here to see what's available, they change their minds about New Orleans. I've recruited two people in the last year, and they both said that when they got here they realized it's not as bad as the media have made it out to be." Most of the city was flooded, and portions of it still are devastated, but some areas either never sustained much damage or have been restored to their original condition, including the lovely old

The printed journal includes an image merely for illustration

Alex Brandon/AP/PA Photos

French Quarter, for which New Orleans is famous.

Progress, although slow, is occurring. Thanks to an aggressive marketing campaign, Tulane University as a whole received 34 000 applications this year, double its highest pre-Katrina level. Tulane and LSU medical schools both have new deans; their mandates include rebuilding the healthcare system in New Orleans and bringing their schools' research facilities at least back to their former levels, if not more. And at LSU, the medical school is back to its full complement of students. "Most of us are trying to concentrate on the opportunities now," England explained. "We're taking a different view of what it means to provide health care." Among the innovations he hopes to see are increased access to preventive and general medical care for the indigent. That can be accomplished preferably through satellite clinics and community outreach programs, with less reliance on hospitals, except for severe, acute disease or true emergencies. He also believes that the medical schools must establish a large presence in the life of the city and develop strong ties to its private hospitals.

Basically, "I'm tired of hearing Katrina caused this and Katrina caused that," Culicchia said. "It's time to get up and get going. The spirit of most people is to get up and get it done."

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