A Regional Approach to Organizing Local Public Health Systems and the Impact on Emergency Preparedness: The Nebraska Experience

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SYNOPSIS

In 2001, new legislation was passed in Nebraska that transformed a weak and fragmented public health system into a stronger system better able to respond to public health emergencies. The new system, based on the concept of regionalization, allowed multiple counties to combine to form regional health departments. This approach enabled these departments to build the capacity needed to plan for and respond more effectively to emergencies. Every department developed an emergency response plan and conducted a variety of exercises with their partners.

In addition, all of the regional departments are connected to the National Electronic Disease Surveillance System, an integrated surveillance system that allows them to monitor and respond quickly to disease outbreaks. A regional system generates a higher volume of reported diseases, which helps health departments track disease patterns and trends more accurately. Regional departments have strengthened their capacity to respond to public health emergencies and to provide other essential public health services.

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Following the tragic events of 9/11 and the anthrax outbreak that occurred a few weeks later, protecting the public from bioterrorism threats and other public health emergencies (i.e., severe acute respiratory syndrome [SARS] and avian flu) became a high priority for all states and the nation. With significant new funds from the federal government, all states have since focused on strengthening the public health infrastructure that is needed to respond to these threats. In Nebraska, the challenges and obstacles were even greater than in most other states.

BACKGROUND/REGIONAL CONTEXT

At the time of the September 11 attacks, the local public health systems in Nebraska covered less than one-quarter of the counties in the state. In most counties, there was virtually no capacity to investigate or contain adverse health events or conditions resulting from communicable diseases and foodborne illness outbreaks. Additionally, the lack of basic information technology created major communication barriers among the public health system and medical care providers. In essence, the public health system lacked much of the essential infrastructure needed to respond quickly to a serious bioterrorism event or a public health emergency.

In 2001, policy makers became concerned about the lack of public health capacity in rural Nebraska. With funding from the Tobacco Settlement Fund, the state created a new, stronger public health system based on the concept of regionalization, whereby multiple counties join together to form regional health departments. These regional departments are required to have a minimum of 30,000 people and include at least three contiguous counties. A regional approach was selected because of the low population density and large geographic area in many parts of the state.

PURPOSE AND METHODS

This article examines the impact of the regional public health system in Nebraska on public health preparedness and the overall public health system. The article (*1*) describes the development of and the rationale for the regional public health system in Nebraska, (*2*) discusses the organization and governance of regional systems, including a description of approaches by multiple regional health departments and states, (*3*) describes the activities and accomplishments of the various regional approaches, and (*4*) assesses the effectiveness of regional approaches on public health preparedness and the public health system in general. This assessment includes some of the challenges and lessons learned.

The information in this article was gathered from a series of key informant interviews with state and local public health officials, the state public health laboratory, the Mid-America Alliance, the Medical Response Systems, and the Public Health Association of Nebraska. The interview questions focused on the definition of the region and how it may have changed over time, the major challenges and barriers to regionalization, the major activities and accomplishments, and the impact of regionalization on public health preparedness and the overall public health system. We also reviewed several written documents and attended statewide meetings related to emergency preparedness.

THE HISTORY OF AND RATIONALE FOR REGIONALIZATION

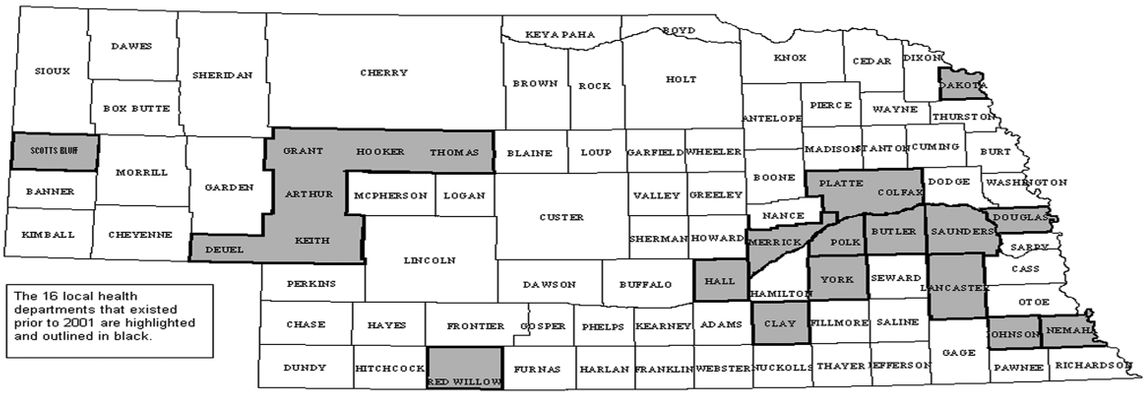
In 2001, the public health infrastructure in most areas of Nebraska was weak, fragmented, and severely underfunded. At this time, local public health departments (LPHDs) covered only 22 of the state's 93 counties (Figure 1). With the exception of the three largest health departments that were located in the most populated counties, the LPHDs had very limited staff that lacked the skills and competencies to provide most of the 10 Essential Public Health Services.[1] For example, none of the staff was proficient in surveillance or disease investigation, and most lacked the basic planning skills that are essential to prepare for and respond to major public health emergencies.

When outbreaks (e.g., rubella or tuberculosis) occurred in areas without adequate infrastructure, the state health agency attempted to assess the problems, identify potential contacts, and distribute appropriate vaccines. With limited staff at the state level, the response time was often less than satisfactory and it was difficult to coordinate with local health-care providers. It was recognized that in the case of pandemic flu or a SARS-type outbreak, the lack of capacity would lead to a considerably larger number of fatalities.

New legislation

In 1997, the Nebraska Department of Health and Human Services was awarded a Turning Point grant from the Robert Wood Johnson Foundation. Through the Turning Point project, a diverse group of public health stakeholders was formed to develop a strategic plan for strengthening and transforming the public health system. The plan contained eight major strategies, but the highest priority was to build and support the local public health infrastructure in all parts of the

Figure 1. Nebraska local public health departments, September 11, 2001



state. Public health advocates used the plan to promote new legislation and gain state support for LPHDs.

In May 2001, new legislation was enacted that provided $5.7 million to build the local public health system in Nebraska. The net result of this new legislation was the creation of 16 new multi-county or regional LPHDs. All of the counties in the state are now covered by an LPHD, although four of the counties are covered by a single county health department (Figure 2).

Creation of the regions

All LPHDs that received state funds were required to provide the core functions of public health (assessment, policy development, and assurance).[2] The legislation also established minimum thresholds for population and geographic boundaries. For example, the 89 counties with fewer than 50,000 people had to be part of an LPHD that serves an area with a minimum of 30,000 people in three or more contiguous counties. The four counties that exceeded 50,000 people based on the 2000 U.S. Census had the option of forming a single county health department.

In defining the requirements for a region, the legislature attempted to strike a balance between the population density and the magnitude of the geographic area. Nebraska is a relatively large state that has 77,358 square miles. However, it is also sparsely populated in many areas. A total of 33 counties are classified as frontier (i.e., less than six persons per square mile), and more than 90% of the communities in the state have fewer than 2,500 people. The state's two large urban areas (Lincoln and Omaha) now contain more than 50% of the population. Given the sparse population in most rural areas, five of the new LPHDs in Central and Western Nebraska have eight to 10 counties that are members of a regional health department.

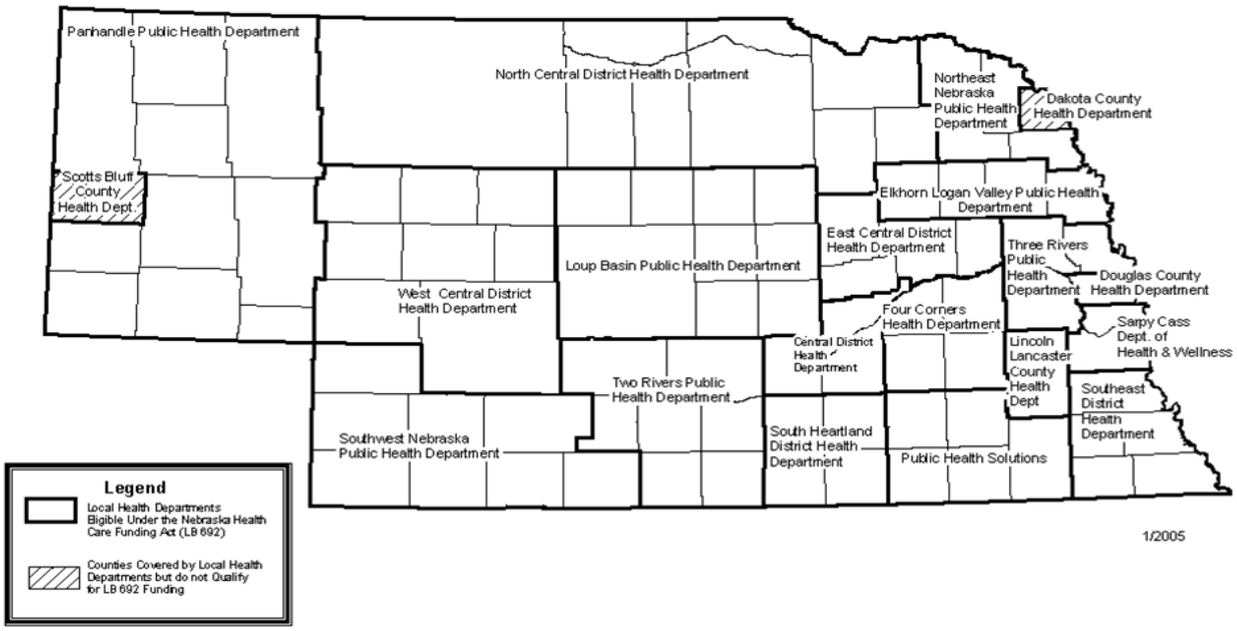
A regional approach was selected because it was recognized that Nebraska could neither support 93 county health departments nor recruit sufficient numbers of qualified staff into these departments. It was also recognized that a broader geographic area was needed to respond to public health emergencies, detect patterns of disease, and develop appropriate health plans. Finally, a regional approach provides a better opportunity to leverage additional resources and coordinate activities and programs among departments and the state health agency.

Organization and governance

Nebraska has a decentralized public health system in which each of the regional health departments is established by a vote from each of the county boards. Although the funding flows through the state health agency, each department is a separate entity and governed by its own board of health. The board of health is responsible for hiring the director, although the state agency must approve the selection. The director and any staff who are hired to work in the department are not considered state employees.

In terms of emergency preparedness, the state agency contracts with each of the regional health departments to perform a number of functions. In the past three years, LPHDs have received 38% of the state's bioterrorism grant funds from the Centers for Disease Control and Prevention (CDC). With these funds, all of the LPHDs have hired an emergency response coor-

Figure 2. Nebraska local public health departments under the Health Care Funding Act (LB 692)[a]



[a]LB 692, which passed during the 2001 legislative season, provides funds to qualifying local public health departments.

dinator and a staff person, at least part-time, who is responsible for surveillance and epidemiology activities. The major activities included in the contract are:

- Develop and update the department's emergency response plan. In the plan's development and revision, the department must collaborate with the emergency managers designated in each county, the hospitals, and the medical staff.
- Maintain supplies for medical, administrative, and risk communication kits for public health emergencies.
- Work with community responders to plan and conduct at least three exercises (e.g., tabletop exercises).
- Establish and maintain a school-based surveillance program that tracks and documents absenteeism for all schools with at least 25 students in the region.
- Participate in other surveillance and epidemiology activities that include the reporting, investigation, and follow-up of communicable diseases and foodborne illnesses. Most of the communicable-disease reports are submitted through the National Electronic Disease Surveillance System (NEDSS). These activities also include maintaining regular contact with infection-control and laboratory staff in all hospitals in the region.
- Identify and work with both the public and private laboratories in the region to maintain consistent flow of information up to the state level and back down to the local level.
- Develop and update a volunteer medical responder resource directory that includes active and nonactive volunteers, as well as retired physicians, nurses, emergency medical technicians (EMTs), and others who are willing and able to assist with mass immunizations, triage of injured patients, mental health services, and other services during an emergency.

With a uniform contract for all of the regional departments, there is a greater opportunity to coordinate some of the key emergency preparedness functions and activities. Many of these coordinating efforts are possible because an emergency response coordinator and new staff with surveillance and epidemiologic skills have been hired in each of the regional health departments. Combining counties into regions means that fewer staff are needed and proficiency can be maintained because there are likely to be more cases of reportable diseases.

In some instances, regional health departments have coordinated their efforts with other departments and entities. For example, all of the departments have used a common format to develop their emergency response plan and these plans have been coordinated with the Local Emergency Operations Plan (LEOP) in each county and other response plans such as the Red Cross, public water systems, and behavioral health agencies in the region. In addition, each regional department has purchased nearly identical supplies that could be shared with other departments in an emergency situation. Each department has also developed a resource directory of volunteer medical responders (e.g., physicians, nurses, EMTs) who could provide assistance during an emergency in any part of the state.

A standardized surveillance system

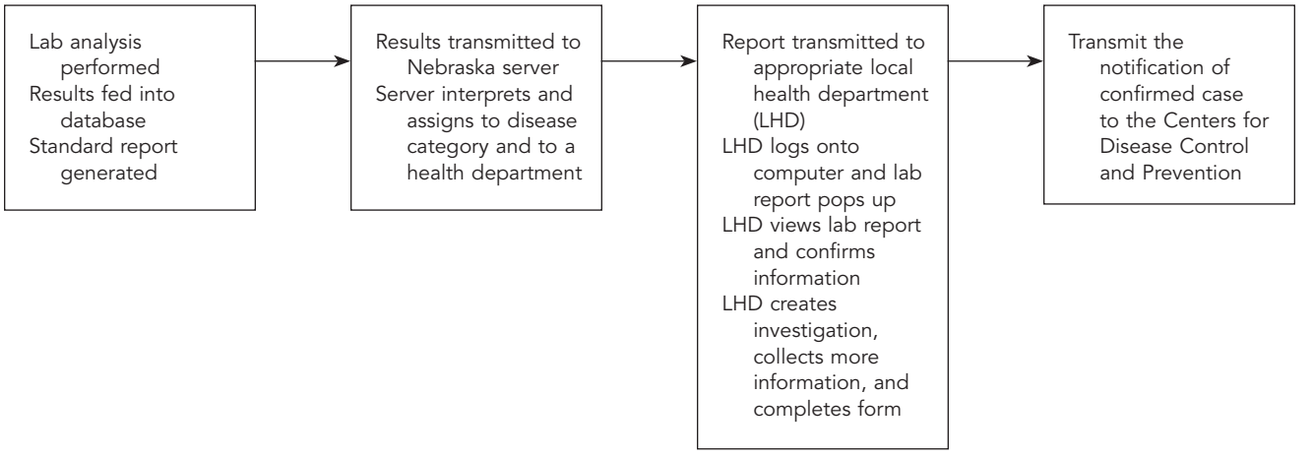
Because the public health system lacked the capacity to detect and respond to communicable-disease outbreaks in most parts of the state, a concerted effort has been made to build a uniform system that can conduct surveillance and epidemiology activities. Nebraska was one of the first states to adopt the NEDSS. CDC developed the NEDSS to promote uniform data and information standards for the purpose of building an integrated surveillance system at the federal, state, and local levels. The system is designed to monitor and assess disease trends, guide prevention and intervention programs, identify issues needing research, and provide information for the development of public health policy.[3]

Figure 3 shows how the NEDSS is implemented in Nebraska. When a communicable disease is reported to a health department, a lab analysis is performed and the results are entered into a database, where a standard report is generated. The report is transmitted to the state server located in the state health agency, which interprets the report and assigns a disease category and a health department based on the location of the case. Then the report is transmitted to the appropriate LPHD surveillance coordinator, who is able to view the lab report from her desktop and confirm the information. The coordinator can then create a new investigation, collect more information, complete a surveillance form, and transmit notification of a confirmed case of the specific disease to CDC.

The adoption of NEDSS has created a standard electronic surveillance system to report most communicable diseases. It has also produced a closer working relationship between the state health agency and the LPHDs, as well as LPHDs and local providers and labs. With this system, local surveillance personnel are now the eyes and ears of the system. It has enabled the public health system to not only detect and monitor communicable diseases, but also to respond more quickly to them.

Nebraska has nearly four years of complete surveillance information on individual cases, resulting in a quasi-public health patient record. Performing disease surveillance in the regional health departments is advantageous because of the small population size in rural Nebraska. If an outbreak occurs in a region as opposed to an individual county, a larger number of cases may be seen, and coordinators should be able to identify disease patterns more quickly.

Figure 3. National Electronic Disease Surveillance System implementations procedure in Nebraska



EMERGING REGIONAL STRUCTURES

The regional health departments are formal organizations that can only be established with the approval of state and local governments. These regional health departments provide the foundation for emergency preparedness activities throughout the state. To support these efforts over a broader geographic area, two other informal regional systems have been formed.

Multiregional functions

Nebraska has established six regional medical response systems (MRSs) that will eventually cover every county in the state. These systems cover significantly larger geographic areas than the regional health departments and are nearly identical to the health planning regions that were formed in the 1970s. The MRSs include representatives from the hospitals and the LPHDs, the county emergency management directors, and representatives from the Red Cross and community-based behavioral health organizations. Each MRS has a coordinator that is funded through either the Health Resources and Services Administration (HRSA) or Homeland Security grant funds.

Although the MRSs are not consistent with the geographic boundaries of LPHDs, they generally reflect economic and medical catchment areas, which is advantageous when planning for and managing a large surge in demand caused by a natural disaster or a bioterrorism event. Thus far, three of the six regions have developed a plan that identifies how the hospitals, health departments, and others will collaborate to share equipment, supplies, and human resources (e.g., nurses, physicians, and ancillary personnel). The plans also identify how transportation resources will be used to evacuate patients to the most appropriate location. To ensure coordination with all federal, state, and local plans, they are reviewed by the state health agency.

The three systems have also organized regional training events. For example, the Tri-Cities MRS contracted with Nebraska's Center for Biopreparedness Education to teach hospital personnel and others how to decontaminate patients in tents, which served as emergency sites. Other training activities have involved working with the media during an emergency and exercises in transferring essential medications to high-priority areas. The long-range goal is to develop a uniform training and educational curriculum.

Another common activity of the MRSs is to develop a volunteer medical responder resource directory. For this activity, LPHD personnel identify and recruit qualified volunteers (e.g., retired physicians and nurses) who can provide assistance during an emergency. All of the active MRSs are sharing recruitment strategies and developing common training protocols to assure that they meet HRSA standards. Once the volunteers have been recruited and trained, the information will be placed in a statewide registry.

Mid-America Alliance

The Mid-America Alliance (MAA) is a 10-state consortium that was formed in 2005 to provide a framework for sharing services, resources, and information during a public health emergency crisis that has not been declared by a governor. The MAA consists of the states located in Federal Emergency Management Agency regions VII and VIII (Colorado, Iowa, Kansas, Missouri, Montana, Nebraska, North Dakota, South Dakota, Utah, and Wyoming).

The MAA governing structure is an advisory panel that includes the health officers from all 10 states. The chair of the panel rotates among states, and there are two full-time staff members (one in Denver, Colorado, and the other in Omaha, Nebraska). At this point, the following five workgroups have been formed:

- The Legal Infrastructure workgroup is developing model legislation to allow the exchange of public health professionals (epidemiologists, physicians, and nurses) during times of crisis through a Medical Professionals Licensure Compact.
- The Public Health Laboratories workgroup is creating a regional inventory of lab capacities. The group is also developing a secure electronic system for real-time information exchange among state laboratories. The first step is to determine which states in the region can perform specific testing during a bioterrorism event or an infectious disease outbreak.[4]
- The Epidemiology workgroup is creating an inventory of each state's epidemiology resources for surge capacity.
- The Shared Resources Database workgroup is developing a secure database of regional public health resources that includes personnel, equipment, and other assets.
- The Public Health Training workgroup is in the process of sharing training models, planning cross-border training programs and exercises, and enhancing public health workforce surge capacity.

Because of the large geographic area (865,000 square miles) and relatively small population base (23 million people), the MAA has the potential to improve response times by transferring resources and

staff across state boundaries. During an emergency, it is likely that medical personnel and epidemiologists from Wyoming and Colorado could provide assistance and support more quickly to the LPHDs in western Nebraska than personnel from the eastern part of Nebraska. However, before this potential can be realized, several obstacles (i.e., development of a legal framework) must be overcome.

REGIONAL ACTIVITIES AND ACCOMPLISHMENTS

The shift to a regional public health system has provided a solid foundation to build the public health preparedness infrastructure and has produced several accomplishments. One of the major advantages of regionalization is that resources can be spread more evenly across the state. For example, a portion of the bioterrorism grant funds from CDC has been distributed from the state agency to all of the LPHDs. This new funding has enabled LPHDs to hire a full-time emergency response coordinator, which will allow them to develop public health emergency response plans that are coordinated with all of the other major plans in the region. The coordinators have also been effective in building trust and collaborative partnerships with multiple agencies and organizations that are key players in crisis situations. Some of these players include county emergency managers, county board members, law enforcement, fire departments, the Red Cross, and the Salvation Army. Building close relationships with some of these partners has been beneficial in implementing other programs and activities (e.g., enforcing laws to reduce alcohol and other drug use among teenagers).

A second major accomplishment is the expanded capacity to conduct disease surveillance through the NEDSS. With funding from CDC, an efficient and interoperable system has been created with adequate staffing at the local level. For the first time, the LPHDs outside of the metropolitan areas can detect and respond to infectious disease outbreaks. This expanded capacity will allow the system to not only respond to public health emergencies more quickly, but also to address many of the other Essential Public Health Services, such as (*1*) monitoring and assessing disease trends, (*2*) guiding prevention and intervention programs, (*3*) developing public health policy, (*4*) identifying issues that need public health research, and (*5*) providing information for community and program planning.[3]

A third major accomplishment has been the development and effective use of the Health Alert Network (HAN). The HAN is a communications system designed to connect Nebraska's public health departments, hospitals, clinics, emergency rooms, laboratories, law enforcement, fire service, EMSs, and other health agencies. The HAN has developed high-speed and reliable Internet and fax connections for LPHDs, created a secure website and emergency messaging system for communications among health agencies for bioterrorism and public health threats, and established telehealth capability to promote greater public health organizational capacity and public health professional development.[5] Using an up-to-date database compiled by the Nebraska Health Professions Tracking Center at the University of Nebraska Medical Center, the HAN can be used to send electronic messages to everyone in the network, including physicians, nurses, pharmacists, dentists, veterinarians, emergency nurses, public health officials, and laboratory directors. It has also been used by LPHDs to provide information to a specific group of health professionals or the entire local network.

The HAN has enabled both the state and regional public health agencies to respond more effectively to disease outbreaks and other public health threats and emergencies. In December 2003, the HAN was used to conduct a survey of providers to determine the location of flu vaccine in Nebraska. Within one day, the state health agency determined that there were 17,000 doses of flu vaccine in the state. The survey results allowed the LPHDs to identify the availability and location of the vaccine and the state agency to formulate a plan for redistributing the vaccine to high-risk individuals. The LPHDs were responsible for distributing the vaccine to providers in their districts.

In addition to the HAN, the Nebraska Statewide Telehealth Network (NSTN) allows all hospitals and public health departments to have greater access to consultations with medical specialists, continuing education opportunities, transmission of digital clinical information, and bioterrorism alerts. The goal is to increase the quality, availability, and accessibility of health care throughout the state, especially in rural areas. The NSTN uses a high-speed health video telecommunication system to connect more than 80 Nebraska hospitals, 20 LPHDs, the state and regional public health labs, and key state agencies.

Although both the HAN and NSTN are statewide, they have greatly benefited the regional health departments. For example, the networks have eliminated distance as a barrier and increased the ability of health professionals to communicate with one another, especially in emergency situations. Regionalization has also made these networks more affordable because less equipment needs to be purchased and maintained

across fewer sites. Another advantage of regionalization is that the system has fewer users, so it takes less time to contact people and distribute information. Having fewer users also decreases the number of equipment problems that are encountered and ultimately improves the implementation of emergency plans at the local level.

BARRIERS TO REGIONALIZATION

One of the barriers to regionalization has been determining a region's optimal size. In some cases, the regions may become too large to allow a sufficient response. In a large geographic area, it is difficult to bring all of the key players to the table and conduct meaningful training exercises, although the NSTN has helped improve communications and reduce travel time in some instances. In an actual emergency, there will be major challenges in transporting equipment, supplies, and people to the areas where they are most needed.

Another barrier to regionalization is the inconsistency in the boundaries among the regional health departments, hospital catchment areas, and other emergency efforts. The regional health department boundaries are based on multiple county lines, whereas hospital service areas cover parts of multiple counties. Other emergency management activities such as LEOP, law enforcement, and fire services are nearly always organized along community or county lines. These inconsistent boundaries make it challenging to achieve a coordinated planning effort.

Because of inconsistent boundaries, some legal issues need to be addressed. For example, most laws and ordinances apply to a single county or municipality and not to the region. Staff from LPHDs must work with each county in the region to assure that the laws and regulations (e.g., quarantine, isolation, and decontamination) are consistent with one another. If these issues cannot be resolved at the local level, the state will need to assume a leadership role and apply its state-based police power to protect the public's health.

THE IMPACT OF REGIONAL APPROACHES ON PUBLIC HEALTH PREPAREDNESS

The decision to form regional health departments in rural areas and provide dedicated state funds has been the most significant factor in building a strong public health infrastructure in Nebraska. With a small population base and a large geographic area, single-county health departments would lack the fiscal, communication, and human resources that are essential in preparing for and responding to a public health emergency. Some of the major strengths and weaknesses of a regional system include:

- A regional system has allowed Nebraska to allocate its fiscal resources and spread its limited supply of human and information resources more evenly across the state. For example, recruiting and retaining qualified emergency response and surveillance coordinators in a few regional health departments is easier than it would be in 93 counties. Also, building an integrated surveillance system that contains uniform standards is more feasible in a regional system.
- In small population centers, a regional system is likely to generate a higher volume of reported diseases, which allows the public health workforce to maintain and improve its skills. A higher number of cases also allows LPHDs to determine and track disease patterns and trends more quickly.
- Because regional systems distribute resources more evenly, there is generally less competition and fewer turf wars between departments. With less competition, it becomes easier to build trust among key partners, which is crucial in responding to a crisis. The fact that most of the LPHDs were created at the same time and are growing and learning together has fostered an environment of collaboration that promotes teamwork.
- The formation of regional systems has led to changes in the way problems are addressed. Instead of focusing on narrow issues within county boundaries, a broader view has begun to emerge that makes it possible to collaborate on an even larger scale and to build a larger number of collaborative partnerships. These partnerships provide an opportunity to expand the resource base and generate more effective responses. One example is the establishment of the six MRSs to plan for and manage a large number of casualties.
- Despite the creation of several formal networks for emergency preparedness at the county, regional, state, and multistate levels, the informal communication networks have allowed them to work effectively. For example, new LPHD directors and emergency response coordinators willingly share information with one another. There is also an excellent working relationship between local and state public health agency staff. In states such as Nebraska, local and state agencies have historically pulled together because so few public health resources have been available.

Challenges

Despite the many positive aspects of regionalization on emergency preparedness activities, several challenges remain. One major challenge in Nebraska is the relatively small number of staff in these new LPHDs. Although the staffing levels have continued to expand, the number and complexity of activities and programs has also significantly increased. As a result, most health departments have limited staff with expertise in areas (e.g., informatics, epidemiology, logistics, and risk communication) that are essential in responding to a public health emergency.

Although regionalization has contributed to building trust and collaborative partnerships between public health and public safety officials, a cultural gap and a lack of understanding still remains in some parts of the state. Public safety officials are more familiar with rapid response and incident command systems than public health staff. However, considerable progress has been made as these partners continue to work together and participate in training exercises.

Yet another major challenge is developing performance measures to determine the success of regionalized emergency preparedness efforts. These efforts need to be evaluated for LPHDs, MRSs, and multistate initiatives.

The impact of regionalization on the public health system as a whole

Most of the strengths and weaknesses of regionalization that apply to emergency preparedness also apply to the public health system as a whole. For example, it is possible to spread staffing and other resources more evenly across the state. However, regions can become too large, making health departments ineffective in providing the Essential Public Health Services.

Additionally, in sparsely populated areas, health status assessments that examine disease patterns and trends become more meaningful. And most health promotion and disease prevention programs must achieve a certain volume to be considered cost-effective. As a result, some programs that are good investments on a regional level become marginal or poor investments on a county level.

Because successful regional approaches often involve a larger number of partners and more resources, these approaches may be more effective in developing more appropriate policies and strategies to address complex public health problems, such as obesity and racial/ethnic minority health disparities. On the other hand, if new ordinances or regulations need to be enacted at the local level, there must be changes in each county. Unless the ordinances are consistent, a regional approach will generally not be as successful.

The role of the state agency has changed in the past five years for both emergency preparedness and other functions. The functions of monitoring and oversight, providing technical assistance, and assuring the appropriate training have continued. However, the state agency has delegated, or is in the process of delegating, many activities to the regional health departments. For example, LPHDs are now responsible for following up on communicable-disease outbreaks and sexually transmitted diseases. They are also providing a variety of health promotion and disease prevention programs with funds from the state agency. In the future, it is anticipated that more regulatory activities such as restaurant and swimming pool inspections will be conducted at the local level. Although the state agency's role is changing, it must continue to perform its key functions for the public health system to successfully fulfill its mission.

One of the main challenges for the state agency is the degree of guidance that should be provided to each LPHD. Because Nebraska has several relatively new LPHDs, they are progressing at different stages. Some of these departments need and expect more assistance and guidance from the state agency, while others need and want less technical assistance. The level and type of guidance and assistance is particularly important in emergency preparedness activities because the coordination between state and local health departments is critical to the initiatives' overall success.

To achieve the appropriate balance in the provision of public health services and functions, representatives from the state agency and all LPHDs are involved in a long-term strategic planning process to determine the roles and responsibilities of state and local health departments. This process not only sets the roadmap for strengthening the public health system in the state, but it also enhances the development of trust and collaboration among state and local public health agencies.

CONCLUSION

This article examined various regional approaches in Nebraska and their impact on public health preparedness and the public health system as a whole. Because of Nebraska's low population density and large geographic area, a regional public health system was created in 2001 with funds from the Tobacco Settlement Act. The regional system has benefited Nebraska in planning for and responding to public health emergencies. It

has produced greater coordination and more collaborative partnerships, created a more standardized disease surveillance system, and expanded capacity beyond the LPHDs with the establishment of MRSs and the MAA.

Although regional public health systems face many challenges, the benefits appear to outweigh the costs both for emergency preparedness and the public health system as a whole. Many of the challenges can be overcome by establishing clear goals and communicating them across the state. In doing so, strong collaborative partnerships can be established to protect the public's health.

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