



September 2019

DISASTER RESPONSE

HHS Should Address Deficiencies Highlighted by Recent Hurricanes in the U.S. Virgin Islands and Puerto Rico

Accessible Version

GAO Highlights

Highlights of [GAO-19-592](#), a report to congressional requesters.

For more information, contact Mary Denigan-Macauley at (202) 512-7114 or DeniganMacauleyM@gao.gov.

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Why GAO Did This Study

Hurricanes Irma and Maria hit the U.S. Virgin Islands and Puerto Rico within two weeks of each other in September 2017, causing catastrophic damage. HHS is responsible for leading the federal public health and medical services response during a disaster, such as these hurricanes. As part of its lead federal role during these hurricanes, HHS called upon support agencies, including the Departments of Defense, Homeland Security, and Veterans Affairs, to assist with the public health and medical services response.

GAO was asked to review the federal public health and medical services response to Hurricanes Irma and Maria in the U.S. Virgin Islands and Puerto Rico. This report examines HHS's actions and leadership of this response, among other things. GAO reviewed documentation on the preparedness for, and response to, the hurricanes. It also interviewed federal and territory officials and interviewed or received written responses from eight nonfederal stakeholders involved in the response, such as nongovernmental organizations. GAO identified these stakeholders through research and referrals.

What GAO Recommends

GAO is making seven recommendations, including that HHS develop agreements with support agencies that include response capability and limitation information, and develop response plans for providing care in isolated communities. HHS disagreed with two of the seven citing, among other things, territory responsibility for plans. GAO clarified the intent of the two recommendations and believes that all seven are warranted.

What GAO Found

The catastrophic destruction encountered as a result of Hurricanes Irma and Maria proved overwhelming to the U.S. Virgin Islands and Puerto Rican governments and resulted in a large federal disaster response, complicated by losses of power, communication, and health care infrastructure. The Department of Health and Human Services (HHS) led the federal public health and medical services response and undertook numerous actions to address the needs in the territories—including evacuating critical care and dialysis patients from the U.S. Virgin Islands and Puerto Rico and providing medical personnel and facilities.

However, GAO identified several shortcomings in HHS's leadership. While the scale, location, and timing of these storms complicated response efforts, the deficiencies GAO identified were in many cases a function of preparedness policies, or lack thereof. As a result, they could adversely affect future large-scale responses unless addressed. For example, as the lead agency, HHS is responsible for ensuring that appropriate planning activities are undertaken, including monitoring the federal ability to provide core public health and medical services response capabilities. However, GAO found that

- HHS did not have a full understanding of the capabilities and limitations of its support agencies, including the Departments of Defense, Homeland Security, and Veterans Affairs. Consequently, HHS's needs were not always aligned with the resources that its support agencies could provide, resulting in some deployed resources not being properly and efficiently utilized. For example, HHS requested Department of Defense medical teams, but these teams specialized in trauma and surgical care, not the chronic and primary care needed.
- HHS lacked plans for the territories that accounted for the chronic and primary care needs in isolated communities. This care was greatly needed, given that many, especially the elderly, could not easily access hospitals.

Example of Downed Power Lines in Puerto Rico, November 2017



Source: Federal Emergency Management Agency. | GAO-19-592

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Abbreviations

ASPR	Office of the Assistant Secretary for Preparedness and Response
DOD	Department of Defense
ESF	emergency support function
FEMA	Federal Management Emergency Agency
HHS	Department of Health and Human Services
JPATS	Joint Patient Assessment and Tracking System
NDMS	National Disaster Medical System
VA	Department of Veterans Affairs

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September 20, 2019

Congressional Requesters

In 2017, two major hurricanes devastated the U.S. Virgin Islands and Puerto Rico within 2 weeks of each other. On September 6, 2017, Hurricane Irma passed by the U.S. Virgin Islands, delivering wind gusts in excess of 100 miles per hour, and on September 20, 2017, Hurricane Maria passed by the U.S. Virgin Islands and made landfall on Puerto Rico, delivering wind gusts in excess of 155 miles per hour. These storms resulted in both territories experiencing extensive power outages and a loss of clean water, telecommunication systems, and transportation systems, including roads, bridges, ports, and airport runways. The extent of the damage from these hurricanes resulted in large-scale and complex response operations.

Such large-scale and complex responses may be more common given that, according to a 2018 report from the U.S. Global Change Research Program, extreme weather and climate-related events are expected to increase in frequency and intensity. According to this report, the expected increase in extreme weather events will further burden the U.S. energy system, thus amplifying the risk of more frequent and longer-lasting power outages and fuel shortages that could affect access to medical care.¹

The National Response Framework establishes an all-hazards response structure to coordinate federal resources during hurricanes and other emergencies and disasters and is divided into 14 emergency support functions (ESF): functional areas that are most frequently needed during a national response.² While the Federal Emergency Management Agency (FEMA), an agency within the Department of Homeland Security, leads the overall federal response during emergencies and disasters, the Office of the Assistant Secretary for Preparedness and Response (ASPR), an agency within the Department of Health and Human Services (HHS), is

¹U.S. Global Change Research Program, *Impacts, Risks, and Adaptation in the United States: Fourth National Climate Assessment, Volume II* (Washington, D.C.: 2018).

²The 14 ESFs include those related to transportation, communication, and public health and medical services, among others. The National Response Framework designates a federal agency as the coordinating agency for each ESF. Department of Homeland Security, *National Response Framework, Third Edition* (Washington, D.C.: June 2016).

the lead agency for ESF#8—the public health and medical services response.³ As such, ASPR led the federal public health and medical services response to Hurricanes Irma and Maria in the U.S. Virgin Islands and Puerto Rico. As part of its lead role in this response, ASPR coordinated assistance from other federal agencies—referred to as ESF#8 support agencies—including FEMA, the Department of Defense (DOD), and the Department of Veteran Affairs (VA).⁴

You asked us to review the federal government’s preparedness, response, and recovery efforts related to the 2017 natural disasters. As part of that effort, we are conducting a broader body of work covering various disaster response and recovery issues. Work published to date can be found in the Related GAO Products section of this report, and we will continue to report on these issues over the next year.

This report examines ASPR’s actions as the ESF#8 lead in the federal response to Hurricanes Irma and Maria in U.S. Virgin Islands and Puerto Rico. Specifically, our objectives were to

- (1) describe the ASPR-led public health and medical services response to Hurricanes Irma and Maria in the U.S. Virgin Islands and Puerto Rico,
- (2) examine ASPR’s leadership of the public health and medical services response, and
- (3) examine steps ASPR has taken to evaluate its response actions.

To describe the ASPR-led public health and medical services response to Hurricanes Irma and Maria in the U.S. Virgin Islands and Puerto Rico, we reviewed documentation outlining ASPR’s response activities and

³The position of the Assistant Secretary for Preparedness and Response was established by the Pandemic and All-Hazards Preparedness Act, Pub. L. No. 109-417, § 102, 120 Stat. 2831, 2833 (2006) (codified as amended at 42 U.S.C. § 300hh-10). Among other things, the Assistant Secretary for Preparedness and Response serves as the principal advisor to the Secretary of Health and Human Services on all matters related to federal public health and medical preparedness and response for public health emergencies. ASPR leads ESF#8 on behalf of the Secretary of Health and Human Services.

⁴The ESF#8 Annex of the National Response Framework designates 16 organizations as ESF#8 support agencies, including the Departments of Defense, Homeland Security, and Veterans Affairs, which can be called upon to assist during an ESF#8 response. Department of Homeland Security, *Emergency Support Function #8 – Public Health and Medical Services Annex* (Washington, D.C: June 2016).

interviewed officials involved in the response. To identify the specific response activities taken by ASPR and its ESF#8 support agencies, we reviewed ASPR Situation Reports, FEMA Situation Reports, and Department of Interior Senior Leadership Briefings, which were daily reports that provided ESF federal response agencies with the current response status. We also reviewed other documentation, such as FEMA and VA hurricane after-action reports, and federal agency press releases that contained information on response activities.⁵ We interviewed ASPR, FEMA, DOD, and VA officials to supplement the information we collected through our review of response documentation. Because this review focused on ASPR's response activities, it generally does not include actions taken by other HHS agencies, such as the Centers for Disease Control and Prevention, the Food and Drug Administration, and the Health Resources & Services Administration.

To examine ASPR's leadership of the public health and medical response, we reviewed documentation and interviewed officials involved in the response. Specifically, we reviewed documentation describing challenges encountered during the response, including FEMA, DOD, VA, Puerto Rico, and U.S. Virgin Islands hurricane after-action reports. We also reviewed documentation on preparedness actions taken prior to the hurricanes, such as HHS agreements with its ESF#8 support agencies and its Incident Response Plans for the U.S. Virgin Islands and Puerto Rico, as well as available documentation on any steps taken to mitigate identified challenges. Additionally, we interviewed ASPR, FEMA, DOD, VA, and Department of Interior officials to identify response challenges.⁶ We interviewed ASPR and FEMA officials at the Headquarters level who were involved in the response, as well as those at Region II—the Region that is the liaison to the U.S. Virgin Islands and Puerto Rico.⁷

⁵Agencies use after-action reports to summarize the agency's performance during an exercise or real-world event. After-action reports highlight strengths and areas for improvement related to core capability performance and the agency's ability to meet the exercise or real-world objectives.

⁶The Department of Interior was not directly involved in the ESF#8 response, but the department plays a liaison role to the U.S. Virgin Islands, so we interviewed officials in that capacity to identify challenges they heard from their work with the U.S. Virgin Islands.

⁷FEMA and ASPR have 10 Regional offices located across the United States. The U.S. Virgin Islands and Puerto Rico fall under the purview of ASPR and FEMA Region II, which also includes New Jersey and New York.

Further, we conducted site visits to the U.S. Virgin Islands and Puerto Rico. In the U.S. Virgin Islands, we interviewed territory officials from the Department of Health, Department of Human Services, and Office of Inspector General.⁸ In Puerto Rico, we interviewed territory officials from the Emergency Management Agency, the Secretary of the Department of Health, and officials in the Department of Health's Office of Public Health and Preparedness and Response. We also interviewed stakeholders from the U.S. Virgin Islands and Puerto Rico involved in the response. Specifically, in the U.S. Virgin Islands, we interviewed officials from two local nongovernmental organizations and from a private organization that is a Federally Qualified Health Center.⁹ In Puerto Rico, we interviewed officials from a hospital involved in the response; the Puerto Rico Hospital Association, which represents most of the hospitals in Puerto Rico; and the Puerto Rico Voluntary Organizations Active in Disaster.¹⁰ We also received written responses from a local nongovernmental organization and a national nongovernmental organization that assisted in the response to Hurricane Maria in Puerto Rico to questions we posed related to ASPR's leadership of the response.

We identified the stakeholders we interviewed through referrals from other stakeholders we had interviewed (e.g., agency officials, nongovernmental organizations)—an iterative process known as “snowball sampling.” In total, we interviewed or received written responses from eight stakeholders. These eight stakeholders represent a nonprobability sample, and as such, our findings from these interviews are not generalizable beyond those we interviewed; however, they can provide insights into the challenges faced by ASPR in the ESF#8 response to Hurricanes Irma and Maria in the U.S. Virgin Islands and to

⁸After our site visit, we also interviewed officials from the U.S. Virgin Islands Territory Management Agency via teleconference; they were not available to meet at the time of our site visit.

⁹Federally Qualified Health Centers work as part of the Health Center Program administered by the Health Resources and Services Administration, an agency within HHS. Federally Qualified Health Centers provide comprehensive primary and preventative health care services to individuals, regardless of their ability to pay.

¹⁰The Puerto Rico Voluntary Organizations Active in Disaster is a member of the National Voluntary Organizations Active in Disaster, an association of organizations whose mission is to mitigate and alleviate the impact of disasters; provide a forum promoting cooperation, communication, coordination and collaboration; and foster more effective delivery of services to communities affected by disaster. As of December 2018, the Puerto Rico Voluntary Organizations Active in Disaster had 49 member organizations, according to the organization official we spoke with.

Hurricane Maria in Puerto Rico. As we examined ASPR's leadership of the response, we identified any deficiencies in preparedness or policy that, if not addressed, could negatively impact future large-scale ESF#8 responses. We assessed ASPR's leadership of the federal ESF#8 response against the National Response Framework and the Emergency Support Function #8 – Public Health and Medical Services Annex.¹¹

To examine steps ASPR has taken to evaluate its response to Hurricanes Irma and Maria, we examined ASPR's after-action report for the 2017 hurricane season and its related improvement plan, as well as other documentation related to the after-action review process. We also interviewed ASPR officials to gather information on how the review was conducted and its status. Further, we interviewed officials from FEMA, DOD, VA, and the territories to understand the extent of their involvement in ASPR's after-action review. We assessed ASPR's after-action review steps against Standards for Program Management¹² and Standards for Internal Control in the Federal Government.¹³

We conducted this performance audit from June 2018 to September 2019 in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

¹¹Department of Homeland Security, *National Response Framework, Third Edition and Emergency Support Function #8 – Public Health and Medical Services Annex*.

¹²Program Management Institute, Inc., *The Standard for Program Management, Fourth Edition* (2017).

¹³GAO, *Standards for Internal Control in the Federal Government*, [GAO-14-704G](#) (Washington, D.C.: September 2014). Internal control is a process effected by an entity's oversight body, management, and other personnel that provides reasonable assurance that the objectives of an entity will be achieved.

Background

Federal Roles and Responsibilities in Responding to Disasters

Under the National Response Framework, the Department of Homeland Security is the federal department with primary responsibility for coordinating disaster response, and within the department, FEMA has lead responsibility. Due to the massive response needed after Hurricanes Irma and Maria in the U.S. Virgin Islands and Puerto Rico, FEMA utilized the National Response Framework to activate all 14 ESFs, including ESF#8. The National Response Framework designates state, local, tribal, and territorial agencies as primarily responsible for response activities in their jurisdictions, including those related to public health and medical services. However, when effective disaster response is beyond the capabilities of the state, territorial, or tribal government and affected local governments, such as was the case for Hurricanes Irma and Maria, those governments can request federal assistance. The federal response for a specific ESF is designed to supplement the state, local, tribal, or territorial resources that respond to a disaster or other emergency. However, due to the physical destruction of the two hurricanes in the U.S. Virgin Islands and Puerto Rico, the territorial government agencies that were tasked with coordinating resources to respond to such disasters were largely incapacitated. This resulted in an unprecedented federal role in the response to these disasters.

ASPR's Role in Responding to Disasters

As the lead agency for an ESF#8 response, ASPR is responsible for coordinating the ESF#8 response core capabilities outlined in the National Response Framework. These core capabilities include assessment of public health and medical needs, patient evacuation, patient care, the provision of medical equipment and supplies, and public health communication, among others. ASPR coordinates these core capabilities through two main roles defined in the National Response Framework—the coordinator and the primary agency.

- As the coordinator, ASPR oversees and coordinates the preparedness activities for ESF#8 support agencies, nongovernmental organizations, and the private sector. For example, ASPR must maintain contact with support agencies through

conference calls, training, and other activities, prior to events; monitor the ESF's progress in being able to meet the outlined core capabilities; as well as coordinate planning and preparedness efforts with nongovernmental organizations and the private sector.

- As the primary agency, ASPR has significant authorities, roles, resources, and capabilities to fulfill during an ESF#8 response. Its responsibilities include notifying and requesting assistance from support agencies and coordinating resources, as well as working with all types of organizations, such as ESF#8 support agencies, territory officials, and other stakeholders to maximize the use of all available resources.

As part of a response, ASPR may activate the National Disaster Medical System (NDMS)—an interagency partnership among HHS, DOD, VA, and the Department of Homeland Security to supplement health and medical systems and response capabilities during a public health emergency. Under NDMS, ASPR and its partner agencies provide medical response (by deploying medical personnel teams, for example), evacuate patients, and provide medical care in NDMS medical facilities when requested by state, local, tribal, and territorial governments or other federal agencies.¹⁴ For example, as part of NDMS, DOD and FEMA may provide transportation to evacuate seriously ill or injured inpatients. DOD and VA may operate and staff NDMS Federal Coordinating Centers, which are activated during an emergency to receive, triage, stage, track, and transport patients affected by a disaster or national emergency to a participating NDMS medical facility capable of providing the required care to manage the patient's condition.

After an ESF#8 response, ASPR evaluates HHS's disaster response activities through an after-action review. According to the Department of Homeland Security's Homeland Security Exercise and Evaluation Program guidance, which ASPR follows, this review should include collecting feedback about the response activities to identify strengths and areas for improvement, and developing corrective actions to address

¹⁴Medical care is provided by a nationwide network of voluntary, pre-identified, non-federal medical facilities capable of providing medical care for the victims of disaster or military contingency that exceeds the medical care capabilities of the affected local, state, tribal, territory, or federal medical system. These facilities—known as NDMS medical facilities—have signed agreements with NDMS to accept patients during a public health emergency.

identified areas for improvement.¹⁵ This information is then documented in an after-action report and corrective action improvement plan.

Population Demographics and Hospital Systems in the U.S. Virgin Islands and Puerto Rico

The populations in the U.S. Virgin Islands and Puerto Rico are older than the general U.S. population. Estimates indicate that the total population in the U.S. Virgin Islands in 2018 was approximately 107,000 and about 18 percent (or about 19,000 individuals) were age 65 or older. Estimates for Puerto Rico indicate that the total population in 2018 was approximately 3.3 million and about 20 percent (or about 666,000 individuals) were age 65 or older. In comparison, almost 16 percent of the general population in the 50 states and the District of Columbia, totaling approximately 329.3 million, were age 65 or older in 2018.¹⁶

To serve these populations, the U.S. Virgin Islands has two hospitals, one on St. Thomas and one on St. Croix, each with a capacity of 150 beds. Puerto Rico has 68 hospitals scattered throughout the island. The capacity of beds ranges from less than 10 to 515, with a total of almost 10,000 hospital beds to serve the territory.

Hurricanes Irma and Maria and Their Effects on the U.S. Virgin Islands and Puerto Rico

The 2017 Atlantic Hurricane season was one of the most active seasons in U.S. history, causing widespread damage and destruction to significant populations in the continental United States and the territories. In particular, two hurricanes—Irma and Maria—struck in quick succession and devastated the U.S. Virgin Islands and Puerto Rico.

- Hurricane Irma – a category 5 storm passed by the U.S. Virgin Islands—St. Thomas and St. John—on September 6, and continued by Puerto Rico. In the U.S. Virgin Islands, the storm caused high storm surge, flooding, extensive damage to buildings and

¹⁵Department of Homeland Security, *Homeland Security Exercise and Evaluation Program*, (Washington, D.C.: April 2013).

¹⁶Data are from the Central Intelligence Agency *World Factbook* and are estimates as of July 2018.

infrastructure, and widespread power outages. It became one of the strongest Atlantic hurricanes on record.

- Hurricane Maria – a category 5 storm passed by the U.S. Virgin Islands—St. Croix—on September 20, and made landfall in Puerto Rico as a category 4 storm. Hurricane Maria compounded the damage caused by Hurricane Irma in the U.S. Virgin Islands, and devastated Puerto Rico. Heavy flooding and high winds led to the catastrophic damage to Puerto Rico’s power grid, as well as severe damage to the water, communications, transportation, and health care infrastructure. The majority of Puerto Rico’s power grid was down for nearly two months following Hurricane Maria, with outages continuing through 2018.

Figure 1 depicts the paths of Hurricanes Irma and Maria.

Figure 1: Paths of Hurricanes Irma and Maria in September 2017



Source: GAO analysis of National Oceanic and Atmospheric Administration (data); Map Resources (map). | GAO-19-592

Figure 2 contains photographs of damage sustained in the U.S. Virgin Islands.

Figure 2: Damaged Gas Station, Church, and Power Lines in the U.S. Virgin Islands After Hurricane Irma in September 2017



Source: Federal Emergency Management Agency. | GAO-19-592

Figure 3 contains photographs of damage sustained in Puerto Rico.

Figure 3: Damaged Power Lines and Satellite Dish in Puerto Rico After Hurricane Maria in November 2017



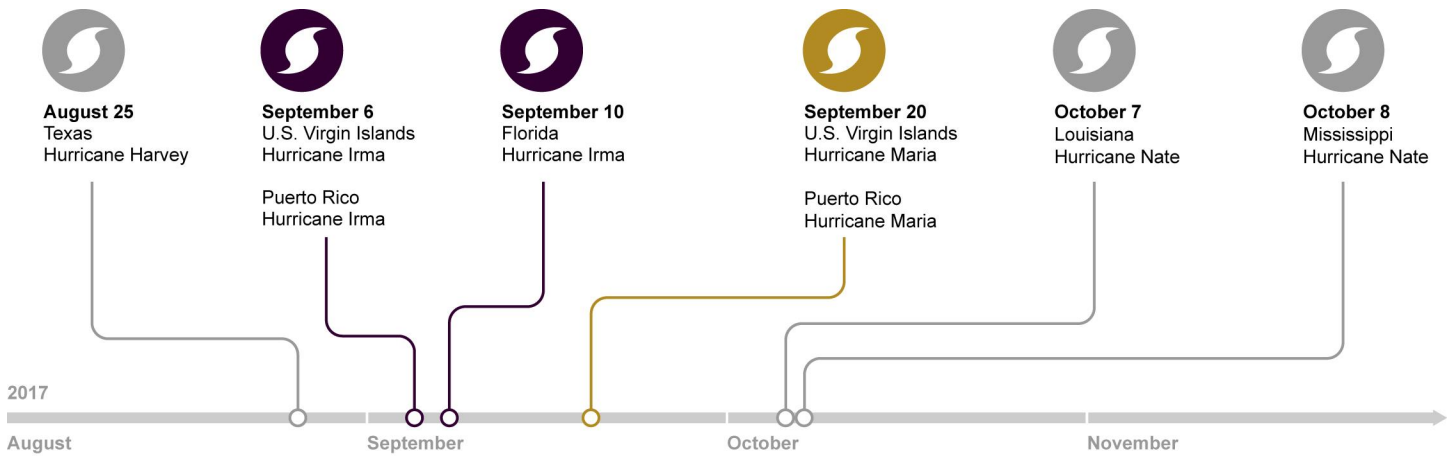
Source: Federal Emergency Management Agency. | GAO-19-592

Additional 2017 Hurricanes Requiring an ASPR Response

At the same time ASPR was responding to the catastrophic hurricanes in the U.S. Virgin Islands and Puerto Rico, the agency was also responding, or had recently responded, to hurricanes in other areas. Specifically, ASPR led the ESF#8 response to Hurricane Harvey, a category 4 hurricane that made landfall in Texas on August 25, 2017. Further, in addition to responding to the effects of Hurricane Irma on the U.S. Virgin Islands, ASPR was leading the response to that hurricane in Florida. Also, while ASPR was still responding to Hurricanes Irma and Maria, Hurricane Nate, a category 1 hurricane, hit Louisiana and Mississippi on October 7 and 8, 2017, respectively. While not as severe as the prior hurricanes, Hurricane Nate resulted in wind damage, flooding, and storm

surge, and required a public health and medical services response.¹⁷ (See figure 4 for a timeline of the 2017 hurricanes requiring ASPR to lead an ESF#8 response.)

Figure 4: Timeline of the 2017 Hurricanes Requiring a Federal Public Health and Medical Services Response



Source: GAO analysis of information from the Departments of Health and Human Services, Homeland Security, and Commerce. | GAO-19-592

Text of Figure 4: Timeline of the 2017 Hurricanes Requiring a Federal Public Health and Medical Services Response

- August 25, Texas, Hurricane Harvey
- Sept. 6, US Virgin Islands and Puerto Rico, Hurricane Irma
- Sept. 10 Florida, Hurricane Irma
- Sept. 20, US Virgin Islands and Puerto Rico, Hurricane Maria
- Oct. 7, Louisiana, Hurricane Nate
- Oct. 8, Mississippi, Hurricane Nate

¹⁷FEMA also activated ESF#8 to respond to the California wildfires that occurred in October and December 2017. As a result, ASPR was involved in that response as well.

ASPR and Support Agencies Evacuated Patients and Deployed Medical Staff and Facilities to the U.S. Virgin Islands and Puerto Rico

ASPR and support agencies evacuated critical care and dialysis patients and deployed medical staff and temporary medical facilities as part of the response to Hurricanes Irma and Maria. These activities centered on saving lives and preventing human suffering.

Evacuations of Critical Care and Dialysis Patients

During the response to Hurricanes Irma and Maria, ASPR led the NDMS evacuation of critical care and dialysis patients.¹⁸

- According to ASPR officials, Hurricane Irma damaged critical health care infrastructure and created a deteriorating situation in St. Thomas that necessitated life-saving evacuations to Puerto Rico, particularly as St. Croix's health care facilities could not support the needs of both islands. Specifically, after Hurricane Irma damaged the only hospital on St. Thomas, ASPR prioritized evacuating critical care patients to Puerto Rico. Once ASPR officials further determined that St. Thomas did not have the capacity to treat dialysis patients, ASPR also coordinated the movement of dialysis patients to Puerto Rico.¹⁹ This was the first time ASPR had coordinated the evacuation of such patients during an ESF#8 response. ASPR used HHS's Centers for Medicare and Medicaid Services' data to locate dialysis patients on St. Thomas who were unable to be reached by local authorities for evacuation.²⁰

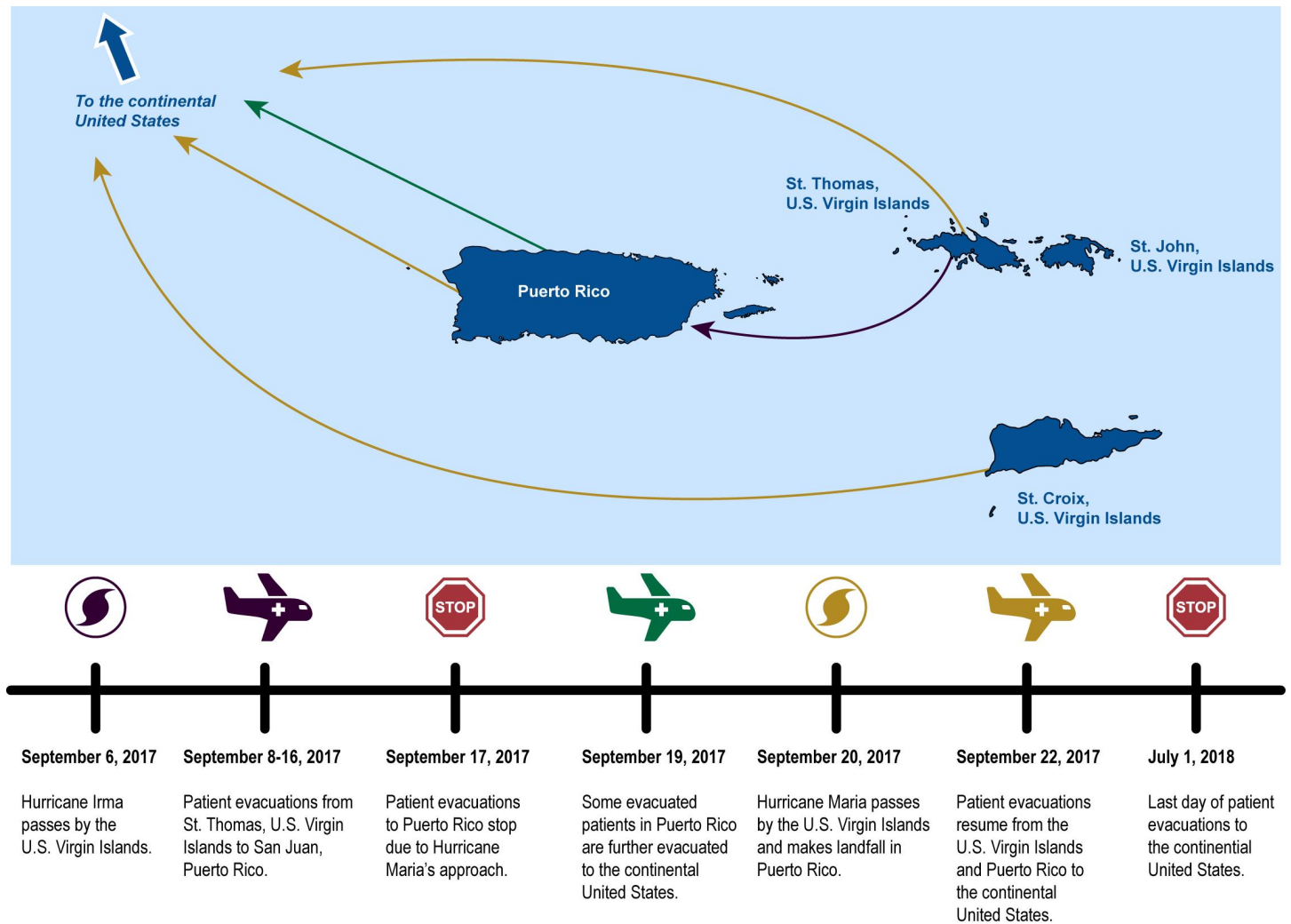
¹⁸According to ASPR officials, evacuated critical care patients included intensive care unit patients and pregnant women.

¹⁹Prior to Hurricane Irma, St. Thomas had two dialysis units providing services, one of which was in the hospital. According to ASPR officials, after Hurricane Irma, both dialysis units suffered significant damages.

²⁰HHS's Centers for Medicare and Medicaid Services' emPOWER Program data provides information on Medicare beneficiaries who rely on certain types of electricity-dependent life-maintaining and assistive equipment, including home kidney dialysis equipment and health care services that include facility-based dialysis health care services.

- As the threat of Hurricane Maria making landfall in Puerto Rico became evident, ASPR began moving U.S. Virgin Islands patients previously evacuated to Puerto Rico to the continental United States, according to ASPR and Department of Interior documentation. See figure 5 for a timeline of patient evacuations conducted through NDMS from the U.S. Virgin Islands and Puerto Rico after Hurricanes Irma and Maria.

Figure 5: Timeline of Patient Evacuations from the U.S. Virgin Islands and Puerto Rico After Hurricanes Irma and Maria Led by ASPR



Source: GAO analysis of information obtained from the Department of Health and Human Services, Defense, Interior, Homeland Security, and Veterans Affairs through documentation and written responses. | GAO-19-592

Text of Figure 5: Timeline of Patient Evacuations from the U.S. Virgin Islands and Puerto Rico After Hurricanes Irma and Maria Led by ASPR

- Sept. 6, 2017 – Hurricane Irma passes by the U.S. Virgin Islands.
- Sept. 8 through 16, 2017 – Patient evacuations from St. Thomas, U.S. Virgin Islands to San Juan, Puerto Rico.
- Sept. 17, 2017 – Patient evacuations to Puerto Rico stop due to Hurricane Maria’s approach.
- Sept. 19, 2017 – Some evacuated patients to Puerto Rico are further evacuated to the continental U.S.
- Sept. 20, 2017 – Hurricane Maria passes by the U.S. Virgin Island and makes landfall in Puerto Rico.
- Sept. 22, 2017 – Patient evacuations resume from the U.S. Virgin Islands and Puerto Rico to the continental U.S.
- July 1, 2018 – Last day of patient evacuations to the continental U.S.

Note: This figure depicts patient evacuations led by Office of the Assistant Secretary for Preparedness and Response (ASPR), which were conducted through the National Disaster Medical System (NDMS). NDMS is an interagency partnership among the Departments of Health and Human Services, Defense, Homeland Security, and Veterans Affairs that can be activated during a public health emergency to evacuate patients, among other services. In addition to evacuations conducted through NDMS, non-NDMS federal evacuations were conducted intra-island, such as from St. Thomas to St. Croix, at the request of U.S. Virgin Islands officials, according to DOD officials.

ASPR worked with other agencies to evacuate NDMS patients. Specifically, ASPR relied on DOD to provide transportation because HHS did not have its own transportation capabilities. For example, DOD provided personnel and transportation to conduct aeromedical evacuations of patients from the U.S. Virgin Islands to Puerto Rico and the continental United States. In addition, DOD operated a Federal Coordinating Center in the continental United States, and VA operated Federal Coordinating Centers in Puerto Rico and the continental United States to receive evacuated patients and place them into NDMS medical facilities. For example, the day after Hurricane Irma passed the U.S. Virgin Islands, ASPR requested that VA operate the San Juan Federal Coordinating Center to begin receiving evacuated U.S. Virgin Islands patients. See figure 6 for a photograph of NDMS evacuation of U.S. Virgin Islands dialysis patients to the continental United States.

Figure 6: ASPR-led Evacuation of U.S. Virgin Islands Dialysis Patients to the Continental United States, September 2017



Source: Department of Health and Humans Services. | GAO-19-592

Note: Patient evacuations led by Office of the Assistant Secretary for Preparedness and Response (ASPR) were conducted through the National Disaster Medical System. The National Disaster Medical System is an interagency partnership among the Departments of Health and Human Services, Defense, Homeland Security, and Veterans Affairs that can be activated during a public health emergency to evacuate patients, among other services.

Deployment of Medical Staff and Temporary Facilities

During the response to Hurricanes Irma and Maria, ASPR and some of its ESF#8 support agencies—DOD and VA—deployed medical staff and temporary medical facilities to respond to the public health and medical needs in the U.S. Virgin Islands and Puerto Rico.²¹ Using these medical assets, ASPR and its support agencies served almost 16,000 patients in Puerto Rico and almost 2,000 patients in the U.S. Virgin Islands over the course of about four weeks after Hurricane Maria, according to ASPR

²¹In addition to these services, ASPR also provided other support services including: mental health teams and behavioral health hotlines in partnership with HHS's Substance Abuse and Mental Health Services Administration to aid people coping with the effects of the storm and to connect them with local behavioral health professionals; the Emergency Prescription Assistance Program, which helped people without health insurance get prescription drugs, vaccinations, medical supplies, and equipment; and activities to ensure the blood supply was sufficient in the impacted areas.

reports. Examples of ASPR medical staff and facilities include, but are not limited to, the following:

- **Disaster Medical Assistance Teams.** ASPR placed Disaster Medical Assistance Teams in front of the major hospitals in the U.S. Virgin Islands and Puerto Rico to triage patients and to relieve the hospitals' emergency departments by treating patients with acute care needs during the response to Hurricanes Irma and Maria.²² Disaster Medical Assistance Teams comprise about 35 medically trained personnel and equipment.²³ In addition, Disaster Medical Assistance Teams were sometimes divided into six-person teams—known as Health Medical Taskforce Teams—that are more agile, according to ASPR officials. These smaller teams supported response operations in the U.S. Virgin Islands and Puerto Rico by traveling into hard-to-reach places to provide acute medical care, stabilize patients, and call for the transport of patients, when needed. According to ASPR officials, ASPR deployed a Disaster Medical Assistance Team to Puerto Rico prior to Hurricane Maria making landfall and then divided it into smaller teams to provide medical care around San Juan, Puerto Rico. According to these officials, HHS was one of the few federal agencies to have operational personnel available immediately post landfall. See figure 7 for photographs of Disaster Medical Assistance Teams setting up and providing services in Puerto Rico.

²²Acute care is treatment that is generally provided for a short period of time to treat a certain illness or condition that is of a short-term or episodic nature.

²³ASPR deploys Disaster Medical Assistance Teams as part of NDMS. Team personnel include advanced clinicians (nurse practitioners/physician assistants), medical officers, registered nurses, respiratory therapists, paramedics, pharmacists, safety specialists, logistical specialists, information technologists, and communication and administrative specialists. Generally, the staff that compose Disaster Medical Assistance Teams are deployed for 2 weeks at a time to the affected area.

Figure 7: Department of Health and Human Services' Disaster Medical Assistance Team Setting Up a Temporary Medical Clinic in Puerto Rico, October 2017



Source: Federal Emergency Management Agency. | GAO-19-592

- **Federal Medical Stations.** ASPR placed Federal Medical Stations in tents in front of hospitals in Puerto Rico after Hurricane Maria made landfall to assist with relieving the hospitals' emergency departments.²⁴ Federal Medical Stations are to have a 3-day supply of medical and pharmaceutical resources to sustain up to 250 stable,

²⁴Federal Medical Stations are part of the Strategic National Stockpile. During the 2017 response to Hurricanes Irma and Maria, HHS's Centers for Disease Control and Prevention managed the Strategic National Stockpile.

primary, or chronic care patients.²⁵ Because the entire island of Puerto Rico was affected by Hurricane Maria, ASPR implemented a “hub and spoke” strategy for the first time—a system to deliver medical care over affected areas’ population centers—according to ASPR officials. Under this strategy, ASPR designated San Juan’s Centro Medico hospital as the “hub” of activity with six “spokes” delivering care to the island’s population centers, and placed Federal Medical Stations in tents in front of each hospital, including the “hub.”²⁶

Examples of DOD and VA deployed medical staff and temporary medical facilities include, but are not limited to, the following:

- **DOD medical staff.** Among other medical staff, DOD used an Air Force-based Ground Surgical Team—a six-person team that provides damage-control surgery—to support St. Thomas about a week after Hurricane Irma hit.²⁷ According to DOD officials, the Ground Surgical Team later moved to support medical facilities in St. Croix and then Puerto Rico in response to Hurricane Maria.
- **DOD temporary medical facilities.** DOD deployed Area Support Medical Companies—which include medical personnel, equipment, supply packages, and medical facilities—to the U.S. Virgin Islands and Puerto Rico to help relieve hospitals. For example, Area Support

²⁵A Federal Medical Station is a cache of medical equipment and supplies that requires a tent or building in which to operate. Federal Medical Stations can be staffed with federal, state, or local medical personnel.

²⁶According to ASPR officials, aspects of a “hub and spoke” strategy had been discussed for years as part of a response strategy, however, ASPR implemented this strategy for the first time during its response to Hurricane Maria in Puerto Rico. The six “spoke” hospitals were (1) Hospital Universitario Dr. Ramón Ruiz Arnau in Bayamon, (2) Mayaguez Medical Center in Arecibo, (3) HIMA-San Pablo Fajardo in Fajardo, (4) Mayaguez Medicine Center in Manati, (5) HIMA-San Pablo Caguas in Caguas, and (6) Hospital San Lucas Ponce in Ponce.

²⁷Damage-control surgery is an operative technique in which control of bleeding and stabilization of vital signs becomes the only priority in treating the patient.

USNS Comfort Deployed to Puerto Rico to Respond to Hurricane Maria

The USNS Comfort is a seagoing medical treatment facility that had more than 850 medical and support staff embarked as part of the public health and medical services response to Hurricane Maria in Puerto Rico, according to Department of Defense (DOD) officials. DOD officials stated that approximately 2,000 patients in Puerto Rico were provided care on the USNS Comfort during the course of its 45-day relief mission that began in early October 2017.

The USNS Comfort's primary mission is to provide an afloat, mobile, medical-surgical facility to the U.S. military that is flexible, capable, and uniquely adaptable to support expeditionary warfare. The ship's secondary mission is to provide full hospital services to support U.S. disaster relief and humanitarian operations worldwide.



USNS Comfort in Puerto Rico in November 2017.

Source: DOD and GAO. | GAO-19-592

Medical Companies provided trauma, medical, and surgical care to populations in Puerto Rico after Hurricane Maria. Among other medical facilities, DOD also provided a Combat Support Hospital to Puerto Rico 3 weeks following Hurricane Maria—which consisted of 44 beds with emergency medical technicians; an operating room, laboratory, pharmacy, and X-ray machine; and primary care and intensive care capabilities. DOD also sent the USNS Comfort—a hospital ship maintained by the U.S. Navy that served as a mobile, floating hospital—to help relieve the hospitals in Puerto Rico.

- **VA medical staff.** VA deployed medical personnel through its Disaster Emergency Medical Personnel System—VA's main deployment program for clinical and non-clinical staff to an emergency or disaster—to assist ASPR with staffing the Federal Medical Stations. According to VA officials, these personnel worked side by side with other federal personnel, such as Disaster Medical Assistance Teams, to provide medical assistance.

Hurricanes Irma and Maria Highlighted Key Deficiencies in ASPR's Emergency Response Leadership

Our review identified several key deficiencies with ASPR's leadership of the federal public health and medical services response to Hurricanes Irma and Maria in the U.S. Virgin Islands and Puerto Rico that could adversely affect future large-scale responses unless they are addressed.

Limited ASPR presence in the U.S. Virgin Islands. As the primary agency, ASPR is responsible for coordinating the ESF#8 response, including coordinating with support agencies and officials at operations centers.²⁸ Further, FEMA's ESF#8 statement of work for ASPR states that HHS should provide appropriate personnel at emergency operations

²⁸Department of Homeland Security, *National Response Framework, Third Edition*.

centers near disaster sites to lead an ESF#8 response.²⁹ HHS officials maintained that the Department is not required to address all capabilities in the ESF#8 statement of work, as the actual response provided by HHS depends on other factors, such as resource availability.

However, our review found that ASPR did not sufficiently staff the emergency operations centers and other strategic locations in St. Croix and St. Thomas, which adversely affected its ability to coordinate the response. Specifically,

Emergency Operations Center

An emergency operations center is a physical location where responders, including federal and state/territory responders, as well as nongovernmental responders, can meet to coordinate information and resources to support incident management (on-scene operations) during a response.

According to Department of Homeland Security documentation, decision makers gather at emergency operations centers to ensure they receive the most current information, which allows for improved communication and decision-making during a response.

Source: GAO summary of information from the Department of Homeland Security. | GAO-19-592

- During the initial weeks after the hurricanes, ASPR liaison officers were not always stationed at the emergency operations centers in St. Thomas and St. Croix.³⁰ Instead, the liaisons rotated between the emergency operations center, hospital, and airport on each island to manage patient evacuations, or stayed at the hospital, according to ASPR officials. This led to confusion with regard to the ESF#8 response status on the ground, according to FEMA, DOD, and territory health officials. For example, FEMA officials stated that when they needed information on patients' health needs and evacuation status, they had to spend time trying to locate an ASPR liaison officer to obtain it. The FEMA officials then had to relay this information to DOD, territory health officials, and hospital representatives who were making numerous requests for this information to FEMA in ASPR's absence at the centers. FEMA officials stated that relaying medical information was outside their areas of expertise as were other activities they conducted in ASPR's absence, such as addressing public health issues at shelters. One FEMA official stated that he had to read handwritten notes from the hospital that contained patient information, such as vitals and prescription needs, and provide this

²⁹This expectation is stated in FEMA's preliminary ESF#8 statement of work for ASPR (also known as a pre-scripted mission assignment). According to FEMA officials, pre-scripted mission assignments are created prior to an incident to expedite the processing of a mission assignment once it is required. They are created for capabilities that involve known or frequently used resources for services such as logistics, communications, health services, and public safety. At the time of the response, FEMA and ASPR also had disaster planning guidance specific to the Region that stated that having an ASPR liaison officer at the emergency operations centers in the U.S. Virgin Islands was a priority. See HHS, ASPR Region II Office, *Federal ESF#8 Integration Plan for the U.S. Virgin Islands*, (New York, NY: Oct. 6, 2011) and FEMA, *FEMA Region II Hurricane Annex for Puerto Rico & US Virgin Islands* (New York, NY: June 1, 2014), 51.

³⁰Liaison officers are often ASPR regional representatives. They are deployed to state or territories' emergency operations centers during an incident to provide guidance and subject matter expertise on federal public health and medical services (ESF#8) assets.

information to other responders. Without a medical background, he did not know the meaning of a lot of the medical terms used. Furthermore, these FEMA officials stated that given communication systems were down on the islands, having a reliable, physical presence at the emergency operations centers in St. Thomas and St. Croix became even more critical.

- After a few weeks into the response, ASPR liaison officers were stationed at emergency operations centers, according to ASPR officials, but the officers generally rotated about every 2 weeks with limited time to hand off information and were often not from Region II. This limited ASPR's leadership of the response and put undue resource strain on other responders, according to FEMA and territory health officials. For example, according to FEMA and U.S. Virgin Islands health officials, the liaison officer would not necessarily understand the big picture, the tasks to be done, or the players involved. Thus, FEMA and territory health officials would have to take time to bring the ASPR liaison officer up to speed on the pressing public health and medical services issues, and shortly thereafter the officer would leave to be replaced by someone else, who would also need to be brought up to speed.

ASPR officials provided two different reasons for the staffing challenges encountered at the emergency operations centers in the U.S. Virgin Islands.

- First, some ASPR officials cited personnel resource constraints. Specifically, these officials stated that ASPR personnel had already been deployed multiple times, given the prior hurricane (Hurricane Harvey) and concurrent events that ASPR was responding to in multiple locations. As a result, officials said there was not enough time to educate rotating officials on issues faced in the U.S. Virgin Islands and deployments were shorter than ideal.
- Second, other ASPR officials stated that a lack of transportation from Puerto Rico to the U.S. Virgin Islands may have resulted in minimal overlap of liaison officers. According to these officials, they had to request such transportation from FEMA, and FEMA did not always prioritize their needs, since it was also managing transportation needs from other ESFs. However, FEMA officials contested this statement and stated there was ample opportunity for ASPR liaison officers to get to the U.S. Virgin Islands.

In retrospect, ASPR officials acknowledged that staffing emergency operations centers, as well as other strategic locations is ideal. ASPR documentation after the response states that the officers' presence at

emergency operations centers is important because they need to be working at the operational and tactical levels on the ground. In addition to staffing emergency operations centers, ASPR officials agreed with statements from FEMA and DOD officials who told us that the ideal scenario would be to have at least one other liaison officer (if not more) to support the lead liaison officer at all strategic locations. The officials noted that the number of liaison officers may vary depending on the response needs. In the case of patient evacuations, for example, this would include having a liaison officer at the airport and one at the hospital, in addition to the lead at the emergency operations center. In contrast, DOD officials stated that after Hurricane Irma, one ASPR liaison was on St. Croix trying to manage all the ESF#8 activities, including patient evacuations and hospital assessments, which was too much for one person.

In May 2019, ASPR officials told us they have a long-term goal of creating an incident response team that will comprise 17 full-time response personnel. If implemented, this strategy may allow ASPR to provide more liaisons on the ground during a response and address the staffing deficiency we identified. However, ASPR officials did not provide us with a draft strategy or a timeline for the creation of such a team. Until ASPR develops a response personnel strategy to ensure it has sufficient liaison officers available to consistently lead a response from emergency operations centers and other strategic locations, the agency risks repeating the challenge encountered in the U.S. Virgin Islands—notably, a situation with inadequate liaison officer presence to effectively lead a response on the ground.

Delay in tracking evacuated patients. Tracking NDMS evacuated patients and ensuring their care is a critical component of the public health and medical services response. The ESF#8 Annex of the National Response Framework states that patients should be tracked from their point of entry into NDMS.³¹

However, our review found that ASPR did not track patients evacuated through NDMS from the U.S. Virgin Islands to Puerto Rico immediately after Hurricane Irma. This occurred because of delays in getting HHS tracking personnel to the territories, according to VA documentation, as well as ASPR, DOD, VA, FEMA, and U.S. Virgin Islands Department of

³¹Department of Homeland Security, *National Response Framework, Third Edition and Emergency Support Function #8 – Public Health and Medical Services Annex*.

Health officials. Specifically, HHS teams that track patients were not deployed to the region until about 5 days after patients were already being evacuated through NDMS. These teams are (1) Joint Patient Assessment and Tracking System (JPATS) teams, which enter patient information into JPATS—ASPR’s tracking system—and (2) service access teams, which track and monitor the status of evacuated patients, including facilitating movement to home or other final destination after being discharged from care.

As a result of the delayed deployment of the tracking teams, ASPR officials did not initially know the locations of some NDMS evacuated patients in Puerto Rico.³² For example, once in Puerto Rico, the service access teams had to drive around the territory looking for evacuees, according to ASPR officials. ASPR officials explained that there was a delay in tracking patients after Hurricane Irma because it takes time for JPATS and service access teams to deploy to a region.³³ ASPR officials told us that they did not pre-deploy the tracking teams before the hurricane, because the U.S. Virgin Islands officials did not request ASPR’s help with patient evacuations until after Hurricane Irma hit.

ASPR officials also stated that at the time of the hurricanes, the agency had no policy for tracking patients from the start of NDMS evacuations; however, since the hurricanes, the agency has developed a federal patient movement framework that may help prevent future delays in patient tracking. This framework describes the pre-deployment of JPATS and service access teams, which would allow for tracking to start at the beginning of NDMS evacuations. ASPR officials told us this is the optimal solution.³⁴ However, during an event such as a hurricane, sufficient notice

³²According to ASPR officials, while they did not know patients’ locations, there was an individual at headquarters who used DOD flight manifest data to track (outside of JPATS) the names of the patients evacuated and the hospital they were evacuated from. The service access teams used these names when trying to locate evacuees in Puerto Rico.

³³According to ASPR’s website, service access teams can deploy within 36 hours of activation.

³⁴In addition, ASPR Region II and FEMA officials told us that they have been working with U.S. Virgin Islands health officials to develop a patient movement plan specific to the U.S. Virgin Islands to clearly identify resource needs and related time frames. For example, according to officials, this plan outlines that the decision to request evacuation resources should be made 96 hours prior to the anticipated need to provide time to deploy and stage patient tracking resources. FEMA and ASPR Region II officials had scheduled an exercise to test the plan in November 2018, but it was canceled by territory officials. In June 2019, ASPR officials told us that the exercise had been rescheduled and was conducted on June 11 and 12, 2019, in St. Croix and St. Thomas, U.S. Virgin Islands.

for pre-deployment is not always possible. One option identified in ASPR's federal patient movement framework is for FEMA to track patients initially and share these data with ASPR and for DOD to provide patient movement manifests to ASPR so that the data can be manually entered into JPATS once deployed, which will contain the overall dataset for patient tracking. By working with DOD and FEMA, ASPR may be able to consistently track patients from the start of evacuations even when there is a deployment delay in HHS's own tracking capabilities.

While ASPR's development of the framework is an important step forward to address delays in patient tracking, ASPR has not exercised the framework with its NDMS partners to ensure it is sufficient and reliable. For example, given the potential need to manually enter information into JPATS, there could still be a delay in HHS knowing where patients are located and being able to inform family members. An exercise of the framework could help determine if this is indeed a concern that needs to be addressed. We have previously reported that exercises are a key tool for testing and evaluating preparedness.³⁵ ASPR officials told us that exercising the framework prior to the next hurricane season had been discussed, but as of May 2019, nothing had been scheduled. Without a framework that has been exercised with the other agencies involved in federal patient movement and tracking, ASPR risks delays in patient tracking when conducting future NDMS patient evacuations.

Final status of one-fourth of evacuated patients not readily available.

The ESF#8 Annex of the National Response Framework states that NDMS evacuated patients should be tracked to their final disposition.³⁶ Further, federal internal controls standards stress the importance of

³⁵We have reported that exercises can play an instrumental role in preparing organizations to respond to an incident by providing opportunities to test response plans, evaluate response capabilities, assess the clarity of established roles and responsibilities, and improve proficiency in a simulated, risk-free environment. Short of performance in actual operations, exercises provide the best means to assess the effectiveness of organizations in achieving mission preparedness. Exercises provide an ideal opportunity to collect, develop, implement, and disseminate lessons learned and to verify corrective action taken to resolve previously identified issues. GAO, *Defense Civil Support: DOD Needs to Identify National Guard's Cyber Capabilities and Address Challenges in Its Exercises*, [GAO-16-574](#) (Washington, D.C.: Sept. 6, 2016). Also see, for example, GAO, *National Preparedness: FEMA Has Made Progress, but Needs to Complete and Integrate Planning, Exercise, and Assessment Efforts*, [GAO-09-369](#) (Washington, D.C.: Apr. 30, 2009).

³⁶Department of Homeland Security, *National Response Framework, Third Edition and Emergency Support Function #8 – Public Health and Medical Services Annex*.

information controls to ensure quality information is used to achieve objectives, which includes information that is complete and accurate.³⁷

However, we found that of the approximately 800 NDMS patient evacuations during the response to Hurricanes Irma and Maria, the agency could not readily provide us with the final status of approximately 200 of these patients.³⁸ ASPR officials stated they did not have information indicating the final status of the 200 evacuated patients, because case workers are not required to report this information to ASPR. ASPR officials explained that the case workers on the service access teams deployed during the response are responsible for keeping track of patients' final status. However, we found that without conducting a review of files in which the case workers recorded patients' final status, ASPR officials could not determine if the patients were appropriately discharged and returned back to the U.S. Virgin Islands, left the system against medical advice, or were otherwise unaccounted for.

Additionally, as of June 2019, ASPR did not provide documentation indicating the steps the agency takes to ensure the data held by case workers are accurate. Until ASPR has controls in place to ensure that data on NDMS evacuated patients are complete and accurate, the agency cannot ensure it is sufficiently tracking all NDMS evacuated patients and risks losing track of patients when conducting future patient evacuation efforts.

Limited focus on chronic and primary care needs in isolated locations. As the coordinator, ASPR is responsible for ensuring that appropriate planning and preparedness activities are undertaken. This includes planning for the care of elderly and chronically ill patients in isolated areas.³⁹

³⁷According to federal internal control standards for information and communication, management should process and use quality information, which includes information that is appropriate, current, complete, accurate, accessible, and provided on a timely basis. [GAO-14-704G](#).

³⁸The approximately 800 NDMS patient evacuations include evacuations of non-medical attendees who were evacuated with the patient to help provide direct support to the patient, such as family members. According to ASPR officials, most of the NDMS evacuations were of patients, so for the purposes of this report, we refer to them as patient evacuations.

³⁹Department of Homeland Security, *National Response Framework, Third Edition*.

Our review found that at the time of the hurricanes, ASPR Region II's response plans for the U.S. Virgin Islands and Puerto Rico—known as Incident Response Plans—did not account for the need for chronic and primary care in isolated communities. This type of care was greatly needed, given that many people, especially the elderly, could not easily access hospitals, according to officials from ASPR, DOD, the Puerto Rico Department of Health, and three stakeholders we interviewed. Consistent with the views of these officials, the HHS Deputy Inspector General reported that during Hurricane Maria, hundreds of patients across Puerto Rico sought access to urgent care, primary care, and pharmacy services at community-based health care centers, known as Federally Qualified Health Centers, because they could not travel to hospitals for treatment.⁴⁰ Further, we reported in May 2019 and heard from two stakeholders that because of the widespread power outages and infrastructure damage in both territories, the chronically ill often did not have access to electricity to power their medical devices—such as ventilators—and gasoline to run generators was scarce.⁴¹

ASPR's initial response activities—which generally focused on supporting the hospitals and patients with acute care needs—were based on response plans with assumptions that did not hold true given the unprecedented level of destruction in the areas. Specifically, according to ASPR officials, the agency focused its response planning on managing the surge of patients at hospitals, assuming that individuals would make their way to hospitals, and projecting that smaller communities could care for one another until further needs assessments could be conducted. For example, ASPR Region II and Puerto Rico health officials assumed in their planning that patients in the harder to reach areas, such as the mountainous areas, would make their way to the coast where hospital care was available, according to ASPR officials.

ASPR officials also stated that preparedness planning for an immediate response is generally focused on managing the surge of patients at

⁴⁰HHS Office of Inspector General, *The Health Resources and Services Administration Has Controls and Strategies to Mitigate Hurricane Preparedness and Response Risk A-04-18-02015* (Washington, D.C.: December 2018). The objective of this review was to determine the risks the Health Resources and Services Administration faced and mitigated with regards to its emergency preparedness for Federally Qualified Health Centers; it was not to identify local preparedness issues in Puerto Rico.

⁴¹GAO, *Disaster Assistance: FEMA Action Needed to Better Support Individuals Who Are Older or Have Disabilities*, [GAO-19-318](#), (Washington, D.C.: May 14, 2019), 16.

hospitals, with the assumption that after about a week into the response, assessments would be conducted to determine other needs, such as chronic care needs.⁴² However, ASPR officials told us that in retrospect, the planning and the assumptions used for planning for the U.S. Virgin Islands and Puerto Rico were not adequate given the unprecedented level of destruction in the areas, which affected communications and transportation. FEMA officials also said that given how difficult it was to assess the situation in Puerto Rico after Hurricane Maria, having prior knowledge of the situation on the ground that could affect the response (such as the general public health and medical needs in the territories during non-disaster times) was a lesson learned that applies to them, as well as ASPR.

ASPR has taken steps to better account for the need for chronic and primary care in isolated communities in future public health and medical services responses. However, these efforts have not been finalized or incorporated into ASPR Region II Incident Response Plans for the territories, which according to a lead HHS Region II official, are internal agency plans that serve as a playbook for HHS officials during an ESF#8 response in these territories. Specifically, ASPR is working with the Puerto Rico Department of Health officials to map the locations of health care facilities in Puerto Rico—such as clinics, Federally Qualified Health Centers, urgent care centers, and hospitals—including their bed, generator, communication, and surge capacities. This is the first time all such information has been brought together, and ASPR continues to work on this effort as it helps the territory recover, according to agency documentation. ASPR officials also told us that moving forward they would like to involve Federally Qualified Health Centers in planning and response activities, including involving them in the provision of primary care during responses.

We agree that these are important steps that ASPR can take to address this deficiency. However, until ASPR Region II Incident Response Plans for the territories include the provision of chronic and primary care in isolated communities, there is a risk that disaster survivors will not receive needed care. For example, this could include the incorporation of

⁴²The HHS Deputy Inspector General also found that the federal emergency response plan focused on hospitals rather than on community-based health centers. HHS Office of Inspector General, *The Health Resources and Services Administration Has Controls and Strategies to Mitigate Hurricane Preparedness and Response Risk*.

Federally Qualified Health Centers or other local health clinics into these plans.

Misalignment of support agencies' capabilities to response needs.

As the coordinator, ASPR is responsible for ensuring that appropriate planning and preparedness activities are undertaken, including monitoring the progress in meeting the ESF#8 core capabilities.⁴³ Further, FEMA guidance issued in June 2015 states that each ESF coordinator should maintain a capabilities inventory for the ESF.⁴⁴

However, our review found that ASPR did not have a sufficient understanding of ESF#8 support agencies' capabilities prior to the hurricanes. Consequently, ASPR's resource needs for the response in the U.S. Virgin Islands and Puerto Rico were not always aligned with the resources its support agencies—DOD, VA, and FEMA—could provide. According to ASPR documentation and DOD officials, this resulted in some deployed resources not being properly and efficiently utilized.

As an example of the misalignment of resources, DOD officials told us that, through FEMA, ASPR requested that DOD provide stand-alone medical assistance teams (i.e., teams of medical personnel and equipment, similar to ASPR's Disaster Medical Assistance Teams) to deliver medical care to the hurricane survivors in the U.S. Virgin Islands and Puerto Rico. However, since DOD does not have stand-alone teams, it deployed Area Support Medical Companies, which included facilities, equipment, and supply packages. These teams are equipped to serve the military population—those approximately 18-60 years of age, wounded, and requiring trauma and medical-surgical care. However, trauma and medical surgical care was not the primary need in the islands, which, in general, have an older population with chronic and primary care needs.

ASPR documentation also shows that ASPR had trouble defining how FEMA and DOD assets fit into the overarching ESF#8 response. For example, ASPR documentation states that it took the agency nearly a week to fully realize that the two Area Support Medical Companies provided by DOD were not equivalent to the five stand-alone medical

⁴³Department of Homeland Security, *National Response Framework, Third Edition*.

⁴⁴Federal Emergency Management Agency, *Memorandum for: Emergency Support Function Leadership Group, Subject: Performance Metrics for Emergency Support Function Preparedness*, (Washington, D.C.: June 30, 2015).

assistance teams that HHS had requested. According to DOD officials, the misalignment of resources during the response was troublesome as the Department's involvement in the ESF#8 response activities affected patient care for military health beneficiaries and potentially increased overseas contingency response risks for the Department. In another example, during the response, there were conflicting expectations about VA personnel's role in supporting the Federal Medical Stations, with VA responders thinking they would run shelter operations and ASPR believing the VA staff would support medical operations, according to ASPR documentation.

According to ASPR officials, the agency had never anticipated needing—and therefore did not plan for—certain ESF#8 agency support, such as teams similar to ASPR's Disaster Medical Assistance Teams. ASPR's role in a response has traditionally been to support states or territories; however, because of the catastrophic nature of the hurricanes, ASPR effectively led the territories in the response as opposed to playing a supporting role. ASPR's response system was not designed to handle that large of a role, according to officials.

Since the hurricanes, ASPR has taken steps to understand the resources available from its support agencies, but ASPR officials agreed that it is an activity that the agency needs to continue to undertake. Specifically, ASPR officials stated that the agency is currently working with its NDMS partners (FEMA, DOD, and VA) to develop memorandums of agreement that outline the roles and responsibilities of each organization; however, the discussions are in the preliminary stages as ASPR continues to collaborate with each organization to understand their resource gaps and capabilities. Continuing to understand each ESF#8 support agency's potential capabilities and its limitations—knowing that the actual capacity of these capabilities may fluctuate—is important, as evidenced by the misalignment that occurred during the response. Until ASPR can better identify the capabilities and limitations of support agencies to meet ESF#8 core capabilities, ASPR cannot, as the coordinator, determine whether the ESF is prepared for future disasters.

Reliance on DOD support. As the coordinator, ASPR is responsible for ensuring that appropriate planning and preparedness activities are undertaken. This includes planning for a scenario in which DOD assistance is unavailable.⁴⁵ We have previously reported that DOD

⁴⁵Department of Homeland Security, *National Response Framework, Third Edition*.

provided much of the ESF#8 support during the initial response to Hurricanes Irma and Maria, which may not always be available in future responses.⁴⁶ DOD's support included providing the core capabilities of patient care (through the provision of Area Support Medical Companies, among other medical facilities) and patient evacuations (through the provision of personnel and transportation to conduct aeromedical evacuations), as mentioned above.

We found that ASPR does not have a response strategy that will account for the core capabilities needed to be filled by itself or other support agencies in a large or long-term ESF#8 response if DOD were unable to assist. For example, DOD's 2017 hurricane after-action report included reliance on DOD as a concern and recommended that HHS and FEMA establish contracts with the commercial sector to ensure the federal government has other options available for larger ESF#8 responses should DOD not have the needed capability or available capacity. Similarly, in September 2018, we reported that ESF lead agencies' (including ASPR for ESF#8) dependence on DOD capabilities was a challenge for DOD during the response to Hurricanes Irma and Maria. We reported that the increased reliance may create vulnerability, if in the future, DOD capabilities are needed to conduct its primary mission—to defend the nation from threats—at the same time its support is needed for a domestic disaster response.⁴⁷

ASPR told us that it does not have a contingency plan for a response in DOD's absence, because for large-scale events, such as Hurricanes Irma and Maria, ASPR has to rely on DOD, given ASPR's own resource constraints. ASPR officials stated that, in general, ASPR's resource response capacity—personnel and supplies—can support a response to two simultaneous events that occur in different areas in the Continental United States for 30 days. Beyond that, ASPR has to rely on other agencies, including DOD, which occurred with Hurricanes Irma and Maria.

⁴⁶[GAO-18-472](#).

⁴⁷We reported that DOD officials stated that federal agencies have over time become too dependent on DOD capabilities during disasters. While DOD possesses some unique capabilities, some of the requested capabilities could potentially reside in other federal agencies, nongovernmental organizations, or the private sector. Similarly, according to DOD officials, the Department's ability to deploy quickly and/or for extended periods of time may make DOD a preferable solution for response capabilities and support. [GAO-18-472](#).

However, ASPR officials did state that the agency has recently taken some steps to reduce its reliance on DOD. Specifically, in September 2018, ASPR entered into a contract with a private company to provide medical personnel teams similar to Disaster Medical Assistance Teams that can be utilized to supplement ASPR response personnel, especially if DOD resources are not available. Similarly, to assist with future patient evacuations, in October 2018, the agency entered into contracts with private companies for commercial air ambulance transport.⁴⁸ In addition, ASPR officials told us that through ASPR's participation in the Whole of Government Logistics Council, the agency has begun to further discuss air transport options during major disasters with other agencies including FEMA, DOD, and VA.⁴⁹ However, ASPR officials also stated there is a need to hold discussions with all agencies involved in the ESFs to prioritize and coordinate air transportation during a response in the event that DOD is not available.

While these are important steps to potentially minimize reliance on DOD, ASPR's own capacity constraints make it all the more important for ASPR to develop a response strategy that includes other support agencies in the event that DOD support is unavailable. For example, such a strategy could involve conducting an exercise to simulate a large-scale ESF#8 response without DOD capabilities. Until ASPR develops a strategy demonstrating how ESF#8 core capabilities can be provided through HHS and its support agencies without DOD's assistance, it risks being unprepared to respond to a large-scale disaster or multiple disasters if they occur when DOD's capabilities are limited due to other events, such as military missions.

While ASPR Has Completed a Draft After-Action Report to Evaluate Its Response, It is Missing Key Perspectives

ASPR completed a draft after-action report in February 2018 after several months of collecting feedback from HHS staff on the strengths and areas

⁴⁸The agency also entered into contracts for human remains transport in October 2018.

⁴⁹The Whole of Government Logistics Council is an interagency workgroup that focuses on government logistic needs to achieve an effective and efficient response to crisis situations and support steady state operations, according to the Council's charter.

for improvement in the agency's 2017 ESF#8 response activities; however, the draft is missing the perspectives of key parties involved in the response.⁵⁰ Not collecting the perspectives of key parties involved in the response is inconsistent with federal standards for information and communication, which state that management needs access to relevant information from external parties to help achieve objectives and address related risks.⁵¹ Further, the Standard for Program Management states that program managers should actively engage key stakeholders throughout the life cycle of a program, which would include any evaluation activities.⁵²

Specifically, when collecting feedback, ASPR did not reach out directly to support agencies, territorial governments in the U.S. Virgin Islands and Puerto Rico, or other stakeholders intimately involved in the response. Instead, ASPR gathered observations through facilitated discussions, or "hotwashes," with HHS personnel stationed at key response sites in headquarters and the field, such as personnel stationed at the HHS Secretary's Operations Center and those stationed at medical sites in

⁵⁰In addition to the response to Hurricanes Irma and Maria, ASPR's after-action review for the 2017 hurricane season also includes Hurricane Harvey, which made landfall on August 25, 2017, and Hurricane Nate, which made landfall on October 7, 2017. After completing its draft after-action report in February 2018, ASPR then began drafting an improvement plan, which details each specific area for improvement identified in the after-action report, corrective actions to address each area for improvement, time frames for completing corrective actions, and the current status of each. ASPR continues to implement the corrective actions included in its improvement plan. ASPR officials said that there are no estimated time frames for completing the improvement plan because some of the corrective actions may take years to implement, and may be dependent on factors outside the agency's control, such as funding from Congress. Until the agency implements all of the corrective actions in the improvement plan, ASPR officials said the agency will not internally publish its draft after-action report and will refer to it as a "draft" report until published. However, they said that the contents of the after-action report will not change.

⁵¹According to federal internal control standards for information and communication, management should externally communicate the necessary quality information to achieve the entity's objectives, including obtaining quality information from external parties so that external parties can help the entity achieve its objectives and address related risks. [GAO-14-704G](#).

⁵²Program Management Institute, Inc., *The Standard for Program Management, Fourth Edition*.

Puerto Rico.⁵³ In addition, ASPR distributed an electronic feedback link to all personnel involved in the HHS ESF#8 response, both in the field and headquarters.

ASPR officials stated they did not obtain feedback directly from outside parties, such as support agencies or territorial governments, during the after-action review because the review was focused on internal aspects of the HHS response. Instead, the officials said that FEMA—as the overall lead for the federal response—typically writes the overall after-action report for the whole federal government, and those perspectives would be captured there. However, FEMA’s after-action report was focused only on its response activities for the 2017 hurricanes and did not include any strengths or areas for improvement related to ESF#8.⁵⁴

Because ASPR did not obtain feedback from its ESF#8 support agencies and other partners, its draft after-action report dated February 2018 has key gaps in its assessment. For example, three of the deficiencies we identified based on our review of documentation and interviews with agency and territory officials—the delay in tracking evacuated patients, the final status of some evacuated patients not readily available, and the reliance on DOD support—were not included in ASPR’s draft after-action report. This indicates that key perspectives, and related lessons learned, were missing from ASPR’s after-action review. Similarly, FEMA officials said that during the course of soliciting feedback on its own response actions, FEMA’s provider of NDMS medical evacuation transportation for Hurricanes Irma and Maria said that if ASPR had reached out, it would have identified challenges with the NDMS patient evacuations conducted. In particular, the provider told FEMA that patients were evacuated to an airport in the continental United States with limited hours of availability, and if patients had to be evacuated outside of those hours, they were sent to other airports with inadequate medical care, so the patients needed to be transported again as a result.

⁵³A “hotwash” is facilitated discussion held immediately after an exercise or real world event among the individuals involved. It captures feedback about any issues, concerns, or proposed improvements that the individuals may have about the exercise or event. According to HHS documentation, the HHS Secretary’s Operations Center is a multi-agency operations center at the headquarters level whose mission is to facilitate information sharing and operations coordination with other operations centers, provide domestic and international situational awareness to senior leadership, and serves as the organizational hub of any required federal public health response under ESF#8.

⁵⁴See Department of Homeland Security, 2017 Hurricane Season FEMA After-Action Report (July 2018).

Without an after-action report that includes the perspectives of all key parties—including ESF#8 support agencies—ASPR management is likely to lack the necessary information to comprehensively identify all strengths and areas for improvement of its ESF#8 response.

Conclusions

The catastrophic destruction encountered as a result of Hurricanes Irma and Maria proved overwhelming to the U.S. Virgin Islands and Puerto Rican governments and resulted in a large federal disaster response, complicated by losses of power, communication, transportation, and health care infrastructure in the territories. ASPR and its support agencies, such as DOD, undertook numerous actions to address the public health and medical needs in the territories—including evacuating critical care and dialysis patients from the U.S. Virgin Islands and Puerto Rico.

Nevertheless, key deficiencies with ASPR's leadership of the response resulted in confusion and resource strain among responders from support agencies and territory health departments at emergency operations centers in the U.S. Virgin Islands. The deficiencies also resulted in service access teams having to search for evacuated patients, ASPR's inability to readily and reliably identify the final status of all evacuated patients, and disaster survivors in isolated areas potentially not receiving needed health care. ASPR's leadership also led to an inefficient use of federal resources. Many of the deficiencies were a function of ASPR policy and its preparedness planning, and as such, they could be repeated unless ASPR addresses them. Additionally, the agency remains unprepared to respond to future large-scale disasters if DOD is unavailable. Further, the likelihood that deficiencies will recur in future responses increases, because ASPR did not include feedback from the support agencies involved in the response in its after-action report.

Recommendations for Executive Action

We are making the following seven recommendations to the Assistant Secretary for Preparedness and Response:

ASPR should develop a response personnel strategy to ensure, at a minimum, a lead ASPR liaison officer is consistently at the local emergency operations center(s) during an ESF#8 response and another

liaison, if not more, is at strategic location(s) in the area. (Recommendation 1)

As ASPR finalizes its federal patient movement framework, the agency should exercise the framework with its NDMS partners to ensure that patients evacuated through NDMS will be consistently tracked from the start of their evacuation. (Recommendation 2)

ASPR should put controls in place to ensure data on all NDMS evacuated patients are complete and accurate. (Recommendation 3)

ASPR Region II should revise its Incident Response Plans for the territories to include strategies for providing chronic and primary care in isolated communities. These strategies could include the incorporation of Federally Qualified Health Centers and other local health clinics as part of a response. (Recommendation 4)

ASPR should work with support agencies to develop and finalize memorandums of agreement that include information on the capabilities and limitations of these agencies to meet ESF#8 core capabilities. (Recommendation 5)

ASPR should develop a strategy demonstrating how it ESF#8 core capabilities can be provided through HHS and ESF#8 support agencies if DOD's capacity to respond is limited. (Recommendation 6)

ASPR should take steps to ensure the perspectives of key external parties are incorporated in the development of HHS's after-action reviews, following future ESF#8 activations. (Recommendation 7)

Agency Comments and Our Evaluation

We provided a draft of this report for advance review and comment to HHS, DOD, the Department of Homeland Security, VA, and the governments of the U.S. Virgin Islands and Puerto Rico. HHS and VA provided written comments, which we have reprinted in appendixes I and II, respectively. HHS concurred with five of our seven recommendations and stated that it had, or was in the process of, taking action. While we made no recommendations to VA, in its comments VA stated that it looks forward with working with HHS on matters we have presented in this report. HHS and DOD provided technical comments, which we

incorporated as appropriate. U.S. Virgin Islands and Puerto Rican government officials stated they had no comments on the draft report.

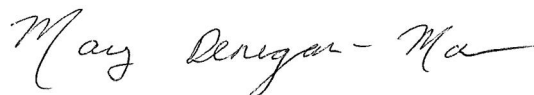
HHS did not concur with a recommendation in the draft report directing ASPR to develop and finalize ESF#8 response plans for the territories that include strategies for providing chronic and primary care in isolated communities. In its comments, HHS stated that while ASPR has federal plans in place that guide federal response, each state and locality is responsible for developing its own individual plans. We modified the language in our report and our recommendation to clarify we are referring to ASPR Region II's Incident Response Plans for the U.S. Virgin Islands and Puerto Rico. According to a lead ASPR Region II official, these plans are internal agency plans that serve as a playbook for HHS officials during an ESF#8 response in these territories. However, as we reported, these plans do not account for the provision of chronic and primary care in isolated communities. Accordingly, we believe our recommendation is warranted.

HHS also did not concur with a recommendation in the draft report that ASPR work with support agencies to develop an inventory to identify the capabilities and limitations of support agencies to meet ESF#8 core capabilities. According to HHS, such an inventory will be out of date immediately after development due to world events and changes in investments, technologies, and priorities. Instead, HHS proposed the continued use of interagency liaison officers at the HHS emergency operations center, as they can provide real-time updates on available resources during a response. We agree that HHS should continue this practice in future responses. However, as is evidenced by the misalignment that we identify in our report, this action was not adequate during the response to Hurricanes Irma and Maria in the U.S. Virgin Islands and Puerto Rico. Further, as we reported, ASPR officials acknowledged that more needs to be done to better understand the resources available from its support agencies. To clarify the intent of our recommendation—that is, that ASPR take steps to ensure it has a sufficient understanding of each ESF#8 support agency's potential capabilities and its limitations—we modified language in our report and the recommendation. Specifically, we modified our recommendation to direct ASPR to include information on the capabilities of these agencies as it works to develop and finalize memorandums of agreement with support agencies. The memorandums of agreement that ASPR is beginning to draft with support agencies provide an opportunity to begin to address this issue. As we have reported, taking such action is needed

to help ensure that future ESF#8 responses are more efficiently and effectively coordinated.

We are sending copies of this report to the appropriate congressional committees, the Secretaries of the Health and Human Services, Defense, Homeland Security, Veterans Affairs, and Interior, and other interested parties. In addition, the report is available at no charge on the GAO website at <http://www.gao.gov>.

If you or your staff have any questions about this report, please contact me at (202) 512-7114 or DeniganMacauleyM@gao.gov. Contact points for our Offices of Congressional Relations and Public Affairs may be found on the last page of this report. GAO staff who made key contributions to this report are listed in appendix III.



Mary Denigan-Macauley
Director, Health Care

List of Requesters

The Honorable Michael B. Enzi
Chairman
Committee on the Budget
United States Senate

The Honorable Ron Johnson
Chairman
The Honorable Gary C. Peters
Ranking Member
Committee on Homeland Security and Governmental Affairs
United States Senate

The Honorable Rand Paul, M.D.
Chairman
Subcommittee on Federal Spending, Oversight and Emergency
Management
Committee on Homeland Security and Governmental Affairs
United States Senate

The Honorable Marco Rubio
Chairman
Committee on Small Business and Entrepreneurship
United States Senate

The Honorable Bennie G. Thompson
Chairman
Committee on Homeland Security
House of Representatives

The Honorable Elijah E. Cummings
Chairman
The Honorable Jim Jordan
Ranking Member
Committee on Oversight and Reform
House of Representatives

The Honorable Peter DeFazio
Chairman
The Honorable Sam Graves
Ranking Member

Committee on Transportation and Infrastructure
House of Representatives

The Honorable Maxine Waters
Chairwoman
Committee on Financial Services
House of Representatives

The Honorable Nydia M. Velázquez
Chairwoman
Committee on Small Business
House of Representatives

The Honorable Al Green
Chairman
Subcommittee on Oversight and Investigations
Committee on Financial Services
House of Representatives

The Honorable Sean Duffy
Ranking Member
Subcommittee on Housing, Community Development and Insurance
Committee on Financial Services
House of Representatives

The Honorable Emanuel Cleaver, II
House of Representatives

The Honorable Michael McCaul
House of Representatives

The Honorable Gary J. Palmer
House of Representatives

The Honorable Ann Wagner
House of Representatives

Appendix I: Comments from the Department of Health and Human Services



GENERAL COMMENTS FROM THE DEPARTMENT OF HEALTH & HUMAN SERVICES ON THE GOVERNMENT ACCOUNTABILITY OFFICE'S DRAFT REPORT ENTITLED -- DISASTER RESPONSE: HHS SHOULD ADDRESS DEFICIENCIES HIGHLIGHTED BY RECENT HURRICANES IN THE U.S. VIRGIN ISLANDS AND PUERTO RICO (GAO-19-592)

The U.S. Department of Health & Human Services (HHS) appreciates the opportunity from the Government Accountability Office (GAO) to review and comment on this draft report.

Recommendation 1

ASPR should develop a response personnel strategy to ensure, at a minimum, a lead ASPR liaison officer is consistently at the local emergency operations center(s) during an ESF#8 response and another liaison, if not more, is at strategic location(s) in the area.

HHS Response

Concur; completed. ASPR has a final response framework in place that establishes a cadre of liaison personnel to support future response operations. However, direct hire authority and consistent appropriations would benefit ASPR's efforts to staff these positions and support future response efforts.

Recommendation 2

As ASPR finalizes its federal patient movement framework, the agency should exercise the framework with its NDMS partners to ensure that patients evacuated through NDMS will be consistently tracked from the start of their evacuation.

HHS Response

Concur; resource dependent. While ASPR has an established exercise program, funding for exercises is drawn from existing program budgets. At this time, there is no additional funding to support any additional exercises in the fiscal year 2019 and fiscal year 2020 budgets. ASPR will work with Departmental officials to explore other funding opportunities to support the recommended exercise. GAO should be aware that use of the Joint Patient Assessment and Tracking System (JPATS) is exercised approximately 13-15 times a year at the Federal Communication Commissions (FCC) around the nation. ASPR sends JPATS teams and requests SAT members to participate from OASH's Division of Commission Corps Personnel and Readiness (DCCPR) (SATs are not ASPR resources). JPATS and case management are then exercised with the FCCs for sending/receiving patients and family members.

Recommendation 3

ASPR should put controls in place to ensure data on all NDMS evacuated patients are complete and accurate.

HHS Response

Concur; in process. ASPR will continue to working with the HHS Office of the Assistant Secretary for Health (OASH) to train DCCPR case managers on the use of Case Management Systems. ASPR and OASH have also developed and is in the process of finalizing an Standard Operating Procedure (SOP). Consistent and standard training for OASH case managers will increase competencies and utilization of consistent data and patient records.

GENERAL COMMENTS FROM THE DEPARTMENT OF HEALTH & HUMAN SERVICES ON THE GOVERNMENT ACCOUNTABILITY OFFICE'S DRAFT REPORT ENTITLED -- DISASTER RESPONSE: HHS SHOULD ADDRESS DEFICIENCIES HIGHLIGHTED BY RECENT HURRICANES IN THE U.S. VIRGIN ISLANDS AND PUERTO RICO (GAO-19-592)

Recommendation 4

ASPR Region II should develop and finalize ESF#8 response plans for the territories that include strategies for providing chronic and primary care in isolated communities. These strategies could include the incorporation of Federally Qualified Health Centers and other local health clinics as part of a response.

HHS Response

Non-Concur. ASPR does not establish or create plans for specific states and/or territories. ASPR has federal plans in place that guide federal response but each state and or locality is responsible for developing their own individual plans, including developing strategies for providing chronic and primary care in isolated communities. ASPR provides subject matter expertise and support as states and locals develop plans, but ASPR does not have the authority to mandate that specific plans be established.

Recommendation 5

ASPR should work with support agencies to develop an inventory to identify the capabilities and limitations of support agencies to meet ESF#8 core capabilities.

HHS Response

Non-Concur. As GAO alludes to, this could result in inefficient use of resources. The list will be out of date immediately after development due to world events and changes in investments, technologies, and priorities. Rely on an out of date inventory of an agency's capabilities and limitations when planning disaster response could impede federal relief efforts and endanger lives. A better practice would be to continue to support interagency liaison officers (stationed in the HHS operations center during response) who can provide real-time updates on resources available before, during, and after response operations. Having personnel in place verses spending resources to develop a stagnant plan has proven successful in strengthening interagency collaboration during recent response operations. ASPR recommends continuing to support such liaison positions instead of diverting resources to develop a stagnant resource list. Further, as it was the practice during the response during Hurricane MARIA and every response before and since, HHS makes a request to DoD for capabilities and it is DoD, not HHS, that determines the most appropriate kind of resource it will deploy. DoD's decision reflects what it has in its inventory, what is immediately available and what capability it chooses to offer.

Recommendation 6

ASPR should develop a strategy demonstrating how it ESF#8 core capabilities can be provided through HHS and ESF#8 support agencies if DOD's capacity to respond is limited.

GENERAL COMMENTS FROM THE DEPARTMENT OF HEALTH & HUMAN SERVICES ON THE GOVERNMENT ACCOUNTABILITY OFFICE'S DRAFT REPORT ENTITLED -- DISASTER RESPONSE: HHS SHOULD ADDRESS DEFICIENCIES HIGHLIGHTED BY RECENT HURRICANES IN THE U.S. VIRGIN ISLANDS AND PUERTO RICO (GAO-19-592)

HHS Response

Concur. GAO should be aware, however, that DoD support is the contingency in all response operations. Since the 2017 response, HHS has implemented contracts to support air transport (primary DoD support provided during the 2017 response). During future response operations, should an event be so catastrophic that travel is severely impacted (major airports are closed, the area of impact is extremely isolated, multiple events occurring simultaneously, etc.) DoD would be the contingency to support response operations; there is no one else with expansive stand-alone capabilities. Thus, even with a contingency strategy, as an ESF-8 partner, DoD will always be the primary contingency in a major response operation.

Recommendation 7

ASPR should take steps to ensure the perspectives of key external parties are incorporated in the development of HHS's after-action reviews, following future ESF#8 activations.

HHS Response

Concur.

Text of Appendix I: Comments from the Department of Health and Human Services

Page 1

Mary Denigan-Macauley

Director, Health Care

U.S. Government Accountability Office 441 G Street NW

Washington, DC 20548

Dear Ms. Denigan-Macauley:

Attached are comments on the U.S. Government Accountability Office's (GAO) report entitled, "DISASTER RESPONSE: HHS Should Address Deficiencies Highlighted by Recent Hurricanes in the US. Virgin Islands and Puerto Rico" (GAO-19-592).

The Department appreciates the opportunity to review this report prior to publication.

Sincerely,

Sarah Arbes

Acting Assistant Secretary for Legislation

Attachment

Page 2

GENERAL COMMENTS FROM THE DEPARTMENT OF HEALTH &
HUMAN SERVICES ON THE GOVERNMENT ACCOUNTABILITY
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HHS SHOULD ADDRESS DEFICIENCIES HIGHLIGHTED BY
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Recommendation 5

ASPR should work with support agencies to develop an inventory to identify the capabilities and limitations of support agencies to meet ESF#8 core capabilities.

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Page 4

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Recommendation 7

ASPR should take steps to ensure the perspectives of key external parties are incorporated in the development of HHS's after-action reviews, following future ESF#8 activations.

HHS Response

Concur.

Appendix II: Comments from the Department of Veterans Affairs



THE SECRETARY OF VETERANS AFFAIRS
WASHINGTON

AUG 12 2019

Ms. Mary Denigan-Macauley
Acting Director
Health Care
U. S. Government Accountability Office
441 G Street, NW
Washington, DC 20548

Dear Ms. Denigan-Macauley:

The Department of Veterans Affairs (VA) has reviewed the Government Accountability Office (GAO) draft report: ***DISASTER RESPONSE: HHS Should Address Deficiencies Highlighted by Recent Hurricanes in the U.S. Virgin Islands and Puerto Rico*** (GAO-19-592).

The enclosure provides our general comments. VA appreciates the opportunity to comment on your draft report.

Sincerely,

A handwritten signature in cursive script that reads "Robert L. Wilkie".

Robert L. Wilkie

Enclosure

Enclosure

Department of Veterans Affairs (VA) Comments to
Government Accountability Office (GAO) Draft Report
***DISASTER RESPONSE: HHS Should Address Deficiencies Highlighted by
Recent Hurricanes in the U.S. Virgin Islands and Puerto Rico***
(GAO-19-592)

General Comments:

The Department of Veterans Affairs (VA) has the following general comments toward the Government Accountability Office's (GAO) Recommendations 2, 5, and 7:

As a National Disaster Medical System (NDMS) partner, the Veterans Health Administration (VHA) Office of Emergency Management welcomes the opportunity to participate at the direction of the Office of the Assistant Secretary for Preparedness and Response (ASPR) in exercises to ensure that patients evacuated through NDMS will be consistently tracked from the start of their evacuation.

VHA Office of Emergency Management welcomes the opportunity to work with ASPR to develop an inventory of VHA capabilities and limitations in support of Emergency Support Function (ESF) #8 core capabilities at the direction of ASPR.

VHA Office of Emergency Management looks forward to participating in the Department of Health and Human Services' after-action reviews following future ESF#8 activations.

Department of Veterans Affairs
August 2019

Text of Appendix II: Comments from the Department of Veterans Affairs

Page 1

Ms. Mary Denigan-Macauley Acting Director

Health Care

U.S. Government Accountability Office 441 G Street, NW

Washington, DC 20548

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Sincerely,

Robert L. Wilkie

Enclosure

Page 2

Department of Veterans Affairs (VA) Comments to Government Accountability Office (GAO) Draft Report DISASTER RESPONSE: HHS Should Address Deficiencies Highlighted by Recent Hurricanes in the U.S. Virgin Islands and Puerto Rico (GAO-19-592)

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VHA Office of Emergency Management welcomes the opportunity to work with ASPR to develop an inventory of VHA capabilities and limitations in support of Emergency Support Function (ESF) #8 core capabilities at the direction of ASPR.

VHA Office of Emergency Management looks forward to participating in the Department of Health and Human Services' after-action reviews following future ESF#8 activations.

Department of Veterans Affairs August 2019

Appendix III: GAO Contact and Staff Acknowledgments

GAO Contact

Mary Denigan-Macauley, (202) 512-7114 or
DeniganMacauleyM@gao.gov.

Staff Acknowledgments

In addition to the contact named above, Kelly DeMots (Assistant Director), Deirdre Gleeson Brown (Analyst-in-Charge), Kenisha Cantrell, Justin Cubilo, and Rebecca Hendrickson made key contributions to this report. Also contributing were Sam Amrhein, Kaitlin Farquharson, and Vikki Porter.

Related GAO Products

Disaster Response: FEMA and the American Red Cross Need to Ensure Key Mass Care Organizations are Included in Coordination and Planning. [GAO-19-526](#). Washington, D.C.: September 19, 2019.

Disaster Response: Federal Assistance and Selected States and Territory Efforts to Identify Deaths from 2017 Hurricanes. [GAO-19-486](#). Washington, D.C.: September 13, 2019.

Disaster Assistance: FEMA Action Needed to Better Support Individuals Who Are Older or Have Disabilities. [GAO-19-318](#). Washington, D.C.: May 14, 2019.

2017 Disaster Contracting: Actions Needed to Improve the Use of Post-Disaster Contracts to Support Response and Recovery. [GAO-19-281](#). Washington, D.C.: April 24, 2019.

2017 Hurricane Season: Federal Support for Electricity Grid Restoration in the U.S. Virgin Islands and Puerto Rico. [GAO-19-296](#). Washington, D.C.: April 18, 2019.

Disaster Recovery: Better Monitoring of Block Grant Funds is Needed. [GAO-19-232](#). Washington, D.C.: March 25, 2019.

Puerto Rico Hurricanes: Status of FEMA Funding, Oversight, and Recovery Challenges. [GAO-19-256](#). Washington, D.C.: March 14, 2019.

U.S. Virgin Islands Recovery: Status of FEMA Public Assistance Funding and Implementation. [GAO-19-253](#). Washington, D.C.: February 25, 2019.

2017 Disaster Contracting: Action Needed to Better Ensure More Effective Use and Management of Advance Contracts. [GAO-19-93](#). Washington, D.C.: December 6, 2018.

Homeland Security Grant Program: Additional Actions Could Further Enhance FEMA's Risk-Based Grant Assessment Model. [GAO-18-354](#). Washington, D.C.: September 6, 2018.

2017 Hurricanes and Wildfires: Initial Observations on the Federal Response and Key Recovery Challenges. [GAO-18-472](#). Washington, D.C.: September 4, 2018.

Federal Disaster Assistance: Individual Assistance Requests Often Granted but FEMA Could Better Document Factors Considered. [GAO-18-366](#). Washington, D.C.: May 31, 2018.

2017 Disaster Contracting: Observations on Federal Contracting for Response and Recovery Efforts. [GAO-18-335](#). Washington, D.C.: February 28, 2018.

Disaster Assistance: Opportunities to Enhance Implementation of the Redesigned Public Assistance Grant Program. [GAO-18-30](#). Washington, D.C.: November 8, 2017.

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