Testimony
Before the Special Committee on Aging,
U.S. Senate

DISASTER PREPAREDNESS

Preliminary Observations on the Evacuation of Vulnerable Populations due to Hurricanes and Other Disasters

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Preliminary Observations on the Evacuation of Vulnerable Populations due to Hurricanes and Other Disasters

What GAO Found

Hospital and nursing home administrators face challenges related to evacuations caused by hurricanes, including deciding whether to evacuate and obtaining transportation. Although state and local governments can order evacuations, health care facilities can be exempt from these orders. Facility administrators are generally responsible for deciding whether to evacuate, and if they decide not to evacuate, they face the challenge of ensuring that their facilities have sufficient resources to provide care until assistance arrives. If they evacuate, contractors providing transportation for hospitals and nursing homes could be unlikely to provide facilities with enough vehicles during a major disaster such as a hurricane because local demand for transportation would likely exceed supply. Nursing home administrators told us they face unique challenges during evacuations. For example, they must locate receiving facilities that can accommodate residents who may need a place to live for a long period of time.

The National Disaster Medical System (NDMS), a partnership of four federal departments, is the primary federal program that supports the evacuation of patients in need of hospital care during disasters such as hurricanes, but the program was not designed nor is currently configured to move nursing home residents. NDMS supplements state and local emergency response capabilities with federal resources and services and helped evacuate about 2,900 people during recent hurricanes, including Hurricane Katrina. Although NDMS supported evacuation efforts during Hurricane Katrina that included nursing home residents, according to program officials it is not designed to evacuate this population. Officials explained that the program does not have agreements with nursing homes that could receive evacuated nursing home residents.

In preparing for and carrying out the evacuation of transportation-disadvantaged populations, such as the elderly or persons with disabilities, during a disaster, states and localities face challenges in identifying these populations, determining their needs, and providing for and coordinating their transportation. The elderly are likely to be represented among the transportation disadvantaged because they are more likely, compared with the general population, to have a disability, have a low income, or choose not to drive. GAO has observed mixed efforts at the state and local levels to address the evacuation needs of the transportation disadvantaged. Some emergency management officials told GAO they did not yet have a good understanding of the size, location, and composition of the transportation disadvantaged in their community. However, GAO also observed efforts in some locations to address the evacuation needs of the transportation disadvantaged by encouraging citizens to voluntarily register with their local emergency management agency, integrating social service providers into emergency planning, and other measures. GAO will continue to examine the extent to which the transportation disadvantaged are addressed in state and local evacuation efforts as part of its ongoing work.
Mr. Chairman and Members of the Committee:

Thank you for inviting me here to discuss our preliminary observations on ongoing work on the evacuation of vulnerable populations due to hurricanes and other disasters, including patients in hospitals; residents in nursing homes; and transportation-disadvantaged populations, such as the elderly, persons with disabilities, and people who, by choice or circumstances, do not own or have access to a personal vehicle.

On August 29, 2005, Hurricane Katrina struck near the Louisiana-Mississippi border and became one of the worst natural disasters in U.S. history. The hurricane affected a large geographic area and necessitated the evacuation of people from parts of the area. Among those needing to be evacuated were hospital patients, nursing home residents, and transportation-disadvantaged populations who were not in such facilities. The disaster highlighted the challenges involved in evacuating these vulnerable populations. For example, administrators of hospitals and nursing homes must make decisions about the best way to care for their patients or residents, including whether to evacuate if the facility becomes unable to support adequate care, treatment, or other services. Although both hospital patients and nursing home residents were evacuated during Hurricane Katrina, in the aftermath of the event, congressional reports have raised questions about how health care facility administrators plan for hurricanes, how they implemented their plans, and how the federal government assisted health care facilities and state and local governments with facility evacuations.¹ Hurricane Katrina also pointed out the challenges of evacuating transportation-disadvantaged populations who are not in such facilities during a disaster. State and local governments are primarily responsible for responding to disasters that may result in evacuations. When state and local governments are overwhelmed in their response to a disaster, the federal government can assume a greater role.

You asked me to discuss issues related to efforts to plan and prepare for the needs of seniors in the event of a national emergency. My remarks today will describe our ongoing work on evacuation in the event of emergencies and will provide preliminary observations on (1) the challenges faced by hospital and nursing home administrators that are

related to hurricane evacuations, (2) the federal program that supports the evacuation of patients needing hospital care and nursing home residents, and (3) challenges states and localities face in preparing for and carrying out the evacuation of transportation-disadvantaged populations and efforts to address evacuation needs.

My testimony today is based on our February 2006 interim report as well as our ongoing work on the evacuation of hospitals and nursing homes due to hurricanes, and the evacuation of transportation-disadvantaged populations due to hurricanes and other disasters. Our work in this area is being conducted under the Comptroller General’s authority to conduct evaluations on his own initiative. In conducting the work for our interim report, 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 officials from national hospital and nursing home associations and Florida hospital and nursing home associations. For our ongoing work related to the evacuation of hospitals and nursing homes, we interviewed officials in Mississippi in areas that were hit by Hurricane Katrina, including officials from five hospitals, officials from three nursing homes or assisted living facilities, state officials, and local officials in two counties. For our ongoing work on evacuating transportation-disadvantaged populations, we have visited communities in California, Florida, and New York, and we plan to visit communities in Louisiana and Washington, D.C. We have interviewed or will interview state and local emergency management agencies, state and local transportation departments, local and regional transit agencies, and local and regional planning organizations. In addition, we interviewed entities that represent transportation and emergency management officials, entities such as the Federal Interagency Coordinating Council on Access and Mobility, and others. We also interviewed officials from the Department of Defense (DOD), the Department of Health and Human Services (HHS), the Department of Homeland Security (DHS), the Department of Veterans

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4Hurricane Charley struck the Gulf Coast of Florida on August 13, 2004, and continued across the state to exit on the Atlantic Coast on August 14, 2004.
Affairs (VA), and the Department of Transportation (DOT) about federal efforts to support evacuation of hospitals and nursing homes and transportation-disadvantaged populations not in such facilities. In addition, we reviewed documents, including emergency management plans from the states of Florida, Mississippi and other states, local governments, hospitals, and nursing homes; and federal documents such as the National Response Plan. Finally, we reviewed the recommendations on evacuations contained in several recently issued reports on the Hurricane Katrina response prepared by the U.S. House of Representatives, U.S. Senate, the White House, and DOT and DHS. We discussed the facts contained in this statement with officials from DOD, HHS, DHS, DOT, and VA, and incorporated changes as appropriate. Our work began in December 2005 and is being performed in accordance with generally accepted government auditing standards.

In summary, hospital and nursing home administrators face challenges related to evacuations caused by hurricanes, including deciding whether to evacuate their facilities and obtaining transportation. Although state and local governments can order evacuations, health care facilities can be exempt from these orders. Facility administrators are generally responsible for deciding whether or not to evacuate, and if administrators decide not to evacuate, they face the challenge of ensuring that their facilities have sufficient resources to provide care or other services until assistance can arrive. If facilities evacuate, administrators face the challenge of securing transportation; according to hospital and nursing home officials, contractors providing transportation for hospitals and nursing homes would be unlikely to provide facilities with enough vehicles during a major disaster, such as a hurricane, because local demand for transportation would likely exceed supply. According to nursing home administrators, they face unique challenges during evacuations. For example, when a nursing home evacuates, the administrator must locate receiving facilities that can accommodate residents who may need a place to live for a long period of time.

5The National Response Plan describes how the federal government assists in managing incidents of national significance.

6We anticipate completing our work and issuing reports on the evacuation of hospitals and nursing homes and on the evacuation of transportation-disadvantaged populations later this year.
The National Disaster Medical System (NDMS) is the primary federal program that supports the evacuation of patients in need of hospital care during disasters such as hurricanes, but the program was not designed nor is currently configured to move nursing home residents. NDMS is a federal partnership of DOD, HHS, DHS, and VA that supplements state and local emergency response capabilities with federal resources and services. The program helped evacuate about 2,900 people during recent hurricanes, including Hurricane Katrina. NDMS supported evacuation efforts during Hurricane Katrina that included nursing home residents, although officials explained that NDMS does not have agreements with nursing homes that could receive evacuated nursing home residents. In contrast, NDMS has agreements with participating hospitals to receive patients needing hospital care.

In preparing for and carrying out the evacuation of transportation-disadvantaged populations who are not in institutions during a disaster, states and localities face challenges in identifying these populations, determining their needs, and providing for and coordinating their transportation. Identifying these populations and determining their needs present challenges because their overall size, location, and composition can be difficult to determine in advance of an emergency. For example, while transportation-disadvantaged populations include the elderly, low-income individuals, and persons with disabilities, during disasters these populations can also include people who do not own or have access to cars and people who do not permanently reside in the community, such as tourists. The elderly are particularly likely to be represented among the transportation disadvantaged because they are more likely, compared with the general population, to have a disability, have a low income, or choose not to drive. Providing for and coordinating the transportation of transportation-disadvantaged populations presents challenges because evacuating them requires additional planning, time, resources (for example, evacuating seniors with special medical needs from their homes), and communication efforts (such as communicating with the vision or hearing impaired). In the course of our review, we observed mixed efforts at the state and local level to address the evacuation needs of the transportation disadvantaged. For example, emergency management officials in two locations we visited indicated they did not yet have a good understanding of the size, location, and composition of the transportation disadvantaged in their communities. However, we also observed efforts in some locations to address the evacuation needs of the transportation disadvantaged by encouraging citizens to voluntarily register with their local emergency management agencies, integrating social service providers into emergency planning, and other measures.
Facility Administrators Face Several Challenges Related to Evacuations, Including Deciding Whether to Evacuate and Securing Transportation

Administrators of hospitals and nursing homes face several challenges related to evacuations caused by hurricanes. Among these challenges, administrators must decide whether to evacuate their facilities or stay in facilities and “shelter in place.” Although state and local governments can order evacuations of the population or segments of the population during various emergencies, health care facilities can be exempt from these orders. Facility administrators are generally responsible for deciding whether to shelter in place or evacuate, and administrators told us they generally see evacuation as a last resort. However, to shelter in place, facility administrators face the challenge of ensuring that their facilities have sufficient resources to provide care or other services during the disaster and then in its aftermath until assistance can arrive. For example, during hurricanes Katrina and Charley, facility administrators said they had to ensure that their facilities had staff who could stay for longer shifts until the storms passed and relief staff could arrive. One hospital in Mississippi had prepared staff to stay for approximately 3 days; however, staff had to stay 2 weeks before replacement staff could arrive. The administrator also said they had to have 3 days of food and supplies stocked and enough fuel to run generators for 1 week. Destruction of communications capabilities due to hurricanes can complicate the decision to evacuate. For example, during Hurricane Katrina, the destruction of communications systems left hospital and nursing home administrators unable to receive information about how long it would take before assistance would arrive.

If hospital and nursing home administrators decide to evacuate, they face the challenge of securing sufficient and appropriate transportation to move their patients or residents. Hospital and nursing home association representatives told us that facilities are likely to have local arrangements for transportation services, but the facilities are less likely to have arrangements in other localities or states, as was necessary for the evacuations during Hurricane Katrina. According to hospital and nursing home administrators, their contractors providing transportation would be unlikely to provide them with vehicles during a major disaster because local demand for transportation would exceed supply. For example, during Hurricane Katrina, two counties in Mississippi had to secure

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7 For example, officials in two counties in Florida told us they can recommend that hospitals and nursing homes evacuate their facilities, but the final decision is made by each facility’s administrator.
vehicles that were located in other states. Facility administrators also face the related challenge of obtaining appropriate vehicles. One nursing home administrator told us the facility had a transportation agreement with a bus company, but the company supplied only regular buses and most of the facility’s residents needed vehicles with power lifts to accommodate electric wheelchairs.

While hospital and nursing home administrators face many of the same challenges during evacuations, there are some challenges nursing home administrators in particular must address. According to nursing home administrators, one challenge results from the fact that people in nursing homes may reside there for a long time. As a result, these administrators explained that nursing homes cannot reduce the number of residents in their facilities for whom they are responsible because nursing home residents may 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 hurricane in order to reduce the number of patients who need to be sheltered or evacuated. In addition, when a nursing home evacuates, the administrator must locate receiving facilities that can accommodate residents for a potentially long period of time. For example, a nursing home administrator in Florida told us that the facility had to relocate its residents for over 10 months until the facility could be fixed.

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8The two counties contract with a national ambulance company, which is able to obtain vehicles from its fleet located in other states.
NDMS is the primary federal program that supports efforts to evacuate patients who need hospital care during disasters such as hurricanes by moving them from an area affected by the emergency to reception areas in other locations. Formed in 1984 to care for casualties that could result from a domestic disaster or an overseas conventional war, NDMS is a federal program that supplements state and local emergency response capabilities with federal resources and services. DOD, HHS, DHS, and VA are federal partners in NDMS, and DHS has the authority to activate NDMS in response to public health emergencies, including but not limited to presidentially declared major disasters or emergencies. Among its various functions, NDMS supports the evacuation of hospitals by assisting in efforts to move patients from a mobilization center, such as an airport near the incident, to reception areas in other locations where patients can be placed in a hospital participating in NDMS to continue receiving medical care. NDMS officials told us that Hurricane Katrina was the first time that the patient evacuation component of NDMS was used to evacuate a large number of patients. In response to state requests for assistance due to recent hurricanes, about 2,900 people were transported from NDMS mobilization centers to NDMS patient reception areas.

While NDMS supports the evacuation of patients in need of hospital care, the program was not designed nor is currently configured to move nursing home residents. As stated in the memorandum of agreement among the NDMS federal partners, the patient evacuation function of NDMS is intended to move patients from a mobilization center to a reception area so they can be admitted to NDMS-affiliated hospitals—typically nonfederal hospitals that have agreements with NDMS—to receive medical care.

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9 A presidentially declared major disaster or emergency can be declared under the Robert T. Stafford Disaster Relief and Emergency Assistance Act, 42 U.S.C. §§ 5121-5206, which establishes the programs and processes by which the federal government supplements state and local resources in major disasters and emergencies.

10 NDMS consists of three functions. One is medical response, which includes medical equipment and supplies, patient triage, and other primary and emergency health care services provided to disaster victims at a disaster site. Another is patient evacuation, which includes communication and transportation to evacuate patients from a mobilization center near the disaster site, such as an airport, to reception areas in other locations. The third is “definitive care,” which is additional medical care—beyond emergency care—that begins once disaster victims are placed into an NDMS inpatient treatment facility (typically a nonfederal hospital that has an agreement with NDMS). NDMS functions are included in the Public Health and Medical Services Annex of the National Response Plan.

11 This figure represents the approximate number of people moved during Hurricane Katrina and Hurricane Rita, which struck the Gulf Coast several weeks after Hurricane Katrina.
Although during Hurricane Katrina NDMS evacuated nursing home residents who were brought to mobilization centers, program officials told us that NDMS was not designed to evacuate this population and the program did not have agreements with nursing homes that could receive evacuated nursing home residents. NDMS officials noted the challenge of meeting the needs of nursing home residents in an NDMS report prepared after Hurricane Katrina.12

States and Localities Face Challenges in Addressing the Evacuation Needs of Transportation-Disadvantaged Populations

In preparing for and carrying out the evacuation of transportation-disadvantaged populations due to a disaster, states and localities face challenges in identifying these populations, determining their needs, and providing for and coordinating their transportation. Identifying these populations and determining their needs present challenges because their overall size, location, and composition can be difficult to determine in advance of an emergency. For example, while these populations include the elderly, low-income individuals, and persons with disabilities, during disasters transportation-disadvantaged populations can also include people who either by choice or circumstance do not own or have access to cars. They can also include people with limited English proficiency and people who do not permanently reside in the community, such as tourists, temporary workers, and the homeless. In addition, transportation-disadvantaged populations may have specialized medical needs; people may move within the community, and these populations may harbor beliefs about privacy and fears of discrimination that discourage participation in outreach efforts. The elderly are particularly likely to be represented among the transportation disadvantaged because they are more likely, compared with the general population, to have a disability, have a low income, or choose not to drive.

Providing for and coordinating the evacuation of transportation-disadvantaged populations also present challenges because evacuating these populations requires additional planning, time, and resources. For example, evacuating seniors with special medical needs who are residing in their own homes may require additional planning of pick up routes; extra time to load and unload evacuation vehicles; and special resources, such as buses equipped with wheelchair lifts. In addition, communicating

evacuation information to these populations during disasters may be challenging because they may be vision or hearing impaired or have limited English proficiency.

In the course of our review, we observed mixed efforts at the state and local level to address the evacuation needs of the transportation disadvantaged during a disaster. In some locations we visited, emergency management officials indicated they did not yet have a good understanding of the overall size, location, and composition of the transportation disadvantaged in their community and acknowledged the need to better integrate transportation-disadvantaged populations into emergency response planning. For example, emergency management officials in one city stated that their participation in the February 2006 National Plan Review alerted them to the fact that they should better provide for and coordinate the needs of transportation-disadvantaged populations in their evacuation planning. One state official described coordination challenges and evacuation delays that occurred for transportation-disadvantaged populations in one community during an approaching wildfire and attributed these problems to coordination difficulties between emergency management and other agencies.

However, we also observed efforts underway in some locations to address the evacuation needs of the transportation disadvantaged. In three locations, local governments and regional organizations have conducted or were conducting studies to identify the number and location of transportation-disadvantaged populations in their jurisdiction. This information has been or was to be used to facilitate evacuation planning on resource use and deployment during disasters. Also, in three locations, emergency management officials were using preexisting citizen networks and community outreach activities to help inform and prepare transportation-disadvantaged populations for disasters. For example, in one city, emergency management officials used an existing neighborhood watch network to facilitate community outreach to transportation-disadvantaged populations, better preparing them for a disaster. In another city, emergency management officials worked with home health organizations, doctors, and the Red Cross to inform transportation-disadvantaged populations about evacuation preparedness.

13 The National Plan Review is a DHS review of the emergency plans, including catastrophic planning and mass evacuation planning, of the 50 states and 75 largest urban areas.
In one location that had a well-developed program for evacuating the transportation disadvantaged, we observed that emergency management officials did the following:

- Had emergency plans that clearly articulated methods of providing for and coordinating the evacuation of transportation-disadvantaged populations, including the roles and responsibilities of various agencies. This plan clearly articulated how local and state emergency management, school boards, and transit agencies would work together to evacuate transportation-disadvantaged populations. Emergency management officials stated that this level of coordination enabled them to successfully conduct several evacuations.

- Encouraged citizens who have special medical needs to voluntarily register with their local emergency management agency. This registry placed individuals into categories, including those who would need special transport, such as an ambulance. According to emergency management officials, in several recent evacuations, the voluntary registry assisted emergency personnel in efficiently evacuating transportation-disadvantaged populations. However, the same emergency management officials also pointed out challenges that exist for voluntary registries including the administrative costs of keeping the information up to date, the limited number of participants, and a surge in the number registrations immediately prior to an approaching storm.

- Involved social service providers in the emergency response planning process. Social service providers' transportation resources were used to evacuate many of the clients on a voluntary registry administered by the city. These social service providers have expertise and ongoing contact with the transportation-disadvantaged populations, and are familiar with their day-to-day and nonemergency needs.

- Established formal agreements that alleviate legal liability and reimbursement concerns when securing transportation resources to assist in evacuating transportation-disadvantaged populations during any type of disaster.

- Conducted regular exercises of emergency response plans in order to test coordination between agencies involved in evacuations and their resources, and the integration of social service providers.

In addition to these efforts by state and local governments, recent reports released by the federal government have put forth recommendations that address evacuation preparedness and response generally and for transportation-disadvantaged populations in particular. The White House
report recommends that DOT be the primary federal agency responsible for developing the federal government’s capability to conduct mass evacuations and that DHS require that state and local governments to conduct evacuation planning and exercises as a condition for receiving Homeland Security grants. The Senate report recommends that DOT should, in coordination with DHS and the states, plan, train and exercise for evacuations, including provisions for those populations that do not have the means to evacuate.

Concluding Observations

Hospital and nursing home administrators generally face multiple challenges in weighing the risks of sheltering in place or evacuating. Although evacuation is a last resort, Hurricanes Charley and Katrina resulted in both hospitals and nursing homes having to evacuate. When evacuating, administrators faced problems specifically related to transportation, including securing vehicles. Hurricane Katrina, the first emergency in which NDMS was used to evacuate a large number of people, brought to light that NDMS was not set up nor is currently configured to provide assistance to nursing homes. As a result, it does not have agreements with nursing homes to accept evacuated patients. In addition, states and localities face multiple challenges in ensuring that transportation-disadvantaged populations who are not in such facilities are evacuated. We will be monitoring federal efforts to improve preparing for and carrying out evacuations of these populations. Our ongoing work will continue to examine the vulnerabilities posed by disasters for hospital patients, nursing home residents, and transportation-disadvantaged populations living in their communities.

Mr. Chairman, this concludes my prepared remarks. I would be happy to respond to any questions you or other members of the committee have at this time.

14Assistant to the President for Homeland Security and Counterterrorism, The Federal Response to Hurricane Katrina: Lessons Learned (February 2006).

15Committee on Homeland Security and Governmental Affairs, U.S. Senate, Hurricane Katrina: A Nation Still Unprepared (May 2006).
Contacts and Acknowledgments

For further information regarding this statement, please contact Cynthia Bascetta at (202) 512-7101 or at bascettac@gao.gov regarding issues related to the evacuation of hospitals and nursing homes. For issues related to the evacuation of transportation-disadvantaged populations, please contact Katherine Siggerud at (202) 512-2834 or siggerudk@gao.gov. Contact points for our Offices of Congressional Relations and Public Affairs may be found on the last page of this statement. Key contributors to this statement were Steve Cohen, Assistant Director; Linda T. Kohn, Assistant Director; La Sherri Bush; Krister Friday; Christopher Lyons; Nkeruka Okonmah; Laina Poon; Tina Won Sherman; and William Simerl.
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