

The Special Role for Rural Hospitals in Meeting the Needs of Their Communities

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North Carolina's rural hospitals occupy a special and significant role in the fabric and soul of rural communities. Rural residents traditionally relate to their community according to a handful of common "identifiers." Chief among these identifiers are community churches, high schools and their sports teams, volunteer fire departments and rescue squads, social clubs, and local hospitals. These common identifiers validate for the rural resident the community as their own, are a source of pride, and, in many instances, a point of friendly competition between communities. These community identifiers form the heart of the rural community infrastructure. At the most basic level, the rural hospital as a community identifier exists, from the perspective of rural residents, apart from the relative importance of the hospital's services, the quality of care of the hospital, or the economic support the hospital offers the community.

North Carolina's rural healthcare system was initially organized around the concept of a hospital serving its home county. Passage of the Hospital Survey and Construction Act of 1946, better known as the Hill-Burton Act, began a proliferation of hospital construction in the poor, rural communities of America—places where no hospitals would have been possible before. As a consequence, many rural communities throughout the country built their own local hospital. Community hospitals were founded in 72 of North Carolina's 100 counties, thus establishing the leadership role that rural hospitals fulfill within their communities today.

North Carolina's 61 rural counties are served by nearly 60 rural hospitals. Rural hospitals

are usually smaller than the average North Carolina hospital, with rural hospitals caring for an average daily census of 77 acute care patients in 2004 versus an average of 135 patients for all North Carolina hospitals (see Table 1). In 2004, North Carolina rural hospitals cared for 227,612 inpatients, approximately 3.28 million outpatients, and an estimated 1.05 million emergency patients. The numbers speak for themselves—millions of visits for care and hundreds of thousands of hospitalized patients. North Carolina's rural residents depend heavily on their local hospital for valuable, timely, and necessary inpatient, outpatient, and emergency care services.

Rural Healthcare Networks

North Carolina's version of a *network* is a patient-focused system of care consisting of private and public organizations that provide an array of medical and social services to the community.

Table 1.
Averages for North Carolina Hospitals, 2004

	Average Rural North Carolina Hospital	Average North Carolina Hospital
Average Daily Census (Acute)	77	135
Annual Discharges	5,055	9,133
Annual Outpatient Visits	75,983	141,217
Annual Outpatient Surgeries	2,926	5,684
Annual Emergency Visits	21,867	30,859
Total Employees	590	1,343
Percent Net Revenue from Medicare/Medicaid	51%	49%
Patient Operating Margin	-2.3%	-0.2%
Uncompensated Care as a Percent of Gross Revenue	7.9%	7.2%
Average Age of Plant	10.1 years	9.5 years

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A successful rural network should include the local rural hospital, along with its tertiary care referral center, in a highly-integrated collaborative, coordinated with community-based organizations such as public health, primary care, dental health, emergency medical services, social services, transportation, mental healthcare, and long-term care. The composition of a rural health network varies by community, but in communities across North Carolina, rural health networks consistently deliver efficient, effective, and coordinated quality health services to rural residents.

Jim Bernstein's design for successful rural hospital and health networks can be summarized in four basic concepts:

- To build community systems of care that assure access to healthcare services focused on meeting the health needs of rural residents.
- To provide the planning, implementation, and operational support required by rural hospital networks to achieve higher levels of integration while continuing to meet patient needs.
- To integrate national and local initiatives that complement state priorities and programs in order to improve the access, quality, and cost-effectiveness of patient care for Medicaid, low-income, and uninsured patients.
- To focus on patients, not the provider, as the key denominator in rural health network development.

Critical Aspects of Rural Hospitals

What are the critical aspects of rural hospitals in relation to the communities they serve? First, rural hospitals are central to the healthcare and social service networks that undergird every rural county and community. The healthcare "quilt" of a rural community is comprised of a broad spectrum of healthcare organizations, community agencies and services, government-sponsored health services and providers, and a vast array of human service organizations that provide essential health-related benefits to the residents of rural communities. Rural hospitals touch every component of this community support system, from public health departments, Medicaid, and social services to Healthy Carolinians projects, community health centers, and free clinics. In addition to their healthcare mission, rural hospitals offer the community knowledgeable health professionals, leadership, desperately needed resources and space, in-kind support, and the basis for collaboration and coordination. The rural hospital is an invaluable resource and lifeline that ensures the viability of rural communities and their associated healthcare networks.

Another crucial aspect of rural hospitals is their role as catalysts for the development of local access points for healthcare. Both primary care and specialty care physicians are dependent on the local hospital for a range of healthcare services from outpatient and emergency care to complex inpatient care. Many rural communities would lack access to even basic healthcare services without the support of their local, rural hospital.

Today, rural hospitals are highly involved in the recruitment and retention of vital healthcare providers, such as physicians and nurses. In 2005, 36 rural North Carolina counties were designated by the federal government as whole or partial healthcare professional shortage areas (HPSAs). Since many rural North Carolina counties are considered HPSAs, the contribution of rural hospitals as the regional anchor for trained health professionals is paramount. More than 3,665 physicians practice in rural North Carolina counties. Many physician practices would not be viable without the ability to diagnose, treat, and care for patients at a local hospital. Furthermore, more than 19,100 registered nurses, 6,211 licensed practical nurses, and 1,826 pharmacists practice in rural North Carolina. The healthcare services provided by these valuable, highly skilled health professionals are directly tied to the services supported by rural hospitals.

Financial Vulnerability

Vulnerable is the most distinctive description of the status of rural North Carolina hospitals. Vulnerability is a concern for rural hospitals in many respects: fiscal, operational, service development, availability and affordability of physicians and clinical professionals, medical technology, reimbursement, physical plant and facilities, and community support. Rural hospitals are like rare, protected birds that face near extinction due to the fragility of their environment. Rural hospital boards and executives, along with their caregivers and medical leaders, work tirelessly to ensure their local rural hospital survives to meet the healthcare needs of their communities. However, this constant struggle with vulnerability is a battle that many rural hospitals will not weather without considerable assistance and attention.

One important measure of vulnerability, fiscal vitality, is the greatest threat to the survival of rural hospitals. Operating a rural

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hospital is often a budget-year-to-budget-year exercise of hoping limited and constrained revenues will cover increasing expenses. Line item costs, such as staff salaries and benefits, drug purchases, the cost of medical supplies, malpractice insurance premiums, and utility charges rise yearly, often increasing faster than general

price indices and at rates beyond the hospital's control. On the revenue side, state and federal hospital payments are constrained to pre-determined rates of increase, squeezing the ability of rural hospitals to ensure that revenues meet expenses. Federal payment policies, which automatically pay rural hospitals less revenue per unit of service than urban hospitals, also contribute to the poor financial stability of rural hospitals. Continually walking the "financial tight rope" without a strong fiscal safety net defines the day-to-day existence of many rural hospitals in North Carolina.

The lack of fiscal stability and a weak revenue base hurts rural hospitals in many fundamental aspects. Due to advances in medical treatments and therapies; the aging population and the continued rise of chronic disease; and the revolutionary pace of change in information technology, hospitals that are responsive to the health needs of their communities should be continually investing in the development of new services, advancing their medical technologies and capabilities, and upgrading their facilities. To stay current with these necessary advances, hospitals must have access to capital funding. Unfortunately, the tenuous financing of rural hospitals renders them risky investments for Wall Street financiers, meaning access to badly needed capital is severely restricted, especially among small rural hospitals. As a case in point, of the 88 outstanding hospital bond issues currently underwritten by the North Carolina Medical Care Commission, only 32 (or 36% of active issues) were financed for rural hospitals. Only five of the hospital bond issues supported rural hospitals with fewer than 100 beds.

Dependence on Primary Care-Oriented Therapies

One vulnerability of rural hospitals that is not well documented or understood is their dependence on primary care-oriented therapies, treatments, procedures and diagnostic services to generate revenues. For most rural hospitals, 60% or more of revenues are attributable to outpatient services, such as radiological exams, laboratory tests, physical therapy, outpatient surgery, diagnostic cardiology, and various examinations involving fiber optic procedures. The availability of these primary care diagnostic services and procedures in a local setting is crucial to the health of a community. For rural hospitals, these services form the basis of the hospital's revenue infrastructure, supporting more significant, but costly, medical and emergency care services, and community services, such as intensive care units with highly trained professionals, emergency departments with trauma physicians, and obstetrical care with newborn nurseries and specialized labor rooms. These expensive, yet critical, emergency health services are usually the first to be trimmed or closed when hospital revenues fail.

Competition for primary-level outpatient services, by full-service medical practices, outpatient diagnostic center entrepreneurs, and outpatient surgery centers, can irreversibly harm the service and revenue base of rural hospitals. Several North Carolina communities have already faced the terrible prospect of closing their local hospital due to the drastic loss of primary outpatient services and revenues. When a rural hospital is near closing, the first question the community asks is "How can we continue to have local access to emergency medical care?" Competition

among rural hospitals and other providers for primary-level medical, diagnostic, and surgical services is not necessarily a detrimental strategy on its own accord. However, great care must be taken in planning and developing these services in competition with rural hospitals, especially in smaller, isolated communities, in order to protect and preserve the community's long-term investment in critical and emergency health services. Rural communities that have faced this disastrous prospect often find that they are at a point of crisis—both their community health and economic viability will erode.

Dependence on Government Payments

A summary of rural hospital traits and characteristics would not be complete without emphasizing their dependence on government payments as a constant concern for North Carolina's rural hospitals. By virtue of their location, rural hospitals serve proportionately more elderly, poor, uninsured, and disadvantaged patients than their urban counterparts. As a consequence, rural hospitals are highly dependent upon Medicare and Medicaid for sources of revenue (51% of rural hospital revenues). Some rural North Carolina hospitals depend on government payers for more than 70% of their revenues. This dependence presents serious difficulties because government payers only reimburse hospitals at the financial break-even point, or less. In addition, government payment sources can be unpredictable due to federal and state budget constraints, leading to budget freezes, or even worse, budget cuts. Rural hospitals also have a substantial uncompensated care burden (7.9% of gross charges in 2004). As a result, in 2004, the average rural North Carolina hospital received 2.3% less revenue than it actually cost to provide patient care services—a situation that is untenable in the long run.

One development in rural hospital financing is worthy of special mention, namely the Critical Access Hospital (CAH) program. A CAH is a small, rural hospital with 25 acute beds or less. North Carolina has 21 CAHs. The CAH program is designed to help small, rural hospitals manage the detrimental impact of fixed-payment government reimbursements on their hospital finances. In North Carolina, CAHs are reimbursed for their inpatient and outpatient costs for serving Medicare and Medicaid beneficiaries. The CAH program has had a stabilizing effect on small, rural hospital finances. However, CAH reimbursement does not address the fiscal burdens of caring for uninsured patients, nor does it provide an adequate level of reimbursement for investments in renovations and upgrades to buildings, capital equipment, and medical technology, or to establish new healthcare services. As a consequence, the financial picture for North Carolina's CAHs has improved, but many small, rural hospitals, including CAHs, still face the perils of substantial operational losses and fiscal vulnerability.

Workforce Vulnerability

In addition to the instability of financial resources, human resources are another basis of vulnerability for rural hospitals. For obvious reasons, hospitals are extremely dependent on highly trained, knowledgeable, and caring staff to deliver exceptional and

beneficial health services. However, the demand for primary care physicians and specialists (like general surgeons), registered nurses, mental health professionals, therapists, radiology technicians, pharmacists and pharmacy technicians, laboratory technologists, emergency medical service professionals, medical record coders, insurance billing experts, and hundreds of other skilled hospital professionals is placing an incredible burden on training programs and hospital recruitment and retention efforts. Across North Carolina, nearly every professional category experiences regular cycles of workforce shortage or adequacy. Demand and supply of various healthcare professionals change rapidly based on local market conditions. While all hospitals are equally susceptible to workforce shortages, rural hospitals are particularly vulnerable. The inability of rural hospitals to recruit or staff a few nursing positions alone can place routine medical services at risk of being limited or curtailed, reducing local access to essential healthcare. Furthermore, the expenses associated with recruiting, hiring, training, and retaining skilled healthcare workers are continually rising. Finding health and hospital professionals that desire to live and work in rural North Carolina is also challenging.

Rural Hospitals and the Local Economy

Looking beyond healthcare, rural hospitals are vital to the economic health of the community as well. Rural economic development and the viability and sustainability of rural hospitals are closely linked. Employers in rural communities frequently cite the availability of local healthcare services as a determining factor in business development. Less well known, however, is the contribution of rural hospitals to the economic vitality of their communities. North Carolina categorizes all counties into one of five economic development tiers. The economically challenged counties are in Tier 1 with the economically advantaged counties in Tiers 4 and 5. Of the 36 counties in the two lowest economic categories (Tier 1 and Tier 2), 33

of the counties are rural. Furthermore, these 33 economically disadvantaged rural counties are served by 28 rural hospitals. The importance of rural hospitals as an economic engine is best understood by examining some revealing statistics from 2001. North Carolina's rural hospitals accounted for an estimated \$2.96 billion in direct economic output and \$1.23 billion in direct salaries and benefits paid to an estimated 29,467 rural hospital employees in 2001 (see Table 2). When induced and indirect economic impacts are added to the direct economic benefits, rural hospitals generated an estimated \$6.44 billion in economic output and \$2.2 billion in salaries and benefits paid to an estimated 61,265 rural workers. The evidence is simple and straightforward; rural hospitals contribute billions of dollars in local and regional economic value and bring tens of thousands of jobs to rural North Carolina economies and communities year after year.

Summary

Rural North Carolina hospitals are a treasure to be valued, nurtured, understood, and embraced. Just as Jim Bernstein understood and envisioned many decades ago, rural hospitals and health networks are vital components of the rural communities they serve. Attention must be given to the value of preserving, enhancing, and investing in rural hospital and healthcare networks in order to ensure that effective, quality healthcare services remain consistently available and accessible for North Carolina's rural residents and communities. **NCMedJ**

Table 2.
Economic Benefit of Rural North Carolina Hospitals, 2001

	Direct Impact	Indirect and Induced Impacts	Total Economic Impact
Economic Output	\$2.96 billion	\$3.48 billion	\$6.44 billion
Labor Income	\$1.23 billion	\$0.97 billion	\$2.20 billion
Employment	29,467	31,798	61,265

Source: IMPLAN 2001, North Carolina Office of Research, Demonstrations, and Rural Health Development