Rural Health Care Access and Delivery in the Context of a Changing Environment

Summary

The National Governors’ Association (NGA) recently published Rural Health: An Evolving System of Accessible Services. The report documents and synthesizes the activity in states and rural communities that is enabling them, within the context of a changing health care environment, to enhance their ability to meet the unique health care needs of their residents. The report includes tables and profiles that highlight state rural health initiatives; a discussion of federal, foundation, and community-based resources that states can access to finance programs and ensure program sustainability; and case studies that describe the evolution of rural health services in Minnesota and West Virginia.

The report findings are based on responses to a fifty-state survey that was conducted by NGA staff between December 1994 and June 1995. Information was collected on health professions workforce strategies such as telemedicine and recruitment and retention, rural health networking activities, managed care initiatives, strategies to improve access to specialized services, data system and financial support initiatives, and rural health efforts as a component of state health care delivery system changes.

This Issue Brief is a companion to the larger report. It summarizes the most pertinent findings of the NGA survey and identifies the challenges and opportunities for state policymakers in improving rural health care access and delivery.

Background

Although rural residents comprise approximately one quarter of the U.S. population, they do not have the same level of access to basic primary health care services that is available to other Americans. Health care delivery in rural communities is complicated by poverty, inadequate transportation, large geographical distances, an aging population base, and rural economic decline. Two objectives are framing the context within which the next generation of rural health care delivery systems are being developed: the need to improve access to health care services while simultaneously controlling health care costs.

A sufficient supply of primary care providers—those in family/general practice, general internal medicine, and pediatrics—is critical to meeting the health care needs of rural residents. The cornerstones of primary care—preventive services and early intervention services—not only ensure continuity of care but also contain costs. Access to primary care is vital to rural health care delivery because access to specialized services maybe unavailable or may require many hours of travel.

Although the number of primary care practitioners has increased slightly over the past few years, the number of individuals without access to primary care services also has increased. The lack of adequate salaries, a dearth of appropriate facilities and equipment, and the well-known isolation of rural health providers all take a toll on the health professional recruitment and retention efforts of rural communities. This situation has been compounded in recent years by the upsurge in managed care entities, located primarily in urban areas, which have a high recruitment rate for primary care providers and can offer providers more inducements than can rural communities.

Another factor that has adversely influenced health care delivery in underserved rural areas is the shrinking pool of financial resources available to implement and maintain innovative programs. Communities must contend with the effects of corporate downsizings, closings, and relocations as well as the effects of limited state funds and increased competition for those funds.
Over the past decade, rural communities have entered into partnerships with diverse groups to better leverage available resources. Foundations; health professions institutions; private market entities; and local, state, and federal government have joined forces with rural communities to deliver appropriate health care services to rural residents. Building a rural health care system requires start-up funds to develop services, programs, or networks as well as financing to reimburse for services over the long term. A community’s involvement also can vary according to the particular health care needs of its residents.

**State Tools to Improve Access and Contain Costs**

Dramatic changes are occurring in how rural health care delivery is being developed, financed, and structured. States have been using tuition and loan repayment programs to tackle rural health provider recruitment and retention problems for a number of years. States are also implementing newer approaches such as telemedicine and networks to increase access to and the delivery of health care to rural residents. Although a single recruitment program may not be sufficient to entice providers to underserved rural areas, states can assemble “packages” of different strategies. These packages can tip the balance in favor of rural communities when health care providers are making practice location decisions.

**Recruitment and Retention Interventions.** States are using various types of recruitment and retention strategies (see Table 1 on pages 8 to 10). **Rural rotation programs,** in which medical students or residents are placed in a community-based rural health care facility for a specified period, are operational in thirty-eight states. Some states are also using rotation programs to support a multidisciplinary approach to health care delivery that incorporates not only medical students, but other health professions students such as physician assistants, nurse practitioners, pharmacists, or social workers. These students train and work as a service team in assessing and treating patients under the guidance of preceptors.

Sixteen states are making **financial/tax incentives** available to health care providers who practice in rural underserved areas. For example, Arizona, Maine, and North Carolina subsidize the malpractice insurance premiums of obstetricians. Alabama and Louisiana offer $5,000 state income tax credits to primary care physicians who begin their practices in or relocate their practices to a rural community. Oregon has expanded this tax incentive to include other health care providers such as nurse practitioners, physician assistants, and certified registered nurse anesthetists.

**Locum tenens programs,** in which physicians are afforded a temporary replacement to enable them to attend continuing medical education classes or take a vacation, are an innovative strategy states are using to retain physicians in isolated rural communities. Thirteen states have *locum tenens* programs that rely on medical school faculty and rotating residents to provide respite support.

A **spousal assistance program** that addresses the concerns and needs of a physician’s spouse and family during the recruitment period and after the provider locates in a community is operating in Idaho. Spousal dissatisfaction can be a major factor in causing rural providers to relocate to a less isolated area.

**Technological and Networking Initiatives.** The expansion of **telemedicine**—sophisticated telecommunications and computer technology—into rural health delivery systems has been dramatic over the last few years, and this trend is likely to continue. Thirty states have developed or are developing telemedicine systems to increase patients’ access to specialists through video-imaging and real-time collaboration. This technology also brings continuing medical education and training to isolated rural providers (see figure on page 11). In addition, telemedicine links among rural hospitals, primary care clinics, medical schools, and individual providers can offer rural patients immediate interpretation of medical information and laboratory and radiologic test results. Through tele-medicine, unnecessary patient travel to tertiary care facilities can be avoided.

Georgia has one of the largest telemedicine systems. Started in 1987, the network now involves sixty sites, including rural community hospitals, an ambulatory center, a public health facility, and correctional institutions. Originally financed through telephone company rate overcharges, the system has been expanded and maintained through the joint efforts of the phone companies, a medical college, and the Governor’s office. Along with interactive patient consultation, the system enables rural physicians to accrue continuing medical education credits via video, personal computers, fax, and medical telemetry.
future goal of the project is to examine patients with chronic illnesses via interactive cable television in their homes. The project is also developing a “glove” that employs virtual-reality interface technology, giving specialists the ability to reach out and “touch” their patients.

Louisiana is establishing a three-branched tuberculosis telecommunications network. Located in a designated health professional shortage area, the tuberculosis (TB) facility is linked to the nearest charity hospital for teleradiology purposes; it is anticipated that in the future this link will be upgraded to full telemedicine capability. The second network branch links the TB facility to the local court system for judicial proceedings related to involuntary commitments. When activated, the third branch will connect the TB facility to the local public health unit, which is also the terminus for the court.

**Rural health networks** are composed of health care entities that join together to increase access to health services and contain costs. Their structures are as varied as the communities in which they operate. Participating entities can include hospitals, private providers, primary care clinics, local health departments, and specialists. Some networks are entering into agreements for patient transfers and referrals, the joint use of communication systems, or the joint purchasing of medical equipment. Others are trying to develop prepaid health products to better compete in a managed care environment. Ideally, the networks will evolve to incorporate all of these activities.

Of the twenty-nine states that have developed or are developing networks, seventeen are preparing to function in a managed care environment (see Table 2 on page 12). Federal agencies are funding a number of networking projects. With funding from the federal Bureau of Primary Health Care, a network in Kentucky serves medical assistance recipients and uninsured individuals through linkages among community health centers, primary care centers, hospitals, and other health-related service agencies. In Pennsylvania bureau funding supports a network consisting of a primary care center with five rural medical clinics, an acute care hospital, a skilled nursing facility, a home health agency, and private practice groups. An outreach grant from the federal Office of Rural Health Policy supports the Mid-Missouri Health Consortium, a group of providers responsible for expanding the availability of essential primary health services for rural residents in eight counties.

Some states are actively funding network development. New York awards grants through the Rural Health Network Development program, which allocates $1 million annually to support network development and $3 million annually to pay for rate enhancements to hospitals that agree to participate in networks. The networks offer joint purchasing, capital ventures, shared resources, and cross-system quality assurance procedures; the networks also help position the involved communities to participate in managed care efforts. Florida enacted enabling legislation in 1993 to create networks that are responsible for determining the best way to ensure universal access and promote cost containment. Eight networks are now operational and one more network is being developed.

Minnesota created both integrated service networks (ISNs) and community integrated service networks (CISNs) in 1994 to provide managed care services and enable participation in publicly funded programs. CISNs can have no more than 50,000 enrollees, which makes them feasible for rural areas. To enhance their potential to survive, CISNs were allowed to incorporate and begin operation one year before the larger ISNs.

**Systemic Approaches.** A number of states consider rural health to be an important component of statewide health care delivery system development. Some states are launching gubernatorial and/or legislative initiatives that fund primary care expansion and address rural health care delivery problems, while other states are establishing councils or task forces that are charged with addressing rural health issues.

In 1994 New Hampshire enacted a gubernatorially supported health care reform plan that designates funds for primary care activities such as the development of community care centers, loan repayment initiatives, rural health networks, and recruitment and retention programs. The state has also received funds from the Robert Wood Johnson Foundation Practice Sights Initiative.

West Virginia enacted the gubernatorially supported Rural Health Initiative, which since 1991 has been allocated $6 million annually to address virtually every rural health issue the state is confronting.
Foundations, universities, and federal funders also are supporting the initiative to form an accessible system of rural health care for all state residents. Some of the programs supported through this initiative are site matches, rural rotations, network development in the managed care arena, and telemedicine.

A task force in North Dakota is determining the best way to address rural health and primary care access needs through legislative bills or resolutions. The Rural Health Advisory Council in Tennessee is working to resolve reimbursement inequities, correct the imbalances in the training and placement of primary care providers, enhance rural emergency medical care, and develop alternative delivery models such as rural health networks.

**Challenges and Opportunities for State Policymakers**

**Telemedicine.** The use of telemedicine can expand access to rural health services. However, as with all new approaches, there are some significant legal, interstate governance, and insurance reimbursement issues that must be addressed. Provider licensure and liability laws often prohibit physicians from practicing in a state where they are not licensed. Some state regulatory entities are considering the development of uniform licensing regulations.

In addition, the Federation of State Medical Boards is developing model legislation that, while maintaining states’ rights to oversee medical practices, would allow limited licenses to physicians whose practices enter a state electronically. The licenses would not allow physicians to physically practice within the state. The limited licenses could possibly cover all types of “remote practices” outside the state, and physicians would be answerable to the board for any action conducted remotely. The legislation could also provide criteria for determining functional practice responsibility within geographic areas and an accountability mechanism to ensure quality of care.

The advent of telemedicine has brought the issue of patient confidentiality to the forefront. With the electronic dissemination of medical records and test results required to facilitate effective telemedicine procedures, some states are considering the development of model privacy statutes to ensure that patient information is protected.

Although the benefits of telemedicine can be substantial, financial issues are an important concern. According to the Center for Health Policy Research in Denver, Colorado, the start-up costs for purchasing the technology and establishing the link for a rural site currently range from $50,000 to $65,000 over a three-year period. The most ambitious telemedicine systems access funding from a variety of sources, including the federal government, foundations, and private entities. However, financial considerations do not cease once the system is operational. Sustaining the technology places a significant burden on rural communities and networks. Operation and maintenance costs need to be spread across several entities or communities in order to sustain the systems.

Insurance reimbursement issues have also arisen with the use of telemedicine; reimbursement is especially important given the high costs of operating telemedicine systems. Insuring entities have been slow to accept deviance from the face-to-face interactions between patients and health care providers historically required for payment to be approved. Although the Health Care Financing Administration reimburses for teleradiology services, telemedicine costs generally are not reimbursable. The one exception is in Georgia, where the state negotiated with both Medicare and Blue Cross/Blue Shield to accept telemedicine consultations as a covered benefit. Medicaid still considers telemedicine experimental and therefore will not reimburse for these services.

**Rural Health Networks.** Rural health networks have their own set of problematic operational issues, centered primarily in the legal arenas of antitrust and managed care. Given the scarcity of health resources in rural areas, networks are a viable approach to expanding access. Some networks are instituting managed care to facilitate cost containment. Moreover, though most health maintenance organizations (HMOs) are still concentrated in urban areas because of the difficulties in establishing them in rural areas, competition between rural health networks and HMOs is beginning to occur and probably will increase over time.
A precedent-setting case that addresses both antitrust and managed care issues is presently working its way through the courts. Marshfield Clinic is a large, multidisciplinary clinic in rural Wisconsin. It started a network in the 1970s, with the goal of providing access to high-quality care in twenty-four rural counties of the state through an integrated delivery system that focuses on patients' needs. The network currently consists of 22 rural clinics; 100 salaried physicians who practice in rural areas; 10 informally affiliated, financially independent hospitals; and the Security Health Plan, an HMO. In January 1995, an antitrust claim was filed against Security Health Plan and won by Compcare Health Services. An HMO owned by Blue Cross/Blue Shield, Compcare Health Services argued that because the clinic network was so large, Marshfield's practices excluded the HMO from the market. In post-trial motions, an initial monetary award against Marshfield was overturned, and requests by Blue Cross/Blue Shield for a rehearing have been denied. Blue Cross/Blue Shield has until January 13, 1996, to file an appeal with the Supreme Court.

A recent study conducted by the Institute for Health Services Research at the University of Minnesota identified key issues that may pose barriers to network development by states and communities. The researchers recommended that states:

- focus the licensure and certification processes more on outcomes than on structural issues related to individual facilities;
- consider legislation to relax antitrust laws for rural providers;
- be aware of Medicare and Medicaid reimbursement and operation provisions that affect rural health network development; and
- be aware of state health laws and regulations such as certificate-of-need and health plan regulations that may hinder network development and day-to-day operations.

Financing Innovations. Cost containment in the health care arena is a fundamental concern of states and communities. Yet a number of strategies to improve rural health care access and delivery do not impose a financial burden on either the state or rural communities. For example, in Maine all physicians who purchase malpractice insurance are assessed an additional fee. The resources are pooled and then disbursed as $5,000 malpractice insurance rebates to rural obstetricians practicing in federally designated health professional shortage areas.

In Texas the Physician Assistant Loan Repayment Program is supported by a small fee added to the state's physician assistant licensure fee. Similarly, in Florida the Nursing Student Loan and Scholarship Program obtains funding from an accumulated trust fund that is financed by a $5.00 surcharge on nursing licensure fees. In West Virginia, a percentage of medical student tuition fees is used to sustain the state's Medical Student Loan Program. The California Health Facilities Construction Loan Insurance program insures nonprofit or government facility loans through annual premiums paid by insured health facility projects. A proportion of the annual premiums from insured facilities reverts to a pool from which the loan funds are disbursed at an interest rate of between 2 percent and 3 percent below the market rate.

Lessons Learned. Several lessons emerge from the trends identified in the NGA study that may assist policymakers as they make decisions on how rural health care access and delivery can be improved.

Leverage state dollars whenever possible. Many states are combining federal funds, foundation grants, and/or in-kind support from state agencies, community-based organizations, health professions education institutions, and hospitals to initiate comprehensive rural health programs or to continue effective ones.

Address program sustainability. Sustainability, perhaps the most difficult challenge states face, can be addressed through shared purchasing of equipment and a reduction in duplicative services, as undertaken by some networks; enhanced capital development by both the public and private sectors for facility development or the purchase of expensive equipment; increased use of mid-level providers who can extend physician resources; and expanded use of telemedicine that spreads the costs of this technology across communities.

Establish systems of data collection. Data systems are important both for monitoring the health care needs of rural populations and determining the effectiveness of implemented strategies and programs.
Monitor program effectiveness. Because of financial constraints, program evaluation often is not addressed. Such feedback is crucial to ascertaining that program funds are being used to the maximum effect and are obtaining the desired results. States may want to include limited funds for evaluation in program budgets or ask other entities to fund the evaluation component.

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