**Chapter 29
The federal medical response to disasters**

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**Introduction**

Recognizing that the medical consequences of a disaster can exceed local, state, or regional resources, the federal government’s response includes organizational frameworks, response resources, and legal authorities. The National Response Framework (NRF) guides the nation’s response to all types of incidents.

One of the NRF’s Emergency Support Function (ESF) annexes, ESF-8: Public Health and Medical Services, specifically addresses the federal medical response. The US Department of Health and Human Services (DHHS) serves as both coordinator and primary agency for ESF-8. ESF-8 includes a concept of operations and response components, e.g. the National Disaster Medical System (NDMS) and the US Public Health Service (USPHS).

Laws and presidential directives guiding the federal medical response to disasters include Emergency Management Assistance Compacts (EMAC), the Robert T. Stafford Disaster Relief and Emergency Assistance Act, the Pandemic and All-Hazards Preparedness Act and the Pandemic and All-Hazards Preparedness Reauthorization Act, the Social Security Act, the Homeland Security Act of 2002, Title 32 USC (National Guard), Presidential Policy Directive 8, and Homeland Security Presidential Directives #5: Management of Domestic Incidents and #21: Public Health and Medical Preparedness.

**Overview of federal medical response to disasters**

When an incident occurs, the local jurisdiction is responsible for organizing and managing the emergency response. Each sequential tier of response that may be required due to the size and complexity of the incident, whether mutual aid, regional, state, or federal, brings additional resources but takes time to fully deploy. Because of the delay involved in the formal process of requesting and receiving federal medical assets, it is imperative that local medical responders consider the types of assistance required as early as possible in the response. In many cases, state and federal resources may not reach an incident scene in time to be useful.

For example, a bridge collapse may seem like a disaster when viewed through the media, but the medical needs may not exceed local EMS and health care system resources. An infectious outbreak or large fire may involve fewer patients, but the patients may require specialized resources (e.g. burn center care) that outstrip local and state medical assets. The ability to perform a rapid needs assessment, matching emergency health care requirements to available resources, is imperative. Few initial assessments will end up being 100% accurate, but setting the process in motion will allow timelines for response to collapse, and future updates and reassessments may recast medical requests.

For disasters requiring medical response, requests for assistance are made through the local emergency management agency (EMA). Many of these will be organized into emergency support functions (ESFs) using the federal model outlined below, such as ESF-8 for health and medical care. That desk will typically receive and collate requests for medical or other health care assistance. These requests would then be conveyed to the mayor or town manager, who would make a formal request to the state governor for assistance if unable to fill them locally. While the requests for assistance are being processed through political channels, the local EMA will typically also directly inform the state EMA.

A governor may first look to see if he/she can provide the necessary resources by activating the EMAC and requesting help from other states. Only a governor or his/her designee (for example, the state public health director) may make a formal request to the President for a disaster declaration. Once a federal disaster is declared, the Stafford Act is engaged. The Stafford Act provides a funding and resource allocation mechanism. It allows the President, through the Federal Emergency Management Agency (FEMA), to direct federal agencies to support a local disaster response, and to establish the rates at which states or individuals share in the cost of response and recovery.

The president appoints a federal coordinating officer (FCO) to oversee the response in the involved region. This officer, working with FEMA, will task medical support requests to ESF-8. At the federal headquarters level, ESF-8 is overseen by the Office of the Assistant Secretary for Preparedness and Response (ASPR) within DHHS. DHHS has ten regional offices and the ASPR has regional emergency coordinators (RECs) in each of the regions. These individuals coordinate the ESF-8 response under the FCO’s FEMA staff.

Once this federal framework is established for a specific incident, detailed requests for assistance are formally passed by the state’s emergency operations center to FEMA’s National Operations Center (NOC). FEMA, in turn, validates the requests and converts the requests into mission assignments that are forwarded with appropriate funding to the most appropriate federal agency for completion.

**National Response Framework**

**History**

In May of 2013, the second version of the NRF was released [1]. The updated NRF is the latest version of the document that guides the nation’s response to all types of incidents. It is one of five documents that comprise the National Planning Frameworks [2]. The NRF started as the Federal Response Plan (FRP), which was initially written in 1992. The FRP described the roles and responsibilities of the federal government in a disaster. It was revised in 2002 to incorporate the increased capabilities required after 9/11; that document was called the National Response Plan (NRP). In 2004, the NRP was updated to reflect the roles of the newly formed Department of Homeland Security (DHS). To address the experiences of the 2005 hurricane season, a final revision of the NRP was released in 2006. Stakeholders had many complaints about the NRP, including that it was bureaucratic, internally redundant, and did not describe all parts of the nation’s response [3]. The first version of the NRF, released in 2008, was designed to address these concerns and replaced the NRP.

**Organization**

The NRF is made up of four parts: the base document and three sets of annexes. The base document is a “how to” guide for responding to all types of disasters and emergencies. It uses the scalable, flexible, and adaptable concepts of the National Incident Management System (NIMS) to align key roles and responsibilities. The annexes are separated into ESFs, support, and incident topics and make up the majority of the document.

**Base document**

Version two of the NRF focuses on a “whole-community” concept for preparedness and response activities. Engaging stakeholders – from individuals and families to businesses, faith-based organizations, and all levels of government – is essential to creating a resilient nation. The focus of the response “mission area” is to use the most appropriate resources to save lives, protect property and the environment, stabilize the incident, and provide for basic human needs. To do this, the document is broken down into seven sections: Scope, Roles and Responsibilities, Core Capabilities, Coordinating Structures and Integration, Relationship to Other Mission Areas, Operational Planning, and Supporting Resources.

**Annexes**

**Emergency Support Function annexes**

Emergency Support Functions are the primary operational-level mechanism that the federal government uses to provide assistance in specific areas. There are 14 ESFs (ESF-14 was superseded by the National Disaster Recovery Framework), each listed with their coordinating agency and a description in Table 4 of the NRF document (<https://s3-us-gov-west-1.amazonaws.com/dam-production/uploads/20130726-1914-25045-1246/final_national_response_framework_20130501.pdf>). The ESFs can be activated independently as needed for a specific incident. Pieces from ESFs can be combined into a single operational branch or grouped to accomplish needed tasks. Each ESF has a coordinator, primary agencies, and supporting agencies. The coordinating agency is responsible for management oversight of the ESF during the planning, response, and recovery phases. The coordinator is responsible for maintaining contact with all primary and supporting agencies. A primary agency has significant responsibilities and capabilities in a specific ESF. Supporting agencies have specific capabilities important to the ESF.

**Support annexes**

There are eight support annexes: Critical Infrastructure and Key Resources, Financial Management, International Coordination, Private-Sector Coordination, Public Affairs, Tribal Relations, Volunteer and Donations Management, and Worker Safety and Health. Each one describes functional and administrative processes that are required for nearly every event. Each annex is managed by one or more coordinating agencies and cooperating agencies. A coordinating agency is responsible for implementation of the processes described in the annex. Cooperating agencies possess specific expertise and capabilities related to the tasks in the annex.

**Incident annexes**

There are seven incident annexes: Biological, Catastrophic, Cyber, Food and Agriculture, Mass Evacuation, Nuclear/Radiological, and Terrorism/Law Enforcement and Investigation. Incident annexes discuss policies, the situation (planning assumptions), concept of operations, and responsibilities related to each of the events described. As with the other annexes, a coordinating agency and cooperative agencies are named for each annex.

**Emergency Support Function 8: Public Health And Medical Services**

For this ESF, DHHS serves as both the coordinator and the primary agency. It is supported by 16 other agencies in this mission. The purpose of ESF-8 is to coordinate federal assistance for state, tribal, and local jurisdictions with respect to public health and medical aspects of a disaster. Mental health, behavioral health, substance abuse, veterinary and animal health, as well as fatality management are among the considerations included in ESF-8.

**Policies**

The Secretary of Health and Human Services, through the ASPR office and its Office of Emergency Management, oversees the preparedness, response, and recovery activities of ESF-8. All supporting agencies still have control over their respective assets after receiving coordinating instructions from DHHS. An emergency management group (EMG) is established at DHHS Secretary’s operations center to coordinate with supporting agencies and maintain communication with the NOC during an ESF-8 response. ESF-8 representatives are also assigned to the National Response Coordination Center, as well as the Regional Response Coordination Center or Joint Field Office as needed to assist with field operations.

**Concept of operations**

DHHS has regionally based, rapidly deployable incident response coordination teams (IRCTs) that are flexible and scalable to provide a continuum of capabilities from early reconnaissance and assessments to full command and control of ESF-8 services. The initial actions that DHHS can make available are broken into the following functional areas.

* Assessment of public health/medical needs
* Health surveillance, medical care personnel
* Health/medical/veterinary equipment and supplies
* Patient evacuation
* Patient care
* Safety and security of drugs, biologics, and medical devices
* Blood, organs, and blood tissues
* Food safety and security
* Agriculture safety and security
* Worker safety and health
* All-hazard public health and medical consultation, technical assistance, and support
* Behavioral health care
* Public health and medical information
* Vector control
* Public health aspects of potable water/waste water and solid waste
* Mass fatality management
* Veterinary medical support

**Select response components of ESF-8**

DHHS and its supporting agencies provide assistance in the form of tactical response teams, logistic support, operational support planning, and after-action assessments. The response capabilities are designed to fit into the functional areas listed above. Response teams can vary from small technical advisory groups to large-scale care delivery groups.

**National Disaster Medical System**

The Department of Defense, Department of Veterans Affairs, and FEMA joined with DHHS to form the National Disaster Medical System (NDMS) in 1984. Initially established through a memorandum of understanding and enacted into law in 2002, the NDMS has three missions: response, patient movement, and definitive medical care. Among the assets the NDMS has available are disaster medical assistance teams (DMATs) which are response teams sent in to reestablish medical care or augment existing definitive care in a disaster theater. The teams consist of a group of professional and paraprofessional medical personnel, supported by a cadre of logistical and administrative staff. A DMAT is self-sufficient for 72 hours and deployable, often within hours of a request, anywhere in the United States and its territories. Other NDMS assets include disaster mortuary operational response teams, international medical surgical response teams, and national veterinary response teams.

**US Public Health Service**

Deployment of US Public Health Service (PHS) Commissioned Corps officers to disasters is envisioned as a tiered response. The Tier 1 response consists of three scalable assets: the regional incident support team (RIST), the national incident support team (NIST), and the rapid deployment force (RDF). The RIST is a rapid response deployment team capable of responding to a crisis in its assigned region within as little as 4 hours. Its job is to coordinate the federal response. Its deployments are short term and designed to be quickly relieved by follow-on teams of the IRCT. The NIST is similar to the RIST but deployable nationwide. The RIST and NIST teams coordinate the initial federal response of public health and medical assets until the full IRCT is in place. The first available multidisciplinary health and medical unit designed to arrive and treat patients is usually the RDF.

Each of five RDF teams is composed of a multidisciplinary team of 125 members. One team is on call in a given month for deployment within 12 hours. RDFs are designed to staff federal medical stations (FMS) and NDMS facilities. An FMS is a scalable 50–100-bed sub-acute care medical facility that is cached until needed and then transported and set up in buildings of opportunity, such as convention centers or athletic arenas.

The IRCT, EMG support teams, and the RDF complete the Tier 1 response. PHS officers may be assigned to IRCTs or may support the EMG at DHHS headquarters. The Tier 2 response includes applied public health teams and mental health teams. Tier 3 response elements include all active-duty commissioned US PHS officers not previously assigned to Tier 1 and Tier 2 response entities. Tier 4 includes the inactive US PHS reserve corps.

**Defense support of civil authorities**

When response or recovery needs or capabilities exceed those available from local, state, and federal civilian authorities, medical (and other) assets of the Department of Defense can be made available [4].

**Legal authorities**

Laws, policies, and directives permit, in certain circumstances, the provision of direct emergency assistance by the federal government. Perhaps more importantly, many of these provisions establish a common framework for how to prepare for, and operate during, a large-scale public health or medical incident. The next section provides a brief overview of some of the laws and directives related to health and medical responses.

**Emergency Management Assistance Compact**

Created in response to Hurricane Hugo through efforts in South Carolina and Florida, the Emergency Management Assistance Compact (EMAC) now covers all US states, territories, possessions, and the District of Columbia [5]. If a state’s resources are overwhelmed, that state’s governor will issue a declaration of emergency specifically detailing the circumstances and remedies requested from other states through the EMAC. Specific provisions of the EMAC relating to physicians and allied health care personnel include temporary recognition of licenses, certifications, and other permits from the sending state by the receiving state. Once the immediate state of emergency has ended, a gubernatorial declaration will be issued ending the emergency, after which these health care providers must comply with the usual licensing requirements of the affected state [6].

**Robert T. Stafford Disaster Relief and Emergency Assistance Act (Public Law 100-707)**

This Act establishes the policy of the federal government to provide an orderly and continuing means of supplemental assistance to state and local governments in their responsibilities to alleviate the suffering and damage that result from major disasters or emergencies. It is the primary legal authority for federal participation in domestic disaster relief operations. Under the Stafford Act, the president may direct federal agencies, including most cabinet-level departments, to support disaster relief operations. The federal government may be directed to provide assistance in one of three different scenarios: presidential declaration of a major disaster, presidential order to perform emergency work for the preservation of life and property, or presidential declaration of emergency [7].

**Pandemic and All-Hazards Preparedness Act (Public Law 109-417) and Pandemic and All-Hazards Preparedness Reauthorization Act (Public Law 113-5)**

The Pandemic and All-Hazards Preparedness Act (PAHPA) created the ASPR at DHHS. PAHPA also provided authority for the creation of a National Health Security Strategy and the development and acquisition of medical countermeasures [8]. Its reauthorizing statute, the Pandemic and All-Hazards Preparedness Reauthorization Act (PAHPRA), continued and expanded the ASPR’s role in administering the Hospital Preparedness Program and addressing/enhancing medical surge capacity, and authorized funding for Project BioShield and other critical public health and medical activities [9].

**Social Security Act (Public Law 74-271, as amended, 42 USC 7, et seq.)**

In addition to authorizing Medicare, Medicaid, and other programs administered by DHHS, this law authorizes the Secretary of Health and Human Services to temporarily waive or modify certain provisions of those programs during a presidentially declared disaster or national emergency [10].

**Homeland Security Act of 2002 (Public Law 107-296)**

This Act established the Department of Homeland Security and gave it the authority and responsibility to coordinate all federal homeland security activities in order to protect the United States against threats to the homeland. In order to better enable the overarching homeland security mission, Congress merged numerous agencies into this single department. FEMA had been primarily responsible for coordinating the federal response to major incidents, and was one of the entities integrated into the DHS [11].

**National Guard (Title 32 of the US Code)**

Title 32 USC authorizes the use of federal funds to train National Guard members while they remain under the command and control of their respective state governors. There are certain instances where, through very specific statutory or presidential authority, these National Guard forces are allowed to perform civil support operations that are funded by the federal government, while the National Guard forces remain under the control of their governor. Examples include weapons of mass destruction civil support teams (WMD-CST) and 32 USC 502(f) Presidential/Secretary of Defense approved operations (e.g. the Border Security Mission in the Southwest) [12].

**Homeland Security Presidential Directive 5 (HSPD-5): Management of Domestic Incidents**

This directive assigned the Secretary of the DHS as the principal federal official for domestic incident management, and charges him/her with coordinating the federal government’s resources in response to and/or recovery from terrorist attacks, major disasters, or other emergencies. HSPD-5 established that the federal government will assist state and local authorities when their resources are overwhelmed or when federal interests are involved. One of the most important provisions of HSPD-5 was the directive to establish NIMS, a single and consistent nation-wide approach for federal, state, and local governments to work effectively and efficiently together to prepare for, respond to, and recover from domestic incidents. It also directed the development of the NRF (see preceding discussion) that incorporates the NIMS to provide high-level policy, structural mechanisms, and operational guidelines for federal support to state and local incident managers [13].

**Presidential Policy Directive 8 (PPD-8): National Preparedness**

This directive recognizes the shared responsibility of the government (local, state, and federal) as well as the business community and individual citizens in fostering a secure and resilient nation. The national preparedness goal lays out the core capabilities required for preparedness and a national system to guide activities aimed at reaching that goal. The directive was released on March 30, 2011 and replaced HSPD-8 [14].

**Homeland Security Presidential Directive 21 (HSPD-21): Public Health and Medical Preparedness**

This directive addresses preparedness for natural and man-made catastrophic health events that overwhelm the capabilities of immediate local and regional response and health care systems. Potential events include pandemic influenza and an event involving the use of a nuclear, biological, or other weapon of mass destruction. HSPD-21 addresses four main areas: biosurveillance, countermeasure distribution, mass casualty care, and community resilience. This presidential directive was released on October 18, 2007 [15].

**Disclaimer**

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