NETEC

NATIONAL EMERGING SPECIAL PATHOGENS TRAINING AND EDUCATION CENTER

Annual Report FY2024

FUNDED BY THE U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES
ADMINISTRATION FOR STRATEGIC PREPAREDNESS AND RESPONSE (ASPR)

NETEC
NATIONAL EMERGING SPECIAL PATHOGENS TRAINING AND EDUCATION CENTER

Annual Report
FY2024

A MESSAGE FROM THE CO-PRINCIPAL INVESTIGATORS

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The **National Emerging Special Pathogens Training and Education Center (NETEC)** is proud to present the FY2024 annual report, underscoring our pivotal role in safeguarding America's health security. As the nation's leading authority in special pathogen preparedness and response, NETEC remains at the forefront of ensuring the resilience of our public health infrastructure and protecting the health of every American.

NETEC continues to advance national health security by driving best practices, bridging critical knowledge gaps, and empowering healthcare professionals with the expertise needed to effectively manage high-consequence infectious diseases. Our work not only strengthens the U.S. healthcare system but also enhances its ability to swiftly and effectively respond to emerging threats, ultimately safeguarding public health.

NETEC in partnership with the Regional Emerging Special Pathogen Treatment Centers (RESPTCs) has established a national system through a coordinated, and distributed network of clinical biocontainment units. This network demonstrates how targeted federal investment empowers local and regional readiness. By building a sustainable infrastructure and fostering a culture of preparedness across the U.S. healthcare system, NETEC supports communities, states, and the nation to protect Americans from special pathogen threats.

Key achievements highlighted in this report include:

NATIONAL SPECIAL PATHOGEN SYSTEM (NSPS): NETEC implemented a tiered System of Care and conducted operational readiness exercises, demonstrating its role as a cornerstone of the nation's biodefense infrastructure. The system seeks to protect all areas of the U.S. through special pathogen readiness.

SPECIAL PATHOGEN READINESS & THE RESPTC NETWORK: NETEC strengthened the U.S. healthcare system's resilience through advanced protocols, collaborative research efforts, and readiness tools such as the Hospital Special Pathogens Operational Readiness Self-Assessments (SPORSA) and EMS SPORSA. By empowering healthcare facilities through customized consultation and fostering state partnerships, NETEC demonstrated how federally funded programs can advance local readiness against emerging threats.

EDUCATION & TRAINING: NETEC's programs reached over 9,800 healthcare professionals, delivering more than 10,900 training hours. These efforts exemplify the efficient use of resources to strengthen the workforce and protect lives.

RESEARCH: The Special Pathogen Research Network (SPRN) established a national research agenda, streamlined rapid ethical reviews and fostered innovation by advancing public-private partnerships in critical research areas.

GLOBAL PARTNERSHIPS: Through initiatives like Global Rounds and twinning programs, NETEC expanded international collaboration, enhancing global health security and reinforcing America's leadership in managing cross-border infectious disease threats.

This year's accomplishments underscore NETEC's role as a trusted partner in safeguarding public health and bolstering national security. By bridging federal resources with state and local expertise, NETEC supports a more resilient healthcare system, protecting American lives while keeping healthcare workers safe.

Together, we continue to build a safer, better-prepared future for all.

NETEC by the Numbers

FY2024 | JULY 1, 2023 – JUNE 30, 2024

Education, Training, and Resource Development

ONLINE COURSES

70 available (**10** added in FY24)

3,629 learners enrolled

2,500 CEUs awarded

WEBINAR & TRAINING VIDEOS

149 on-demand training, skill-building, and e-learning videos (**26** published in FY24)

6,221 hours watched

LIVE WEBINARS

7 special pathogens training webinars

50 states and **37** countries participated

PODCASTS

31 podcast episodes (**4** added in FY24)

2,332 unique listeners

2,229 downloads

RESOURCE LIBRARY

22,921 users

126,664 pageviews

9,213 resource downloads

OUTBREAK UPDATES (SITUATION REPORTS AND BLOG POSTS)

41 SitReps (**8** added in FY24)

15,418 views across YouTube and the blog

BLOG

119 blog posts (**34** added in FY24)

50,432 pageviews

Coordination, Outreach, Response, and Thought Leadership

GLOBAL LEADERSHIP

5 Global Rounds events

572 participants

18 countries

REGIONAL COORDINATION

1,053 regional partners from all

10 HHS regions completed a needs assessment survey

NETEC SPECIALIZED WORKGROUPS

100+ health care professionals participated in

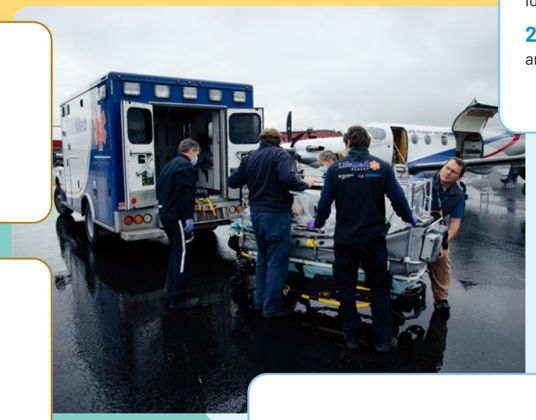
14 national NETEC workgroups

Readiness Consultation and Assessment

CONSULTATIVE SERVICES

74 requests for consultation across the United States and international locations

250+ hours of readiness consultation and assessment activities



RESPTC OPERATIONAL READINESS SCORECARD

13 RESPTCs reported on **8** essential readiness domains

100% of RESPTC BCUs are ready to admit an adult or pediatric patient in **8** hours or less

SPECIAL PATHOGENS OPERATIONAL READINESS SELF-ASSESSMENT (SPORSA)

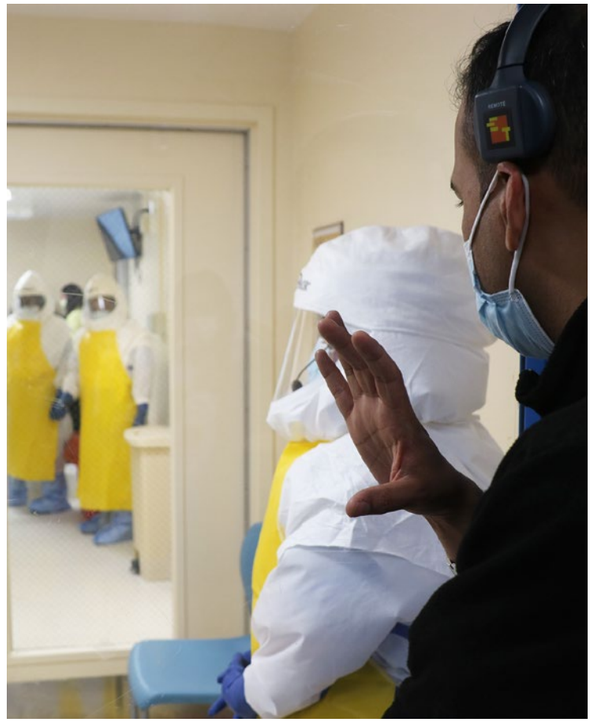
13 RESPTCs completed the Hospital SPORSA and

29 additional facilities requested the Hospital SPORSA, reporting on

13 domains & **34** capabilities

11 EMS agencies completed the EMS SPORSA, reporting on

11 domains & **52** capabilities



Strengthening National Readiness

ADVANCING THE NATIONAL SPECIAL PATHOGEN SYSTEM (NSPS)

High-consequence infectious diseases, regardless of their origin, will continue to demand significant attention and resources to protect our communities, our workforce, and our nation. **The National Special Pathogen System (NSPS) is dedicated to developing a coordinated, high-quality, patient- and community-centered care network for patients affected by special pathogens.** In the past year, the NSPS has advanced from strategy to agile and expedited implementation. Here are our achievements.

STRENGTHENING THE NSPS IDENTITY

Along with an updated mission and vision, the NSPS launched a new brand that reflects the system's commitment to high-quality, coordinated care, a complementary joint brand with NETEC, and unique brand identities for the RESPTCs.

NSPS PREPARE. PROTECT. RESPOND.

MISSION

To develop a coordinated network of high-quality special pathogen care dedicated to protecting patients, communities, and the health care workforce in the United States.

VISION

To save lives and protect the health care workforce through an agile and comprehensive special pathogen system of care.

FUTURE STATE GOALS

Zero Preventable Deaths
after special pathogen infection

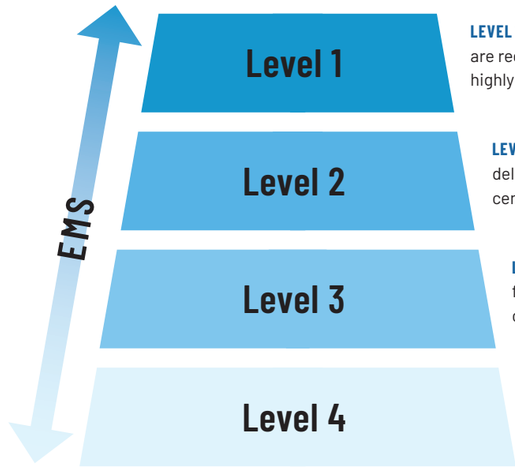
Two Hours Network Mobilization
after suspected special pathogen infection

100% of Americans Have Access
to high quality special pathogen care

Alignment of the NSPS with Other National Systems

The NSPS tiered System of Care comprises health care facilities across the country. NETEC was Congressionally designated as the NSPS Coordinating Body, to support and operationalize the System of Care. Public health and EMS partners with capabilities in readiness, response, and recovery play a key role in supporting health care facilities across the country to respond to special pathogen events. The tiered structure refers to facilities at levels 1-4 to align with other national systems, such as the trauma, stroke, and burn systems, which rely on facilities with different levels with increasing capabilities to care for patients.

THE TIERED SYSTEM OF CARE



LEVEL 1 facilities, or **REGIONAL EMERGING SPECIAL PATHOGEN TREATMENT CENTERS (RESPTCS)**, are regional resource hubs, which provide regional coordination, outreach, resources, and highly specialized care. Level 1s care for patients for their duration of illness.

LEVEL 2 facilities, or **SPECIAL PATHOGEN TREATMENT CENTERS (SPTCS)**, have the capacity to deliver specialized care to clusters of patients and serve as primary patient care delivery centers. Level 2s can care for patients for the duration of their illness.

LEVEL 3 facilities, or **ASSESSMENT CENTERS**, are widely accessible care delivery facilities, able to conduct limited basic laboratory testing, stabilize patients, and coordinate rapid patient transfer. Level 3s can care for patients for 12-36 hours.

LEVEL 4 facilities, or **ALL OTHER HEALTHCARE FACILITIES**, can identify, isolate, inform, and initiate stabilizing medical care; protect staff; and arrange timely patient transport to minimize impact to normal facility operations.

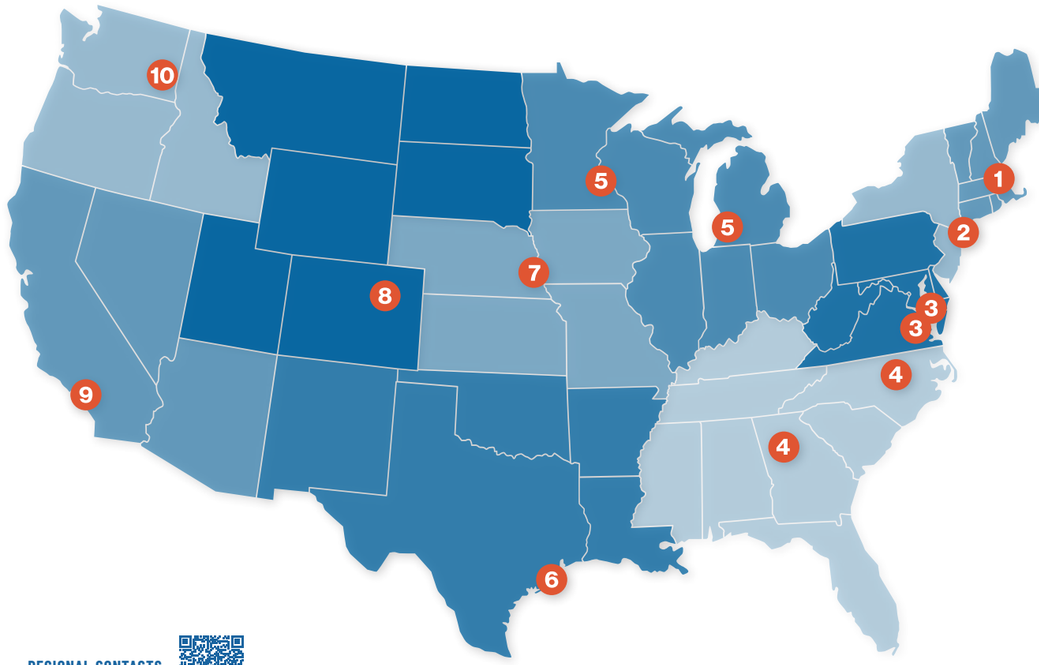
Additional partners, such as EMS and public health, are essential for the coordination of the System of Care

HUB-AND-SPOKE MODEL

The NSPS is a hub-and-spoke model where "hubs" (Level 1s) provide supporting centralized services to the "spokes" within their domains (Level 2-4s).

REGIONAL EMERGING SPECIAL PATHOGEN TREATMENT CENTERS

1. **CT, ME, MA, NH, RI, VT**
   Massachusetts General Hospital
2. **NJ, NY, PR, VI**
   NYC Health + Hospitals / Bellevue
3. **DC, DE, MD, PA, VA, WV**
   Johns Hopkins Hospital
   Medstar Washington Hospital Center / Children's National
4. **AL, FL, GA, KY, MS, NC, SC, TN**
   Emory University / Children's Healthcare of Atlanta
   University of North Carolina at Chapel Hill
5. **IL, IN, MI, MN, OH, WI**
   University of Minnesota Medical Center
   Corewell Health System
6. **AR, LA, NM, OK, TX**
   University of Texas Medical Branch
7. **IA, KS, MO, NE**
   Nebraska Medicine / University of Nebraska Medical Center
8. **CO, MT, ND, SD, UT, WY**
   Denver Health & Hospital Authority
9. **AZ, CA, HI, NV, AS, MP, FM, GU, MH, PW**
   Cedars Sinai Medical Center
10. **AK, ID, OR, WA**
    Providence Sacred Heart Medical Center & Children's Hospital



REGIONAL CONTACTS

SYSTEM OF CARE COMMITTEE

To further define and operationalize the minimum capabilities of facilities at each level of the System of Care, NETEC convened the System of Care Committee, consisting of experienced leaders from the System and hailing from all 10 HHS Regions.

SYSTEM OF CARE WORK GROUP LEADERSHIP

Provide strategic direction for the System of Care Work Group, prepare for and facilitate work group meetings, and ensure relevant expert input is included throughout the process

Paul Biddinger (R1)

Shelly Schwedhelm (R7)

THE SYSTEM OF CARE WORK GROUP

Provide expertise, best practices, and lessons learned while engaging in System of Care Work Group meetings and activities

Angela Vasa (NETEC)

Kate Hammond (R1)

Jim Paturas (R1)

Paritosh Prasad (R2)

Craig DeAtley (R3)

Christopher Sulmonte (R3)

Jimmy Gordon (R4)

Alexandra Seguin (R5)

Amy Arrington (R6)

Elizabeth Puzniak (R7)

Darren Pemberton (R7)

Dawn Lehrmann (R8)

Tiffany Van De Wal (R9)

Erika Cheung (R9)

Darrell Ruby (R10)

Monica Hoefsmit (R10)

Kenneth Mitchell (R10)

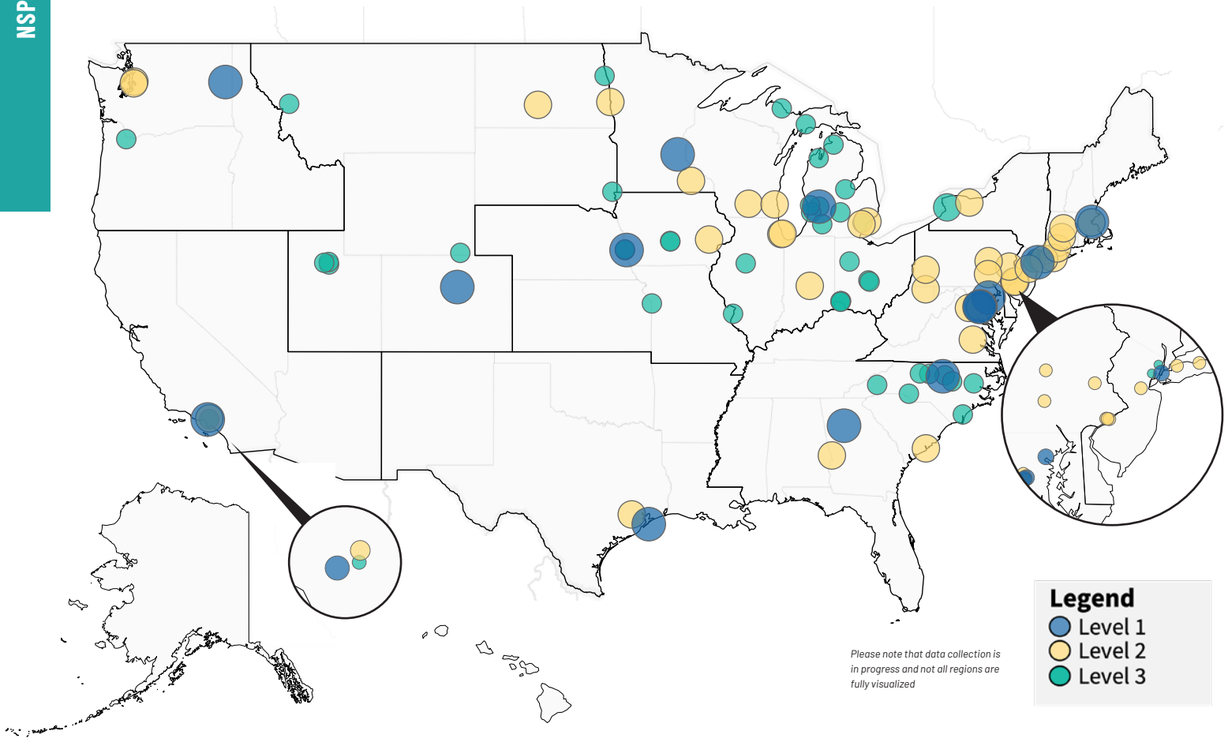
THE NSPS MINIMUM CAPABILITIES

The System of Care Workgroup has defined the minimum or essential capabilities that should be met by the hospitals at each level of the NSPS. These minimum capabilities are currently being socialized within each region and to national groups through the American Hospital Association and other professional organizations. In addition, the NSPS has partnered with the CDC Laboratory Response Network (LRN) to collaborate on testing strategies for varied pathogens. To learn more about the NSPS Minimum Capabilities, please reach out to your RESPTC contacts.

Minimum Capabilities	Level 1	Level 2	Level 3
Care Duration	Duration of illness	Duration of illness	12–36 hours
Capacity for VHF, airborne	2 VHFs 10 airborne	1–2 VHFs 4 airborne	1+ isolation space
PPE Supply	2 VHF cases for at least 7 days onsite (with plans to support 21 days of care)	1–2 VHF cases for at least 7 days onsite (with plans to support 21 days of care)	3 VHF cases for 12–36 hours (before resupply)
Exercises	Quarterly	At least twice annually	At least annually for mystery patient exercise
PPE Training	Quarterly	At least twice annually	At least annually
Skills Training	Quarterly	At least annually	—
Lab Testing Ability	Clinical lab testing	Clinical lab testing	Point-of-care onsite clinical lab testing

The table is intended to provide a high-level sample of quantifiable difference across levels and does not include all minimum capabilities

NSPS



Please note that data collection is in progress and not all regions are fully visualized

NSPS Current State Map

This map includes the 13 RESPTCs, previously or currently recognized Level 2 facilities, and other facilities currently categorized as Level 3, although gaps exist in some regions to better understand current state. Data for some regions is incomplete due to limited access and ability to obtain data on the current state of previously designated hospitals. Twelve Level 2 and twenty-four Level 3 facilities reported not being able to sustain all capabilities to participate in the national System of Care. In a survey deployed in 2023, and regional interviews conducted as part of the NSPS strategy, most hospitals cited lack of funding, the infrequent nature of special pathogen incidents, and competing operational priorities as the primary challenges in maintaining operational readiness for special pathogen response. Facilities that are no longer part of the tiered system (grey dots) will serve as focal points for recruitment and re-engagement strategies in each region as the NSPS advances.

This visual demonstrates the significant care deserts and subsequent gaps to support those suspected or confirmed to have a special pathogen in the United States. In June 2023, NETEC disseminated an electronic survey to previously designated Level 2 Special Pathogen Treatment Centers (SPTCs) to assess their status and organizational capabilities to manage viral hemorrhagic fever (VHF) cases. Forty-one hospitals representing all 10 HHS regions responded, of these, 36 (88%) reported maintaining capabilities to serve as a treatment center for VHFs. Of the 36 that reported maintaining capabilities 29 (71%) provided additional responses to the survey, further detailing current funding considerations and programmatic capabilities.

TESTIMONIAL

REGION 3: GEISINGER HEALTH SYSTEM, LEVEL 2

"We currently have Level 1, 2, 3, and 4 trauma centers in our region, which offer access to care and specialty resources unique in a rural community setting. As an NSPS Level Two facility in a rural health system, Geisinger can provide special pathogens care and resources that many other rural communities nationwide don't have. Our goal is to encourage other health care facilities to become Level Three or Four NSPS facilities to enhance access to innovative and supportive care for our communities, similar to the trauma system."

Stephanie Gryboski, MHA

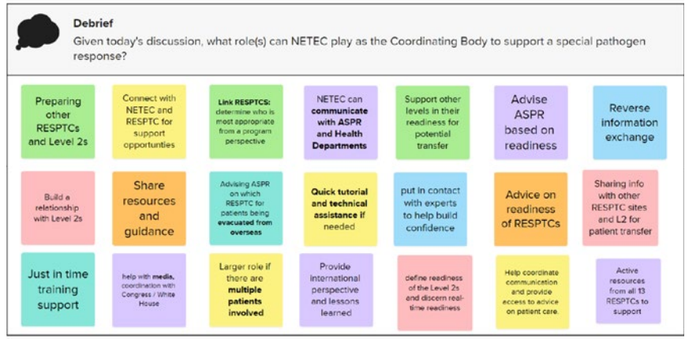
Associate Vice President, Emergency Medicine, Employee Health, Emergency Management

Geisinger College of Health Sciences – Student Health Services

Geisinger

Regional Exercises and Operationalization of the NSPS

A tabletop exercise (TTX) was conducted in regions 5 and 10 to test and refine the strategic plans for special pathogen response, discerning roles and responsibilities, and rehearsing how the NSPS system and NETEC function during response. These exercises simulate real-world scenarios to practice coordination, communication, and operational procedures. They play a crucial role in preparing RESPTCs to serve as central hubs, enhancing their ability to lead regional coordination and outreach during emergencies.



In this Mural board from the region 5 tabletop exercise debrief, participants posted virtual sticky notes with ideas about what roles NETEC can play as a Coordinating Body for special pathogen response.

Looking Ahead

The NSPS's strategic success and achievements in FY23 and FY24 have advanced the operational adoption and momentum of the system in the United States. Continued work remains and NSPS is committed to partnership with the RESPTCs, various professional organizations, federal agencies, EMS agencies, and public health to achieve its mission and vision, dedicated to improving special pathogen patient outcomes, access to care, and protecting communities and the workforce across the nation.

Enhancing Readiness and Resource Development Through Regional Collaboration

EXPANDING THE REGIONAL EMERGING SPECIAL PATHOGENS TREATMENT CENTER (RESPTC) NETWORK

The Administration for Strategic Preparedness and Response (ASPR) named three new RESPTCs in 2022. NETEC partnered with these three RESPTCs to complete an onboarding process that included comprehensive special pathogens program evaluation, structured targeted support service sessions, and onsite exercise observations to assess operational readiness to admit and care for patients confirmed to have a high-consequence infectious disease (HCID).

NEWLY ONBOARDED RESPTCS

HHS REGION 3
MedStar Washington Hospital Center and Children's National Hospital, Washington, D.C.

HHS REGION 4
University of North Carolina Medical Center
Chapel Hill, North Carolina

HHS REGION 5
Corewell Health
Grand Rapids, Michigan

SPORSAs for New RESPTCs

The Special Pathogens Operational Readiness Self-Assessments (SPORSA) submitted for the first time by each of the three new RESPTCs provided the framework for the programmatic evaluation structure, giving NETEC the ability to customize the onboarding process based on each RESPTC's unique needs. Over the course of the last 12 months NETEC facilitated 21 individual review sessions that incorporated a focused review of the 13 SPORSA domains including follow-up on each of the RESPTCs improvement plan items, standard operating procedures, essential capabilities for implementation, and provision of expert opinion to mitigate any operational gaps in readiness.

INITIAL READINESS CONSULTATION FINDINGS

Completion of the first SPORSA for these RESPTCs indicated most domains with established standard operating procedures addressed essential components for NSPS Level 1-RESPTCs.

SPORSA DOMAINS THAT DEMONSTRATED THE MOST MATURITY

Emergency Management (EM)

- All hospitals established full or partial/modified Hospital Incident Command System (HICS) ready to be activated for special pathogen events
- Integrated EM into special pathogen response, defining EM role based on specific HICS activation triggers
- Established emergency operations plan (EOP), processes to review and revise EOP, Incident Response Guide (IRG), or Special Pathogen Annex following exercises or real-world events

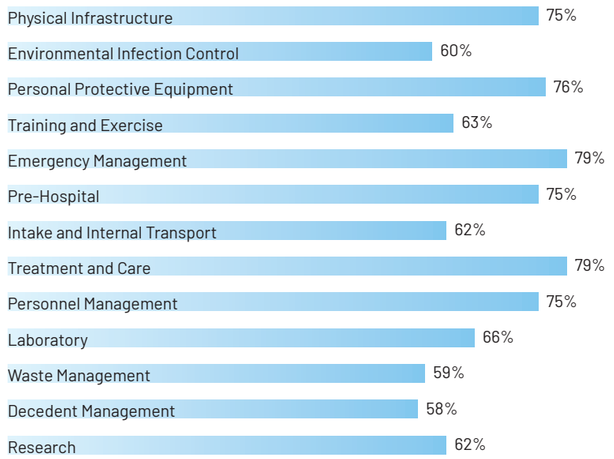
Treatment and Care

- Readiness consultation process includes review of plans and approaches to provide care for patients suspected or confirmed to have an HCID
- Most of the RESPTCs reported having Standard operating procedures (SOP) in place to guide the provision of care for adult and pediatric patients, including critical care interventions and point of care laboratory support
- Care plans addressed translation services, behavioral health support, and spiritual needs

Personal Protective Equipment

- All hospitals reported having PPE selection criteria and utilization guidance for high consequence infectious diseases that reflect current public health guidance
- Areas for donning and doffing have been selected that include all essential infection control measures and address the use of checklists, designated zones, and a trained observer protocol
- SOPs for donning, doffing, and reprocessing PPE have been written and approved by leadership; however, only some RESPTCs had trained their staff or tested the SOPs in an exercise or real-world event

INITIAL AGGREGATE OPERATIONAL READINESS FOR SPORSA DOMAINS – THREE NEW RESPTCS



SPORSA DOMAINS WITH MOST NOTED AREAS FOR IMPROVEMENT

Decedent Management

- All RESPTCs reported having resources to designate which pathogens require special handling for human remains and have processes to handle decedent remains safely and respectfully within their biocontainment units
- Most did not have formal plans or MOUs with external partners that would accommodate packaging, transporting, and managing final disposition of the remains

Waste Management

- All RESPTCs reported to have SOPs established to handle Cat A infectious substance waste within the designated isolation care unit.
- Only 1 RESPTC plans to inactivate Cat A waste on site and has protocols to verify steam sterilization processes and the remaining RESPTCs reported developing plans to establish vendor contracts for packaging and shipping waste.
- Only some RESPTCs had a plan to guide safe management of waste generated in the care of an individual isolated in the emergency department of health system clinics

The new RESPTCs participated in comprehensive follow up discussions addressing all areas that had opportunities to advance maturity in each domain. The most common areas of focus in the targeted support service sessions included special pathogen response team composition, review of the physical infrastructure and plans for renovation, expansion of the laboratory test menu for the designated biocontainment unit laboratory, developing and testing SOPs to guide work flow within the designated isolation spaces, selection and utilization of personal protective equipment, and transportation coordination.

Through NETEC consultation and targeted support services all critical elements identified through SPORSA review were noted to meet or exceed the minimum requirements noted for Level 1 facilities in the National Special Pathogen System (NSPS). Each of the RESPTCs were subsequently enrolled in the monthly Operational Readiness Scorecard and all are now actively participating in the monthly operational readiness scorecard submissions, biweekly outbreak readiness calls, and have subject matter experts serving on each of NETEC's national work groups.

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NATIONAL EMERGING SPECIAL PATHOGENS TRAINING AND EDUCATION CENTER

READINESS CONSULTATION TOOLS AND RESOURCES OVERVIEW

Special Pathogens Operational Readiness Self-Assessment (SPORSA)

- **HOSPITAL SPORSA** Facility readiness for HCID using 13 key domains and 34 specific capabilities
- **EMS SPORSA*** Uses 11 domains and 52 capabilities to assess readiness to transport suspected or confirmed HCID patients

Rapid Readiness Assessment Tools

A just-in-time readiness assessment tool, which can be calibrated for specific pathogens and transmission routes, and generates a color-coded "ready," "ready with conditions," or "not ready" status.

**In FY24, the EMS resources linked to the SPORSA, along with the resource URLs, were reviewed and updated. A total of 19 SPORSA requests were processed, with 11 agencies completing the self-assessment and receiving NETEC reports in this performance period. The remaining assessments will be completed in FY25.*

READINESS

Evaluating Special Pathogen Programs in Hospitals and EMS Agencies

OPERATIONAL READINESS FINDINGS

THE RESPTC MONTHLY OPERATIONAL READINESS SCORECARD captures essential readiness elements from select SPORSA domains to support HHS ASPR's patient placement decisions. It assesses key operational areas, providing a snapshot of readiness to activate for an admission within 8 hours. The scorecard details status to activate for both adult and pediatric patients.

CATEGORIES

Responses to each item are categorized as:

- **READY:** all factors associated with the item can be completed in eight hours or less
- **READY WITH CONDITIONS:** all factors associated with the item cannot be completed in eight hours but can be achieved in 12 hours
- **NOT READY:** all factors associated with the item will take longer than 12 hours to be complete

These results are analyzed and utilized to provide recommendations to ASPR on patient placement during OCONUS (outside the continental United States) repatriation or domestic cluster outbreak scenarios.

In FY24, all 10 RESPTCs and the National Institutes of Health Clinical Center (NIH) completed the Scorecard monthly. The newly established RESPTCs were enrolled on an ad hoc basis beginning in July 2024 with all submitting data by the end of the fiscal year.

KEY FINDINGS OVER 12 MONTHS

% of RESPTCs reporting readiness

Physical Infrastructure*

90% — able to admit one pediatric patient within 8 hours or less

100% — able to admit one adult patient within 8 hours or less

**Accessibility/availability of biocontainment units for patient admissions. The average time reported was 5.7 hours for the soonest that the unit would be ready to safely receive patients.*

Waste Management

100% — Have waste management plan in place to manage Category A hazardous substances

53% — Have established protocols to inactivate Category A hazardous substances as their primary waste management strategy

47% — Have agreements with an approved vendor to support managing Category A hazardous substances as their primary waste management strategy

Personnel Management**

56% — Ready conditions for pediatric staffing with critical care nurses

76% — Ready for critical care physicians (pediatrics)

85% — Ready for adult staffing with critical care nurses

100% — Ready for critical care physicians "Ready" for critical care physicians (adults)

100% — Have monitoring system that could be implemented in 12 hours or less, in coordination with local, state, and federal public health partners

***Ability to maintain adequate staffing for both adult and pediatric admissions. Conditions reported by RESPTCs noted that the age and acuity of the patient would determine the number of admissions that could be safely cared for in their facilities.*

Laboratory

RESPTCs advanced their capability to perform pathogen diagnostics.

- Onboarded Biofire Warrior panel in the latter half of the year. Biofire Warrior panel is a diagnostic test that detects biothreat pathogens in clinical samples
- Some of the RESTPCs began adding Global Fever Special Pathogens panel

As of September 2024, the pathogens that can be detected across the majority of RESPTCs include Ebola virus, Nipah virus, non-variola orthopoxviruses, and Marburg virus.

TREATMENT AND CARE

RESPTCs reported on their current capabilities to provide comprehensive care including administration of experimental therapeutics and capabilities to provide critical care interventions.

All RESPTCs have appropriate personnel and processes in place to acquire and administer investigational new drugs (INDs) or other experimental therapeutics for pathogens that have medical countermeasures available.

Critical care interventions were specified by pathogen type and patient population. The RESPTCs, were noted to have the highest degree of variability for interventions that would be offered for both adult and pediatric VHF patients; specifically related to major surgical interventions, extracorporeal membrane oxygenation (ECMO), and advanced neurological monitoring.

	VHF		Novel Resp	
Intervention	**% offered adult**	**% offered peds**	**% offered adult**	**% offered peds**
Mechanical ventilation	**100%**	**100%**	**100%**	**100%**
Renal replacement therapy	**100%**	**92%**	**92%**	**92%**
Invasive hemodynamic monitoring	**100%**	**100%**	**100%**	**100%**
Central venous catheter placement	**100%**	**100%**	**100%**	**100%**
Radiological imaging	**92%**	**85%**	**100%**	**100%**
Ultrasound	**100%**	**100%**	**100%**	**100%**
Obstetrics	**92%**	**77%**	**92%**	**77%**
ECMO	38%	23%	**77%**	54%
Minor surgical procedures	**92%**	23%	**100%**	**100%**
Major surgical procedures	15%	0%	**77%**	62%
Bronchoscopy	**100%**	**100%**	**100%**	**92%**
Neurodiagnostics (EEG)	**85%**	62%	**92%**	**77%**
Intracranial pressure monitoring	62%	46%	**100%**	**85%**

READINESS CONSULTATION FINDINGS

HIGHEST PERFORMING DOMAINS

PPE

- Reported advanced levels of preparedness in PPE domain
- Have SOPs that guide organizational PPE conservation strategies, processes to utilize replacement items for PPE ensembles if supply chain interruptions are realized
- Have selection criteria and estab-lished donning and doffing protocols for all types of special pathogens (viral hemorrhagic fevers (VHF), Orthopox viruses, and novel respiratory pathogens), maintain at least 7-days PPE inventory for each type of pathogen
- Staff who will work in the designated biocontainment unit have been trained on these procedures.

Emergency Management

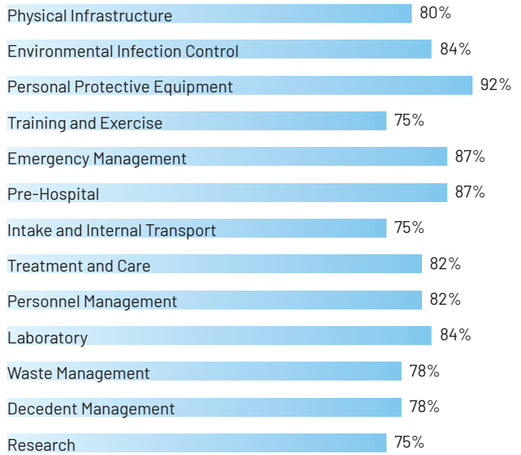
- Maintained response protocols including full or partial/modified HICS that can be activated for special pathogen events
- EM is integrated into the special pathogen response, defining the EM role based on specific HICS activation triggers
- Have an established emergency operations plan (EOP), with processes to review and revise the EOP, Incident Response Guide (IRG), or Special Pathogen Annex following exercises or real-world events

Pre-Hospital

- Advanced levels of preparedness in the Pre-Hospital domain
- Have access to, and are participating in, review of the current state and regional transportation plan for patients suspected or confirmed to be infected with a special pathogen as well as access to, or knowledge of, the health care coalition or local health department plans
- Have trained or exercised special pathogen transport plans with at least one EMS agency in region; most have engaged multiple states in region
- Have processes to communicate with EMS on expectations for preparing the patient for transport using barrier protective devices (e.g., coverall for the patient, containment/barrier wrap, portable isolation device), and trained personnel to receive them upon arrival

SPORSA FOR HOSPITALS

All 10 RESPTCs established prior to 2022 completed the NETEC SPORSA and participated in a peer review assessment.



Opportunities to Advance Readiness

While all RESPTCs show high levels of operational maturity throughout the readiness consultation process, completion of the SPORSA identified a few domains with opportunities to advance readiness.

To support strengthening these domains NETEC facilitated follow up discussions with each RESPTC and coordinated SME interactions to provide recommendations on mitigation and implementation strategies.

Additionally, NETEC received 29 requests for the SPORSA and other readiness assessment support from hospitals comprising NSPS Level 2-4 across all 10 HHS Regions, with the majority of the requests originating from HHS Regions 5 and 10. The volume of requests demonstrates growing interest in assessing organizational readiness, reflecting an increasing recognition of the importance of special pathogen preparedness.

INTAKE AND INTERNAL TRANSPORT: While 90% of RESPTCs have a process to screen for special pathogens prior to entering the facility that entails signs and symptoms of a communicable illness first, and then travel-based screening at the point of entry, there is still an opportunity to increase screening of direct admissions to inpatient areas such as L&D, ICUs, and procedural based areas.

TRAINING AND EXERCISE: NETEC's RESPTC Readiness Consultations revealed continued challenges in training and educating team members to serve in special pathogen units.

of RESPTCs - Have structured orientation programs for staff joining special pathogen response teams that address, at a minimum, identification, isolation, treatment, and transport protocols

of RESPTCs - Include special pathogen education in emergency department employee orientation or other points of entry

of RESPTCs - Have established ongoing training programs for physicians, nurses, and infection preventionists working in the emergency department.

29 requests for the SPORSA and other readiness assessment support from hospitals comprising NSPS Level 2-4 across all 10 HHS Regions

Self-Assessment Tools and Resources

VHF PREPAREDNESS CHECKLIST

In July 2023 NETEC published the VHF Preparedness Checklist, which helped hospitals to quickly review and prepare their facilities to identify and safely manage patients suspected to have a viral hemorrhagic fever. The VHF Preparedness Checklist guides facilities through the "Identify, Isolate, and Inform" processes and details initial steps for treatment and care, cleaning and disinfection and waste management. In FY24 the checklist was downloaded 387 times with access noted from all 10 HHS Regions and multiple international partners.

LTC WORKBOOK

The Long-Term Care Special Pathogens Preparedness Workbook was published in FY22 and continues to be a sought-after resource. Public health departments, long-term care administrators, and government agencies, among others, requested the workbook 97 times. Requests came in from all 10 HHS Regions with the greatest number of downloads was from HHS Region 7.

BIOCONTAINMENT UNIT (BCU) LEADERSHIP TOOLKIT

This toolkit was developed through the BCU Leadership workgroup with aims to provide program development support to new leaders of special pathogen programs. With chapters addressing priority topics such as personnel management, training and education, and care delivery models it serves as a resource for designated hospitals in the NSPS. This toolkit was downloaded 16 times.

NETEC Consultative Services

TARGETED SUPPORT SERVICES (TSS)

NETEC offers customized assistance tailored to meet specific needs of hospitals, EMS agencies, and public health partners. These services, delivered by NETEC and RESPTC subject matter experts, help strengthen processes, close knowledge gaps, and improve implementation of recommended practices for the management of special pathogen events.

Clients can "Ask Our Experts" for quick answers on topics, like organizational preparedness or patient care delivery, often resolved in one or two communications. Some queries may be addressed with existing online resources. For more complex needs, Consultative Services provides in-depth support involving multiple SMEs or extended engagements. These cases may span multiple domains and include virtual or in-person components, such as exercise support or readiness assessment follow-ups.

TSS queries were received from most of the HHS regions and the services that NETEC received the highest requests for were protocol review, personal protective equipment selection and utilization, and exercise design and evaluation. NETEC expertise was most frequently sought for multiple operational readiness domains including personal protective equipment, physical infrastructure, decedent management, personnel management, and training and education.

FEEDBACK FROM A COMPLEX TSS AT A LEVEL 4 FACILITY IN CALIFORNIA

"This was a very good experience. We have made massive improvements to our planning and educational processes which will allow us to safely respond as a level four facility to special pathogens patients. Very professional, knowledgeable, courteous, and thorough."

"The team was extremely thorough. I don't feel many facilities are prepared to receive and care for SP patients. I am recommending this team to everyone actively."

SERVICES THAT ARE AVAILABLE INCLUDE:

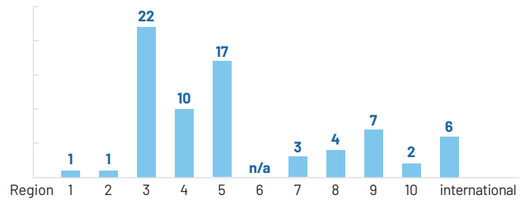
- expert consultation on program design and implementation
- regional coordinating plan development
- evaluation of built environment, exercise and drill design, process improvement, protocol review, and focused domain assessments

In FY24, TSS case frequency of complex requests increased requiring multiple SMEs to be engaged over an extended period of time. NETEC team members invested more than 250 hours working directly with the requester to successfully resolve these cases. The types of requests included:

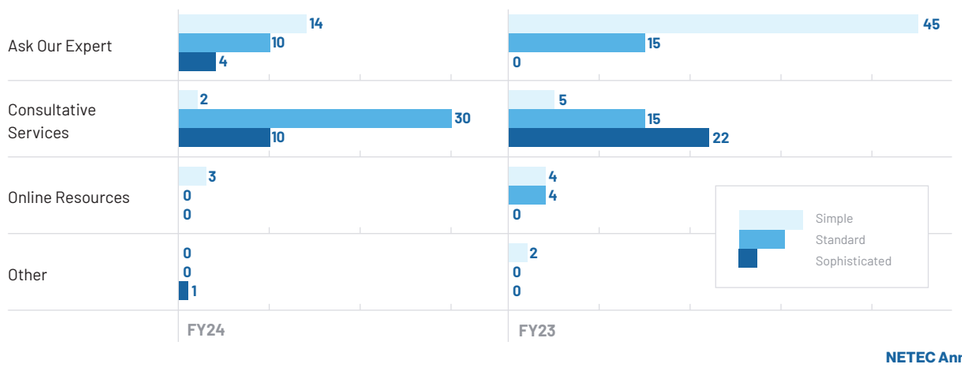
- state and regional plan reviews
- biocontainment unit design and work-flow implementation
- exercise design and development
- customized training and education resources coupled with program domain specific program assessments

Satisfaction surveys for completed cases indicated all respondents were either extremely satisfied or satisfied with NETEC's services citing timeliness of response, clarity of information, and relevancy of resources and content. Several organizations that sought NETEC's services for specific domains returned to request further support with additional priority items, demonstrating the high quality and value of the support received. These longitudinal engagements created an opportunity to develop rapport and strengthen relationships between NETEC, the RESPTC, and the requester.

NUMBER OF CASES PER REGION IN FY24



NUMBER OF CASES BY TYPE AND COMPLEXITY



Simple:
e.g., "How to handle media presence when the BCU is activated."
Involves 1-2 Subject Matter Experts (SMEs); approx. 2 hours
Primarily handled through email communication

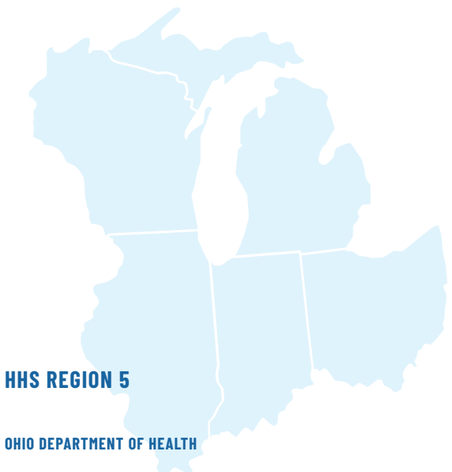
Standard:
e.g., PPE protocol review & development; Physical infrastructure questions
Involves 2-3 SMEs; approx. 2-4 hours/SME
Engagement is a combination of virtual meetings, email, and a final report sent to the client

Sophisticated:
e.g., CONOPs review; Onsite request & evaluation of drills; TTX or FSE
Involves 3+ SMEs; approx. 4 hours/SME
Engagement is a combination of multiple virtual meetings with the requestor and a final report sent to the client

Improving Preparedness through Collaboration with State Public Health Partners

In FY24 NETEC partnered with multiple state public health departments to evaluate and advance readiness for special pathogens. These partnerships led to multiple service requests that provided opportunities for relationship building, information sharing, and program strengthening.

The novel approach of collaborating with state public health partners recognizes the unique needs of each region and fortifies the role of both NETEC and the RESPTCs in advancing regional and national readiness for special pathogen response.

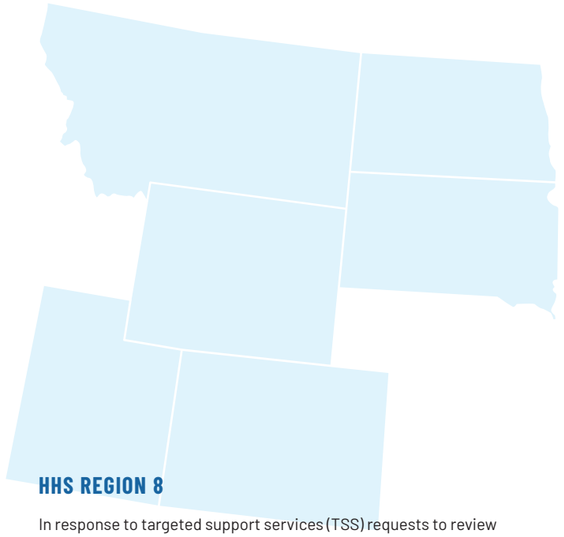


HHS REGION 5

OHIO DEPARTMENT OF HEALTH

NETEC aligned with the Ohio Department of Health's Hospital Preparedness Program to conduct readiness assessments of their identified Level 3 hospitals and designated EMS agencies.

- NETEC facilitated completion of the Hospital SPORSA for three facilities and the EMS SPORSA for five agencies.
- Each organization that completed the self-assessment received a comprehensive summary report inclusive of resources specific to their program's needs.
- NETEC readiness consultation teams met with each of the hospitals to review their results and offer real time support to mitigate any operational challenges identified in the SPORSA.
- NETEC met with the health department to identify strategies to strengthen collaboration and improve preparedness in the future.



HHS REGION 8

In response to targeted support services (TSS) requests to review state plans for high consequence infectious disease coordination and transportation, NETEC, in collaboration with Denver Health (HHS Region 8 RESPTC), worked with two different state health departments to review, revise, and test their plans.

SOUTH DAKOTA DEPARTMENT OF PUBLIC HEALTH

NETEC coordinated a series of complex targeted support services engagement with the South Dakota Department of Public Health over the last year.

- The team fostered a long-term engagement review and revised the state concept of operations (CONOPs) to reflect plans for responding to and managing all high consequence infectious disease threats.
- After CONOPS were revised, NETEC supported a table-top exercise designed to assess processes for the identification, isolation, and movement of a patient suspected to have a high consequence infectious disease, presenting at a level three facility in South Dakota.
- Regional treatment center partners from Denver Health, University of Minnesota Medical Center, and Nebraska Medicine (regions 8,7,5), along with Regional ASPR representatives and state health department leaders from Minnesota, Nebraska, and Colorado, and, joined South Dakota public health partners to participate in the exercise.

MONTANA DEPARTMENT OF PUBLIC HEALTH AND HUMAN SERVICES

The Montana Department of Public Health and Human Services (MTDPHHS) reached out to the HHS Region 8 RESPTC for assistance revising their CONOPS, specifically focusing on transport and waste management. The RESPTC contacted NETEC to request additional support and coordination. NETEC organized subject matter expert involvement, facilitated meetings, and managed document review to promote the RESPTC relationship with the state health department.

RESPTC Partnership to Expand Response Capabilities

NETEC facilitated training and developmental opportunities for RESPTC Subject Matter Experts (SMEs) to learn how to conduct readiness consultations and targeted support services to help mitigate gaps, identify resources, and advance special pathogen preparedness in hospitals and with EMS agencies.

In FY24, the volume of Readiness Consultations and Targeted Support Services (TSS) coordinated in collaboration with the RESPTCs expanded significantly, representing a strategic shift in how TSS teams are composed.

To support this new approach:

- Eight new SME Leads from the RESPTCs completed training to provide review of hospital SPORSAs, conduct onsite visits, and generate summary reports for NSPS partners
- Current readiness consultation leads provided one-on-one training on the systems and processes used to perform Annual Readiness Consultations (ARC) of the RESTPCs and other NSPS hospitals
- Newly trained leads then each led a RESPTC ARC with the support of the trainer.

To advance partnerships with the RESPTCs and establish each RESPTC as a regional resource hub, NETEC engaged these leads in complex TSS requests in their regions. Over the last year HHS Region 9 RESPTC, Cedars Sinai, and NETEC worked extensively with three hospitals across a health system in HHS Region 9. All three hospitals completed the NETEC SPORSA and received their respective reports and focused SOP reviews. Upon completion of these reviews, NETEC education and consultation teams coordinated a two-and-a-half-day onsite event including program assessment and education sessions with key hospital personnel. NETEC SMEs and a RESPTC representative participated in these activities aimed at enhancing facility readiness.

RESPTC OUTREACH, EDUCATION, AND CONSULTATION

RESPTCs increased the volume of services they provided in each of their regions through digital outreach, hosting symposiums, providing hands on training and participating in facility program strengthening activities including protocol review and exercise observation.

In addition to supporting requests from NETEC to provide technical assistance, outreach, and education across the U.S., the majority of RESPTCs reported activities independent of their work with NETEC in 27 states plus the District of Columbia. Of the RESPTCs that provided data to NETEC, the service most often provided was directed outreach to raise awareness of NSPS and the role of the RESPTC for public health departments, hospitals, and health care coalitions, followed closely by consultation, education, and training for health care personnel in hospitals and EMS agencies.

EVALUATING REGIONAL SPECIAL PATHOGEN PROGRAM NEEDS

To further assess the highest priority needs, in December 2023, the Regional Outreach and Coordination Work Group facilitated the dissemination of a regional needs assessment survey that each of the RESPTCs distributed to their regional partners. The survey identified needs in areas such as information resources and dissemination, education and training, coordination and planning, allocation of resources, organizational preparedness for responding to special pathogens, and research on special pathogens.

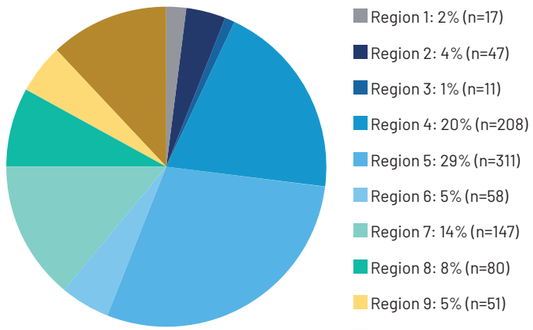
Across all 10 HHS Regions, 1,053 participants completed the survey. Healthcare facilities comprised almost half of the respondents, (45%, n=474) and of these facilities 22% (n=105) reported they were previously designated as a special pathogen care facility including treatment centers or assessment hospitals.

Results of Outreach

- **Creating a more coordinated, informed, and prepared region**
- **Developing different educational and guidance resources**
- **Organizing and attending Conferences**
- **CONOPS and checklists review and update**
- **Improved and strengthened relationships**
- **Expanding the network**
- **Deeper understanding of facilities' operations**
- **Better communication Pathways**
- **Improved preparedness plans**
- **Increased readiness**
- **Enhanced support during outbreaks (Marburg Virus, Sudan Ebola Virus, Monkeypox Virus)**

REGIONAL NEEDS ASSESSMENT SURVEY

% of respondents by region



The information sharing and resource section of the survey assessed what topics and types of information regional partners would be most beneficial to receive. The top two areas of interest for resources were situation reports addressing current HCID outbreaks and updated guidance for special pathogen preparedness.

MOST BENEFICIAL INFORMATION TO RECEIVE

89%
n=936
Current high consequence, infectious disease, and outbreak, situational reports and resources

88%
n=931
Updated guidance related to special pathogen preparedness

54%
n=569
HCID focused activities/ events available through RESPTC or NETEC

45%
n=479
Updates on the development and implementation of NSPS

5%
n=48
Other
(e.g., pediatric specific information, funding opportunities, recommended screening questions for patient encounters, outbreak/rare pathogen education, continuous training for EMS and healthcare facilities)

Respondents (n=1,053) were asked to select all resources they would find most beneficial to receive.

EDUCATION AND TRAINING

The education and training items examined current approaches and needs for implementing special pathogen training programs in each of the regions, including the development of content and curriculum, facilitation of training events, and securing funding for staff participation.

Across all HHS Regions, fifty-one percent (51%) of respondents noted that they did not currently have a special pathogens training and education program in place. Barriers to executing training and education plans in aggregated data showed that the most common barrier was the availability of facilitators to deliver the training (51%, n=542), funding to support the delivery of training (50%, n=527), expertise to develop curriculum (43%, n=456). Further, ninety-six percent of the overall Regional organization respondents indicated that they would be interested (47%, n=452) or maybe interested (49%, n=466) in attending training facilitated by the RESPTC.

RESOURCE ALLOCATION AND TARGETED SUPPORT

The resource allocation section centered on identifying needs and challenges in special pathogens response, specifically focusing on areas where organizations anticipate requiring assistance. Thirty-one percent (n=249) of respondents noted pre-identified areas of concern, with more than half including transportation assets and coordination, infection prevention and control, PPE acquisition, and medical countermeasures. NETEC and the RESPTCs used this information to help inform workplans and approaches for the next fiscal year.

IDENTIFIED AREAS OF ASSISTANCE

62%
n=155
Transportation coordination

56%
n=139
Infection prevention and control

56%
n=138
Transportation assets

52%
n=130
PPE acquisition

51%
n=127
Medical countermeasures

44%
n=109
Clinical care

30%
n=75
PPE selection

13%
n=33
Other

Respondents (n=249) were asked to select all areas of assistance needed by their organization. "Other" areas included: specimen collection and handling, staffing, air transport, waste management, and testing supplies.

Tracking and Preparing for H5N1

February 2022 marked the first detection of Highly Pathogenic Avian Influenza (HPAI) in commercial poultry in the U.S. since 2020 when the USDA announced a HPAI A(H5N1) outbreak in turkeys in a commercial poultry facility. Fast forward to July 2024: the frequency and spread of poultry outbreaks have increased, with the CDC reporting outbreaks in 48 states. The CDC noted the first cow-to-human transmission in April 2024 in a Texas dairy worker. As of November 2024, dairy cattle in 15 states have experienced outbreaks and there are 46 confirmed human cases in the United States.

A TIMELINE OF AVIAN INFLUENZA

2020-2024

2020

FALL 2020

HPAI H5N1 emerged as a new virus adapted to wild birds. Europe identified the first cases, after which the virus spread into Africa, the Middle East, and Asia.

2021

MARCH-MAY 2021

Reports of HPAI H5N8 virus in seals were reported from the United Kingdom, Germany, and Denmark; the Netherlands reports HPAI H5N1 in wild foxes.

Avian Influenza 101

What is Highly Pathogenic Avian Influenza (HPAI)

Highly pathogenic avian influenza viruses cause severe disease and high mortality in infected poultry. Only some avian influenza A(H5) and A(H7) viruses are classified as HPAI A viruses, while most A(H5) and A(H7) viruses circulating among birds are Low-Pathogenicity Avian Influenza (LPAI) A viruses. HPAI A(H5) or A(H7) virus infections can cause disease that affects multiple internal organs with mortality up to 90% to 100% in chickens, often within 48 hours.

How is it transmitted to humans?

H5N1 bird flu can cause infections in humans. The threat to the general public is low but people who work with poultry, cows, wild animals, or raw, unpasteurized cow's milk are at a higher risk of infection. It can spread through contact with infected animals or contaminated surfaces.

What are the symptoms of H5N1 bird flu?

H5N1 bird flu symptoms may include fever or feeling feverish or chills, eye redness or irritation, and respiratory symptoms, such as cough, sore throat, runny or stuffy nose, muscle or body aches, headaches, and tiredness.

Ready to Respond: Education, Training, Resources, and Outreach

NETEC has been monitoring H5N1 for a prolonged period; a Special Pathogens of Concern Situation Report released in January 2023 noted that while H5N1 viruses mainly affect avian species, virus spillover into mammalian species had been reported and sporadic human cases could be expected.

Meanwhile, NETEC workgroups collaborated to produce various tools and resources to prepare health care facilities to be equipped and ready to respond should an avian flu case be identified within their community and service areas. The result was an "armory" of resources to prepare and protect our health care workforce and communities, including expert interviews, webinars and online courses, downloadable flyers and checklists, blog posts, and global rounds.

H5N1 BY THE NUMBERS

1 Webinar

1 Global Rounds

1 Situation Report

10+
articles, webinars, events featuring NETEC experts

1 Course

3 Blog Posts

3,629 course registrations

349 asset downloads

756 blog post page views

716 YouTube views*

**this year (webinar recording and SitRep)*

H5N1 RESOURCE LIBRARY

- NETEC Online Courses
- NETEC Novel Respiratory Pathogen Flyers and Checklists
- Personal Protective Equipment Resources
- Patient Care Resources
- EMS Resources
- Spanish Language Novel Respiratory Pathogen Flyers

READ THE H5N1 RESOURCE LIBRARY

THOUGHT LEADERSHIP

NOVEMBER 27, 2023

"Ask UNMC! What is Avian Flu"

interview with John Lowe, Co-Principal Investigator for NETEC and Executive Director of the Global Center for Health Security.

MAY 7, 2024

"If many dairy farm workers contract H5N1, we risk a pandemic"

Jennifer B. Nuzzo, Lauren Sauer, and Nahid Bhadelia, The Washington Post

MAY 3, 2024

What Pediatricians Need to Know about highly pathogenic avian influenza (HPAI) A(H5N1)

Produced in concert with the Pediatric Pandemic Network

A TIMELINE OF AVIAN INFLUENZA 2020-2024

JANUARY 2022

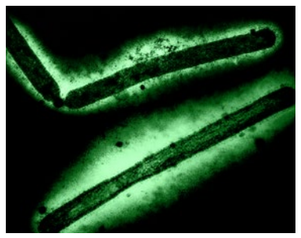
A case of HPAI H5N1 virus infection was reported in an asymptomatic man who raised ducks in England. The first HPAI H5N1 virus infection in wild birds in the United States since 2016 was reported.

APRIL 2022

The first human case of HPAI H5N1 virus was reported in the United States, though this detection may have been the result of contamination of the nasal passages with the virus rather than actual infection.

SEPTEMBER-NOVEMBER 2022

Human cases of HPAI H5N1 were reported in poultry workers in Spain, and following exposure to infected backyard poultry in Vietnam and China



MARCH 2024

H5N1 was reported for the first time in dairy cows on farms in Kansas and Texas.

2022 | 2023 | 2024

FEBRUARY 2022

USDA/APHIS announced an HPAI H5N1 outbreak in turkeys in a commercial poultry facility.

MAY – DECEMBER 2022

Sporadic HPAI H5 virus infections in mammals were reported in numerous U.S. states.

JANUARY-FEBRUARY 2023

Ecuador reported its first human infection with HPAI A(H5) following exposure to infected backyard poultry; Cambodia reported two human infections with HPAI H5N1, including one fatal case

MARCH 2024

H5N1 bird flu virus infections were reported for the first time in goat kids (juvenile goats) on a farm, where a poultry flock had tested positive for the same virus

APRIL 2024

A person in the United States tested positive for highly pathogenic avian influenza H5N1 bird flu. This would be the first reported cow-to-human spread of H5N1 bird flu.

MAY 2024

CDC reports a second case of H5N1 bird flu virus infection in a person who had exposure to infected dairy cows in Michigan.

USDA confirmed the first H5N1 bird flu virus infections in alpacas on the same premises where a poultry flock had tested positive for the same virus earlier that month.

Source: www.cdc.gov/bird-flu/avian-timeline/2020s.html

Setting the gold standard for special pathogen preparedness and response

As of September 3, 2024, the CDC considers the H5 bird flu as low-risk and is carefully watching the situation. But in the words of NETEC's subject matter experts*, "Preventing farmworker infections and uncontrolled spread in mammals is key to stopping the virus from spreading more easily among humans." The value of NETEC's work is in creating the infrastructure and sustaining a culture of readiness NOW so that our health system is ready to respond to the next special pathogen incident.

**Nuzzo, Sauer, and Bhadelia, Washington Post*

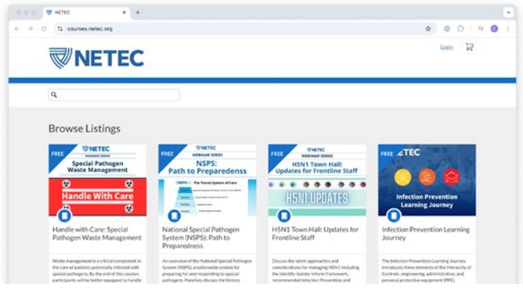
CASE STUDY: H5N1

Education, Training, and Workforce Development

MORE ACCESSIBLE. MORE COLLABORATIVE. MORE DIVERSE.

Over the past year, NETEC continued to respond to the health care workforce's evolving education and training needs by building a more robust and accessible digital education library, establishing stronger partnerships with professional organizations, and increasing support for educational outreach led by the 13 Regional Emerging Special Pathogen Treatment Centers (RESPTCs).

NETEC delivered comprehensive special pathogens preparedness and response education and training through a variety of formats, including online courses, live webinars, podcasts, skills and micro-learning videos, and a wide array of on-demand, downloadable materials. In FY24, more than 9,800 health care professionals logged more than 10,900 training hours by accessing NETEC's extensive library of free online courses and webinars, with free continuing education credit on select courses.



The NETEC course offerings include titles such as: "Handle with Care: Special Pathogen Waste Management," "Infection Prevention Learning Journey," and "Climate Change and Vector-Borne Diseases"

On-Demand Resources: Meeting Learners Where They Are

NETEC continues to design and share educational content strategically aligned with the learning preferences of health care workers who want to learn at their own pace, at times convenient for them, and in formats that are quick and easy to consume in fast-paced work environments. The resources in NETEC's digital library are regularly reviewed by subject matter experts from the 13 RESPTCs to ensure they are up-to-date, clinically relevant, and applicable for health care workers and facilities.

Last year, Transmission Interrupted featured a five-episode miniseries, Pathogens in Pop Culture, which were some of NETEC's most downloaded episodes. The episodes shared fascinating ways special pathogens are represented in pop culture, blending science with entertainment. From the 2011 hit movie, "Contagion," to the popular board game Pandemic, these conversations shed light on how storytelling in media and games shapes our collective understanding of infectious diseases.

Transmission Interrupted, NETEC's podcast focused on special pathogen topics, offers a unique platform for conversations with experts, providing diverse perspectives and real-world insights on managing these threats. By blending expert knowledge with accessible anecdotes, the podcast appeals to both health care workers and those seeking to better understand special pathogens.

LISTEN TO 'TRANSMISSION INTERRUPTED'

MOST-VIEWED SITREP

Special Pathogens of Concern Situation Report (October 20, 2023): 3 Things to Know About H5N1

MOST-VIEWED WEBINAR

NETEC Webinar Series (March 15, 2024): Introduction to the 2024 Joint Commission Standards for Infection Control

MOST-DOWNLOADED PODCAST

Pathogens in Pop Culture: The Science Behind Infectious Storytelling AND HICS for Special Pathogen Preparedness

Refer to "NETEC by the Numbers" on page 2 for full results of education and training activities and resources.

Preparing for the Next Novel Respiratory Pathogen: H5N1 Education for Health Care Workers

H5N1 is causing outbreaks in dairy cattle and poultry in the U.S. and several human cases have been reported following exposure to infected animals. Because of the potential for influenza viruses to rapidly evolve and the global prevalence of H5N1 viruses in wild birds and poultry, continued sporadic human infections are expected. In the spring of 2024, NETEC began preparing health care workers for patient evaluation, treatment, and testing of avian influenza A viruses, including H5N1.

NETEC workgroups developed educational resources to address common questions and concerns regarding the management of individuals infected with H5N1, including an online course, flyers and checklists, blog posts, and more. A dedicated resource library page provides health care workers with direct access to more than 41 resources, and the page has been viewed more than 4,700 times since it was launched. The October 20, 2023, Situation Report, "3 Things to Know About H5N1," was watched 2,850 times.

H5N1 RESOURCE LIBRARY

more than **41** resources

viewed more than **4,700** times

WATCH THE "3 THINGS TO KNOW ABOUT H5N1" SITUATION REPORT

Empowering Health Care Workers: Navigating the Joint Commission's New Infection Control Requirements

Approximately 80 percent of the nation's hospitals are accredited by The Joint Commission (TJC), the nation's oldest and largest standards-setting and accrediting body in health care. Beginning in July 2024, hospitals looking to maintain or apply for accreditation from The Joint Commission had to adopt a new set of infection control standards for high-consequence infectious diseases (HCID).

In March 2024, NETEC hosted its second largest-ever webinar to provide health care professionals with strategies for implementation of these requirements, as well as resources and tools to empower their organizations to be ready for the new standards.

The webinar was organized in partnership with TJC and included a representative on the panel. This event was among the first about the new standards leading the way on this timely topic. NETEC also created a supplemental resource-rich exhibit page featuring 60-plus resources, including tip sheets, exercise templates, videos, and more. **More than 3,000 people registered and 1,767 attended the webinar for a comprehensive overview of the updated requirements, practical strategies for successful implementation, and an in-depth Q&A session. The exhibit has been viewed more than 11,000 times since it was launched.**

SEE THE EXHIBIT

Cross-Cultural Learning: First Bilingual Webinar Broadens International Outreach

The Education and Training team collaborated with the International Partnerships and Programs (IPP) team on NETEC's first bilingual webinar in November 2023. This event featured experts from multiple countries who described the epidemiology of Argentinian and Bolivian hemorrhagic fever cases, identified the risk factors for infection, provided recommendations on diagnosis and clinical management, and reviewed a public health program model for arenavirus control. Twenty-seven percent of webinar attendees were from outside the U.S., representing 19 different countries, the largest-ever international audience for a NETEC-hosted webinar.

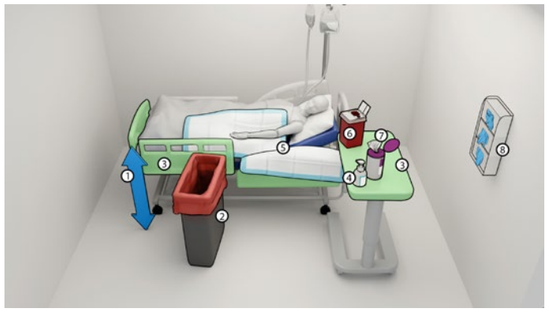
This joint effort with IPP established new international partnerships and reinforced NETEC's commitment to inclusivity and special pathogens preparedness globally. Live interpretation services during the event and translating of the recorded webinar into English and Spanish ensured that vital information was accessible to a broader audience.

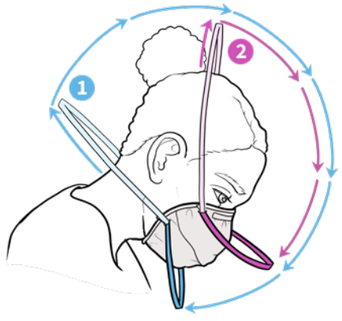
> **"This was a great overview of the update! I feel more confident of the expectations and have clarity regarding implementation."**
>
> **JOINT COMMISSION STANDARDS WEBINAR PARTICIPANT**

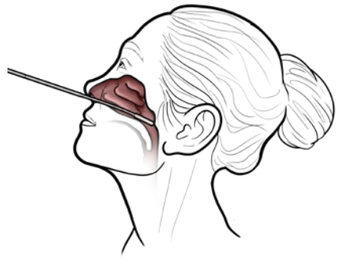
> **"I [am] the reference for staff on what to do for testing and isolation guidelines. This webinar provided me with the tools to be able to fulfill that skill set."**
>
> **MPOX WEBINAR PARTICIPANT**

The Power of Visual Aids: Learning Improvement Through Medical Illustration

NETEC brought on board a skilled medical illustrator to produce high-quality visual aids that are more than just aesthetic enhancements but serve as critical tools in simplifying complex medical concepts, enabling health care professionals to grasp and retain essential information more effectively. By visually representing routine procedures, accurate anatomy, and detailed safety protocols, these aids have made NETEC training materials more engaging and accessible.







Clockwise from left: The steps to preparing the patient care area for specimen collection; Sagittal view of a nasopharyngeal swab test; Process of doffing an N95 mask.

Clockwise starting above: NETEC and RESPTC leaders greeted NACCHO conference guests at the booth to learn about NSPS and NETEC; Sami Vasistha, Program Manager at NETEC at the Association of Healthcare Emergency Preparedness Professionals (AHEPP); Several NETEC leaders had poster and podium presentations at the conference, including Patricia Ann Tennill, Co-Chair of the NETEC Infection Prevention and Control Work Group.

Maximizing Engagement: Collaborating with Professional Organizations

Over the past year, NETEC has grown existing partnerships with professional organizations to strengthen the network of health care workers focused on special pathogens preparedness. Through partnerships and attendance at associated events and conferences, NETEC exhibited practical tools, newly developed educational materials, and hands-on demonstrations showing NETEC's special pathogens expertise. NETEC experts also took the opportunity to hear from health care workers about their day-to-day challenges and knowledge gaps, which can guide future resource development.

Of note, NETEC facilitated a "Solution Circle" at the Association for Professionals in Infection Control and Epidemiology (APIC) annual conference where NETEC subject matter experts led a discussion on the new special pathogen TJC requirements with infection preventionists and what it means for them in their roles. NETEC also presented on special pathogens preparedness at the National Teaching Institute & Critical Care Exposition (NTI) annual conference hosted by the American Association of Critical Care Nurses. NETEC's Emergency Medical Services workgroup hosted a pre-conference workshop on high consequence infectious diseases for EMS personnel at the Fire Department Instructors Conference (FDIC) which provided attendees a hands-on opportunity to compare and contrast attributes of personal protective ensembles and other safety equipment used by agencies prepared to transport patients.

RESPTC Outreach: Partnership for Preparedness

In FY24, NETEC partnered with all 13 RESPTCs to respond to numerous requests for expert speakers and training sessions, both in-person and virtual, from regions across the United States. NETEC's subject matter experts tailored the educational content provided during training and speaker events based on clients' goals, effectively disseminating essential information and best practices on special pathogen preparedness. This initiative strengthens national readiness and equips health care facilities with the tools and knowledge they need to respond to special pathogen threats. Examples include:

- The Region 8 RESPTC presented on infection prevention and special pathogens preparedness considerations to DaVita Health at their headquarters
- In partnership with the NETEC Metrics and Consultation Team and Region 9, NETEC experts designed and led an immersive, three-day training for health care facilities in Modesto, California, which included train-the-trainer exercises
- NETEC's Emergency Medical Services Workgroup supported the Biosafety Transport for Operators course in multiple regions.

Through a more robust and accessible array of online education, training, and resources offered in various modalities, increased collaboration and partnerships with diverse health care organizations and teams, and an agile and extraordinary team of subject matter experts, NETEC is closing the knowledge gaps and strengthening the health care network dedicated to special pathogens preparedness and response.

REPRESENTATIVE LIST OF TOPICS COVERED IN FY24

PATHOGENS	PPE	OTHER
Nipah	PAPRs for Respiratory Protection	EMS standard operating procedures for PPE
Crimean-Congo Hemorrhagic Fever	N95s	HICS for special pathogen preparedness
Mpox	PPE Basics	The Joint Commission Standards for Infection Control
Avian Influenza A(H5N1)		Climate Change and Vector-Borne Diseases
Ebola Virus Disease (EVD)		Specimen Collection Procedures
Argentine and Bolivian Hemorrhagic Fever		Spills Basics

Looking Ahead

In partnership with the Regional Emerging Special Pathogen Treatment Centers and professional organizations, NETEC will be reintroducing in-person course offerings. The goals of these courses will be to improve special pathogen preparedness and provide frontline staff, both hospital- and pre-hospital-based healthcare workers, didactic and hands-on training with a focus on identify, isolate, and inform.

Strengthening Research Infrastructure for High-Consequence Pathogens

NETEC's Special Pathogens Research Network (SPRN) establishes and maintains the infrastructure needed to conduct research across the network of Regional Emerging Special Pathogens Treatment Centers (RESPTCs) and globally. SPRN develops and shares clinical research protocols, relevant literature, and a centralized Institutional Review Board (IRB) resource for the network and beyond. Comprising a diverse team of experts in infectious diseases, infection prevention, research ethics, and clinical study design, SPRN is equipped to address the unique challenges of implementing special pathogens research.

Research involving high-consequence infectious diseases requires swift action, navigating complex regulatory, ethical, and safety concerns. SPRN and its institutional leaders ensure the network is prepared to conduct critical research during emergencies. In FY24, SPRN successfully implemented several preparedness activities to strengthen the national research infrastructure for emerging infectious disease threats.

Activated Single Institutional Review Board (sIRB) for Investigational Medical Countermeasure Protocol

Research networks use a single Institutional Review Board (sIRB) to streamline ethical review and ensure consistent protocol implementation across sites. SPRN's sIRB is managed by the University of Nebraska Medical Center's Human Research Protection Program (HRPP). This year, the sIRB oversaw the review of two key clinical protocols for SPRN: one focused on medical countermeasures (MCM) and another on clinical observations of biocontainment unit (BCU) healthcare workers.

During a BCU activation, there are many competing priorities such as readying the use of the BCU to receive and care for a patient, ensuring the clinical care team is in place, and readying stores of PPE for patient management. Preparing regulatory materials for investigational MCM should not increase that burden unnecessarily.

By utilizing the sIRB, RESPTCs were able to prepare for the use of an investigational product before a patient ever arrived. This allowed them to onboard a new investigational medical countermeasure (MCM) protocol and conduct local reviews, adding a real-world tool to their treatment toolkit.

This exercise, along with its evaluation, established a baseline of MCM readiness at RESPTCs and offered valuable practice with the sIRB process. RESPTC IRB representatives provided feedback on challenges from initiation to final approval, which will help streamline and improve the process for future use.

SIRB APPROVAL PROCESS

1. Lead site requests the use of the sIRB
2. Lead site submits an application to the sIRB
3. Additional participating sites complete expedited applications that include site-specific language and requirements that may differ from those at the lead site
4. Final approval of protocol
5. Study maintenance (i.e., change requests, continuing review, adverse events)

National Exercise: Request and Delivery of an Investigational Medical Countermeasure

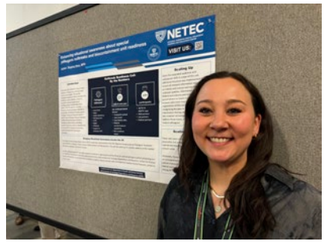
Unlike other therapeutics, medical countermeasures for high-consequence infectious diseases are rarely stocked at a facility's pharmacy. Similar to other aspects of preparation for managing a patient infected with a special pathogen, readiness and practice are key to ensuring good outcomes. Over the past two years, SPRN has conducted virtual tabletop and functional exercises to practice requesting, shipping, and receiving an investigational MCM.

The virtual tabletop exercises allowed clinical, research, and pharmacy teams from each RESPTC to work through a hypothetical scenario. In this scenario, they were receiving a patient infected with a high-consequence infectious disease at their facility, seeking to request an investigational product from a manufacturer, and ensuring the safe and timely delivery of the drug. Feedback from participating sites identified areas for improvement such as establishing effective communication across large and diverse teams, selecting appropriate locations for delivery and reception at facilities, assigning team members responsible for receipt, and preparing for unpredictable situations such as severe weather and off-hours delivery.

Functional exercises simulating request and delivery were performed at the University of Nebraska Medical Center and Cedars-Sinai. During these exercises, RESPTC teams practiced established protocols, identified timeline markers such as how long the drug took to order and receive, and rehearsed cross-team communication. The live simulations also allowed industry partners and the Biomedical Advanced Research and Development Authority (BARDA) to learn about the participating RESPTC sites response processes such as challenges to rapid shipping, receipt of request, product temperature and stability through shipping, and barriers to timely delivery.

Disseminating Special Pathogens Research

Dissemination of information about emerging infectious disease threats is crucial to research and clinical responders during outbreaks or emergencies. In FY24, SPRN subject matter experts engaged in activities to distribute information to the broader research community, including developing and publishing information for clinicians on Crimean-Congo Hemorrhagic Fever (CCHF) and presenting at a national public health preparedness summit.



Poster presented by SPRN Program Manager, Sophie Shea, "Enhancing situational awareness about special pathogens outbreaks and biocontainment unit readiness"

PUBLISHED PEER-REVIEWED PAPERS ON THE CRIMEAN-CONGO HEMORRHAGIC FEVER

Since 2020, SPRN has aimed to develop, compile, and disseminate clinical research procedures and resources that enable researchers and clinicians to quickly gather data and understand clinical syndromes and therapeutic options for high-consequence infectious diseases. SPRN subject matter experts have produced peer-reviewed papers focusing on medical countermeasures against highly infectious contagious disease (HCID) pathogens, including Marburg, Lassa, and South American hemorrhagic fever viruses. The manuscripts address virology, pathogenesis, transmission, clinical manifestations, infection prevention and control, and intervention and treatment options.

In FY24, workgroup chair Dr. Maria (Gaby) Frank from Denver Health and SPRN colleagues published a three-part series on Crimean-Congo Hemorrhagic Fever in the high-impact journal of Emerging Infectious Diseases. Uniquely, these articles were selected to offer professionals continuing medical education credits (CME). These materials were accredited by Medscape CME, Accreditation Council for Continuing Medical Education (ACCME), the Accreditation Council for Pharmacy Education (ACPE), and the American Nurses Credentialing Center (ANCC), to provide continuing education for healthcare teams to improve patient care , which is required to maintain certifications.

FRANK MG, WEAVER G, RAABE V.

Crimean Congo Hemorrhagic Fever Virus for Clinicians—Virology, Pathogenesis, and Pathology

Emerging Infectious Diseases. 2024;30(5):847-853. doi:10.3201/eid3005.231646

FRANK MG, WEAVER G, RAABE V.

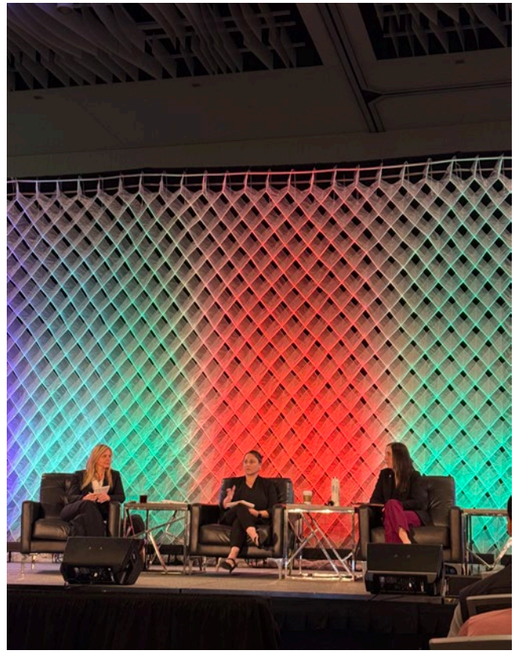
Crimean Congo Hemorrhagic Fever Virus for Clinicians—Epidemiology, Clinical Manifestations, and Prevention

Emerging Infectious Diseases. 2024;30(5):854-863. doi:10.3201/eid3005.231647

FRANK MG, WEAVER G, RAABE V.

Crimean Congo Hemorrhagic Fever Virus for Clinicians—Diagnosis, Clinical Management, and Therapeutics

Emerging Infectious Diseases. 2024;30(5):864-873. doi:10.3201/eid3005.231648



NATIONAL ASSOCIATION OF COUNTY AND CITY HEALTH OFFICIALS (NACCHO) PREPAREDNESS SUMMIT

The NACCHO Preparedness Summit convenes public health researchers, officials, and responders to discuss current and future approaches to preparing and responding to health emergencies. SPRN prepared and presented posters explaining and highlighting advances in IRB activation and deployment of investigational pharmaceuticals as well as improvements to situational awareness for special pathogen outbreaks.

Plenary Session Presentation "Operationalizing an Early Response Framework for Public Health Response to Outbreaks." Presented by SPRN director, Lauren Sauer, NETEC Public Health workgroup co-lead Mary-Margaret Fill, and Deputy Director of the White House Office of Pandemic Preparedness and Response, Nikki Romanik

Compiled pathogen genomics capabilities

Recent advances in next-generation sequencing methods and technologies provide the opportunity to rapidly detect and characterize highly contagious infectious diseases. These approaches enable deeper epidemiological investigation into pathogen evolution and transmission. The RESPTC sites and biocontainment units offer unique resources for research in HCID outbreaks. To determine the ability and interest of the NETEC partners in sequencing, a Task Force was formed in spring 2024 to conduct two main projects.

LANDSCAPE ANALYSIS: To compile current genomic sequencing technologies including current sequencing reagents, sample processing protocols, bioinformatics, and physical technologies in order to develop use cases relevant to different sites.

RESPTC SURVEY: To access each RESPTC's current capabilities and interest in developing future capability to perform genomic sequencing, and the required equipment and staffing.

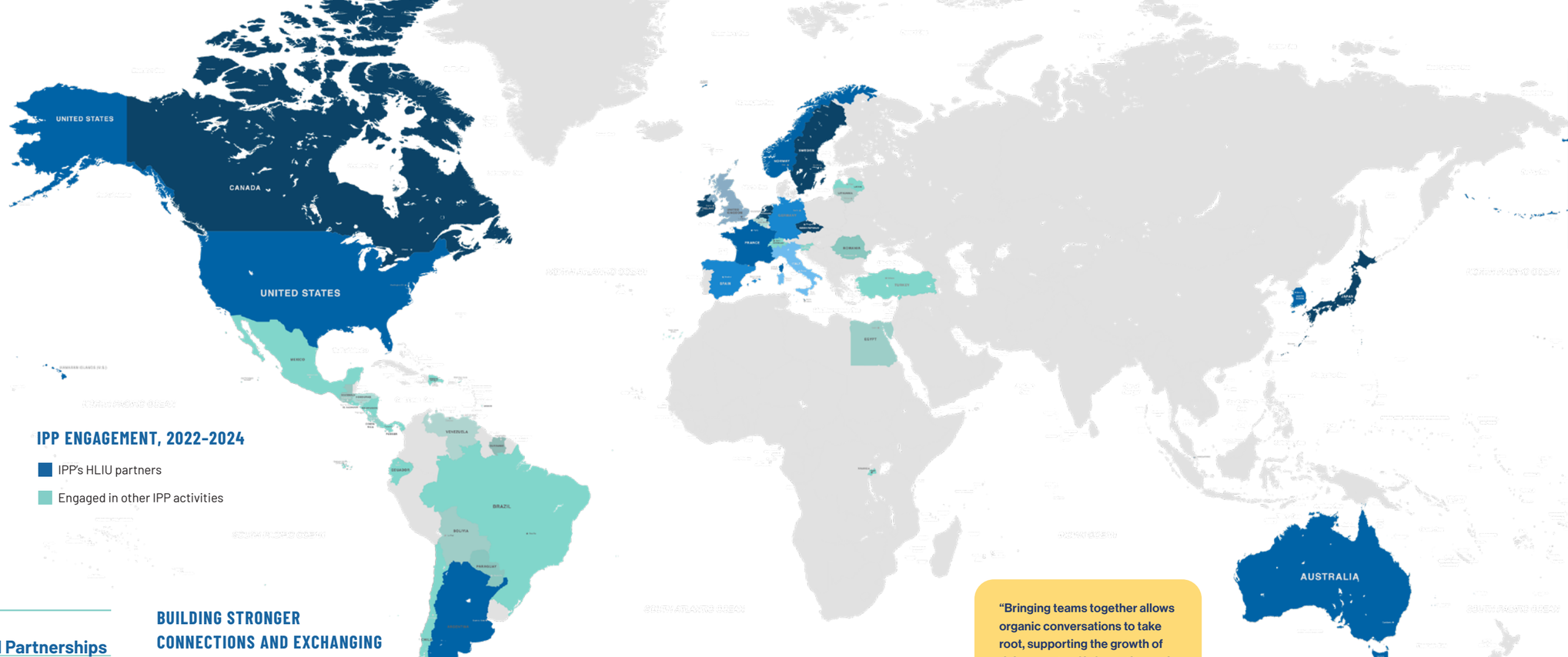
Results from this task force will be used to develop recommended approaches to performing genetic sequencing across RESPTCs, including best practices and protocols.

Research Readiness

SPRN has consistently provided expert guidance and research support to NETEC, playing a key role in developing and distributing vital informational and educational resources that advance pathogen preparedness and response efforts. SPRN also demonstrated its operational capacity by effectively utilizing the sIRB to facilitate the distribution and administration of high-priority medical countermeasures during emergencies. Additionally, SPRN has maintained a cross-site communication strategy to identify needs and opportunities across the NETEC network, ensuring coordinated efforts and collaboration.

Advancing Global Collaboration in High-Level Isolation and Infectious Disease Preparedness

In its third year of activities, **International Partnerships and Programs (IPP)** continues to elevate NETEC's visibility globally through virtual and in-person interactions that foster and promote relationship-building and sharing of experiences and knowledge. IPP is playing an important role in convening high-level isolation unit (HLIU) experts from across the globe to discuss topics unique to these specialized facilities as well as to learn from global peers. IPP's reach continues to grow in depth and breadth in fostering relationships with HLIUs and other global stakeholders.



BUILDING STRONGER CONNECTIONS AND EXCHANGING BEST PRACTICES THROUGH GLOBAL ROUNDS

IPP has engaged nearly 40 countries through its signature initiative, Global Rounds. These bi-monthly, virtual closed-session meetings feature presentations by leading infectious disease experts and small group discussions on shared HLIU challenges. This year, IPP hosted five Global Rounds, drawing 572 participants from 18 countries. A key milestone was the introduction of live Spanish interpretation for a session on South American Hemorrhagic Fevers, featuring experts from Bolivia and Argentina.

During the fiscal year, additional global rounds topics included the clinical management and ethical considerations of caring for pediatric patients, diagnostics and pathogen detection, and H5N1. Additionally, IPP partnered with SPRN to advance the development of a global research agenda for high-level isolation. Using data from the 2023 HLIU survey that gathered priorities for networking from 31 HLIUs, Global Rounds attendees furthered the development of the agenda by contributing more specific ideas and identified gaps in HLIU research. The global research agenda was also discussed at the March SPRN Summit and again at the NETEC Summit to further ideation. Movement towards prioritization of research activities and additional agenda related work will continue in the next fiscal year.

TWINNING: A PEER-TO-PEER LEARNING EXCHANGE BETWEEN GLOBAL HLIUS

Over the past year, IPP launched a pilot "Twinning" activity, pairing international High-Level Isolation Units (HLIUs) to foster deeper collaboration. In Twinning, one U.S. unit and one global unit regularly meet to exchange practices and experiences, offering a more personalized form of knowledge sharing. During the pilot, the Nebraska Biocontainment Unit (NBU) was paired with Japan's National Centre for Global Health and Medicine in Tokyo, while Providence Sacred Heart twinned with the Frasier Health Biocontainment Treatment and Training Center in British Columbia, Canada. Participants reported significant benefits from the Twinning experience, as shown in the accompanying diagram.

An evaluation of the pilot revealed high satisfaction, with participant feedback guiding the development of a Twinning Toolkit. This toolkit will be shared globally, offering recommendations for initiating and engaging in Twinning activities among international HLIUs. Here's what a few participants said.

"Bringing teams together allows organic conversations to take root, supporting the growth of rich nuggets of information and ideas. Twinning matches you with a team that you may not have a peer-to-peer relationship with yet, therefore, a new opportunity to network can be explored."

TWINNING PARTICIPANT

"Twinning is a valuable and enjoyable experience."

TWINNING PARTICIPANT

Global Partnerships Beyond the HLIU

Over the past year, IPP has expanded NETEC's connections with key global organizations, showcasing how NETEC's resources and achievements in U.S. health systems can be translated at a global level.

In July 2023, Activity Directors Jocelyn Herstein and Lauren Sauer, along with NETEC PI Vikram Mukherjee, were invited to join the inaugural Japan-US Health Security Committee meeting, a collaboration between HHS ASPR and Japan's Ministry for Health, Labor, and Welfare. This partnership holds special significance for ASPR, as the relationship between NETEC and Japan's National Center for Global Health and Medicine is formalized in a letter of intent between the two agencies.

NETEC leadership was invited to present at and participate in the inaugural US-Japan Health Security Committee meeting in Washington, DC in July 2023 to discuss NETEC's partnership with Japan's National Centre for Global Health and Medicine. NETEC was invited to attend a second meeting in July 2024.

During the 2024 Global Health Security Conference in Sydney, Australia, NETEC Director of International Partnerships and Programs, Dr. Jocelyn Herstein, served on a panel highlighting the value of high-level isolation unit partnerships with partners Drs. Poh-Lian Lim and Sapna Sadarangani from the National Centre for Infectious Diseases (NCID), Singapore. The panel was moderated by Aaron Resnick, Program Director of the MedStar Washington Hospital Center Biocontainment Unit.

The IPP team has strengthened ties with the Pan-American Health Organization (PAHO), the Americas chapter of the World Health Organization. In fall 2023, NETEC representatives—including Herstein, Sauer, Dr. Gaby Frank from Denver Health, PI Aneesh Mehta, and program manager Katie Stern—met with PAHO in Washington, D.C., to explore collaboration opportunities. As a result, NETEC was invited to lead a two-day workshop on infection prevention, control, and medevac in Panama in early FY25.

Tabletop exercises (TTXs) play a crucial role in identifying gaps, justifying funding, and fostering dialogue in special pathogens preparedness. In June 2023, IPP brought together transport stakeholders from six countries to test long-range viral hemorrhagic fever transport plans when global capacity is exceeded. The exercise was attended by Joe Lamana, ASPR Director of International Operations and Vice Chair of NATO's Joint Health Group. Following discussions, Lamana requested a similar exercise for NATO. In April 2024, NETEC led an exercise during the NATO Joint Health Group workshop on biocontainment transport and care for representatives from 16 NATO member countries. These outcomes will be shared with national and international policymakers to enhance multinational coordination and resourcing in this critical area.

NETEC members with NATO Joint Health Group leadership during the biocontainment transport and care tabletop exercise in Washington, DC.

Global Reach. Local Impact.

Looking into FY25, IPP looks forward to continuing to strengthen and expand partnerships and collaborations with special pathogens programs, including high-level isolation unit partners and PAHO. Since it began in 2022, IPP has focused on filling a niche gap in increasing connections and experience-sharing among global high-level isolation unit facilities with mandates and capabilities analogous to RESPTCs. Building on the successes and partnerships developed over the last two years, IPP looks forward to expanding its network to include partners outside of high-resource high-level isolation units, including in low- and middle-income countries (LMICs) where special pathogen outbreaks are more prevalent, thereby enhancing truly global preparedness and response capabilities.

Key Achievements and Progress

THE NATIONAL EMERGING SPECIAL PATHOGENS TRAINING AND EDUCATION CENTER (NETEC) has made significant strides in fulfilling its mission to set the gold standard for special pathogen preparedness and response across U.S. health systems. This past fiscal year, we have successfully advanced our vision of establishing a sustainable infrastructure and culture of readiness, evidenced by our key achievements across multiple programs.

NETEC advanced its operational goal of coordinating a comprehensive special pathogen system in the United States through the **NATIONAL SPECIAL PATHOGEN SYSTEM (NSPS)**, which this year defined the minimum capabilities for hospitals in the System of Care, established the hub-and-spoke model, and rehearsed how the system would function during an emergency. NETEC will continue its collaborative efforts through numerous exercises and real-world situations with key partners, including RESPTCs, federal agencies, EMS organizations, and public health groups, to advance operational adoption of NSPS to enhance outcomes, access to care, and workforce and community protection nationwide.

Through the **REGIONAL EMERGING SPECIAL PATHOGENS TREATMENT CENTER (RESPTC)** network, we have enhanced preparedness and collaboration, ensuring rapid and effective responses to high-consequence infectious diseases. Utilizing multi-dimensional and integrated assessment tools, NETEC gauged the readiness of hospitals and EMS agencies to effectively identify and respond to emerging special pathogens management needs. Notably, the first Special Pathogens Operational Readiness Self-Assessments (SPORSA) for all RESPTCs indicated most domains with established standard operating procedures addressed essential components for Level 1-RESPTCs within the NSPS. The NSPS has laid the groundwork for a coordinated, patient-centered care network, significantly enhancing our collective ability to manage special pathogen incidents.

Our robust **EDUCATION AND WORKFORCE DEVELOPMENT INITIATIVES** have empowered over 9,800 healthcare professionals, fostering a culture of continuous learning and readiness. NETEC strengthened collaborations with key healthcare entities, enabling knowledge exchange and addressing challenges faced by healthcare workers. NETEC will reintroduce in-person training courses in partnership with RESPTCs and professional organizations to equip healthcare workers with essential skills in identification, isolation, and communication.

The **SPECIAL PATHOGENS RESEARCH NETWORK (SPRN)** has been pivotal in advancing clinical research and establishing a strong national research infrastructure. It will continue to address the unique challenges of implementing special pathogens research, including navigating complex regulatory, ethical, and safety concerns.

Our **INTERNATIONAL PARTNERSHIPS AND PROGRAMS (IPP)** fostered global collaboration, sharing knowledge and best practices across borders. IPP will continue to extend NETEC's global network and strengthen connections with international partners to improve worldwide preparedness and response to special pathogen outbreaks.

Looking ahead, NETEC will continue to safeguard our nation's healthcare systems and healthcare workers by strengthening the National Special Pathogen System through expanded partnerships with Regional Emerging Special Pathogens Treatment Centers. The growing demand for Special Pathogens Operational Readiness Self Assessments signals increased engagement with facilities across all readiness levels, supporting the development of regional resource hubs that provide localized expertise and enhance overall preparedness. The reintroduction of in-person training courses, adding to an already robust online hub for education and training resources, will strengthen frontline healthcare capabilities. International partnerships and evidence-based research through the Special Pathogen Research Network will fortify the nation's comprehensive approach to emerging threats, protecting communities and improving patient outcomes. **NETEC is proud of its expertise, leadership, and commitment to advancing America's national health security.**

Acknowledgments

The accomplishments detailed in this report were made possible by the hard work and dedication of numerous individuals and organizations. It is impossible to mention them all here by name, however NETEC extends its heartfelt gratitude to the subject matter experts, clinicians, public health professionals, and other members of the 13 Regional Emerging Special Pathogens Treatment Centers, as well as to our public health partners and international partners. NETEC is funded by the U.S. Department of Health and Human Services (HHS) Administration for Strategic Preparedness and Response (ASPR).

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