

Strengthening Rural Response, Recovery and Resiliency Through Integrated Systems

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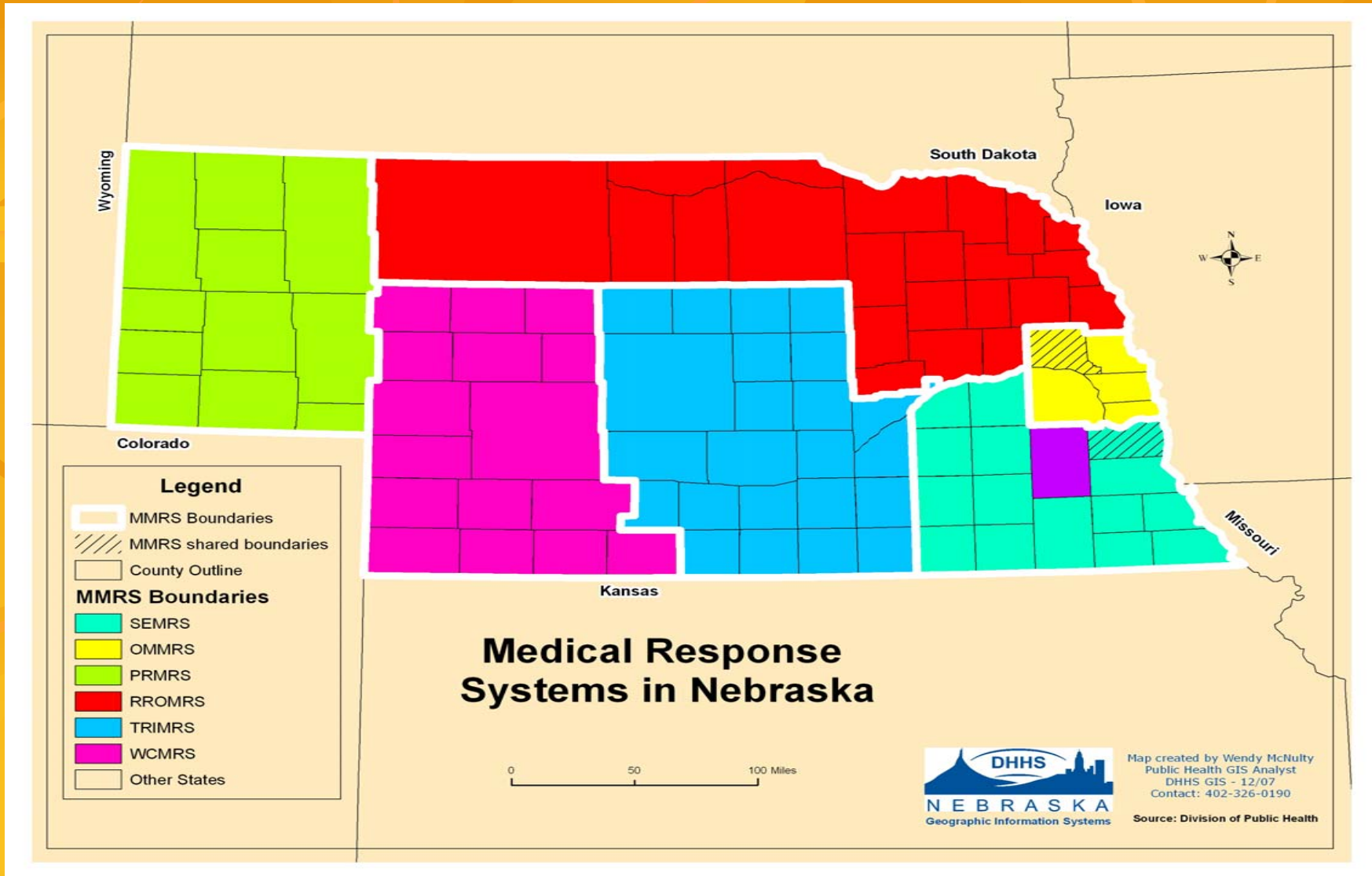
Kathy Nordby

**Nebraska
Healthcare Facilities
Partnership Grant**

Nebraska Rural Medical Response System

- **Assist medical surge capacity and capability for mass effect events, whether natural, accidental, or engineered.**
- **5 rural regions (MRS) plus 2 Metropolitan Medical Response Systems (MMRS)**

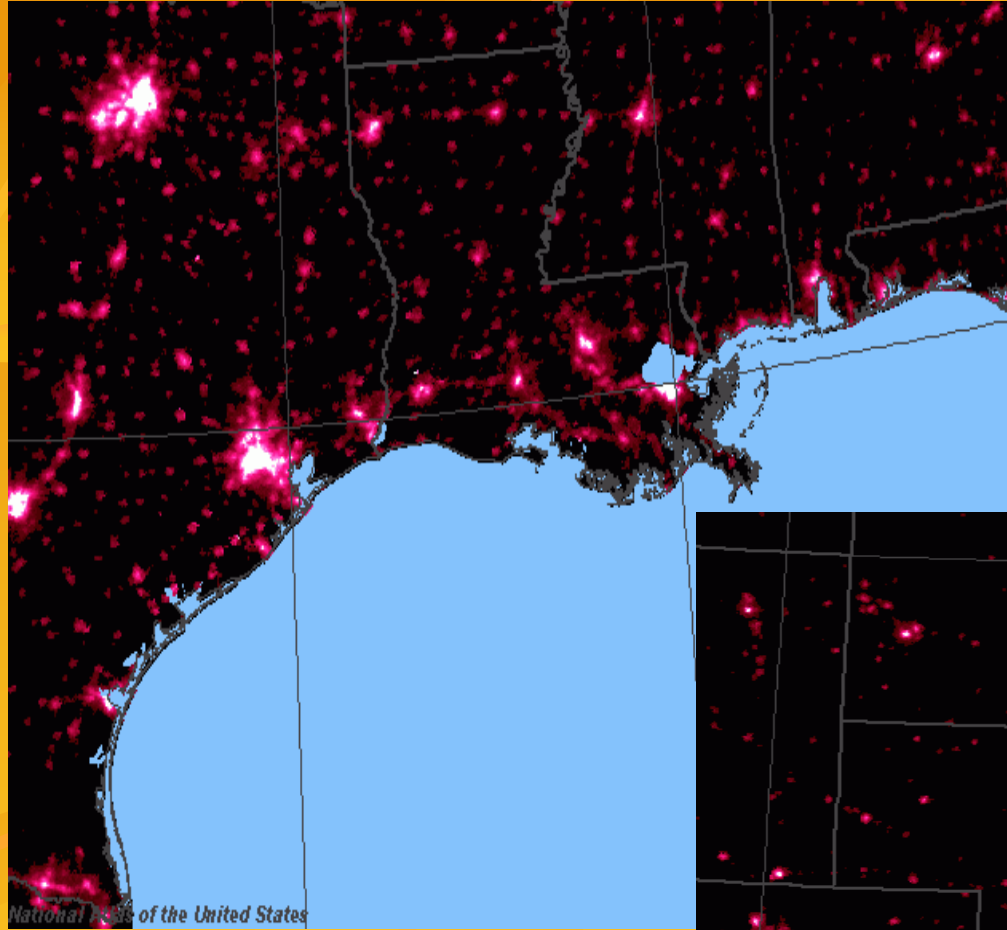
Nebraska MRS Regions



US Population Distribution

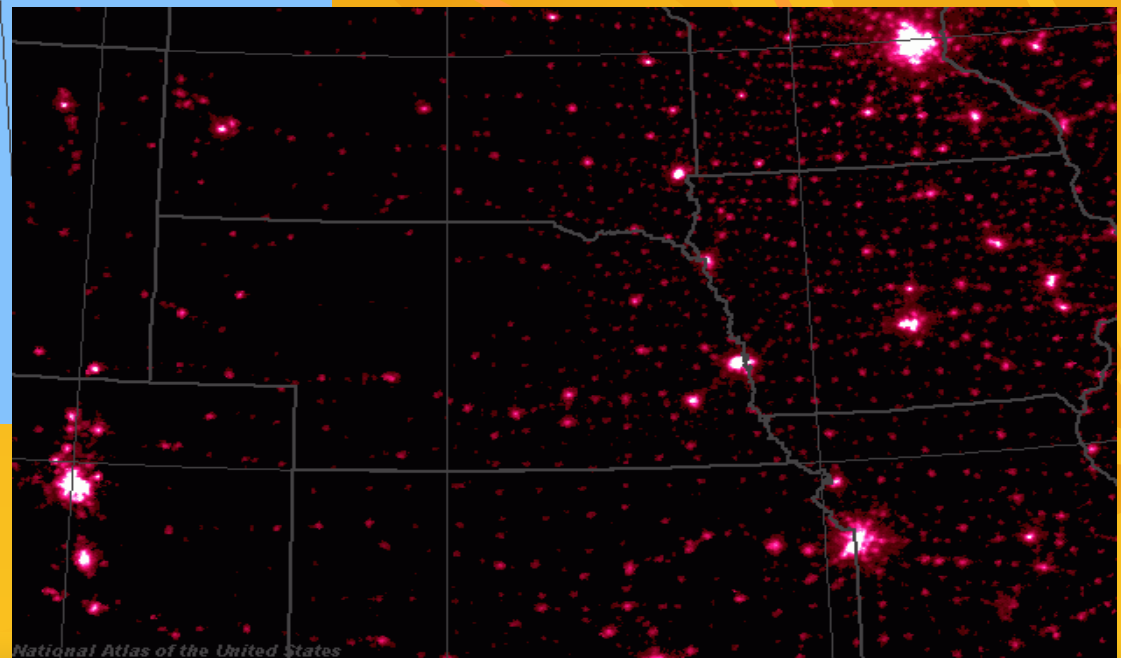


Rural Louisiana & Nebraska



**LA – 43,561 square miles with
102 persons per square mile
64 Parishes**

**NE --77,872 square miles with
22 persons per square mile
93 Counties**



Rural Challenges

- **Distance**
- **Geography**
- **Transportation**
- **Gaining a voice in government**
- **Communication infrastructure**



Rural Challenges

- **Population density**
- **Volunteer EMS with no paramedics**
- **Medically underserved**
- **Prevalence of critical access hospitals**



MRS Mission Statement

- **Create and maintain a system to respond to widespread health-related emergencies**
- **Enhance existing local planning efforts for resources, expertise, communication and personnel**
- **Increase capabilities to manage many casualties and/or disruption of services**



MRS Purpose and Plan

- **To identify the available resources and planning efforts that already exist**
- **To facilitate communication and cooperation between entities and resources**
- **To achieve an organized and effective response to emergency situations**



MRS Purpose and Plan

- **To be a mechanism for collaborative planning and analysis of existing plans**
- **To accelerate mechanisms for testing, evaluating, and communicating the area's total response capability**

MRS Collaboration

20 Public Health Depts

Hospitals

Law Enforcement

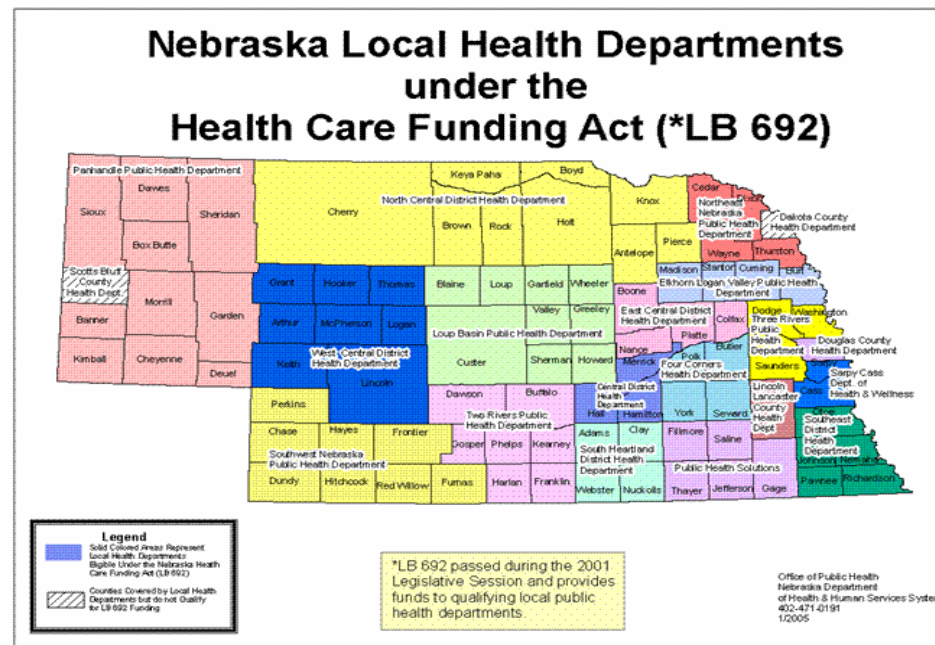
Community Services

Emergency Managers

EMS Groups

Behavioral Health

Others as Needed



Charges for the Regions

- **Enhanced surge capacity planning**
- **NIMS compliance**
- **Pharmaceutical resource sharing**
- **Regional exercising**
- **Mobilizing material and human resources**
- **Medical Reserve Corps**



MRS Initiatives

- **Activation levels and notification**
- **Transportation**
- **Patient tracking**
- **Security**
- **Mental health services**
- **Log sheets, Inventory sheets and Algorithms**
- **Upgrade and augment communication**
- **Education and training**
- **HAZMAT for healthcare**
- **Decontamination training**
- **Personal protective equipment and training**

Partnership Grant

- **51 Hospitals**
 - **44 Critical Access (25 or fewer beds)**
 - **4 Acute Care Hospital (larger than 25 beds)**
 - **3 Designated Trauma Centers**
- **13 Health Departments**
- **2 Federally Qualified Health Centers**
- **1 Emergency Manager**
- **72 County area (93 counties in Nebraska)**
- **Built on the foundation established by the Nebraska Medical Response System**

Partnership Grant Goals

- **Assist hospitals in adopting NIMS at the organizational level**
- **Integrate emergency preparedness with hospital and region specific trauma care capabilities**
- **Develop and exercise a model for establishing alternative care sites in rural communities**
- **Identify and establish Memorandums of Understanding and Mutual Aid Agreements that should be in place to adequately support the needs of entities in emergent situations AND POST EMERGENCY**
- **Develop Medical Reserve Corps in every region and integrate use of Medical Reserve Corps volunteers into hospital and region wide plans.**

Nebraska Partnership Grant

- **Using past experiences in Nebraska to determine how Alternative Care Sites would be best established.**
- **In 2006 the town of Valentine, Nebraska experienced a wildfire.**

Valentine, NE -- July 16, 2006

Cherry County Hospital

- **Remote treatment center set up within 30 min for smoke inhalation, burns, heat illnesses, cardiac. (5 pts treated in 12 hrs). This was established in the local high school.**
- **By setting up the remote treatment center this provided “normal expected” care during a disaster**

Cherry County Hospital

- **Faulty power line ignites forest fire**
- **Spreads quickly to town, within 3 blocks of hospital**
- **City/County/Hospital Radio Tower Destroyed**
- **Hospital evacuated – 10 High Acuity Patients**
 - **Cross Border to Rosebud (SD) Indian Health Service Hospital (Obstetrical Patient) 45 miles**
 - **8 Patients to Brown County Hospital 47 miles**
 - **Ambulances/vans met halfway between hospitals**

Valentine looking northwest on Hall street in front of the Sandhills Cattle Association building. Photo by Ronna Morse



Cherry County Hospital Lessons Learned

- **Staff members can be effected directly by events. Several staff members lost their homes to the fire as they were evacuating patients.**
- **Normal communications systems are fragile – Redundancy Is Important**

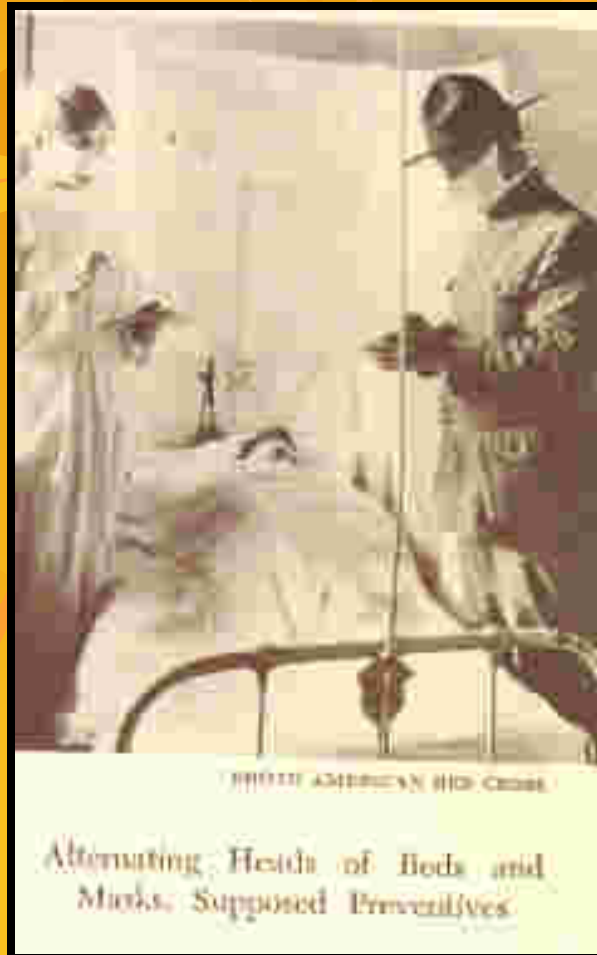


Cherry County Hospital Lessons Learned



- Realized disaster plans must be flexible
- Frequent training and reminders built a strong, cross-trained team that knew the big picture
- Forgot to use ICS vests and handheld radios
- Had Memorandums of Understanding, but had not considered transportation needs for mass transfer of patients

Alternative Care Sites



Influenza Outbreak 1918

- Due to large number of small communities with one hospital and a limited number of clinics, our focus is on alternative care sites that must be located in schools, community centers, other areas not typically designated for patient care

Alternative Care Sites

- **Develop a template for alternative care site plan that can be used by rural hospitals**
 - **Identify key planning elements necessary to select a site**
 - **Identify physical resources and equipment necessary to set up and operate site**
 - **Identify and develop solutions for operational and logistical issues including plan for orderly evacuation, transfer of patients, equipment and staff**
 - **Consider both short term and long term use of an alternative care site**

Alternative Care Sites

- **Mobile Medical Assets**
 - **Purchase and place Mobile Medical Assets in each MRS region to establish Alternative Care Sites**
 - **Memorandums of Understanding between MRS regions allow for the movement of mobile medical assets between regions if needed**

Alternative Care Sites

- **These mobile medical assets will allow hospitals to either expand their current capacity or if their facility is damaged and unable to be used then they will be able to establish an alternative care site with these mobile medical assets.**
- **This will assist in recovery by re-establishing a location in which hospitals have the ability to provide expected level of care.**



Memorandums of Understanding

- **Identify and establish templates for MOUs and Mutual Aid agreements between hospitals for personnel, equipment and transfer of patients in surge capacity situations**
 - **Focus on immediate needs during the emergency and short to long term needs after the emergency, during the recovery phase**
 - **Include language needed by FEMA to maximize reimbursement**
 - **Develop a database that hospitals can use in tracking their Memorandums of Understanding so they are easy to identify and update**

Volunteer Medical Professionals

- **Goal:** Develop a plan for the use and function of MRC volunteers in hospitals and healthcare facilities in the partnership
- **Goal:** Assist in the development of Medical Reserve Corps serving the region



Volunteer Medical Professionals

■ Regional Approach

- Large geographic area/sparse population
- Similar needs
- Limited number of medical professionals
- Ability to draw from other areas in disaster situations
- Sharing of expertise and resources

MRS in Action

Assisting Recovery

- **166 Katrina evacuees arrived in Omaha**
- **The Omaha Metropolitan Medical Response System (OMMRS) was activated to take a leadership role in caring for evacuees at an alternate care site (Civic Auditorium)**
- **OMMRS activated the following plans/committees:**
 - Behavioral Health Plan
 - Pharmacy Committee/plans
 - Communication plan
 - Personnel Processing Point Plan
 - Badge Plan
 - Media/Public Information Subcommittee
 - Emergency Operations Center
 - Medical Reserve Corps

MRS in Action

Assisting Recovery

- **Lessons Learned**
 - **Although the number of evacuees was small, the response was extensive; it involved implementation of many emergency plans and it reinforced that relationships developed during community planning are vital.**
 - **Centralized communication and recognition of all agencies to involve are important.**
 - **Must define roles of response agencies for immediate and after care.**
 - **Be ready to step in to assure an efficient and coordinated response.**

Keys to Success

- **Integrated approach**
- **Use public health and EM foundations**
- **Partnerships**
- **Linkage of medical system with trauma planning**
- **Sustainable funding**
- **Electronic communications**
- **NIMS principles and unified command structure for medically related events**

Summary

- **Opportunity exists to create a model for all rural areas across the United States.**
- **Model should address the different, but equally difficult, challenges faced in rural America**
- **Rural areas need a voice in state and national planning and resource allocation processes**
- **Integrated systems and partnerships can be mobilized quickly**
- **The whole is stronger than the sum of its parts**

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