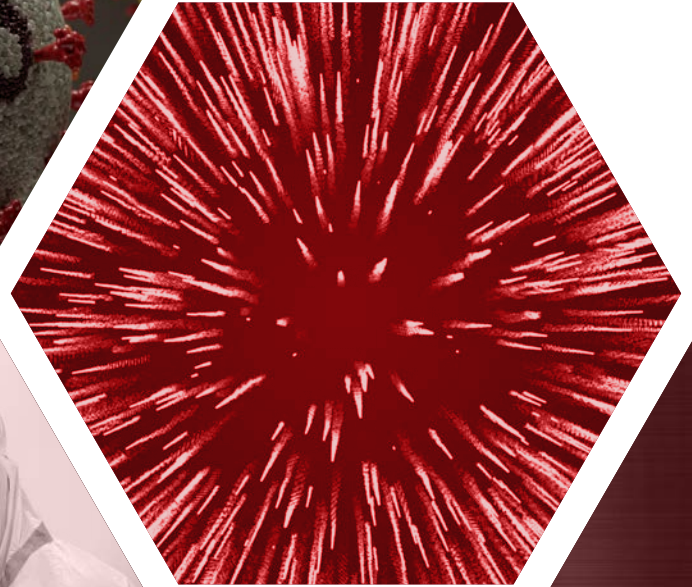




**REGION VII  
DISASTER HEALTH  
RESPONSE ECOSYSTEM**



# **Region 7 Disaster Health Response Ecosystem**

**2022 | ANNUAL REPORT**



“

Attending to behavioral health needs during a disaster is of paramount importance, not just for disaster survivors, but also for their family members, the larger community, and disaster responders. We've developed training and support mechanisms for behavioral health providers to enhance their readiness to assist their communities in the wake of a disaster, both in the near-term and long-term. Having a credible infrastructure to plan and execute behavioral health response will not only help address immediate mental health needs following a disaster but will also lend positively to long-term community healing.

*Jerry Walker, PhD — Lead, Behavioral Health Specialty Team*

”



# TABLE of CONTENTS

**1**

Introduction

**2**

Answering the Call

**3**

Year Four Approach

**5**

Community Engagement

**7**

Year Four Accomplishments

**10**

Year Five Vision

**10**

Future of the Program



# INTRODUCTION

**2022 was the fourth year of the R7DHRE project. In many ways, it was the most challenging year of the project but yielded the most promising results to date.**

Year 4 began with the Delta variant surge of COVID-19 followed closely by the Omicron variant, which produced the highest rates of COVID-19 hospitalizations and health system strain our region had experienced during the pandemic to date. A relative early spring lull allowed a shift of focus to all-hazards preparedness work, but early summer ushered in another rise of COVID-19 hospitalizations associated with BA.2 followed by BA.4/5. At the same time, healthcare systems across the country scrambled to implement diagnosis, treatment, and infection prevention and control (IPC) in response to an exploding epidemic of human mpox virus infections. As the year wound down, new bivalent COVID-19 vaccines were rolling out, as the latest dangerous appearing SARS-CoV-2 variants of the BQ.1 lineage rolled in. In the final weeks, hospitals began refreshing their old Ebola response plans, reacting to an expanding outbreak of Ebola Sudan virus disease that was unfolding in Uganda. It was, indeed, an eventful year. This report conveys the Year 4 grant progress in assisting regional response to various ongoing emergencies and to advancing regional preparedness for all health emergency threats.

# ANSWERING THE CALL

## **Radiological Specialty Response Team (RST)**

- + Provided medical and health physics support to Health Care Coalitions (HCC) in Region 7 that may respond to a radiological incident.
- + RST members enlisted in Radiological Operations Support Specialist (ROSS) training with FEMA.
- + Utilized by the Nebraska Emergency Management Agency (NEMA) as a resource in responding to radiological incidents.
- + Signed an MOU with NEMA to utilize UNMC/Nebraska Medicine radiological equipment, if needed.
- + Collaborated with the creation of the Region 7 HCC radiation annex.
- + Provided radiation Master Scenerio Events List (MSEL) exercise to Region 7 HCCs.

“

The robust stakeholder relationships made by RDHRS in the first 4 years of the grant have positioned us to effectively convene groups around high priority topics in Region 7, such as response to the pediatric surge situation resulting from RSV, influenza, and COVID-19. There is value in knowing you are not alone, in sharing best practices and information, and in collaborating with partners across the region. We are connecting people, processes, and practices through collaboration, communication, and coordination. We are all better together!

”

Shelly Schwedhelm, MSN, RN, NEA-BC  
Executive Director

# YEAR FOUR APPROACH

The fourth year of the Region 7 Disaster Health Response Ecosystem (R7DHRE) proved to be another rollercoaster year but provided a strong demonstration of the value of a regional healthcare system focused approach to response.

From recurrent epidemic waves of COVID-19 to the demands of a new global outbreak of human mpox virus infections, R7DHRE was an engine to drive healthcare system coordination and information-sharing in response to multiple emergencies, improving system resilience and patient outcomes. At the same time, our team continued the work of driving innovation and complementary structures of training, education, plans, and tools to foster regional networks of communities ready to manage health emergencies, with sustainable systems of preparedness.

Although response to the COVID-19 pandemic continued to dominate this year's R7DHRE activities, the team made strong progress in forwarding our core Themes and Enablers. We strove to create more robust cross-connections and synergy among the Themes and Enablers, achieving a tighter weave of these elements working together. In particular, our working groups emphasized our newest Enabler, Health Equity, as we continue to more fully appreciate the impacts that access to care and health disparities have had in pandemic morbidity, mortality, and health system disruption.

**The Region 7 Disaster Health Ecosystem has been a vital resource for our coalition's planning and response efforts. Whether it be pediatric surges across the region, infectious disease outbreaks, or an effort to enhance frontline staff's mental health resources, the R7DHRE staff comes through every time. It is genuinely appreciated to have subject matter experts that will respond in a timely manner with an abundance of information for me to pass along.**

Nicole Jones – HCC Coordinator, Iowa Service Area 1B



# COMMUNITY ENGAGEMENT

While principally focused on pandemic response, R7DHRE continued to take major strides forward in developing the Themes and Enablers that integrates its long-term approach to preparedness.

- + Conducted a survey of national volunteer organizations active in disasters (NVOAD) on spontaneous volunteer use and management to help conduct initial VOAD coordination.
- + Explored disaster-focused courses as an opportunity for health care workers to expand their knowledge and leverage their medical expertise with disaster capabilities during a response.
- + Hosted an inaugural in-person American Red Cross First Aid for Severe Trauma (FAST) Course held for junior and senior high school students.
- + Broadened regional expansion of the crisis standards of care work in Year 3.
- + Provided crisis standards of care education for long-term facilities through various webinars and direct calls with regional providers.

# All About the NUMBERS

## R7DHRE RESPONSE



# 80

**Students trained**

in emergency preparedness certification courses to build response efforts during disasters



# 250

**Participants**

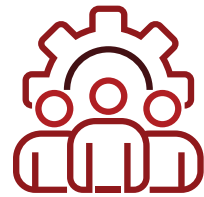
in the weekly State Infectious Disease Briefing



# 35+

**Regional health care coalition leaders**

participate in a monthly forum with R7DHRE experts to create a strategy for collaboration across all Region 7 HCCs, enhance overall situational awareness within Region 7, strengthen response capabilities within Region 7, create an information-sharing platform for Region 7 HCCs to share best practices and learnings



# 7

**Diverse Specialty Teams**

with 137 subject matter experts



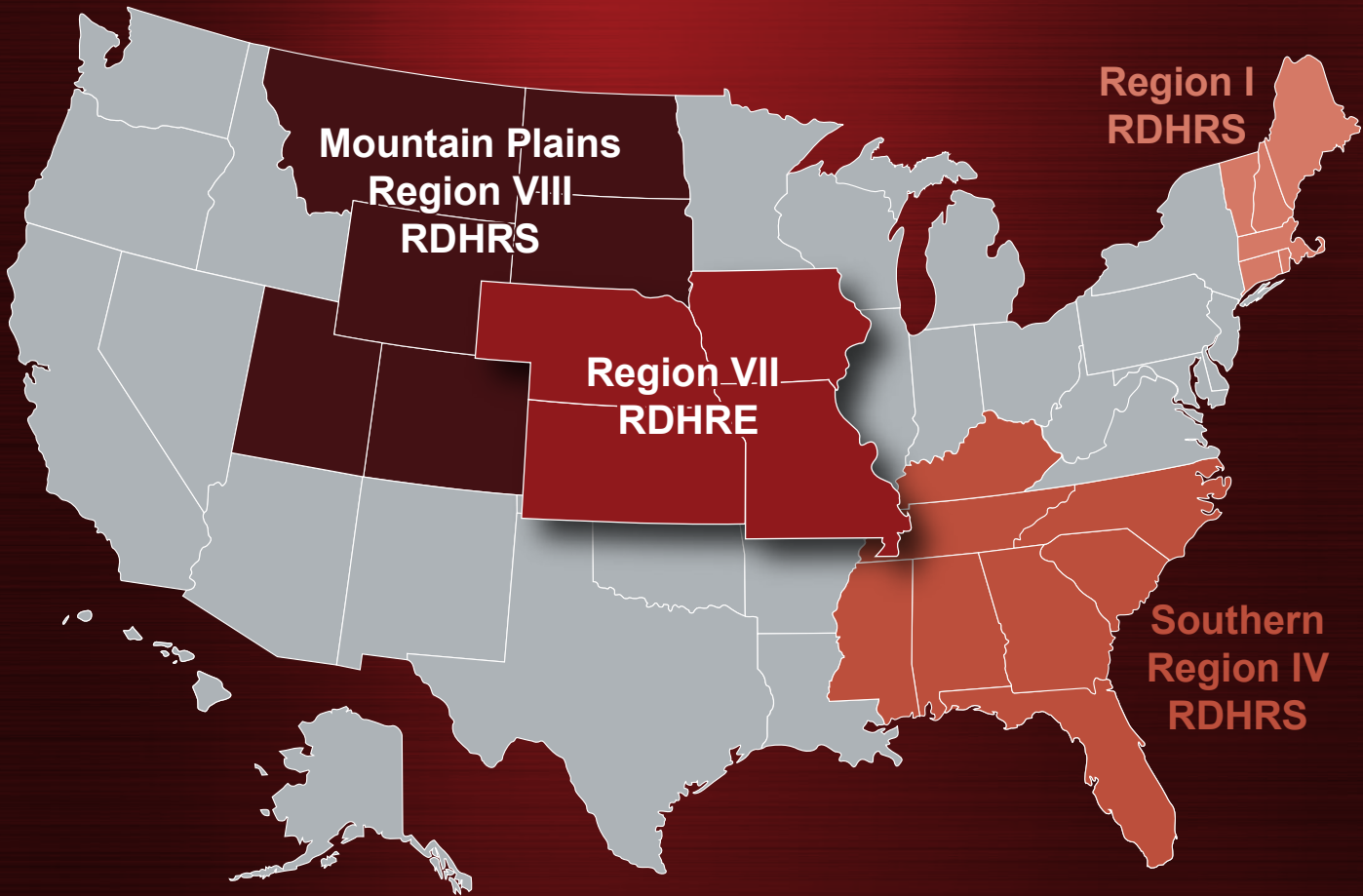
# 3,150

**Participants attended**

**14** R7DHRE webinars



# REGIONAL DISASTER HEALTH RESPONSE SYSTEM



# SPECIALTY TEAMS

## YEAR FOUR ACCOMPLISHMENTS



### Behavioral Health Specialty Team

- + Provided a Concept of Operations (CONOPS) to plan for and manage the behavioral health consequences of future all-hazards disasters.
- + Partnered with regional healthcare and first responder organizations to provide resilience and pre-exposure preparation training during four events to 520 attendees.
- + Conducted table top exercises during the 2020 and 2021 Great Plains Disaster Health Conference.
- + Collected a comprehensive listing of behavioral health and other U.S. Department of Health and Human Services resources available in times of disaster, specifically for individuals who live in predominantly rural areas and/or who may have constrained access to services provided in more urban areas, across the region.



### Biological Specialty Team

- + Provided subject matter expertise consultation to Region 7 via the Infection Control and Promotion (ICAP) CDC grant team, Region 7 Special Pathogens Treatment Center (RESPTC), University of Iowa State Designated Treatment Center, and the Global Center for Health Security.
- + Supported the National Emerging Special Pathogen Training and Education Center (NETEC) annual site visit along with an exercise conducted at the Region 7 RESPTC on March 23 – 24, 2022.

- + Continued Biological Specialty Team focus on pandemic operations in Nebraska, including conducting Region 7 collaboration calls with key stakeholders (public health, federal partners and hospital associations).
- + Sustained contingency planning with key stakeholders for COVID-19 and from January 13 – February 7, 2022, Nebraska Medicine activated its Crisis Standards of Care.
- + Provided revision to the Region 7 CONOPS for highly hazardous communicable diseases and signed by the Nebraska Department of Health and Human Services (NeDHHS).
- + Directed technical assistance to Barnes Jewish Hospital and Midwest Medical Transport on transporting patients throughout the region.
- + Developed the education and protocols (e.g., specimen collection, cleaning and disinfection) for Mpox and broadly disseminated throughout the region.
- + Created and disseminated situational report on the outbreak of Ebola Sudan virus in Uganda to partners regionally and nationally.



### Burn Specialty Team

- + Increased burn preparedness and response awareness/actions through enhancement of education and training platforms available to non-burn care providers and facilities in all regions.

- + Submitted the Nebraska Burn Annex to the Nebraska Department of Health and Human Services (NeDHHS) leadership for review, revision and recognition at the state level.
- + Initiated work on the burn-specific Disaster Available Supplies in Hospitals (DASH) tool identifying medications and supplies necessary during a burn disaster.



### Chemical Specialty Team

- + Developed chemical exposure clinical guidelines for use by the region's poison centers and other healthcare providers ([www.region7dhre.com/chemical-team](http://www.region7dhre.com/chemical-team)).
- + Partnered with ASPR Tracie DASH pharmacy module, reviewed the tool with regional feedback being incorporated into the final version.
- + Performed a Chemical Specialty Team Emergency Management Assistance Compact (EMAC) Activation Drill on August 10, 2022.
- + Authored ammonia, chlorine and phosgene guidelines.
- + Added three medical toxicologists to the Chemical Team roster and updated the personnel section of the EMAC Mission Ready Package (MRP) document.

- + Responded to requests for information from hospital providers and the public following a large fire in a warehouse in Omaha containing unknown chemicals which resulted in the evacuation of nearby homes.



### Pediatric Specialty Team

- + Active members of the Pediatric Pandemic Network (PPN) Drills/Exercises group.
- + Responded to the COVID-19 pandemic surge by re-engaging the children's hospital and public health partners to improve pediatric preparedness throughout the region.
- + Hosted ad hoc Zoom situational awareness meetings with physician preparedness leaders, transport team directors, and emergency managers from children's hospitals.



### Trauma Specialty Team

- + Continued work on building regional response capability primarily through its educational efforts.
- + Sponsored Disaster Medical Emergency Preparedness (DMEP) course training regional physicians, nurses, trauma program staff, respiratory therapists, hospital facility supervisors and EMS personnel.
- + Participated in Omaha city-wide multi-casualty incident (MCI) drill using the ASPR MRSE template.

# ADDITIONAL YEAR FOUR ACCOMPLISHMENTS

Our specialty teams expanded their work significantly during Year 4, creating improved systems for team organization and deployment.

- + Provided real-world virtual and in-person technical assistance to regional partners regarding COVID-19, Mpox, Ebola readiness, a major chemical fire, and pediatric critical care transport.
- + Contributed to HCC exercises, plan annexes on behavioral health response, burns, hazmat, and radiation injury.
- + Collaborated on the new Disaster Available Supplies in Hospitals (DASH) tool from the ASPR Technical Resources, Assistance Center, and Information Exchange (TRACIE).

R7DHRE continued to augment regional situational awareness and response coordination through information-sharing platforms. By providing training and technical assistance in Nebraska's transition from the Knowledge Center to Juvare systems, R7DHRE will improve connection with other integrated systems throughout Region 7, moving closer to a true common operating picture and seamless response coordination platform. The team also continues its innovative partnership with the Health Information Exchange, CyncHealth, to allow real-time electronic health record data to inform situational awareness and forecasting for emergency response.



**21+**  
**presentations**  
at regional and national  
professional conferences

**3 posters | 18 abstracts**

Through its core work plan, R7DHRE remains committed to building an innovative, robust, and transferrable model for regional health emergency response. During Year 4, R7DHRE explored the impact of self-organizing teams for disaster medical response, conducting the first (to our knowledge) in-depth literature review and structured analysis of effective self-organizing teams, efficient integration into overall response, and opportunities to improve equity and access.

Finally, R7DHRE and its RDHRS sister sites continue to collaborate within the technical aspects of emergency preparedness and expand their joint knowledge base. Team members submitted abstracts and delivered over a dozen presentations at regional and national professional conferences. The team also contributed to a special edition of the journal *Health Security* and authored multiple scientific papers accepted in highly-regarded journals.



# YEAR FIVE VISION

As we move into Year 5, the functions of R7DHRE have never been more important.

Rapid communication and coordination across the activities and stakeholders of health emergency response will be critical in managing the likely coming confluence of COVID-19, influenza, and other respiratory viruses. Strategies and tools to maintain resilience and increase access to care will be necessary to mitigate the punch of these winter waves. Ultimately, we must establish a long-term and sustainable architecture of health emergency readiness if we are to break the pandemic cycle of surge and more effectively manage future pandemics and public health threats.

## FUTURE OF THE PROGRAM

- + Regional specialty collaborative to include the 12 Level 1 ACS Trauma Centers and 5 RITN sites
- + Initiation of a Region 7 Advisory Board to help lead the work of R7DHRE
- + Collaboration with an academic medical center on a Medical Operations Coordinating Center (MOCC) to assist in navigating disaster surge across the region.

# EXECUTIVE BIOS



## **James Lawler, MD, MPH, FIDSA**

James Lawler is the associate director for International Programs and Innovation, Global Center for Health Security; Woody and Paula Varner Professor for Infectious Disease, College of Medicine; Deputy Medical Director, Nebraska Biocontainment Unit; Clinical and Biodefense Research, National Strategic Research Institute at the University of Nebraska Medical Center (UNMC). Dr. Lawler serves as the medical director for the R7DHRE grant.

Before joining UNMC in Nov. 2017, he served 21 years in the United States Navy Medical Corps. Dr. Lawler's work includes research, policy and field activities related to emerging and high-consequence infectious diseases, medical and public health preparedness, pandemic and outbreak response along with global health. Dr. Lawler held national policy positions in both the White House Homeland Security Council Biodefense Office and National Security Council Resilience Directorate spanning two administrations. In 2012, Dr. Lawler founded the Austere Environment Consortium for Enhanced Sepsis Outcomes (ACESO), an international research collaboration focused on improving sepsis survival in resource-limited settings and conducting high-impact research in six countries across four continents.



### **Shelly Schwedhelm, MSN, RN, NEA-BC**

Shelly Schwedhelm is the executive director of Emergency Management and Biopreparedness at Nebraska Medicine, with operational accountability for the Biocontainment Unit and National Quarantine Unit in addition to several state, regional and national biopreparedness grants. Shelly had overall accountability for unit operations and logistics during the care of repatriated Americans with Ebola Virus Disease in 2014 – 2015. In 2019, she led efforts in collaboration with local, state and federal partners to support quarantine missions for repatriated Americans from Wuhan, China. And others returning from the Diamond Princess cruise ship from Japan who required care for COVID-19. Shelly has been a key leader as well in the Nebraska and Region 7 COVID-19 response creating guidance and serving as an infection prevention subject matter expert for onsite visits in meat packing plants, shelters, long-term care facilities, correctional facilities, and schools. Shelly serves as the executive director for the R7DHRE grant.

Shelly has previous leadership experience in Perioperative Services and Emergency and Trauma Services. Shelly is a program director and Subject Matter Expert with the ASPR funded National Emerging Special Pathogens Treatment Center (NETEC) and newly formed National Special Pathogen System of Care. Shelly has a leadership role in ASPR Training, Simulation and Quarantine Unit, CDC Infection Prevention and Antibiotic Stewardship and the ASPR Region 7 Disaster Health Response Ecosystem grant(s) at Nebraska Medicine/UNMC. Shelly is one of six associate directors at the UNMC Global Center for Health Security (GCHS). Shelly is also the current chairperson of the Board of Directors for the Omaha Metropolitan Health Care Coalition.



---

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

**James Lawler, MD, MPH, FIDSA** | [james.lawler@unmc.edu](mailto:james.lawler@unmc.edu)  
Principal Investigator, Region 7 Disaster Health Response Ecosystem  
Nebraska Medicine/University of Nebraska Medical Center

**Shelly Schwedhelm, MSN, RN, NEA-BC** | [sschwedh@nebraskamed.com](mailto:sschwedh@nebraskamed.com)  
Executive Director, Region 7 Disaster Health Response Ecosystem  
Nebraska Medicine