



GAO

Accountability \* Integrity \* Reliability

United States Government Accountability Office  
Washington, DC 20548

---

February 16, 2006

Congressional Committees

Subject: *Disaster Preparedness: Preliminary Observations on the Evacuation of Hospitals and Nursing Homes Due to Hurricanes*

During disasters, administrators of health care facilities are faced with decisions about how to operate and care for patients, including when and how to evacuate patients if the facility becomes unable to support adequate care, treatment, or services. Hospitals and nursing homes are required to have plans in place that describe how they will operate during emergencies. Hurricanes Katrina and Rita were incidents of national significance that highlighted the challenges involved in evacuating vulnerable populations, including those in hospitals and nursing homes. Federal officials used the National Disaster Medical System (NDMS) to help evacuate patients due to Hurricane Katrina—the first time the system has been used to evacuate such a large number of patients. Formed in 1984, NDMS is a partnership among the Department of Defense (DOD), the Department of Health and Human Services (HHS), the Department of Homeland Security (DHS), and the Department of Veterans Affairs (VA).

We have begun work to assess the evacuation of hospital and nursing home patients due to disasters. We are performing this work under the Comptroller General's authority to conduct evaluations on his own initiative.<sup>1</sup> To conduct our review, we obtained information on (1) who is responsible for deciding to evacuate hospitals and nursing homes, (2) what issues administrators consider when deciding to evacuate hospitals and nursing homes, and (3) what federal response capabilities support the evacuation of hospitals and nursing homes. The Senate Committee on Health, Education, Labor, and Pensions requested a briefing on the preliminary observations of our review. We briefed the committee with other committees of jurisdiction on February 16, 2006. This report documents our preliminary views as presented in those briefings. (See encl. I.) We anticipate completing our work in the summer of 2006 and will issue a final report at that time.

To provide this information, we interviewed officials in Florida in areas that experienced hurricanes in 2004, including officials from three hospitals and three nursing homes that experienced Hurricane Charley, state officials, and local emergency management officials in two counties. In addition, we interviewed

---

<sup>1</sup>31 U.S.C. § 717(b)(1) (2000).

officials from national hospital and nursing home associations, Florida hospital and nursing home associations, and Louisiana nursing home associations. We also interviewed federal officials from DOD, HHS, DHS, the Department of Transportation (DOT), and VA. We also reviewed documents, including emergency management plans from Florida, Louisiana, Mississippi, local governments, hospitals, and nursing homes; federal documents such as the National Response Plan, which describes how the federal government assists in managing incidents of national significance; and other relevant federal documents. Our work was performed from January through February 2006 in accordance with generally accepted government auditing standards.

In summary, we found that hospital and nursing home administrators are often responsible for deciding whether to evacuate patients from their facilities due to disasters, including hurricanes or other natural disasters. State and local governments can order evacuations of the population or segments of the population during emergencies, but health care facilities may be exempt from these orders. Hospitals and nursing home administrators told us that they evacuate only as a last resort and that facilities' emergency plans are designed primarily to shelter in place. Administrators consider several issues when deciding to evacuate or to shelter in place, including the availability of adequate resources to shelter in place, the risks to patients in deciding when to evacuate, the availability of transportation to move patients and of receiving facilities to accept patients, and the destruction of the facility's or community's infrastructure. Nursing home administrators must also consider additional factors, including that their residents generally have no other home and cannot care for themselves, and the necessity to locate receiving facilities that can accommodate residents for a long time. Finally, NDMS, a federal system, can provide assistance with evacuation of hospital patients, such as providing transportation from one location to another. Federal officials told us, however, that NDMS was not set up nor is it currently configured to provide assistance evacuating nursing homes. In our ongoing review, we are continuing to examine the vulnerabilities of nursing homes in future disasters, particularly hurricanes.

We discussed the facts contained in this report with DOD, HHS, DHS, and VA officials, and they generally agreed with them.

-----

We are sending copies of this report to congressional committees and to the Secretaries of Defense, Health and Human Services, Homeland Security, Transportation, and Veterans Affairs. We will also make copies available to others upon request. In addition, the report will be available at no charge on GAO's Web site at <http://www.gao.gov>. Contact points for our Offices of Congressional Relations and Public Affairs may be found on the last page of this report.

If you or your staff have any questions about this report, please contact me at (202) 512-7101 or [bascettac@gao.gov](mailto:bascettac@gao.gov). Major contributors to this report were Linda Kohn, Assistant Director; La Sherri Bush; Nkeruka Okonmah; and William Simerl.

A handwritten signature in black ink that reads "Cynthia Bascetta". The signature is written in a cursive, flowing style.

Cynthia A. Bascetta  
Director, Health Care

Enclosure

*List of Committees*

The Honorable John Warner  
Chairman  
The Honorable Carl Levin  
Ranking Minority Member  
Committee on Armed Services  
United States Senate

The Honorable Charles E. Grassley  
Chairman  
The Honorable Max Baucus  
Ranking Minority Member  
Committee on Finance  
United States Senate

The Honorable Michael B. Enzi  
Chairman  
The Honorable Edward M. Kennedy  
Ranking Minority Member  
Committee on Health, Education,  
Labor, and Pensions  
United States Senate

The Honorable Susan M. Collins  
Chairman  
The Honorable Joseph I. Lieberman  
Ranking Minority Member  
Committee on Homeland Security and  
Governmental Affairs  
United States Senate

The Honorable Larry E. Craig  
Chairman  
The Honorable Daniel K. Akaka  
Ranking Minority Member  
Committee on Veterans' Affairs  
United States Senate

The Honorable Duncan L. Hunter  
Chairman  
The Honorable Ike Skelton  
Ranking Minority Member  
Committee on Armed Services  
House of Representatives

The Honorable Joe Barton  
Chairman  
The Honorable John D. Dingell  
Ranking Minority Member  
Committee on Energy and Commerce  
House of Representatives

The Honorable Tom Davis  
Chairman  
The Honorable Henry A. Waxman  
Ranking Minority Member  
Committee on Government Reform  
House of Representatives

The Honorable Peter T. King  
Chairman  
The Honorable Bennie G. Thompson  
Ranking Minority Member  
Committee on Homeland Security  
House of Representatives

The Honorable Steve Buyer  
Chairman  
The Honorable Lane Evans  
Ranking Minority Member  
Committee on Veterans' Affairs  
House of Representatives

The Honorable William M. Thomas  
Chairman  
The Honorable Charles B. Rangel  
Ranking Minority Member  
Committee on Ways and Means  
House of Representatives

The Honorable Tom Davis  
Chairman  
Select Bipartisan Committee to Investigate the  
Preparation for and Response to Hurricane Katrina  
House of Representatives



---

# **Disaster Preparedness: Preliminary Observations on the Evacuation of Hospitals and Nursing Homes Due to Hurricanes**

---

**Briefing for Congressional Committees**

**February 16, 2006**

---



---

## Evacuation of Hospitals and Nursing Homes Due to Hurricanes

---

- Purpose and Key Questions
- Scope and Methodology
- Background
- Preliminary Observations



---

## Purpose and Key Questions

---

Hurricane Katrina was one of the worst natural disasters in U.S. history. Some inpatient facilities, including hospitals and nursing homes, evacuated due to the hurricane. Some facilities evacuated before the storm, while others evacuated after the storm because they were unable to sustain operations.

To assess the evacuation of hospital and nursing home patients, we reviewed the following questions:

1. Who has responsibility for deciding to evacuate hospitals and nursing homes?
  2. What issues do administrators consider when deciding to evacuate hospitals and nursing homes?
  3. What are the federal response capabilities to support the evacuations of hospitals and nursing homes?
-





---

## Scope and Methodology

---

### We interviewed

- officials in Florida in areas that experienced hurricanes in 2004, including officials from three hospitals and three nursing homes that experienced Hurricane Charley, state officials, and local emergency management officials in two counties;
  - officials from national hospital and nursing home associations, Florida hospital and nursing home associations, and Louisiana nursing home associations; and
  - federal officials from the Departments of Defense (DOD), Health and Human Services (HHS), Homeland Security (DHS), Transportation, and Veterans Affairs (VA).
-



---

## Scope and Methodology

---

- We reviewed documents, including
    - emergency management plans from Florida, Louisiana, Mississippi, local governments, hospitals, and nursing homes;
    - federal documents such as the National Response Plan, which is the framework for how the federal government assists in managing incidents of national significance; and other relevant federal documents.
  - We conducted our work from January through February 2006 in accordance with generally accepted government auditing standards.
-



---

## Agency Comments

---

- We discussed the facts contained in this briefing with DOD, HHS, DHS, and VA officials.
- The officials generally agreed with the facts.



---

## **Background: National Disaster Medical System**

---

- Formed in 1984, the National Disaster Medical System (NDMS) is a partnership among DOD, HHS, DHS, and VA.
  - NDMS's mission includes providing health and other emergency services in collaboration with states and other public or private entities.
  - In 2002, Congress transferred NDMS from HHS to DHS, which is responsible for the program's activation, administration, and funding.
-

---

## Background: National Disaster Medical System

---

- NDMS consists of three functions:
    - medical response, which includes health assessments, health care, equipment, supplies, and other services at the site of an incident;
    - patient evacuation, which includes communication and transportation to evacuate patients from a mobilization center near the incident, such as an airport, to reception facilities; and
    - “definitive care”, which includes medical treatment beyond emergency care provided upon inpatient admission to an NDMS treatment facility (typically a nonfederal hospital that has signed an agreement with NDMS).
  - Within NDMS, DHS has lead responsibility for medical response; DOD has lead responsibility for patient evacuation; and DOD and VA have lead responsibility for managing “definitive care.”
-



---

## Background: National Response Plan

---

- The National Response Plan (NRP) describes how the federal government assists in managing incidents of national significance.
  - Under the NRP, DHS can activate NDMS to respond to incidents, including a presidentially declared major disaster or emergency under the Robert T. Stafford Disaster Relief and Emergency Assistance Act.<sup>1</sup>
  - Under the NRP, HHS has overall responsibility for coordinating the public health and medical response to incidents, including NDMS coordination.

---

<sup>1</sup> The Stafford Act established programs and processes by which the federal government supplements state and local resources in major disasters or emergencies.



---

## Background: Facility Emergency Plans

---

- Hospitals and nursing homes are required to have emergency plans in place.
    - The Centers for Medicare & Medicaid Services requires hospitals and nursing homes that receive Medicare or Medicaid payments to maintain emergency plans.
    - The Joint Commission on Accreditation of Healthcare Organizations requires that hospitals and nursing homes it accredits maintain emergency plans that include processes for evacuations.
  - For our purposes, evacuation refers to moving all patients out of a hospital or nursing home to another location.
-



---

## **Question 1: Responsibility for Evacuation Decisions Often Falls to Facility Administrators**

---

- Hospital and nursing home administrators often have the responsibility for deciding whether to evacuate their patients or to shelter in place during a disaster.
    - State and local governments can order evacuations of the population or segments of the population during emergencies, but health care facilities may be exempt from these orders. Administrators told us that they evacuate only as a last resort and that facilities' emergency plans are designed primarily to shelter in place.
    - Officials from two Florida counties told us that they can recommend that hospitals and nursing homes evacuate their facilities, but the final decision is made by the hospital or nursing home administrator.
-





---

## **Question 2: Administrators Consider Several Issues When Deciding to Evacuate Hospitals and Nursing Homes**

---

- The facility must have adequate resources to shelter in place.
  - Examples of resources include staff, supplies, food, water, and power. Without these resources, a facility may be unable to care for patients at the facility, and therefore may be more likely to evacuate.
- Risks to patients must be considered in deciding when to evacuate.
  - Evacuating too soon may place patients needlessly at risk if the potential threat does not materialize.
  - Evacuating at the same time as the general public may increase risk to patients' health if traffic congestion and other road complications increase travel time.
  - Evacuating too late increases risk if patients do not arrive at their destination before a storm strikes.



---

## **Question 2: Administrators Consider Several Issues When Deciding to Evacuate Hospitals and Nursing Homes**

---

- Evacuating a hospital or nursing home requires a facility to secure transportation to move patients and a receiving facility to accept patients.
    - Hospital and nursing home association representatives told us that facilities are likely to have arrangements for these services locally, but they are less likely to have arrangements with organizations in other localities or states, as was necessary for an event such as Hurricane Katrina.
    - Hospital and nursing home representatives told us that their contracted transportation providers would be unlikely to support them during a major disaster because local demand for transportation would exceed supply. For example, a nursing home in Florida had to request transportation from a source approximately 2 hours away because local resources were not available.
-



---

## **Question 2: Administrators Consider Several Issues When Deciding to Evacuate Hospitals and Nursing Homes**

---

- The destruction of facility infrastructure due to a storm may force a facility administrator to decide to evacuate after the event due to building damage or a lack of utilities. For example, a nursing home in Florida evacuated after Hurricane Charley in 2004 because the facility's roof was destroyed and the facility lost power and water service.
  - The destruction of community infrastructure, such as the loss of communications systems and transportation routes, can further complicate the decision to evacuate. For example, during Hurricane Katrina, the destruction of communications systems left hospital and nursing home administrators unable to receive basic information, such as when assistance would arrive.
-



---

## **Question 2: Administrators Consider Several Issues When Deciding to Evacuate Hospitals and Nursing Homes**

---

- Nursing home administrators must also consider additional factors.
  - Nursing home administrators told us that they cannot reduce the number of residents because residents generally have no other home and cannot care for themselves. In contrast, hospital administrators told us that it is common to discharge as many patients as possible before a disaster to reduce the number of patients who need to be sheltered or evacuated.
  - When a nursing home evacuates, the administrator must locate receiving facilities that can accommodate residents for a potentially long period. For example, a nursing home administrator in Florida told us that the facility had to relocate residents for over 10 months because of damage to the facility.



---

### **Question 3: NDMS Can Provide Assistance to Hospitals with Patient Evacuations, but Does Not Address Nursing Homes**

---

- NDMS, a federal system, is designed to evacuate patients who need medical care from an area near the incident site to reception areas where they can receive continuing medical care.
  - Hurricanes Katrina and Rita were the first times that officials used NDMS to evacuate such a large number of patients—moving them to patient reception areas in the southern United States.
  - VA and DOD officials estimate that NDMS reception areas received about 2,900 people due to Hurricanes Katrina and Rita.
  - Officials told us that the total number of patients evacuated is unknown because patients may be evacuated by means other than NDMS, including private, local, or state resources.
- NDMS has agreements with nonfederal hospitals to receive evacuated patients, but does not have agreements with nursing homes. Federal officials told us that NDMS was not set up nor is it currently configured to provide assistance evacuating nursing homes.



---

## Preliminary Observations and Next Steps

---

- Hospital and nursing home administrators often have the responsibility to decide whether to evacuate their facilities, and must weigh the potential risks.
  - The federal government can assist hospitals with patient evacuations using NDMS, but the system does not address nursing home needs.
  - We are completing our work to assess the evacuation of hospital and nursing home patients and to examine the vulnerabilities of nursing homes in future disasters.
  - We expect to complete our work in the summer of 2006.
-

---

---

This is a work of the U.S. government and is not subject to copyright protection in the United States. It may be reproduced and distributed in its entirety without further permission from GAO. However, because this work may contain copyrighted images or other material, permission from the copyright holder may be necessary if you wish to reproduce this material separately.

---

## GAO's Mission

The Government Accountability Office, the audit, evaluation and investigative arm of Congress, exists to support Congress in meeting its constitutional responsibilities and to help improve the performance and accountability of the federal government for the American people. GAO examines the use of public funds; evaluates federal programs and policies; and provides analyses, recommendations, and other assistance to help Congress make informed oversight, policy, and funding decisions. GAO's commitment to good government is reflected in its core values of accountability, integrity, and reliability.

---

## Obtaining Copies of GAO Reports and Testimony

The fastest and easiest way to obtain copies of GAO documents at no cost is through GAO's Web site ([www.gao.gov](http://www.gao.gov)). Each weekday, GAO posts newly released reports, testimony, and correspondence on its Web site. To have GAO e-mail you a list of newly posted products every afternoon, go to [www.gao.gov](http://www.gao.gov) and select "Subscribe to Updates."

---

## Order by Mail or Phone

The first copy of each printed report is free. Additional copies are \$2 each. A check or money order should be made out to the Superintendent of Documents. GAO also accepts VISA and Mastercard. Orders for 100 or more copies mailed to a single address are discounted 25 percent. Orders should be sent to:

U.S. Government Accountability Office  
441 G Street NW, Room LM  
Washington, D.C. 20548

To order by Phone: Voice: (202) 512-6000  
TDD: (202) 512-2537  
Fax: (202) 512-6061

---

## To Report Fraud, Waste, and Abuse in Federal Programs

Contact:

Web site: [www.gao.gov/fraudnet/fraudnet.htm](http://www.gao.gov/fraudnet/fraudnet.htm)

E-mail: [fraudnet@gao.gov](mailto:fraudnet@gao.gov)

Automated answering system: (800) 424-5454 or (202) 512-7470

---

## Congressional Relations

Gloria Jarmon, Managing Director, [JarmonG@gao.gov](mailto:JarmonG@gao.gov) (202) 512-4400  
U.S. Government Accountability Office, 441 G Street NW, Room 7125  
Washington, D.C. 20548

---

## Public Affairs

Paul Anderson, Managing Director, [AndersonP1@gao.gov](mailto:AndersonP1@gao.gov) (202) 512-4800  
U.S. Government Accountability Office, 441 G Street NW, Room 7149  
Washington, D.C. 20548