

US government declares emergency after Hurricane Katrina

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After Hurricane Katrina hit east of New Orleans on Monday 29 August, the federal government declared a public health emergency for the US Gulf coast. But, as the city was eventually emptied a week later in the wake of the disaster, there was a second storm brewing—one of criticism of the Bush administration and the Federal Emergency Management Agency for their slow response to Katrina's aftermath.

Former US president Bill Clinton and Dr Bill Frist, Republican senator for Tennessee and a heart surgeon, called for an inquiry into what went wrong. Mr Clinton wanted a bipartisan commission to investigate "the government failing the people" with its slow response to the disaster.

Wide breaches in the levees surrounding New Orleans, which the government said it had not anticipated, resulted in 80% of the city being submerged. Despite an emergency drill (Hurricane Pam) that was carried out last year, there was no follow-up or planning for a worst case scenario.

Thousands of people suffered up to five days of squalor and deprivation of basic human needs like food and water in the Superdome, an indoor sporting arena, before being evacuated. Arson, rapes, assaults, shooting, and looting reportedly broke out, ending in total lawlessness with the police powerless. Almost 7000 National Guard soldiers had to be flown in to help restore order. Although the National Guard moved in to the French Quarter on Wednesday 31 August to stop the unrest, it was not until Friday 2 September that a convoy with food, water, and medicine got through the floodwaters to reach those stranded in the city's convention centre.

Thousands of sick and disabled patients had to be evacuated from non-functioning New Orleans hospitals. The Ochsner

Clinic Foundation had to airlift 25 premature infants without their parents from its neonatal care unit to units in Houston, Texas; Baton Rouge, Louisiana; and Birmingham, Alabama. It was the only hospital remaining fully functional, but it was relying on power from a generator and losing food and water fast. Charity and Tulane hospitals were limited in their ability to care for patients because of flooding and loss of power. Although evacuation of these hospitals began on Wednesday 31 August, 600 patients were still awaiting evacuation from Charity Hospital on Friday 2 September.

New Orleans airport had been converted into a huge emergency room and triage centre from Thursday 1 September, three days after the hurricane struck. There were rows of people on stretchers, and others tied in wheelchairs, and 3000-5000 people were treated there, using a generator for power. The dead were removed to a morgue established in one concourse. Many bodies had to be stored

temporarily in refrigerated trucks. Ray Nagin, mayor of New Orleans, initially said deaths would be in the thousands, but later told NBC News that "it wouldn't be unreasonable to have 10 000 dead."

Gregory Henderson, a pathologist from Wilmington, North Carolina, who was attending the HIV/AIDS Conference at the Ritz Carlton Hotel, helped set up an emergency clinic at the hotel. He reported on Saturday 3 September by email, "Many people in the hotel are elderly and small children. There is a team of about [seven] doctors and [a physicians' assistant] and pharmacists.

"Our biggest adventure today was raiding the Walgreens [a shop] on Canal [Street] under police escort. The pharmacy was dark and full of water. We basically scooped the entire drug sets into garbage bags and removed them. All under police escort. The looters had to be held back at gun point.

"We have set up a hospital in the French Quarter bar in the

hotel, and will start admitting patients today. Many will be from the hotel, but many will not. We are anticipating dealing with multiple medical problems, medications, and acute injuries. Infection and perhaps even cholera are anticipated major problems. Food and water shortages are imminent."

The major problem was in the city itself, where floodwaters were compared to dilute sewage, carrying the hepatitis A and Norwalk infective gastroenteritis viruses. The US Centers for Disease Control and Prevention believe that typhoid and cholera are unlikely dangers, however. Julie Gerberding, chief of the CDC, told a Florida newspaper, the *Sun Sentinel*, that tetanus was more of a concern.

This huge inundation also provided a potential breeding ground for mosquitoes that can carry and transmit the West Nile, St Louis encephalitis, and dengue fever viruses.

Lastly, there was the hazard of carbon monoxide poisoning from operating generators and stoves in enclosed spaces. Cuts, bruises, and infected wounds, together with heat exhaustion and dehydration were likely to multiply, as the work of relief and rescue of many still stranded on roofs and in attics continued.

As the *BMJ* went to press, the only formally reported cases of waterborne illness were in Biloxi, Mississippi, where 20 cases of dysentery forced a shelter to close.

The American Psychiatric Association said, "We are committed to support the efforts to address the long term psychiatric impacts of this disaster as well as the acute needs of victims and caretakers."

The American Public Health Association posted its guide, *Public Health Management of Disasters* on its website immediately after the disaster. (See p 582.) □



Evelyn Turner beside the body of her husband, Xavier Bowie, who had lung cancer and died when he ran out of oxygen