

Nebraska Rural Health Advisory
Commission's

Rural Health Recommendations

As provided through the
Nebraska Rural Health Systems and
Professional Incentive Act

December 2019

**Nebraska Rural Health Advisory Commission
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Name / Location

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Background and Purpose

In the past few years the health care system has undergone dramatic changes. Many of these changes create new opportunities for both rural providers and communities to improve the integration of health care services, to enhance the quality of care and the patient's experience, and to provide a greater emphasis on prevention and population health. Unfortunately, the changes have also led to significant challenges: (1) new alternative delivery models and value-based reimbursement systems have produced lower revenue streams for some hospitals; (2) in some areas, lower revenue streams have forced rural hospitals and clinics to affiliate or merge with large urban health systems which has led to a loss of local control for rural communities; and (3) the adoption and use of electronic health records have the potential to improve health outcomes but have been costly to implement. In addition, many traditional challenges remain such as the shortages of various types of health professionals, a larger number of hospitals with very low or negative margins, and fragmented delivery systems.

The passage of the Rural Health Systems and Professional Incentive Act in 1991 authorized the Rural Health Advisory Commission (RHAC) to develop a series of recommendations regarding the direction of state rural health policy. These recommendations should address the problems related to the delivery of rural health care, the education and training of health professionals, the regulation of rural health providers and institutions, and other factors that impact rural health care. The recommendations must be prepared annually and submitted to all appropriate government agencies and bodies, including the Governor, the State Legislature, and the Department of Health and Human Services. The purpose of this report is to identify some of the major rural health issues and propose recommendations that will address these issues.

Vision Statement

In preparing the recommendations, the RHAC developed the following vision statement to serve as a guide for the direction of rural health policies:

All people in rural Nebraska have access to high quality, affordable, and integrated health care services that meet all of their physical and mental health needs.

This vision implies that people in rural Nebraska have access to health care services. It is recognized that not all services can or should be provided locally, but needed services should be reasonably accessible to all rural residents. This vision also implies that the rural providers and communities should not only treat illnesses and injuries but also focus on keeping people healthy. Rural communities should be responsible for identifying their needs, establishing priorities, and developing intervention strategies to address their unique needs.

The recommendations in this report are designed to improve the health outcomes of rural populations and strengthen and transform the rural health care delivery system. They are

intended to improve both the efficiency and effectiveness of the system, produce better physical and mental health outcomes, lead to higher quality health care services, and create a more integrated and coordinated system of care. The recommendations are focused on the following areas:

- Population Health Issues
- Medicaid Expansion
- Workforce Shortages and Health Professional Incentive Programs
- Behavioral Health Issues
- Rural Integrated Delivery Models
- Emergency Medical Systems (EMS)
- In-Home and Long-term Institutional Care Services
- Communication and Information Technology Systems

I. Population Health Issues

People living in rural communities face a unique combination of obstacles and challenges that are often different from those in urban areas. Some of these differences relate to the demographic and socioeconomic status of the population. For example, the percentage of the population over 65 in rural Nebraska is 19.6 percent as compared to 10.7 percent in large urban areas. As a result, rural populations tend to have a higher prevalence of chronic conditions. There is also a smaller and declining population base in most parts of rural Nebraska. In addition, a total of 33 counties have less than six people per square mile. This problem is further magnified because of the lack of public transportation.¹

Access to care in rural areas has been a critical challenge for several years. There is currently a shortage of many types of health professionals, including primary care practitioners, mental health professionals, dentists, physical therapists, pharmacists, and many others. Rural populations also have a higher uninsured rate and generally less adequate insurance coverage because of the higher proportion of small businesses. The lack of health care providers and no or inadequate insurance coverage has led to fewer annual wellness/preventive checkups and less health screenings for rural residents. In comparison with their urban counterparts, rural residents are less likely to have their cholesterol checked every five years and less likely to have been screened for colon, breast, and cervical cancer.²

Rural residents are also at greater risk of chronic disease because of specific risk factors. For example, about 32 percent of rural residents were obese as compared to 28 percent in large urban areas. Rural residents have slightly higher hypertension rates, are more likely to binge drink, less likely to wear seat belts, and less likely to consume fruits and vegetables. Finally, they are less likely to engage in physical activity and visit a dentist during the year.³

¹ Department of Health and Human Services, Division of Public Health, "Nebraska Health Status Assessment 2015," August, 2015, p. 2.

² Department of Health and Human Services, op. cit., p. 58.

³ Ibid.

In response to these access and health status issues, many rural communities are beginning to develop plans for addressing these issues. For example, all local health departments either have or are in the process of developing five-year community health improvement plans (CHIPs). In addition, the Patient Protection and Affordable Care Act authorized all nonprofit hospitals to develop a community health needs assessment (CHNA) and an implementation plan. The vast majority of local health departments and hospitals are working together on these plans to include similar goals, priorities, and intervention strategies. During both the planning and implementation stages, it is also important to include other organizations and individuals/consumers who live in rural areas.

Recommendations

1. Local health departments and hospitals should work together to develop their respective plans and involve other appropriate community and regional organizations (e.g., community action agencies, Nebraska cooperative extension, schools, and employers).
2. Intervention strategies should be evidence-based whenever possible; promising strategies should only be implemented if there are resources to provide a rigorous evaluation.
3. To address broad priority health issues in the local health department and hospital community health plans (e.g., obesity, access to care, and mental health issues), resources at the local level should be aligned to create a greater collective impact. To address behavioral health issues more cohesively, local CHIP plans should be integrated with the Regional Mental Health Authorities to continue local integration and access to whole health care.
4. The Division of Public Health, other divisions within the Department of Health and Human Services, the College of Public Health at the University of Nebraska Medical Center, and others should provide technical assistance in the development of local plans and fund pilot projects to assess the value of promising innovative intervention strategies.
5. A core set of rural relevant measures should be developed to track the improvements in personal and community health.
6. A statewide health information database that includes all-payer claims data and uniform patient outcomes data from all health care providers should be established.
7. To improve the health literacy of both children and adults, more effective workplace and school health education programs need to be established.
8. To promote greater personal responsibility for wellness, it is essential to provide proactive, culturally competent patient education on disease management and prevention as well as financial incentives for personal health-related improvement.
9. A Center of Health Care Data and Planning should be established to perform the following functions: (1) prepare reports to inform decision-makers regarding the high priority health care needs, (2) create a profile of health in the state, (3) suggest changes to state laws and regulations, (4) develop metrics to monitor the effectiveness of population health outcomes, and (5) recommend policies to reduce health care disparities

Medicaid Expansion

One of the strategies to reduce the number of uninsured in the Patient Protection and Affordable Care Act (ACA) was to expand Medicaid for a portion of the low-income population. Under the

ACA, Medicaid coverage would be available to all individuals with incomes at or below 138 percent of the Federal Poverty Level (FPL). However, in 2012, the Supreme Court ruled that individual states could decide whether to expand Medicaid. In November of 2018, a referendum was passed by the voters in Nebraska and Medicaid expansion is scheduled to be implemented in October of 2020.

The benefits of Medicaid expansion have been well-documented. In a recent issue brief, the Kaiser Family Foundation found that Medicaid expansion states experienced significant gains in health insurance coverage, especially among the low-income population, and it has improved access to care, the utilization of services, and the affordability of care. There also appears to be an association between Medicaid expansion and certain positive health outcomes (e.g., lower cardiovascular mortality rates). In addition, this brief reported positive effects of expansion and several economic measures such as state budget savings, revenue gains, and overall economic growth.⁴

In rural areas, Medicaid plays an important role in addressing coverage gaps. Because nonelderly individuals are less likely to have private coverage as compared to urban areas, Medicaid expansion has led to significant coverage gains.⁵ Medicaid expansion also appears to affect rural and urban hospitals differently. Since rural hospitals are more reliant on public payers and generally have lower operating margins, rural hospitals had greater increases in Medicaid revenue than urban hospitals.⁶ Research also shows that in states that expanded Medicaid there were reductions in uncompensated care costs and fewer uninsured hospital and clinic visits.⁷ Another study found that uncompensated care costs decreased from 4.1 percent to 3.1 percent of operating costs in expansion states.⁸ One study found that Medicaid expansion was associated with improved hospital financial performance and less likelihood of closure, especially in rural areas.⁹

Medicaid expansion may place a strain on primary care capacity although many studies have concluded that providers have expanded capacity or have increased participation in Medicaid

⁴ Larisa Antonisse, Rachel Garfield, Robin Rudowitz, and Madeline Guth, “The Effects of Medicaid Expansion under the ACA: Findings from a Literature Review,” Issue Brief, Henry J. Kaiser Family Foundation, August 2019.

⁵ Julia Foutz, Samantha Artiga, and Rachel Garfield, “The Role of Medicaid in Rural America” Issue Brief, Henry J. Kaiser Foundation, April 2017.

⁶ Brystana Kaufman, Kristin Reiter, George Pink, and George Holmes, “Medicaid Expansion Affects Rural and Urban Hospitals Differently,” *Health Affairs*, Vol 35, No 9, September 2016, pp 1665-1672.

⁷ Larisa Antonisse, et al., August 2019, op. cit.

⁸ David Dranove, Craig Garthwaite, and Christopher Ody, “Uncompensated Care Decreased at Hospitals in Medicaid Expansion States But Not at Hospitals in Nonexpansion States,” *Health Affairs*, Vol 35, No 8, August 2016, pp. 1471-1479.

⁹ Richard Lindrooth, Marcelo Perraiillon, Rose Hardy, and Gregory Tung, “Understanding the relationship Between Medicaid Expansions and Hospital Closures,” *Health Affairs*, Vol 37, No 1, January 2018, pp. 111-119.

after expansion has occurred. Other studies have found very little change while a few studies have reported that expansion was linked to problems with provider availability.¹⁰

Recommendations

1. Because of the potential positive impact on rural Nebraska, Medicaid expansion should move forward as quickly as possible.
2. To ensure enhanced access to care, the number of Medicaid expansion patients seen by providers should be evaluated and reported annually to the RHAC.
3. The adequacy of rural providers to the needs of Medicaid expansion patients should be assessed continually and rural providers should work with the Managed Care organizations to assure this capacity is met.
4. Rural providers should be educated on and assist potentially eligible Medicaid expansion patients in the enrollment process.

III. Workforce Shortages and Health Professional Incentive Programs

According to the Health Resources and Services Administration, the total number of primary care physicians, physician assistants, and nurse practitioners in the U.S. is expected to increase nationwide by 2020, but the increasing supply will not be adequate to meet the growing demand for primary care services. The demand for services is expected to increase because of the expanding aging population, the growth of the total population, particularly in urban areas, and to a lesser extent the expanded insurance coverage under the Affordable Care Act.¹¹ The imbalance between supply and demand has a significant impact on both rural and urban areas where many older physicians are nearing retirement age and will need to be replaced. For example, 37 percent of family practice physicians in rural Nebraska are 55 years of age or over and 44 percent of family practice physicians in the urban areas of Nebraska are aged 55 or older.¹² In addition, the rising level of student debt and lower reimbursement rates make rural areas less attractive to new physicians. The demand for primary care practitioners in urban areas is expected to increase sharply because of a growing population base, expanded insurance coverage, and new alternative delivery models of care (e.g., Accountable Care Organizations) which emphasize a greater use of primary care and preventive services. The expanded use and recruitment of primary care practitioners in urban areas may greatly magnify the shortages in rural areas.

While many rural areas face challenges in the recruitment and retention of physicians, physician assistants and nurse practitioners, the supply of other health professionals such as dentists, pharmacists, mental health practitioners, physical therapists, and occupational therapists is also inadequate to meet the need. Most rural hospitals, physician clinics, and nursing homes are forced to pay a nationally competitive wage rate in order to attract these health professionals to

¹⁰ Larisa Antonisse, et al., August 2019, op. cit.

¹¹ The U.S. Department of Health and Human Services, Health Resources and Services Administration, "Projecting the Supply and Demand for Primary Care Practitioners through 2010," Retrieved from <http://bhpr.hrsa.gov/healthworkforce/index.html>

¹² Unpublished data obtained from the Health Professions Tracking Service, College of Public Health, University of Nebraska Medical Center, November 2019.

their communities. However, the reimbursement rates allowed by Medicare and other third-party payers are often based on local costs, which may not be sufficient to pay these competitive rates.

Although Nebraska has benefited from the federal National Health Service Corps programs, the number of qualified shortage areas has declined in the past several years. As a result, Nebraska has relied on the state-funded student loan and loan repayment programs to encourage health professionals to practice in state-designated shortage areas. Since the inception of the loan repayment program in 1994, a total of 565 eligible health professionals have practiced or are practicing in shortage areas with a default rate of only 8.3 percent.

Recommendations

1. The funding for the Nebraska rural health incentive programs (the student loan and loan repayment programs) must be expanded.
2. A comprehensive plan that projects the future demand and supply of health professionals in Nebraska should be further developed and funded. This plan should also establish priorities for future funding levels for the Health Professional Incentive Programs and should include recommendations that would make these programs more attractive to health professionals in Nebraska.
3. Scope of practice barriers for health care workers and new categories of health care workers (e.g., community health workers and community paramedics) should be carefully evaluated.
4. Technology such as telehealth, home monitoring, and internet-capable care should be expanded. This technology can be more effectively and efficiently used by assuring adequate broad-band access and assuring standardization/integration of health care platform interoperability.
5. Workforce education and training programs should assure that health professionals are competent and the ability to screen, treat, and refer for behavioral health and other types of health care issues in rural settings. It should also include the ability to use telehealth, electronic applications, and referral mechanisms.

IV. Behavioral Health Issues

There has been a chronic shortage of behavioral health professionals in rural Nebraska for many years. The shortages of personnel include psychiatrists, psychologists, licensed mental health practitioners, advanced practice registered nurses practicing in psychiatry mental health, alcohol and drug abuse counselors, and others. Currently, out of the 90 rural counties, the RHAC has fully designated 81 counties and nine counties have been partially designated as mental health shortage areas.

The shortage of nearly all types of behavioral health professionals severely limits the availability and accessibility of these services and has a serious impact on the health outcomes of rural Nebraskans. In addition to the shortage of behavioral health professionals, there are many other

factors that limit the provision of these services, including the lack of care coordination between behavioral health professionals and primary care physicians, social exclusion factors, stigma labels, and lack of anonymity. Also, many primary care practices fail to screen for behavioral health problems (e.g., depression, substance use disorders, and suicide). As a result, some patients are not referred to a behavioral health professional before their problems become more severe. Also, some primary care physicians lack the training and expertise to effectively or efficiently treat patients in need of behavioral health services.

The RHAC is supportive of an integrative approach to providing behavioral health services in rural Nebraska. This approach would integrate mental health professionals into existing primary care settings. Research shows that most patients prefer to receive their behavioral health care from their family physician.¹³ The plan proposed here would allow patients to be seen in the comfortable, familiar environment of their primary clinic; an approach that would help considerably in reducing the stigma associated with behavioral health treatment. Having mental health professionals available in primary care settings would also help deal with other rural problems such as provider isolation and would allow for an integrated approach for care that would treat the whole individual.

There are other promising strategies to address the workforce shortage. Telehealth has been used effectively in Nebraska and in other states. This model has a great deal of potential for the delivery of high-quality behavioral services, although presently this modality is underutilized. Another strategy already underway is to increase the number of mid-level providers. Recently, the University of Nebraska Medical Center began training through an executive fellowship focused on substance use disorders along with Project ECHO. Additionally, they began training advanced practice registered nurses and physician assistants with a specialty in psychiatry. In 2019, there were 44 - advanced practice registered nurses practicing psychiatry in rural communities and all but 12 of them worked in communities with a regional hospital (e.g., Kearney and Scottsbluff). There are only four physician assistants practicing psychiatry in rural communities.¹⁴ Since 2014, the number of advanced practice registered nurses has grown by 15, but the number of physician assistants has not changed. However, these relatively new programs have the potential to expand the number of behavioral health professional in rural Nebraska.

Recommendations:

1. The interdisciplinary training opportunities for primary care physicians, physician assistants, nurse practitioners, and mental health professionals should be expanded.
2. Providers should engage their Regional Behavioral Health Authority and the Medicaid Managed Care Organizations regarding the availability of resources for education and training opportunities and funding support for pilot projects that integrate primary care practitioners, critical access hospitals, and behavioral health services.

¹³ Mims, S. (April 6, 2006). *Integrated Health Care: Involving Primary Care Physicians in the Continuum of Care*. Presentation at the WNC Symposium on Mental Health and Substance Abuse. Asheville, NC.

¹⁴ Unpublished data from the Health Professions Tracking Service, University of Nebraska Medical Center, November, 2019.

3. Education and training programs for primary care physicians should include mentoring programs, Project ECHO, case consultation via telehealth, and screening tools for depression, substance use disorders, and depression.
4. All primary care clinics should screen patients for physical, behavioral, lifestyle risk factors, and the social determinants of health.
5. Basic training such as Mental Health First Aid and Question Persuade Refer programs which are available through the Regional Behavioral Health Authorities and many local health departments should be expanded.
6. More flexible Medicaid and private insurance reimbursement policies that would address transportation and travel costs need to be developed and implemented. Consideration should also be given to increasing reimbursement for telehealth/telemedicine services.
7. State incentive programs for mental health providers and alcohol and substance abuse counselors practicing in rural areas should receive increased funding. This funding should be used to provide support services and additional training for the current workforce, maintain competitive reimbursement rates, and support new incentives for rural practice.

V. Rural Integrated Health Care Systems

The health care system in the United States is undergoing a major transformation and these changes are likely to have both a positive and negative impact on the rural health care system. Many of these changes such as a new focus on population health, the use of new technologies, and new types of health care workers have been discussed in other sections. The main driver of these changes is a shift in payment strategies from fee-for-service and cost-based reimbursement to value. Value has been defined “as better health care (improved clinical quality, patient safety, and patient experience) and lower per capita cost.”¹⁵ This new emphasis on value has led to the development of new delivery models, including the patient-centered medical home (PCMH) and accountable care organizations (ACOs). These new models have financial incentives to improve health outcomes and control costs (e.g., reducing avoidable hospitalizations, improving cancer screening rates, and increasing immunization levels).

In a patient-centered medical home model (PCMH) and other alternative delivery models, the emphasis is on providing health care services that are more accessible, continuous, timely, patient-centered, and coordinated. There is also a greater focus on preventive services (e.g., providing mammograms, cholesterol and blood pressure screenings, and up-to-date immunizations). With this model, there is also financial incentives to improve care coordination with behavioral health providers, public health professionals, and long-term care support services. Numerous PCMH clinics have developed in Nebraska, but new revenue streams are needed to build the capacity and keep these models successful. Funding for pilot projects has also been provided by the DHHS Division of Public Health to encourage local public health

¹⁵ Charles Alfero, et al., “Advancing the Transition to a High-Performance Rural Health System,” Rural Policy Research Institute,” November 2014, p. 3.

departments to collaborate with PCMH clinics on implementing diabetes prevention programs and using community health workers to encourage patients with chronic diseases to make lifestyle changes (e.g., increase physical activity and eat more nutritious foods).

Recommendations

1. Develop additional pilot projects to encourage collaboration between state and local health departments and value-based programs to implement population health programs and activities. These pilot projects should be based on the following principles:
 - An integrated system should be developed from the “bottom up” and guided by a comprehensive planning process that involves health care providers, local health departments, community action agencies, Nebraska extension, community officials, and consumers.
 - Although all integrated rural health systems will have many common characteristics, diverse approaches are necessary because of the differences in the needs of the population, the economic characteristics of the area, and the local culture.
 - All integrated systems should foster cooperation, collaboration, and integration of services and activities, including innovative technology such as telecommunications.
 - All integrated systems should be evaluated based on the Quadruple Aim (better health outcomes, better quality of health care services, greater provider satisfaction, and lower per capita costs).
2. The educational medical centers in Nebraska should emphasize interdisciplinary training and a team-oriented approach to delivering health care services.
3. The Office of Rural Health should work with both public and private agencies to build new rural health systems.
4. Both public and private payers should change their reimbursement policies to help facilitate new integrated models of care that are necessary to improve patient outcomes.

VI. Emergency Medical Services (EMS)

Emergency medical services are an essential and often unrecognized component of the rural health care system. The goal of the EMS system is to provide a coordinated, timely, and effective response to medical emergencies. These services are essential in rural areas because of the distances between population centers and the need to transport patients from hospitals and nursing homes in small communities to larger facilities. Although emergency services/skills are essential, many challenges exist in small communities. These challenges will only intensify as

the demand for health care services expands because of a growing elderly population, more chronic illnesses, and new technological innovations.

One of the major challenges is to recruit and retain volunteers who are interested in becoming EMTs and paramedics. Some of the major factors contributing to this problem are: (1) the work is often emotionally stressful and burnout may occur, (2) the compensation and benefits are low or non-existent for volunteers, (3) it is difficult to maintain coverage during the day because many volunteers work out of town and/or employers may not allow EMTs to miss work, and (4) the training and educational requirements are considered excessive by some volunteers.

Another challenge is the lack of research and data about the effectiveness of the EMS system and patient outcomes. Although some states, including Nebraska, are collecting EMS performance data (e.g., length of time to reach a destination), major gaps still exist and the analysis of the data is very limited. Without the widespread adoption of improved communication systems and health information technology that will allow the exchange of patient information across the continuum of care, it will be very difficult to evaluate the quality and performance of the EMS system related to patient outcomes. Finally, although the coordination of EMS units has improved more effective communication systems, in some areas, the coordination between EMS and hospital systems needs to be improved.

To improve coordination and communication among EMS providers and between EMS providers and other health care services (e.g., hospitals), a new vision is needed. This vision needs to take into account EMS roles and responsibilities that include health care, public health, and public safety. This new vision and the strategic initiatives to achieve the vision need to consider which entities should lead this effort and ultimately ensuring that EMS has the capacity and resources to meet the needs of all people in rural Nebraska. Consideration should also be given to identifying the strengths and weaknesses of alternative models and what standards need to be established to evaluate the quality and performance of the EMS system. In Nebraska, no public or private entity is responsible for the scope, authority, and operation of local EMS systems. Finally, it will be critical to identify potential local, state, and federal funding sources, existing and new incentives, and reimbursement policies to make the EMS system more effective and efficient.

Recommendations

1. A multi-sector coalition should be formed to develop a state EMS Plan. This coalition should include representatives from state and regional EMS organizations, PSAP, local ambulance services, hospital administrators, hospital personnel, physicians, state and local public officials, behavioral health officials, state patrol and other law enforcement agencies. The plan should address roles and responsibilities of various public and private entities, assess the strengths and weaknesses of alternative EMS delivery models and identify measures that can be used to evaluate the quality and performance of local ambulance units and state policies that impact the EMS system. The coalition should recommend an entity at the county or regional level that would be responsible for EMS services in the area.

2. The Nebraska Office of Emergency Health Systems should continue to assess local EMS services in rural communities and encourage innovative models that make the system more effective and efficient.

VII. In-Home Care and Long-Term Institutional Care Services

In rural Nebraska, the percent of the population over 65 years of age is considerably higher than in urban areas. With an older population, rural areas have a higher proportion of chronic illnesses, creating a need for in-home care and long-term care services. Despite a greater need for services, access to these services is limited by the lack of public transportation, an inadequate supply of health care providers, limited in-home support services, and inadequate resources to pay for these services. Access to home health and in-home services vary considerably across the state. Although long-term institutional care services (i.e., skilled nursing care and assisted living care) are generally available, these services are more expensive and many of these facilities receive a significant proportion of their revenues from Medicaid. In addition, all critical access hospitals have swing beds for long-term care patients.

While it is critical to have an adequate supply of long-term care beds, it appears that there is an imbalance between institutional care and in-home care. New technology and greater support services such as home monitoring devices would allow a greater share of the aging population to remain in their own homes for a longer period of time and would reduce costs.

Recommendations

1. Pilot projects that assess new technologies (e.g., phone applications and visits), new models of in-home care, telemedicine, and home monitoring technology should be supported to maximize resources and improve efficiency and access.
2. The feasibility of providing public transportation at least in some regions of the state should be evaluated.
3. To assess the impact of long-term care facility closures, a coalition of key stakeholders should be formed to identify the factors that have contributed to the closures and develop recommendations that will assure an appropriate continuum of services will be available to meet the needs of rural residents.
4. Electronic medical records should be used to assess patient needs and identify appropriate treatments at multiple points of care.
5. The number of health professionals (e.g., geriatric nurses, certified nursing assistants, and mental health professionals) who are better able to provide care for older patients should be expanded.

VIII. Communication and Information Technology Systems

Electronic technologies are transforming the rural health delivery system and they have the potential to expand access to services, improve the quality of care, and provide clinical and managerial data that will support informed decision-making. For example, electronic health records have already been implemented by most hospitals and the majority of physician clinics. While these data are now generally used for internal decisions, in the future they will be shared among all providers. New technology has improved the quality of care through e-ICUs, remote EKG readings, teletrauma, e-pharmacy, telebehavioral health, telemedicine access to specialty care (e.g., cardiologists), and home monitoring systems. Unfortunately, most of these new technologies are greatly underutilized because of low reimbursement policies, lack of training, and practice cultures.¹⁶

Another major challenge in rural Nebraska is the lack of high-speed internet access and the cost of this access. To address this challenge, The Rural Broadband Task Force (RBTF) was created with the enactment of LB 994 in 2018. The purpose of the RBTF was to review the issues related to the availability, adoption, and affordability of broadband services in rural Nebraska. The findings and recommendations of the RBTF were released in October 2019. Some of the major findings included:

- Only 63 percent of rural Nebraskans have high-speed internet access defined by the RBTC as fixed broadband of at least 25 Mbps down/3Mbps up.
- Nebraska lags behind the U.S. average and neighboring states in fixed and mobile broadband availability.
- There is a wide variation in broadband availability by county and local exchange carrier.

Although the report did not focus on rural health care, broadband service can help rural residents in many ways, including (1) research health topics online, (2) access electronic health records, (3) make appointments and communicate with health care providers, (4) access primary and specialty care via telemedicine, and (5) participate in home monitoring telehealth services.¹⁷

Recommendations

1. The use of telecommunications for consultations, education, and electronic health information delivery to and from homes, hospitals, and other health care providers should be promoted and encouraged.
2. Strong telecommunication linkages between public health departments, area hospitals, and other health professionals to address district-wide, regional, and statewide health needs should be developed.

¹⁶ “The Future of Rural Health,” The National Rural Health Association, 2013, pp. 18-20.

¹⁷ Footnote 18 “Rural Broadband Task Force – Findings and Recommendations,” Nebraska Information Technology Commission, Office of the CIO, October 2019.

3. Electronic health records (EHR) technology should be used by all health care providers to share patient information through the Nebraska Health Information Initiative (NeHII).
4. Standardized protocols for all reporting, transmitting, and the exchange of all health care data should be developed and implemented.
5. To expand broadband capacity, the RHAC endorses the following recommendations from the RBTF report.
 - Encourage the Nebraska Public Service Commission to continue to investigate a state-run reverse auction as a mechanism to spur broadband build out in rural areas.
 - Encourage local and regional broadband planning, including communications planning between telecommunications providers and public power districts and cooperatives.
 - Explore ways to make it easier for public entities to lease dark fiber

Conclusion

The health care environment is changing rapidly and these changes are having a dramatic impact on the rural health system. These recommendations attempt to bridge some of the major gaps during this transition period. While there are many new opportunities to help achieve the RHAC's vision (e.g., new incentives to build integrated models of care, new data that can be used to improve the quality of care and health outcomes, and new technologies to expand access to care), many major challenges remain. Some of these challenges, including a shortage of health professionals, more consolidated networks where large urban health systems control the decisions made about the rural health system, and lower reimbursement rates, make it more difficult to build integrated care models. However, by working together and moving quickly, rural communities have an opportunity to reshape their health system to produce better health outcomes, enhance the quality of health care services, and develop a more efficient, cost-effective system.