allowing hospital emergency rooms to share coverage with providers who do not have a usual source of back-up (Felt-Lisk et al., 1999).

Another way that states have dealt with low rural provider supply is by easing travel standards. Most states with Medicaid managed care programs have instituted minimum distance standards to a primary care provider (typically 30 minutes or 30 miles), but some do not impose such restrictions in rural areas, or they increase the travel times and distances for rural areas. Although this strategy improves the feasibility of program implementation in rural areas, it is not yet known whether it will have an impact (either positive or negative) on access to care for rural residents.

State Medicaid agencies have also used other, less common, creative strategies for promoting rural implementation of Medicaid managed care. These include working closely with the State Office of Rural Health to ease implementation; developing rural task forces to get provider and consumer input on the design of the program before implementation; training rural residents to act as lay health advisors, who in turn help other rural residents negotiate the new system; and conducting extensive meetings with community providers before implementation to increase readiness for managed care.

CONCLUSION

The Balanced Budget Act (BBA) of 1997 is expected to further promote the growth in Medicaid managed care in rural areas. Where previously states were required to receive a waiver from federal Medicaid requirements before implementing mandatory managed care programs, in some instances this is no longer the case. For example, prior to the BBA, states were required to offer Medicaid beneficiaries the “freedom of choice” to receive care from any participating provider. States could restrict choice to managed care plans only through the use of a waiver. Under a 191(b) waiver, states were still obligated to offer enrollees in Medicaid managed care a choice of at least two plans. Under the BBA, states can mandate managed care for most populations without a waiver, and, under a managed care program, choice of plan is no longer required in rural areas, although every individual must have a choice of at least two primary care providers. This change in requirements is likely to provide impetus for plans to do sole source contracting with regional health systems, as long as choice among providers within the system is available.

To date, research on Medicaid managed care in rural areas has focused on the implementation process, not on outcomes. It remains to be seen whether Medicaid managed care is positively or negatively affecting Medicaid costs, access to care, and health outcomes of low-income rural populations. Such analysis is essential to determine whether there are sufficient benefits to justify moving rural populations to Medicaid managed care systems.

REFERENCES


RURAL HOSPITALS IN THE UNITED STATES.

Their Numbers and Distribution

In early 1998, 2,182 nonfederal acute care, general hospitals in nonmetropolitan counties made up 45% of the total of 4,821 (Fig. 9.1). The nonmetropolitan hospitals were smaller: 72% had fewer than 100 beds and 42% had fewer than 50 beds (Fig. 9.2). Twenty percent (20%) of all hospital beds were in rural hospitals. The median number of staffed beds for nonmetropolitan hospitals...
was 59 compared with 156 for urban hospitals and the average number of beds per hospital was 82 and 245, respectively. Rural hospital inpatient days accounted for 20% of all hospital inpatient days in the United States. Medicare and Medicaid are important sources of payment for hospital patients. There are substantial variations in hospital dependence on Medicare payments, but rural hospitals tend to depend more on Medicare and Medicaid patients. Data from 1992–1996 show trends in Medicare patient discharges and patient days for metropolitan and nonmetropolitan hospitals (Fig. 9.3). Medicare pays for almost half of all rural hospital discharges compared with 37% for metropolitan hospitals. However, urban hospitals have higher utilization by Medicaid patients: 27% of all urban hospital days are for Medicaid patients and only 17% are for rural hospitals.

The utilization of urban and rural hospitals differed in 1996; urban hospitals had higher occupancy rates but shorter lengths of stay (Fig. 9.4). The distribution and characteristics of rural hospitals vary by geography—larger communities are much more likely to have a hospital than smaller communities. This is reflected in the distribution of hospitals by county type. More hospitals are situated in central city metropolitan counties and in nonmetropolitan counties ad-
adjacent to small metro counties and in nonadjacent counties with smaller towns (Fig. 9.5).

Hospital ownership and control are increasingly of interest to policy makers. The majority of rural hospitals are predominantly government-owned or fall under some other public-sector nonprofit and for-profit hospitals. A larger proportion of rural hospitals (23%) are contract managed, compared with only 7% in urban areas. The type of government control can range from county to regional authority to state. More than twice the percentage of nonmetropolitan hospitals are controlled by government than are metropolitan hospitals (Table 9.1 and Fig. 9.6). The number of nonmetropolitan hospitals that are organized on a for-profit basis is less than one fourth the number of metropolitan hospitals. Of hospitals controlled by some governmental entity, county government and hospital district account for the large majority of governmental sponsors (Fig. 9.7). Ownership trends to be associated with size. Government authorities own over 50% of rural hospitals with fewer than 50 beds. As the size of the hospital increases, there is a greater tendency for it to be owned by a nongovernment entity.

RURAL HOSPITAL SURVIVAL

Between 1980 and 1998, the total number of community, general hospitals decreased from 5,842 to 5,133, an 11.8% decrease due to closings, mergers, and conversions. During that period, there were approximately 1,072 closings or conversions to some other form of health care delivery organization, 625 in metropolitan counties and 438 in nonmetropolitan. At the same time, new hospitals were opening or relocating, creating a net reduction of 689 hospitals. The pace of closings slowed after 1990 to the lowest rate in two decades (Fig. 9.8).

The hospitals most vulnerable to closing or conversions were those that had a smaller number of beds and lower occupancy rates, were more often managed as a for-profit concern, were less likely to be accredited by the Joint Commission on Accreditation of Health care Organizations (JCAHO), and had a high percentage of Medicare inpatient days (General Accounting Office, 1991); also more likely to close among isolated hospitals were those in markets with higher density (Succi, Lee, and Alexander, 1997). Studies that examined the effects of closed hospitals on local communities found significant changes in utilization and, in one case, health status (Brodman, Krane, and Lurie, 1990; Hadley and Nair, 1991; Rosenbach and Dayhoff, 1995).

The Economic Contribution of Rural Hospitals

One of the key arguments in support of the continued survival of rural hospitals by government and the removal of differential reimbursement rates for rural hospitals is their contribution to overall rural economies. Gerald Doeksen, Jon Christianson, and others have shown that rural hospitals contribute significantly to local economies and that rural hospitals serve as a source of employment and act as economic engines for many rural communities (Christianson and Paulilin, 1981; Doeksen and Altobelli, 1990; Doeksen, Loewen, and Strawn, 1990; McDermott, Cornia, and Parsons, 1991).

Rural hospitals are often the largest or second largest employer in the towns where they are located and they are an important part of the social capital of any community. These economic impact studies estimate the extent of a hospital's financial effects throughout a community's economy using financial models that show how money generated by hospital activity cycles through many hands, supporting more than just the employees and suppliers of a hospital. The value of a rural hospital to its community is much harder to estimate. The immense efforts taken by some communities to keep their hospitals open and operating is a measure of the great value people and communities place on a hospital (Seavey, Berry, and Bogue, 1992).

Strategies for Rural Hospital Survival

The trend toward contraction of the hospital market did not continue through the 1990s. During the period 1994

![Figure 9.5. Numbers of hospitals by urban influence code location, 1996. Source: BHPr, 1998.](image)

![Figure 9.6. Hospital Ownership and Control, metro and nonmetro, 1996. Source: AHA, 1997.](image)

![Figure 9.7. Hospital Ownership and Control, metro and nonmetro, 1996. Source: AHA, 1997.](image)
through 1997, there were a total of 28 rural hospitals that closed, an average of seven a year. Rural hospitals, like their urban counterparts, began to adapt to new market realities, including the need for greater accountability under managed care and the need to more efficiently make use of available resources. Studies of the strategies rural hospitals used for survival showed the importance of local resources, especially income-generating characteristics of the community, including the relative wealth of the population, employment patterns, and state-level policies that supported the hospitals (Seavey, Berry, and Bogue 1992). It is clear from the analysis of hospital survival that the conditions that confront the smallest rural hospitals are fundamentally different from what other hospitals experience. This is reflected in the recent development of policy to support alternative hospital structures and designs including the Medical Assistance Facility (MAF), the Rural Primary Care Hospital (RPCH), and the Critical Access Hospital (CAH). Management strategies for survival have varied and there are no clear models for administrators (Mick et al., 1993); however, there are abundant models of successful integration into networks (Moscovice et al., 1995), innovation, and partnering (Bogue and Hall, 1997).

There are many examples of communities banding together to save their small, rural hospital; but to save hospitals, many of them had to change. The options for change were once limited because of strict license and payment rules from Medicare and state Medicaid agencies. Since the mid-1980s, those options have expanded, both for vehicles to finance hospitals beyond the traditional corporate, nonprofit foundation, and authority structures, as well as in the forms that hospitals can take as they adapt. The organizational forms that are possible can be described in a matrix that scales the operational autonomy against the range of services offered at the facility (Fig. 9.9).

The options included in Figure 9.9 include affiliations that may expand or reduce the number of services offered at the facility while it remains a general, acute care hospital. Rural hospitals are flexible and can expand and diversify their service offerings to meet local needs for long-term care and specialized services (Fig. 9.10). Options for conversion include modifying the facility to the point where it ceases to be a hospital and becomes a primary care center or an outpatient facility that specializes in surgery or diagnostic and evaluation activities. Many rural hospitals have been converted into long-term care facilities because the existing physical structure allows for this modification. Conversion is one option that can keep the organization running and the community presence alive (Alexander, D'Aunno, and Succi, 1996). However, the loss of emergency or obstetric services, core components of a “real hospital,” may force people to travel outside the community for certain health care services.
Rural hospitals have been able to reconfigure their structures to provide a broader or more appropriate mix of services; some have converted many or all of their beds to long-term care while others emphasize outpatient services; some have converted many or all of their beds to provide a broader or more appropriate mix of services. It has even expanded beyond providing just hospital-related services and now delivers meals to home-bound elderly people, operates a senior citizen center, and contracts with the local prison to provide liner service and meals. "With all of these services, many of which are private pay, we can spread our overhead and be more efficient," says CEO Harold Brown. "[And] except for the assisted living, none of this takes a lot of capital." The multiple programs have created spin-off effects; the older people who come for lunch at the cafeteria will visit inpatients and the drivers who deliver meals to people at home check on them and report problems. Such an arrangement demonstrates the success of a diversification scheme that not only provides more services but also brings together community centers.

Source: "Ready or Not: Rural Hospitals are Changing." Rural Health News 8(1) Spring 1997.

Table 9.2: Proportion of Nonmetropolitan Hospital Revenue from Medicare, Medicaid, Private Payor, and Uncompensated Care as Percent of Total Revenue, 1986, 1991, 1995, as Percentage of Total Revenue

<table>
<thead>
<tr>
<th>Year</th>
<th>1986</th>
<th>1991</th>
<th>1995</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medicare</td>
<td>8.7%</td>
<td>9.2%</td>
<td>11.0%</td>
</tr>
<tr>
<td>Medicaid</td>
<td>1.0%</td>
<td>0.9%</td>
<td>1.2%</td>
</tr>
<tr>
<td>Other Government</td>
<td>48.4</td>
<td>53.4</td>
<td>45.7</td>
</tr>
<tr>
<td>Non-Government</td>
<td>46.4</td>
<td>52.4</td>
<td>45.7</td>
</tr>
<tr>
<td>Uncompensated Care</td>
<td>Not Available</td>
<td>5.3</td>
<td>1.7</td>
</tr>
</tbody>
</table>

Table 8.5: Inpatient Use of Nonmetropolitan Hospitals by Bed Size, 1981-1995

<table>
<thead>
<tr>
<th>Year</th>
<th>1981</th>
<th>1991</th>
</tr>
</thead>
<tbody>
<tr>
<td>6-49 beds</td>
<td>3,676,623</td>
<td>3,028,290</td>
</tr>
<tr>
<td>50-99 beds</td>
<td>9,610,185</td>
<td>7,616,185</td>
</tr>
<tr>
<td>100+ beds</td>
<td>7,988,305</td>
<td>9,030,579</td>
</tr>
<tr>
<td>Total</td>
<td>20,274,008</td>
<td>19,614,053</td>
</tr>
</tbody>
</table>

Source: AHA Profile of Nonmetropolitan Hospitals, Chicago, 1997.
greater-than-75% category and 2.9% in hospitals where fewer than 60% of patients were enrollees.

The provision for Medicare-dependent small rural hospitals was originally established in the Omnibus Reconciliation Act of 1989 (OBRA, 1989). The original law provided special payments to small rural hospitals that had a high proportion of their revenue derived from the Medicare program and, in effect, had limited ability to make up for any shortfalls in Medicare payments. Rural hospitals that had 100 or fewer beds, had at least 60% of their inpatient days or discharges attributable to Medicare beneficiaries, and were not classified as a sole community hospital could qualify as a Medicare-dependent hospital and receive funds until the provision expired in 1993. With the Balanced Budget Act of 1997, this program was reinstated until 2003 and the target amount for inpatient costs was updated. The provision also states that hospitals may decline geographic reclassification for the purposes of qualifying for this designation.

Rural Referral Centers

A rural referral center (RRC) may request reclassification if its average hourly wage is comparable to hourly wages of hospitals in the area in which the RRC is located. Any hospital classified as a RRC in 1991 was permanently classified as such beginning in 1998.

Geographic Classification for Purposes of Disproportionate Share

Disproportionate share adjustment was added in 1986 to provide additional funds to hospitals that treat a high proportion of low-income persons. The current provision allows all rural hospitals to seek geographic reclassification for the purposes of receiving increased disproportionate share payments (DSH payments).

Medicare Rural Hospital Flexibility Program

This new legislation replaces the current, seven-state EACH/RPCH program (and the Medical Assistance Facility demonstration in Montana) with a new Medicare Rural Hospital Flexibility Program (MRHFP) under which limited-service hospitals known as Critical Access Hospitals (CAHs) would be designated. The program is generally similar to the EACH/RPCH program, with all states eligible for participation. States wishing to have hospitals designated as CAHs must create a Rural Health Plan that describes how a rural hospital network would be created, the criteria for designation of CAHs, and how the development of the networks would enhance rural access. Hospitals 35 miles from the next nearest hospitals are automatically eligible (15 miles in mountainous areas) with states able to waive the distance criteria based on other reasonable standards. The bed-size limit for CAHs is 15 beds, and the maximum length of stay is 96 hours, unless a longer period is required because of inclement weather or other emergency conditions, or a Professional Review Organization or other equivalent entity, on request, waives the 96-hour restriction. An exception to the bed-size requirement is made for swing-bed facilities, which may have up to 25 inpatient beds that can be used interchangeably for acute or skilled nursing facility (SNF)-level care, provided that not more than 15 beds are used at any one time for acute care. Current payment provisions for inpatient and outpatient RPCH services are repealed by the provision, and CAHs are to be paid for their reasonable costs of providing the services to Medicare beneficiaries who are, on average, almost half of the users of small, rural hospitals.

Critical Access Hospitals must be part of a rural network; in the seven-state demonstration, this involved an Essential Access Community Hospital (EACH). Now, a rural health network is defined as an organization consisting of at least one CAH and at least one full-service hospital, the members of which have entered into certain agreements regarding patient referral and transfer, communications, and patient transportation. Rural hospitals designated as EACHs under previous law would continue to be paid as sole community hospitals. All prior approved MAFAs and RPCHs are automatically approved as CAHs under the new provisions once their state rural health plan has been approved by HCFA.

QUALITY OF CARE

The quality of care provided in rural hospitals has generally been accepted as equal to that provided in urban institutions with some exceptions. A controversial article by a team of RAND investigators (Park et al., 1990) brought the issue of quality in small rural hospitals to the attention of a wider group of researchers. The U.S. Agency for Health Care Policy and Research (AHCPR) contracted for a careful review of the evidence of effects on quality of care and health outcomes for patients who were admitted to small, rural hospitals to examine the effects of low volumes and other hospital characteristics. The results of that study, reported in the Journal of Rural Health (Schlenker et al., 1996), found that there was some evidence of a volume-outcome effect, with low volumes associated with poorer outcomes for a certain set of conditions and procedures. However, most procedures for which a volume-outcome relationship has been demonstrated are not typically performed in small, rural hospitals. The strongest relationships between volume and outcomes have been found for coronary artery bypass graft/open heart surgery, intra-abdominal artery operation/resection, cardiac catheterization and angiography, and transurethral prostatectomy. All but the last procedure were unlikely to be carried out in small, rural hospitals. The analysis highlights that many procedures and conditions commonly treated in rural and urban hospitals have not been studied for a volume-outcome effect and that all hospitals need to improve their assessment of their patient care quality.

Assessing quality of care, health outcomes, and provider performance is a growing area of health care. Some would say it is becoming a common part of the health care system as reports of hospital and health plan performance are more commonly published and disseminated. The increasing interest in quality comes when many are concerned that managed care may negatively affect quality because of its focus on controlling costs. Although there is little research evidence to support this belief, it has become a motivating reason to move away from a health care system based almost completely on price. Some hospitals have adopted continuous quality techniques as a means to improve care; many others with small staffs and limited resources have found it difficult to support a full-time quality assurance program. In spite of these limitations, many rural hospitals are addressing the needs of the community and finding opportunities to improve quality of care. In 1996, 78% of rural hospitals reported that they had worked in concert to conduct a health status assessment of the community; only 65% said that they used health status indica-

Table 9.4 Median Total Margins by Urban/Rural Location and Rural Type for Fiscal Years

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</tr>
</thead>
<tbody>
<tr>
<td>Urban</td>
<td>2.2</td>
<td>2.4</td>
<td>2.3</td>
<td>2.3</td>
<td>2.9</td>
<td>2.9</td>
<td>2.9</td>
</tr>
<tr>
<td>Rural</td>
<td>2.2</td>
<td>2.5</td>
<td>2.7</td>
<td>2.8</td>
<td>2.7</td>
<td>3.3</td>
<td>3.3</td>
</tr>
<tr>
<td>Rural, sole community</td>
<td>2.0</td>
<td>2.3</td>
<td>2.5</td>
<td>3.2</td>
<td>2.9</td>
<td>3.4</td>
<td>3.4</td>
</tr>
<tr>
<td>Rural, rural referral</td>
<td>2.0</td>
<td>2.5</td>
<td>2.7</td>
<td>2.8</td>
<td>2.7</td>
<td>3.3</td>
<td>3.3</td>
</tr>
<tr>
<td>Rural, other referral</td>
<td>2.0</td>
<td>2.4</td>
<td>2.4</td>
<td>2.4</td>
<td>2.3</td>
<td>2.9</td>
<td>2.9</td>
</tr>
</tbody>
</table>

Clinical Care Program Improves Provider Coordination and Patient Care

Rutland Regional Medical Center is a 188-bed hospital that serves a six-county region in rural Vermont. In 1993, personnel at the hospital decided to assemble a working group to focus on the ongoing problem of long lengths of stay. After looking at the multiple factors that affect patient outcomes and utilization—patient, nursing, physician, organization, and environmental characteristics—the team decided to focus on improving the clinical coordination of care. Their solution was to establish a Clinical Care Coordinating Program headed by "super nurses." The goal of the program was to facilitate patient care, increase the efficiency and communication of medical teams, and implement the continuous quality improvement process. At the end of one year, it was determined not only that length of stay had decreased significantly but also that the medical staff was able to conduct rounds more smoothly and patients and family members liked the access to a specific person who would listen and answer questions. Positive effects of the program include enhanced problem identification, improved communication, and patient satisfaction. The success of the program has not only improved the quality of care at Rutland Regional Medical Center but has led to its replication in the community.

References


