



UNMC | NEBRASKA MEDICINE

**GLOBAL CENTER  
FOR HEALTH SECURITY**

**ANNUAL REPORT**





UNMC, the Global Center for Health Security and the Administration for Strategic Preparedness and Response (ASPR) at the U.S. Department of Health and Human Services held a ribbon cutting Sept. 14, 2023 to mark the opening of the national Training, Simulation and Quarantine Center at the Davis Global Center.







Local, state, and federal experts, test the readiness of the National Quarantine Unit.



Our work over the years leading up to fall 2022 prepared our Center to rapidly support global preparedness and response efforts to MPOX, Sudan ebolavirus, Marburg virus and Lassa virus. We are exceptionally proud of what our team and our partners have been able to contribute to managing these health emergencies.

We remain focused on the future, recognizing emerging health threats demand proactive global prevention and preparation. I am immensely proud of our faculty, staff, and partners' unwavering dedication to addressing health threats. Our collective impact saves lives and directly contributes to greater health security.

- John J. Lowe, PhD  
Director, GCHS

## A Message from Dr. John Lowe

I am thrilled to reflect on the exceptional growth and accomplishments we have achieved together over the past two years. Our team has expanded both in numbers and expertise, with notable new appointments such as Dr. Jared Evans in Pathology and Microbiology, and Angela Ling in Emergency Medicine. Shelly Schwedhelm stepped into national leadership as Executive Director of the National Special Pathogen System of Care and Dr. Angela Hewlett served as advisor for the U.S. Olympics. GCHS scholars provided technical assistance for the National Security Council, White House Office of Pandemic Preparedness and Response, numerous federal and state agencies and numerous countries, underscoring the caliber of our growing team.

Our partnerships have also strengthened considerably. Our expanding international reach now extends to over 20 countries, evidenced by workshops in Panama, exercises with NATO and the strong ties we've built with the National Center for Global Health and Medicine in Japan. Notably, our incredible collaboration with the U.S. Air Force Infectious Disease C-STARS program that continues to grow in scope and scale.

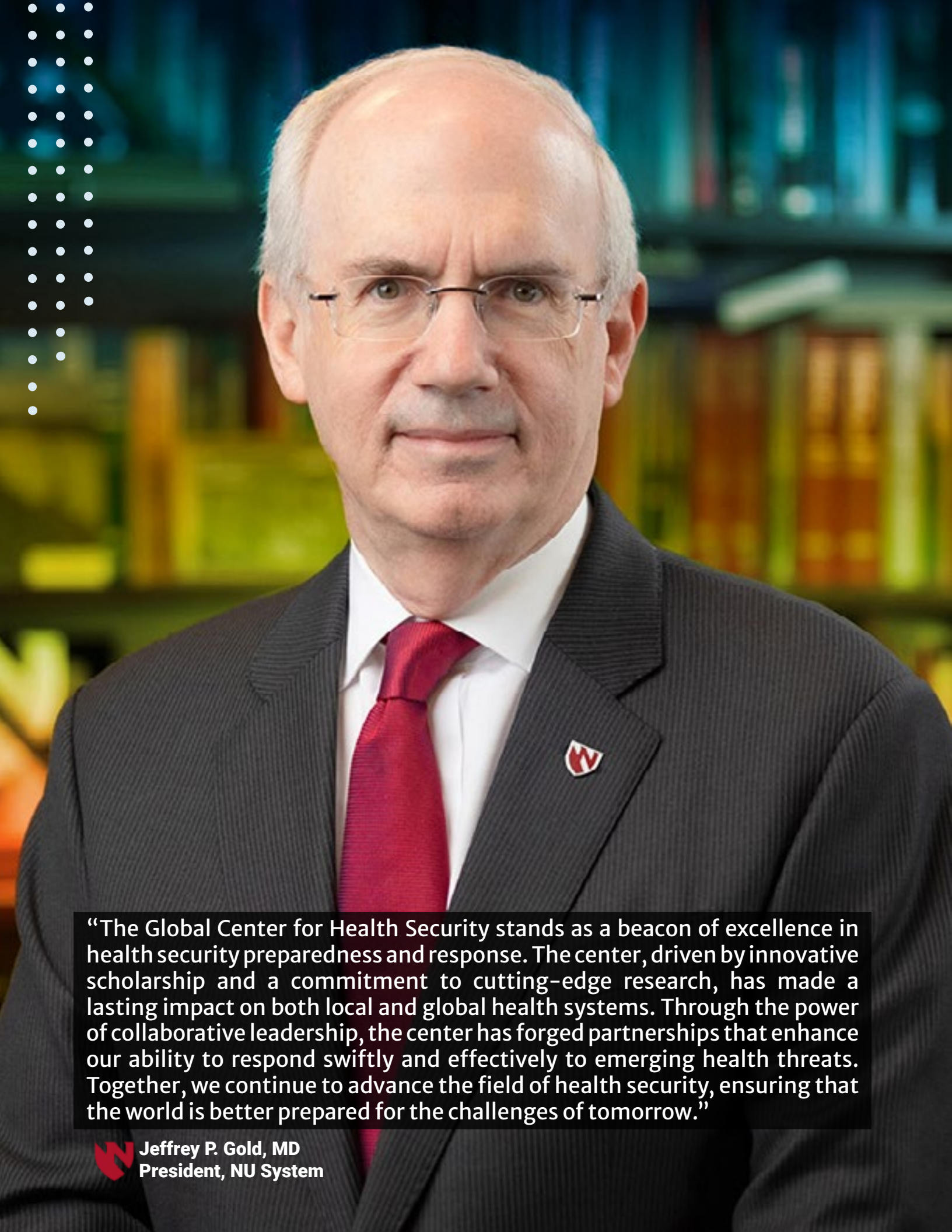
Research and academic programs have flourished, with the launch of the Health Security Clinical Fellowship in 2024 and groundbreaking research projects like the DOD-funded "Building on the Fly by Design." Moreover, our contributions at global health security forums highlight our leadership in emerging infectious diseases, exemplified by several multi-lateral health emergency exercises. In the coming year we look forward to advancing health security collaborations throughout East Africa.

The continued success of GCHS would not be possible without the dedication of our team and the support of our partners. Together, we will continue advancing health security, shaping global responses, and fostering the next generation of experts. Your contributions are invaluable, and I look forward to what we will achieve next.


John J. Lowe, PhD  
Director, Global Center for Health Security







“The Global Center for Health Security stands as a beacon of excellence in health security preparedness and response. The center, driven by innovative scholarship and a commitment to cutting-edge research, has made a lasting impact on both local and global health systems. Through the power of collaborative leadership, the center has forged partnerships that enhance our ability to respond swiftly and effectively to emerging health threats. Together, we continue to advance the field of health security, ensuring that the world is better prepared for the challenges of tomorrow.”

 Jeffrey P. Gold, MD  
President, NU System

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## Advancing Preparedness and Response at Home and Abroad >>>>

Headline-grabbing events such as the treatment of Ebola patients from Africa in 2014 and the 2020 quarantine of travelers at risk of contracting COVID-19 positioned the University of Nebraska Medical Center (UNMC) and Nebraska Medicine (NM) as leaders in handling major healthcare emergencies. Yet, behind these moments of crisis lies the relentless dedication of professionals and scholars who work year-round to advance preparedness.

In response to the growing need for expertise in health security, the Global Center for Health Security (GCHS) was established at UNMC in 2017. Since its inception, GCHS has played a pivotal role in tackling both local and global health crises. The center provides accurate, timely information to the public and healthcare professionals, trains frontline workers, and innovates in areas such as diagnostics, research infrastructure, and health care worker protection.

The GCHS has formed partnerships with leading experts in high-consequence infectious diseases, government agencies, and communities worldwide to enhance our ability to prevent and respond to all-hazard disasters. While recent health emergencies have been tragic, they have underscored the importance of the GCHS's mission and the vital work happening behind the scenes.

Thanks to the dedication of UNMC/NM and GCHS teams, these institutions have earned their place as global leaders in health security. No matter what challenges lie ahead, the GCHS will remain at the forefront of prevention efforts and be ready to respond to future emergencies.

**“The Global Center for Health Security exemplifies the power of partnerships and collective action in safeguarding public health. Its leadership has been instrumental in shaping national policy, ensuring that preparedness and response efforts prioritize the most vulnerable during health emergencies. By fostering collaboration across disciplines and sectors, the center has not only elevated the University of Nebraska Medical Center’s role in global health security but has also created a lasting impact on our nation’s ability to respond to emerging threats. I am deeply proud of the Center’s continued dedication to protecting communities and advancing health security, both in Nebraska and globally.”**

 **Dele Davies, MD**  
Interim Chancellor, UNMC



**34,155**  
People  
trained

**600+**  
Training  
sessions

**2,307**  
Federal first  
responders  
participated in IPC  
training hosted by  
GCHS & USPHS

**100+**  
Exercises  
conducted

**\$60M+**  
Brought in over the  
past five years by  
the GCHS

**21**  
Scholars who  
are leading  
advancements  
in global health  
security

**9**  
Exercises with  
International  
Partners

**33**  
Countries with  
active GCHS  
partnerships

**10**  
Affiliates who are  
innovative experts  
collaborating to  
advance global  
health security

**100+**  
Peer-reviewed  
publications

**37**  
UNMC Today  
stories featuring  
GCHS work

**4**  
UNMC  
colleges working  
with GCHS across  
**10** departments

**10**  
Core programs  
affiliated with  
the GCHS

The GCHS integrates four domains in which its capabilities are highlighted: *Innovation and External Partnerships, Clinical Operations, Education and Training, and Research.* Each domain is led by a GCHS leadership member.



James Lawler, MD, MPH  
FIDSA, GCHS Associate  
Director of International  
Programs and Innovation



Shelly Schwedhelm, MSN  
RN, NEA-BC, GCHS  
Associate Director of  
Emergency Management  
and Clinical Operations



Joshua Santarpia, PhD,  
GCHS Associate Director  
of Academic Affairs



Lauren Sauer, MSc,  
GCHS Associate  
Director of Research





A contingency from the GCHS visited Tokyo, Japan, and its National Center for Global Health and Medicine to strengthen collaboration between NCGM and the National Emerging Special Pathogens Training and Education Center, by participating in a pilot “Twinning” collaboration.

## International Partnerships >>>>

In the modern age of global connectivity, a local public health issue can now rapidly escalate into a national or global emergency. As our world becomes more interconnected through travel, urbanization, and economic activity, the field of global health security must expand accordingly. To achieve this, the GCHS actively builds relationships with international partners to share best practices, learn from past experiences, and prepare collaboratively for future disasters.

Through its programs and global memberships, GCHS is not only expanding its international collaborations but also enhancing its specialized expertise in biocontainment and infection prevention and control. Currently, the GCHS is working with academic, governmental, NGO, and enthusiastic engagement from the private sector indicates that East Africa—specifically in Rwanda, Uganda, and Kenya—to strengthen national infrastructures for responding to high-consequence infectious disease outbreaks and other public health emergencies within the region.

### NCGM & NBU Twinning Collaboration

In October 2022, a delegation from Japan’s National Center for Global Health and Medicine (NCGM) visited the GCHS for a series of meetings and a tour of the Nebraska Biocontainment Unit. In June 2023, a NETEC team traveled to Tokyo to reciprocate that visit and continue collaboration-setting discussions between NCGM and NETEC.

Further, facilitated by NETEC’s International Partnership and Programs, the Nebraska Biocontainment Unit and NCGM’s Disease Control and Prevention Center are participating in a pilot “Twinning,” a dynamic peer-to-peer collaboration that includes networking and the exchange of ideas and resources. The teams began “Twinning” in April 2023 and finished a 1-year pilot in March 2024, although the hope is for the relationship between the two organizations to continue.

### The Global Outbreak Alert and Response Network

The Global Outbreak Alert and Response Network (GOARN), a World Health Organization network of technical institutions, provides assistance and resources to respond to outbreaks and public health emergencies globally. GCHS also has representation in GOARN Research leadership, and recently attended GOARN meetings in Switzerland, Rwanda, and Jordan. These meetings focused on the operational work of the steering committee to strengthen and advance GOARN’s agenda and enhance regional strategic initiatives and collaborations.



*Dr. James Lawler, Vicky Nakibuuka, and Dr. Jocelyn Herstein, along with Jumuiya Economic Development Secretariat CEO Emmanuel Nzai met with Hon. Gideon Mitha Mung’aro, Governor of Kilifi County and Deputy Governor, Hon. Flora Mbetsa Chibule in Kenya in the spring of 2024. The meeting revolved around the East Africa Region Global Health Security Summit 2025.*

### International Health Emergency Activities

GCHS recognizes the critical need for global partnerships in achieving health security, as emerging pathogens know no borders. Controlling pandemics early requires international collaboration. While the COVID-19 pandemic hampered global cooperation, GCHS has since prioritized reconnecting with partners to apply pandemic lessons learned.

East Africa remains a key region for global health security, given its emerging disease threats and strategic role in trade. Over the past year, GCHS has strengthened partnerships with government, academic, and NGO groups in Uganda, Rwanda, Kenya, and Tanzania. Key initiatives include improving infection prevention, developing healthcare training programs, building infectious disease curricula, and fostering leadership in health security. Collaborators include Uganda’s Makerere University, Rwanda’s University for Global Health Equity, and the Rwanda Biomedical Centre.

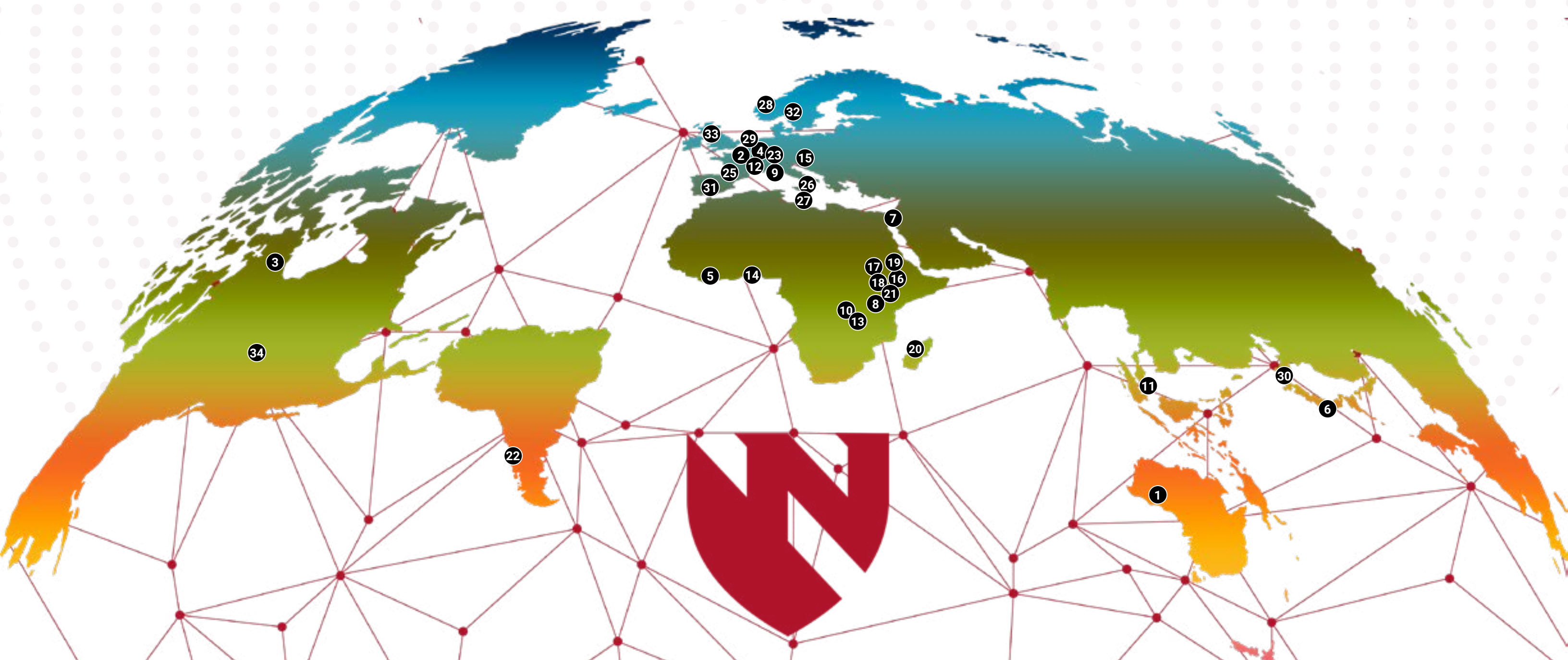
In FY2024, GCHS launched a major new partnership with the Jumuiya Economic Development Secretariat (JEDS) to organize the 2025 East Africa Region Global Health Security Summit. JEDS represents six coastal Kenyan counties, including Mombasa. The leadership and enthusiasm from the business sector give GCHS hope that East Africa can become a global model for community-based preparedness.





The GCHS recognizes that partnerships and collaborations across the world are crucial to achieve global health security. This map shows where the GCHS has established partners by both visiting and welcoming guests to Omaha as well as in participating health emergency responses and meetings with leading global health organizations during the past two years.

- |               |             |                  |                  |                     |                  |                     |
|---------------|-------------|------------------|------------------|---------------------|------------------|---------------------|
| 1 - Australia | 6 - Japan   | 11 - Singapore   | 16 - Ethiopia    | 21 - Uganda         | 26 - Italy       | 31 - Spain          |
| 2 - Belgium   | 7 - Jordan  | 12 - Switzerland | 17 - Sudan       | 22 - Argentina      | 27 - Malta       | 32 - Sweden         |
| 3 - Canada    | 8 - Kenya   | 13 - Tanzania    | 18 - South Sudan | 23 - Czech Republic | 28 - Norway      | 33 - United Kingdom |
| 4 - Germany   | 9 - Monaco  | 14 - Togo        | 19 - Eritrea     | 24 - France         | 29 - Netherlands | 34 - United States  |
| 5 - Ghana     | 10 - Rwanda | 15 - Ukraine     | 20 - Madagascar  | 25 - Ireland        | 30 - South Korea |                     |







## Providing Timely and Reliable Global Health Information for Everyone >>>>

Misinformation and unreliable sources profoundly affect how citizens seek out and interpret the world around them. To counter this, the GCHS provides platforms that offer accurate, up-to-date information to both health professionals and the public. One key initiative is *The Transmission*, a weekly newsletter launched in September 2022. Expertly curated, this newsletter aggregates insights from trusted health organizations and reputable news sources, delivering clear and reliable updates on emerging infectious diseases, surveillance reports, and other global health security topics.

With its accessible format, *The Transmission* has covered vital topics such as debunking COVID-19 myths, tracking the spread of H5N1 in poultry and dairy markets, and reporting on the rise of mpox as a fast-spreading communicable disease in 2023. Since its launch, the newsletter has garnered 3,984 subscribers and its website has received over 3 million visits, emphasizing its role as a trusted source in the ever-evolving field of global health security.

## Statewide Infectious Disease Briefings

The COVID-19 pandemic underscored the urgent need for public health and healthcare professionals to stay informed on the rapidly evolving science of the virus, as well as the availability of essential resources for patient care and workforce protection. The GCHS responded swiftly, launching the Nebraska Statewide Infectious Disease Briefings. Initially held twice weekly, these virtual sessions brought together a diverse group of experts—researchers, epidemiologists, state and local public health officials, and clinicians—from across the state. The goal was to share real-time updates, discuss challenges, and learn from the collective experiences of peers in the field.

Over time, these briefings have evolved into bi-weekly meetings that continue to address the pressing needs of current disease outbreaks. Despite the shift in frequency, the briefings remain an essential platform for fostering collaboration and maintaining cohesion across the public health and healthcare workforce. By providing a trusted space for knowledge exchange and collective problem-solving, GCHS has played a vital role in building long-term trust among stakeholders and ensuring a united response to ongoing public health challenges.



Visit our health emergencies page by scanning the QR code to watch all of our Statewide Briefings.

## GCHS WEBSITE

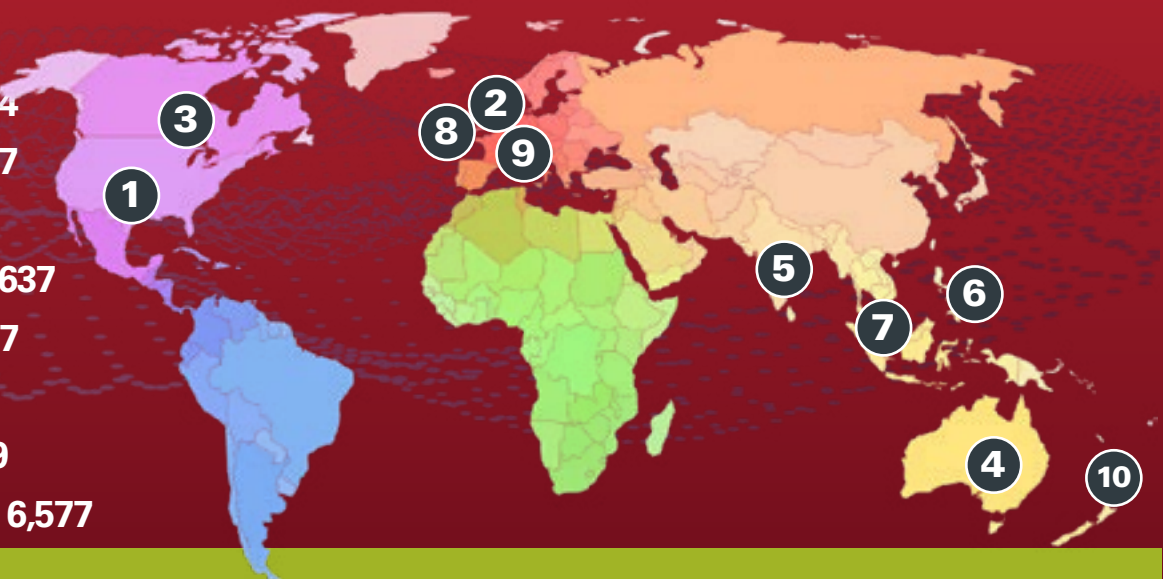
Throughout 2023, the Global Center for Health Security's website saw a significant increase in traffic. Analytics indicated that from January 1 to December 31, 2023, the GCHS site garnered 2,232,140 views and 1,878,527 visitors. This boost was largely due to *The Transmission* newsletter articles, although the site was also a popular source for COVID-19 updates, health emergency information, program details, expertise, leadership, and team profiles. The GCHS website drew visitors from 198 countries and territories. It is expected that the total number of visitors for 2024 will eclipse all previous years' numbers combined.

## Website Visitors by Year

2020	4,956
2021	14,277
2022	15,048
2023	1,878,527
2024	1,484,773 (Jan 01 - June 30, 2024)

## Top 10 GCHS Website Visitors by Country

1. USA: 1,450,174
2. UK: 117,195
3. Canada: 105,504
4. Australia: 41,967
5. India: 22,302
6. Philippines: 20,637
7. Singapore: 8,637
8. Ireland: 8,402
9. Germany: 6,709
10. New Zealand: 6,577







## Contributing to Health Security through Innovation and Research >>>>

As natural and human-made emergencies continue to rise, there is an increasing demand for innovative approaches to preparedness and response. The innovative minds at the GCHS made significant contributions during the COVID-19 pandemic, advancing our understanding of airborne transmission of SARS-CoV-2, disease prevalence, transmission and detection. Today, these innovators remain focused on pioneering new strategies and solutions for emergency preparedness and response.

### Elizabeth Beam, PhD, RN - Beth Beam Helmet Project



During the COVID-19 pandemic, one commonly used piece of personal protective equipment was the powered air-purifying respirator (PAPR), which allowed healthcare workers and patients to breathe safely in hazardous conditions, but designs posed challenges for use and cleaning. To address these challenges, Dr. Elizabeth Beam and her project team have developed two PAPR prototypes with a streamlined design that includes all essential components in the headgear simplifying use and processes such as donning and doffing. The team continues development work and has received funding from both the Great Plains IDEA-CTR and the University of Nebraska Collaboration Initiative—organizations that recognize exceptional talent within the University of Nebraska system.

### Abigail Lowe, PhD, MA - GCHS Ethics Committee



The GCHS Ethics Advisory Committee was established in the early stages of the COVID-19 outbreak to serve as a resource for those facing unprecedented ethical issues. The committee, comprised of national and international experts in ethics, served GCHS and partner organizations by providing consultations to those seeking help with pressing ethical dilemmas during the pandemic. The GCHS Ethics Advisory Committee has continued to support preparedness and response efforts through consulting on key bioethics issues within clinical research, resource allocation of therapeutics and vaccines, and risk communication.

### Joshua Santarpia, PhD - Infectious Aerosol Research Group



The UNMC Infectious Aerosol Research Group, led by Dr. Joshua Santarpia, is at the forefront of aerobiology, specializing in the study of infectious airborne microorganisms with areas of expertise in biological sensors and sensing networks, aerosol measurement tools, and bioaerosol hazard characterization. The group conducts groundbreaking research on infectious bioaerosols, particularly focusing on the transmission and mitigation of diseases like COVID-19. During the early days of the pandemic, Dr. Santarpia and his team studied samples of SARS-CoV-2 aerosols and contributed to the discovery of their size being smaller than first thought which had an impact on how the world worked to prevent the disease's spread. Their work continues to inform best management and safety techniques for preventing future outbreaks.

### Mike Wiley, PhD - Advanced Sequencing



Surveillance of the virus responsible for COVID-19 was and continues to be foundational for understanding where the most recent outbreaks are and forecasting where an increase in cases may occur. GCHS Scholar Dr. Mike Wiley works to increase what is known about pathogens through the use of advanced sequencing techniques. These techniques allow a researcher to hone in on the special characteristics of a given pathogen thus increasing detection, identifying potential means of treatment, and ultimately preventing further transmission. During the COVID-19 pandemic, Dr. Wiley's work was integral to the state of Nebraska's ability to characterize SARS-CoV 2 and its evolution through patient and wastewater samples. Additionally, Dr. Wiley and his team support researchers around the globe in the sequencing of high consequence infectious diseases in countries such as the Democratic Republic of Congo, Ghana, Laos, Malaysia, Senegal, and South Korea.

### Steven Yeh, MD, FASRS - Ebola, Emerging Infectious Diseases and the Eye: Ophthalmic Surveillance and Vision Health Systems Strengthening



Dr. Steven Yeh and his team collaborate with U.S. and international care providers, infectious disease, public health, immunology, and advanced sequencing specialists to understand the mechanisms that lead to uveitis and retinal disease conditions in Ebola survivors and emerging infectious diseases. Their work with numerous partnerships has continued since 2015, leading to medical care and vision-restorative surgery where needed for over 2500 Ebola survivors in Sierra Leone, Liberia, and Democratic Republic of the Congo. Beyond Ebola, the team seeks to understand the ophthalmic consequences of other emerging infectious diseases within sub-Saharan Africa and resource-limited settings. Multiple emerging pathogens including SARS-CoV-2, Marburg virus, Chikungunya, and mpox are known to cause eye disease but gaps remain in our understanding of the epidemiology, pathogenesis, and best practices for individual and public health management. Within these contexts, Dr. Yeh and his team of international collaborators also seek to develop models of care and have implemented clinical research infrastructure in multiple austere settings. The leading goal is to impact vision health and patient quality of life in areas where vast resource gaps and access disparities remain.



### **Katherine Willet, MD, FACEP - Health Security Fellowship**



During the COVID-19 pandemic, Dr. Katie Willet and a team of national and international specialists worked to create a novel subspecialty of medicine with the development of the UNMC Health Security Clinical Fellowship. This fellowship helps to establish and advance the practice of health security by training clinicians to promote health system preparedness from preparation to response and recovery. and training takes an all-hazards approach including education on all-hazards disaster response, emerging infectious diseases, infection outbreak preparation and management, public health response, engagement with government agencies and disaster leadership. The fellowship has core faculty from multiple specialties and a vast array of experiences and training. In August 2024, the fellowship started with the inaugural fellow and is currently pending ACGME approval.

### **Jocelyn Herstein, PhD - High-Consequence Infectious Disease Patient Transport**



Through her role as Director of International Partnerships and Programs for NETEC, Dr. Jocelyn Herstein has led a series of tabletop exercises focused on advancing global long-range high-consequence infectious disease (HCID) patient transport capabilities and capacities. The first such exercise was held in June 2023 in San Francisco with key transport stakeholders from six countries to test plans for long-range HCID transport when requests exceed known global capacities. Recommendations from that exercise included the need to elevate findings to international organizations, which led to a second tabletop exercise being conducted with representatives from 16 countries during a North Atlantic Treaty Organization (NATO) Joint Health Group workshop in April 2024. In addition to working with NATO, NETEC has briefed the World Health Organization, White House, and myriad federal agencies, with the goals to advance multinational coordination, funding, and resourcing to expand global capabilities for long-range HCID transport.



*NETEC organized and facilitated an international transportation tabletop exercise for high-consequence infectious diseases at a NATO Joint Health Group meeting.*

### **Jana Broadhurst, MD, PhD, DTMH - EPL & ISTARI**



Accurate diagnostics are essential for identifying infectious diseases, guiding treatment, and controlling their spread. At the forefront of this effort is the UNMC Emerging Pathogens Laboratory (EPL), led by Dr. Jana Broadhurst. As a CLIA-certified, high-complexity clinical laboratory, EPL is dedicated to advancing infectious disease diagnostics and clinical research. Dr. Broadhurst and her team were one of the first clinical laboratories in the U.S. to develop a PCR diagnostic test for detecting SARS-CoV-2, which played a pivotal role in pandemic surveillance, detection, and monitoring, significantly reducing the virus's spread.

### **Isolation System for Treatment and Agile Response for High-Risk Infections**

Conventional response to outbreaks of high-consequence infectious disease requires substantial resources, including specialized facilities, large volumes of personal protective equipment (PPE), and extensive staff training to ensure a rapid and safe response. To address these challenges, Drs. Jana Broadhurst (Principal Investigator), David Brett-Major, and James Lawler, through the CDC-funded Project Firstline, have developed the Isolation System for Treatment and Agile Response for High-Risk Infections (ISTARI) - a cutting-edge portable negative-pressure containment system. ISTARI was developed in partnership with Otherlab, a San Francisco engineering and design firm. It is designed to enhance patient and provider safety, improve care quality, and reduce the reliance on PPE, offering a cost-effective solution for managing infectious diseases.



*Dr. David Brett-Major with the latest prototype of the ISTARI 1A transport model.*



*Dr. James Lawler in the 'hugsuit' of an early Model 1 prototype which enables providers to safely interact with patients inside the tent.*

The device family includes four models with use cases that span from patient transport to extended use in critical care and austere environments. The GCHS team has conducted several simulation exercises with the ISTARI devices to inform continued design and development of each device iteration. In late 2022, the team was invited by the Ugandan government to evaluate the feasibility of employing the ISTARI 1B in Ugandan health facilities during the Sudan ebolavirus outbreak (Note: engagement not funded by CDC). In July 2023, the Model 2 was evaluated for advanced isolation care in a field hospital setting under tropical environmental conditions in Puerto Rico in partnership with the Puerto Rico Medical Reserve Corps. Most recently in September 2023, the team partnered with Providence Sacred Heart and multiple hospitals, EMS, and Medvac teams in Alaska to exercise the care and movement of a patient using the FDA approved Model 1B and the Model 1A transport model still under development.

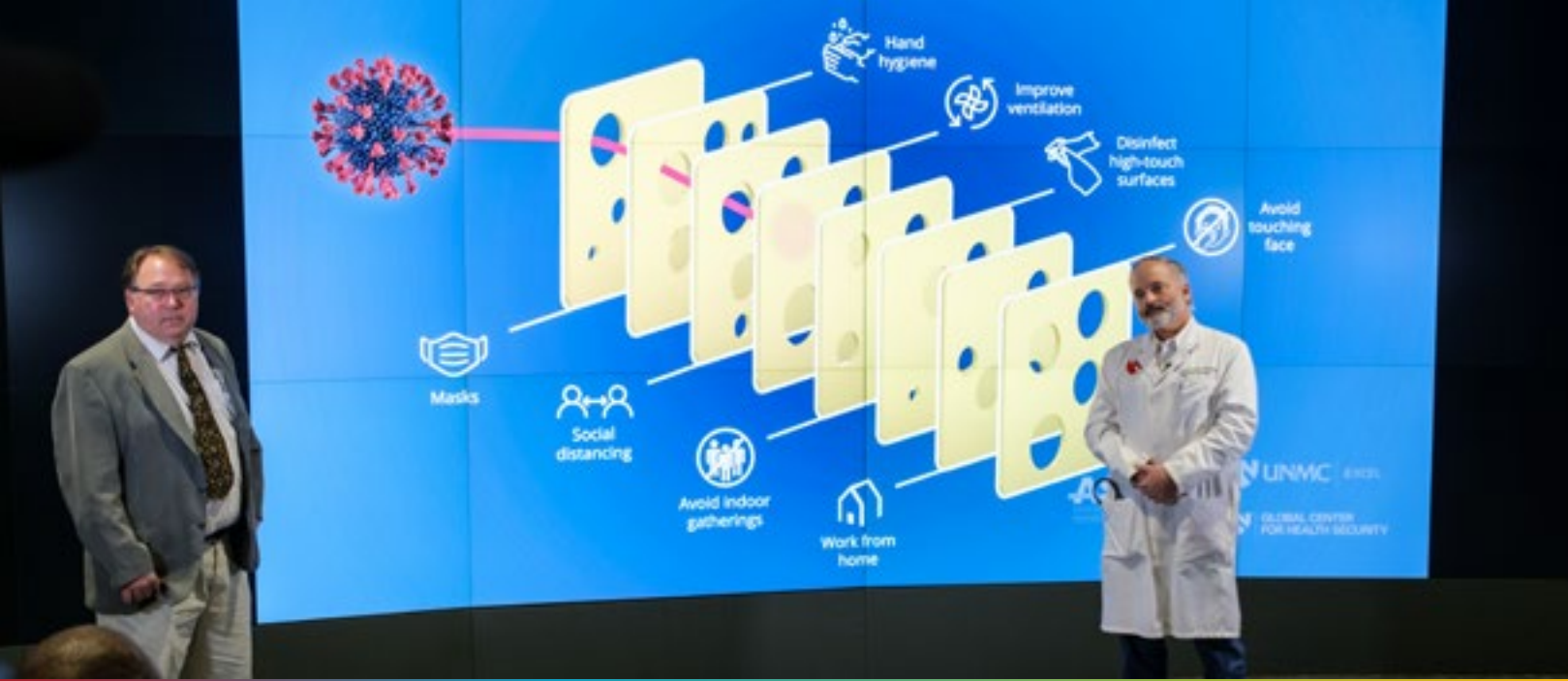


Scan the QR code to learn more about ISTARI models, including the **Model 1A** (left) and the **Model 1B** (right)

Shown is Dr. Jana Broadhurst as a simulated patient in a cooperative exercise with Region 10 RESPTC and other partners







## The U.S. Public Health Service Deployment Safety Academy for Field Experience

In 2022, the U.S. Public Health Service (USPHS) partnered with the GCHS, the University of Texas Health Science Center at Houston, and Texas A&M University to create and implement a multi-modal training for USPHS officers on infection prevention and control (IPC). USPHS officers are federal first responders who are deployed to be on scene at natural disasters and infectious disease outbreaks, among other public health emergencies.

Through the USPHS Deployment Safety Academy for Field Experience, GCHS team members and colleagues developed and implemented training through online, self-paced trainings on key IPC principles; onsite in Omaha training that allowed learners to practice key safety considerations through simulations tailored to a deployment environment; and through monthly webinars on topics such as specific infectious diseases that were requested by USPHS officers.

“As America’s Health Responders, Public Health Service officers are the first in line to defend our nation’s public health against threats large and small. Trainings, such as the D-SAFE course, are critical components of the preparation needed to help Public Health Service officers protect, promote, and advance the health and safety of the nation.”

*RDML Richard P. Schobitz, PhD  
ABPP, Director of  
Commissioned Corps  
Headquarters (CCHQ)*

## Infection Prevention Training & Implementation >>>>

The experience and expertise of GCHS team members spans a great continuum of specialties in all hazards preparedness and response including infectious disease care, infection prevention and control, biocontainment policies and procedures, special pathogens, and disaster preparedness and response. This knowledge and skills of these individuals provides the foundational capability of the GCHS to develop and provide training to other preparedness and response professionals. Not only does the GCHS have the right people in place but also has the unique and distinct opportunity to utilize the exclusive training and educational simulation spaces located in the Dr. Edwin & Dorothy Balbach Davis Global Center in partnerships with the UNMC iEXCEL training team.

### USPHS By The Numbers: Officers Trained



## Infection Prevention Support Center

Funded by the CDC in partnership with Project Firstline, the Infection Prevention Support Center provides education, tools, and resources to support Infection Preventionists (IPs) across healthcare settings. The “Behind the Mask” webinar series provides comprehensive education on the fundamentals of successful Infection Prevention and Control (IPC) programs to nearly 1,600 subscribers across the United States and territories. Post-webinar office hours are also provided to allow a collaborative space for engagement and consultation on infection prevention topics and challenges. Nearly 40% of webinar attendees also attend office hours.

The Self-led Infection Control Evaluation (SLICE) tool is an online, programmatic self-assessment that empowers IPs to evaluate their IPC programs and provides an actionable report for improvement efforts. To date, SLICE has nearly 400 users in all 10 HHS regions. The Extended Reality (XR) Education program provides a five-module training bundle to improve IP knowledge of the Sterile Processing Department in a gamified and immersive virtual environment. To date, 50 facilities have experienced XR education. The team has also developed a resource repository to support IPs comprising audit tools, policy templates, checklists, and more. Currently in development is a detailed 90-day Survival Guide to empower and help orient new IPs in their role. For more information on all IP Support Center work, visit <https://innovateipc.org/ipc-support-center/>.



Read about how the D-SAFE training program with UNMC advances health security.





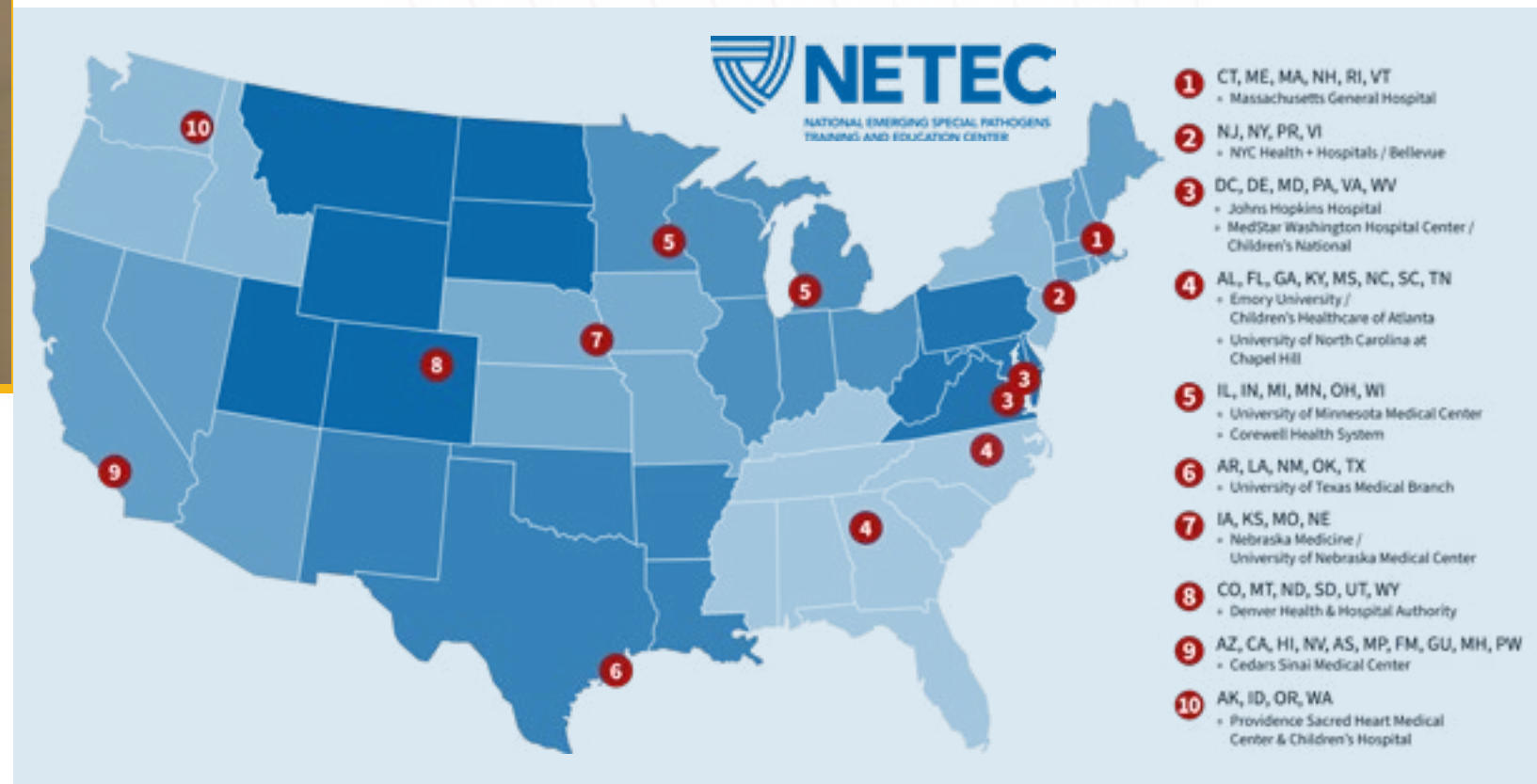
## Regional & Nationwide Preparedness & Response Collaborations >>>>

### National Special Pathogen System of Care

The National Special Pathogens System of Care (NSPS) continues to expand implementation region to region. The NSPS mission is to create a national system that provides special pathogen patient care to all who need it while advancing readiness that protects communities and the healthcare workforce. The NSPS has defined a tiered health care network of four levels with distinct capabilities in which hospitals can be designated. Through the development of this network, the NSPS envisions the US having access to high quality, special pathogen care. GCHS team members have been tasked with leading the development, implementation, and advancement of the NSPS. To learn more about NSPS and its vision for the future of US health care, visit [www.nsps.org](http://www.nsps.org).

## National Emerging Special Pathogen Training and Education Center

NETEC, originally established to advance US Ebola readiness, now focuses on care for all patients with a special pathogen through its 13 nationally recognized Regional Special Pathogen Treatment Centers. These biocontainment units maintain readiness to respond and support healthcare facilities nationwide. Alongside Emory University and NYC Health+Hospitals/Bellevue, UNMC/NM lead this consortium with GCHS experts at the helm of several work streams.



NETEC has expanded internationally through "Global Rounds," virtual meetings where biocontainment experts from 18 countries discuss biocontainment education and preparedness. Topics have included Lassa fever, mpox, and H5N1. A key aspect of NETEC's domestic role is assessing domestic or US readiness through monthly reports on staffing, PPE, and equipment. NETEC also convenes teams during outbreaks to update on the latest developments, collate resources and readiness status. Additionally, NETEC focuses on patient transport readiness, providing technical assistance on EMS and hospital self-assessments and engaging global experts in transport scenario planning to address challenges.



- NETEC specializes in all special pathogens
- Global Rounds discussions span 18 countries and multiple diseases
- NETEC gathers monthly readiness reports on staff, PPE, and medical equipment
- EMS readiness is a key focus, with global experts addressing transport challenges





## Nebraska Biocontainment Unit & Region VII Emerging Special Pathogens Treatment Center

The Nebraska Biocontainment Unit (NBU), located on the campus of Nebraska Medicine, was established in 2005 as the innovative foreshadowing of medical director Dr. Phil Smith. Since its inception, the NBU has cared for three repatriated Americans who contracted Ebola virus disease while responding to the 2013-2017 West Africa epidemic. The unit was activated again in 2020 during the COVID response to care for American citizens being evacuated from the Diamond Princess cruise ship. In preparation for the next activation, the NBU team continues to grow the unit's reputation and readiness by providing training locally and regionally.

The NBU is the designated Region VII Emerging Special Pathogens Treatment Center (RESPTC) for Iowa, Kansas, Nebraska, and Missouri and is responsible for strengthening regional response to special pathogen events, improving coordination and communication, advancing research infrastructure, and providing expert support for hospitals and EMS agencies across the region. Further, the RESPTC is tasked with sharing its expertise and experience to provide on-demand high-consequence infectious disease (HCID) technical assistance and training to the region's healthcare personnel, including those that work at UNMC and Nebraska Medicine. Recent examples of these specialized events include delivery of an HCID course in Missouri, providing tailored training with EMS providers on HCID care and safe patient transport in Iowa and partnering with the Nebraska Medicine emergency department and clinics to assess and advance special pathogen readiness.



The NBU conducts at least two exercises per year to test operating processes and specialty care delivery. Exercise partnerships have included all 4 HHS Region VII states and public health partners.

## Region VII Disaster Health Response Ecosystem



The Region VII Disaster Health Response Ecosystem (R7DHRE) is tasked with many capabilities to support the Health and Human Services Region 7 states (Iowa, Kansas, Nebraska, and Missouri) to be prepared to respond to large-scale disasters. R7DHRE team members work to engage with community members and partners to provide education on what everyday citizens as well as health-care workers can do to prepare for an emergency, R7DHRE convenes subject matter experts from the region to develop all-hazards disaster plans. This year, R7DHRE led the inaugural development of the Midwest Region Burn Disaster Plan, identifying resources and surge plans for hospitals during a large-scale burn event. Additionally, the R7DHRE convened and supported 27 hospitals who care for kids during the pediatric tripledemic respiratory season with daily bed counts, just-in-time training and technical assistance with experts to discuss space, staff and stuff. These are two examples of how the R7DHRE works to enhance response and potentially save lives.



In May 2024, the R7DHRE hosted a meeting, bringing together Regional Disaster Health Response Systems (RDHRS) sites from across the country to discuss programmatic accomplishments, goals, and strategies for moving the program forward.

## Regional Centers for Public Health Emergency and Response

In September 2023, UNMC was awarded a contract from the U.S. Centers for Disease Control and Prevention's Office of Readiness and Response to prepare for the establishment of a network of regional Centers for Public Health Emergency Preparedness and Response. The contract is focused on creating a regional public health emergency preparedness and response workplan for the Department of Health and Human Services Region VII states (Iowa, Kansas, Missouri, Nebraska).

To ensure that the regional workplan is representative of the unique needs and concerns of Region VII, the team convened a Regional Coordinating Body comprised of more than 25 key partners across public health, healthcare, education, and tribal sectors. These coordinating members provided invaluable insights on the various hazards and threats of concern to the Region VII states and on the preferred interventions to improve preparedness for those hazards. The work of this contract contributes to and helps bolster the overall preparedness of the region to respond effectively to public health emergencies throughout the diverse communities of Region VII.



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The accomplishments in the annual report have been made possible by the team members, partners, and programs listed below.

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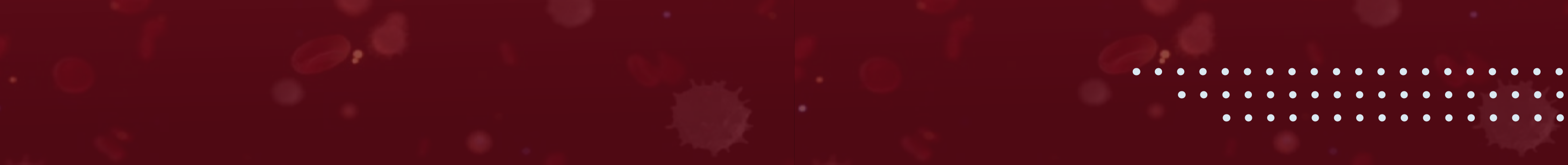
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- Alaska Department of Health
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- AMREF International University, Nairobi, Kenya
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- NebDev LLC
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- Otherlab
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- Region VII Disaster Health Response Ecosystem
- Region VII Emerging Special Pathogen Treatment Center
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