

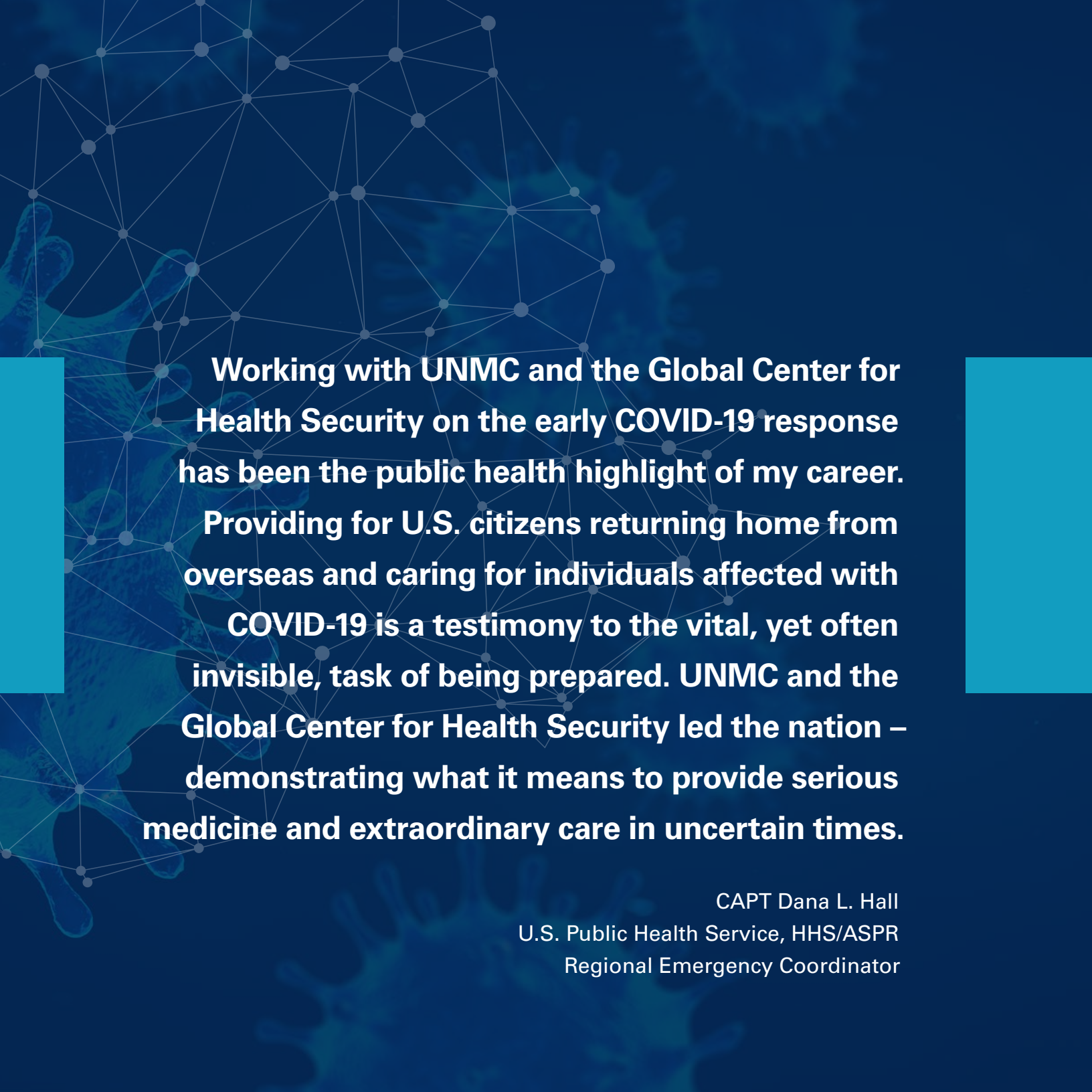


REGION VII
DISASTER HEALTH
RESPONSE ECOSYSTEM



Region VII Disaster Health Response Ecosystem

2020 | ANNUAL REPORT



Working with UNMC and the Global Center for Health Security on the early COVID-19 response has been the public health highlight of my career. Providing for U.S. citizens returning home from overseas and caring for individuals affected with COVID-19 is a testimony to the vital, yet often invisible, task of being prepared. UNMC and the Global Center for Health Security led the nation – demonstrating what it means to provide serious medicine and extraordinary care in uncertain times.

CAPT Dana L. Hall
U.S. Public Health Service, HHS/ASPR
Regional Emergency Coordinator

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Above: R7DHRE executives, James Lawler, MD and Shelly Schwedhelm, join a UNMC press conference to brief the media on Wuhan evacuee quarantine operation with federal and state partners.

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Introduction

“While the COVID-19 pandemic continues to threaten the health and safety of Americans, I am proud to see our R7DHRE team playing a crucial role in developing and implementing strategies for regional healthcare surge. Their efforts continue to make a major impact in our region’s management of the pandemic, and their work to stimulate a coordinated and self-sustaining ecosystem for community response to health emergencies will create a solid foundation for our ability to mitigate a wide spectrum of future health emergencies.”

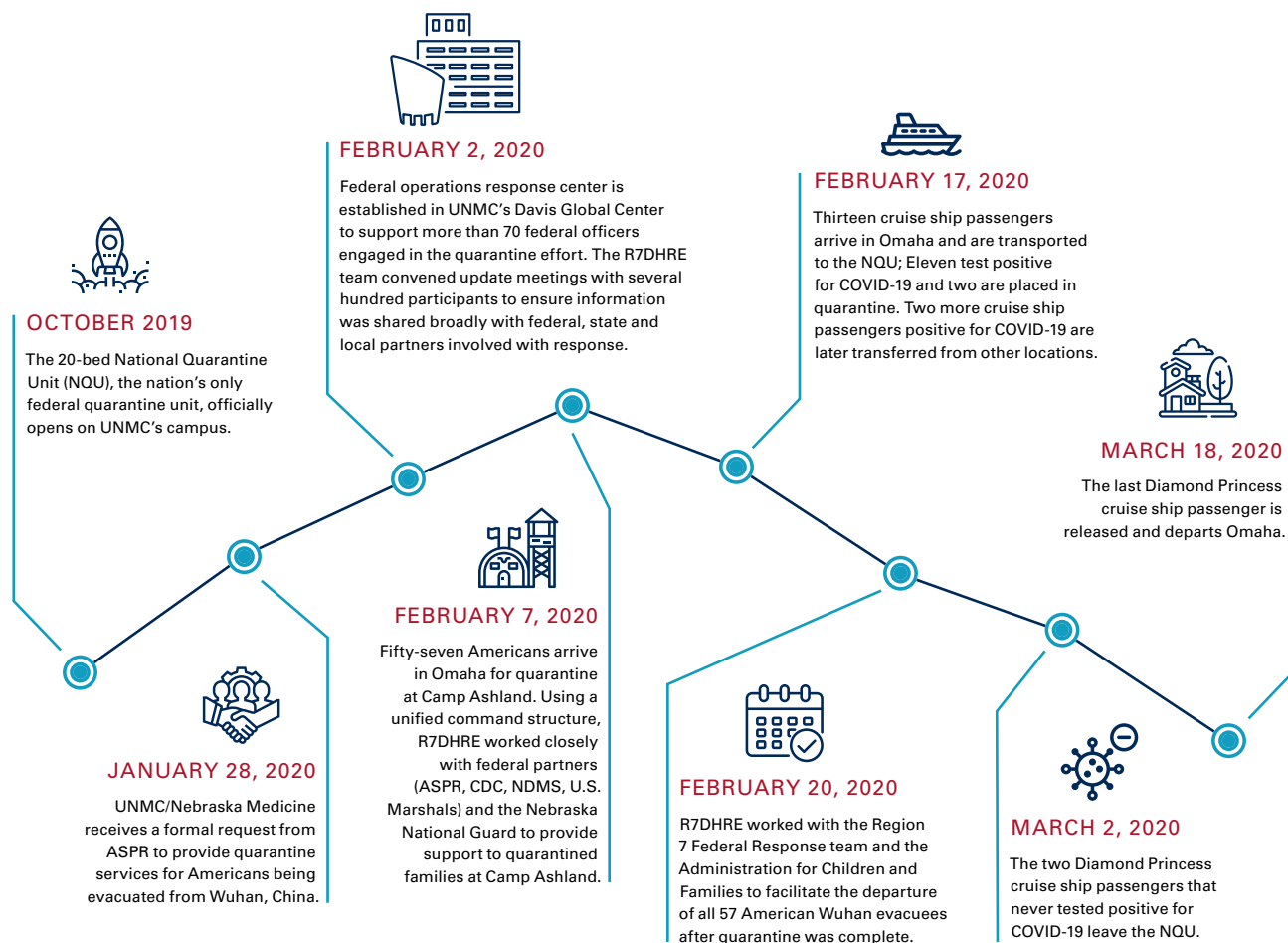
Jeffrey P. Gold, MD, Chancellor,
University of Nebraska Medical Center

During a public health emergency and disaster response, communities depend on a functioning healthcare delivery system to preserve life and health for the largest number of citizens possible.

Unfortunately, our experience in the COVID-19 pandemic has brought into focus the reality that the U.S. healthcare system is poorly positioned to provide large-scale emergency care. Long aware of this gap, the Office of the Assistant Secretary for Preparedness and Response (ASPR) in the U.S. Department of Health and Human Services launched the Regional Disaster Health Response System (RDHRS) in 2018, designating the University of Nebraska Medical Center/Nebraska Medicine as one of the two original RDHRS pilot sites.

Now evolved into the Region VII Disaster Health Response Ecosystem (R7DHRE), this pilot project seeks to advance community preparedness to support regional healthcare delivery for public health emergencies and capacity for large-scale disasters. The long-term goal of this pilot project is to develop a self-sustaining ecosystem for regional healthcare preparedness capable of leveraging public and private resources both inside and outside of traditional healthcare delivery systems in response to disasters and public health emergencies. This report conveys progress made in Year Two of the grant as the project broadened scope beyond the borders of Nebraska to advance regional multistate coordination, communication, and collaboration.

Leading the COVID-19 Response: Quarantine of American Wuhan Evacuees & Quarantine and Isolation of American Diamond Princess Cruise Ship Passengers





Left: A group of 57 repatriated Americans arrive from Wuhan, China, to be quarantined for 14 days at Camp Ashland. (Photo courtesy of the U.S. Department of Health and Human Services)

Below: Quarantine Housing facility at Camp Ashland National Guard Training Site.



Two Americans from the Diamond Princess Cruise Ship released from quarantine. From left, James Linder, MD, CEO of Nebraska Medicine, Jeri Seratti-Goldman, Nebraska Governor Pete Ricketts, Joanne Kirkland and Jeffery P. Gold, MD, chancellor of UNMC on Monday, March 2, 2020.

“We could not have successfully planned and executed these operations without the connections we developed with our state and regional partners. This was a team effort.”

James V. Lawler, MD, MPH, FIDSA
R7DHRE Medical Director

YEAR TWO APPROACH



Build

a multi-state regional partnership for disaster health response

Identify

core and essential activities of the R7DHRE

Operationalize

regional clinical response capabilities

Improve

statewide and regional situational awareness

Strengthen

regional capacity for clinical preparedness and response

All About the NUMBERS

R7DHRE COVID-19 RESPONSE

Onsite technical assistance provided to:



15 Meat processing plants

10 Shelters

2 Correctional facilities

12 K-12 schools

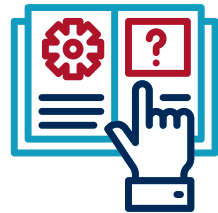


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Diverse Stakeholders

participated in biweekly COVID-19 response meetings with R7DHRE experts to share information, problem solve, and coordinate efforts

(Hospitals, health departments, coalitions, EMS, emergency management, federal partners, and regional organizations.)

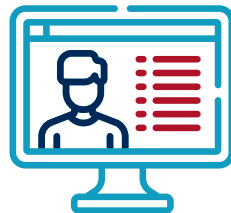


COVID-19 Playbooks
for **8** industries



5 Regional Informational Resources

www.unmc.edu/healthsecurity/covid-19

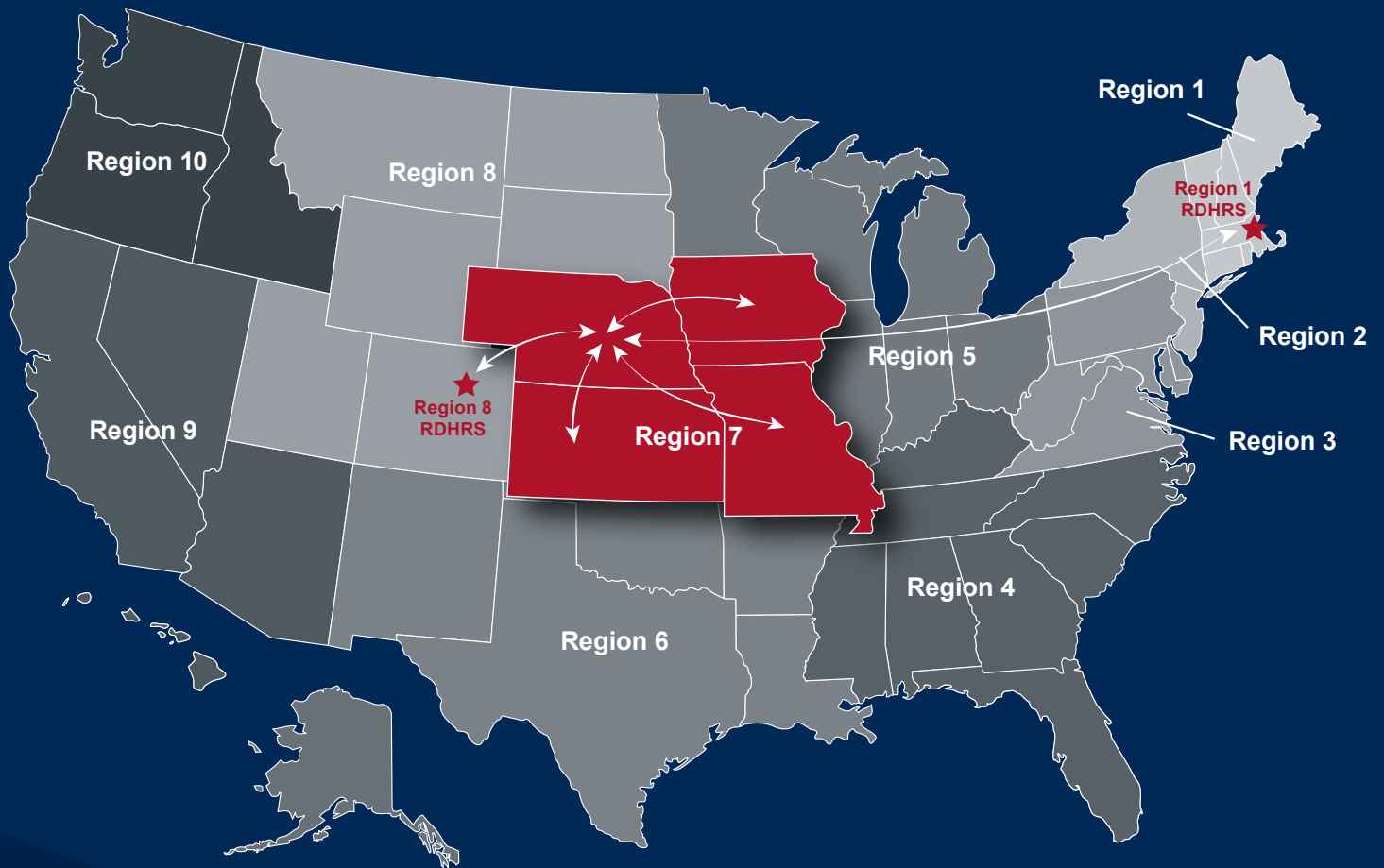


11 COVID-19 Webinars

2,000+ participants attended
11 R7DHRE webinars

HHS REGION 7

The R7DHRE is expanding COVID-19 health response coordination across the region.





“Through R7DHRE engagement, Missouri Hospital Association (MHA) leveraged regional expertise to address universal challenges faced by member hospitals during the COVID-19 pandemic. As the widespread surge occurred in the state’s rural areas, R7DHRE’s participation allowed MHA to share best practices for patient movement, educate peers on changing federal data requirements, and deliver access to agricultural experts to support the meat packing industry to control community spread.”

Jackie Gatz, MPA, CHEP, LSSGB
 Vice President of Safety and Preparedness
 Missouri Hospital Association

R7DHRE Responds

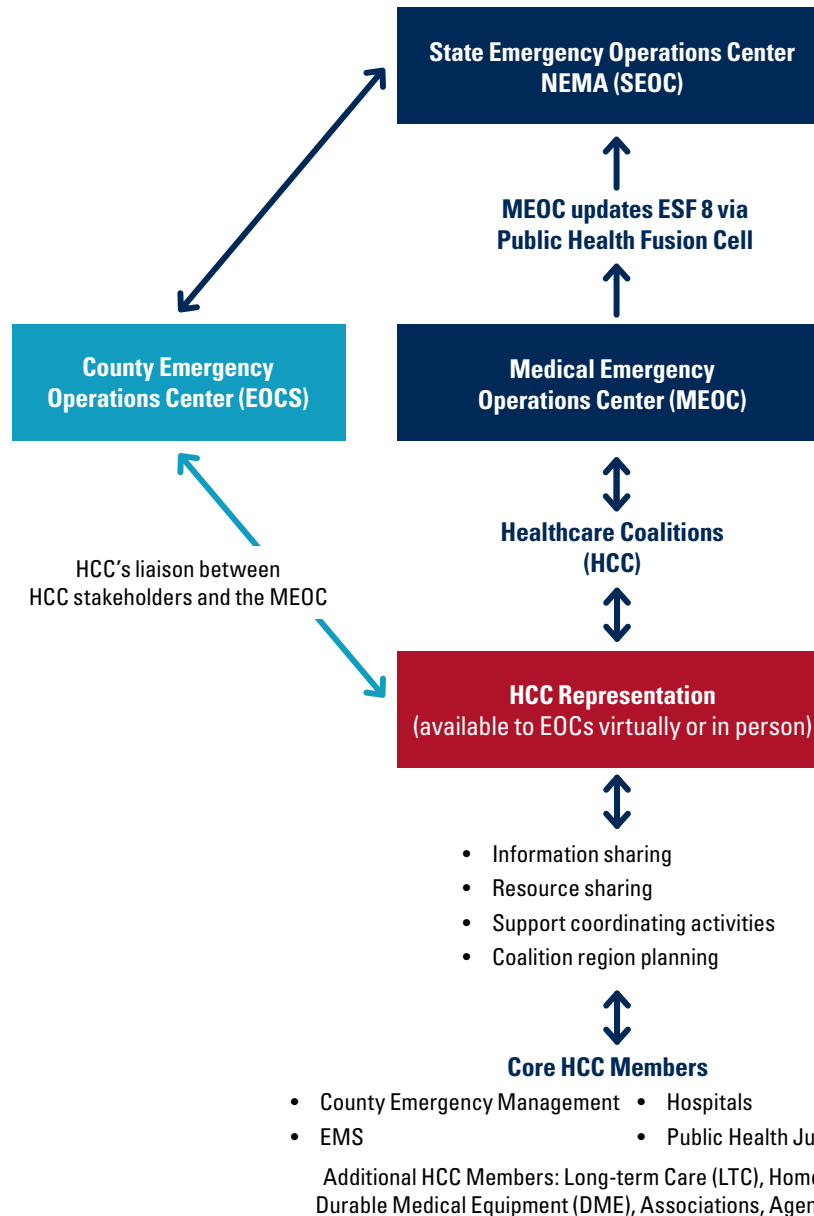
R7DHRE team created a Medical Emergency Operations Center (MEOC) response structure to facilitate information sharing and resource management.

The Medical Emergency Operations Center (MEOC) was activated to facilitate local, state, and regional response strategies. The Center:

- » Convened Region VII federal partners and midwest state hospital associations, policymakers, and public health and healthcare leaders.
- » Conducted briefings that covered a range of topics including epidemiology, healthcare surge, vaccination, and therapeutics.
- » Created a Region VII Interactive Dashboard: R7DHRE developed a regional map to display COVID-19 case counts and critical information for managing response to include the CDC’s Social Vulnerability Index to assist in planning.

<https://regionviidhre.com/covid-resources>

Nebraska Healthcare Surge Structure



MEOC Lead Agency:

- Region VII Disaster Health Response Team (R7DHRE)

MEOC Participants

- Healthcare CMOs & COOs
- Coalition Coordinators
- CHI Transfer Center
- EMS State Representatives
- ICAP Grant
- Agencies:
 - Nebraska Hospital Association
 - Nebraska Healthcare Association
 - Nebraska Medical Association
 - Leading Age
- State and Federal Representatives (DHHS, NEMA, ASPR Region VII)

MEOC Purpose

- Share data (bed utilization, supplies, staff, transfer information, etc.) to provide statewide healthcare situational awareness
- Provide problem-solving assistance in real time
- Coordinates resource allocation
- Provide clinical guidance
- Implement consistent guidance across coalition regions
- Coordinate statewide planning and mitigation strategies

Crisis Standards of Care in Nebraska

- + Nebraska lacked a crisis standards of care plan to allow appropriate utilization of resources in mass-casualty events.
- + Ethical, legal, and medical experts rapidly formed a crisis standard of care (CSC) team to develop and disseminate CSC guidance to address the surge.
- + Year Three activities will focus on:
 - » Publication and dissemination of developed guidance
 - » Specific CSC guidance documents for EMS, pediatrics, and Critical Access Hospitals
 - » Legislative approval of a state-backed CSC plan
 - » Continued education and training for hospitals and healthcare facilities



Having state- and coalition-based crisis standards of care allows for adaptability to meet specific needs within an organization or healthcare setting without adding stressors to those who are providing direct patient care. Unfortunately, the COVID-19 surge identified a need to have CSC in place. However, plans are now being made for EMS, Critical Access Hospitals, and others to help coalitions/health care providers to prepare for future surges whether natural, man-made, or infection-based disaster events.

Michelle Hill, Emergency Preparedness Coordinator
Panhandle Public Health District

SUPPORTING THE COMMUNITY

Subject matter experts from the R7DHRE collaborated with other UNMC/Nebraska Medicine program personnel to develop COVID-19 risk mitigation guidelines and provide onsite and virtual technical assistance to various industries and community partners, including:

- + Long-term care facilities
- + K-12 schools
- + Higher education
- + Meat processing industry
- + Court system
- + Correctional facilities
- + Shelters
- + Public utilities

 www.unmc.edu/healthsecurity/covid-19/playbooks



YEAR TWO ACCOMPLISHMENTS

As we work to shape the future of regional response capability, R7DHRE aims to create a system where disaster health preparedness is woven into the fabric of every community.

Year Two accomplishments, in the midst of the COVID-19 pandemic, speak to the importance of public-private partnerships, innovative tools and systems, and regional collaboration in response efforts.

N95 Respirator Ultraviolet Germicidal Irradiation Process


The COVID-19 pandemic created dangerous shortages of N95 respirators. In an effort to extend the stockpile of N95s, a disinfection procedure using ultraviolet germicidal irradiation (UVGI) developed by Nebraska Medicine was shared at six coalition sites across Nebraska and used at multiple centers nationally.

Nebraska Medicine case study:

- » 7,700 – 10,500 respirators were processed using UVGI per week when surge levels were at their highest
- » The number of new respirators needed per day was reduced by 550
- » The process was cost-saving as N95 prices soared due to shortages

N95 Filtering Face Piece Respirator UVGI Process for Decontamination and Reuse Protocols

 www.nebraskamed.com/sites/default/files/documents/covid-19/n-95-decon-process.pdf



UV light decontamination process developed to reuse N95 respirators

Economic Incentives

A self-sustaining ecosystem for preparedness must create predictable economic incentives that are integrated into doing business within a community.

Funding collective community preparedness efforts that enhance resilience should be linked to positive economic returns through insurance premiums, credit and bond ratings, financial market instruments, and increased operating efficiencies. To develop the roadmap to this goal, R7DHRE assembled a working group of world-class leaders in fields such as health system preparedness, emergency response, policy, and economics. This group will produce papers and provide guidance describing a virtuous circle of improved preparedness, reduced risk, decreased cost, and increased capital available for preparedness investment to policy and decision makers.



Pilot Communities

In times of crisis, rural Midwest communities band together to solve problems and overcome adversity on their own, as outside help is often slow to arrive. The R7DHRE continued its community readiness pilot project with three communities in Nebraska.

- + R7DHRE created community-specific analyses of the impact of COVID-19 in order to support planning and decision-making.
- + Local businesses collectively donated N95 respirators and a UV light for processing to increase supply and protect frontline workers.
- + Pilot communities shared successful COVID-19 response strategies with local and state leaders during MOEC meetings.
- + R7DHRE is collaborating with pilot communities to develop a community preparedness resource guide of best practices for release in Year Three.
- + In Year Three R7DHRE pilot communities will serve as a test bed for the **Isolation System for Treatment and Agile Response for high-risk Infections (ISTARI)** prototype, providing valuable insight into the unique infection control needs of rural communities.



INFORMATION SHARING PLATFORM



The **Pandemic Recovery Acceleration Model (PRAM)** was developed under the leadership of UNMC Chancellor Dr. Jeffrey Gold in collaboration with R7DHRE executive leaders to illustrate regional COVID-19 trends and utilization of hospital resources across Nebraska in a consolidated, interactive Tableau dashboard. This data-driven model has been instrumental in driving initiatives and working groups within the MEOC, guiding decision-making by local public health and coalition leaders, and supporting the national tele-tracking system requirement. This framework has been adopted and used in six states.

The GCHS PRAM Index Pandemic Recovery Acceleration Model



[www.unmc.edu/healthsecurity/
covid-19/PRAM](http://www.unmc.edu/healthsecurity/covid-19/PRAM)

YEAR THREE VISION

- + Expand development of specialty teams to inform decisions related to equipment needs, education and training, deployment, and exercises.
- + Continue development of metrics and a national readiness designation program in collaboration with the Region 1 Disaster Health Response System (R1DHRS).
- + Optimize lessons learned from COVID-19 to expand the use cases of telehealth resources in disaster situations.
- + Create a Region VII version of the state-based legal reference guide.
- + Generate expanded essential elements of information (EEI) for chemical, radiation, cyber, and mass casualty events given biological EEI learnings from the COVID-19 response.
- + Engage area insurance and business experts to explore prepared communities and determine gaps in readiness efforts.
- + Partner with R7DHRE partners, federal partners, and border states to incorporate information-sharing strategies beyond individual states.
- + Determine how national data sets can be used to enhance decision-making.
- + Conduct exercises to explore and assess response gaps during large-scale disasters to include burn and trauma capabilities.
- + Coordinate specialized trainings for R7DHRE and other RDHRS sites, to include Advanced Hazardous Materials Life Support, Radiological Team Training, and Basic Disaster Life Support.
- + Collaborate with ASPR TRACIE to construct and deploy a cyber playbook and webinar series to educate and guide healthcare facilities on preparing for and responding to a cyber-security event.

FUTURE OF THE PROGRAM

Led by the UNMC/Nebraska Medicine team, R7DHRE works with partner RDHRS pilot sites to apply innovation to enhance readiness of the nation's health and medical systems for 21st century threats. As we continue to respond to the ongoing COVID-19 pandemic, we bring additional lessons learned to this critical challenge. Our goal is to build more resilient communities that manage all-hazard health emergencies while maximizing lives saved and minimizing impact to economic and social vitality.

EXECUTIVE BIOS



James V. Lawler, MD, MPH, FIDSA
*Medical Director, Region VII Disaster Health Response Ecosystem
Executive Director, GCHS International Programs & Innovation
Deputy Medical Director, Nebraska Biocontainment Unit
Associate Professor, UNMC Department of Internal Medicine*

Dr. James Lawler is an infectious disease physician trained in tropical medicine and public health whose career has focused on emerging infectious diseases, pandemic threats, and health system and public health preparedness. Dr. Lawler previously served on the White House staff in both

the Homeland Security Council Biodefense Office and the National Security Council (NSC) Resilience Directorate, where he led development and coordination of national policy related to medical and public health preparedness, pandemic and public health emergency response. While at NSC, he co-lead White House activities coordinating national policy in response to the 2009 H1N1 influenza pandemic.



Shelly Schwedhelm, MSN, RN, NEA-BC
*Executive Director, Region VII Disaster Health Response Ecosystem
Executive Director, GCHS Emergency Management & Clinical Operations
Executive Director, Nebraska Medicine Emergency Management & Biopreparedness*

Shelly Schwedhelm has served in leadership roles for numerous years. During the Ebola virus disease outbreak of 2014-15, Schwedhelm had overall accountability for Biocontainment Unit operations and logistics. She traveled on readiness site visits with the Centers for Disease Control and Prevention and developed a two-day Ebola education training program

held on the UNMC campus. She currently is co-lead on the Regional Disaster Health Response grant, oversees numerous grants associated with infectious disease at the state and regional level, and is a program director and subject matter expert with the National Emerging Special Pathogens Training and Education Center (NETEC).

Schwedhelm has been instrumental in the COVID-19 pandemic response and emergency planning by activating and managing the state medical emergency operations center, coordinating and initiating response plans with state and federal partners, and most recently touring the state's meatpacking and other facilities to provide guidance on administrative and engineering controls to mitigate the spread of COVID-19.

“

Ultimately, we aim to achieve a sustainable ecosystem to weave healthcare preparedness into the fabric of communities.

Dr. James Lawler

“

Forging relationships made us stronger through this crisis. As a convener in our region, connecting key stakeholders was a huge endeavor in year two of the grant. As COVID-19 evolved, these relationships proved pivotal in creating a call to action on the healthcare surge in surrounding states as well as providing resources and support to one another on key issues.

Shelly Schwedhelm



**Questions regarding the information in
this report should be directed to:**

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