

National Health Security Strategy Implementation Plan

2023 — 2026



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INTRODUCTION

The *National Health Security Strategy (NHSS), 2023-2026* provides a whole-of-nation approach to prepare for, protect from, respond to, and recover from the adverse health effects of public health emergencies and disasters. Health care and public health (HPH) preparedness depend on many interconnected systems, including public health, medical, and emergency management. Collaboration between the federal government, state, local, tribal, and territorial (SLTT) partners, regional entities, the private sector, non-governmental organizations, and communities is needed to effectively respond to health security threats and challenges discussed in the *NHSS, 2023-2026*.

The *NHSS, 2023-2026 Implementation Plan (NHSS IP)* serves as a framework to guide federal action and recommend implementation activities for SLTT partners, private industry, and communities. The *NHSS IP* builds on the goals and objectives of the *NHSS, 2023-2026* and provides suggested implementation actions and desired outcomes for the federal government. Successful implementation of *NHSS IP* actions depend on establishing strategic partnerships and addressing the needs of at-risk individuals^a and underserved communities^b. Actions will be implemented throughout the course of the timeframe of the *NHSS (2023-2026)*. Implementation will be informed by the current and projected threat environment, alignment with relevant priorities and initiatives, and available resources. Additionally, the *NHSS IP* offers suggested implementation actions for a wide array of non-federal partners. These actions are intended to be broad so they can be applied to the individual needs of the stakeholder.

^a "At-risk individuals" means children, pregnant individuals, older adults, and other individuals who may have access and functional needs during a public health emergency.

^b According to Executive Order 13985, underserved communities refers to populations sharing a particular characteristic, as well as geographic communities, that have been systematically denied a full opportunity to participate in aspects of economic, social, and civic life, such as: Black, Latino, and Indigenous and Native American persons, Asian Americans and Pacific Islanders and other persons of color; members of religious minorities; lesbian, gay, bisexual, transgender, and queer (LGBTQ+) persons; persons with disabilities; persons who live in rural areas; and persons otherwise adversely affected by persistent poverty or inequality. Moreover, the HHS Equity Action Plan, issued pursuant to EO 13985, identifies the need to provide language access services to individuals with Limited English Proficiency (LEP) as necessary in order to achieve equity in the provision of federally funded health programs and services.



Overview of Strategic Goals AND OBJECTIVES

The *NHSS IP* is organized around the strategic goals and objectives of the *NHSS, 2023-2026*.



Strategic Goal 1:

Strengthen health care and public health systems to prepare for and respond to concurrent health emergencies, including those that arise from unknown threats.

Objective 1.1: Understand the complex needs of communities to prepare for and implement equitable and tailored response and recovery actions during public health emergencies and disasters.

Objective 1.2: Improve readiness of HPH systems and infrastructure to mitigate the adverse effects of concurrent threats and climate change impacts.

Objective 1.3: Strengthen the recruitment, retention, and preparedness of the HPH workforce to increase capacity and build expertise and flexibility during a response.

Objective 1.4: Improve the effectiveness and integration of risk communication systems to promote nimble, coordinated, accessible, and scientifically accurate public health messaging.



Strategic Goal 2:

Improve capabilities to safeguard and protect against an array of health security threats, including emerging and re-emerging infectious diseases, especially zoonotic diseases.

Objective 2.1: Improve domestic and global integration of data within and from human, animal, food, plant, and environmental health surveillance systems to detect health security threats in a timely manner and inform emergency response.

Objective 2.2: Collect and integrate a wider variety of data into public health surveillance systems to readily identify and address inequities experienced by underserved communities and at-risk individuals.

Objective 2.3: Strengthen safeguards for agricultural production systems to reduce disease outbreaks and pandemics.

Objective 2.4: Promote HPH systems and technologies that are protected against and responsive to cybersecurity threats and safeguard patient privacy and medical device security.



Strategic Goal 3:

Ensure a resilient and sustainable public health industrial base and supply chain that can rapidly develop and deploy safe medical countermeasures (MCMs).

Objective 3.1: Expand domestic manufacturing capacity, supply chain diversity, and international partnerships with neighbors and allies to fortify a resilient and flexible public health supply chain.

Objective 3.2: Strengthen partnerships with MCM suppliers, manufacturers, and distributors to monitor supply chain vulnerabilities and address shortages during an emergency.

Objective 3.3: Promote innovation across the MCM development pipeline to accelerate the production and equitable deployment of agile, safe, and accessible MCMs.



Strategic GOALS



Strategic Goal 1:

Strengthen health care and public health systems to prepare for and respond to concurrent health emergencies, including those that arise from unknown threats

Prepared and resilient HPH systems are critical to respond to and recover from the adverse health effects of public health emergencies and disasters. These systems start at the community level, necessitating collaboration between trusted community leaders, SLTT and federal partners, the private sector, and the most vulnerable community members. HPH systems also require resilient physical infrastructure and a robust and prepared workforce to continue delivering care during and after public health emergencies and disasters. Additionally, a robust and coordinated public health response relies on effective public health communications and scientifically based decisions.

The NHSS identifies four objectives to strengthen HPH systems, with several desired outcomes and implementation actions for the next four years.

1.1 Understand the complex needs of communities to prepare for and implement equitable and tailored response and recovery actions during public health emergencies and disasters

Effective public health emergency response requires trusted relationships between health officials, community leaders, at-risk individuals, and underserved populations. This coordination can ensure the specific needs of each community are considered in preparedness activities, including post-disaster health care and social services.

Desired Outcomes:

- After action reviews of real-world emergency responses and/or structured exercises with federal and non-federal partners incorporate measures focused on community-level engagement and the equitability of response and recovery actions.
- Federal and non-federal subject matter experts, including mental health and social services, develop updated guidance on strengthening community engagement and response and recovery equity.

Federal Implementation Actions:

- 1.1.1. Incorporate applicable findings from after action reviews and health equity guidance with federal grants to enable SLTT partners to assess and strengthen protection of at-risk individuals and underserved communities during public health emergencies and disasters.
 - 1.1.2. Convene federal and non-federal subject matter experts (via a workshop, working group, or task force) to provide recommendations on integrating mental health and post-disaster health care and social services into health security preparedness and planning.
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1.2 Improve readiness of HPH systems and infrastructure to mitigate the adverse effects of concurrent threats and climate change impacts

Resilient and adaptive health systems that are ready to respond to public health emergencies and disasters, no matter the threat, will ensure continuous access to health care for all populations. Incorporating multiple threats and climate change considerations into preparedness and response planning can better prepare HPH systems during public health emergencies and disasters.

Desired Outcomes:

- Federal interagency partners continue to assess climate impacts on health in different populations and communities and provide annual updates to communications and guidance focused on strategies/tools for readiness and resilience of HPH systems and organizations.
- Federal grants are more flexible to allow jurisdictions to redirect funding to partners in telehealth, pre-hospital, emergency medical services, post-hospital care, and social services sectors.
- Innovative approaches are developed to provide needed care in places where services are not available (e.g., rural areas or destroyed), accessible, culturally and linguistically appropriate, and affordable.



Federal Implementation Actions:

- 1.2.1. Increase regional partnerships to expand specialty clinical care access and medical surge capacity during emergencies.
 - 1.2.2. Provide guidance and educational resources for health care and public health facilities to assess and incorporate climate change considerations into preparedness activities.
 - 1.2.3. Establish partnerships with federal agencies, community organizations, health care providers, and the technology industry to increase access to safe, accessible, and effective telehealth services during an emergency.
 - 1.2.4. Broaden the flexibility of health care and public health grant programs to increase available resources for pre-hospital emergency medical services.
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1.3 Strengthen the recruitment, retention, and preparedness of the HPH workforce to increase capacity and build expertise and flexibility during a response

A robust and well-resourced HPH workforce will support the U.S. response to national health security threats and maintain the health of communities. Greater opportunities should be available for people to enter the HPH workforce, along with the appropriate professional development and health resources throughout their career. Current and future workers should also integrate disaster preparedness and emergency response training principles and emphasize culturally and linguistically appropriate care into their practice.

Desired Outcomes:

- Gaps in health workforce sectors are identified and prioritized to target retention, expansion, and surge capacity efforts.
- Partnerships with academia and professional organizations are developed to integrate disaster preparedness and emergency response, into health care and public health training and curriculum.

Federal Implementation Actions:

- 1.3.1. Partner with colleges and universities to incorporate disaster preparedness and emergency response education into health care and public health curriculums, including continuing education, and expand incorporation of public health into other curricula.
- 1.3.2. Offer incentives to students, particularly those from populations that are historically underrepresented in health professions, to pursue education in health care, public health, and clinical and applicable social science research fields and work in historically underserved communities.

- 1.3.3. Facilitate information exchange opportunities among HPH authorities to share worker retention evidence-based practices and mental health resources.
- 1.3.4. Incorporate health equity concepts (e.g., social determinants of health) and meeting the needs of at-risk individuals during emergencies into training for current health care and public health workers.

1.4 Improve the effectiveness and integration of risk communication systems to promote nimble, coordinated, accessible, and scientifically accurate public health messaging

The public should have access to plain language and consistent evidence-based messaging that aims to promote trust in and increase adoption of public health interventions. Unified public health messaging during a health security event should emphasize transparency in the decision-making process, be accessible, and follow the [National Standards for Culturally and Linguistically Appropriate Services in Health and Health care](#) to reach all communities, including individuals with Limited English Proficiency.

Desired Outcomes:

- Community leaders (e.g., worker advocacy groups, industry associations), federal and SLTT partners, and media organizations form partnerships to provide the public with transparent and clear-cut messaging and combat distorted information during a response.
- Effective public health communication strategies and messaging tools are compiled and used to inform future responses.

Federal Implementation Actions:

- 1.4.1. Convene public health, communication, social behavior, media, and technology subject matter experts to develop guidance on building trust within communities and responsible identification and sharing of reliable public health information through virtual and non-virtual communication channels.



- 1.4.2. Develop partnerships between technology platforms and HPH organizations to build additional tools and processes to identify, monitor, and eliminate health misinformation, disinformation, and malinformation (Mis-Dis-Mal Information).
- 1.4.3. Conduct formal research to evaluate the effectiveness of public health messaging and identify communication tactics that were well-received by the public to increase confidence and uptake in routine and emergency MCMs, and non-pharmaceutical interventions.

Recommended Partners Activities for Strategic Goal 1



Community leaders can document response and recovery experiences of non-governmental organizations, volunteer networks, community-based organizations, and consumer advocacy groups, especially those serving at-risk individuals and underserved communities, to incorporate their perspectives into future planning.



Health care facilities can incorporate climate change considerations into preparedness planning, including adoption of flood resistance, resilient building codes, and green designs where applicable.



Health care facilities and SLTT authorities can evaluate and strengthen surge planning and policies (e.g., adoption of the Nurse Licensure Compact).



Regional and state health care and public health organizations can develop information exchange opportunities to share evidence-based practices for worker retention and resilience and mental health resources.



Public health authorities and community leaders can build relationships within local communities to establish trusted messengers to communicate public health, health care, and MCM research activities and combat health Mis-Dis-Mal Information.



Strategic Goal 2:

Improve capabilities to safeguard and protect against an array of health security threats, including emerging and re-emerging infectious diseases, especially zoonotic diseases

Interoperable and modernized disease surveillance systems that are capable of rapid information exchange within and across the human, animal, plant, food, and environmental sectors are critical for enabling response actions and decision-making. Protecting against health threats also requires enhancing safety measures across the food supply chain. Additionally, strong cybersecurity can minimize the potential for attacks and data breaches on critical health technology.

Modernized surveillance systems should also be more representative of the entire population by including more granular socioeconomic, occupational, and demographic information. This will help identify needs of underserved communities and reduce inequities by enhancing the visibility of at-risk individuals. In addition, these data need to help inform response actions and be effectively promoted and acted on during a response.

The NHSS identifies four objectives to enhance surveillance and response capabilities. The following outlines implementation actions and desired outcomes for the next four years.

2.1 Improve domestic and global integration of data within and from human, animal, plant, food, and environmental health surveillance systems to detect health security threats in a timely manner and inform emergency response

Detection of emerging and zoonotic disease threats is paramount to safeguarding the health security of the United States and relies on collecting real-time surveillance data, timely reporting, and transparent data sharing across the domestic and international community. Integrating disparate data from within and across the human, animal, food, plant, and environmental sectors is critical to detecting health security threats such as emerging and zoonotic diseases to allow for swift response actions and data driven decision-making.

Desired Outcome: Federal departments and agencies involved in human, animal, plant, food, and environmental sectors engage in planning to modernize and integrate surveillance systems and data sharing processes and expand laboratory capacity.

Federal Implementation Actions:

- 2.1.1. Identify investments to expand research and diagnostic laboratory and hospital capacity to detect, characterize, and report emerging diseases.

- 2.1.2. Assess standardization and technology among federal human, animal, plant, food, and environmental health surveillance systems to identify common data elements and promote data sharing mechanisms.
- 2.1.3. Build data management and analysis expertise in the public health workforce to modernize and sustain public health surveillance systems.
- 2.1.4. Continue to expand international partnerships and data sharing agreements to strengthen rapid detection and surveillance of global health threats.

2.2 Collect and integrate a wider variety of data into public health surveillance systems to readily identify and address inequities experienced by underserved communities and at-risk individuals

Public health surveillance and other health monitoring systems should accurately represent the health of the entire population by capturing the full spectrum of the social determinants of health that impact health outcomes. By standardizing the collection and reporting on race, ethnicity, disability status, and other demographic and socioeconomic indicators across surveillance systems, the U.S. can better understand disparities faced by certain groups and work to identify and reduce inequities.

Desired Outcome: HPH surveillance systems capture demographic, occupational and socioeconomic data to accurately represent all populations and facilitate timely data sharing.

Federal Implementation Actions:

- 2.2.1. Survey demographic, occupational, and socioeconomic data indicators being collected across federal health surveillance systems to identify and reduce data gaps.
- 2.2.2. Collaborate with HPH organizations and SLTT partners to share evidence-based practices in data sharing, such as socioeconomic status indicators, to improve the quality of data collected.



2.3 Strengthen safeguards for agricultural production systems to reduce disease outbreaks and pandemics

Strengthening animal and plant diseases diagnostics, adopting sustainable land use and antimicrobial stewardship practices, and improving the capacity to monitor the domestic and international animal trade can better protect agricultural production systems.

Desired Outcomes:

- U.S. Department of Agriculture (USDA), HHS, and partner agencies review and update agricultural safety standards to protect consumers against foodborne pathogens.
- USDA, HHS, and partner agencies develop plans to modernize agricultural surveillance systems to more effectively monitor the food supply chain and protect consumer health.

Federal Implementation Actions:

- 2.3.1. Prioritize the integration of food safety surveillance system infrastructure and diagnostic tools across the food supply chain to strengthen information sharing regarding potential pathogen spillover events and other disease risks.
- 2.3.2. Collaborate with industry partners to explore/adopt evidence-based practices for antibiotic use and other medically necessary veterinary medicines to prevent foodborne outbreaks.
- 2.3.3. Promote effective recall and testing standards to reduce consumer exposure to foodborne illness.

2.4 Promote HPH systems and technologies that are protected against and responsive to cybersecurity threats and safeguard patient privacy and medical device security

A U.S. health system that cultivates cybersecurity resilience, establishes minimum standards of security, and maintains vetted cybersecurity best practices will help minimize risks and vulnerabilities to cybersecurity breaches.

Desired Outcome:

- Federal partners promulgate standardized and accessible cybersecurity processes and mitigation strategies for HPH organizations.
- Cybersecurity preparedness standards and reporting processes are consistently practiced by HPH organizations.

Federal Implementation Actions:

- 2.4.1. Partner with Information Technology (IT) experts and health stakeholders to continue to identify emerging cybersecurity threats, including inconsistent security requirements between information exchange systems, and develop preventive and response actions to protect public health and health care infrastructure and patients.
- 2.4.2. Provide HPH organizations with clear guidance to share information on potential cyber threats and promote cybersecurity awareness to the sector.

Recommended Partner Activities for Strategic Goal 2



HPH organizations, agricultural, veterinary, diagnostic, and research laboratories can establish data standards that crosscut reporting systems to create connected systems that enable rapid threat detection and response.



SLTT authorities can conduct exercises focused on evaluating and improving coordination processes between human, animal, plant, food, and environmental health partners.



Food industry stakeholders can promote sustainable agricultural and land use practices that mitigate potential disease spread and limit negative impacts on wildlife, farming resources, and communities.



Health care and public health organizations can develop processes for routine vulnerability assessments, timely incident reporting, and system updates for their IT systems.



Health care and public health professionals can share surveillance system data outputs with community leaders and members to get their interpretation of the outputs and their perspectives on data gaps.



Strategic Goal 3:

Ensure a resilient and sustainable public health industrial base and supply chain that can rapidly develop and deploy safe medical countermeasures

Availability of MCMs and other critical supplies is one of the nation's best defenses against health security threats. A sustainable public health supply chain with diverse manufacturing locations and distribution methods and supported by a skilled supply chain workforce can ensure the best medicines, supplies, and personal protective equipment are available to responders and the public. Substantial partnerships with the private sector are crucial to expanding this capacity and mitigating potential supply chain shortages in the future. Furthermore, the nation needs to continue advancing the research and development of innovative MCMs that can safely and effectively treat all populations.

The NHSS identifies three objectives to strengthen the public health supply chain and industrial base. The following outlines implementation actions and desired outcomes for the next four years.

3.1 Expand domestic manufacturing capacity, supply chain diversity, and international partnerships with neighbors and allies to fortify a resilient and flexible public health supply chain

The public health supply chain should be resilient and capable of rapidly responding to widespread public health emergencies and disasters. Sourcing critical material from just one location or supplier increases supply chain vulnerability should that supplier be impacted by an unforeseen emergency. To meet future needs, a sustained approach to strengthening the public health supply chain should include expansion of domestic manufacturing with diversified and flexible distribution outlets, while also considering the human capital and training requirements needed to support this effort. MCM manufacturing processes that promote interchangeability of supplies with accurate standards allows for greater agility in an emergency. Diversifying supply chain sources also builds redundancy into the system and reduces the risk of shortages.

c The public health supply chain consists of drugs, biological products, personal protective equipment, clinical and research laboratory supplies, and medical devices – including diagnostic and testing devices – as well as ancillary supplies.

d The public health supply chain workforce includes manufacturing, stockpiling, and distribution workforces, as well others vital to the end-to-end public health supply chain.



Desired Outcomes:

- Use of single-source suppliers for critical public health and medical supplies is minimized to limit foreign dependencies.
- Plans are developed to create redundant public health supply chain manufacturing and distribution capacities, including involvement of small businesses in supply chain enhancement or surge efforts.
- Sustainable investments are made in building and maintaining a competent public health industrial base with rapidly developed and accurate product standards and supply chain workforce.
- Policy incentives are implemented to improve production, storage, quality assurance, and deployment processes for critical public health and medical supplies.

Federal Implementation Actions:

- 3.1.1. Support building, training, and maintaining the supply chain workforce to ensure domestic manufacturing, stockpiling, and distribution capabilities of public health supplies.
- 3.1.2. Identify sustainable funding mechanisms and incentives to support the development of innovative manufacturing processes to ensure on- or near-shore production of public health supplies.
- 3.1.3. Establish policy incentives to increase supplier and distribution diversity and redundant manufacturing and deployment practices.
- 3.1.4. Explore investments in researching and developing additional sources of raw materials, including domestically sourced raw materials, to mitigate vulnerabilities of single-sourced materials.

3.2 Strengthen partnerships with MCM suppliers, manufacturers, and distributors to monitor supply chain vulnerabilities and address shortages during an emergency

Strong public-private partnerships are necessary to identify and mitigate supply chain vulnerabilities and to address supply chain shortages during an emergency. Strong partnerships enable greater information sharing and a more rapid, coordinated response when supply chain challenges occur.

Desired Outcomes:

- Partnerships are established with additional stakeholders to increase visibility into the public health supply chain.
- Plans to mitigate supply chain shortages are tested and evaluated through tabletop or real-world exercises with public and private sector partners.

Federal Implementation Actions:

- 3.2.1. Expand partnerships with MCM suppliers, manufacturers, and distributors to identify upstream supply chain risks of critical MCMs.
- 3.2.2. Consult private sector partners and industry when developing plans to mitigate public health supply shortages, including strengthening cybersecurity and enhancing coordination during an emergency response.
- 3.2.3. Establish flexible contracting mechanisms and contingency agreements to sustain private sector partnerships and to ensure a rapid response when an incident occurs.
- 3.2.4. Streamline information sharing mechanisms with industry and SLTT partners to better coordinate resource needs and prioritize geographic distribution of MCMs during shortages.

3.3 Promote innovation across the MCM development pipeline to accelerate the production and equitable deployment of agile, safe, and accessible MCMs

Stronger partnerships between research institutions, government, academia, private industry, and community-based philanthropies, along with innovative, adaptable, standardized, and scalable MCM development technologies can facilitate rapid development of new MCMs to combat emerging threats. Meeting demand during an emergency requires fast production of products with quality control standards to ensure access to safe MCMs. Furthermore, producing and distributing MCMs that meet the needs of at-risk individuals and underserved communities is essential to health security.

Desired Outcomes:

- Flexible partnerships and adaptable research, development, and approval processes are in place to conduct research to develop new and repurposed MCMs in an emergency, to assess them for safety and efficacy through clinical trials, to ensure standardization and scale-up of manufacturing, and to determine when and whether they should be authorized for use in the general population.
- MCM development and distribution of authorized MCMs is maximized to meet the diverse needs of all segments of the population.



Federal Implementation Actions:

- 3.3.1. Engage with industry and subject matter experts to identify cutting-edge technologies and opportunities to innovate MCM development, assessment, and regulatory practices.
- 3.3.2. Examine proven technologies and established partnerships to develop processes that can rapidly standardize and scale up MCM production and equitable distribution during a response.
- 3.3.3. Expand partnerships and innovation programs for research and development of diagnostics, antimicrobial drugs, therapeutics, and preventative products to combat rising antimicrobial resistance and other neglected threats.
- 3.3.4. Pursue MCM design and clinical trial approaches that consider diversity, equity, and inclusion to represent the needs of all population segments.

Recommended Partner Activities for Strategic Goal 3



The private sector can enhance supply chain visibility and analytics needed to anticipate, prevent, and mitigate supply chain shortages and disruptions.



SLTT authorities and the private sector can establish stockpiles of critical MCMs and develop resource and supply sharing agreements with regional partners in the event of a shortage.



Drug manufacturers can commit to achieving Quality Management Maturity (QMM), the state attained by having consistent, reliable, and robust business processes to achieve quality objectives and promote continual improvement.



The private sector can use community-based research approaches in MCM and non-MCM design and efficacy to inform the development of accessible MCMs for all populations.

CONCLUSION

The United States continues to face unique and significant health security challenges. Implementing the actions and meeting the outcomes of this Implementation Plan can strengthen the nation's ability to respond and remain resilient to these challenges.

Implementing national health security actions requires a multi-disciplinary and multi-sectoral approach. Federal, regional, and SLTT governments must build on evidence-based practices from prior responses, advance rapid and streamlined information exchange, and strengthen health care, public health, and MCM research infrastructure. Continuing to build strategic partnerships with health care and public health organizations, non-governmental organizations, the private sector, and communities can ensure that the nation's health care and public systems are ready to effectively address challenges encountered in the future. Furthermore, advancing equity in health security actions will help meet the needs of every segment of the population.



