



# National Health Security Strategy Implementation Plan 2019-2022



Prepared by:

U.S. Department of Health and Human Services  
Office of the Assistant Secretary for Preparedness and Response  
Office of Strategy, Policy, Planning, and Requirements



*Saving Lives. Protecting Americans.*

**ASPR**

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## INTRODUCTION

The National Health Security Strategy (NHSS) 2019-2022 provides a vision for strengthening our nation's<sup>1</sup> ability to prevent, detect, assess, prepare for, mitigate, respond to, and recover from 21st century health threats. This NHSS Implementation Plan (IP) guides whole-of-government action to support federal, and state, local, tribal, and territorial (SLTT) partners—as well as public and private partners, non-governmental organizations (NGOs), academia, professional associations, communities, families/family units, and individuals—to advance the capabilities needed to address current risks and prepare for an array of new, evolving threats.

We—the collective group of stakeholders with responsibilities for national health security—must continue to strengthen the public health and health care systems that protect our health and save lives everyday and during times of emergency.

However, as health threats evolve, the way governments and stakeholders work together and carry out missions must also adapt to swiftly confront potentially devastating consequences. These 21st century risks include the increased potential for use of chemical, biological, radiological, and nuclear (CBRN) weapons; cyber warfare; emerging infectious diseases that could lead to a pandemic; and more frequent and severe natural disasters.

The NHSS IP guides the U.S. Government and partners to develop adaptable and nimble processes to counter health threats in the current and projected strategic environment. It presents a roadmap for promoting a health-secure nation through enhanced readiness and response capabilities.

## APPROACH

Achieving national health security requires strong collaboration and leadership among all stakeholders, including federal and SLTT governments, public and private partners, non-governmental organizations, academia, professional associations, communities, volunteers, families, and individuals. A whole-of-government approach that includes strategic public-private partnerships will expand capabilities, quickly mobilize resources, and protect the nation from incidents that result in serious health consequences.

As a leader of the nation's medical and public health preparedness for, response to, mitigation of, and recovery from disasters and public health emergencies, the U.S. Government will collaborate with a wide array of partners to improve readiness and

**U.S. National Health Security** actions protect the nation's physical and psychological health, limit economic losses, and preserve confidence in government and the national will to pursue its interests when threatened by incidents that result in serious health consequences whether natural, accidental, or deliberate.



**A whole-of-government approach leverages collaboration to save lives.**

<sup>1</sup> The term nation in the context of national health security is inclusive of American citizens, non-U.S. citizens, and visitors who may be at risk of adverse health effects in event of a public health emergency or disaster.

response capabilities. These partners include the emergency management and public health communities, hospitals and health care coalitions, the private sector, biotech firms, the intelligence community, law enforcement, the military and veteran community, federal departments and agencies, SLTT governments, voluntary organizations, behavioral health and social services providers, and community members, families/family units, and individuals across the country.

There are a great number of governmental actions that can support progress toward a health secure nation. Broadly, these actions fall into four categories:

1. **Services** (e.g., response and recovery capabilities, technical assistance, training, and certification)
2. **Guidance** (e.g., strategies, guidance documents, frameworks, plans — including those that address legal, legislative, and regulatory issues)
3. **Direct Support** (e.g., grants, cooperative agreements, subsidies, and challenge awards)
4. **Capacity-building** (e.g., support public health and health care infrastructure, create and sustain partnerships, and build and maintain coalitions)

The whole-of-government—indeed whole-of-nation—approach of the NHSS IP promotes leveraging the full range of public and private sector tools, academia, NGOs, resources, and capabilities to save lives and safeguard people’s health.

The NHSS IP is structured around the three objectives of the NHSS 2019-2022:

1. Prepare, mobilize, and coordinate the Whole-of-Government to bring the full spectrum of federal medical and public health capabilities to support SLTT authorities in the event of a public health emergency, disaster, or attack.
2. Protect the nation from the health effects of emerging and pandemic infectious diseases and chemical, biological, radiological, and nuclear (CBRN) threats.
3. Leverage the capabilities of the private sector.

Each objective includes focus areas with desired end-state(s) and actions needed to move toward the end-states. No national IP can fully capture the diverse needs of the communities that make up our country. The actions described in the NHSS IP are focused on catalyzing federal and national activity in support of SLTT governments. The end-states and actions are intentionally broad to allow for (and encourage) locally-led development of implementation actions that meet specific community, family/family unit, and individual needs.

Cutting across the three NHSS objectives is the need to ensure a holistic view of public health and health care, which includes **behavioral health and social service needs**. This view includes taking into account the access and functional needs of at-risk individuals, including children, pregnant women, senior citizens, and other individuals who have special needs in the event of a public health emergency. It involves engagement across the whole community to ensure citizens are empowered to participate in preparedness efforts, reduce or mitigate their risks from disasters or attacks, and build individual and community resilience.

## OBJECTIVE 1: PREPARE, MOBILIZE, AND COORDINATE A WHOLE-OF-GOVERNMENT APPROACH FOR PUBLIC HEALTH EMERGENCIES AND DISASTERS

Achieve a unified, whole-of-government approach in preparing and responding to health security threats by evaluating and integrating federal resources to bolster SLTT public health and health care capacity, including community, family/family unit, and individual resilience, incident management, information management, countermeasures and mitigation, surge management, and biosurveillance.

### Provide the leadership to improve national preparedness and convene a unified, national response to public health emergencies and disasters.

*“A successful whole-of-government approach starts with providing leadership in domestic and international programs, initiatives, and policies that deal with public health and medical emergency preparedness and response.” (NHSS 2019-2022)*

**End-state:** National health security partners work together to create integrated strategies, develop operationally-viable policies based on a common operating picture, and promulgate clear guidance to key stakeholders.

The NHSS, Health Security National Action Plan, National Security Strategy, National Defense Strategy, and the National Biodefense Strategy have all prioritized a whole-of-government approach within their goals and objectives.

- **Action:** Evaluate and increase partnerships to promote enhanced situational awareness and coordination of efforts to address critical threats on the national, state, tribal, territorial, and local levels.
- **Action:** Improve engagement with international partners to rapidly identify, characterize, and report international health threats that pose risks to America.
- **Action:** Identify, and collaborate with, non-traditional health stakeholders amongst federal agencies, SLTT stakeholders, private industry, NGOs, professional organizations, and academia to enhance preparedness for health threats, reduce and mitigate disaster risks, and build resilience.

### Mobilize, coordinate, and direct the medical and public health assets of the U.S. Government.

*“We will sustain efforts to organize, train, equip, and exercise response capabilities. We will identify health care readiness standards to assess coalition readiness status and ensure exercises test system resilience against routine and catastrophic threats.” (NHSS 2019-2022)*

**End-state:** The full array of federal public health and medical assets is organized and integrated to seamlessly support SLTT operations.

- **Action:** Assess and continue to improve standardized communication protocols for the National Disaster Medical System (NDMS) to coordinate with the U.S. Public Health Service Commissioned Corps, NDMS partner agencies (Department of Health and Human Services, Department of Homeland Security, Department of Defense, and



Department of Veterans Affairs) and other key federal partners to align readiness and response capabilities.

- **Action:** Assess current partnerships and increase engagement with traditional and non-traditional public health and health care stakeholders (including behavioral health and human services) to develop plans, guidance, best practices, training and exercises that engage the full-array of federal and SLTT health care assets.
- **Action:** Collaborate with experts, stakeholders, and industry leaders in establishing innovative health care readiness standards for health care assets.

### **Promote sustainable enhancements to SLTT medical and public health infrastructure and response capabilities and capacity.**

*“While the U.S. health care system has made advancements in developing coalition networks, it faces new vulnerabilities involving cyberattacks, fragile medical product supply chains, and other systemic challenges. These vulnerabilities require a different kind of network; one based on a distributed system of coordination, integration, mutual aid, and specialization.” (NHSS 2019-2022)*

**End-state:** Interoperable disease situational awareness systems quickly support the prevention, detection, mitigation, and containment of disease spread, and inform the treatment of those affected by health threats.

- **Action:** Promote multi-sectoral and trans-disciplinary collaboration to assure integrated and quality laboratory services and human, animal, plant, and environmental health surveillance.
- **Action:** Provide guidance on the standardization of data and reporting in order to improve integration of data and information systems towards better disease detection.

**End-state:** A robust and reliable public health and health care workforce can rapidly adapt to new threats affecting human, animal, plant, and environmental health.

- **Action:** Train the public health and health care workforce on preparedness and response activities such as risk and threat assessment, communication, and disease situational awareness and containment.
- **Action:** Improve training for first responders, public health staff, human and animal health care workers, and laboratory personnel in the use of personal protective equipment, improved infection control, management and treatment of patients affected by CBRN agents, and how to enhance capabilities for decontamination, isolation, and quarantine as appropriate.

**End-state:** Effective best practices for biosafety and biosecurity protect human and animal health care workers, laboratorians, and the public from accidental or deliberate exposure to infectious agents and toxins and CBRN threat agents.

The **National Biodefense Strategy** is a whole-of-government endeavor to review and assess biodefense policies, practices, programs, and initiatives. Coordinated biosurveillance efforts are integral to ensure timely detection and ultimately response.

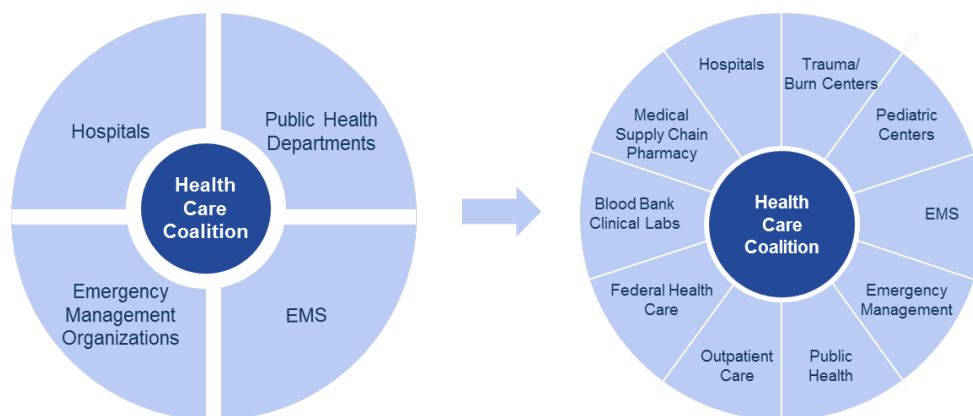
- **Action:** Consistent with the goals and objectives of the National Biodefense Strategy, encourage laboratories and other facilities to engage in pre-incident response planning for the release of infectious pathogens, and evaluate and update guidelines and training/educational materials on biorisk management and a culture of responsibility.

**Evaluate the effectiveness and viability of regional disaster health response capabilities to better identify and address gaps in coordinated patient care during public health emergencies and disasters.**

*“The nation needs a unified, regional approach to improve national health care readiness and medical surge capacity.” (NHSS 2019-2022)*

**End-state:** A robust network of state and inter-state medical assets create coherent and comprehensive regional disaster health response capabilities.

- **Action:** Engage with non-traditional entities to facilitate regional coordination of health assets, including partnerships with community-based organizations and other stakeholders to address access and functional needs.



**Figure 1: Enhanced Health Care Coalitions at the regional level**

**End-state:** Integrated health care response capabilities (including federal facilities and emergency medical services) strengthen the coordination of, and capabilities for, medical asset surge in response to public health emergencies and disasters.

- **Action:** Align and coordinate existing state/territorial and federal planning activities related to patient management in disasters and public health emergencies.
- **Action:** Explore regional capabilities for health care facilities to share clinical expertise and specialists following an incident.

## **OBJECTIVE 2: PROTECT THE NATION FROM THE HEALTH EFFECTS OF EMERGING AND PANDEMIC INFECTIOUS DISEASES AND CHEMICAL, BIOLOGICAL, RADIOLOGICAL, AND NUCLEAR (CBRN) THREATS**

Strengthen nationwide health security capabilities to guarantee that we can prevent CBRN incidents and disease infections, detect threats earlier, characterize threats and diagnose disease faster, and treat people effectively.

### **Continue efforts to improve early detection of emerging and potential pandemic infectious diseases.**

*“Changing threats require the combined strength of all of our capabilities, including intelligence, law enforcement, and homeland security, military, and veteran stakeholders. We will organize partners across the government, the private sector, NGOs, professional associations, and academia to improve interoperability to quickly and effectively detect disease outbreaks and CBRN threats.” (NHSS 2019-2022)*

**End-state:** Disease mitigation stakeholders are integrated into a whole-of-nation endeavor to ensure detection at the earliest possible point.

- **Action:** Evaluate and update resources and guidance provided to stakeholders for developing preparedness and response plans specific to detection, surveillance, epidemiology, and laboratory capacity.
- **Action:** Provide guidance to multistate regional health care entities and other relevant stakeholders on maintaining disease mitigation expertise and situational awareness as part of their normal operations.

### **Rapidly identify, develop, produce, and make available safe, effective medical countermeasures (MCMs).<sup>2</sup>**

*“MCMs remain our most effective approach toward mitigating the health consequences of CBRN and naturally-caused, emerging infectious threats.” (NHSS 2019-2022)*

**End-state:** Partners within the U.S. Government have developed efficiencies in MCM processes that effectively identify needed MCMs and reduce time for development.

- **Action:** Identify interagency information sharing mechanisms to leverage ongoing MCM data and research in order to rapidly develop MCMs during, or leading up to, a disease outbreak or CBRN incident.

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<sup>2</sup> Medical Countermeasures are pharmaceutical products, such as vaccines, antimicrobials, and antitoxins, and nonpharmaceutical products, such as ventilators, diagnostic tests, PPE, and patient decontamination materials, that may be used to prevent, mitigate, or treat the adverse health effects from a public health emergency.



## Maintain the capacity to produce enough vaccines and other necessary MCMs to provide protection from pandemic influenza and CBRN agents that represent a strategic health security threat the nation.

*“We will progress toward a rapid-development posture by improving MCM response platforms that can transition quickly between MCM products. A faster response is not defined solely by the scientific advancements in the development process. It is also defined by the pursuit of novel public-private partnerships with industry and streamlined processes.” (NHSS 2019-2022)*

**End-state:** Government ensures capacity and timeliness to protect Americans from infectious diseases and CBRN threats.

- **Action:** Assess medical products and medical product supply chains integral to the mitigation of, or response to, an infectious disease or CBRN incident; work across the levels of government and with industry and other partners in a timely manner (pre-incident or during a response) to close any medical product production capacity gaps.

From the emergence of new viruses such as the Middle East Respiratory Syndrome Coronavirus, to older viruses like Smallpox which have the potential to be synthesized using new technology, **we must maintain constant vigilance.** MCMs and the technologies to produce them will need to adapt to remain relevant to **the 21st century threat landscape.**

**End-state:** SLTT partners have the necessary guidance and information on MCMs that address the needs of at-risk individuals\* and receive guidance and information on MCMs against pandemic influenza, other naturally occurring infectious/contagious diseases, and CBRN agents.

\* “At-risk individuals” means children, pregnant women, senior citizens and other individuals who have special needs in the event of a public health emergency.

- **Action:** Continue to assess safety and dosing instructional materials for MCMs and engage the appropriate subject matter experts to develop guidelines that are appropriate for at-risk individuals.

## Support SLTT authorities’ efforts to stock, and rapidly obtain, distribute, dispense, administer, and monitor the safety of MCMs.

*“Effective MCM guidance and plans will allow decision-makers to strategically select the right actions and MCMs to go with the threat and the population dynamics of the community.” (NHSS 2019-2022)*

**End-state:** SLTT governments have access to federal decision-making frameworks and have the resources to ensure that MCMs are disseminated appropriately across all levels of government to local populations at risk during an outbreak or CBRN incident.

- **Action:** Support development and evaluation of SLTT authorities’ public health preparedness capabilities and continue support for training and tailored technical assistance where needed to ensure readiness.
- **Action:** Update SLTT response plans to have decision-support tools and guidance to integrate the appropriate MCMs and actions for specific threats; encourage alignment with these plans across federal and SLTT governments.

## OBJECTIVE 3: LEVERAGE THE CAPABILITIES OF THE PRIVATE SECTOR

Foster consortia of federal and industry partners to develop a hub of innovation and novel partnerships in order to effectively strengthen and adapt capabilities to address 21st century health threats.

### Develop and sustain robust public-private partnerships for MCM development and production

*“A cornerstone of our MCM approach will remain partnering with industry. The U.S. Government will continue efforts to develop more flexible, nimble, and stable partnerships with the domestic and international pharmaceutical industry.” (NHSS 2019-2022)*

**End-state:** Governments and industry are at the forefront of research and technological advancements and are prepared to shift research and development based on novel and emerging threats.

BARDA's **Division of Research, Innovation, and Ventures (DRIVE)** is a transformative, business-friendly approach to helping startups and other businesses connect with innovators and private investors and fund the development of innovative technologies and products to solve systemic health security challenges.

- **Action:** Continue to educate industry on the evolving threat landscape and establish two-way communication between government and industry to inform MCM development and investments.
- **Action:** Explore novel public-private partnership models that allow greater flexibility for industry partners to pivot their research and development priorities (as CBRN and emerging infectious disease threats shift and evolve).
- **Action:** Explore policy levers to improve industry advancement in MCM response platform technology.

### Foster the creation of a resilient medical product supply chain

*“To shore up the medical product supply chain, the government will partner with industry at home and abroad to plan around real-world considerations, such as a consolidated pharmaceutical marketplace with interdependencies and a limited number of manufacturers.” (NHSS 2019-2022)*

**End-state:** Strong partnerships are established between the U.S. Government and industries worldwide to amplify the development and movement of medical supplies to end-users.

- **Action:** Engage with industry to assess opportunities for increasing domestic production of medical equipment and supplies.
- **Action:** Assess supply chain vulnerabilities and implement best practices for recruiting industry partners to reduce supply chain vulnerabilities.

## Sustain and improve private sector health care surge capacity for large-scale incidents

*“The U.S. health care system is predominately owned and operated by the private sector. Therefore, incentivizing the private sector is crucial to promote adoption and integration of preparedness as a normal part of operations.”  
(NHSS 2019-2022)*

**End-state:** Private health care facilities are able to prioritize hospital and pre-hospital emergency medical services, account for other surge-sensitive areas of the health care system, and encourage critical infrastructure preparedness and mitigation.

- **Action:** Continue support for surge capacity capabilities of hospitals and pre-hospital emergency medical services within Health Care Coalitions.
- **Action:** Continue to encourage actions that will target and mitigate vulnerabilities in health care critical infrastructure in event of large scale incidents.

The **Hospital Preparedness Program** (under the HHS Office of the Assistant Secretary for Preparedness and Response) will continue to support crisis standards of care planning and encourage education and training on identified preparedness and response gaps for health care providers, laboratorians, non-clinical staff, and ancillary workforce.

## CONCLUSION

Achieving national health security will require a whole-of-nation approach. While the NHSS IP highlights potential actions, it also recognizes that there are many different ways to move toward the desired end-states. As a nation, we will progress more quickly when national health security partners at all levels are able to leverage the full range of public and private sector tools and capabilities. Evolving health threats require governments and stakeholders to be collaborative and adaptable to swiftly confront the devastating consequences of risks, save lives, and safeguard the health of the nation.