



June 2020

PUBLIC HEALTH PREPAREDNESS

HHS Should Take Actions to Ensure It Has an Adequate Number of Effectively Trained Emergency Responders

GAO Highlights

Highlights of [GAO-20-525](#), a report to congressional committees

Why GAO Did This Study

NDMS is the main program through which HHS enrolls responders to assist with the federal medical and public health response to public health emergencies. HHS deploys NDMS responders to provide, among other things, patient care and movement. During the 2017 hurricanes, NDMS had a shortage of responders that resulted in HHS relying on other departments, such as the Department of Defense, to provide medical care. As of December 2019, HHS had 3,667 NDMS responders.

The Pandemic and All-Hazards Preparedness and Advancing Innovation Act of 2019 included a provision for GAO to review HHS's responder surge capacity. This report examines (1) the workforce planning for NDMS responders to assist with public health emergencies, and (2) training provided to these responders.

To conduct this work, GAO reviewed agency NDMS planning documentation, including NDMS staffing decisions, team structures, and training materials; compared HHS actions to key workforce planning practices; and interviewed HHS officials.

What GAO Recommends

GAO is making five recommendations to HHS, including to develop a workforce target that accounts for the critical skills and competencies that are needed to meet current and future programmatic results and to develop processes for evaluating its training to ensure an effectively trained workforce. HHS concurred with our recommendations and generally plans to take action.

View [GAO-20-525](#). For more information, contact Mary Denigan-Macauley at (202) 512-7114 or deniganmacauleym@gao.gov.

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What GAO Found

Major natural disasters in the past 3 years, as well as the COVID-19 pandemic, have heightened attention to the nation's ability to respond to these types of emergencies. The Department of Health and Human Services (HHS) is responsible for leading the public health and medical response to emergencies. HHS responded to COVID-19, in part, by deploying responders enrolled in the National Disaster Medical System (NDMS). These individuals, such as doctors and nurses, generally work outside the federal government and are federal employees used intermittently. In 2018, HHS developed an enrollment target for NDMS of 6,290 responders, but GAO found HHS did not follow key principles of effective strategic workforce planning in developing this target. For example, HHS did not identify the critical skills and competencies needed of its NDMS workforce to meet current and future programmatic results. Specifically, HHS's target does not take into consideration three key areas: a workforce capable of responding to (1) a nationwide event or multiple concurrent events, (2) the needs of at-risk individuals, and (3) the availability of other medical responders. Consequently, HHS cannot be sure its target, if achieved, will provide an adequate number of responders with the skill sets needed to effectively respond.



Source: Department of Health and Human Services. | GAO-20-525

HHS requires responders to take web-based training prior to deployment, such as characteristics of infectious diseases, and also offers optional in-person training, such as care delivery in a severe environment. However, HHS's process to evaluate its training does not align with key practices. As a result, HHS does not have assurance that it is effectively preparing responders for deployment, including keeping them and others safe during an emergency, such as COVID-19. For example, HHS requires a web-based course on donning and doffing personal protective equipment to protect against infectious disease, biological, and chemical threats. However, HHS does not know the training's effectiveness until responders have deployed; at which point, if ineffective, responders could potentially expose themselves to hazards. Further, HHS officials state their in-person training is most beneficial but more costly to provide, limiting its provision. A more effective training evaluation process would help the agency determine which in-person courses are most beneficial and should be prioritized, or even made mandatory, for effective and safe responder deployment.

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Abbreviations

ASPR	Office of the Assistant Secretary for Preparedness and Response
HHS	Department of Health and Human Services
NDMS	National Disaster Medical System

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June 18, 2020

The Honorable Lamar Alexander
Chairman
The Honorable Patty Murray
Ranking Member
Committee on Health, Education, Labor & Pensions
United States Senate

The Honorable Frank Pallone, Jr.
Chairman
The Honorable Greg Walden
Ranking Member
Committee on Energy & Commerce
House of Representatives

On January 31, 2020, the Secretary of Health and Human Services declared a public health emergency for the United States to aid the nation's health care community to respond to Coronavirus Disease 2019 (COVID-19).¹ On March 11, 2020, the World Health Organization characterized COVID-19 as a pandemic. Subsequently, on March 13, 2020, the President declared COVID-19 a national emergency under the National Emergencies Act and an emergency under the Robert T. Stafford Disaster Relief and Emergency Assistance Act.²

To aid the response to COVID-19, as of March 27, 2020, the Office of the Assistant Secretary for Preparedness and Response (ASPR), a division within the Department of Health and Human Services (HHS), deployed about 1,200 public health and medical responders through its National Disaster Medical System (NDMS), according to ASPR officials. These individuals, such as doctors, nurses, and paramedics, work outside the federal government on a day-to-day basis and are federal employees used intermittently to respond to public health emergencies. Some of these responders deployed to help disembark American citizens who were potentially infected with COVID-19 aboard cruise ships, including

¹The declaration was retroactive to January 27, 2020.

²The President has also approved major disaster declarations under the Robert T. Stafford Disaster Relief and Emergency Assistance Act for all 50 states, the District of Columbia, and five territories.

the Diamond Princess in Japan and the Grand Princess in California, to their quarantine locations in the United States.

ASPR previously deployed these responders to provide surge support as part of the federal public health and medical response to the 2017 hurricanes affecting Texas, Puerto Rico, Florida, and the U.S. Virgin Islands. However, we reported in 2019 that during the hurricane response, ASPR experienced a shortage of NDMS responders and relied on its federal partners, such as the Department of Defense, to provide medical response personnel.³ These events and others have raised questions about ASPR's public health and medical responders, including their capacity to assist during public health emergencies, such as the COVID-19 pandemic, as well as natural disasters, the number of which are predicted to rise as the climate changes.⁴

ASPR leads the nation's medical and public health preparedness for, response to, and recovery from public health emergencies. As part of this role, ASPR aims to enhance medical surge capacity by organizing, training, and equipping federal public health and medical responders, as well as calling upon and deploying these personnel during responses. The program through which ASPR enrolls responders is NDMS. ASPR

³GAO, *Disaster Response: HHS Should Address Deficiencies Highlighted by Recent Hurricanes in the U.S. Virgin Islands and Puerto Rico*, [GAO-19-592](#) (Washington, D.C.: Sept. 20, 2019).

⁴According 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. U.S. Global Change Research Program, *Impacts, Risks, and Adaptation in the United States: Fourth National Climate Assessment, Volume II* (Washington, D.C.: 2018). We have also reported that the number of disasters and the reliance on the federal government for disaster assistance will likely continue to rise as the climate changes. GAO, *Climate Change: Information on Potential Economic Effects Could Help Guide Federal Efforts to Reduce Fiscal Exposure*, [GAO-17-720](#) (Washington, D.C.: Sept. 28, 2017). Managing fiscal exposure due to climate change has been on our high-risk list since 2013, in part, because of concerns about the increasing costs of disaster response and recovery efforts. See GAO, *High-Risk Series: Substantial Efforts Needed to Achieve Greater Progress on High-Risk Areas*, [GAO-19-157SP](#) (Washington, D.C.: March 6, 2019); also http://www.gao.gov/highrisk/limiting_federal_government_fiscal_exposure/why_did_study.

may activate NDMS to deploy medical providers, evacuate patients, and provide veterinary services, among other supports.⁵

The Pandemic and All-Hazards Preparedness and Advancing Innovation Act of 2019 included a provision for GAO to review the federal medical provider surge capacity in the event of a public health emergency.⁶ This report examines

1. ASPR's workforce planning for its medical and public health responders to assist with public health emergencies, and
2. ASPR's evaluation of, and planning for, the training it provides to its medical and public health responders.

To examine ASPR's workforce planning for its medical and public health responders to assist with public health emergencies, we reviewed ASPR documentation and interviewed ASPR officials involved with workforce planning for, and hiring of, NDMS responders. Specifically, we reviewed a June 2018 staffing decision memo signed by the Assistant Secretary for Preparedness and Response outlining ASPR's target for NDMS enrollment—referred to as the NDMS workforce target for the purposes of this report. We reviewed NDMS team structures that the agency developed in March 2018, which include position types and numbers of responders in each position. We also reviewed direct-hire authorities HHS received to hire NDMS responders.⁷ Further, we collected and analyzed ASPR data on the number of enrolled NDMS responders. We assessed the reliability of these data by comparing them to data in other sources, such as agency budget justifications, interviewing knowledgeable agency

⁵Under 42 U.S.C. § 300hh-11, NDMS may be activated to provide health services, health-related social services, other appropriate human services, and appropriate auxiliary services to respond to the needs of victims of a public health emergency. ASPR may also activate NDMS in a location that is at-risk of an emergency.

⁶Pub. L. No. 116-22, § 301(e), 133 Stat. 905, 933-34.

⁷A direct-hire authority is generally provided to federal agencies when a critical hiring need or severe shortage of candidates exists to expedite hiring by eliminating competitive rating and ranking, among other competitive appointment procedures. HHS received a direct hiring authority for NDMS that ran from February 9, 2018, to November 6, 2018, as part of the Bipartisan Budget Act of 2018. Pub. L. No. 115-123, § 20803, 132 Stat. 64, 95. The Bipartisan Budget Act of 2018 made supplemental appropriations to aid the response to the 2017 hurricane season. HHS received another direct hiring authority as part of the Pandemic and All-Hazards Preparedness and Advancing Innovation Act of 2019. Pub. L. No. 116-22, § 301(a)(3), 133 Stat. 932 (codified at 42 U.S.C. § 300hh-11(c)(4)). This direct hire authority began on June 24, 2019 and ends on September 30, 2021.

officials, and performing checks of the data for consistency and completeness. Based on these steps, we found these data to be reliable for our reporting purposes. Lastly, we interviewed ASPR officials to gather information on the capacity factors they considered when establishing the NDMS workforce target and the related workforce planning the agency has conducted. We also interviewed officials from HHS's Staffing Recruitment and Operations Center—the office that conducts all hiring actions on behalf of ASPR and certain other HHS divisions—to gather information on the planning and hiring process for NDMS responders.

We assessed ASPR's workforce planning against key principles of strategic workforce planning that we have identified in previous work, focusing our analysis on those principles that are related to determining current and future workforce needs and establishing strategies to fulfill those needs.⁸ This was a general all-hazards assessment of ASPR's workforce planning and not specific to a single event. In addition to NDMS, the U.S. Public Health Service—an agency within HHS—can also deploy Commissioned Corps officers as a means to help surge during a medical and public health response to an emergency or disaster.⁹ We did not assess the workforce planning of the Public Health Service because the agency is in the process of reorganizing its workforce. This includes plans for implementing a Ready Reserve Corps, which like NDMS, would consist of intermittent employees who could be called-up as needed. For more information on these plans, as well as the number of U.S. Public Health Service Commissioned Corps officers available to provide medical and public health care to humans during a response, see appendix I.

To examine ASPR's evaluation of, and planning for, the training provided to its responders, we reviewed ASPR's current NDMS training catalog, which covers fiscal years 2017-2019 and its draft NDMS training catalog, which the agency plans to implement for fiscal years 2020-2024 but had not yet implemented at the time of our review. These training catalogs describe mandatory and optional NDMS training courses. We also

⁸GAO, *Human Capital: Key Principles for Effective Strategic Workforce Planning*, [GAO-04-39](#) (Washington, D.C.: Dec 11, 2003).

⁹Commissioned Corps officers may be deployed to respond to an urgent or emergency public health care need arising from (1) a national emergency declared by the President under the National Emergencies Act; (2) an emergency or major disaster declared by the President under the Robert T. Stafford Disaster Relief and Emergency Assistance Act; (3) a public health emergency declared by the Secretary of Health and Human Services under the Public Health Service Act; or (4) any emergency that is appropriate for deployment, as determined by the Secretary of Health and Human Services. See 42 U.S.C. §§ 204a(a)(5) and 215(e).

compared ASPR documentation on the number of optional training courses the agency had planned to provide in fiscal year 2019 against documentation of courses actually provided in that year. Further, we analyzed ASPR's efforts to evaluate its training. This included a review of the survey questions ASPR provides to training participants to evaluate the training they have received. Lastly, we interviewed ASPR officials who oversee NDMS training. We assessed ASPR's planning and evaluation of NDMS responder training against GAO-identified key practices for effective training programs and key principles of strategic workforce planning.¹⁰

We conducted this performance audit from July 2019 to June 2020 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.

Background

Medical and public health responders

As of December 9, 2019, ASPR had 3,667 enrolled NDMS responders. These responders include physicians, nurses, and paramedics, among other professions, who generally work outside of the government but may be asked to deploy to assist with a federal public health emergency.¹¹ Because these individuals have regular jobs, they may not always be available to deploy. For example, if a response occurs in a state, NDMS responders in that state may already be assisting the response through their civilian jobs, such as through working in hospitals, hindering their ability to deploy.

NDMS responders are organized into five types of NDMS teams. Two of these types—the Disaster Medical Assistance Team and the Trauma and Critical Care Team—are primarily composed of medical providers and focus on providing public health and medical care to individuals during a

¹⁰See GAO, *Human Capital: A Guide for Assessing Strategic Training and Development Efforts in the Federal Government* (Supersedes [GAO-03-893G](#)), [GAO-04-546G](#) (Washington, D.C.: Mar. 1, 2004) and [GAO-04-39](#).

¹¹According to agency officials, responders are federal employees used intermittently and are entitled to the same liability and workforce protections offered to full-time federal employees when deployed due to their positions as intermittent federal employees.

response. The other three types of teams are the Disaster Mortuary Operational Response Team, the Victim Information Center Team, and the National Veterinary Response Team. See Table 1 for a description of each type of team and number of responders enrolled in each.

Table 1: Types of National Disaster Medical System (NDMS) Responder Teams

NDMS Team Name	Team Description	Number of responders ^a
Disaster Medical Assistance Team	Provide patient care to help area health systems during a response. Responders include advanced clinicians (nurse practitioners/physician assistants), physicians, registered nurses, respiratory therapists, paramedics, pharmacists, safety specialists, logistical specialists, information technologists, and communication and administrative specialists.	2,703
Trauma and Critical Care Team	Provide critical, operative, and emergency care to help people during a response. Responders are medical professionals with expertise in trauma care.	212
Disaster Mortuary Operational Response Team	Identify victims and support local mortuary services. Responders include funeral directors, medical examiners, pathologists, forensic anthropologists, fingerprint specialists, forensic odontologists, dental assistants, administrative specialists, and security specialists.	611
Victim Information Center Team	Support local authorities and other NDMS teams in the aftermath of a mass casualty event and may serve as liaison to victims' families. Responders, who include forensic dental officers, pathologists, and victim advocates, collect ante-mortem data, such as pictures, fingerprints, dental X-rays, and other medical records, to help identify the victims.	51
National Veterinary Response Team	Provide veterinary care to working animals, such as search and rescue dogs, during disasters and certain national security events. Responders include veterinarians, animal health technicians, epidemiologists, safety specialists, logisticians, communications specialists, and other support personnel.	90
Total		3,667

Source: GAO summary of data and information from the Office of the Assistant Secretary for Preparedness and Response. | GAO-20-525

Note:

^aData as of December 9, 2019.

Workforce planning and training

We have previously reported that high-performing public organizations have found that maintaining a quality workforce requires them to systematically assess current and future workforce needs and formulate a long-term strategy to attract, retain, develop, and motivate employees.¹² While simple in theory, strategic workforce planning can be difficult to carry out. Agencies must, for example, acquire accurate information on the workforce, including assessing the workforce's ability to assist with mission achievement. Further, agencies must have the internal

¹²GAO, *Veterinarian Workforce: Actions Are Needed to Ensure Sufficient Capacity of Protecting Public and Animal Health*, [GAO-09-178](#) (Washington, D.C.: February 4, 2009).

capabilities to support strategic workforce planning activities. According to our previous work, strategic workforce planning should involve certain key principles that agencies should address, irrespective of the context of the workforce planning. Among these principles are the need to align workforce requirements with agency-wide goals and objectives, identify critical skills and competencies the workforce needs to meet current and future programmatic results, and develop strategies to fill identified gaps in these skills. Effective strategic workforce planning enables an agency to remain aware of, and be prepared for, its current, emerging, and future needs as an organization.¹³

We have also reported that strategic workforce planning includes the training and development of the workforce to eliminate gaps and improve the contribution of critical skills and competencies needed for mission success.¹⁴ Agencies need to ensure that training provided is strategically targeted and not wasted on efforts that are irrelevant, duplicative, or ineffective. Effective training and development programs are an integral part of a learning environment that can enhance the federal government's ability to attract and retain employees with the skills and competencies needed to achieve results for the benefit of the American people. According to our previous work, key practices for effective training programs involve evaluating training, such as using measures of (1) training participants' reaction to, and satisfaction with, the training program and (2) changes in participants' knowledge, skills, abilities, and on-the-job behavior. Key practices also include planning for training, such as prioritizing training around funding so that an agency can address its most important training needs first.¹⁵

¹³[GAO-04-39](#)

¹⁴[GAO-04-546G](#)

¹⁵[GAO-04-546G](#)

ASPR Is Missing Key Steps in Workforce Planning, Limiting Assurance That It Can Adequately Respond to Public Health Emergencies

ASPR has not conducted key workforce planning steps for its NDMS responder workforce, and as a result, has limited assurance that it is adequately prepared to respond to public health emergencies. While ASPR has performed some workforce planning, the agency's efforts do not follow the strategic principles that we have identified in prior work as essential for effective workforce planning.

Specifically, ASPR's primary workforce planning efforts focused on developing an NDMS workforce target of 6,290 responders. ASPR data shows that it had reached a little more than half of this target, with 3,667 responders enrolled in NDMS as of December 2019. According to ASPR officials, this workforce target represents the number of responders the agency estimates it needs to enroll in NDMS to position itself to effectively respond to public health emergencies.

ASPR generated this target in June 2018 by multiplying the number of NDMS teams it had at that time by the number of responders planned for each of the five NDMS team types, using NDMS team structures that ASPR developed in March 2018—which include position types and numbers of responders in each position. (See appendix II for the NDMS team structures for each of the five NDMS team types.) See Table 2 for ASPR's workforce target for each of the five NDMS team types.

Table 2. ASPR's Workforce Target, by National Disaster Medical System Team Type

Team type	Number of teams as of June 2018	Number of responders ASPR would like, per team	Workforce target = number of teams x number of responders per team
Disaster Medical Assistance Team	57	85	4,845
Trauma and Critical Care Team	3	118	354
Disaster Mortuary Operational Response Team	10	86	860
Victim Identification Team	1	52	52
National Veterinary Response Team	1	179	179
Total			6,290

Source: GAO summary of documentation collected from the Office of the Assistance Secretary for Preparedness and Response (ASPR). | GAO-20-525

However, we found that by using this process to determine its workforce needs, ASPR has limited assurance that reaching its NDMS workforce target will be adequate to allow the agency to respond effectively to public health emergencies. This is because, when setting its target, ASPR has not followed two key principles of strategic workforce planning: aligning workforce requirements with agency-wide goals and objectives, and identifying critical skills and competencies the workforce needs to meet

Alignment between ASPR's NDMS workforce target and APSR's agency-wide goals and objectives has been limited.

current and future programmatic results. Further, even if ASPR's target is adequate, its ability to achieve this target is limited, because ASPR has not followed a third key strategic workforce planning principle: developing strategies to fill identified gaps in these skills. These key principles are described below, along with an assessment of ASPR's efforts.

According to key principles of effective workforce planning, the process begins with an agency setting a strategic direction and aligning its workforce requirements with agency-wide goals and objectives. However, we found that the extent to which ASPR aligned its NDMS workforce target with APSR's agency-wide goals and objectives has been limited, because the agency has not had a strategic plan with specific objectives since 2016. According to agency officials, the prior strategic plan expired while the agency was under an acting Secretary, and development of a new strategic plan led by the current Assistant Secretary for Preparedness and Response, who began his role in August 2017, has been delayed due to events, such as the 2017 hurricanes. Agency officials told us that they had planned to release a strategic plan in April 2020, but at the time this report was being prepared to be published, ASPR's strategic plan had not yet been released.

In lieu of a strategic plan, ASPR officials told us that they aligned the NDMS workforce target with four broad guiding priorities published on ASPR's website: (1) providing strong leadership, (2) building a regional disaster health response system, (3) sustaining public health security capacity, and (4) enhancing the medical countermeasure enterprise.¹⁶ However, officials provided conflicting information regarding where NDMS responders fit within ASPR's four priorities. When we asked program officials who oversee NDMS where the program falls within these priorities, these officials told us that NDMS was associated with priority 1 – providing strong leadership, and indirectly related to priority 2 – building a regional disaster health response system. ASPR officials in the Office of Strategy, Policy, Planning and Requirements told us that NDMS falls under priority 2. ASPR officials told us that this misalignment occurred because leadership developing the agency-wide strategic plan had not informed the NDMS program officials of where NDMS fell within the priorities.

¹⁶ASPR, *ASPR Mission and Priorities*, accessed April 24, 2020, <https://www.phe.gov/about/aspr/Pages/About-ASPR.aspx>.

In March 2020, ASPR officials provided us with a draft version of the agency’s forthcoming strategic plan. In this draft plan, ASPR lists the following four priority goals, which are similar to those the agency has been operating under, albeit in a different order: (1) foster strong leadership, (2) sustain a robust and resilient public health security capacity, (3) advance an innovative medical countermeasure enterprise, and (4) build a regional disaster health response system. From reviewing this plan, it is clear that NDMS falls within priority 4 – building a regional disaster health response system, as one of the objectives is “modernize NDMS.” However, NDMS also falls within an objective under priority 2, “strength response and recovery operations,” as well as an objective under priority 1, “lead adaptive planning and emergency repatriation efforts.” In finalizing this strategic plan, aligning the NDMS workforce target with ASPR goals and objectives would help ensure mission clarity and accountability. Without such an NDMS workforce target, ASPR risks being unable to fulfill its role as the lead agency for public health emergencies, which includes the ability to sufficiently enhance medical surge capacity during a response.

ASPR’s NDMS workforce target did not adequately identify critical skills and competencies needed to meet current and future programmatic results.

According to key principles of effective workforce planning, an agency should identify the critical skills and competencies needed of its workforce that will position it to meet current and future programmatic results. The NDMS team structures that ASPR developed in March 2018 broadly cover emergency response needs for medical and public health care by including position types and number of responders needed in each position.

However, ASPR’s process for calculating its responder workforce target did not take into consideration three key workforce factors: specifically, a workforce capable of responding to (1) a nationwide event or multiple concurrent events, (2) the needs of at-risk individuals, and (3) the availability of other medical responders, all of which would help determine the NDMS workforce skills and competencies needed to meet current and future programmatic results.

- *Number of responders needed for a nationwide event or multiple concurrent events.* ASPR did not consider the number of responders projected to be needed to respond to multiple or concurrent events, such as the 2017 hurricanes, or a national event, such as an infectious disease outbreak, when developing the NDMS workforce target. This is notable given that during the 2017 hurricane season, we found that ASPR experienced a shortage of NDMS responders, which contributed to a reliance on the Department of Defense to

provide essential public health and medical service functions.¹⁷ We reported that during such situations, the Department of Defense may be responding to other events and its capacity to assist ASPR's response to a public health emergency may be limited. Therefore, we recommended that ASPR develop a strategy to demonstrate how the agency can provide a public health and medical services response if the Department of Defense's capacity to respond is limited. ASPR agreed with this recommendation but has not yet taken action to implement it. Further, according to the National Response Framework, the unprecedented scale of recent disasters highlights the need for further progress to build resilient capabilities to respond to disasters of increasing frequency and magnitude.¹⁸ For example, at the time of this report, HHS is responding to the COVID-19 pandemic nationwide and the National Oceanic and Atmospheric Administration has predicted that the 2020 Atlantic hurricane season will be more active than usual.¹⁹

- *Types of responders needed to care for at-risk individuals.* ASPR did not consider the responder types needed to care for at-risk individuals, such as children, the elderly, pregnant women, or individuals with chronic health conditions when developing the workforce target.²⁰ ASPR officials stated that this is not needed because NDMS responders provide medical stabilization to patients and move the patients to another facility for care, if required.²¹ However, the agency's fiscal year 2020 budget justification stated that

¹⁷[GAO-19-592](#).

¹⁸Department of Homeland Security, *National Response Framework, Fourth Edition* (Washington, D.C: Oct. 28, 2019).

¹⁹National Oceanic and Atmospheric Administration, *Busy Atlantic hurricane season predicted for 2020*, accessed May 21, 2020, <https://www.noaa.gov/media-release/busy-atlantic-hurricane-season-predicted-for-2020>.

²⁰Under 42 U.S.C. § 300hh-1(b)(4)(B), "the term 'at-risk individual' means children, pregnant women, senior citizens, and other individuals who have access or functional needs in the event of a public health emergency, as determined by the Secretary [of Health and Human Services]." The Secretary includes individuals with communication, chronic health, and behavioral health needs, among others, in the definition of at-risk individuals during an emergency or disaster.

²¹While not specific to the workforce target, ASPR officials stated that they have in the last year given consideration to at-risk populations by, for example, working with organizations that take care of these populations, using subject matter experts for training on Acute Respiratory Infections in these population, and specific to children, working with the International Pediatric Association.

ASPR had identified existing shortfalls in pediatric care during disasters, including trauma and critical care provided by NDMS. Our prior work in this area also showed that at-risk individuals were a key population requiring medical care during the 2017 hurricanes.²² Further, ASPR is required to take steps to ensure that NDMS includes an appropriate specialized and focused range of responder capabilities, which take into account the needs of at-risk individuals during a public health emergency.²³

- *Number of U.S. Public Health Service Commissioned Corps officers available to provide medical and public health care.* ASPR did not consider the U.S. Public Health Service Commissioned Corps officers or their capabilities when developing the NDMS workforce target, although these officers are available to assist with emergencies and disasters.²⁴ As a result, ASPR's NDMS workforce target may be too high or low (or targeting the wrong positions), depending on the number and type of officers able to provide medical and public health care. While commenting on a draft of this report, ASPR officials stated that Commissioned Corps officers primarily serve in administrative roles when deployed or, at best, support basic medical care. However, in recent years, Commissioned Corps officers have played an important response role. For example, the U.S. Public Health Service Commissioned Corps provided assistance during the 2017 hurricanes public health and medical services response by providing support such as managing evacuated patients. Additionally, during the ongoing COVID-19 pandemic, the Assistant Secretary for Preparedness and Response stated that the U.S. Public Health Service Commissioned Corps has been an important asset during the response.²⁵ According to U.S. Public Health Service officials, Commissioned Corps officers have assisted with the return of American citizens from China and Japan, airport screenings to monitor the health of travelers, and providing clinical care surge capacity in nursing facilities and field hospitals, among other COVID-

²²See [GAO-19-592](#) and GAO, *Disaster Assistance: FEMA Action Needed to Better Support Individuals Who Are Older or Have Disabilities*, [GAO-19-318](#) (Washington, D.C.: May 14, 2019).

²³See 42 U.S.C. § 300hh-11(a)(3)(C).

²⁴See Appendix I for more information on the U.S. Public Health Service Commissioned Corps officers available to assist during a federal emergency or disaster.

²⁵CQ Congressional Transcripts, *House Oversight and Reform Committee Holds Hearing on Coronavirus Preparedness and Response, Part 2*, accessed March 31, 2020, <https://plus.cq.com/doc/congressionaltranscripts-5859788?2>.

19 response activities. Further, ASPR officials told us they may rely on the U.S. Public Health Service Commissioned Corps' mental health team for the care of individuals with behavioral and mental health needs during a response, making it all the more important that they consider their capabilities.

Regarding the U.S. Public Health Service Commissioned Corps and its relationship to the NDMS workforce target, ASPR officials originally stated that the agency does not have assurance that U.S. Public Health Service Commissioned Corps officers will be able to deploy quickly. As we described in the above paragraph, ASPR officials later commented that Commissioned Corps officers mostly support administrative requirements. With respect to the other critical workforce factors we identified, ASPR officials acknowledged that the agency did not consider these factors when developing the NDMS workforce target, and officials could not provide detailed information as to why they were not considered. For example, beyond building in redundancy to allow for responder availability (e.g., a Disaster Medical Assistance Team deploys with 35 responders, so each team is assigned 85 positions), officials could not tell us how they reached the number of positions for each type of team. Officials stated that to develop the NDMS team structures in the spring of 2018, they used Concept of Operations for each NDMS team type, as well as the Federal Emergency Management Agency's pre-scripted mission assignments, but did not provide further detail on how they used these documents.²⁶ Our analysis of these documents found that the documents do not align, so it is unclear how they were considered or used to develop ASPR's NDMS workforce target. For example, the pre-scripted mission assignments referred to team names and team sizes that were not included in the Disaster Medical Assistance Team concept of operations, and vice versa.

Nevertheless, the draft version of the agency's forthcoming strategic plan we received in March 2020, identifies the aforementioned workforce

²⁶The Concept of Operations addresses the mission and role of each NDMS team, deployment configurations, the team structure, requirements for team employees, operations during steady states and active states, and expectations of a deployment environment. According to Federal Emergency Management Agency officials, pre-scripted mission assignments are created prior to an incident to expedite the processing of a mission assignment once it is required. These mission assignments are created for capabilities that involve known or frequently used resources for services, such as logistics, communications, health care, and public safety. The National Response Framework establishes a response structure to coordinate federal resources during emergencies and disasters. Department of Homeland Security, *National Response Framework, Fourth Edition* (Washington, D.C., October 2019).

factors as important for future consideration. For example, it states that the agency plans to review the NDMS program to identify gaps in specialty care skills, capacity, training, and readiness to respond to multiple, simultaneous events, and national-level public health emergencies. The draft plan also states that medical surge capacity may be further supported through improved alignment across multiple groups of health care professionals, including the U.S. Public Health Service Commissioned Corps. While the draft strategic plan does not mention the development of a revised NDMS workforce target, ASPR's acknowledgement that these are important factors to consider is an important step forward. However, ASPR still needs to finalize its strategic plan, take specific actions to implement its plans to review these three key factors, and then adjust its workforce target accordingly.

Without an NDMS workforce target that considers the critical skills and competencies that are needed to meet current and future programmatic results—such as a workforce capable of responding to (1) a nationwide event or multiple concurrent events, (2) the needs of at-risk individuals, and (3) the availability of other medical responders—ASPR risks having an NDMS responder workforce target that is inadequate. For example, one that is too low, is redundant of other responders and therefore could be too high, or has gaps, such as a workforce that is unable to effectively care for all individuals affected by a public health emergency, as occurred during ASPR's response to the 2017 hurricanes.

ASPR has not developed strategies to fill identified gaps in critical skills to achieve an NDMS workforce target.

According to key principles of effective workforce planning, once an agency has identified the critical skills and competencies needed of its workforce, the agency should then develop strategies to address gaps in the number, skills, and competencies of its workforce. Although we believe ASPR still needs to adequately identify the critical skills and competencies needed and related gaps of its NDMS workforce, the agency is operating under a current NDMS workforce target of 6,290. However, as of December 2019, ASPR was not close to this target—having 3,667 responders enrolled in NDMS—and we found the agency has not developed specific strategies to drive hiring and fill its NDMS workforce gaps to reach its target.

ASPR officials told us that their hiring plan consisted of prioritizing NDMS job postings by posting those of high-priority first rather than posting them all at once. ASPR officials also stated they planned to implement a direct-hire authority, enacted in February 2018, by hiring as many NDMS

responders as possible to meet the NDMS workforce target.²⁷ According to the Office of Personnel Management’s website, the purpose of a direct-hire authority is to expedite hiring by eliminating some of the steps required for federal hiring.²⁸

We found that there have been no other strategies or specific intermediate goals for hiring and filling gaps to achieve its current NDMS workforce target. For example, intermediate goals could include milestones detailing the number of responders the agency aims to hire per month, taking into account any hiring resource constraints in order to establish a realistic timeline for completing all hiring, as well as establish an indicator by which they can measure progress. The lack of more detailed strategies may have contributed to the slow hiring that ASPR is currently facing. For example, as of March 2020, some NDMS responders were still going through the hiring process more than 16 months after they received offers from job postings made under the direct-hire authority. Neither ASPR officials nor officials from HHS’s Staffing Recruitment Operations Center (the agency within HHS that conducts all hiring actions on behalf of ASPR) could tell us when hiring will be completed.²⁹ Further, when asked about a plan or strategy to drive hiring under a second direct-hire authority enacted in June 2019, ASPR officials stated that they had started a draft plan. However, they put a hold on further plan development until the hiring under the first direct-hire authority is completed. As of March 18, 2020, 163 of the 1,447 individuals who accepted job offers under this first direct-hire authority are still in the process of being hired, according to ASPR officials.

Further, we found that ASPR is using a 2-year term appointment to hire all of the 1,447 responders under the first direct-hire authority. Because of this decision, Staffing Recruitment Operations Center officials told us that

²⁷ASPR has received two direct-hire authorities for NDMS. The first was enacted as part of the Bipartisan Budget Act of 2018, and ran from February 9, 2018 to November 5, 2018. Pub. L. No. 115-123, § 20803, 132 Stat. 64, 95. The second was enacted as part of the Pandemic and All-Hazards Preparedness and Advancing Innovation Act of 2019 and runs from June 24, 2019 to September 30, 2021. Pub. L. No. 116-22, § 301(a)(3), 133 Stat. 905, 932 (codified at 42 U.S.C. § 300hh-11(c)(4)).

²⁸Office of Personnel Management, *Hiring Information Direct Hire Authority Fact Sheet*, accessed April 3, 2020, <https://www.opm.gov/policy-data-oversight/hiring-information/direct-hire-authority/#url=Fact-Sheet>.

²⁹Staffing Recruitment Operations Center officials stated that the center is one of nine human resource centers within HHS, which provides human resources services to HHS agencies that do not have a human resource center, including ASPR.

these responders will further burden hiring efforts because they will need to undergo an additional human resources action 2 years after they are hired to renew their appointment for an additional 2-year term. According to the job posting, the term appointment lasts for 2 years and may be extended for another 2 years, for a total of 4 years. If ASPR still has a need for these responders, they will have to rehire for these positions after 4 years. If hired under an indefinite term appointment, as was previously used to hire NDMS responders, this would have allowed these responders to serve for an indefinite amount of time. While officials stated that they will use an indefinite term position for hires under the second direct-hire authority, neither Staffing Recruitment Operations Center nor ASPR officials could tell us how they made the decision to use a 2-year term appointment for the first direct-hire authority. Officials from both agencies stated that the decision came from the other agency, further exemplifying a lack of strategies.

In the draft strategic plan provided to us, ASPR states that the agency wants to develop and launch a program to actively recruit medical professionals into NDMS, though there are no specifics included in the plan on how this will be achieved. It will be important for ASPR to develop specific plans. Without strategies to fill gaps to achieve an NDMS workforce target, ASPR continues to risk being unable to provide adequate numbers and types of NDMS responders to effectively respond to public health emergencies. It also risks not being able to take full advantage of the direct-hire authority that expires in September 2021.

ASPR Does Not Have Assurances it is Effectively Training Responders

ASPR requires NDMS responders to take introductory web-based training courses to be eligible for deployment. It also offers in-person training, which ASPR officials state is most beneficial for deployment preparedness but also more costly to provide. However, the agency does not sufficiently evaluate the quality or effectiveness of its training in preparing responders. Further, ASPR does not have a process or approach for establishing priorities among its in-person training courses.

ASPR Requires Web-Based Training and Also Offers In-Person Training, Which It Considers Most Beneficial, but Also More Costly to Provide

ASPR requires NDMS responders to take introductory web-based training courses to be eligible for deployment. Specifically, ASPR requires responders to complete seven web-based training courses that are

specific to preparedness to be eligible for deployment.³⁰ Many of these courses are required once in an NDMS responder’s career. ASPR officials stated that these mandatory courses are intended to be a simple introduction to the topic areas, and the web-based aspect allows them to require these courses without incurring a large cost to the agency.

In recent years, ASPR has increased the number of mandatory courses specific to preparedness. For example, in fiscal year 2019, ASPR added five web-based video courses, many of which ASPR added per an identified need for more training specific to an infectious disease response, according to officials. In addition, based on a draft catalog of NDMS training courses for fiscal years 2020-2024, the agency plans to add an additional five courses, many of which are web-based courses provided by the Federal Emergency Management Agency, but as of March 2020, ASPR officials did not know when they would implement this training. See Table 3 for a description of the seven preparedness-related mandatory training courses, as well as the additional five that ASPR plans to add, including the frequency they are required to be taken.

Table 3: National Disaster Medical System (NDMS) Preparedness-Related Mandatory Training Web-based Courses

Training course	Fiscal year added	Course description	Frequency of required course completion
Psychological First Aid Training	2017	Introduces the concepts of Psychological First Aid and workforce resilience and prepares personnel to provide compassionate care and emotional support during emergencies and disasters.	Every 3 years
Safety 101 Training	2018	Provides initial safety training generally applicable to all responders to meet Department of Labor Occupational Safety and Health Administration requirements and enhance deployment safety.	Once in a responder’s career
Pathogens of Concern	2019	Provides NDMS responders information about the characteristics of infectious diseases, specific pathogens and the diseases they cause, as well as how to recognize the signs and symptoms of disease to determine appropriate protection measures.	Once in a responder’s career
Personal Protective Equipment Donning and Doffing	2019	Introduces the process of safely donning and doffing level C personal protective equipment providing chemical and biological protections to minimize exposure to hazards while providing care and support during disasters and public health emergencies. ^a	Once in a responder’s career

³⁰In addition to these seven, NDMS responders must also take five other mandatory courses that are general courses required by HHS: 1) Cybersecurity Training, 2) Ethics for Special Government Employees, 3) Ethics for OGE-450 Filers, 4) HHS Travel Charge Card, and 5) Sexual Harassment Prevention for Employees. Additionally, certain NDMS responders involved in patient movement must take a just-in-time refresher course on HHS’s Joint Patient Assessment and Tracking System—a patient evacuation tracking system—as needed.

Training course	Fiscal year added	Course description	Frequency of required course completion
Personal Protective Equipment Selection, Regulations, and Limitations	2019	Trains responders to identify and utilize different types of personal protective equipment and respirators while following federal regulations, as well as how to recognize possible limitations of use.	Once in a responder's career
Strategic National Stockpile Overview	2019	Provides a look at available resources, supplies, and equipment for emergency logistics and planning purposes.	Once in a responder's career
Weapons of Mass Destruction/Terrorism Awareness for Emergency Responders	2019	Provides an all-hazards approach to hazardous material incidents, including acts of terrorism where weapons of mass destruction materials may have been used.	Once in a responder's career
Bloodborne Pathogens Training	Planned	Provides training on bloodborne pathogen incidents in the workplace consistent with Occupational Safety and Health Administration regulation 29 C.F.R. § 1910.1030.	Annually
Federal Emergency Management Agency Introduction to the Incident Command System	Planned	Describes the history, features, principles, and organizational structure of the Incident Command System and provides the foundation for higher level Incident Command System training. ^b	Once in a responder's career
Federal Emergency Management Agency Incident Command System for Single Resources and Initial Action Incidents	Planned	Reviews the Incident Command System, provides the context for Incident Command System within initial response, and supports higher level Incident Command System training.	Once in a responder's career
Federal Emergency Management Agency National Incident Management System, An Introduction to the National Incident Management System	Planned	Provides learners with a basic understanding of the National Incident Management System concepts, principles, and components. ^c	Once in a responder's career
Federal Emergency Management Agency National Response Framework, An Introduction	Planned	Introduces participants to the concepts and principles of the National Response Framework, and its application in actual response situations. ^d	Once in a responder's career

Source: GAO summary of Office of the Assistant Secretary for Preparedness and Response's NDMS training documentation. | GAO-20-525

Notes:

^aLevel C protection is used when the type and concentration of an airborne substance is known, the criteria for using air-purifying respirators has been met, and skin and eye exposure is unlikely.

^bThe Incident Command System is the organizational management system designed to enable effective and efficient domestic incident management by integrating a combination of facilities, equipment, personnel, procedures, and communications operating within a common organizational structure.

^cThe National Incident Management System is the comprehensive approach guiding the whole community—all levels of government, nongovernmental organizations, and the private sector—to work together seamlessly to prevent, protect against, mitigate, respond to, and recover from the effects of incidents.

^dThe National Response Framework is an all-hazards response structure to coordinate federal resources during emergencies and disasters. It divides the federal response into 15 emergency support functional areas that are most frequently needed during a national response.

In addition to the required web-based courses, ASPR also provides in-person training courses. ASPR officials told us that the agency's in-person training courses are the most beneficial, but they cannot require or offer as many in-person training courses as they would like, due to budget constraints and the cost of in-person courses relative to the web-based mandatory courses. Officials stated that in-person courses are most beneficial since they are more detailed than web-based courses and allow responders to more fully understand topics important for deployment. For example, ASPR brings responders together to be taught by a live instructor, and in some courses, practice using response equipment. Further, some of the courses are exercise-based so responders can practice their role in a simulated real-world scenario. However, these courses are more expensive to offer. ASPR officials explained, for example, that for in-person training, ASPR compensates the instructors and responders for the time they are participating in the training, as well as pays the travel costs of the responders to the training site, such as flights and hotel costs. See appendix III for the 22 NDMS in-person training courses and their description, as well as those offered in fiscal year 2019.

Our review of ASPR documentation shows that in fiscal year 2019, ASPR provided at least one offering of 14 of the 22 in-person training courses listed in its training catalog. For example, in fiscal year 2019, ASPR offered six Disaster Medical Assistance Team 101 trainings, each designed to provide up to 42 responders hands-on experience for delivering care to a diverse group of patients in a severe environment, including the appropriate use of equipment and supplies, among other topics. ASPR also offered 20 Isolation, Simulation, Quarantine trainings, each designed to teach up to 20 responders how to safely care for patients with highly hazardous communicable diseases in both health care and more austere environments, implement controls to curb the spread of disease, and contain accidental exposure to contamination, among other topics.

ASPR Does Not Sufficiently Evaluate Its Training's Effectiveness in Preparing Responders

We found that ASPR does not sufficiently evaluate the quality or effectiveness of its training in preparing NDMS responders. This is because the agency lacks a process focused on evaluating both its web-based and in-person training. Instead, ASPR's process is to send an email with a link to a survey to responders who participate in the in-person training or those who deploy to real-world events, which would include those who received the required web-based training. The survey is optional. (See Table 4 for the four standard questions.)

Table 4. Survey Questions Used To Evaluate National Disaster Medical System In-person Training

Survey question
1. Identify an issue or observation that requires corrective action(s). This should be a simple problem statement of 1 - 2 sentences in length.
2. Describe the issue or observation in detail. What was expected, but did or did not occur? Include the effect, positive or negative, and the consequence that actions had on the situation. Provide specific information that can be used for follow-up (dates, times, location, names, temporary fix, etc.).
3. What action(s) would you recommend to correct/resolve the issue or observation?
4. Submit positive feedback here.

Source: Office of the Assistant Secretary for Preparedness and Response National Disaster Medical System Responder Survey. | GAO-20-525

However, the survey does not directly ask about the quality or effectiveness of the training. This approach is inconsistent with GAO-identified key practices for evaluating training, which include using measures of (1) training participants' reaction to, and satisfaction with, the training program and (2) changes in participants' knowledge, skills, abilities, and on-the-job behavior.³¹

According to ASPR officials, although the survey is not specific to training, ASPR still receives feedback about the training courses through that survey, so they do not feel that they are missing any information from using this format to evaluate training. However, reliance on this process does not allow ASPR to understand training participants' reaction to, and satisfaction with, the training, or whether responders' knowledge, skills, and abilities or on-the-job behavior are affected if they deploy having received training. For example, it does not allow ASPR to understand whether the Disaster Medical Assistance Team 101 training course has an effect on responders' ability to effectively provide care during a response. According to the NDMS training catalog, objectives of the Disaster Medical Assistance Team 101 course include that students have learned to use equipment and supplies in accordance with manufacturer instructions, and that those in clinical care positions have learned how to provide medical care to a diverse group of patients, including individuals with special health care needs, in a disaster setting. Effective evaluation questions could include those that specifically ask participants about these objectives and if they felt the objectives were met. For example,

- Did training participants feel that they sufficiently learned how to use the equipment and supplies in preparation for a real event?

³¹[GAO-04-546G](#)

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- To what extent do training participants feel confident that they can apply the information they learned regarding use of equipment and supplies in a disaster setting, or teach it to others?

Additionally, by relying on survey feedback once deployed to receive any information on the effectiveness of required web-based courses, ASPR does not know if they are effective until after the fact, which can potentially put responders and others at risk. For example, ASPR does not know if its required web-based course on donning and doffing personal protective equipment is effective until responders have deployed. At that point, if the training was not effective, the responder could have potentially exposed themselves and others to hazards, especially during a response to an infectious disease, chemical, or biological threat.

Our prior work has shown that a balanced, multilevel approach to evaluating training and development efforts is most appropriate, and that not all training and development programs require, or are suitable for, higher levels of evaluation.³² We acknowledge that higher levels of evaluation can be challenging to conduct because of the difficulty and costs associated with data collection and the complexity in directly linking training and development programs to improved individual and organizational performance. We have reported that factors to consider when deciding the appropriate level of evaluation include estimated costs of the training effort, size of the training audience, management interest, program visibility, and the anticipated “life span” of the effort. ASPR should consider these factors in developing a process that specifically evaluates the web-based and in-person training provided to NDMS responders. Using GAO-identified key practices for evaluating training could help ASPR know the extent to which its training is effective in preparing responders for deployment, including keeping them and others safe during a public health emergency. A process that specifically evaluates the training can also help determine whether the web-based or

³²See [GAO-04-546G](#). We reported that one commonly recognized four-level model for evaluating training and development efforts is a model conceived by Donald L. Kirkpatrick (author of *Evaluating Training Programs: The Four Levels*). In this model, the first level measures the training participants’ reaction to, and satisfaction with, the training program or planned actions to use new or enhanced competencies. The second level measures the extent to which learning has occurred because of the training effort. The third level measures the application of this learning to the work environment through changes in behavior that trainees exhibit on the job because of the training or development program. The fourth level measures the effect of the training program on the agency’s program or organizational results. The fourth level is sometimes split into two levels with the fifth level representing a comparison of costs and benefits quantified in dollars.

in-person training courses need to be improved, or whether any of the in-person training courses are so effective that they should be required. Similarly, this information will allow ASPR to assess the relative effectiveness of in-person training courses, which is important when planning which of these training courses to offer each year.

ASPR Does Not Sufficiently Identify Priorities Among Its In-Person Training Courses

We also found that ASPR does not sufficiently prioritize its in-person training. Specifically, ASPR has not sufficiently identified priorities among its in-person training courses that take into account its aforementioned resource constraints to provide this training, because the agency lacks a process or approach for prioritizing its training.

GAO-identified key practices for planning training state that an agency should prioritize training around funding so that the agency can address its most important training needs first.³³ Further, effective strategic workforce planning means that agency officials should develop training that they can implement with the resources that can be reasonably expected to be available, and be aligned to eliminate gaps and improve the contribution of critical skills and competencies needed for mission success.³⁴

Because ASPR officials have no process or approach for prioritizing the in-person training, we found that ASPR officials could not provide information on how they chose the 14 in-person training courses the agency offered in fiscal year 2019, such as whether they prioritized any identified skill or competency gaps when selecting these courses. Further, ASPR officials could not provide documentation to support changes the agency made to training originally scheduled for fiscal year 2019. For example, ASPR documentation indicated that ASPR initially planned to offer an exercise-based Disaster Medical Assistance Team 201 course several times in fiscal year 2019 but did not end up offering the course at all. When asked about this change, ASPR officials attributed to its NDMS training budget. However, officials could not provide documentation showing that (1) their plans for the NDMS training the agency would offer in fiscal year 2019 had taken into account budget constraints, or (2) that the budget had changed subsequent to their plan development. As a

³³A key tool to aid this prioritization is an annual training plan that targets developmental areas of greatest need and that outlines the most cost-effective training approaches to address those needs. We have also reported that if training is identified as a solution to improve performance, agencies should compare various training strategies by weighing their estimated costs and anticipated benefits. [GAO-04-546G](#).

³⁴[GAO-04-39](#)

result, it is difficult to know if the decision to drop the exercise-based Disaster Medical Assistance Team 201 course was due to budget constraints or due to poor planning, such as the agency not accounting for those constraints when originally determining which courses to offer.

A process or approach for identifying priorities among its in-person training courses while taking into account budget constraints, will help ASPR ensure that it is maximizing its available training resources, by providing the training responders need the most for effective deployment during a public health emergency.

Conclusions

The seriousness of recent natural disasters and the COVID-19 pandemic illustrate the importance of having a skilled workforce to respond to public health crises. However, our past work and current review of ASPR's workforce planning and training raise concerns about its efforts to prepare NDMS responders to assist during public health emergencies.

Specifically, ASPR experienced a shortage of NDMS responders to assist with the federal public health and medical response to the 2017 hurricanes. Since that time, the agency has not followed key strategic workforce planning principles to effectively address this response shortfall and prepare for future responses, including natural disasters of increased frequency and magnitude, which are predicted to occur. Until ASPR develops an NDMS workforce target that aligns with agency-wide goals and objectives, it risks being unable to fulfill its role as the lead agency for public health emergencies, which includes the ability to sufficiently enhance medical surge capacity during a response. In addition, until ASPR develops an NDMS workforce target that considers the critical skills and competencies needed to meet current and future programmatic results—such as a workforce capable of responding to (1) a nationwide event or multiple concurrent events, (2) the needs of at-risk individuals, and (3) the availability of other medical responders—ASPR risks having an NDMS responder workforce target that is inadequate.

Furthermore, ASPR has faced slow hiring and has not developed specific strategies to help drive hiring and address workforce gaps. Until ASPR develops strategies to fill gaps to achieve a workforce target, the agency continues to risk being unable to provide adequate numbers and types of NDMS responders to effectively respond to public health emergencies. It also risks not being able to take full advantage of the direct-hire authority that expires in September 2021 that is specifically designed to facilitate hiring.

Finally, ASPR does not have a process to collect information that would allow it to evaluate the effectiveness of the individual courses it offers in its training program nor a process to identify priorities among its in-person training courses. Such processes will help ASPR ensure that it is maximizing its available training resources to provide training most beneficial for effective deployment, including training to keep responders and others safe during a public health emergency.

Recommendations

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

1. ASPR should develop an NDMS responder workforce target that aligns with the goals and objectives in ASPR's forthcoming strategic plan. (Recommendation 1)
2. ASPR should develop an NDMS responder workforce target that accounts for the critical skills and competencies that are needed to meet current and future programmatic results, such as a workforce target that considers (1) a nationwide event or multiple concurrent events, (2) the needs of at-risk individuals, and (3) the availability of other medical responders. (Recommendation 2)
3. ASPR should develop strategies to fill gaps to achieve its revised workforce target. (Recommendation 3)
4. ASPR should develop a process to evaluate the web-based and in-person training provided to NDMS responders using GAO-identified key practices for evaluating training. (Recommendation 4)
5. ASPR should develop a process or approach to prioritize various in-person training needs for its NDMS responders while taking into account budget constraints. (Recommendation 5)

Agency Comments and Our Evaluation

We provided a draft of this report for advance review and comment to HHS. HHS provided written comments, which we have reprinted in appendix IV. HHS concurred with our five recommendations and generally plans to take action.

Although HHS concurred with our five recommendations, the agency expressed concern about our references to the COVID-19 response in the draft report. Specifically, HHS noted that a pandemic response is outside the primary scope of NDMS—as its responders should be assisting the response through their civilian jobs, such as through working in hospitals—and for that reason COVID-19 pandemic planning did not include NDMS. While HHS states that it did not include NDMS in its

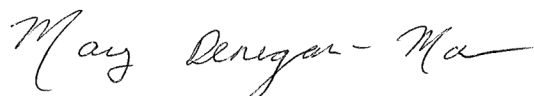
COVID-19 planning, as we also state in our report, the agency has deployed more than 1,200 NDMS responders to assist in the COVID-19 response. Also in its comments, HHS stated that any assessment of NDMS in the ongoing response would be premature. Our review did not assess NDMS's response to COVID-19, rather we assessed ASPR's workforce planning more generally for all-hazards events. We clarified this in the report.

HHS also commented on our concerns with HHS's evaluation of the training provided to NDMS responders. Specifically, the agency stated that we did not ground, in context or examples, our assertion that responders may be at risk since ASPR does not receive feedback on training until after deployment. We stand by our statement that there is the potential for this risk to occur given that HHS does not collect specific feedback on its trainings' quality or effectiveness and does not collect any feedback on mandatory training until after a responder has been deployed. As discussed in the report, an example is the mandatory web-based training on donning and doffing personal protective equipment. ASPR does not know if this training course is effective until responders have deployed. At that point, if the training was not effective, responders could have potentially exposed themselves and others to hazards, especially during a response to an infectious disease, chemical, or biological threat.

HHS also provided technical comments, which we incorporated as appropriate.

We are sending copies of this report to the appropriate congressional committees and the Secretary of the Health and Human Services. In addition, the report is available at no charge on the GAO website at <https://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 V.



Mary Denigan-Macauley
Director, Health Care

Appendix I: U.S. Public Health Service Commissioned Corps Officers and the Ready Reserve Corps

The U.S. Public Health Service, an agency under the Department of Health and Human Services (HHS), comprises Commissioned Corps officers who are available to assist with emergencies and disasters.¹ Commissioned Corps officers' duty stations are typically within the federal government, including agencies within HHS such as the Centers for Disease Control and Prevention, Food and Drug Administration, and National Institutes of Health, but these officers can be temporarily assigned to HHS's Office of the Assistant Secretary for Preparedness and Response to assist with a federal response.

Current Number of Officers Who Provide Medical Care to Humans During a Response

There are a number of types of Commissioned Corps officers, including those who are deployed to provide medical care to humans during a response and fall within four professional categories—dental officer, health services officer, medical officer, and nurse officer.² As of October 4, 2019, the U.S. Public Health Service had 2,127 of these types of officers available to assist with emergencies and disasters. (See Table 5.)

¹Commissioned Corps officers may be deployed to respond to an urgent or emergency public health care need arising from (1) a national emergency declared by the President under the National Emergencies Act; (2) an emergency or major disaster declared by the President under the Robert T. Stafford Disaster Relief and Emergency Assistance Act; (3) a public health emergency declared by the Secretary of Health and Human Services under the Public Health Service Act; or (4) any emergency that is appropriate for deployment, as determined by the Secretary of Health and Human Services. See 42 U.S.C. §§ 204a(a)(5) and 215(e).

²There are 11 professional categories for Commissioned Corps officers: physicians, dentists, clinical and rehabilitation therapists, dietitians, engineers, environmental health, health service, nurses, pharmacists, science and research health professions, and veterinary medicine. As of September 9, 2019, these officers totaled to approximately 6,200 Commissioned Corps. According to Public Health Service officials, as of March 2020, ASPR had only requested four of these 11 professional categories to help provide medical care to humans during a response to a disaster or emergency—dental, health services, medical, and nurse officers. Medical officers are physicians. Health services officers include allied clinical care providers, such as physician assistants and optometrists, and those that serve in other roles, such as health information managers and public health educators and administrators.

**Appendix I: U.S. Public Health Service
Commissioned Corps Officers and the Ready
Reserve Corps**

Table 5: U.S. Public Health Service Commissioned Corp Officers Available to Provide Medical Care to Humans During a Response, by Provider Type

Professional category	Number of responders	Percent of total number of responders
Dental officer	141	6.6
Health Services officer	156	7.3
Medical officer	460	21.6
Nurse officer	1,370	64.4
Total	2,127	99.9^a

Source: GAO analysis of U.S. Public Health Service data as of Oct. 4, 2019. | GAO-20-525

Note:

^aThe total percentage does not sum to 100 due to rounding.

These officers are assigned to deployment teams that provide both direct and indirect health care services to humans. The deployment teams provide support ranging from providing medical services to connecting affected individuals with community services, such as home health care. See Table 6 for the number of U.S. Public Health Service Commissioned Corps officers available to provide medical care to humans during a response, by deployment team.

Table 6: U.S. Public Health Service Commissioned Corps Officers Available to Provide Medical Care to Humans During a Response, by Deployment Team

Team name	Team description	Number of officers available to provide medical care to humans
Rapid Deployment Force	Health and medical services to support a Federal Medical Station ^a	300
Capital Area Provider	Health and medical services to support national special security events in the national capital region.	96
Mental Health	Behavioral health services for impacted citizens and deployment teams.	29
Applied Public Health	Public health services to augment state and local public health departments.	39
Regional Incident Support	Incident support services focused on liaison and information management.	45
National Incident Support	Incident support services focused on assisting command and control.	16
Services Access	Assist impacted citizens and federal partners with access to follow-on services. ^b	63
Tier 3	Augment any of the above teams once deployed.	1,539
Total		2,127

Source: GAO analysis of U.S. Public Health Service data as of Oct. 4, 2019. | GAO-20-525

Notes:

^aA Federal Medical Station is a Health and Human Services deployable health care facility that has a 3-day supply of medical and pharmaceutical resources to sustain from 50 to 250 patients who require medical services.

^bFollow-on services can range from providing support to health care institutions on the discharge planning process to connecting individuals affected by a disaster or emergency to services such as housing or home health care.

Plans for a Ready Reserve Corps

To augment capacity, the U.S. Public Health Service is in the process of implementing a Ready Reserve Corps, but plans are still in development.³ The Ready Reserve Corps would consist of intermittent employees who could be called up as needed. Implementing a Ready Reserve is part of a broader plan to modernize the U.S. Public Health Service Commissioned Corps announced by the Assistant Secretary for Health in March 2018. A contractor hired to assist with the modernization effort assessed the agency and concluded in April 2019 that, among other things, establishing a Ready Reserve Corps will give the U.S. Public Health Service Commissioned Corps the needed bandwidth to meet demand for its services. The contractor stated that the demand for services is likely to increase in the future based on multiple demand signals (e.g., natural disasters, biological pathogens, the opioid epidemic and suicide clusters, and international and immigrant-related situations).

In September 2019, the U.S. Public Health Service tasked the contractor with developing a plan by June 10, 2020, to establish the Ready Reserve Corps, including an organization infrastructure design plan and recruitment strategy. It also included the development of a training plan applicable to Commissioned Corps Officers.

U.S. Public Health Service officials we spoke with agreed that the introduction of a Ready Reserve Corps would dramatically help their ability and capacity to respond to emergencies and disasters, especially given the rise in demand on the agency. According to these officials, the number of U.S. Public Health Service Commissioned Corps deployments has increased 44 percent over 6 years—from calendar year 2013-2018—and officials expect demand to continue to grow. Ready Reserve Corps

³The Ready Reserve Corps was established in 2010 by the Patient Protection and Affordable Care Act to have additional personnel available to assist the U.S. Public Health Service Commissioned Corps with routine and emergency missions. Pub. L. No. 111-148, § 5210, 124 Stat. 119, 614-15 (2010) (codified as amended at 42 U.S.C. § 204). The CARES Act amends federal law to allow members of the Ready Reserve Corps to receive certain compensation and benefits for their service. See Pub. L. No. 116-136, § 3214(d) 134 Stat. 281, 373 (2020) (to be codified at 42 U.S.C. § 213a).

**Appendix I: U.S. Public Health Service
Commissioned Corps Officers and the Ready
Reserve Corps**

officers would be deployed or backfill positions of deployed U.S. Public Health Service Commissioned Corps officers.

U.S. Public Health Service officials stated that there is a target of commissioning 100 Ready Reserve Corps officers in fiscal year 2021, which was set based upon fiscal constraints and force management planning factors. According to officials, since the vast majority of the work in the first year of establishing a Ready Reserves Corps will be dedicated to establishing the policies, procedures, information technology, and management infrastructure necessary to recruit, organize, train, and manage a ready reserve component, a conservative target was deemed most prudent. Officials stated that 50 percent of their goal of 100 Ready Reserve Corps officers will be targeted toward retaining already trained officers with significant clinical experience who otherwise would separate completely from the service.

Appendix II: National Disaster Medical System Team Structures

The Office of the Assistant Secretary for Preparedness and Response (ASPR) enrolls responders into its National Disaster Medical System (NDMS). Once enrolled, ASPR can deploy these responders to assist with the federal public health and medical response during a public health emergency. There are five types of NDMS responder teams. Two of these types, the Disaster Medical Assistance Team and the Trauma and Critical Care Team, focus on providing public health and medical care to humans during a response. The National Veterinary Response Team provides veterinary care, while the Victim Identification Team and Disaster Mortuary Operational Response Team collect information on victims and support local mortuary services during a response, respectively. In March 2018, ASPR developed team structures for each NDMS team type, which include position types and numbers of responders in each position. See Table 7 for the team structures of each of the five types of NDMS teams.

Table 7: Team Structures for Each National Disaster Medical System Team

Position description	Disaster Medical Assistance Team	Disaster Mortuary Operational Response Team	National Veterinary Response Team	Trauma and Critical Care Team	Victim Identification Team
Administrative Specialist	2	2	3	2	2
Animal Health Technician	-	-	100	-	-
Behavioral Health Specialist	2	-	-	2	2
Chaplain	-	2	-	-	-
Dental Assistant (Forensic)	-	3	-	-	-
Dental Officer (Forensic)	-	11	-	-	2
Deputy Team Commander	3	2	3	3	2
Diagnostic Radiologic Technologist	-	4	-	3	-
Fingerprint Specialist	-	2	-	-	-
Forensic Anthropologist	-	4	-	-	-
Health Technician (Autopsy Assistant)	-	2	-	-	-
Health Technician (Paramedic)	15	-	-	8	-
Information Technology Specialist	2	-	-	3	-
Logistics Management Specialist	5	2	3	6	2
Medical Investigator	-	21	-	-	-
Mortuary Specialist	-	18	-	-	-
Nurse Anesthetist	-	-	-	8	-
Nurse Practitioner	6	-	-	5	-
Nurse Specialist (Registered Nurse)	21	-	-	33	-

**Appendix II: National Disaster Medical System
Team Structures**

Position description	Disaster Medical Assistance Team	Disaster Mortuary Operational Response Team	National Veterinary Response Team	Trauma and Critical Care Team	Victim Identification Team
Pharmacist	6	-	3	4	-
Physician	10	-	-	23	-
Physician (Pathology)	-	6	-	-	2
Physician Assistant	6	-	-	5	-
Respiratory Therapist	2	-	-	5	-
Safety and Occupational Health Specialist	2	2	3	2	2
Security Specialist	-	2	-	-	-
Surgical Technologist	-	-	-	2	-
Team Commander	1	1	1	1	1
Telecommunications Specialist	2	2	3	3	2
Veterinary Medical Officer	-	-	60	-	-
Victim Advocate	-	-	-	-	35
Total	85	86	179	118	52

Legend: — = not applicable

Source: GAO summary of documentation collected from the Office of the Assistant Secretary for Preparedness and Response. | GAO-20-525

Appendix III: National Disaster Medical System Optional Training Courses for Responders

The Office of the Assistant Secretary for Preparedness and Response (ASPR) enrolls responders into the National Disaster Medical System (NDMS). Once enrolled, ASPR can deploy these responders to provide medical care, evacuate patients, and provide veterinary services, among other supports.¹ To prepare these responders for deployment, ASPR offers optional, in-person training throughout the year. This training may be applicable to all responders, or specific to responders on certain of the five types of NDMS teams. Table 8 summarizes the 22 optional training courses that may be available to NDMS responders, though not all courses are available each year.

Table 8: Optional Training Courses for National Disaster Medical System (NDMS) Responders

Course name	Course description	Course capacity (max participants per course offering)	Number of course offerings in fiscal year 2019
Aeromedical Evacuation Team	Develop the skills required of NDMS responders as members of an aeromedical evacuation team expected to deliver care in flight.	25	10
Aeromedical Evacuation Team Critical Care	Develop the skills required of NDMS responders on an aeromedical evacuation critical care team who are expected to deliver critical care in flight.	18	5
Critical Care Air Transport Team Advanced	Develop skills related to the clinical care of the critically ill and injured patients in flight.	18	1
Critical Care Air Transport Team Initial	Teach and test operational concepts, flight and altitude physiology, and critical care knowledge as it applies to air and ground transport of a critically ill or injured patient.	18	7
Disaster Medical Assistance Team 101	Develop and improve upon the skills required of NDMS Disaster Medical Assistance Team responders to deliver care in a severe environment and familiarize new or not recently deployed personnel on general principles of NDMS deployments.	42	6
Disaster Medical Assistance Team 201 Exercise	Prepare NDMS Disaster Medical Assistance Teams for short-notice disaster relief deployments. The training involves the reporting, mobilization, and demobilization activities that would occur during an actual deployment.	No course capacity maximum indicated	0
Disaster Mortuary Operational Response Teams 101	Allow mortuary specialists—one of the positions on the NDMS Disaster Mortuary Operational Response Teams who identify victims and support local mortuary services—to prepare, train, and enhance the processes, procedures, and practices used during Disaster Mortuary Operational Response Team missions.	100	0

¹Under 42 U.S.C. § 300hh-11, NDMS may be activated to provide health services, health-related social services, other appropriate human services, and appropriate auxiliary services to respond to the needs of victims of a public health emergency. ASPR may also activate NDMS in a location that is at-risk of an emergency.

**Appendix III: National Disaster Medical System
Optional Training Courses for Responders**

Course name	Course description	Course capacity (max participants per course offering)	Number of course offerings in fiscal year 2019
Disaster Mortuary Operational Response Teams 201	Prepare NDMS Disaster Mortuary Operational Response Teams for short-notice disaster relief deployments. The training involves the reporting, mobilization, and demobilization activities that would occur during an actual deployment.	80	0
Electronic Medical Records	Update the knowledge, skills, and response capabilities of emergency medical records users in the revised deployment and utilization of the new emergency medical records software.	36	9
Highly Infectious Disease Patient Transport	Address the transportation of highly infectious patients to appropriate facilities such as assessment or isolation centers.	No course capacity maximum indicated	0
Isolation, Simulation, Quarantine	Provide the knowledge, skills, and abilities to ensure that competencies in the areas of situational awareness, preparedness and planning, infection prevention and control, and crisis and risk communication are met.	20	20
Joint Patient Assessment and Tracking System	Improve the knowledge, skills, and response capabilities of responders in the deployment and utilization of the Joint Patient Assessment and Tracking System (a patient evacuation tracking system) software.	36	7
Joint Patient Assessment and Tracking System Exercise: Supporting Department of Defense and Veterans Affairs Federal Coordinating Center	Support Federal Coordinating Center exercises conducted by the Departments of Defense and Veterans Affairs with a two-person Joint Patient Assessment and Tracking System Team. ^a These exercises are controlled and scenario-driven trainings for federal responders.	2	0
Regional Equipment Familiarization	Prepare responders enrolled in NDMS Disaster Medical Assistance Teams for the challenges of disaster care by supporting familiarization with field equipment.	40	20
Logistics Specialist 101	Utilize a combination of classroom and hands-on training to familiarize logistical personnel with equipment used during actual deployments.	50	2
NDMS/Department of Defense Outbreak Response Course	Prepare responders to support operations that may involve infectious diseases with high infectivity, morbidity, and mortality.	12	0
National Veterinary Response Team Working Animal	Prepare NDMS National Veterinary Response Team responders to properly handle and provide medical support to working animals used in post-disaster environment, public health emergency, or planned national security event.	55	0
Trauma Critical Care Team 101	Allow responders enrolled in NDMS Trauma and Critical Care Teams to deliver the highest level of trauma and critical care to victims of disasters in accordance with current clinical standards and NDMS guidelines.	48	1
Team Leadership	Improve the knowledge, skills, and response capabilities of NDMS Team Commanders and Deputy Team Commanders to enhance their leadership capabilities. ^b	142	1

**Appendix III: National Disaster Medical System
Optional Training Courses for Responders**

Course name	Course description	Course capacity (max participants per course offering)	Number of course offerings in fiscal year 2019
Safety Specialist 101	Qualify Safety and Occupational Health Specialists—a responder position on all of the NDMS teams except the Victim Identification Team—to perform pre-deployment health and safety activities.	14	4
Victim Identification Center 101	Allow the Victim Identification Response team and all 10 NDMS Disaster Mortuary Operational Response Teams to train and prepare for the practice of ante mortem (before death) data collection used during disaster missions. ^c	35	1
Trauma and Critical Care Team 201 Exercise	Prepare NDMS Trauma and Critical Care Teams for short-notice disaster relief deployments.	48	0

Source: GAO summary of Office of the Assistant Secretary for Preparedness and Response NDMS training documentation. | GAO-20-525

Notes:

^aFederal Coordinating Centers are activated 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.

^bEach NDMS team is led by a Team Leader and a Deputy Team Leader that constitute a team's Command Staff during steady state or day-to-day operations.

^cThe Victim Information Center is a location for local authorities and Disaster Mortuary Operational Response Team members to collect ante-mortem data, such as pictures, fingerprints, dental X-rays, and other medical records, to help identify the victim.

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



DEPARTMENT OF HEALTH & HUMAN SERVICES

OFFICE OF THE SECRETARY

Assistant Secretary for Legislation
Washington, DC 20201

May 28, 2020

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, "*PUBLIC HEALTH PREPAREDNESS: HHS Should Take Actions to Ensure It Has an Adequate Number of Effectively Trained Emergency Responders*" (GAO-20-525).

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

Sincerely,

Sarah C. Arbes -S
Digitally signed by Sarah C. Arbes -S
Date: 2020.05.28 09:46:45 -04'00'

Sarah C. Arbes
Assistant Secretary for Legislation

Attachment

GENERAL COMMENTS FROM THE DEPARTMENT OF HEALTH & HUMAN SERVICES ON THE GOVERNMENT ACCOUNTABILITY OFFICE'S DRAFT REPORT ENTITLED — PUBLIC HEALTH PREPAREDNESS: HHS SHOULD TAKE ACTIONS TO ENSURE IT HAS AN ADEQUATE NUMBER OF EFFECTIVELY TRAINED EMERGENCY RESPONDERS (GAO-20-525)

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.

While this report refers to the COVID-19, this important to note that GAO work on the National Disaster Medical System (NDMS) was well underway prior to the advent of the pandemic. Thus, we raise concerns about COVID-19 references throughout the report. Our chief concern is that pandemic response is outside the primary scope of the NDMS, as NDMS employees should be primarily working in their civilian jobs within the traditional healthcare system. The COVID-19 pandemic planning, therefore, did not include NDMS. The governing assumption was the federal response should not compromise the community healthcare capabilities. Furthermore, HHS remains in the middle of its pandemic response, thus any assessment of NDMS during this time is premature at best.

Secondly, HHS would like to address the GAO's concerns with the training regimen. GAO asserts that collecting feedback about training from providers whom are deployed potentially places them at risk. However, this assertion is made with no examples or grounding in context of the training delivered. Where there is opportunity to improve training, HHS will work diligently to incorporate best practices in the preparation of its NDMS workforce.

Going forward, HHS will work to develop a strategic documented workforce target that considers (1) a nationwide event or multiple concurrent events, (2) the needs of at-risk individuals, and (3) the availability of other medical responders to fill the gaps its workforce target.

Recommendation 1

ASPR should develop an NDMS responder workforce target that aligns with the goals and objectives in ASPR's forthcoming strategic plan.

HHS Response

HHS concur with GAO's recommendation. ASPR will work to align all goals and objectives to the strategic plan.

Recommendation 2

ASPR should develop an NDMS responder workforce target that accounts for the critical skills and competencies that are needed to meet current and future programmatic results, such as a workforce target that considers (1) a nationwide event or multiple concurrent events, (2) the needs of at-risk individuals, and (3) the availability of other medical responders.

HHS Response

HHS concurs with GAO's recommendation. ASPR will work to develop a strategic documented workforce target that considers (1) a nationwide event or multiple concurrent events, (2) the needs of at-risk individuals, and (3) the availability of other medical responders. ASPR's ability to realize this workforce target will be subject to the availability of funding.

**Appendix IV: 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 — PUBLIC HEALTH PREPAREDNESS: HHS SHOULD TAKE
ACTIONS TO ENSURE IT HAS AN ADEQUATE NUMBER OF EFFECTIVELY
TRAINED EMERGENCY RESPONDERS (GAO-20-525)**

Recommendation 3

ASPR should develop strategies to fill gaps to achieve its revised workforce target.

HHS Response

HHS concurs with GAO's recommendation. This recommendation will be subject to the availability of funding.

Recommendation 4

ASPR should develop a process to evaluate the web-based and in-person training provided to NDMS responders using GAO-identified key practices for evaluating training.

HHS Response

HHS concurs with GAO's recommendation. ASPR will work to incorporate GAO-identified key practices into training evaluation.

Recommendation 5

ASPR should develop a process or approach to prioritize various in-person training needs for its NDMS responders while taking into account budget constraints.

HHS Response

HHS concurs with GAO's recommendation. ASPR will continue to prioritize in person trainings for NDMS responders.

Appendix V: GAO Contact and Staff Acknowledgements

GAO Contact

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

Staff Acknowledgements

In addition to the contact named above, Kelly DeMots (Assistant Director), Deirdre Gleeson Brown (Analyst-in-Charge), Kenisha Cantrell, Aidan Larsen, Catherine Parylo, and Janet Wilson made key contributions to this report. Also contributing were Sam Amrhein, Shae Bader, Kaitlin Farquharson, Dan Lee, Janet McKelvey, Meghan Perez, and Vikki Porter.

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