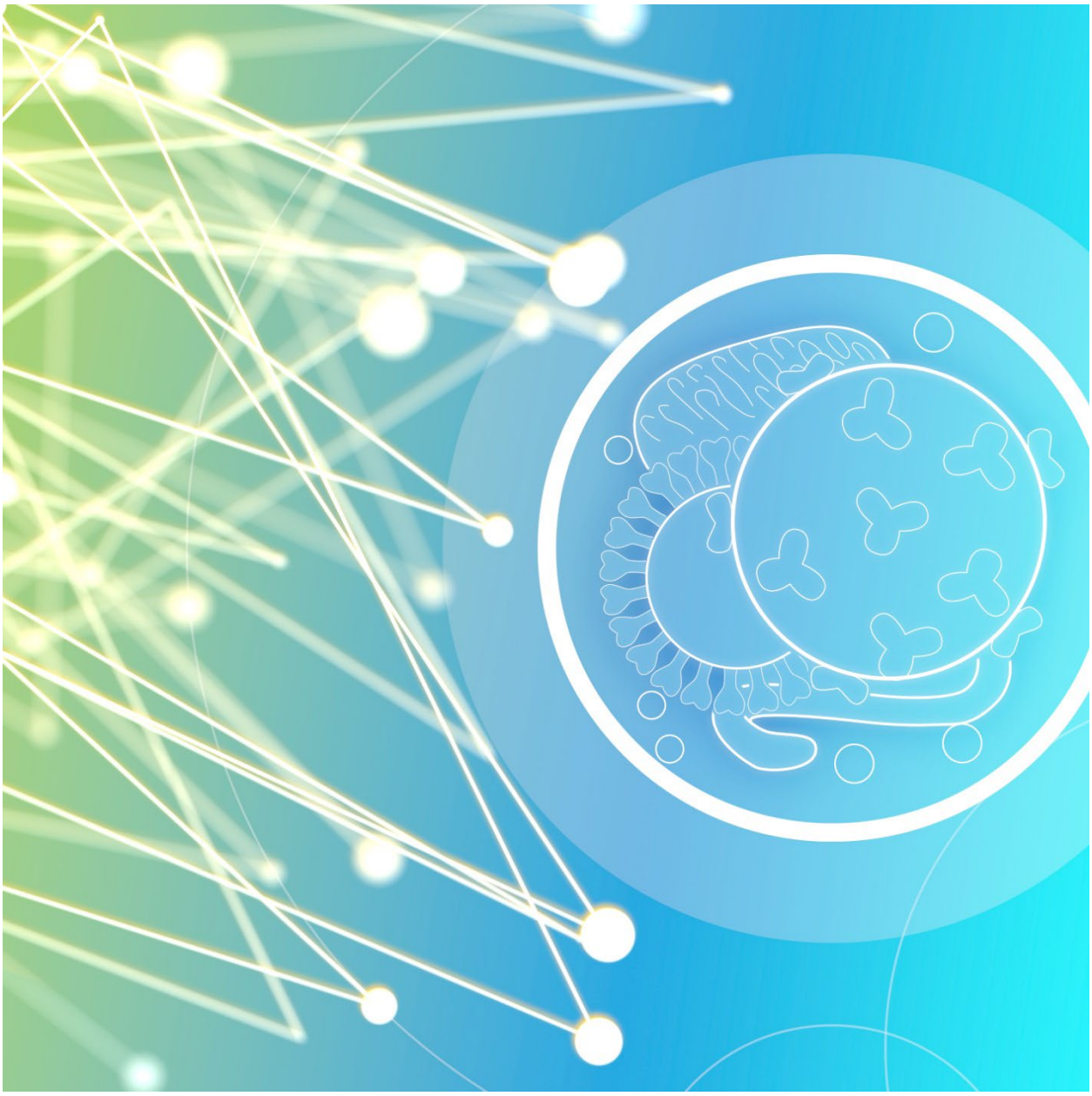
NETEC



National Special Pathogen System (NSPS) Strategy

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Opening Letter

The COVID-19 pandemic caused an unprecedented global crisis, taking millions of lives worldwide, overrunning the world's health care systems, and upending the business world. In the United States, every community and industry felt the impact of COVID-19. Health care has been at the epicenter, as frontline clinicians and health care workers in the U.S. operated in crisis mode, managed an overwhelming surge in cases, and witnessed this national tragedy firsthand. Although COVID-19 impacted everyone, it became clear that COVID-19 hit at-risk populations harder than others. The pandemic exposed gaps and injustices in our health care and public health arenas that cannot be ignored. Prior experiences with H1N1 and Ebola virus disease provided warning signs for the threat of special pathogens to come and reminded us to prepare for the future, but COVID-19 found us in a similarly chaotic response. Now we have the opportunity to do better.

To tackle this challenge head on, the National Emerging Special Pathogens Training and Education Center (NETEC), tasked by the Administration for Strategic Preparedness and Response (ASPR), spearheaded the development of a National Special Pathogen System (NSPS) Strategy and Implementation Plan. NETEC began as an established consortium of three health care institutions that successfully treated patients with Ebola virus disease and became a recognized leader during the COVID-19 pandemic. In this effort, we joined forces with leading experts across health care, public health, emergency medical services, professional associations, and beyond to design and develop the NSPS Strategy and Implementation Plan. We brought many health care leaders on this journey to ensure we understood all the challenges before us and to design a solution that will work.

Our vision for the NSPS is to save lives through a sustained, standardized special pathogen system of care that enables health care personnel and administrators to provide agile and high-quality care across the care delivery continuum. We aspire to establish a clinical infrastructure that enables baseline special pathogen preparedness and provides equitable patient- and community-centered care to 100% of the U.S. population. We hope to bridge the gap between public and private industries to enable a coordinated health care response.

This strategy is not an after-action report - this is the roadmap for action. We are united in our commitment to do better. A health care system that is equipped and ready for the next special pathogen is within reach.

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NETEC | National Special Pathogen System (NSPS) Steering Committee 2021

Following the initial publication of the NSPS Strategy and the launch of the implementation period, NETEC and ASPR have undergone significant changes that include updates to terminology and roles and responsibilities. The most recent update incorporates most of these nomenclature changes to reflect their latest priorities while maintaining the integrity of the original strategy design.

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NETEC | NSPS Steering Committee 2023 Update

Section 1: Executive Summary

Special pathogens pose a grave threat to the nation's health, economy, and national security. The COVID-19 pandemic created an urgent need to address gaps and inefficiencies in our existing, fragmented special pathogen care delivery network. Having witnessed the pandemic firsthand, health care and public health are poised to lead better preparedness and special pathogen response for the future. We must meet the urgency and opportunity of this moment through a standardized and coordinated National Special Pathogen System (NSPS).

To tackle this challenge, the Administration for Strategic Preparedness and Response (ASPR) tapped the National Emerging Special Pathogens Training and Education Center (NETEC) to develop the NSPS Strategy. NETEC conducted a rigorous inquiry with input from leaders and decision-makers across health care delivery, public health, and industry to gather a comprehensive understanding of the current gaps in special pathogen health care and to develop the NSPS Strategy with clinicians, health care administrators, and public health leaders from the start. In 2023, Congress designated NETEC as the Coordinating Body of the NSPS. Specifically, the Consolidation Appropriations Act in 2023, "directs NETEC to serve as the NSPS Coordinating Body… [responsible for] establishing a robust NSPS and integrating NSPS with other health care delivery systems of care for emergencies, such as the trauma system" (H.R.2617).

The NSPS mission is to provide a coordinated and standardized health care network of high-quality, patient- and community-centered care for patients suspected of or infected by a special pathogen in the U.S., while protecting the health workforce. The NSPS leverages public-private partnerships to strengthen health care response capabilities at the local, regional, and national levels for any special pathogen. The NSPS is composed of a System of Care expanding on the existing care delivery system, a Coordinating Body, expanding on NETEC's role today, and other relevant partners with capabilities and roles to play in readiness, response, and recovery for special pathogen events. The System of Care is the tiered structure organizing care facilities to ensure access to and equity in special pathogen care delivery. NETEC will serve as the coordinating entity that supports and operationalizes the System of Care and will maintain connectivity with the broader NSPS in a decision making and advisory capacity.

The NSPS will aim to achieve the following three goals to close the gaps in today's special pathogen care delivery:

- Goal 1: Establish and operationalize the NETEC as Coordinating Body and the System of Care
- Goal 2: Unify and strengthen patient- and community-centered special pathogen care across the care delivery continuum and the incident lifecycle
- Goal 3: Sustain infrastructure for a coordinated and standardized special pathogen health care system

Now is the time to adopt this Strategy. To do this, NETEC and the System of Care must be fully designed and operationalized. The NSPS must have a clear business case to inform the financing and sustainment of the NETEC as the Coordinating Body and the System of Care. The NSPS mission must be socialized with health care and public health to gain buy-in and support from key partners, such as legislative champions, government leaders, and the general public.

Section 2: Background

The Challenge

Emerging special pathogens have long posed a threat to national security and individual health and well-being. Emerging special pathogens are often described as novel organisms that have easy person-to-person transmission, high mortality rates, potential to cause social disruption, and usually require special action for public health preparedness. In the last ten years, several special pathogens have emerged, including Ebola virus disease, Middle East Respiratory Syndrome (MERS), and most recently SARS-CoV-2. Each special pathogen has required national mobilization of health care systems and communities at large to enable defensive measures and minimize damage, resulting in inefficient, temporary solutions. As a result, the U.S. has made multiple investments with public dollars, but without becoming a more prepared nation for the next special pathogen. In addition, the COVID-19 pandemic highlighted underlying inequities in health and health care delivery, with historically minoritized and marginalized groups most at risk of being infected and dying from the disease.[1,2]

The challenges for the U.S.' special pathogen system are great, but not insurmountable. The system that was in place during the COVID-19 pandemic was fragmented and uncoordinated at a national level, with no sustainable strategy to maintain and operate a national network of care that could successfully respond to outbreaks. There were individual health care delivery sites for persons under investigation or confirmed with an emerging special pathogen diagnosis. This included the ten Regional Ebola and Other Special Pathogen Treatment Centers (RESPTCs) as well as 55 state- or jurisdiction-designated Special Pathogen Treatment Centers (SPTCs) that maintained specific capabilities for the diagnosis and care of patients infected with a special pathogen. However, the COVID-19 pandemic exposed important gaps, such as inadequate planning and coordination for patient medical transport among health care entities, unclear and inconsistent guidance surrounding therapeutics, insufficient provider training, and shortages of medical center capabilities and resources.

We must invest now to solve these challenges and ensure the U.S. has a more effective, equitable, and sustainable response to the next special pathogen. We must break from temporary, unsustainable solutions and build a stronger national response capability for special pathogens to protect the health and security of all Americans.

The Case for Change

Now is the time to establish a National Special Pathogen System (NSPS). The COVID-19 pandemic exposed weaknesses in the health care system and created an urgency for health care and its partners, notably public health, to adopt new ways of working together in building preparedness for the future.

Prior to COVID-19, several institutions were sounding the alarm and calling for a strengthening of the country's system of care for special pathogens. The following institutions began building the case for an approach such as an NSPS:

- The RAND Corporation and MITRE found the U.S. would benefit from a strengthened and more formalized special pathogen system of care ("Does the United States Need to Strengthen the System of Care for Infectious Diseases?", 2018).[3]
- The Commission on a Global Health Risk Framework for the Future (GHRF Commission) advocated for the creation and resourcing of a global framework to counter infectious disease

[1] Stokes EK, Zambrano LD, Anderson KN, et al. Coronavirus Disease 2019 Case Surveillance — United States, January 22–May 30, 2020. MMWR Morb Mortal Wkly Rep 2020;69:759–765. http://dx.doi.org/10.15585/mmwr.mm6924e2

[2] Killerby ME, Link-Gelles R, Haight SC, et al. (2020). Characteristics Associated with Hospitalization Among Patients with COVID-19 — Metropolitan Atlanta, Georgia, March–April 2020. MMWR Morb Mortal Wkly Rep. http://dx.doi.org/10.15585/mmwr.mm6925e1

[3] Gidengil, Courtney A., Christopher Nelson, Laura J. Faherty, and Nabeel Shariq Qureshi. (2018). Does the United States Need to Strengthen the System of Care for Infectious Diseases? RAND Corporation and MITRE Corporation. https://www.rand.org/pubs/research_reports/RR2046.html

crises ("Neglected Dimension of Global Security: A Framework to Counter Infectious Disease Crises", 2016).[4]

- The National Academies of Sciences, Engineering, and Medicine recommended how to optimize the impact of the Department of Defense (DoD) Biological Threat Reduction Program (BTRP) in fulfilling its biosafety and biosecurity mission ("A Strategic Vision for Biological Threat Reduction: The U.S. Department of Defense and Beyond", 2020).[5]

More special pathogens will emerge in the future. The timing of outbreaks will continue to be difficult to predict, but their imminent occurrence is a certainty. [6] People are living in higher density areas, which increases the likelihood of special pathogen outbreaks when transmission is person-to-person. In addition, intercontinental travel is faster and more frequent than ever before, allowing for rapid global spread of transmissible infectious diseases. As humans continue to stress natural ecosystems, human-animal interfaces will increase, furthering the spread of emerging infections from animal reservoirs. Extreme weather events and globalization have exacerbated this threat in the 21st century, with experts expecting special pathogen outbreaks to increase in frequency.[7] Emerging infectious diseases, irrespective of site of origin, will continue to require attention and capacity to protect life and longevity in the U.S.

[4] GHRF Commission (Commission on a Global Health Risk Framework for the Future). (2016). The neglected dimension of global security: A framework to counter infectious disease crises. https://nam.edu/wp-content/uploads/2016/01/Neglected-Dimension-of-Global-Security.pdf

[5] National Academies of Sciences, Engineering, and Medicine. (2020). A Strategic Vision for Biological Threat Reduction: The U.S. Department of Defense and Beyond. Washington, DC: The National Academies Press. https://doi.org/10.17226/25681

[6] Dodds W. (2019). Disease Now and Potential Future Pandemics. The World's Worst Problems, 31–44. https://doi.org/10.1007/978-3-030-30410-2_4

[7] See Appendix A for acknowledgements of partners included in the NSPS Strategy.

The Approach to Designing the NSPS Strategy

To tackle this challenge, the ASPR provided emergency supplemental funding to NETEC to develop the NSPS Strategy and Implementation Plan. The future NSPS comprises of a national System of Care, NETEC as a coordinating body, and a set of engaged partners with roles and capabilities in readiness, response, and recovery for special pathogen events to support care continuum administrators and health care personnel.

Notable Documents Reviewed*
• *Does the United States Need to Strengthen the System of Care for Infectious Diseases?* by RAND Corporation and MITRE Corporation • *Optimizing Pandemic Preparedness and Response Through Health Information Systems: Lessons Learned From Ebola to COVID-19* by Disaster Medicine and Public Health Preparedness • *Duty to Plan: Health Care, Crisis Standards of Care, and Novel Coronavirus SARS-CoV-2* by National Academy of Medicine **See appendix for full list of citations.*

To develop the NSPS Strategy, NETEC conducted a rigorous inquiry that was developed with the input, buy-in, and commitment of diverse leaders and decision-makers across every segment of health care delivery, public health, and industry. NETEC assembled a Steering Committee and Core Advisory Group to lead the strategic direction and decision-making for the strategy design. The Steering Committee and Core Advisory Group were comprised of 15 leaders from public health policy, insurance, health care management, academic institutions, medical centers, emergency response services, professional societies and associations, and federal government agencies. The Steering Committee oversaw desk research, qualitative information gathering through surveys and interviews, scenario planning across the incident lifecycle, a patient claims analysis, and experiential design sessions with diverse leaders across heath care. In addition, the Steering Committee created working groups with relevant national health care experts to outline the purpose and scope of the System of Care and the Coordinating Body to direct the Strategy.

Special Pathogen Care in 2021

The Special Pathogen Ecosystem during the Design of the NSPS Strategy

In response to the COVID-19 pandemic, ASPR began to develop the NSPS, a nationwide systems-based network approach that builds on existing infrastructure and investments in preparing for infectious disease outbreaks.[8] This NSPS evolved from the Regional Ebola Treatment Network (RETN) that was established in 2014 in response to a heightened need to be prepared for Ebola virus and other special pathogens, some with pandemic potential. ASPR distributed COVID-19 supplemental appropriations for special pathogen health care to the following organizations between 2020-21:

- 10 Regional Ebola and Other Special Pathogen Treatment Centers (RESPTCs) with highly specialized, enhanced capabilities to support special pathogen patients. There is one RESPTC in each HHS region designated by their state health officials
- 55 state- or jurisdiction-designated Special Pathogen Treatment Centers (SPTCs) that have developed special capabilities for the diagnosis and care of patients infected with special pathogens, with funding provided through awards to their state or local public health departments
- 62 state, local, and territorial public health departments that support COVID-19 health care preparedness and response activities, including emergency medical services (EMS), 9-1-1 or similar call centers, and 360 health care coalitions that work collaboratively in their jurisdictions to distribute patients and supplies to avoid overwhelming individual hospitals, clinics, or EMS providers
- 53 state hospital associations that collaborate closely across the health care systems and health care coalitions in their respective state or jurisdiction to provide situational awareness including hospital response needs throughout the pandemic

[8] Assistant Secretary for Preparedness and Response (2021). National Special Pathogen System Fact Sheet. https://www.phe.gov/Preparedness/planning/hpp/Documents/NSPS-FactSheet-April2021-508.pdf

- NETEC, a consortium that leverages expertise, resources, and experience to assess health care facility readiness, trains clinicians and health care workers, provides technical assistance, and builds a rapid research infrastructure to combat emerging special pathogens in the U.S.[9]

Additional partners with roles in today's special pathogen care delivery ecosystem include:[10]

- Care providers
- Emergency management responders and providers
- Emergency medical services
- Health delivery systems
- Medical centers and academic institutions
- Public health policymakers
- Professional associations
- Insurance companies
- Health agencies

Summary of Gaps in the Special Pathogen Care as of 2021

The NSPS Strategy is focused on closing gaps in today's special pathogen care. The gaps have been informed by desk research, subject matter expert interviews, a patient claims analysis, and the working sessions with leaders and partners referenced above. Gaps include but are not limited to the following:

Table 1. Gaps in Today's Special Pathogen Care
Below are gaps in today's special pathogen care spanning eight topics.

Topic	Gaps
Care Delivery	• Limited access to specialized special pathogen care • Insufficient and unequal surge capacity at facilities across the U.S. • Uncoordinated, inconsistent, and unscalable clinical guidance for various special pathogen scenarios • Disjointed development and distribution of therapeutics • Inequitable care to historically minoritized groups, including Black Indigenous and People of Color (BIPOC)[11]
Communication and Coordination	• Inconsistent partnership between health care and public health • Unclear roles of various partners in the special pathogen ecosystem across readiness, response, and recovery • No trusted coordinating entity to support an effective special pathogen response • Limited coordination between health care leaders and policymakers in policy development and implementation (e.g., licensure, emergency funding)
Workforce	• Limited quantity of health care workers trained in special pathogen diagnosis and care • Limited special pathogen education, training, and regular drills • Limited health workforce capacity
Research and Knowledge Generation	• Operational networks and research networks are not appropriately connected • Early clinical findings are disseminated informally and non-systematically • Limited timely, easily accessible, and transparent clinical and health systems research

[9] The National Emerging Special Pathogen Training and Education Center. (2020). NETEC Annual Report FY2020. https://netec.org/wp-content/uploads/2020/12/NETEC-FY20-Annual-Report_12.2020.pdf
[10] See Appendix A for acknowledgements of partners included in the NSPS Strategy.
[11] Based on NSPS patient claims analysis which showed higher number of overall and per capita deaths in predominantly minority counties around NYC, minorities have less access to current ASPR special pathogen treatment centers, and fewer upward transfers from known diverse counties to centers with greater expertise or capacity, despite higher death count in such counties.

Topic	Gaps
Data and Technology	• Unstandardized clinical research and health systems data collection and reporting • Inadequate and heterogeneous surveillance infrastructure • Inconsistent and duplicative requests for data and reporting at the local, state, and federal levels • Non-timely and inconsistent sharing of data between institutions and with public health agencies • Limited visibility of health care readiness at the local level
Monitoring and Evaluation	• Inconsistent standards and expectations for quality of care between the federal government; state, tribal, local, and territorial (STLT) public health departments; and health care delivery systems • Varied special pathogen readiness assessments
Financial Sustainability	• Limited financial preparedness of care delivery facilities[12] • Lack of incentives for special pathogen health care beyond grants or cooperative agreements, which are not a reliable source of funds to maintain readiness
Supply Chain	• Unclear and inconsistent recommendations for PPE, ventilators, vaccines, and other equipment recommendations • Limited quantity and inconsistent quality control of PPE, ventilators, vaccines, and other equipment • Inequitable distribution of PPE and other supplies, equipment, and resources

[12] Assessment hospitals (70% of the Regional Ebola Treatment Network (RETN)) lost their funding.

Section 3: The National Special Pathogen System (NSPS) Strategy Introduction

The following information frames the direction of the NSPS Strategy, including the mission, vision, guiding principles, components of the NSPS, and goals and objectives.

Mission

To provide a coordinated and standardized health care network of high-quality, patient- and community-centered care for patients suspected of or infected by a special pathogen in the United States, while protecting the health workforce

Vision

To save lives through a sustained, standardized special pathogen system of care that enables health care personnel and administrators to provide agile and high-quality care across the care delivery continuum

The vision can be illustrated through aspirational success measures, which include:

- Zero preventable deaths after special pathogen infection
- A mobilized network within two hours of special pathogen suspected
- Access to high-quality special pathogen care for 100% of the U.S. population

Guiding Principles

The NSPS is designed around the following guiding principles:

- **Patient- and community-centered –** Focus on improving patient care and outcomes, and consider the impact on and the needs of communities
- **Accountable –** Follow through on the expectations of NETEC as the Coordinating Body and the System of Care in service of patients and communities
- **Coordinated & collaborative –** Coordinate across public and private sectors in the NSPS design and implementation
- **High-quality & equitable –** Prioritize safety, timely escalation, effective triage, surge capacity, continuity of operations, and equity across the care delivery continuum for all special pathogens
- **Responsive –** Adapt quickly to internal and external forces and the evolution of the pathogen
- **Scalable & sustainable –** Develop, scale, and financially and cost-effectively sustain the system of care

Components of the NSPS

The National Special Pathogen System (NSPS) is composed of a System of Care (built on the existing delivery system), a Coordinating Body, and other relevant partners with capabilities and roles in readiness, response, and recovery for special pathogen events to support the care continuum administrators and health care personnel.

The System of Care is the tiered structure organizing care facilities to ensure access to and equity in special pathogen care delivery.

NETEC is the coordinating body that supports and operationalizes the System of Care and maintains connectivity with the broader NSPS in a decision making and advisory capacity.

Goals and Objectives

The NSPS Strategy is designed to accomplish the following goals and objectives to fill the gaps in today's special pathogen system of care.

- **Goal 1: *Establish and operationalize NETEC as the Coordinating Body and the System of Care***

- **Objective 1.1- Operating Model:** Design and operationalize the operating model of NETEC as the Coordinating Body and the System of Care
- **Objective 1.2- Financial Foundation:** Initiate additional financial mechanisms and revenue streams to support NETEC activities of the Coordinating Body and the System of Care
- **Objective 1.3- Communications Foundation:** Establish communications channels and educate relevant partners to gain buy-in and commitment for the NSPS

- **Goal 2:** ***Unify and strengthen patient- and community-centered special pathogen care across the care delivery continuum and the incident lifecycle***
  - **Objective 2.1- Care Delivery:** Enable access to high-quality, equitable care for patients infected by a special pathogen via a tiered, national System of Care with defined capabilities to provide special pathogen care
  - **Objective 2.2- Communication & Coordination:** Strengthen communication and coordination within the System of Care, the broader NSPS, and the public
  - **Objective 2.3- Workforce:** Maintain a trained, diverse, and specialized workforce to equip the System of Care and prepare for a surge
  - **Objective 2.4- Research & Knowledge Generation:** Accelerate sharing of special pathogen treatment and research efforts in partnership with industry and government
- **Goal 3:** ***Sustain infrastructure for a coordinated and standardized special pathogen health care system***
  - **Objective 3.1- Data & Technology:** Facilitate the collection, integration, analysis, and dissemination of data, and maintain connectivity to existing surveillance to support evidence-based decision making
  - **Objective 3.2- Monitoring & Evaluation:** Designate System of Care facilities by level based on capability and continuously monitor readiness
  - **Objective 3.3- Financial Sustainability:** Sustain the System of Care and NETEC as the Coordinating Body through continuous diverse funding sources
  - **Objective 3.4- Supply Chain:** Improve equitable distribution and allocation of resources, and provide support for utilization and management of resources

Section 4: Target Operating Model Design

Introduction to the Target Operating Model Design

To operate a well-functioning and coordinated system of a care, the NSPS must implement an operating model for a System of Care, a Coordinating Body, and the broader set of NSPS partners with roles in readiness, response, and recovery in special pathogen events.

Figure 1. The NSPS – Target Operating Model Design
NETEC as the Coordinating Body will enable coordination and standardization across the NSPS, while the System of Care will provide care via tiered health care entities.



NETEC as the Coordinating Body

Note: NETEC has been designated by Congress as the Coordinating Body of the NSPS: H.R.2617 - Consolidated Appropriations Act, 2023 "directs NETEC to serve as the NSPS coordinating body… [responsible for] establishing a robust NSPS and integrating NSPS with other health care delivery systems of care for emergencies, such as the trauma system." NETEC is in the process of evaluating the value proposition, responsibilities, and core functions to see what aligns with NETEC and what needs to be updated.

Value Proposition

The Coordinating Body will enable coordination and standardization across the NSPS System of Care and the broader NSPS. There is a need for a Coordinating Body to coordinate and unify public and private entities in protecting national health security and leading with a commitment to equity. The Coordinating Body will support tiered facilities in providing high-quality, patient- and community-centered care by coordinating across the System of Care and with partners with roles in response, readiness, and recovery.

Responsibilities

The Coordinating Body will have the following responsibilities:

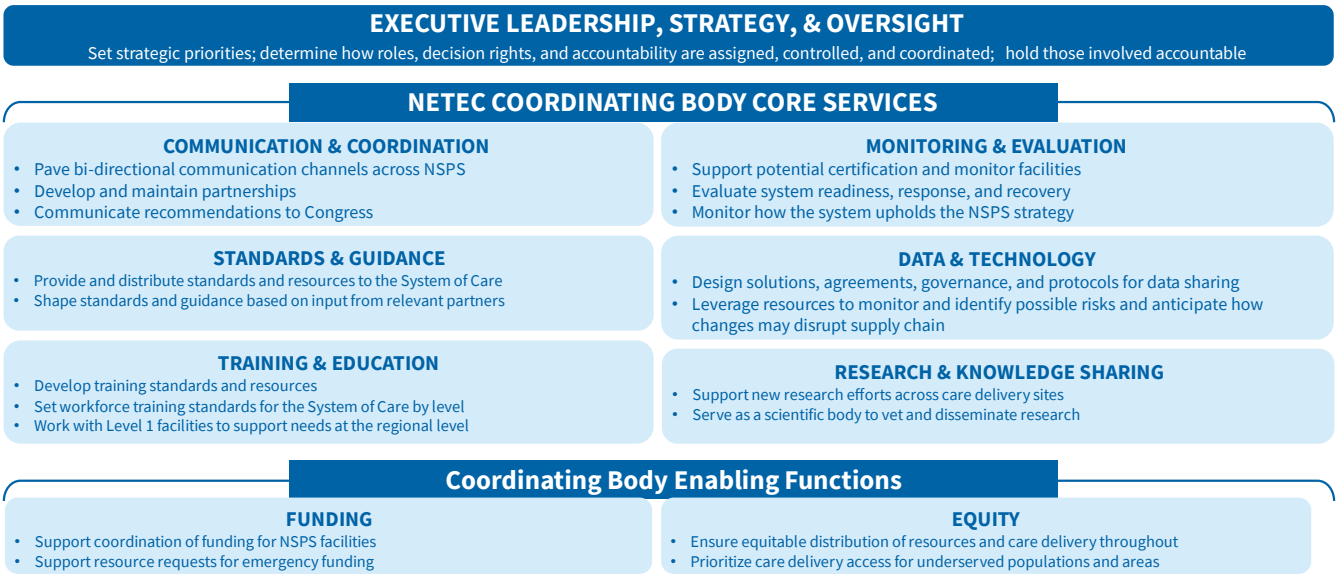
- Provide leadership, governance, and accountability to the NSPS, including involving patients and community members as voting members of the Coordinating Body's executive leadership, strategy and oversight functions
- Develop and maintain partnerships with leading specialty and professional organizations and federal and STLT government, minimizing inefficiencies and maximizing cost effectiveness
- Organize, evaluate, and designate facilities of the tiered System of Care, responding to missed standards through capacity-building, rather than by withholding resources or funds
- Provide standards, guidance, lessons learned, and resources to support the System of Care with a focus on serving underrepresented communities

- Communicate and facilitate connectivity throughout the NSPS, including with communities
- Identify, implement, and operationalize funding mechanisms to ensure the Coordinating Body and System of Care are sustainable
- Create equitable policy goals and business decisions that are achievable, maximizing impact on communities while minimizing unintended consequences, and support System of Care facilities in honoring their commitments to equity
- Assess the impact of the NSPS on patients and communities when evaluating nationwide policy, determining investment and financing options, and identifying new System of Care facility sites

Core Functions

To deliver on the NSPS mission, the Coordinating Body must build on its existing functions and establish six functions: executive leadership strategy and oversight, standards and guidance, monitoring and evaluation, research and data, communication and coordination, and funding. For each core function, there are relevant partners with whom the NETEC will engage and collaborate. Details on these partners can be found in Section 6.

Figure 2. Coordinating Body Functions
The Coordinating Body will execute six functions across the NSPS.



The six functions include the following:

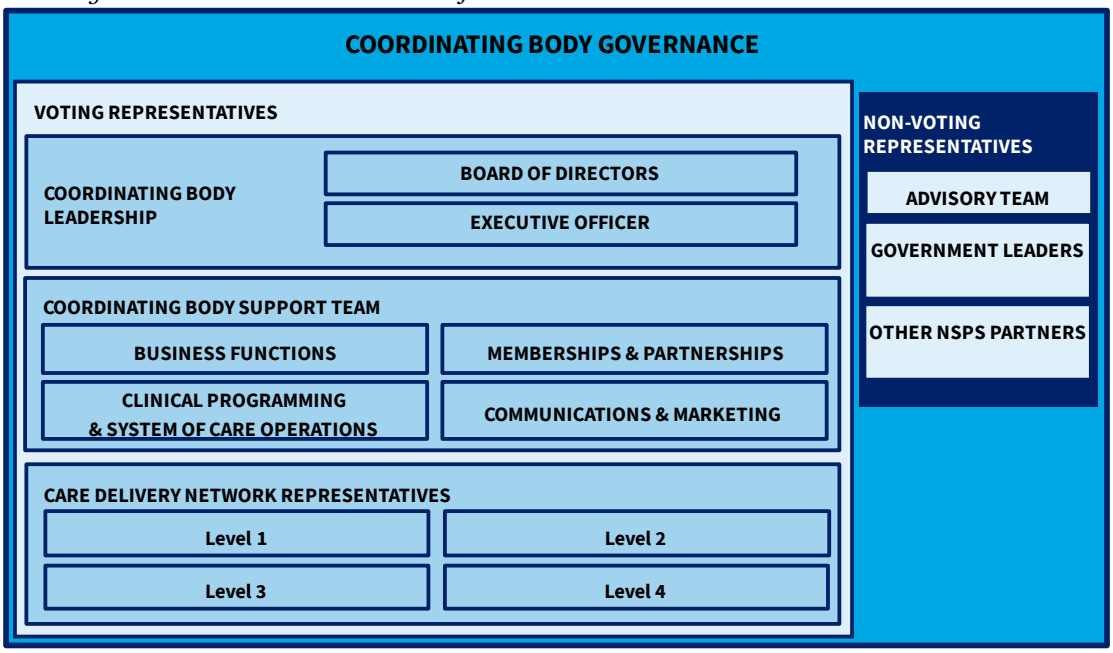
- **Executive Leadership Strategy and Oversight**
  - The Coordinating Body will follow its guiding principles and be led by a public-private leadership team that 1) sets strategic priorities, 2) determines how roles and decision rights are assigned, controlled, and coordinated, and 3) holds partners accountable.
  - The Coordinating Body will become a public-private entity. Its executive leadership will guide day-to-day operations. As the Coordinating Body will include advisors from federal government; STLT government, public health, and emergency management; health system executives; special pathogen experts; professional societies; academia; and patients and community members.
- **Standards & Guidance**
  - The Coordinating Body will provide and distribute standards, guidance, lessons learned, and resources to the System of Care facilities on topics including care delivery, supply chain, data collection, and workforce with input from relevant stakeholder organizations (e.g., government, national specialty organizations).

    - The Coordinating Body will coordinate with federal health agencies, professional societies, health care trade associations, government agencies, and specialty provider networks to disseminate standards and guidance.
- **Monitoring & Evaluation**
    - The Coordinating Body will monitor how the system upholds the NSPS guiding principles.
    - The Coordinating Body will designate and monitor levels of the System of Care either independently or with the support of an existing stakeholder (e.g., Joint Commission).
    - The Coordinating Body will provide standards and resources to support self-assessments.
    - The Coordinating Body will coordinate with STLT public health authorities to execute this function.
- **Research & Knowledge Generation**
    - The Coordinating Body will build and maintain a "warm base" to generate evidence where it is lacking, synthesize existing evidence and research findings, and disseminate those findings to strengthen the clinical and public health special pathogen response.
    - The Coordinating Body will coordinate and facilitate translational and clinical research and health systems research.
    - The Coordinating Body will collaborate with existing research networks to support and maintain ongoing clinical research.
- **Data & Technology**
    - The Coordinating Body will design solutions, agreements, governance, and protocols to support sharing of and access to clinical research data.
    - The Coordinating Body will coordinate with federal health agencies, lab networks, STLT public health authorities, and professional societies to execute this function.
    - The Coordinating Body will leverage resources to monitor and identify possible risks and anticipate how changes may disrupt supply chain
- **Communication & Coordination**
    - The Coordinating Body will pave clear, bi-directional communication channels across the NSPS, including with communities.
    - The Coordinating Body will develop and maintain partnerships (e.g., with government health agencies, community-based organizations, EMS) to support special pathogen care delivery and prevention.
    - The Coordinating Body will communicate recommendations to Congress and government agencies on how to best meet the needs of the System of Care facilities.
    - The Coordinating Body will coordinate with federal health and defense agencies, STLT public health departments, and Congress to execute this function.
- **Equity**
    - The Coordinating Body will work to ensure equitable distribution of resources and care delivery throughout.
    - The Coordinating Body will help prioritize care delivery access for underserved populations and areas.
- **Funding**
    - The Coordinating Body will secure funding to sustain its operations.
    - The Coordinating Body will coordinate funding for NSPS System of Care facilities through interactions with partner agencies and organizations, as well as with private donors.
    - The Coordinating Body will support resource requests for emergency funding during extraordinary events.
    - The Coordinating Body will coordinate with federal health and defense agencies, payers, and private funders to execute this function.

Governance model

The Coordinating Body's governance model is inclusive of the Coordinating Body's six functions plus administrative support.

Figure 3. NETEC as the Coordinating Body Governance Model
NETEC governance is anchored in its core functions.



The Executive Leadership Strategy and Oversight function will be composed of four key leadership groups that maintain parity across public and private sectors. The composition of the Executive Leadership Strategy and Oversight function will reflect the community in its racial, ethnical, and experiential diversity. The Executive Leadership Strategy and Oversight function includes:

- Board of Directors – Composed of health care and public health leaders (non-governmental leaders with expertise in special pathogens), patient-advocates, and community members who provide strategic direction and oversight for the Coordinating Body. Representatives should be from diverse stakeholder groups and represent all tiers of the System of Care, with no single stakeholder group comprising a majority of the Coordinating Body. Members of the Board of Directors are considered voting members.
- Chief Executive Officer – Elected by the Board of Directors. This individual will lead the Coordinating Body.
- Executive Leadership Team – Composed of full-time employees. These individuals will run the day-to-day operations of the Coordinating Body.
- Advisory Team – Composed of leaders who advise the Coordinating Body Board of Directors as ex-officio members or subject matter experts. Ex-officio roles will be held by government representatives, including from federal health and defense agencies. There will also be roles for subject matter experts from health care systems, insurance, supply chain, and more.

The remaining core functions (e.g., standards and guidance, monitoring and evaluation) will be executed and overseen by the Coordinating Body leadership team. The Coordinating Body will have administrative resources for program support, risk monitoring, and financial management.

The Coordinating Body will work closely with government on each of the core functions. During different special pathogen scenarios, such as a whole of United States Government (USG) response, the Coordinating Body may work with different key contacts and partners for each function.

As the governance is further formalized, the Coordinating Body will consider modeling itself off of similar governance structures for foundations, nonprofits, and public-private partnerships.

NSPS System of Care

Value Proposition

The purpose of the NSPS System of Care is aligned directly to the mission of the NSPS – it supports an ongoing focus on patient- and community-centered special pathogen care while protecting the health workforce and provides the coordination needed to save lives. The System of Care is designed to provide coordinated, standardized, and equitable care to patients infected by (or suspected to have been infected by) a special pathogen, such as COVID-19, in the U.S. The challenge is to prepare the System of Care for a wide range of special pathogen scenarios, including localized outbreaks of highly unusual pathogens, regional epidemics with local surges in case volumes, and a pandemic. System of Care facilities (e.g., hospitals, urgent care centers, skilled nursing facilities and long-term care centers) are stratified by tiers to organize the NSPS by capability level. Facilities in the System of Care make operational decisions about resourcing and load balancing and receive support from NETEC as the Coordinating Body with coordination and capacity building across the care continuum.

Responsibilities

The NSPS System of Care will be responsible for the following:

- Maintain readiness according to pre-determined criteria for every level of the System of Care
- Comprise facilities that wish to participate, meet readiness criteria, and are appropriately geographically distributed, accessible to diverse populations, and inclusive of safety net hospitals and care facilities
- Build and deliver training and education programs to support workforce capacity-building and designation across levels
- Coordinate with public health and the NETEC to support special pathogen care delivery
- Facilitate patient medical transport as needed through protocols and agreements between facilities to deliver care safely throughout the System of Care in partnership with EMS and state and local public health authorities
- Support communities through messaging, training, education, engagement, and leadership in special pathogen preparedness and response
- Support ethnic and racial equity in policy and financial decisions made by local tiered facilities while considering impacts on the community's health and on the environment
- Ensure representation of patient and community advocates, leveraging existing community boards and models to foster engagement

NSPS System of Care Levels and Alignment to Functions

To deliver on the NSPS mission, the System of Care will be composed of four levels with varying levels of capacity and capabilities to care for patients infected by a special pathogen according to the following criteria: maximum number of patients (i.e., capacity), maximum travel time permissible to access facilities (this will inform the number of facilities or care required), facility location, and care delivery capabilities. The initial System of Care design and descriptions of each level are illustrated below.

Figure 4. NSPS System of Care

The System of Care is composed of four levels with varying levels of capacity and capabilities to care for special pathogen patients.

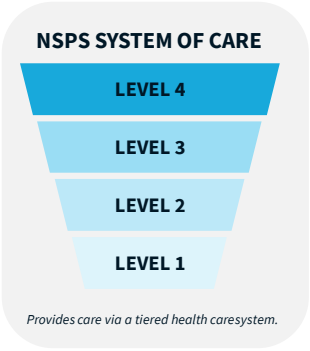


Table 2. System of Care Levels

The table lists the System of Care levels including their value propositions and descriptions.

Tier	Description
Level 4 *(Most health care entities in the U.S., including outpatient care facilities)* **Value Proposition**: Level 4 facilities can identify, isolate, inform, & initiate stabilizing medical care; protect staff; and arrange timely patient transport to minimize impact to normal facility operations.	• Level 4 facilities will be best positioned to know the unique needs of their communities for successful special pathogen readiness, response, and recovery. • Level 4 facilities will collaborate with state and local public health agencies and emergency medical services in the development of interfacility transportation plans and other protocols. • A transfer trigger algorithm may be used for load balancing decision making. Criteria for transfer trigger algorithm may include special pathogen type, diagnostics, special pathogen precaution, capacity at higher capability tiers within region, and the capabilities of System of Care facility initiating transfer. Other considerations may be scenario-based, such as patient, family, and caregiver's well-being.
Level 3 *(Approx. 200-300 facilities across the U.S.)* **Value Proposition:** Level 3 facilities are widely accessible care delivery facilities, able to conduct limited basic laboratory testing and stabilize and coordinate rapid patient transfer to minimize impact to normal facility operations.	• Level 3 facilities will be strategically positioned and accessible within a maximum of two hours of any potential patient's location by ground or air transport (other solutions may be required for underserved areas). • Level 3 facilities will safely identify, isolate, and initiate care, provide emergency services, deliver clinical testing (including laboratory testing), collaborate with the state and local public health agencies and emergency medical services upon the development of interfacility medical transportation plans, and coordinate transfers for high acuity cases. • A transfer trigger algorithm may be used for load balancing decision making. Criteria for transfer trigger algorithm may include special pathogen type, diagnostics, special pathogen precaution, capacity at higher capability tiers within region, and the capabilities of System of Care facility initiating transfer. Other considerations may be scenario-based, such as patient, family, and caregiver's well-being. • Level 3 facilities will maintain a trained workforce capable of PPE donning and doffing as well as the capacity to identify and isolate the special pathogen and inform patients and the public of the event.

Tier	Description
Level 2 *(Approx. 100 facilities across the U.S.)* **Value Proposition:** Level 2 facilities have the capacity to deliver specialized care to clusters of patients suspected of or infected by a special pathogen and serve as the primary patient care delivery center.	• Level 2 facilities will be regional resources that are strategically placed and accessible within four hours of a patient's location by ground or air transport (other solutions may be required for underserved areas). • Level 2 facilities will provide specialized care including isolation, intensive care, basic special pathogen waste management, immediate laboratory evaluation, and coordinated clinical lab testing, and will collaborate with state and local public health agencies and emergency medical services in the development of interfacility transportation plans and other protocols. • A transfer trigger algorithm may be used for load balancing decision making. Criteria for transfer trigger algorithm may include special pathogen type, diagnostics, special pathogen precaution, capacity at higher capability tiers within region, and the capabilities of System of Care facility initiating transfer. Other considerations may be scenario-based, such as patient, family, and caregiver's well-being. • Level 2 facilities will have sustainable staffing plans to manage a surge of patients for the duration of their illness. • Level 2 facilities will maintain a trained workforce capable of donning and doffing PPE, identifying and isolating patients infected or suspected to be infected with a special pathogen, informing patients and the public of a special pathogen event, delivering specialized care, providing leadership in prevention and public education to surrounding communities, and supporting special pathogen continued education.
Level 1 (*Approx. 10-20 facilities across the U.S.)* **Value Proposition:** Level 1 facilities will serve as resource hubs for regions, providing highly specialized care delivery to patients suspected of or infected by a special pathogen.	• Level 1 facilities will be regional resources as the most specialized facilities within eight hours of a patient's location by ground or air transport (other solutions may be required for underserved areas) and strategically placed to promote equity and access. • A transfer trigger algorithm may be used for load balancing decision making. Criteria for transfer trigger algorithm may include special pathogen type, diagnostics, special pathogen precaution, capacity at higher capability tiers within region, and the capabilities of System of Care facility initiating transfer. Other considerations may be scenario-based, such as patient, family, and caregiver well-being. • Level 1 facilities will provide highly specialized care including biocontainment, waste management, and rapid laboratory testing, and will collaborate with the state and local public health agencies and EMS upon the development of interfacility transportation plans and other protocols. • Level 1 facilities will be prepared to share resources as appropriate, collect information about accessible resources throughout the region to support additional sharing and allocation, act as research hubs, and provide virtual care support to facilities in their region. • Level 1 facilities will maintain a trained workforce capable of donning and doffing PPE, identifying and isolating patients infected or suspected to be infected with a special pathogen, informing patients and the public of a special pathogen

Tier	Description
	event, delivering specialized care, providing leadership in prevention and public education to surrounding communities, and supporting special pathogen continued education.

Criteria for facility identification includes the below. RESPTCs will be positioned as the Level 1 facilities, given government investment to date and capabilities of these facilities.

- **Population**: Counties, cities, or areas with over 500,000 people, with additional locations considered with respect to population profile relative to surrounding areas
- **Health equity**: Facilities that serve underserved populations and help patients access culturally safe care within the System of Care
- **Transportation**: Location of major international and domestic airports, international ports of entry, and interstate highways
- **Ground transport and air transport capabilities:** Facilities that are accessible by ground or air by EMS within specified time range for a given facility
- **Proximity to laboratories:** Laboratories on site or within close distance capable of performing clinical or diagnostic testing
- **Existing government funded facilities:** Facilities that are currently funded by government, beyond those currently funded to support special pathogen care

The NSPS System of Care will support the following key functions: workforce and training, standards and guidance, monitoring and evaluation, research and data, communication and coordination, and patient medical transport. The System of Care will work with NETEC as the Coordinating Body and other relevant partners on each of these core functions. Activities for each function include:

- **Workforce and Training**
  - Level 1 and 2 facilities will lead training efforts within their region, supporting Level 2, 3, and 4 facilities.
  - Level 1 and 2 facilities will train clinicians and health care workers at Level 2, 3, and 4 facilities to identify, isolate, and inform, and to perform PPE donning and doffing.
  - Level 1 and 2 facilities will train clinicians and health care workers in special pathogen patient care and clinical operations (e.g., incident command, surge, crisis standards of care).
  - Level 1, 2, 3, and 4 facilities will promote mental health first aid and diversity, equity, and inclusion (DEI) trainings.
  - Level 1 facilities will participate in quarterly trainings, Level 2 facilities will participate in trainings and drills every six months, Level 3 facilities will participate in annual trainings, and Level 4 facilities will be encouraged to participate in trainings offered by Level 1 and 2 facilities throughout the year on a mutually beneficial timeline.
- **Standards & Guidance**
  - The System of Care will provide input and needs from clinicians, health care administrators, and communities to inform the NETEC's standards and resources.
  - Level 1 facilities will tailor standards and guidance received from the NETEC according to region specific considerations.
  - Level 1 facilities will support dissemination of standards and guidance to Level 2, 3, and 4 facilities.
- **Monitoring & Evaluation**
  - Level 1 facilities will be designated by the Coordinating Body according to pre-determined readiness criteria provided by the Coordinating Body.
  - Level 2, 3, and 4 facilities will perform self-assessments provided by the Coordinating Body to monitor and evaluate readiness according to pre-determined readiness criteria

provided by the Coordinating Body. These criteria and standards may be overseen by others in the network of other Level 2, 3, and 4 facilities.
    - Levels 2, 3, and 4 will receive an external evaluation by a third party to confirm designation as a participant of the System of Care.
    - The Coordinating Body will conduct an evaluation of a sample of Level 2, 3, and 4 facilities.
    - Levels 2, 3, and 4 will share whether or not they met their standards to the Level 1 facility in their region.
    - Level 1 facilities will report readiness of their region to NETEC as the Coordinating Body.
    - Results of Level 1, 2, 3, and 4 monitoring and evaluation will be used to inform future resources and support across the NSPS.
- **Research & Data**
    - System of Care clinicians and health care workers can conduct clinical research, health systems/workforce research, and/or quality improvement research in coordination with the Coordinating Body through shared research agendas.
    - System of Care clinicians and health care workers who conduct research can share findings with the Coordinating Body, which will generate clinical or health systems evidence, synthesize and adjudicate clinical or health systems evidence, and share clinical or health systems evidence to inform best practices between operational and research networks and research-focused agencies.
    - System of Care facilities can opt to share clinical data with the Coordinating Body to inform research.
    - Level 1 facilities will operate as research hubs within each region.
    - The System of Care will use clinical and health systems data and early clinical research findings shared by the Coordinating Body to inform care delivery, PPE protocols, and other protocols and practices during response in collaboration with health workforce-focused agencies.
    - The System of Care will use geographic and community data to inform decisions on target level participants and level locations, with community input.
    - The System of Care will conduct case monitoring and report clinical and health systems data to the Coordinating Body for analysis and dissemination during response in alignment with public health.
- **Communication & Coordination**
    - System of Care facilities, clinicians, and health care workers will participate in bi-directional communication across the NSPS, including directly with communities.
    - Level 1, 2, and 3 facilities will primarily serve as referral points for Level 2, 3, and 4 facilities within their region as higher-level isolation, specialty care, or lab services are required. In certain scenarios, patients may be transferred across or down levels to promote patient, family, and caregiver well-being.
    - System of Care facilities will establish agreements between tiers in their region for transfer and load balancing of patients infected or suspected to be infected with a special pathogen.
    - Level 1 facilities will be hubs for their respective regions, supporting Level 2, 3, and 4 facilities within that region with training, education, and deployable assets (resources, such as equipment, supplies, and potentially clinicians and health care workers, that could be shared across a region in the System of Care).
    - Level 2 facilities will provide support to Level 3 and 4 facilities local to their jurisdiction, and Level 3 facilities will support Level 4 facilities in their local area.
    - System of Care facilities will collaborate with their respective STLT public health leaders to tightly coordinate disease surveillance, public messaging, and patient care.
- **Patient Medical Transport & Care Delivery**

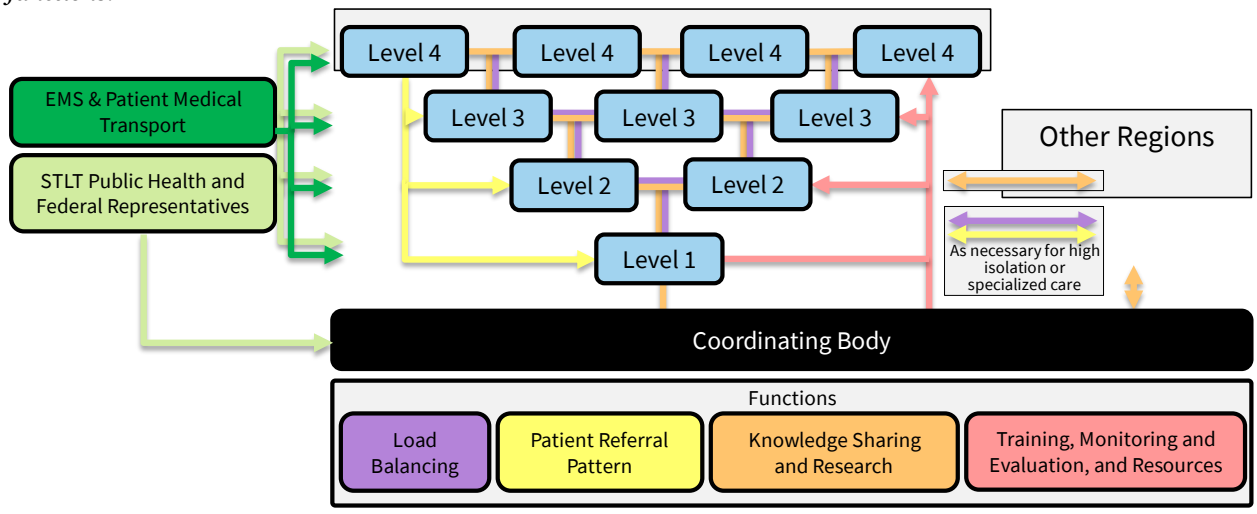
- The System of Care will develop agreements with EMS, including critical care transport providers, to facilitate patient transport between facilities and across regions.
- System of Care facilities will make operational decisions about patient medical transport, referrals, and care delivery, informed by a transfer trigger algorithm. A transfer trigger algorithm may be used for load balancing decision making. (Criteria for transfer trigger algorithm may include special pathogen type, diagnostics, special pathogen precaution, capacity at higher capability tiers within region, and the capabilities of System of Care facility initiating transfer. Other considerations may be scenario-based, such as patient, family, and caregiver's well-being.)
- All front-line clinicians and health care workers will safely identify, isolate, and initiate care, and will coordinate rapid laboratory testing.

The System of Care will leverage telemedicine services to support care delivery. Telemedicine may minimize the need for patient medical transport, make care more accessible beyond System of Care facilities (e.g., home-based care), and enhance System of Care facility capacity. For example, telemedicine can be used for an initial evaluation of a patient who is suspected to have been infected with a non-lethal special pathogen. Telemedicine may also be used to monitor infected patients who do not need treatment in a hospital setting.

Functions Flow

The NSPS System of Care will be organized into regions. Each region will include System of Care facilities across Levels 1, 2, 3, and 4. The regions will be organized around Level 1 facilities, with Level 2, 3, and 4 facilities aligned to a specific Level 1 facility (there is potential for two Level 1 facilities when a Level 1 pediatric facility fits within the designated regional area). The geographic regions and regional designations will be determined during strategy implementation using criteria on population size and profile, health equity, and others described above.

Figure 5. NSPS System of Care Functions Flow
The figure illustrates how the entities of the System of Care will work together between tiers and regions for various functions.



The key functions within and across each region include:

- Load balancing
  - Load balancing will occur primarily within and across tiers of the same region and will occur primarily from lower capability levels to higher capability levels and across levels. Load balancing should be minimized as much as possible, and patient well-being must be

kept at the forefront of decision-making. Load balancing across regions will be determined in a widespread outbreak or a national response.

- Patient referrals
    - Patient referral patterns represent the standard flow of patients between levels, with patients moving from lower capability levels to higher capability levels within their region.
    - Patients referrals will likely align with current hospital system parameters and normal referral patterns. When activating referrals, patient well-being must be kept at the forefront of decision-making.
- Knowledge sharing and research
    - Every facility within the System of Care will be encouraged to share knowledge and insights in real or near real time and can expect to learn from other parts of the System of Care and the broader NSPS.
    - Research findings will flow throughout and across regions, specifically from Level 1 facilities which are designated research hubs, and NETEC, which will coordinate research across the System of Care.
- Training, monitoring and evaluation, and resources
    - The Coordinating Body will work in collaboration with Level 1 facilities to support training efforts throughout the region. Level 1 facilities will help capture training progress/milestones of System of Care facilities across other tiers within their region and share updates with the Coordinating Body. Level 1, 2, 3, and 4 facilities will participate in trainings with other System of Care facilities within their region.
    - The Coordinating Body will support evaluations of the System of Care facilities within a region. The Coordinating Body will evaluate all Level 1 facilities and a sample of Level 2, 3, and 4 facilities. Level 2, 3, and 4 facilities will share whether they met their standards to Level 1, and Level 1 will consolidate and share those evaluations with the Coordinating Body.
    - Training, monitoring and evaluation, and resources will flow throughout the region, with resources coming from Level 1 facilities and the Coordinating Body and being shared with Level 2, 3, and 4 facilities throughout a given region and across regions as necessary.
    - Resource allocation will be determined by the Coordinating Body with representatives from all tiers and will demonstrate commitment to equity in resourcing decisions.

System of Care facilities within a given region will collaborate with STLT public health, emergency management, federal representatives, and EMS and transport services.

- STLT public health:
    - System of Care facilities will collaborate with their respective STLT public health leaders to determine how public health functions (i.e., the 10 Essential Public Health Services) will work in concert with special pathogen care delivery in preparedness, response, and recovery. In particular, disease surveillance data and public messaging about the pathogen will need to be tightly coordinated. Public health roles include:
        - Assess and monitor population health status, factors that influence health, and community needs and assets[13]
        - Investigate, diagnose, and address health problems and hazards affecting the population
        - Communicate effectively to inform and educate people about health, factors that influence it, and how to improve it, particularly supporting Level 4 facilities with education and prevention

[13] Public Health National Center for Innovations. (n.d.). 10 EPHS. PHNCI. http://phnci.org/national-frameworks/10-ephs

    - Strengthen, support, and mobilize communities and partnerships to improve health
    - Create, champion, and implement policies, plans, and laws that impact health
    - Utilize legal and regulatory actions designed to improve and protect the public's health
    - Ensure an effective system that enables equitable access to the individual services and care needed to be healthy
    - Build and support a diverse and skilled public health workforce
    - Improve and innovate public health functions through ongoing evaluation, research, and continuous quality improvement
    - Build and maintain a strong organizational infrastructure for public health
- Federal Representatives
    - Provide federal leadership and strategic guidance and facilitate partnerships in localities and states on behalf of their home agency. Federal representatives are stationed across the U.S. and are organized according to the 10 Federal Regions. Federal Representatives can include Regional Staff from HHS Operating Divisions and Staff Divisions as well as the Federal Emergency Management Agency (FEMA).
- EMS and medical transport services
    - System of Care facilities will work with EMS and other medical transport providers to develop interfacility transportation protocols. Once those protocols are established, patients' medical transport can be coordinated across System of Care facilities.

How the Coordinating Body and System of Care Work Together

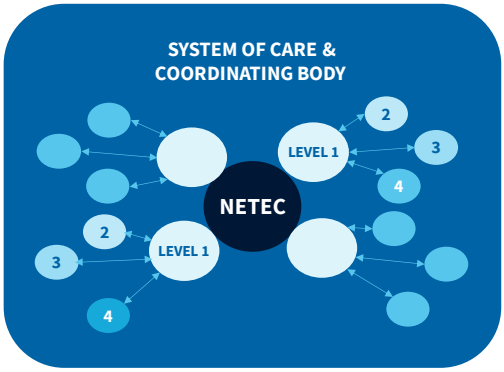
The Coordinating Body and System of Care will work closely together, with each entity providing services to the other. To facilitate connections between the two entities and distributed representation and leadership, the Coordinating Body will be comprised of representatives from each region and level of the System of Care. Coordinating Body will maintain its own resources for operations and management and in the future may distribute funding to the System of Care to sustain it, contingent upon availability of funds and incentives. The System of Care will provide information to NETEC to tailor Coordinating Body functions to meet the needs of the NSPS. NETEC will develop partnerships to identify novel funding methods and financing sources to sustain the NSPS.

The Coordinating Body will provide the following obligations to the System of Care:

- Evaluate financial and operational readiness
- Coordinate and disseminate research and newly generated information and insights during outbreaks
- Assess and share data and real-time domestic and global sensing and surveillance of special pathogens
- Set standards for designation and support designation of System of Care levels
- Provide standards and resources for care delivery, supplies, training, and data collection
- Communicate with and facilitate connectivity throughout the NSPS, including with the community and government
- Recommend and coordinate funding mechanisms
- Elevate the national visibility of the System of Care and the broader NSPS

Figure 6. Coordinating Body and System of Care

The Coordinating Body and System of Care will work closely together to execute their respective functions.



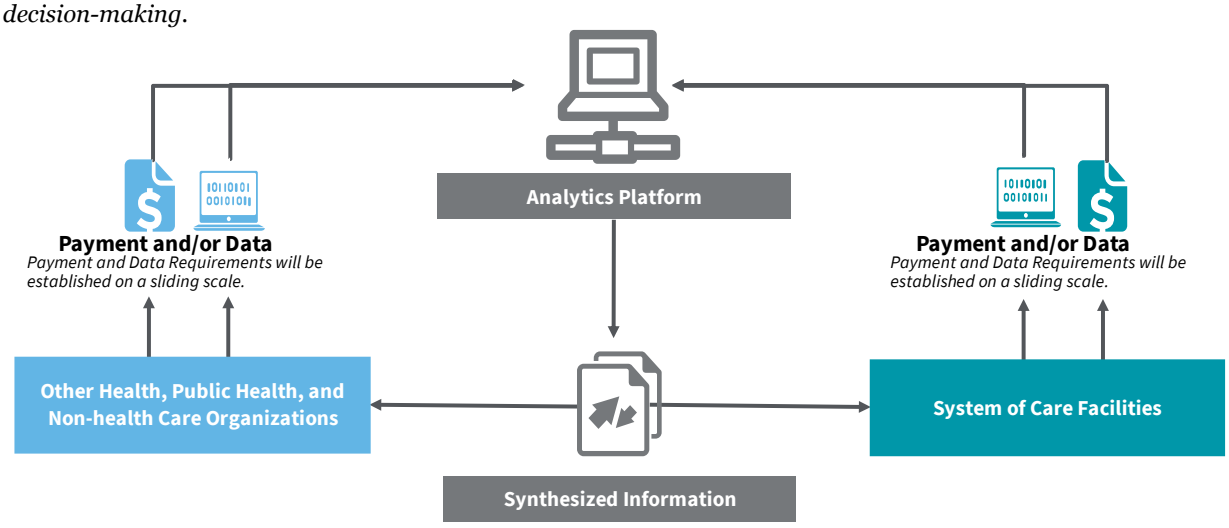
The System of Care will have the following obligations to the Coordinating Body:

- Share clinical outcomes, clinical findings, and research to promote special pathogen care best practices
- Enable knowledge dissemination to other tiers (e.g., research networks)
- Share needs from clinicians and health care workers, patients, and communities to inform Coordinating Body activity
- Provide learnings from training and education material to improve future resources
- Provide sites for potential Coordinating Body pilot programs

For the Coordinating Body and System of Care to work together, they must be adequately funded and financially sustained. The System of Care and the Coordinating Body will be sustained by:

- Developing and maintaining a list of options to fund each function of the Coordinating Body
- Developing and coordinating complementary financing mechanisms to match funds needed (see Appendix B Figure 12)
- Meeting expectations and requirements of all funding agreements
- Continuously assessing funding needs based on information shared from the System of Care to the Coordinating Body
- Developing a novel self-sustaining Fee-for-Service model (see Figure 7) such as an analytics platform which ingests information from various sources (non-health care organizations and System of Care facilities) and provides analysis and insights for health care-related decision making
- Identifying relevant leaders and partners to participate in and support the financing of both the System of Care and the Coordinating Body through traditional funding, fees, policy mechanisms, federal government payment models, and monetary incentivization for disaster readiness to ensure funds are collectively exhaustive (see Table 3)

Figure 7. Example Self-Sustaining Funding Model: Fee-for-Service Analytics Platform
The Fee-for-Service Analytics Platform below consists of a platform fed with information from System of Care facilities and other health, public health, and non-health care organizations which is then de-identified and analyzed to provide insights for decision-making. Payment and participant fees are based on a sliding scale dependent on ability to pay or provide data. Non-health care organizations are incentivized to participate for access to health information relevant to their operations. System of Care facilities will have access to synthesized non-proprietary information from non-health care organizations, like supply chain leaders, that may be used for decision-making.



Payments and/or Data Fees will be designed with consideration for ensuring equitable access to the analytics platform and information, and NSPS broadly.

Table 3. Sustainable Funding Mechanisms
The table below outlines categorically organized sustainable funding mechanisms for consideration to sustain the NSPS.

Sustainable Funding Mechanisms		
Category	***Type of Funding Mechanism***	***Description***
Policy Mechanisms	Relief Funds	Relief funds to assist hospitals and health care clinicians and health care workers in responding to special pathogens. An example of a relief fund is the CARES Act Provider Relief Fund administered by the U.S. Department of Health and Human Services' Health Resources and Services Administration.
	Community Benefit Incentivization Models	Community benefit agreements to incentivize community organizations and System of Care facilities to prepare for special pathogens with tax benefits
	Reinsurance*	Reimbursement system protecting insurers from high claims, stabilizing the insurance market and bringing down costs to insurers
Federal Government Payment Models	CMS CMMI Innovative Payment Models	Incentive payments through CMS for quality care and preparedness
	1135 and 1115 Federal Waivers	Waivers issued in a state of emergency under the Stafford Act, Public Health Service Act, or National Emergencies Act temporarily waiving or modifying certain Medicare, Medicaid, and Children's Health Insurance Program (CHIP) requirements to ensure health care is available to all
	National Disaster Medicine System (NDMS) Definitive Care Reimbursement	Reimburses institutions and practitioners that provide Definitive Medical Care to NDMS federal patients in accordance with specific guidelines via ASPR
Monetary Incentivization for Disaster Readiness	Bond Ratings*	Higher bond ratings for special pathogen preparedness
	Zero-Interest Loans*	Government- and corporation-issued loans with zero interest for System of Care facilities and organizations contributing to special pathogen preparedness
	Tax Benefits*	Tax breaks for contributions to special pathogen preparedness
Fees (Pay to Play or Fee-for-Service) ***Approach to be determined with an equity lens***	Access to Pre-Published Research*	Similar to a journal membership, members can access pre-published research from other member organizations
	Access to Non-PII-Related Commoditized Data*	Members can access non-PII-related data from System of Care facilities

**Indicates mechanisms that have not been widely utilized in special pathogen health care.*

Section 5: Closing the Gaps

Introduction to Closing the Gaps

In Section 3: The National Special Pathogen System of Care Strategy goals and objectives were put forth to close the gaps between the current state and the envisioned future state NSPS. In this section, the gaps are summarized and paired with objectives to address the gaps. Each objective has sub-objectives, considerations across the incident lifecycle, and considerations for special pathogen scenarios.

NSPS Mission and Vision

NSPS Mission: To provide a coordinated and standardized health care network of high-quality, patient- and community-centered care for patients suspected of or infected by a special pathogen in the United States, while protecting the health workforce

NSPS Vision: To save lives through a sustained, standardized special pathogen system of care that enables health care personnel and administrators to provide agile and high-quality care across the care delivery continuum.

Summary of Gaps

As described in Section 2: Background, the following gaps were identified in how special pathogen care is delivered in the US today. These gaps were informed by research as well as interviews and working sessions with key health care and special pathogen leaders.

Figure 8. Summary of Gaps

Below is a summary of gaps sourced from the development of the NSPS Strategy.

CARE DELIVERY

- Limited access to specialized special pathogen care
- Insufficient and unequal surge capacity at facilities across the U.S.
- Uncoordinated, inconsistent, and unscalable clinical guidance for various special pathogen scenarios
- Disjointed development and distribution of therapeutics
- Inequitable care to minority groups

"We need our people involved in the decision-making process – clinicians know what's happening because we're boots on the ground."

COMMUNICATION AND COORDINATION

- Inconsistent partnership between health care and public health
- Unclear roles of various stakeholders in the special pathogen ecosystem across readiness, response, and recovery
- No trusted coordinating entity to support an effective special pathogen response
- Limited coordination between health care leaders and policymakers in policy development and implementation (e.g., licensure, emergency funding)

"We need to do better than having nice people agree to work well together."

WORKFORCE

- Limited quantity of health care workers trained in special pathogen diagnosis and care
- Limited special pathogen education, training, and regular drills
- Limited health workforce capacity

"We need to retain the generational knowledge and expertise from this pandemic."

RESEARCH AND KNOWLEDGE GENERATION

- Operational networks and research networks are not appropriately connected
- Early-clinical findings are disseminated informally and non-systematically
- Limited timely, easily accessible, and transparent clinical and health systems research

"We need to create communications channels for clinicians and researchers to share early findings with coordinating bodies and government professionals."

DATA AND TECHNOLOGY

- Unstandardized clinical research and health systems data collection and reporting
- Inadequate and heterogeneous surveillance infrastructure
- Inconsistent and duplicative requests for data and reporting at the local, state, and federal levels
- Non-timely and inconsistent sharing of data between institutions and public health agencies
- Limited visibility of health care readiness at the local level

"We need consistency across what data are important to collect and SOPs around timely data reporting to be able to use data to accurately make decisions."

MONITORING AND EVALUATION

- Inconsistent standards and expectations for quality of care between the federal government; state, tribal, local, and territorial (STLT) public health departments, and health care delivery systems
- Varied special pathogen readiness assessments

"No two hospitals operated the same, and success rates varied widely."

FINANCIAL SUSTAINABILITY

- Limited financial preparedness of care delivery facilities
- Lack of incentives for special pathogen health care beyond grants or cooperative agreements, which are not a reliable source of funds to maintain readiness

"This is the same problem throughout emergency preparedness more broadly- funding. Our planning horizon is nonexistent without external pressures."

SUPPLY CHAIN

- Unclear and inconsistent recommendations for PPE, ventilators, vaccines, and other equipment recommendations
- Limited quantity and inconsistent quality control of PPE, ventilators, vaccines, and other equipment
- Inequitable distribution of PPE and other supplies, equipment, and resources

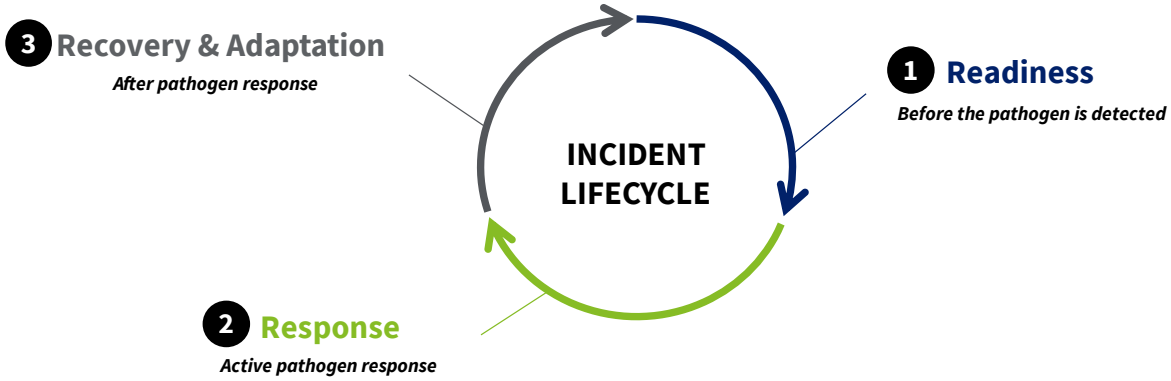
"Rapid surges of need strain the supply chain and lead to poor quality products and PPE."

The Incident Lifecycle

The NSPS must maintain a standardized special pathogen system of care across the incident lifecycle in order to save lives. The incident lifecycle includes three phases: 1) readiness – ensuring the people, supplies, facilities, technology, and infrastructure are ready to activate before the special pathogen is

detected, 2) response – taking action to identify, isolate, and care for people suspected of or infected by a special pathogen, and caring for their surrounding community during an active special pathogen response, and 3) recovery and adaptation – reviewing the system's performance and improving the system for the next incident while attending to community needs that arose during response. The NSPS will need to adjust its priorities and activities to the incident lifecycle phase it is in. Considerations across the incident lifecycle are included for each objective.

Figure 9. The Incident Lifecycle
The graphic below illustrates the incident lifecycle for a special pathogen response.



Special Pathogen Scenarios

To operate as a high quality and responsive special pathogen system of care, the NSPS must be prepared to address different special pathogen scenarios. Special pathogen incidents are highly variable, depending on factors such as precaution/spread, lethality, geography, population movement, and demographics. Examples of special pathogen scenarios include 1) isolated cases of a special pathogen (e.g., Ebola), 2) mid-sized special pathogen spread (e.g., unique influenza outbreak in a nursing facility), 3) early stage outbreak or epidemic (e.g., regional outbreak of an unusual foodborne pathogen), and 4) whole-of-system pandemic (e.g., COVID-19). Each scenario requires tailored readiness and response activity. Considerations for certain special pathogen scenarios are included for each objective.

Objectives to Close the Gaps

Three goals and eleven objectives were identified to close the gaps in today's special pathogen care. These objectives are further defined through sub-objectives that provide specific recommendations that will help the NSPS close the gaps in today's care and achieve the goals of the NSPS.

Objective 1.1- Operating Model: Design and operationalize the operating model of NETEC as the Coordinating Body and System of Care

To stand up the NSPS, a detailed operating model with clear governance is required to articulate how the NSPS will work to achieve its mission, including how the people, processes, technology, and data will work together. It must also include relevant entities that make up the NSPS, such as NETEC, System of Care, and other relevant NSPS partners and organizations that will lead and execute the objectives of this strategy. A determining factor of the operating model is who or what entity will be accountable for and execute the operations of the Coordinating Body.

Sub-objectives

1.1.1 Determine the organization (e.g., existing organization, new organization) accountable for the activities of NETEC as the Coordinating Body

To formalize the system, the current NSPS Strategy leadership (e.g., Core Advisory Group) will identify an existing organization or stand up a new organization to operate the Coordinating Body. The Coordinating Body will be a public-private partnership that will enable coordination and standardization among the System of Care and the NSPS broadly. The Coordinating Body will lead six functions: executive leadership

strategy and oversight, standards, and guidance, monitoring and evaluation, research and data, communication and coordination, and funding.

Recommendations to achieve this sub-objective include the following:

- The current NSPS Strategy leadership will use the Coordinating Body organizational criteria to choose an entity. Leading criteria include:
    - Should be a public-private entity
    - Should not be run by government exclusively
    - Should partner with and include representation from public and private entities including federal government, health system executive leadership, professional societies, state and local public health officials, and academia
    - Should enable patient and community representation
    - Should include some full-time employees (FTEs)
    - Should be able to influence health care and have decision-making rights alongside government
    - Should have mission alignment to the NSPS
    - Should be able to dedicate funding to Coordinating Body functions
    - Should have capabilities to execute the Coordinating Body functions
- The current NSPS Strategy leadership will develop a business case for prospective organizations (including a new organization) to operate NETEC as the Coordinating Body.
- The current NSPS Strategy leadership will select the organization based on best match to the criteria.

1.1.2 Design the operating model of NETEC as the Coordinating Body and System of Care

Once an organization is chosen to operate the Coordinating Body, the Coordinating Body and System of Care operating models will need to be developed.[14] This is notionally drafted in Section 4: Target Operating Model Design, but it should be amended based on the Coordinating Body leading organization. The operating model will clearly articulate and depict how the NSPS, including the Coordinating Body and System of Care, will come together to perform work and deliver value to national health security. Detailed governance, including the lines of authority, roles and responsibilities, decision rights, and communications will be developed.

Recommendations to achieve this sub-objective include the following:

- The current NSPS Strategy leadership will coordinate with the new Coordinating Body lead organization to refine the high-level operating structure of the Coordinating Body, the System of Care, and how the two entities work together. The structure will be supported by funding as detailed in Objective 1.2.
- Actions needed to establish the Coordinating Body include:
    - Determine the budget and revenue streams for all activities of NETEC as the Coordinating Body
    - Determine key partners to execute each of the Coordinating Body functions
    - Identify and onboard members of the Coordinating Body Executive Leadership Strategy and Oversight function (e.g., board of directors, chief executive officer, executive leadership team, advisory team)
    - Identify partners to participate as a part of the Coordinating Body and with the System of Care
    - Develop a clear constitution or charter that articulates levels of responsibilities for various organizations to execute activities, categories of costs related to activities and owners, and expectations for readiness, response, and recovery

[14] Note, as of 2021, NETEC has been designated as the Coordinating Body by Congressional language that can be referenced in page (insert page number)

    - Align with key partners on triggers for activating response posture, such as a declaration of a public health emergency
- Actions needed to establish the System of Care (the majority of which will be completed after NETEC as the Coordinating Body is established) include:
    - Identify and implement engagement activities to co-create the System of Care and to incentivize wide-spread adoption
    - Refine the capabilities and criteria of the levels of the System of Care
    - Determine the prospective System of Care regions based on population profile and geospatial assessment
    - Recommend potential Level 1 facilities to serve as the regional hubs of the System of Care, potentially building off of the existing RESPTC facilities
    - Recommend how facilities across the NSPS and within Level 1 regions can work together in partnership with existing regional structures
    - Coordinate with STLT public health departments to align on information and data sharing and exchange and develop agreements as needed (e.g., data sharing agreements; memoranda of understanding (MOUs) for patient medical transport throughout the System of Care)

1.1.3 Implement the operating model of NETEC as the Coordinating Body and System of Care

Once the operating model is designed and an implementation plan is drafted, implementation can begin.

Recommendations to achieve this sub-objective include the following:

- NETEC is the Coordinating Body leadership.
- The Coordinating Body will execute activities as described in the implementation plan and adjust the implementation timelines for individual activities if needed.
- The Coordinating Body will detail the roles, responsibilities, and decision rights to execute each of the Coordinating Body functions and key partners to execute each in a constitution or charter.
- The Coordinating Body will design and execute a talent strategy to hire and onboard staff FTEs.
- The Coordinating Body will develop an engagement plan to build NSPS participation.
- The Coordinating Body will conduct outreach to solidify participation and public and private sector, patient, and community representation.
- The Coordinating Body will solidify formal commitment via alignment to the Coordinating Body constitution or charter.
- The System of Care regions will determine representatives to participate in the Coordinating Body as voting representatives in the Board of Directors.

Considerations

To execute this objective, the NSPS should consider the phase of the incident lifecycle and the special pathogen scenario.

Considerations Across the Incident Lifecycle

- Early implementation will likely occur during the ongoing COVID-19 response and recovery. The implementation plan should remain flexible and adaptive as a new system is developed during day-to-day care delivery and response activity.

Considerations Across Various Special Pathogen Scenarios

- The operating model and governance should be flexible to accommodate various special pathogen scenarios.
- NETEC as the Coordinating Body will identify and engage subject matter experts based on the special pathogen scenario.
- The Coordinating Body key contacts and partners for each function may change during a whole of USG response.

Objective 1.2- Financial Foundation: Initiate financial mechanisms and revenue streams to support activities of NETEC as the Coordinating Body and the System of Care

The NSPS must be capable of sufficiently coordinating and executing financial mechanisms and revenue streams from varied sources to sustain NETEC as the Coordinating Body and System of Care.

Sub-objectives

1.2.1 Identify financial mechanisms and revenue streams to support NETEC as the Coordinating Body and supplement System of Care funding

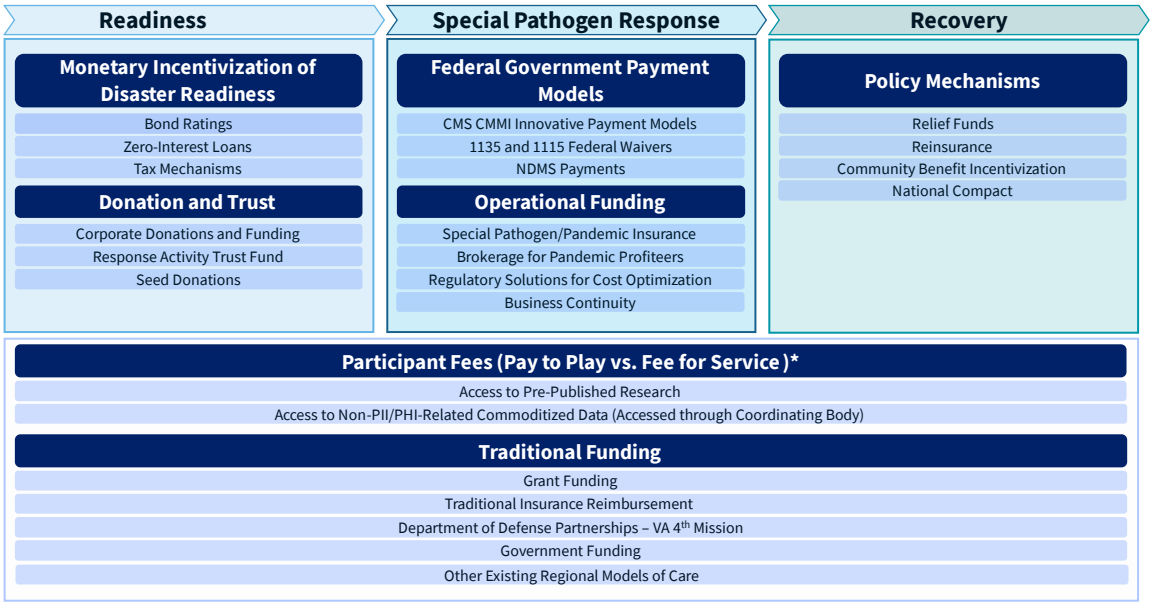
The success of the NSPS will depend on a diverse portfolio of funding. In implementation, the System of Care can communicate the financial needs of each level and the Coordinating Body can help to secure relevant funds from sources like foundation grants, government funding, and corporate donations (see Figure 11). These sources will be used concurrently to provide adequate funding for the Coordinating Body and the System of Care.

Recommendations to achieve this sub-objective include the following:

- The Coordinating Body will develop a list of potential funding mechanisms that may be utilized to source funding.
- The Coordinating Body will prioritize funding mechanisms and develop the means to pursue them, including a rationale and business case.
- The Coordinating Body will assess and anticipate preparedness and readiness costs associated with different types of special pathogens related to each level in which care will be provided.
- The Coordinating Body will acquire and maintain partnerships to obtain funding.
- The Coordinating Body will create and execute a self-sustaining mechanism to ensure continuous and adequate funding for the Coordinating Body and System of Care. These mechanisms may include, for example, an innovative fee-for-service, participant-based data analytics platform or a health care disaster fund. This platform would leverage data from partners and System of Care facilities to inform future decision making. Fees would be obtained on a sliding scale to ensure equitable participation. Should a fee-based data analytics platform be leveraged, the use of the data repository would be bound by data stewardship requirements.
- The Coordinating Body will use traditional and innovative revenue-generating mechanisms to sustain the System of Care during all special pathogen response phases (see Figure 10).

Figure 10. Potential Funding Mechanisms

The table below outlines possible funding mechanisms for various special pathogen scenarios. The categorically identified mechanisms below can be obtained during some or all special pathogen scenarios.



*Note: Participant Fees will be designed with consideration for ensuring equitable access to the NSPS.

1.2.2 Establish processes to obtain funding for the NSPS

Once financial sources and revenue streams are identified, funds can be obtained and maintained for NETEC as the Coordinating Body and potentially dispersed across the System of Care. Financial mechanisms must be prioritized based on information from both the System of Care and the NETEC. Moreover, NETEC must use the information provided to them to assess when additional funds are required to sustain the System of Care for surge response activities.

Recommendations to achieve this sub-objective include the following:

- The Coordinating Body will assess and estimate the startup costs for the Coordinating Body and System of Care.
- The Coordinating Body will clearly identify categories of costs for its activities via its constitution or charter.
- The Coordinating Body will establish relationships to elicit funds to support the NSPS through donations from advocates and partners.
- The Coordinating Body will identify grants and possible donors for seed funding, including possible government funding for initial upfront costs.
- The Coordinating Body will build a team consisting of grant writers, government relations experts, and communications experts to support successful application for and obtainment of grants and funding.
- The Coordinating Body will research the feasibility of placing a surcharge on government reimbursement for emergency room visits or obtaining approval of a pandemic response tax structure.
- The Coordinating Body will coordinate with key partners and leaders, including non-health care industry experts, to understand government regulations, policies, and laws impacting the Coordinating Body and System of Care.

Considerations

To execute this objective, the NSPS should consider the phase of the incident lifecycle and the special pathogen scenario. Specifically, the NSPS should consider how the tiers of the System of Care will require different funding sources at various times in the incident lifecycle.

Considerations Across the Incident Lifecycle

- Innovation and new investments are on the rise as the U.S. responds to and recovers from COVID-19, making this an opportune time to explore corporate donations, new grant funding, and national priorities, such as the American Jobs Plan.
- During readiness, the Coordinating Body should educate congressional champions and other funders on the benefits of preparedness and highlight hospitals that incorporate preparedness into their operational structures.

Considerations Across Various Special Pathogen Scenarios

- Funding needs will vary by special pathogen response scenario. NETEC as the Coordinating Body and System of Care governance will inform fund allocation across the NSPS.
- In all special pathogen scenarios, the Coordinating Body must have funding allocation models prepared to adequately support System of Care facilities that are engaged in special pathogen response.
- In readiness, funding can be obtained using alternative mechanisms, like commoditized data from supply chain and System of Care facilities, and distributed to the System of Care according to identified needs gathered from external partners, researchers, and System of Care facilities.

Objective 1.3- Communications Foundation: Establish communications channels and educate relevant partners to gain buy-in and commitment for the NSPS

Partner participation and buy-in is necessary for the NSPS stand up, operations, and overall resourcing. The expectations and benefits of the System of Care will need to be communicated to attract and co-create the System of Care with facilities. The purpose, role, and value of NETEC as the Coordinating Body must also be shared so that System of Care facilities and NSPS partners know the coordination and capability-building benefits of participating in the NSPS. As the system is stood up, new communication channels

must be established to support bi-directional flows of information across the NSPS, connect partners, and enable overall coordination.

Sub-objectives

1.3.1 Educate special pathogen leaders, including Congress, on the need for the formalization of the NSPS

Because key partner participation and buy-in are necessary for the NSPS stand up, operations, and overall resourcing, the NSPS needs to ensure all relevant partners are educated on the NSPS from the very beginning and throughout implementation. Specifically, for funders, it is important that they understand the need for the NSPS and the value of the NSPS over time. For facilities and other partners who will play a role in care delivery, it is important that they understand how to navigate the NSPS, use its resources, and support the overall mission and vision.

Recommendations to achieve this sub-objective include the following:

- NETEC will build connections with relevant congressional leaders to educate, provide updates, and report on the progress of the NSPS.
- NETEC and Level 1 facilities will equip System of Care facilities and relevant partners with the information needed to understand their role in the System of Care and in support of the NSPS mission and vision.

1.3.2 Gain buy-in and commitment from key partners to participate in the NSPS, particularly via the System of Care and NETEC as the Coordinating Body

For the System of Care to work, facilities across the U.S. must understand the benefits of participation and be able to make informed decisions about participating in the System of Care. Similarly, NETEC requires a diverse range of partners to ensure representation across health care, public health, supply chain, emergency response services, government and more to ensure broad coverage of necessary functional areas. The case for relevant partners to join NETEC as the Coordinating Body must be made.

Recommendations to achieve this sub-objective include the following:

- The Coordinating Body will engage facilities that meet or could meet the pre-determined criteria for Levels 1, 2, or 3 for participation in the network and will provide information on the benefits and expectations of participating in the System of Care.
- The Coordinating Body will engage key partners to support ongoing operations and make up the Coordinating Body's governing structure.
- The Coordinating Body will work with existing systems and partners in government, care delivery, research, community, financing, and public health who can support the functions of the System of Care.

Considerations

To execute this objective, the NSPS should consider the phase of the incident lifecycle and the special pathogen scenario.

Considerations Across the Incident Lifecycle

- During readiness, NETEC as the Coordinating Body will identify and engage with tiered facility participants.
- During readiness, the Coordinating Body will engage health care delivery facilities to educate care continuum administrators, clinicians, and health care workers on the System of Care capabilities and services.
- During readiness, the System of Care and Coordinating Body will establish relationships with congressional and government leaders.
- Across all phases, the Coordinating Body will provide high quality customer service to the System of Care to maintain participation and collaboration.

- During response, the Coordinating Body and System of Care will engage government representatives to inform emergency requests for funding and resources.

Considerations Across Various Special Pathogen Scenarios

- In an acute outbreak, NETEC as the Coordinating Body will work with local health care personnel and government leaders to leverage NSPS services.
- In a widespread outbreak, the Coordinating Body will share information from the NSPS and needs from the frontlines with a broad range of partners, including congressional and government leaders.

Objective 2.1- Care Delivery: Enable access to high-quality, equitable care for patients infected by a special pathogen via a tiered, national System of Care with defined capabilities to provide special pathogen care

The NSPS must be capable of delivering accessible, equitable, high-quality care to patients across the country. This is made possible by the development and use of a System of Care with tiered capabilities to address existing gaps in today's special pathogen care. Gaps in care delivery, communication and coordination, and workforce, for example, can be addressed through standards, guidance, and support to participants in the System of Care. Similar to the strength of the public-private partnerships governing NETEC as the Coordinating Body, the System of Care will rely upon and have effective partnerships with public and private organizations to deliver care locally, regionally, and nationally.

Sub-objectives

2.1.1 Coordinate a tiered, national System of Care with defined capabilities relating to special pathogen care

To prepare for, respond to, and recover from an emerging special pathogen threat in the U.S., a System of Care must be established. Each of the four levels of the System of Care will have clear capabilities expected of each participating facility in that tier. Capabilities may vary across special pathogen scenarios. The System of Care must be flexible in response, able to isolate and transport a patient with a highly infectious, acute special pathogen to another level facility capable of caring for such a patient (e.g., Level 1), while also maintaining the ability to respond broadly to a widespread, respiratory special pathogen where patients can be sufficiently cared for by Levels 2, 3, and 4. NETEC's role as a coordinating and support entity will help to prepare the System of Care for different special pathogen events.

Recommendations to achieve this sub-objective include the following:

- The Coordinating Body will establish clear capabilities for the four levels of the System of Care.
- The Coordinating Body will develop an engagement strategy to identify care delivery facility participants from across the care continuum (e.g., hospitals, long-term care facilities, in-home care providers, urgent care, and facilities providing pediatric care).
- The Coordinating Body will establish clear communication channels with and among System of Care facilities to enable open lines of communication relating to each of the Coordinating Body's six functions.
- The Coordinating Body, with the help of Level 1 facilities, will channel resources and knowledge to System of Care facilities participating in the NSPS.

2.1.2 Provide standards, guidance, and support services across the incident lifecycle for all types of special pathogen outbreak scenarios to the System of Care facilities and providers

To ensure quality control across the System of Care, appropriate standards, guidance, and support services should be available for all types of special pathogen outbreak scenarios. Having clear guidance in the early stage of an outbreak will ensure clarity for the System of Care facilities and support decisions about patient care.

Recommendations to achieve this sub-objective include the following:

- Standards
    - The Coordinating Body will provide standards on infrastructure, staffing, and staff training required to meet System of Care capabilities.
    - The Coordinating Body will set standards for rapid, molecular-based diagnostics in regional pathogen bundles for the System of Care to facilitate identification, isolation, treatment, and transfer of patients suspected of a special pathogen.
    - The Coordinating Body, in coordination with representation from each level, will create and assign standards of care appropriate to each tier, while engaging external partners to provide evaluations of facility preparedness and competency.
    - The Coordinating Body and System of Care facilities will execute agreements between participating care facilities prior to a special pathogen event to ensure coordinated care delivery, including patient transfer protocols (accounting for patients originating from any level of the System of Care), data sharing, public messaging, and resource sharing.
- Guidance
    - Through its public-private governance, the Coordinating Body will coordinate with partners to ensure clinical and operational guidance provided to health care is consistent, useable, and timely. Alignment with partners will facilitate swift application of guidance into everyday practice at System of Care facilities.
- Support
    - The Coordinating Body will monitor a sample of System of Care facilities to maintain awareness of NSPS capabilities and alignment to NSPS guiding principles.
    - The Coordinating Body will develop bi-directional communication channels with the System of Care so participating facilities can alert the Coordinating Body of emerging special pathogens and other anomalies from patients. This would not bypass normal local and state public health notifications of special pathogen identification and/or patient anomalies.
    - The Coordinating Body will provide services and products related to bench research, health systems research, and quality improvement. Furthermore, the Coordinating Body will align NSPS researchers with System of Care facilities to support application of real-time, point-of-care data and expedite the use of novel findings to practice.
    - The System of Care will provide resources and care outside of the hospital setting (e.g., vaccine distribution, EMS, long-term care facilities).
    - The System of Care will provide workforce training and education.

2.1.3 Maintain pre-determined capabilities (e.g., surge plans, waste management, load balancing) that align to readiness expectations for the tiers

For the System of Care to care for patients around the country, the levels of the System of Care must fulfill required capabilities.

Recommendations to achieve this sub-objective include the following:

- NETEC as the Coordinating Body, or a partner organization, will run regular drills of special pathogen scenarios to ensure workforce readiness and appropriate stock of resources and equipment.
- The System of Care facilities will isolate, identify, and initiate stabilizing care at all participating facilities. Patient transfer protocols, including expected timelines, will be initiated if patient needs exceed facility capabilities. These transfer protocols will mitigate disruption of operations at less-specialized System of Care facilities and ensure patients are directed to the care they need.
- The System of Care will leverage a transfer trigger algorithm for load balancing decision making. Criteria for transfer trigger algorithm may include special pathogen type, diagnostics, special pathogen precaution, capacity at higher capability tiers within region, capabilities of level facility initiating transfer. Other considerations may be scenario-based, such as patient, family, and caregiver's well-being.

- The System of Care will be capable of surge support, work in close coordination with lab networks, and have access to necessary EMS and transport services. The System of Care will have proper highly infectious waste and decedent management as well as standards, protocols, and support to ensure the appropriate care is available.
- The System of Care will train the workforce in medical surge plans, waste management, load balancing, and team-based care to ensure the whole workforce is prepared for an emerging special pathogen scenario.

2.1.4 Develop and maintain national, state, and local partnerships (e.g., government health agencies, professional associations) to support care delivery

To leverage existing expertise and capabilities, NETEC and the System of Care will develop and maintain partnerships with public and private organizations to support care delivery. At the national level, this may include government authorities and professional societies engaged by the Coordinating Body to develop and share guidance; private insurance companies who can assist in the financial sustainability of the System of Care; and supply chain partners, like procurement organizations and manufacturing companies, who can ensure appropriate equipment and supplies are available and accessible. System of Care facilities will initiate and maintain partnerships with state and local public health authorities as well as with community institutions and leaders to deliver guidance and support to residents in alignment with level capabilities.

Recommendations to achieve this sub-objective include the following:

- NETEC as the Coordinating Body will routinely source perspectives from Level 4 facilities and communities to understand patient and community needs, current barriers to care, and other local factors that could influence the quality and accessibility of special pathogen care.
- NETEC will develop and maintain partnerships with government entities and policymakers to bolster the Coordinating Body's authority, accuracy, and timeliness in providing clinical guidance.
- NETEC will partner with professional associations and policymakers to educate lawmakers on what enables an effective and equitable System of Care.
- System of Care facilities will establish agreements, across tiers and within regions, that outline load balancing procedures when necessary. This coordination can align with the Medical Operations Coordination Cells (MOCC) framework to support major medical responses.
- NETEC and the System of Care will develop and maintain partnerships with national and local private organizations to maintain functions. Partnerships will be mutually beneficial, ensuring System of Care facilities have all their needs met for patients to be cared for at the highest level, while partners will be able to provide services that further their own missions.
- NETEC and the System of Care will work with leading international research organizations and military-related organizations.

Considerations

To execute this objective, the NSPS should consider how the special pathogen scenario type will impact tiers of the System of Care and how the System of Care works throughout the response and recovery.

Considerations Across the Incident Lifecycle

- In readiness, public-private partnerships will be in place with agreed upon collaboration activities (e.g., creating clinical guidance) prior to a special pathogen incident.
- In readiness, each level will know its role in each special pathogen scenario type to seamlessly coordinate in response.
- In readiness and response, government authorities, professional organizations, supply chain partners, local leaders, and other partners will align on common guidance for a novel pathogen.

Considerations Across Various Special Pathogen Scenarios

- An acute special pathogen may only require Level 1 facilities for care delivery, whereas a widespread special pathogen will activate each of the four levels. Understanding and drilling for the type and implications of the of special pathogen will allow the appropriate components of the System of Care to improve patient outcomes and protect and communicate with communities in a response.
- Bi-directional channels of communication across the System of Care and NETEC will be essential to convey new findings from research and clinical care and enabling System of Care facilities and their partners to adapt to special pathogen types.

Objective 2.2- Communication & Coordination: Strengthen communication and coordination within the System of Care, the broader NSPS, and the public

The NSPS must be designed to enable communication and promote coordination among System of Care facilities in the NSPS System of Care and between partners across the NSPS. During the COVID-19 response, clinicians and health care workers needed clearer direction, streamlined guidance, and a mechanism for bi-directional flow of information to share findings in real time. Further, care delivery was uncoordinated, leaving individual health facilities and health systems in siloes, sharing varying levels of patient load. Strengthening communications between relevant partners and supporting overall coordination between facilities within the System of Care will help facilitate a more efficient, informed response. Formalizing collaboration between relevant partners in the NSPS, such as government agencies, national expert organizations, and frontline clinicians and health care workers and facilities in the System of Care and NETEC, will enable a clearer and more cohesive response. Reference Objective 1.3, Section 6: How the NSPS Will Look to Engage Existing Partners and Systems, and Section 7: How to Adopt this System for considerations for NSPS engagement.

Sub-objectives

2.2.1 Gather inputs from and promote collaboration with relevant partner organizations (e.g., government, national expert organizations) to inform operations and development of national standards and resources

NETEC as the Coordinating Body will form partnerships with and gather input from a variety of government agencies and national expert organizations, and other relevant partners to fulfill its core functions of executive leadership strategy and oversight, standards and guidance, monitoring and evaluation, research and data, communication and coordination, and funding. Similarly, the NSPS System of Care facilities will form partnerships with and gather input from STLT public health departments and EMS and transport providers to fulfill its core functions of patient referrals, load balancing, knowledge sharing, training, monitoring and evaluation, research, and resource sharing.

Recommendations to achieve this sub-objective include the following:

- NETEC will collaborate with relevant national expert organizations, STLT public health, trade associations, and relevant government organizations. The Coordinating Body will work with these organizations to gather input and develop national standards and available resources for care delivery, supply chain, data collection, and workforce.
- NETEC will support operational partnerships (local, state, federal, public-private) during event response.[15]
- The System of Care will collaborate with STLT public health, trade associations, and EMS and transport providers. The System of Care will work with these organizations to gather input and

[15] Saunders, R, Greene K, Gonzalez-Smith J, et al. (2021). National Dialogue For Healthcare Innovation: Framework for Private-Public Collaboration on Disaster Preparedness and Response. https://healthpolicy.duke.edu/sites/default/files/2021-02/Framework for Private-Public Collaboration on Disaster Preparedness and Response.pdf

develop interfacility transport agreements, facilitate patient medical transport, and support disease surveillance data and public messaging about special pathogens.

2.2.2 Share educational, science-based special pathogen information with the public and policymakers

NETEC and the System of Care will share information about special pathogen care needs, successes, and new approaches to educate and provide recommendations to policymakers, ultimately supporting funding and financial sustainability efforts for the NSPS. NETEC and the System of Care will share science-based information with the public to promote education and awareness of special pathogen events and public health recommendations. Consistent awareness of special pathogen activity will be critical to readiness.

Recommendations to achieve this sub-objective include the following:

- NETEC will communicate recommendations for financial and resource support to legislators and government agencies.
- The System of Care facilities will build connections within their regions, states, and local communities to provide leadership and primary prevention education for special pathogens (e.g., with local business leaders, state officials).
- NETEC and the System of Care will educate and share science-based information with clinicians, health care workers, and the public in response by leveraging findings from NSPS research.

2.2.3 Stand up and leverage communication channels to disseminate guidance and standards within the Network, the broader NSPS partners, and the public

NETEC as the Coordinating Body and the System of Care must have open communication channels to receive information and lessons learned from the frontlines and understand the needs of clinicians and health care workers, care continuum administrators, patients, and communities. NETEC and the System of Care can synthesize, analyze, and respond to this information to inform operations and develop national standards and guidance.

Recommendations to achieve this sub-objective include the following:

- NETEC as the Coordinating Body will collaborate with System of Care facilities to stand up communications channels to facilitate training and education, monitoring and evaluation of System of Care facilities, dissemination of standards and guidance, and sharing of research, data, and information.
- NETEC will enable bi-directional communications with System of Care facilities by standing up accessible, user-friendly communication channels, such as online forums and webinars, to gather input and disseminate information.
- NETEC will support close coordination among tiered System of Care facilities through communities of practice.
- NETEC will provide input on behalf of the frontlines to relevant governmental and regulatory agencies to enable standardized and usable guidance across government agencies.
- NETEC will gather input from relevant components from across the care continuum (e.g., EMS) when crafting guidance with professional societies and other partners.
- NETEC will communicate and collaborate with academic institutions and industry to advance research and use and share clinical findings.
- NETEC will test communication channels regularly to ensure processes are updated and effective and ready for response.
- NETEC will work closely with public sector partners to share best practice guidance for the public / communities / clinicians / patients for primary prevention and response actions.
- NETEC and the System of Care will use communication tools to optimize coordination and promote collaboration.
- The System of Care clinicians at all tiers will have the ability to provide input regarding NSPS standards and available resources.

Considerations

To execute this objective, the NSPS should consider the phase of the incident lifecycle and the special pathogen scenario.

Considerations Across the Incident Lifecycle

- During readiness, NETEC and the System of Care will standup bi-directional communication channels to collect information and input from all relevant partners.
- During readiness, NETEC and the System of Care will support educational efforts to promote preparedness and continuous support.
- During response, NETEC and the System of Care will activate communications channels to share insights into early clinical findings.
- During response, NETEC will synthesize information and rapidly disseminate clear, standardized guidance with the System of Care, professional associations, and government partners.

Considerations Across Various Special Pathogen Scenarios

- In an early stage of an outbreak, bi-directional communication channels are necessary to collect, analyze, and disseminate early clinical findings.
- In an early stage of an outbreak, a clear authority for guidance and protocols is necessary.
- In a widespread outbreak, coordination will be important at the local level – enabling neighboring System of Care facilities and clinicians and health care workers to share patient load, information, insights, and resources.

Objective 2.3- Workforce: Maintain a trained, diverse, and specialized workforce to equip the System of Care and prepare for a surge

To maintain a ready workforce, the NSPS must prioritize training and support, enabling frontline clinicians and health care workers to provide effective care to patients and their community. Example support includes baseline training for special pathogen care, access to public health and emergency management services, training in multidisciplinary team-based care, and community partnerships.

Sub-objectives

2.3.1 Support and train clinicians and health care workers across the System of Care on special pathogen care delivery

The workforce will have baseline training in special pathogen care delivery. Training requirements will be designated by System of Care levels, with each level requiring different capabilities and skillsets of their workforce. NETEC, its partners, and Level 1, 2, and 3 facilities will hold regular training and drilling sessions on special pathogen preparedness and response. Level 4 will have access to trainings with the support of Level 1, 2, and 3 facilities. Training for different types of special pathogen scenarios (e.g., contact, droplet, airborne precautions) will also be necessary. Beyond special pathogen care training, all clinicians and health care workers in the System of Care will be supported in promoting DEI and in investing in well-being (e.g., mental health first aid) to enable a resilient and community-centered NSPS workforce.

Recommendations to achieve this sub-objective include the following:

- NETEC , in coordination with representation of each level, and its partners will create a clear set of workforce capabilities and standards required at each level of the System of Care.
- Level 1 facilities will participate in quarterly trainings, Level 2 facilities will participate in trainings every six months, Level 3 facilities will participate in annual trainings, and Level 4 facilities will be encouraged to participate in trainings offered by Level 1, 2, or 3 facilities throughout the year on a mutually beneficial timeline.
- Level 1 facilities will build telemedicine capacity as the regional hub to deploy to services to regional Level 2, 3, and 4 facilities.

- Level 1 facilities will help capture training progress/milestones and share updates with the Coordinating Body.
- NSPS partners and Level 1 facilities will schedule annual trainings involving all tiers and various types of care delivery locations to ensure the workforce is adaptable and prepared for the possibility of deployment or working across state lines.
- NSPS partners and Level 1 facilities will administer regular training and drilling exercises to ensure readiness and response capabilities are met as assigned.
    - Training items will include, but will not be limited to, donning and doffing of PPE, surge staffing, early identification and isolation of patients, waste and decedent management, use of NSPS communication channels, transfer and EMS protocols.
- System of Care facilities will schedule facility-specific trainings when appropriate for their own institution's calendar.
- System of Care facilities will promote mental health first aid and DEI trainings.
- System of Care facilities will train their workforce on virtual care options, familiarizing clinicians and health care workers with virtual care options and the technical requirement to perform such actions.

2.3.2 Explore models to enable flexible workforce solutions to respond in special pathogen events

To ensure special pathogen care is accessible in every part of the country foundational work is needed to research barriers and solutions to improve the mobility and accessibility of the workforce.

Recommendations to achieve this sub-objective include the following:

- NETEC as the Coordinating Body and the System of Care will explore the viability of health care provider deployment and volunteer registration systems in special pathogen care delivery, including how systems support deployment across state lines. This can be done by conducting research and developing recommendations to standardize workforce flexibilities for special pathogen response and consider the Coordinating Body and Level 1's role in meeting workforce needs in special pathogen response. For example, NETEC and the System of Care could form partnerships and work with necessary leaders (e.g., state governors' offices) to enable sharing of staff across state lines.
    - Questions to explore may include the following: How are clinicians and health care workers reimbursed when working across state lines? How are state emergency declarations written to allow interstate workforce and resource sharing?
    - Models to explore include the Infectious Disease Response Unit (IDRU) model, which provides emergency medical care for high-consequence infectious disease in Texas.[16]

Considerations

To execute this objective, the NSPS should consider the phase of the incident lifecycle and the special pathogen scenario.

Considerations Across the Incident Lifecycle

- During readiness, NETEC and the System of Care facilities will share workforce lessons learned and best practices across the System of Care, including researching barriers to and solutions for improving workforce flexibilities.

Considerations Across Various Special Pathogen Scenarios

- Surge support and sharing of workforce resources may not be required for an acute special pathogen spread, where patients are reserved to Level 1 facilities.

[16] Texas Emergency Medical Task Force. (2019, December 17). Infectious Disease Response Unit (IDRU). Texas EMTF. http://txemtf.org/avada_portfolio/idru/

- The System of Care will provide specialized training to pediatric facilities for various special pathogen scenarios.

Objective 2.4- Research & Knowledge Generation: Accelerate sharing of special pathogen treatment and research efforts in partnership with industry and government

In partnership with essential leaders, the NSPS will conduct rapid research, synthesize, and disseminate findings and recommendations for clinical care, public health practice and policy, and health systems to support an effective special pathogen response. In its role in special pathogen preparedness and response, the NSPS will expedite the execution of clinical and health systems research and facilitate the development of novel medical countermeasures and response strategies. The NSPS will maintain an integrated research agenda to coordinate the collection of clinical and operational data, conduct targeted human subjects research, synthesize data in near-real time, and review and rapidly disseminate findings for improved decision-making. Improving the timeliness of special pathogen research, sharing findings, and providing evidence for evolving best practices across health and allied health specialties will fill a critical gap in medicine and public health operations.

Sub-objectives

2.4.1 Serve as a central research hub to facilitate effective clinical and health systems research, data collection and analysis, delivering timely information to improve clinical care, workforce and health system management, and quality control within the NSPS

In establishing this baseline network, NETEC as the Coordinating Body will collaborate with relevant organizations (e.g., academia and research institutions, federal agencies, international organizations) and establish procedures for conducting research and assessing and releasing research findings. The NSPS will collaborate with partners, who will be aligned with special pathogen research initiatives resourced to conduct early research and supportive of a responsible rapid assessment and release protocol. Research focus areas for these partners will include research response, medical and non-medical countermeasure development, clinical treatment, health system management, health system operations, and quality assurance across the incident lifecycle. By establishing this baseline network and operations protocols, the NSPS can quickly activate response to a special pathogen, disseminating credible recommendations across the system.

Recommendations to achieve this sub-objective include the following:

- NETEC and the NSPS partners will establish a research agenda that supports the content and distribution objectives of the NSPS.
- NETEC will identify research partners and establish procedures for engagement with the NSPS as well as protocols for collecting field data and sharing research findings during a special pathogen response.
    - Encourage potential partners to rely upon the NSPS as a guide for special pathogen research
    - Align NSPS partners leading global special pathogen surveillance initiatives with domestic special pathogen researchers, supporting early knowledge generation and preparedness for emerging special pathogens
    - Establish processes at NSPS System of Care facilities to support researchers' efforts to rapidly collect clinical field data during outbreaks to inform response
- NETEC will establish partnerships with academic thought leaders, editors of peer-reviewed journals, and other leading experts, such as from professional societies, to support assessment as well as dissemination of rapid research findings.
- NETEC will develop strategic industry relationships with pharmaceutical and biological / medical technology companies to help with laboratory and therapeutics research and development to accelerate application of research in care delivery.
- NETEC will establish NSPS quality standards all research findings must meet before review.

- NETEC will develop guidance for streamlined implementation of the regulatory environment for human subjects research protection in accordance with federally codified institutional review board (IRB) charters. These boards will lead the assessment and release of special pathogen early response guidance.
    - Determine essential fields of expertise for the pre-IRB assessment such as scientific, medical/clinical, local public health, occupational health & safety, behavioral health
- NSPS partners will disseminate findings to the System of Care leaders to support translation of recommendations into practice.

2.4.2 Promote the collection of data and exchange of best practices across the System of Care and NSPS partners; these system-wide data will inform the efforts of designated NSPS researchers

In active response to a special pathogen, the administrators and clinicians across the System of Care will identify best practices for managing health care delivery and rendering medical treatment to communities impacted by the disease. Likewise, health officials will collect and use population health data to inform regional care delivery strategies. During the COVID-19 response, research was typically shared via peer-reviewed journals, which have intrinsic latency, and social networks, which have limited reliability. The NSPS can provide a reliable, credible, widespread, and efficient community for that exchange of time-sensitive knowledge and insights to ultimately improve evidence-based care delivery.

Recommendations to achieve this sub-objective include the following:

- NETEC will appoint regional research hubs within the NSPS to assist with rapid, peer-reviewed information sharing and knowledge dissemination, informing adjustments to System of Care facilities' clinical protocols and operational response, when appropriate.
- NETEC will align data collection efforts of the System of Care with the needs of NSPS research agenda, effectively providing real-time analysis of clinical research, health systems, and quality improvement data.
- NETEC will facilitate equal access to clinical trials and investigational therapeutics, including to safety net facilities, non-traditional health facilities, and those without previous research experience.
- The System of Care will establish processes by which care facilities can quality check and share knowledge with the NSPS.

Considerations

To execute this objective, the NSPS should consider the phase of the incident lifecycle and the special pathogen scenario.

Considerations Across the Incident Lifecycle

- During readiness, clinicians and health care workers and/or care facility representatives should be trained in protocols for human subject research and access and use of knowledge-sharing and data-gathering platforms.
- During response, the research network provides a system for collecting, submitting, and analyzing clinical research, health systems, and quality improvement data.
- The NSPS must be prepared to support submissions surges at any point in the incident lifecycle.

Considerations Across Various Special Pathogen Scenarios

- The nature of the special pathogen will guide the selection of NSPS research partners engaged in the response and recovery phases of the incident lifecycle.
- To corroborate real-time clinical findings with ongoing research efforts, the NSPS should align its System of Care of field researchers with research partners according to special pathogen type. This collaboration may support the verification of research and expedite the release of valuable findings to the System of Care.

Objective 3.1- Data & Technology: Facilitate the collection, integration, analysis, and dissemination of data, and maintain connectivity to existing surveillance to support evidence-based decision-making

The NSPS must be equipped with reliable data to inform special pathogen activities across the incident lifecycle. NSPS interviewees stated that in the COVID-19 response, clinicians found national guidance to be confusing at times. A federated data interface specific to special pathogen response will help inform decision making by facilitating shared information about the nature and spread of the pathogen and patient and population health. Inputs should include domestic and global surveillance data tracking special pathogen emergence and forecasting; capacity data from System of Care facilities; public infrastructure data and population health data; and early research findings aligned with quality standards. Using this information, the NSPS can trigger alerts and provide information on facility capacity, allowing partners to make well-informed adjustments to their response activities.

Sub-objectives

3.1.1 Design solutions, agreements, and protocols to support the sharing of and access to data to empower special pathogen preparedness and response

NSPS partner and System of Care data are essential to the coordination of this community. Central access to real-time capacity data (e.g., bed space, workforce utilization, supplies, manufacturing and distribution capability) and operational data (e.g., case monitoring, rate of patient intake vs. release, patient transfer patterns) will allow System of Care facilities to learn from and collaborate with one another and maintain a shared awareness of response capacity. This shared awareness of special pathogen readiness in the community will inform decisions about response activity and operations in support of a patient- and community-centered approach. To secure and make these data available, the NSPS must satisfy the data privacy concerns of the System of Care facilities. In developing formal data agreements with its partners, the NSPS will ensure its recommendations for addressing special pathogens are reliable and specific to the needs of the NSPS.

Recommendations to achieve this sub-objective include the following:

- The Coordinating Body will leverage partnerships to design a data-sharing solution for NSPS System of Care facilities and clinical community members, satisfying their data security concerns and simplifying access to analytical insights.
- The Coordinating Body will explore new technology and artificial intelligence solutions to improve operations and care delivery. As an example, data shared from System of Care facilities might be used to automate load balancing processes.
- The Coordinating Body will assemble a team of partner organizations to support the analysis and visualization of the data. These organizations should be capable of distilling the data to create clear recommendations and should engage System of Care facilities, local leaders, and community members in developing use cases and visualizing, interpreting, and applying the data.
- The Coordinating Body will secure data sharing agreements with System of Care facilities and other data owners (e.g., government agencies, supply manufacturers, electronic health record vendors). NETEC will establish system access and maintenance protocols.
- The Coordinating Body will establish data governance to manage, standardize, and analyze data.

3.1.2 Identify and provide reliable data and clinical and operational guidance to System of Care facilities and partners based on data analysis and connectivity to existing surveillance

Domestic and international health organizations play a vital role in forecasting special pathogen emergence and release of early clinical guidance for the NSPS. Through data and technology, the NSPS can elevate high quality clinical data to the System of Care, providing widely accessible and near real-time guidance and mitigating ambiguity. For the System of Care to work cohesively, the NSPS must have a clear understanding of their partners' capabilities and capacities. The Coordinating Body will analyze data from System of Care facilities to develop regional operational recommendations for collaboration.

Recommendations to achieve this sub-objective include the following:

- The Coordinating Body will develop monitoring and evaluation criteria that will establish quality standards for clinical and operational guidance distributed through the NSPS.
- The Coordinating Body will determine what capacity and core patient data from System of Care facilities will provide greatest value to NSPS partners.
- The Coordinating Body will construct feedback protocols to monitor partners' data and analytics requirements.
    - Capacity data prepared to meet NSPS monitoring and evaluation requirements can be shared with system partners to generate a full picture of the System of Care's activities.

Considerations

To execute this objective, the NSPS should consider the phase of the incident lifecycle and the special pathogen scenario.

Considerations Across the Incident Lifecycle

- Data and technology services provided by the NSPS should adapt according to the phase of the incident lifecycle.
    - During readiness, system maintenance and demonstrations should be conducted frequently to help partners access the data and insights.
    - During response and recovery, as more is learned about the special pathogen at hand, the scope of data and technology services provided through the NSPS may focus or expand, as necessary.
- During readiness, system maintenance should be conducted regularly.
- A baseline of required data will be drawn from the System of Care throughout the incident lifecycle; however, in response and recovery, the NSPS may expand its data requests to include additional information that might support NSPS needs.

Considerations Across Various Special Pathogen Scenarios

- Depending on the clinical and community impact of a special pathogen, facilities in the System of Care and participants of the NSPS may need to share additional data. The Coordinating Body must be prepared with a process to swiftly modify data sharing agreements to support an informed response across the NSPS.

Objective 3.2- Monitoring & Evaluation: Designate System of Care facilities by level based on capability and continuously monitor readiness

To maintain high-quality and seamless operations, the Coordinating Body must designate Level 1 facilities and continuously monitor and evaluate readiness of all facilities in the System of Care.

Sub-objectives

3.2.1 Designate and set standards for System of Care facilities across tiers

To operationalize the System of Care, the NSPS must establish a process to formalize System of Care facilities as participants in the System of Care. This will enable System of Care participants to know what is expected of them and will allow the Coordinating Body to support quality care at a national level. To designate System of Care facilities the Coordinating Body can partner with an existing organization to leverage existing assessment capabilities.

Recommendations to achieve this sub-objective include the following:

- The Coordinating Body will designate Level 1 through an evaluation, either independently or with the support of an existing stakeholder.
- The Coordinating Body will develop Level 1 designation criteria in partnership with relevant subject matter experts, such as representatives from RESPTCs.

- The Coordinating Body will potentially provide funding opportunities to System of Care facilities to maintain capabilities and achieve standards and metrics. The Coordinating Body will work to understand and be responsive to the range of funding needs and other incentives that can encourage System of Care facilities to maintain readiness across the levels. If System of Care facilities struggle to maintain capabilities, NETEC will work with the facilities to support their capacity and progress and will not automatically discontinue funding.
- All Level 1 facilities of the System of Care will meet specific core standards. Standards are reviewed at least every two years by the Coordinating Body.
- The Coordinating Body, in coordination with representation from each level, will jointly establish standards, guidelines, and performance measures to determine what must exist for a facility at Levels 2, 3, and 4 to be included and maintain participation with the System of Care. The standards, guidelines, and performance measures are reviewed at least every two years by Level 1 facilities and the Coordinating Body.

3.2.2 Evaluate and monitor financial and operational readiness during readiness, response, and recovery

The Coordinating Body will evaluate and monitor the System of Care levels. This evaluation and monitoring will enable the Coordinating Body to assess patterns in capacity and need across the levels to adjust standards, guidance, and/or support as needed. To do this, NETEC can provide resources for System of Care facilities to conduct peer evaluations and self-assessments and share their findings with NETEC. In addition, NETEC can make recommendations for improvements to the System of Care and other partners and serve as a central repository for NSPS readiness by assessing the impact of the NSPS during and post-response.

Recommendations to achieve this sub-objective include the following:

- The Coordinating Body will support Level 1 facilities in holding regular and structured evaluations and exercises to assess the readiness of facilities in their System of Care regions. Exercises and drills will emphasize table-top exercises, which will be accessible to a wide range of partners.
- The Coordinating Body will draft and archive reports on the performance of the System of Care and lessons learned in response. Based on these findings, the NSPS will refine its strategy and operations.
- The Coordinating Body will conduct an evaluation of a sample of Level 2, 3, and 4 facilities.
- Levels 2, 3, and 4 will share whether they met their standards and expectations to Level 1, and Level 1 will share with the Coordinating Body.
- The Coordinating Body will advise and refine appropriate clinical and operational outcome measures for response.
- The Coordinating Body will identify partners to monitor the financial impact of preparedness and response on participants.
- The Coordinating Body will develop an annual summary readiness report and provide to all participants of the System of Care.
- The System of Care – primarily Level 2, 3, and 4 facilities – will execute self-evaluation and peer-evaluations with accelerators developed by NETEC, which are leveraged from existing assessments and processes, to measure level of readiness.
- Levels 2, 3, and 4 will receive an external evaluation by a third party to confirm designation as a participant of the System of Care.
- The System of Care facilities will actively monitor the engagement and effectiveness of their workforce and facility infrastructure (e.g., data systems).
- Level 1 facilities in the System of Care will organize annual special pathogen exercises with state and local health departments as well as Levels 2, 3, and 4 facilities in the region.

Considerations

To execute this objective, the NSPS should consider the phase of the incident lifecycle and the special pathogen scenario.

Considerations Across the Incident Lifecycle

- During readiness, the Coordinating Body will designate System of Care facilities.
- Monitoring and evaluation should occur across the incident lifecycle.

Considerations Across Various Special Pathogen Scenarios

- Certain special pathogen scenarios require the activation of a large number of System of Care facilities, such as a wide-spread special pathogen epidemic. Therefore, the NSPS should prepare more System of Care facilities rather than less to be prepared for a wide-spread special pathogen scenario.
    - The Coordinating Body will maintain a common operating picture of Level 3 and 4 facility readiness by using strategically and equitably chosen sample sizes that represent the needs and capacity of a local region.
- Self-evaluation and peer-evaluations should assess capabilities that are required for various special pathogens, rather than a single special pathogen.

Objective 3.3- Financial Sustainability: Sustain the System of Care and NETEC as the Coordinating Body through continuous diverse funding sources

As it matures, the NSPS can manage a portfolio of complementary financial mechanisms to sustain the activities of NETEC and the System of Care. Beginning with a base of funding developed through Objective 1.2, leaders across the NSPS must continuously assess funding needs and maintain requirements of funding agreements to execute activities. The NSPS can maintain existing donor relationships and seek new ones; renew applications for government assistance; and operate revenue-generating, service-based product offerings to support the NSPS.

Sub-objectives

3.3.1 Coordinate additional funding for System of Care facilities through partnerships with relevant organizations, including private donors

One of the Coordinating Body's responsibilities is to secure partnerships to support the work of the NSPS. This is also a suggested activity for the System of Care, particularly at the regional and local levels. National business partnerships and local and community business partnerships should be explored for their social and economic impact.

Recommendations to achieve this sub-objective include the following:

- The Coordinating Body will socialize the business case of the NSPS with donors and partners whose values and objectives align with the mission of the NSPS. Once initial funding is secured, terms of agreement must be met and reviewed regularly.
- Leaders across the System of Care will identify their unique needs and socialize their business cases with regional and local donors and partners who benefit from the community well-being offered by the NSPS. Once funding is secured, terms of agreement must be met and reviewed regularly.

3.3.2 Coordinate incentives for System of Care facilities to maintain capabilities and partners in planning and response

All System of Care facilities will function under their own financial and operational plans, which may be challenged by taking on the costs of special pathogen readiness requirements and protocols. Each facility can assess the gaps in their budgets to inform the allocation of additional funding. Additionally, the nature of these financial gaps will inform the NSPS Strategy on securing funds and coordinating and executing financial mechanisms (e.g., national and local reimbursement policies, cost-sharing

agreements, tax incentives) to mitigate the costs of preparedness. Access to resources and information from a local and regional network clinically capable of responding to a special pathogen can also incentivize participation.

Recommendations to achieve this sub-objective include the following:

- The Coordinating Body will explore national tax, loan, and reimbursement policies that credit System of Care facilities for their special pathogen preparedness efforts, allowing them to mitigate their expenses:
    - As an example, much like the federal fuel tax funds the Highway Trust Fund, a pandemic preparedness tax could provide capital to support System of Care facilities to meet readiness recommendations.
    - Like tax deductions for donations, care facilities compliant with preparedness standards may be eligible for community benefit refund or deduction.
    - Health care entities in compliance with readiness recommendations might be eligible for zero-interest loans or improved bond ratings.
    - Policies that govern special pathogen reimbursement can be specified and expanded to support System of Care facilities beyond immediate care delivery.
- System of Care leaders may act as ambassadors for the NSPS, identifying geographic gaps in the network and appealing to individual care facilities to join the system.

3.3.3 Support resource requests for emergency funding during extraordinary events

In the event a special pathogen overwhelms the capabilities of health care entities in the U.S., the NSPS will assume a pre-determined response posture set forth by NETEC and relevant government leadership. The NSPS can help to inform emergency funding and will have unique understanding of the costs and needs of the NSPS and will be positioned to expedite requests for support.

Recommendations to achieve this sub-objective include the following:

- The Coordinating Body will maintain a portfolio outlining the financial needs of the System of Care in readiness and estimated costs of response. These cost estimates will be supported (possibly corrected) by findings from the Coordinating Body's monitoring and evaluation responsibilities, ensuring informed requests for funding.
- The Coordinating Body will communicate regularly with Congress and the Administration and will be ready to leverage relationships and bring funding needs to the attention of government at the time of need.

Considerations

To execute this objective, the NSPS should consider the phase of the incident lifecycle and the special pathogen scenario.

Considerations Across the Incident Lifecycle

- During readiness, costs can present considerable challenges to the facilities to enter the Network. The Coordinating Body and leaders of the System of Care will need to make the benefits and support mechanisms of the NSPS clear to its participants.
- During response, costs can be high. Federal resources are likely available in a response, and additional funds will need to be considered to sustain care delivery.

Considerations Across Various Special Pathogen Scenarios

- Partnerships with national and local organizations and businesses will be established according to mission alignment and community interest. Community interest is most threatened by a surge event, such as COVID-19, when public safety measures to mitigate the spread of disease can shut down businesses, schools, and more. Although the nature of the next special pathogen outbreak is uncertain, the COVID-19 pandemic has shown the business case for the public and private sector

to forge and sustain partnerships and investments to prevent, respond to, and recover from special pathogens.

Objective 3.4- Supply Chain: Improve equitable distribution and allocation of resources and provide support for utilization and management of resources

To fully develop an infrastructure for seamless special pathogen care, the NSPS must support the equitable distribution, allocation, and usage of resources. The NSPS can do this by providing standards and guidance for resource utilization and management, and by coordinating with partners in resource development, procurement, and distribution.

Sub-objectives

3.4.1 Provide standards and guidance for special pathogen care delivery resource utilization and management to the System of Care facilities, clinicians, and health care workers

To properly equip System of Care facilities with functioning and reliable equipment, the Coordinating Body must provide standards and guidance on resource management and utilization. Resources, such as PPE, ventilators, vaccines, and other equipment to care for patients, have specific maintenance recommendations, such as storage temperature, that can be difficult to locate and track. The Coordinating Body can support the System of Care by providing information to acquire and maintain PPE, ventilators, vaccines, and other equipment to care for patients and protect the health workforce.

Recommendations to achieve this sub-objective include the following:

- The Coordinating Body will develop standards and protocols that enable System of Care facilities to procure and maintain sufficient PPE and other equipment to care for patients.
- The Coordinating Body will share research on conservation strategies and evidence-based conservation practices.
- The Coordinating Body will make stockpile recommendations and inventory targets based on the System of Care tier. Stockpile recommendations and targets equip System of Care facilities for various potential special pathogen scenarios.
- The Coordinating Body will coordinate with federal government agencies to develop guidance on what PPE criteria should be.
- The Coordinating Body will develop guidance for System of Care facilities on how to assess available PPE options.
- The Coordinating Body will co-create standards and protocols based on input from infectious disease experts, emergency response managers, and workplace safety experts.
- The Coordinating Body will make recommendations for regular PPE training.
- The Coordinating Body will craft recommendations based on the needs of both urban and rural System of Care facilities.
- The Coordinating Body will make recommendations for an inventory system to better track expiration of PPE, coordination with the manufacturers for confirmation of expiration dates, and development of regular quality checks to ensure PPE maintains integrity.

3.4.2 Support development, procurement, and distribution of resources to System of Care facilities

Individual facilities need support from partners to procure resources for special pathogen response. Today, supply chain delivery estimates are inaccurate, delivery is often delayed, and PPE, ventilators, vaccines, and other equipment can be in low quantity and of poor quality. Additional coordination to support development, procurement, and distribution of resources will better position System of Care facilities to be prepared for response.

Recommendations to achieve this sub-objective include the following:

- The Coordinating Body will track emerging special pathogen surveillance to anticipate and activate supply chain development, procurement, and distribution.

- The Coordinating Body will identify supply chain risk indicators to anticipate how changes in an emerging special pathogen may disrupt the supply chain.
- The Coordinating Body will collect information from the System of Care on necessary health care supply and resources (e.g., PPE, diagnostics) to advise the federal government of potential shortages that may require usage of the Defense Production Act of 1950.
- The Coordinating Body will coordinate with supply chain manufacturers to provide clear resource management instructions, such as expiration dates and temperature controls.
- The Coordinating Body will make recommendations on trainings for distribution, storage, and management of supplies for System of Care facilities.
- The Coordinating Body will provide a direct communication link between manufacturers and System of Care frontline users to provide feedback for better PPE and supply development.

3.4.3 Support equity in addressing supply chain shortfalls through equitable distribution and management of resources

To provide an equitable distribution of special pathogen equipment and resources, the Coordinating Body and other NSPS participants can influence partners who play a role in PPE, ventilators, vaccines, and other equipment distribution. System of Care facilities that may not otherwise have funds or relationships to quickly source resources during a special pathogen response would have support from the Coordinating Body to broker new relationships and ensure a consistent and reliable stream of supplies (e.g., for patient care, PPE, equipment). The Coordinating Body coordinates with government, biopharmaceuticals, manufacturing companies, and distributors, and advocates for resources to be placed where the community need is greatest.

Recommendations to achieve this sub-objective include the following:

- Development
  - The Coordinating Body will make recommendations to vaccine and therapeutics developers to equitably develop therapeutics, such as facilitating clinical trials with racially and ethnically diverse and representative patients.
- Procurement
  - The System of Care facilities will procure resources as designated by their level to maintain readiness.
- Distribution
  - The Coordinating Body will promote equity in distributing PPE, other safety equipment/supplies, vaccines and other therapeutics with biopharmaceuticals, manufacturers, and the government.
  - The Coordinating Body will maintain visibility into supply chain data and maximize transparency of this data to NSPS partners.
  - The Coordinating Body will support relationships with local distributors to find local solutions to new supply channels, as well as international manufacturers and distributors when local distribution is not sufficient.
  - Other NSPS partners will open and activate supply lines for System of Care facilities to support their operations.

Considerations

To execute this objective, the NSPS should consider the phase of the incident lifecycle and the special pathogen scenario.

Considerations Across the Incident Lifecycle

- During readiness, the System of Care will acquire and maintain stockpiles as a part of their normal operations.
- During readiness, the Coordinating Body will establish relationships with supply chain manufacturers and distributors.

- During response, the Coordinating Body will work closely with supply chain manufacturers and distributors.
- During response, the Coordinating Body will work closely with the System of Care to understand equipment and supply needs for coordination with supply chain and support for equitable distribution.
- During recovery, the System of Care and Coordinating Body will assess supply chain gaps and weaknesses from readiness and response and make recommendations for the future. As an example, the Coordinating Body may choose to scale up its supply chain operations and support storage of supplies or support exchange and redistribution of supplies to System of Care facilities.

Considerations Across Various Special Pathogen Scenarios

- Demand for PPE, ventilators, vaccines, and other equipment to care for patients and protect the health workforce vary depending on special pathogen scenarios, including the type of pre-caution (e.g., airborne) and spread.
- System of Care facility stockpiles should be prepared for a range of special pathogen scenarios.

Section 6: How the NSPS Will Look to Engage Existing Partners and Systems

There are six major organizations, partner and system categories in the NSPS ecosystem: government, care delivery, research, community, financing, and public health.

Government – Providing federal and STLT leadership, support, and coordination

Care Delivery – Delivering direct services to patients and support services to aid care delivery

Research – Conducting, collecting, analyzing, and disseminating clinical and health services findings

Community – Disseminating information, participating in, informing, and being served by the NSPS

Financing – Providing reimbursement, funding, or other financing into the NSPS

Public Health – Protecting community members and their health where they live and work

The following partners and systems are relevant to the development of the NSPS (icons correspond to stakeholder and system categories listed above) and may be engaged by the NSPS in the following ways:

Table 4. How the NSPS Will Look to Engage Existing Partners and Systems
The NSPS will look to partner with many existing organizations and systems to execute the goals of the NSPS.

Existing Organization/ System	Description	Relevance for NSPS	How the NSPS Will Look to Engage the Existing Partner, Organization, or System
Academic Institutions	Academic institutions contain medical centers, biocontainment units, research centers, think tanks, and policy programs surrounding public health and health care as it relates to special pathogens and response.	Academic institutions are at the forefront of the research needed to adequately and quickly identify and isolate special pathogens. Research, public health programs, and think tanks will be critical to build the NSPS as it relates to information sharing and health systems solutions.	*The NSPS can engage academic institutions to potentially serve as facilities, such as the RESPTCs, in the System of Care, likely fulfilling research, care delivery, and training roles in a Level 1 facility.*
American Hospital Association	The American Hospital Association (AHA) is a health care industry trade group with over 5,000 hospitals, health care systems, networks, other providers of care, and 43,000 individual members.[17]	AHA is an existing network of health care professionals invested in quality care delivery across the country. AHA advocates on behalf of health providers and its members alike. AHA also hosts innovation conferences for problem solving and strategic planning.	*The NSPS can engage the AHA and its network of health care professionals and leaders. The NSPS can engage AHA to support and promote the NSPS to its participants. Many NSPS System of Care entities may be AHA members.*

[17] American Hospital Association. (n.d.). About the AHA | AHA. https://www.aha.org/about

Existing Organization/ System	Description	Relevance for NSPS	How the NSPS Will Look to Engage the Existing Partner, Organization, or System
Office of the Administration for Strategic Preparedness and Response(ASPR) 	Federal agency under the Department of Health and Human Services (HHS) that leads the nation's medical and public health preparedness for, response to, and recovery from disasters and public health emergencies. ASPR collaborates with hospitals, health care coalitions, biotech firms, community members, STLT governments, and other partners across the country to improve readiness and response capabilities. [18]	ASPR provides funding for health care readiness through the Hospital Preparedness Program (HPP) and other supplemental funding, including the Regional Disaster Health Response System. ASPR aims to sustain public health security, enhance medical countermeasures, provide strong leadership, and build a response system to special pathogens. ASPR provides an integrated, systemic approach to development of vaccines, drugs, therapies, and diagnostic tools for public health emergencies through the Biomedical Advanced Research and Development Authority (BARDA). [19, 20]	*The NSPS can engage with state, local, and health care entities funded by ASPR to conduct all hazards and special pathogen preparedness and response. The NSPS can also participate as a leader in ASPR's national coordination activities.*
Centers for Disease Control and Prevention (CDC) 	The CDC is the U.S.' leading science-based, data-driven, service organization that protects the public's health. [21]	CDC releases direction and guidance on emerging special pathogen presence and response and conducts research. Guidance is informed by research and information is shared with the public regarding outbreaks and population health protections, including vaccines. CDC invests in STLT public health infrastructure.	*The NSPS can collaborate with the CDC on providing consistent and useable guidance for health care workers and the community. The NSPS can also engage the CDC on national special pathogen surveillance data.*

[18] HHS Office of the Assistant Secretary for Preparedness and Response. (2021). ASPR Organization. https://www.phe.gov/about/aspr/Pages/default.aspx
[19] HHS Office of the Assistant Secretary for Preparedness and Response. (2021). Hospital Preparedness Program (HPP). https://www.phe.gov/Preparedness/planning/hpp/Pages/default.aspx
[20] HHS Office of the Assistant Secretary for Preparedness and Response. (2021). Biomedical Advanced Research and Development Authority. https://www.phe.gov/about/barda/Pages/default.aspx
[21] Centers for Disease Control and Prevention. (2021). A Bold Promise to the Nation. https://www.cdc.gov/about/24-7/index.html

Existing Organization/ System	Description	Relevance for NSPS	How the NSPS Will Look to Engage the Existing Partner, Organization, or System
Centers for Medicare and Medicaid Services (CMS)	Federal agency under HHS that administers the two largest federal health care programs - Medicare and Medicaid - as well as CHIP and the Federal Marketplaces. [22]	CMS is the single largest payer for health care in the U.S. CMS sets the standard for reimbursement across the insurance industry and provides mechanisms to reimburse, incentivize innovation, advance care quality, and reduce costs in health care.	*The NSPS can engage CMS to provide essential incentives to promote readiness and participation in the System of Care, as well as direct reimbursement to System of Care facilities, potentially via the Center for Medicare and Medicaid Innovation (CMMI).*
Critical Access Hospitals (CAH)	CAH is a certification from CMS or certain Medicare participating hospitals in a rural area or an area treated as a rural.[23]	CAHs are representatives for rural health care. The NSPS seeks to provide accessible and equitable care, including to rural communities.	*The NSPS can engage CAHs to serve as facilities within the System of Care and help the Coordinating Body understand the needs of rural communities.*
Department of Defense (DoD)	Executive branch department of the federal government, which coordinates and supervises all agencies and functions related to national security and the U.S. Armed Forces. Provides military forces needed to deter war and ensure national security.[24]	Executive branch overseeing the Defense Health Agency (DHA), which provides a health system for military personnel at home and abroad and can be called into action to provide surge support and a medically ready force to provide services for military personnel and citizens in times of need. The DHA and the Military Health System (MHS) are also important locations for research. TRICARE is the health care program for uniformed services, retirees, and their families. TRICARE provides insurance coverage. The National Guard, under the DoD and Title 32, provides	*The NSPS can coordinate with the DoD to support local surge response, international repatriation efforts, and provide reimbursement for services and resources.*

[22] Centers for Medicare & Medicaid Services. (n.d.). About CMS. https://www.cms.gov/About-CMS/About-CMS
[23] Rural Health Information Hub. (2019). Critical Access Hospitals (CAHs) Introduction. https://www.ruralhealthinfo.org/topics/critical-access-hospitals
[24] Department of Defense. (n.d.). U.S. Department of Defense. https://www.defense.gov/

Existing Organization/ System	Description	Relevance for NSPS	How the NSPS Will Look to Engage the Existing Partner, Organization, or System
		logistical support (for example in food and PPE distribution), contact tracing and testing, and direct patient care and vaccines administration. DoD also supports the Federal Coordination Centers which are a part of the National Disaster Medicine System (NDMS). [25, 26, 27]	
Department of Labor (DoL) Occupational Safety and Health Administration (OSHA)	OSHA ensures safe and healthful working conditions for workers by setting and enforcing standards and by providing training, outreach, education and assistance.[28]	OSHA provides information, training, and assistance to employers and workers regarding worker safety.	*The NETEC can engage with OSHA on provider safety protocols and guidance within the System of Care, specifically as it relates to PPE protocols and guidance.*
Department of State	The Department of State Office of International Health and Biodefense (IHB) promotes the U.S. national security and economic prosperity by combating biothreats and outbreaks of infectious disease through diplomacy.[29]	The Department of State owns capabilities to enable government coordination to a special pathogen response. The Department of State also advises foreign governments, the private sector, and civil society to stop the spread of infectious diseases and treat those infected.	*The NSPS can engage with the Department of State on using a whole-of-government approach to advance response objectives. The NSPS can engage the Department of State to monitor international public health concerns, support mobilization of resources, and support civilians with repatriation.*
Emergency Medical Services (EMS)	EMS consists of ambulance and paramedic services and provides urgent pre-hospital treatment and stabilization for illnesses and injury.	EMS is utilized to transport patients between facilities and provide urgent care in the field to stabilize patients in need.	*The NSPS can work with EMS to provide critical life-saving care and transport between communities and the System of Care facilities. The NSPS can work with EMS, in*

[25] Military Health System. (n.d.). Defense Health Agency. https://www.health.mil/About-MHS/OASDHA/Defense-Health-Agency
[26] TRICARE. (n.d.). TRICARE. https://www.tricare.mil/
[27] FEMA. (2021). National Guard Deployment Extended to Support COVID-19 Response. https://www.fema.gov/fact-sheet/national-guard-deployment-extended-support-covid-19-response
[28] Department of Labor. (n.d.) Occupational Safety and Health Administration. https://www.osha.gov/aboutosha
[29] Department of State. (n.d.). Office of International Health and Biodefense. https://www.state.gov/bureaus-offices/under-secretary-for-economic-growth-energy-and-the-environment/bureau-of-oceans-and-international-environmental-and-scientific-affairs/office-of-international-health-and-biodefense/

Existing Organization/ System	Description	Relevance for NSPS	How the NSPS Will Look to Engage the Existing Partner, Organization, or System
			coordination with the National Highway Traffic Safety Administration, to establish patient transfer protocols, as EMS has done with COVID-19.
Federal Emergency Management Agency (FEMA)	FEMA is an agency within the US Department of Homeland Security. The mission of FEMA is to help people prepare for disasters, stay safe during disasters, and recover after disasters.[30]	FEMA works closely with HHS and other federal agencies to coordinate with STLT authorities, private sector partners, and others to assist with national disaster response.[31]	*The NSPS can engage FEMA to work with System of Care facilities to coordinate resources needed by patients infected by a special pathogen. NSPS can also coordinate with FEMA to strategically prioritize medical supplies and equipment for frontline facilities.*
Food and Drug Administration (FDA)	The Food and Drug Administration is a federal agency within HHS and is responsible for protecting the public health by ensuring the safety, efficacy, and security of drugs, biological products, and medical devices.[32]	The FDA coordinates and certifies vaccines, therapeutics, and clinical tests and devices for distribution and use across the U.S. Clinical trials may be approved and organized with FDA oversight. FDA provides guidance on clinical trials for health professionals.	*NSPS can coordinate with the FDA to provide guidance to health professionals regarding clinical trials, therapeutics, tests, and vaccine distribution for System of Care facilities and NSPS partners and key leaders.*
Health Care Coalitions (HCCs)	HCCS align individual health care and response organizations (e.g., hospitals, emergency medical services, EMS, and public health agencies) in a geographic region. They play a critical role in developing health care system preparedness and response capabilities. There are 326 HCCs across the	HCCs collaborate with partners to ensure access to necessary medical equipment and supplies, real-time information, communication systems, and trained and exercised personnel to respond to an emergency as established multiagency coordination groups that support and integrate	*The NSPS can work with HCCs as collaborative networks that inform the placement of and support the readiness of System of Care facilities, specifically Level 4. HCCs know how to coordinate necessary medical equipment, supplies, and personnel across their communities and can*

[30] FEMA. (2021). Mission & Strategic Plan. https://www.fema.gov/about/mission
[31] FEMA. (2021). Coronavirus (COVID-19) Response. https://www.fema.gov/disasters/coronavirus
[32] Food and Drug Administration. (n.d.). Food and Drug Administration. https://www.fda.gov/

Existing Organization/ System	Description	Relevance for NSPS	How the NSPS Will Look to Engage the Existing Partner, Organization, or System
	country with 41,128 HCC member organizations.[33]	with public health and medical service activities in jurisdictional incident command systems (ICSs).	*support linkages of resources with the NSPS. NETEC can align with HCCs on standards and guidance.*
Health Care and Public Health Philanthropies	Private, charitable organizations that promote the health and well-being of the population through financial donations and investments.	Health care and public health philanthropies have relationships with individuals who are passionate about health care and willing to financially support health care.	*The NSPS can engage relevant health care and public health philanthropies to mobilize donors to invest in startup/seed funding for the NSPS. Health care and public health philanthropy support can also add credibility to the NSPS.*
Hospital Associations	In 2020, ASPR funded 53 Hospital Associations across the U.S. to distribute funding directly to hospitals and other related health care entities for special pathogen preparedness and response for their states and jurisdictions, limiting federal administrative costs.	As recipients of the HPP funding, hospital associations can facilitate distribution of funds to health care directly and have the trust of health care administrators.[34]	*The NSPS can engage hospital associations to potentially serve as a funding stream for System of Care entities and can encourage facilities to participate in the System of Care. The NSPS can also engage hospital associations to facilitate collaboration among participating hospitals and other health care entity types in their states or regions.*
Insurance Companies	Insurance companies reimburse hospitals for services provided to patients under their policies. They could subsidize costs reducing burden on the patient	Insurance companies provide reimbursement for health care services delivered nationwide. They have negotiating power due to their large consumer base.	*The NSPS can work with insurance companies to enable financial incentives to promote readiness and participation in the System of Care, which*

[33] HHS Office of the Assistant Secretary for Preparedness and Response. (2021). Health Care Coalitions (HCCs) One-Pager. https://www.phe.gov/Preparedness/planning/hpp/Documents/HCC-FactSheet-April2021-508.pdf
[34] HHS Office of the Assistant Secretary for Preparedness and Response. (2021). Hospital Preparedness Program (HPP). https://www.phe.gov/Preparedness/planning/hpp/Pages/default.aspx

Existing Organization/ System	Description	Relevance for NSPS	How the NSPS Will Look to Engage the Existing Partner, Organization, or System
	and ensuring financial reimbursement for facilities. They provide community benefit and support for patient populations.		*could include direct reimbursement to System of Care facilities.*
Laboratory Response Network (LRN)	LRN is a national security asset that develops, maintains, and strengthens an integrated network of laboratories to respond quickly to biological and chemical threats, as well as high-priority public health emergencies through training, rapid testing, timely notification, and secure messaging of lab results.[35]	LRN consists of representation from federal, state and local public health, military, environmental, and international labs among others.	*The NSPS can work with the LRN to make placement recommendations of Level 2 and 3 facilities. The NSPS can also engage the LRN to boost the System of Care's lab capacity and enhance coordination amongst nationwide labs, including private labs and System of Care facilities' labs.*
Large Health Care Delivery Systems	Large health care delivery systems are often associated with medical centers and academic medical schools. They consist of high caliber trauma units, can be expansive geographically, and cover large patient populations.	Large health care delivery systems provide patient care across geographically diverse areas and serve large populations. They conduct and provide research and data needed to informed care and response decisions.	*The NSPS can engage large health care delivery systems to participate in the System of Care and enhance response coordination, including supporting care coordination across state lines.*
Medical Operations Coordination Cells (MOCCs)	MOCCs are a framework to stand up temporary cells within emergency operations centers at the sub-state, regional, state, and federal levels (FEMA/HHS regions) to facilitate patient medical transport and resource allocation across health systems during times of need. During the COVID-19 response, MOCCs were established in Washington State, Los	MOCCs support the transfer of patient, staff, and supplies between facilities as well as the collection of data related to health system capacity, synthesizes the data to understand the needs of the system, and determines areas of the system that may be overwhelmed.	*The NSPS can leverage the MOCC framework for patient medical transport across the NSPS. MOCCs can serve as best practices for the medical transport of patients, staff, and supplies across System of Care entities.*

[35] Centers for Disease Control and Prevention. (2019). Laboratory Response Network (LRN). https://emergency.cdc.gov/lrn/

Existing Organization/ System	Description	Relevance for NSPS	How the NSPS Will Look to Engage the Existing Partner, Organization, or System
	Angeles County, Texas, and Michigan.[36]		
National Disaster Medical System (NDMS)	Federally coordinated health care system and partnership between the Departments of Health and Human Services, Homeland Security, Defense, and Veterans Affairs. NDMS provides personnel, equipment, supplies, and a system of partner hospitals to work together with state and local personnel to provide care during natural and human-caused disasters, such as hurricanes, earthquakes, pandemic disease, major transportation accidents, and terrorist attacks.[37]	Emergency care provision, supplies, and a pre-established system of hospitals with funding for disaster response. Supplements public health and medical resources in human and veterinary health care, mortuary assistance, patient medical transport coordination, and definitive care during times of need.	*The NSPS can work with NDMS to provide an equipped workforce and care to the System of Care during surge response. The NSPS can also model training off of the Veteran's Affairs training model.*
National Institutes of Health (NIH)	The NIH is the nation's medical research agency, "supporting scientific studies that turn discovery into health." The NIH is made up of 27 different components called Institutes and Centers. [38]	The NIH conducts research on special pathogen treatments, tests, and vaccines. NIH also provides funding for special pathogen research.	*NSPS can coordinate with NIH to provide guidance on NIH-funded research grants and distribute research conducted through the NIH regarding special pathogen treatment, tests, and vaccines.*
National Security Council (NSC)	The National Security Council is the President's principal forum for national security and foreign policy decision making.[39]	The National Security Council works to advise and assist the President and to coordinate matters of national security among government agencies.	*The NSPS can coordinate with the National Security Council to ensure efficient and effective reporting of special pathogen presence in*

[36] HHS ASPR Technical Resources, Assistance Center, and Information Exchange (TRACIE). (2020). Medical Operations Coordination Cells Toolkit. https://files.asprtracie.hhs.gov/documents/fema-mocc-toolkit.pdf
[37] HHS Office of the Assistant Secretary for Preparedness and Response. (2021). National Disaster Medical System. https://www.phe.gov/Preparedness/responders/ndms/Pages/default.aspx
[38] National Institutes of Health. (n.d.). National Institutes of Health. https://www.nih.gov/
[39] White House. (n.d.). National Security Council. https://www.whitehouse.gov/nsc/

Existing Organization/	Description	Relevance for NSPS	How the NSPS Will Look to Engage the Existing Partner, Organization, or System
		The National Security Council also includes the COVID-19 Response Coordinator. They release memoranda about leadership and international response to special pathogens and biological preparedness.	*the U.S. and to disseminate guidance received regarding global response to special pathogens and biological preparedness.*
Outpatient Care Facilities	A facility, located in or apart from a hospital, that provides, under the direction of a licensed physician, either diagnosis or treatment, or both, to ambulatory patients in need of medical, surgical, or mental care, such as nursing homes. An outpatient facility may have observation beds.[40]	Leveraging outpatient care facilities can increase capacity for health care delivery, and diagnostic and clinical lab testing.	*The NSPS can work with outpatient facilities, which are automatically considered for Level 4. These facilities can be explored for potential inclusion within the System of Care, particularly for Level 3 facilities.*
Patient Advocacy Organizations	Organizations that advocate for patients and communities by driving initiatives that target patient and community needs. Examples include the National Patient Advocate Foundation (NPAF).	Understanding the needs of patients and communities will allow the NSPS to provide more effective standards and guidance to the System of Care.	*The NSPS can work with patient advocacy organizations to elevate patient and community needs in readiness, response, and recovery.*
Pediatric Disaster Care Centers of Excellence	Select hospital centers that are identified to establish care capabilities for pediatric patient care in disasters: assessing regional pediatric readiness, strengthening pediatric disaster preparedness plans, and enhancing situational awareness of pediatric disaster care	Leveraging pediatric centers of excellence can enhance health system coordination and statewide and regional medical surge capacity for pediatric patients.	*The NSPS can engage Pediatric Disaster Care Centers of Excellence for potential inclusion in Level 1 or 2 of the System of Care.*

[40] Law Insider. (n.d.). Outpatient facility definition. https://www.lawinsider.com/dictionary/outpatient-facility

Existing Organization/ System	Description	Relevance for NSPS	How the NSPS Will Look to Engage the Existing Partner, Organization, or System
	capabilities and capacity overall.[41]		
Professional Societies	Professional societies represent groups of specialized clinicians, such as infectious diseases physicians, and family practitioners, pediatrics practitioners, and other clinical specialty groups.	Examples of professional societies relevant for NSPS include the Infectious Diseases Society of America, Society of Critical Care Medicine, American College of Emergency Physicians and the American Nurses Association among others.	*The NSPS can coordinate with professional societies to gather input and disseminate guidance relevant to health care workers.*
Public Health Associations	Public health associations include entities like the National Association of County and City Health Officials (NACCHO) and the Association of State and Territorial Health Officials (ASTHO).	Public health associations provide guidance to public health departments and supplemental resources and support. They also advocate on behalf of public health departments and their jurisdictions.	*The NSPS can engage public health associations to coordinate with and advocate on behalf of all public health departments within the System of Care.*
Regional Disaster Health Response System (RDHRS)	Through the RDHRS initiative, ASPR established three state-level clinical response assets as well as inter-state regional assets to create a more coherent, comprehensive, and capable health care disaster response system. Current	RDHRS can include trauma centers, burn centers, pediatric hospitals, public health labs, outpatient services, and federal facilities (e.g., VHA clinics) that could be leveraged as the System of Care is stood up. RDHRS also leverages the ASPR	*The NSPS can work with RDHRS sites to provide special pathogen-specific care. The RDHRS model can be leveraged for special pathogen response.*

[41] HHS Office of the Assistant Secretary for Preparedness and Response. (2019). Pediatric Disaster Care Centers of Excellence Cooperative Agreement. https://www.phe.gov/Preparedness/responders/ndms/Pages/PDCCOE.aspx

Existing Organization/ System	Description	Relevance for NSPS	How the NSPS Will Look to Engage the Existing Partner, Organization, or System
	RDHRSs operate out of Massachusetts General Hospital, Nebraska Medicine, and Denver Health and Hospital Authority. [42]	Medical Surge Capacity and Capability (MSCC) management system.	
Retail Pharmacy Chains	Retail pharmacy chains provide services to patients in the capacity of urgent care, diagnostics, lab testing, and information sharing. They are nationally distributed and corporately owned.	Retail pharmacy chains provide ambulatory point-of-care services, lab testing, and vaccine distribution when necessary. They will be critical for supply chain operations.	*The NSPS can coordinate with retail pharmacy chains to supplement System of Care facilities and labs during surge response as well as disseminate critical information to and from the community.*
State, Tribal, Local, and Territorial Public Health Departments (STLT)	STLT public health departments promote and protect the health of their jurisdictions. They monitor health care costs and maintain standards for quality health care delivery and activities of their residents.	STLT public health departments provide guidance related to special pathogens and set standards for special pathogen response. They play a leading role in disease surveillance, public messaging, and help enable equitable care delivery. They also establish cost criteria and advocate on behalf of their residents' health.	*The NSPS can tightly coordinate with STLT public health departments on disease surveillance, public messaging, and patient care with the System of Care. This coordination can provide critical information for decision-making and readiness and response activities of the NETEC.*

Section 7: How to Adopt this System

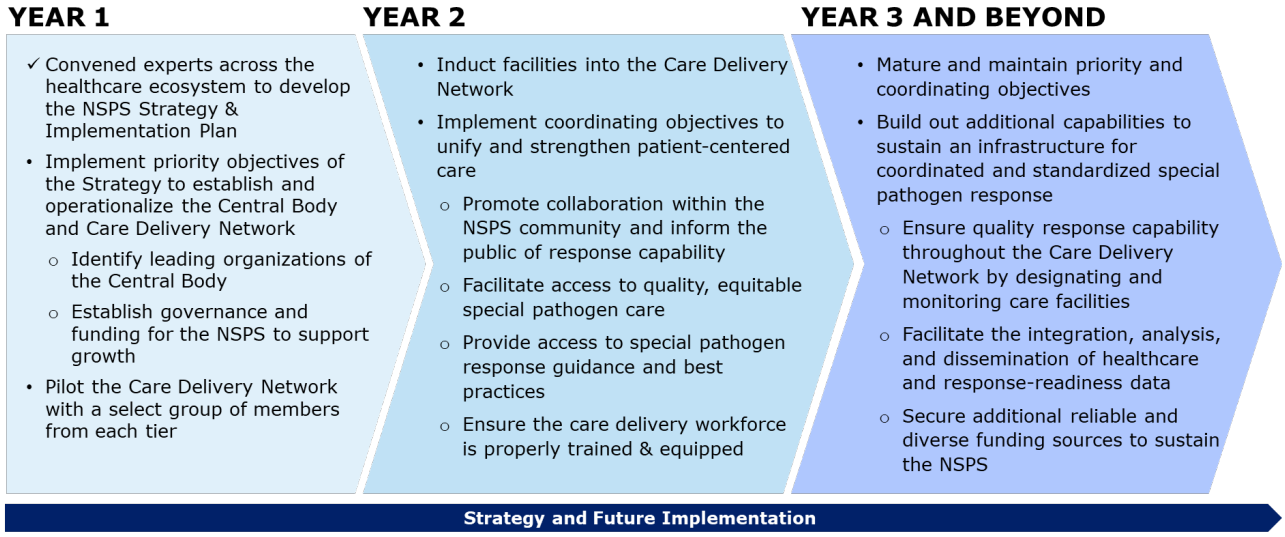
Key Implementation Steps

To adopt this strategy, an implementation plan was built in tandem with this document. The implementation plan illustrates how the strategy design can be implemented, advanced, and sustained by

[42] HHS Office of the Assistant Secretary for Preparedness and Response. (2021). Regional Disaster Health Response System. https://www.phe.gov/Preparedness/planning/RDHRS/Pages/default.aspx

"owners" of key components of the strategy. The implementation plan includes key milestones and detailed recommendations to operationalize the strategy assuming available resources. The implementation plan will be agile and continuously updated based on further NSPS design and new priorities. See Figure 12 below for a high-level implementation plan and key milestones to activate the NSPS Strategy.

Figure 11. Three Year NSPS Implementation Plan
Below are the key implementation steps for the next three years.



NETEC has convened experts across the health care ecosystem to develop the NSPS Strategy and Implementation Plan. Furthermore, the NETEC has implemented prioritized sub-objectives of the NSPS Strategy to design, establish, and operationalize the Coordinating Body and System of Care operating models. These operating models have and continue to be developed with robust involvement from public and private sectors contacts and with consideration for feasibility and impact. NETEC will continue working to establish governance and funding for the system. Funding may be obtained using mechanisms for seed funds and once seed funding is obtained, the NSPS must establish operational funding mechanisms to be used for sustaining the system (see Table 5). In addition, NETEC has begun piloting the System of Care with select groups of participants from each level.

Table 5. Startup/Seed Funding and Operational Funding Mechanisms
Below are potential mechanisms or for seed funding and operational funding.

Startup / Seed Funding Mechanisms		
Category	***Type of Funding Mechanism***	***Description***
Traditional Funding	Grant Funding	Grants support recovery initiatives and innovations and are provided without expectation of repayment
	Government Funding	Government appropriations and budgets inclusive of special pathogen response funding
Donation and Trust	Corporate Donations and Funding	Direct donations and funds from corporations with an interest in special pathogen preparedness, response, and recovery
	Response Activity Trust Fund	Funds collected through health-related profits deposited into a trust to be distributed for response activities when needed
	Seed Donations	Direct donations to establish NETEC as the NSPS Coordinating Body and the System of Care
Operational Funding Mechanisms		
Traditional Funding	Traditional Insurance Reimbursement	Direct reimbursement from health insurance companies to System of Care facilities to fund procedures and care related to special pathogens
	Department of Defense Partnership – VA 4th Mission	Care provided by the Departments of Veterans Affairs and Defense to non-Veteran citizens at VA medical centers (VAMCs)
Process Funding	Special Pathogen and Pandemic Insurance	Independent insurance pool for special pathogen and pandemic response. Members pay for policies to tap into when response is needed
	Pandemic Profiteers Surcharge	Surcharge on excess profits resulting from a surge in services provided during special pathogen response. Fees are collected and sustained through investment then redistributed for special pathogen response
	Regulatory Cost Optimization Solutions	Cost optimization and sharing for pandemic and special pathogen responders

Next, NETEC will focus on building out the System of Care component of the NSPS. NETEC will implement objectives and activities to unify and strengthen patient-centered care across the care delivery continuum and the incident lifecycle. NETEC will promote collaboration within the NSPS community and inform the public of response capability. As the System of Care is activated, the NSPS will facilitate access to quality, equitable special pathogen care. NETEC as the Coordinating Body will provide access to special pathogen response guidance and best practices. Through NETEC and the System of Care leaders, the NSPS will ensure the care delivery workforce is properly trained and equipped.

Later, the NSPS will mature and maintain priority and coordinating objectives. The NSPS will build out additional capabilities to sustain the infrastructure for coordinated and standardized special pathogen response. NETEC will ensure quality response capability throughout the System of Care by monitoring and designating System of Care facilities with the support of Level 1 facilities. The NSPS will facilitate the integration, analysis, and dissemination of health care and response-readiness data. The NSPS will also secure reliable and diverse funding sources to sustain the system. NETEC will establish and maintain

partnerships to ensure System of Care facilities have access to adequate resources, to reduce competition, and to promote equitable distribution.

Throughout implementation, the NSPS will adapt to changes to the existing system and look to align with emerging investments in special pathogen response. Some efforts that could impact the NSPS include:

- The Assistant to the President for National Security Affairs will establish an integrated National Center for Epidemic Forecasting and Outbreak Analytics to modernize global early warning and trigger systems.[43]
- Health Resources and Services Administration is establishing a Pediatric Pandemic Network that will coordinate among the nation's children's hospitals and their communities in preparing for and responding to global health threats, including the coordination, preparation, response, and real-time dissemination of research-informed pediatric care for future pandemics.[44]
- The Secretary of Defense, the Secretary of Health and Human Services, and the Secretary of Homeland Security will collaborate to develop a Pandemic Supply Chain Resiliency Strategy to design, build, and sustain both short-term and long-term domestic capabilities to manufacture pandemic supplies for COVID-19 as well as the manufacturing of supplies for future pandemic and biological threats.[45]
- Intel's Pandemic Response Technology Initiative funds projects designed to accelerate access to technology to enhance patient care. The NSPS could pursue funding as a corporate investment/grant.[46]
- CDC Foundation grants provide PPE, lab and medical equipment, test support, and more to support research and serve at-risk populations. The NSPS could pursue funding as a foundational investment.[47]

Success Measures

Success measures will help the NSPS evaluate how it is tracking towards its goals and objectives. Example success measures based on the priority NSPS objectives and activities include:

- The number of organizations partnering with the NSPS
- The speed at which U.S. residents can receive care during a response
- The speed at which data insights (e.g., outbreak data) are distributed
- The number of workers or System of Care facilities trained
- The number of System of Care facilities that receive satisfactory or above preparedness results in self-assessments and/or annual external special pathogen assessments
- The number of System of Care facilities that continue normal operations during a special pathogen response
- The number of new therapeutics adopted based on research and knowledge generation functions

Socialization

The NSPS will continue to engage partners across the public and private sectors to successfully implement the NSPS Strategy. To date, the strategy was designed by 70+ partners including public health policy experts, frontline clinicians and health care workers, emergency responders, health systems executives,

[43] Biden, J.R. (2021, January 21). National Security Memorandum on United States Global Leadership to Strengthen the International COVID-19 Response and to Advance Global Health Security and Biological Preparedness. The White House. https://www.whitehouse.gov/briefing-room/statements-releases/2021/01/21/national-security-directive-united-states-global-leadership-to-strengthen-the-international-covid-19-response-and-to-advance-global-health-security-and-biological-preparedness/

[44] (2021). Regional Pediatric Pandemic Network. The Health Resources and Services Administration. https://www.hrsa.gov/grants/find-funding/hrsa-21-104

[45] Biden, J.R. (2021, January 21) Executive Order on a Sustainable Public Health Supply Chain. The White House. https://www.whitehouse.gov/briefing-room/presidential-actions/2021/01/21/executive-order-a-sustainable-public-health-supply-chain/

[46] Intel. (2021). Leveraging Technology to Provide Global Pandemic Relief. https://www.intel.com/content/www/us/en/newsroom/opinion/leveraging-technology-global-pandemic-relief.html - gs.2gklsn

[47] CDC Foundation. (2021). COVID-19 Resources. https://www.cdcfoundation.org/COVID-19-resources

academic institutions and medical centers, insurance companies (payers), clinical health associations, and government agency leaders. As the NSPS Strategy is implemented, the NSPS will socialize and secure buy-in from target audiences including legislative champions, government leaders, NSPS partners, and the general public and health care community.

Legislative champions (e.g., federal legislators, state legislators) are a key stakeholder of the NSPS. The NSPS will need to educate Congress about the NSPS and the maturity of the effort and future needs.

Government leaders (e.g., federal health agencies) are key partners of the NSPS and are essential for successful special pathogen readiness and care. The NSPS will need to share progress with government funders, collaborate with key government partners for across the NSPS, and develop bi-directional communication channels with government in readiness, response, and recovery.

NSPS leaders (e.g., CAG and working group members) are current and future partners who have supported the strategy development and can help implement and execute the strategy. The NSPS will need to educate key leaders across the health care industry and gain commitment and buy-in for NSPS. For example, the NSPS will need to secure the participation of health systems to participate in the System of Care.

General public/health care community (e.g., health care executives, clinicians and health care workers, insurance leaders, researchers) is comprised of the patients, communities, care continuum administrators, and health care personnel that this strategy seeks to serve. The NSPS can educate the public and health care community about efforts to improve the health system post-COVID-19 and how it can provide value in the future across readiness, response, and recovery.

A key implementation step includes developing a communications plan to secure buy-in from each of these groups. The communications plan will identify specific activities and owners to engage each of these groups. Potential activities include developing a blog series and producing peer review publications.

Looking Forward

This strategy details expectations and roles of partners in the health care and allied health industries. However, to affect lasting change, the NSPS requires integrated support across multiple industries and the public – because health security is national security. Furthermore, this national effort to improve the care delivery landscape across the country is a unique opportunity to address systemic racism and inequitable access to health care in the U.S. Support from all participants – industry leaders, government, and the public – is needed. This call for action is diverse, and the leaders of this effort are ready and invested. They guided the mission to evolve the special pathogen response protocol in this country and developed the essential infrastructure for this system of care. Leaders of and participants who will be implementing this strategy can ensure the complex U.S. health system is adequately represented, well-supported, and properly engaged. Government support and involvement can lend stability and credibility to the system of care. Business, education, and community residents, and others outside of the health care industry can benefit from the establishment of this system in the interest of national safety and security. Now is the time for all partners and anticipated beneficiaries of the NSPS to bring together their voices, offerings, and expertise to stand up the NSPS to minimize the impact of the next pathogen on American well-being. Armed with the thoughtful recommendations of this strategic plan while our country actively works to recover from the COVID-19 pandemic, now is the time to act.

Section 8: Appendix

This appendix has been created for acknowledgments, additional figures, references, institutions interviewed, and information about the Greenhouse Lab sessions.

Appendix A: Acknowledgments and Partners Involved

This strategy was developed with over 70 individuals and organizations who have lent their expertise and time to develop the NSPS and was led and sponsored by the NETEC Steering Committee, who oversaw and managed the development of the strategy. NETEC expresses gratitude to over 30 individuals who provided their time and ideas in the early stages of the strategy development. NETEC would also like to thank the Core Advisory Group participants, Work Group participants, Greenhouse Lab participants, and NETEC staff who have provided significant time and commitment to shaping the strategy. The Core Advisory Group consisted of members that advised and provided objective strategic direction to the strategy. The Work Group leads and members designed the NSPS target operating model and brought special pathogen and health care experience and expertise to the table. Greenhouse Lab participants provided insights in focused working sessions to advise the strategy. NETEC staff provided expertise, program management support, and communications support.

These participants are presented in alphabetical order below. Please note that the viewpoints expressed in this strategy do not necessarily reflect the viewpoints of the acknowledged individuals nor their organizations.

- Shantanu Agrawal, MD, Anthem, Inc., Chief Health Officer
- Sonia Bell, MBA, Emory University and the National Emerging Special Pathogen Education and Training Center, Associate Director
- Nahid Bhadelia, MD, MALD, Boston University Center for Emerging Infectious Diseases Policy and Research (CEID), Founding Director
- Paul Biddinger, MD, FACEP, Massachusetts General Hospital, Director
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- Laura Evans, MD, University of Washington Medical Center, Medical Director of Critical Care
- Joseph J. Fifer, Healthcare Financial Management Association, President and CEO
- Nancy Foster, American Hospital Association, Vice President of Quality and Patient Safety
- John Gallina, Chief Financial Officer, Anthem Inc.
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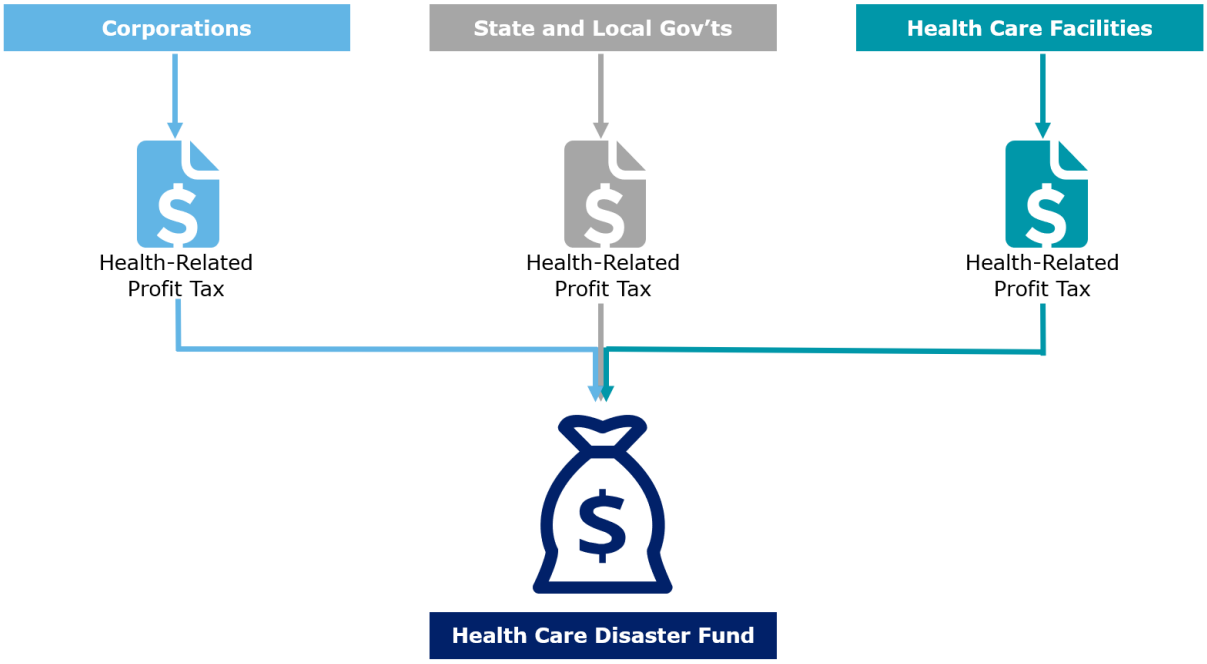
- Michael Gelman, MD, Veterans Health Administration, Director of Infection Control and Antibiotic Stewardship Programs
- Tina Grande, Healthcare Leadership Council, Executive Vice President for Policy
- Janet Hamilton, Council of State and Territorial Epidemiologists, Executive Director
- Richard Hunt, MD, Assistant Secretary for Preparedness and Response, U.S. Department of Health & Human Services, Senior Medical Advisor
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- Deb Von Seggern, National Association of Emergency Medical Technicians, Regional Director

Appendix B: Supporting Figures

Below are supplemental figures for reference from NSPS strategy development.

Figure 12. Flow of Funding

The figure below shows how corporations, state and local governments, and health care entities could contribute to a potential Health Care Disaster Fund. This fund, collected over time and reserved for a need, would have a sizable impact on the ability and timeliness to respond to a special pathogen. A health care related profit tax is obtained through revenues from an excise tax on all health-related items and activities. The Health Care Disaster Fund concept is akin to the Highway Trust Fund.



Appendix C: References

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Institutions Represented during Stakeholder Interviews

- American College of Chest Physicians
- Boston University Biocontainment Unit
- Cedars-Sinai Medical Center
- Children's Hospital Los Angeles
- Defense Threat Reduction Agency
- Johns Hopkins Biocontainment Unit
- Military Health System (MHS) Uniformed Services University of the Health Sciences (USUHS)
- National Association of County and City Health Officials (NACCHO)
- Society for Critical Care Medicine
- Texas Health Resources
- UCLA Emerging Infectious Disease Preparedness Division
- University of Minnesota Medical Center
- University of Washington Medical Center
- Veterans Health Administration

Appendix D: Lab Objectives and Key Takeaways

To support the strategy development, the NETEC Steering Committee, Core Advisory Group, and select Work Group members participated in two half day workshops to develop the NSPS.

Deloitte Greenhouse Lab #1

- Meeting Date and Time: Tuesday, March 9th, 2021 from 1:00 PM – 5:00 PM ET
- Lab Objectives:
    1. Explore the Network through scenarios
    2. Determine the role the Network will play moving forward
    3. Align on the critical capabilities needed to move the effort forward
- Greenhouse Lab Key Takeaways:
    - Clarity is Key: There is a desire for clarity around the NSPS – what it is, the scope and how it will interact with other players in the health care system, all the way down to the language used to describe the system. Increased clarity will result in increased commitment and buy-in from partners.
    - Centralization with Local Management: In its ideal state, the NSPS should centralize the management of large-scale resources, while activities like resource delivery should be driven by local management.
    - Public-Private Partnerships: There is a need for deeper public-private partnerships to help the NSPS coordinate across federal, state, and local health care components. Garnering federal-backing and support will be especially important for educating lawmakers, establishing incentive programs, and having more sustainable funding.
    - Sustainable Funding: The NSPS will require a sustainable source of funding, ending a cycle of panic-and-neglect grant funding to better support health care and public health readiness. To create a sustainable model, the team will need to identify creative and consistent sources of funding.
    - An Inclusive System of Care: The NSPS should support an inclusive system of care, providing support and managing an equitable distribution of resources across the entire system. The NSPS should be inclusive of components of the health care system that have traditionally not received as much support.
    - Patient First: Patient care and meeting the needs of patients should be central to anything and everything the NSPS does.

Deloitte Greenhouse Lab #2

- Meeting Date and Time: Tuesday, May 18th, 2021 from 1:00 PM – 5:00 PM ET
- Lab Objectives:
    1. Socialize the NSPS Strategy and work of the Work Groups
    2. Determine how the System of Care, Coordinating Body, and financing will work together
    3. Determine critical actions for the implementation plan
- Greenhouse Lab Key Takeaways:
    - Clarity is Key for the Coordinating Body: There is a need for the structure, roles, and responsibilities of the Coordinating Body to be more clearly defined. As a core component of the system, it is critical for the other Work Groups to understand how the Coordinating Body will work so that they can continue to make progress, particularly around financing.
    - Blended Funding: Sustaining the NSPS will require funding from different types of sources, ideally combining a standing endowment fund that will grow over time with annual operating funds. This structure will ensure that the NSPS has more secure sources of funding than just annual appropriations while also enabling public and private partner involvement through contributions.
    - Data Quality & Ownership: Sharing, consolidating, and storing health care data are key enablers for the strategy outcomes of the NSPS. The foundational elements of data quality

and ownership need to be key considerations for the Work Groups as they begin to implement their plans. Data commodification also offers a potential opportunity for revenue generation but must be strictly balanced with data ethics.

- Health Security is National Security: The COVID-19 pandemic has made the need for special pathogen research and better health care delivery infrastructure a national security issue. The Work Groups will need to capitalize on the momentum of the pandemic and the change in administration while these issues are still front-page news.
- Creative Freedom: Because the NSPS is starting from scratch the Work Groups have more creative license to design the NSPS than if they had to add onto existing infrastructure. It is important for the Work groups to maintain that perspective as they continue to develop the NSPS.