IMPLICATIONS FOR RURAL HEALTH CARE OF LINKAGES WITH URBAN HEALTH SERVICE DELIVERY SYSTEMS

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INTRODUCTION

The consolidation of medical care delivery in urban areas has been extensively documented. Urban-based providers have increasingly linked together through formal organizational structures or contractual arrangements for the stated purposes of achieving greater efficiencies in service delivery, gaining leverage in contracting with managed care firms and self-insured employers, and accumulating the necessary financial resources to accept the risk inherent in some of these contracts (Walston, Kimberly, and Burns, 1996). Research on both the structure of such consolidated entities and on the impact of those entities on health care delivery at the community level is in its infancy. However, there is the strong presumption that these systems will dominate health care delivery in most urban areas in the near future, and that they already have achieved that status in some communities.

While urban health delivery systems have received considerable attention, to date little or no attention has been paid to the potential impact of the growth of these urban-based systems on rural health systems. Yet, rural and urban providers historically have been linked through a web of formal and informal relationships that greatly influence health care delivery in rural areas. How might those relationships be affected by the formation and growth of urban health delivery systems? What are the implications for future health care delivery in rural areas? This paper begins to address these questions, drawing upon data collected from twenty geographically dispersed, urban-based health delivery systems via mail surveys, telephone interviews, and focus groups.

- Part I discusses the existing literature on relationships between rural and urban providers and on the greater organizational integration of urban health care providers.
- ! Part II summarizes data collection methods and provides an overview of the characteristics of the twenty urban delivery systems that participated in this study.

- ! Part III we then use those data for three purposes:
 - 1. to document existing rural-urban provider relationships,
 - 2. to describe the strategies that underpin these relationships, and
 - 3. to identify the factors that have influenced strategy development.

We found it useful to delineate two types of systems; sub-regional (focused on the market area of a large urban hospital) and regional (focused on a broad market area, in both a geographic and a product sense). Thus we present our findings separately for sub-regional and regional systems.

! Finally, Part IV assesses possible future developments in relationships between urban-based systems and rural providers.

No consensus exists on what to call these systems of linked providers. They have been variously labeled "integrated firms" (Miller,1996), "vertically integrated structures" (Walston, Kimberly, and Burns, 1996), "integrated delivery networks" (Jennings and O'Leary, 1994), and "organized delivery systems" (Shortell, Gillies and Anderson, 1994). While there does not appear to be a consensus on what precisely defines these organizations, there does seem to be general agreement that they encompass a variety of different types of providers within a defined geographic market (and therefore differ from hospital systems or networks, which may operate nationwide and typically include only hospitals) and that the "driving force" in their development has been the growth of managed care (Shortell, Gillies, and Anderson, 1994). We have elected to use "organized delivery systems," the term employed by Shortell et al.

PART I: BACKGROUND

The published literature on "interorganizational relationships" offers a variety of perspectives that motivated and guided our research. For example, while there are numerous explanations of why relationships among organizations develop, and why they take specific forms, the concept of "resource dependency" seems particularly appropriate in understanding relationships between urban and rural health care providers. According to organizational

theorists Mizruchi and Galaskiewicz (1993): "The basic principle of the resource dependence model is that organizations operate in turbulent and uncertain environments, over which they attempt to gain control. Because critical resources are often controlled by other organizations, organizations must find ways to ensure a smooth and predictable flow of resources from other organizations" (p. 47).

The theory of "transactions costs" provides another perspective on interorganizational relations that also emphasizes the critical influence of environmental uncertainty. "A central thesis of the transaction cost approach is that as uncertainty in transactions increases, there will be a shift from markets to firms. If transactions are highly problematic for organizations, then they must spend considerably more time and effort harmonizing relationships. In the long run it may be simply more efficient to integrate that function into one's own operation." (Galaskiewicz, 1985 pp. 290-291).

For urban providers, the "resource" that has been the historical focus of relationships with rural providers is the rural patient. Urban providers receive revenues for rural patients who are referred to them for treatment, or who independently seek treatment from them. The importance of rural patients as a potential source of revenue varies across urban providers, depending on the location of these providers vis-a-vis rural areas and on their ability to attract patients from their own urban areas. Where rural patients are an important real or potential revenue source, urban providers have implemented a variety of strategies to maximize or, in some cases, stabilize referral flows by establishing linkages with rural providers.

Historically, these linkages have, for the most part, involved like types of providers; that is, they have been hospital-to-hospital or physician-to-physician relationships. A substantial literature addresses strategies used by urban hospitals to link with rural hospitals (e.g., see

Moscovice et al., 1995a; Moscovice et al., 1995b; Mick et al., 1993). Examples of such strategies include provision of financial support and management assistance to rural hospitals; aid in recruiting physicians to rural hospital medical staffs; staffing of rural hospital emergency rooms; establishment of telecommunications networks connecting rural to urban facilities; and provision of educational programs to rural hospital staff and physicians. In some cases, urban hospitals have negotiated formal management contracts with rural hospitals or have purchased the rural facilities. From the urban hospital's standpoint, the goal generally is to create a web of relationships that will increase or protect the flow of patients from the medical staff of the rural hospital to the urban center and its associated physicians. In return, the rural hospital gains access to clinical and administrative resources that otherwise would be unavailable or more expensive to acquire.

The literature on direct linkages between urban and rural physicians is less extensive, but describes similar types of activities. For example, a frequently cited activity is the establishment of a rural specialty outreach clinic by an urban-based specialist or specialty practice (e.g., see Moscovice, 1995a). These clinics typically are located in offices of rural primary care physicians or in space provided by rural hospitals. The urban specialist travels to the rural practice on a regular basis to provide specialty care to rural patients, who are referred by physicians in the rural practice. The rural primary care physician benefits from this arrangement in two ways: patients appreciate the convenience of not having to travel to an urban area to obtain needed specialty care, and the rural physician has the opportunity to learn new diagnostic and treatment procedures. There is also less risk of "losing patients," which can be a concern to rural providers when they refer patients to specialists practicing in urban areas. On the other hand, by staffing a rural outreach clinic, the urban specialist hopes to establish or solidify referral relationships with

rural primary care physicians. To the extent that this strategy is successful, the urban hospital where the specialist practices may benefit as well.

Analysts of the trend toward greater organizational integration of urban health care providers often depict that trend as a response to the increased environmental uncertainty faced by these providers as a result of the growth in importance of managed care (Shortell, Gillies and Anderson, 1994). As managed care organizations enroll greater numbers of patients, they increase their bargaining power with providers over price and other important features of contracts. The source of this power is the ability and willingness of managed care organizations to shift blocks of patients among providers in search of a "better deal." The leverage of managed care organizations is likely to be greatest in areas with a relatively rich endowment of hospital beds and physicians, and possibly excess capacity. In these areas, the growth of managed care will probably create the greatest amount of provider uncertainty with respect to revenue flows.

Many urban providers have responded to the growth of managed care in their urban market areas by forming or joining organized delivery systems. These systems, which offer a continuum of services, have the capability of marketing their own insurance products, contracting directly with employers that are self-insured, or contracting with managed care organizations on a full-risk basis (Shortell, Gillies and Anderson, 1994). Depending on the locations of participating providers, organized delivery systems may effectively control care delivery within geographic submarkets. When this occurs, the organized delivery system acquires additional bargaining power in contract negotiations with managed care organizations; it essentially becomes an "indispensable provider" for managed care plans that must offer broad geographic coverage to meet purchaser demands. Presumably it can use this bargaining power to obtain more either favorable prices or guaranteed patient volumes.

Assuming that this scenario captures at least some of the market uncertainty now faced by urban providers, as well as their possible responses to that uncertainty, there are several implications for relationships between urban and rural providers. First, if urban organized delivery systems market a managed care product, or contract at a full-risk basis with a managed care organization, they may seek to contract with rural providers to enhance the geographic coverage of their provider networks. Rural providers located near the urban area served by the organized delivery system will be particularly attractive as potential network participants. Thus the emergence of urban organized delivery systems creates the potential for the development of a relatively new type of linkage C network participation for the purpose of managed care contracting C between urban and rural providers.

Even where rural providers are not highly sought as participants in managed care networks, urban organized delivery systems may seek closer linkages with them as part of an overall organizational strategy to minimize uncertainty created by the growth of managed care in their urban market. In a turbulent managed care environment, reducing variation in non-managed care revenues may become critical to organizational survival. For some organizations, rural patients may provide a significant portion of these "non-managed care" revenues.

Any exchange relationship requires two willing partners. It is not enough that an urban organized delivery system desires to establish new relationships with rural providers, or to strengthen existing ones for change to occur, rural providers must also perceive value in a closer link to an urban organized delivery system. For many rural providers, strong ties to urban providers are already commonplace and are valued for the benefits described above. However, other rural providers C particularly physicians C historically have placed a high value on autonomy and practice independence, and consequently have resisted tight linkages with larger,

urban organizations (Christianson and Moscovice, 1993). Therefore the degree to which closer ties are observed between rural providers and urban organized delivery systems will depend in part on the degree to which environmental changes in rural areas make these relationships more attractive for rural providers.

In summary, if managed care is a driving force behind the formation of urban organized delivery systems, it is likely to affect the nature and strength of the linkages between these systems and rural providers as well. In an attempt to manage the increasing uncertainty in their environments caused by managed care, both urban organized delivery systems and rural providers may re-evaluate existing ties. There are reasons to expect that stronger linkages might develop in regions where urban managed care penetration is high, or where growth in managed care presence has been the most rapid. Also, competition among urban-based systems for stronger rural provider ties might be the most intense in areas with highly competitive urban managed care markets.

PART II: METHODS

Data Collection

To explore the implications of the growth in urban organized delivery systems for rural health care, we collected from a sample of systems data on their historical and current linkages with rural providers and their strategies with respect to the maintenance and development of rural provider relationships. In selecting the organized delivery systems for inclusion in our study, we decided not to choose systems specifically because they were known to have extensive rural networks or to be engaged in innovative relations with rural providers. While there are advantages to studying "exemplar" organizations, there are obvious limitations to this approach as well. We wished to examine organizational approaches to linking with rural providers across a

range of different types of organized delivery systems and the environments in which they function. Therefore, we employed a selection strategy that was designed to generate a more representative sample of such linking behaviors.

Our goal was to achieve study participation on the part of twenty systems, geographically dispersed across the United States. We initially selected, at random, two metropolitan statistical areas (MSAs) from each of the ten U. S. Census Bureau regions, selecting no more than one MSA per state. (An exception was made for Region 2, consisting of New York, New Jersey, Puerto Rico and the U.S. Virgin Islands, where we selected two MSAs at random from New York.) Within each MSA, we attempted to identify organizations that fit the general definition of an organized delivery system provided by Shortell and colleagues (1994) and had at least some existing ties to rural providers. (Respondent organizations were allowed to use their own definitions of "rural" for this purpose.) To determine organizations within each of the selected MSAs that might meet these requirements, we called state health departments, hospital associations, and academic health services researchers in the states in which the MSAs are located. We rejected three of the MSAs originally selected at random because they did not appear to contain organizations that met our requirements. Where an MSA contained multiple organizations meeting the study requirements, we typically selected from among those organizations at random; however, organizations that had participated in past studies conducted by the research group were eliminated from consideration.

In contacting organizations identified through this process, we found that six did not meet study criteria. In each case, we attempted to identify and recruit another qualified organization. If we were unsuccessful in identifying an organization within a chosen MSA for participation in the study, we randomly selected another MSA in the census region and repeated the process. We

replaced seven MSAs for this reason. In three cases, organizations we contacted met our study criteria, but refused to participate in the study for various reasons (e.g. one organization was in the throes of a merger). In one other case, an organization agreed to participate but then did not complete our written survey. That organization was replaced as described above.

The mail survey collected data on the structure of the organized delivery system and its existing relationships with rural providers. The follow-up telephone interview gathered information on organizational strategies with respect to linkages with rural providers, as well as the evolution of these strategies over time and their likely future importance to the system. Nineteen participants completed the entire telephone interview, with one participant completing a partial telephone interview. In addition, six respondents participated in a day-long roundtable discussion that focused on the development and evolution of linkages between the urban-based systems and rural providers.

Characteristics of Study Participants

Four of the organized delivery systems that participated in the study are located in MSAs with populations of under 200,000, and two are in areas with populations of over two million; six operate in MSAs with populations of 300-400,000 (Table 1).

The MSAs in which the study participants operate are reasonably reflective of MSAs overall with respect to health resources, inpatient utilization, and per capita income. The average number of hospital beds per thousand population in MSAs across the United States was 4.86, as compared to 4.91 in the MSAs where the study participants are located. Hospital admissions per thousand averaged 140 across all MSAs, in comparison to 146 in the study MSAs. The average number of physicians per thousand population was 2.6 nationally versus 2.14 in the study MSAs.

Table 1

	Population of MSA (in millions) C 1995 ^a	HMOS in MSA C 1996 ^b	HMO Penetration (%) C 1996 ^b	System Owned Managed Care Product C 1997 ^c	Hospital Admissions Per Thousand Population C 1994 ^a	Hospital Beds Per Thousand Population C 1994 ^a	Physicians Per Thousand Population C 1995 ^a
A	.09	NA	NA	No	188	8.5	2.5
В	2.82	16	25.0	Yes	126	4.8	2.9
С	1.17	4	45.1	No	145	5.7	2.7
D	.16	2	5.1	No	237	5.7	7.2
Е	1.63	12	22.7	No	115	2.0	2.1
F	.42	4	15.5	Yes	109	3.5	1.3
G	.34	5	45.2	Yes	76	2.7	1.9
Н	.35	4	0.6	No	105	4.5	1.2
I	.31	3	21.6	Yes	164	6.2	2.2
J	.62	6	32.7	Yes	198	7.4	3.0
K	.35	5	9.3	No	144	3.9	1.4
L	.77	4	16.5	No	132	5.6	2.5
M	2.70	10	27.1	Yes	109	3.1	1.9
N	.17	7	10.9	No	120	3.9	2.1
О	.29	3	8.9	Yes	143	4.1	2.9
P	.18	5	29.4	N/A	80	2.4	3.6
Q	.40	7	16.7	Yes	99	3.5	1.5
R	1.62	12	52.8	Yes	92	2.2	1.9
S	1.30	8	35.9	Yes	98	2.8	2.1
T	.38	4	20.4	Yes	96	4.6	1.3

Sources: a. Area Resource File, 1997 (Bureau of Health Professions)

b. InterStudy Competitive Edge, 1997

c. Participant responses, 1997

Per capita incomes (in 1994 dollars) were slightly higher in the sample MSAs (\$19,832 versus \$19,593 in the national MSA average).

Seventeen of the twenty organized delivery systems in the study reported that a hospital was the foundation of their system. The predominance of hospital-centered entities is consistent with the observation of Shortell and colleagues (1994) that "his model is the most prevalent form, mainly because of the financial, organizational, and leadership resources and expertise that these systems posses" (p. 50). Twelve of the systems owned rural hospitals and twelve owned one or more rural primary care physician practices. Nine had their own managed care products. HMO penetration in the communities of study participants ranged from 0.6 percent to 53 percent. Five communities had HMO penetration of 11 percent or less, while five had penetration of greater than 30 percent. In general, urban organized delivery systems located in areas of greater HMO penetration were more like to offer managed care products themselves.

To be included in the study, the organized delivery systems had to have some linkages with rural providers. In fact, in most cases, these systems featured a large number and wide variety of both administrative and clinical linkages, as shown in Table 2. The most common linking mechanisms were the provision of marketing and financial management services, followed by specialty outreach clinics and physician practice management.

PART III: RURAL-URBAN RELATIONSHIPS

Strategy Development and Implementation

Consistent with the considerable variation in the characteristics (as described in the previous section) of the organized delivery systems participating in our study, we also found substantial differences in the motivations of those systems for linking with rural providers. The ways in which these linkages were developed and maintained also varied. In this section we

Table 2

Linkages Between Urban Organized Delivery Systems and Rural Providers

	Number of Systems (n=20)
Linking Mechanisms with Rural Providers	
Marketing services and assistance	18
Financial management services	16
Specialty outreach clinics	14
Physician practice management	15
Group purchasing	14
Hospital management	13
Reference laboratory services	13
Quality improvement consultation	13
Physician recruitment	13
Shared staff	10
Mobile technology	10
Teleradiology	6
Clinical Services Provided by Urban Systems in Rural	
Areas	16
Ambulatory primary care	15
Laboratory	13
Emergency medical services	13
Home health care	12
Acute inpatient care	12
Pharmacy	10
Mental health	9
Skilled or intermediate nursing care	9
Ambulatory specialty care	9
Disease prevention/health promotion	

synthesize these strategies into two different scenarios C labeled sub-regional and regional C that reflect two divergent views of the mission of an organized delivery system as expressed by study participants. The intent of these two scenarios is not to depict the exact strategy of any specific study organization, but rather to portray common components of strategies and the considerations underlying them.

Sub-regional Systems Scenario

Sixteen of our twenty study participants could be viewed as "sub-regional" systems. The overall mission of a sub-regional system tends to focus on maintaining or increasing the market share of the large urban hospital around which the system is configured. Quite often, this hospital has experienced a recent merger, either with another hospital in the same community or with a multispecialty group practice. This merger has increased the scale of the system and its complexity, creating some uncertainty about whether adequate numbers of patients will be available to sustain the reconfigured system.

Sub-regional system managers typically view their markets as the traditional market areas of the core urban hospitals. These market areas are characterized in terms of patient travel time, with one hour being typical, or as a radius of fifty miles. Systems located in western states view their markets as covering larger geographic areas (e.g. 100 miles), but still are constrained by how far patients will travel to receive services at the central urban inpatient facility.

A Shift in Rural Strategy. In this context, the primary rural strategy of sub-regional systems appears now to focus on strengthening existing linkages with rural physicians. This is a shift in emphasis from the previous dominant rural strategy of these systems, or their urban hospital precursors, which tended to emphasize creating linkages between the urban hospital and nearby rural hospitals through shared services, contract management, or ownership

arrangements. The sub-regional systems cite two reasons for this shift. First, rural hospitals within or at the margins of the system's service area have already committed to relationships with the system or its competitors. The opportunities for strengthening ties, or creating new ties, with these hospitals are limited. Second, the sub-regional systems now see rural physicians as the key to maintaining or enhancing patient flows to the system. This is particularly true for systems where urban physician practices are closely integrated with urban hospitals. In these systems, the physician viewpoint is well-represented in top-level management, and the need to strengthen linkages to rural physicians in order to maintain referrals to specialists within the system therefore receives greater emphasis.

Managed care often has played an indirect, but nevertheless important, role in this shift in strategic emphasis. The sub-regional systems typically are located in small to mid-sized MSAs. As Table 1 suggests, HMOs have begun to penetrate these communities but often are not yet a dominant presence. However, the initial success of HMOs has created expectations that they will continue to grow in importance; so has the support voiced by major employers for managed care plans and their willingness to introduce them as health benefit options for employees. The sub-regional systems are attempting to develop strategies that will permit them to maintain or increase their market share in the future with the expectation that HMO enrollment will continue to grow.

These sub-regional systems were also concerned about the actions of their competitors.

All of the sub-regional systems in our study identified two to five strong competitors from the same community or nearby communities that compete for the same fixed number of patients in the system's self-defined geographic service area. (Some systems also viewed academic medical centers, whether located nearby or at some distance away, as effectively competing for this group

of patients as well.) These competing organizations typically face challenges similar to those faced by study participants: adapting to a recent increase in the scale and complexity of the organization, and responding to environmental changes that have resulted in growing numbers of potential patients enrolled in managed care organizations. In response, system competitors also are attempting to strengthen linkages with rural physicians as one means of securing future patients and revenues. This has created what one system executive labeled a "race to rural," as competing systems attempt to "lock up" rural practices before competitors are able to do so.

Implementing Linkages With Rural Physicians. The sub-regional systems in our study can be divided relatively evenly between "leaders" and "reactors" in their efforts to redefine relationships with rural physicians. Sub-regional systems employing a "leader" strategy regard stronger linkages with rural physicians as critical to the attainment of system goals for future revenue growth or, at a minimum, the maintenance of present market share. They describe relatively structured approaches to strengthening rural physician linkages which take into account the market positions of competitors but are not necessarily driven by the actions of competitors. Leaders are more likely to emphasize the purchase of key rural physician practices, as opposed to contract management or "relationship building" through the provision of administrative or clinical support or participation in system-sponsored managed care networks. They are willing to invest money in these practices, often hiring additional personnel, including physicians, and upgrading facilities. These acquired practices are not necessarily expected to be "profit centers" themselves, but they are expected to benefit the system financially by generating referral and ancillary service revenues.

Sub-regional systems that adopt a "reactor" strategy typically cite the aggressive actions of competitors as the primary motivation for rethinking their own relationships with rural

providers. Stronger linkages with practices that are near the geographic boundaries of system service areas are pursued as a means of "walling off" the encroachment of competitors from outside the region. For physician practices within the region, stronger linkages are pursued when competitors threaten, or act, to establish such linkages themselves. This often occurs, for example, when a rural physician puts his or her practice "up for sale" or approaches the system to announce an intent to do so. In these cases, the system may purchase the practice as a preemptive move designed to thwart expansion strategies of competitors. In most cases, however, reactors are likely to first pursue options short of acquisition, preferring to strengthen linkages with rural physicians through the provision of administrative services or clinical support. To a greater extent than leaders, reactors expect that the rural practices they do purchase will break even within one to three years after purchase without including referral revenues in the calculation. Reactors are much more likely to assume that they would continue to receive a substantial portion of these revenues under any circumstances, and therefore should not pay "extra" for them by subsidizing the operating costs of rural practices.

While there is no common organizational structure used by sub-regional systems to pursue their rural strategies, three different models capture much of the observed variation across systems in this regard. Under the most structured approach, rural strategies are developed and implemented by the system's strategic planning and development group. Rural targets are identified and carefully evaluated with respect to their importance to the overall mission and strategic plan of the organization. Projections are made concerning the cost and revenue implications of an acquisition or other form of stronger linkage, and assessments are made of the likely actions of competitors with respect to each rural target. The group also evaluates

unplanned opportunities as they emerge using similar criteria. Some leaders, but no reactors, employ this type of organizational structure.

Under the second, and most common, organizational structure, rural strategies are implemented by a group charged with "network" or "affiliate" relations. This group develops proposals for network expansion that are considered as part of the system's budget and planning process each year and are reviewed by senior managers as part of that process. Because of the rapidly changing environments in which they operate, however, system managers recognize that some budget flexibility is required to respond to opportunities that might arise during the course of the year. When these opportunities are detected, group managers develop specific proposals that are brought forward to senior system managers for approval. Both leaders and reactors use this organizational structure.

Finally, a few sub-regional systems use relatively informal organizational structures for establishing and maintaining stronger rural linkages. They rely primarily on rural providers (hospitals or physicians) already linked to the system, or on urban-based specialists operating rural outreach clinics, for intelligence regarding practices that would be amenable to stronger, more formal affiliations. These practices are then approached on an informal basis to assess level of interest in different types of affiliation. Physician leadership in the system is relied on to assess "fit" with the system and to sell the practice on the advantages of a stronger affiliation. In these cases, the system CEO often makes the final decision about affiliation but, because of competing claims on the CEO's attention, the strengthening of rural relationships receives modest consideration. This process could be characterized as "opportunistic" and relatively unstructured. It is not used by leaders, but is used by some reactors, especially in markets where

competitive pressures are not as intense or the influence of managed care organizations is just beginning to be felt.

Regional Systems Scenario

A very few of the organized delivery systems in our study could be classified as "regional" systems. These systems are much larger, by almost any measure, than the sub-regional systems discussed above. However, the characteristic of these systems that most clearly distinguishes them from sub-regional systems, and affects their relationships with rural providers, is their definition of market area. Regional systems do not see themselves as competing over a fixed number of patients within a geographic area that essentially is defined by patient travel time to a central facility. While this paradigm may have, in the past, dominated system strategy with respect to relationships with rural providers, it now is only one factor influencing these relationships.

Within the small group of regional systems in our study, there is no one explanation for why they have developed, over time, a much broader view of geographic market area than the sub-regional systems. However, it is clear that the growth of managed care has helped shape this view. For some of these systems, having a broader view of market area has manifested itself historically in the establishment of relationships with providers over a considerable geographic area, and these relationships have facilitated the more recent development of a regional managed care plan. For others, the strategic decision to develop and aggressively market a managed care plan has contributed to, or reinforced, a broader definition of market, in both a "geographic" and a "product" sense. In either case, regional systems now see the development and growth of the system's managed care product as an integral part of what the

system does, rather than as an essentially defensive strategy to protect against the erosion of the revenues of providers in the system.

Rural Strategy. As with sub-regional systems, the rural strategies of regional systems typically began with linkages to rural hospitals. However, in at least some cases, these hospital linkages extend well beyond the service area of the system's large tertiary facility and reflect a historical commitment to supporting rural community health care systems. Also, as with sub-regional systems, linkages with rural providers have gradually shifted to an emphasis on rural physicians, in part due to a lack of opportunity for establishing linkages with additional hospitals and in part due to an increased recognition of the strategic importance of stronger linkages to rural physicians.

Unlike the case of sub-regional systems, however, stronger rural physician linkages are not desired by regional systems primarily to solidify existing referral streams to urban clinics and hospitals in the system. Instead, the driving force behind the strengthening of existing ties with rural physicians, and the establishment of new ones, is more likely to be a desire to increase enrollment in the system's managed care plan by expanding the geographic coverage of the plan's provider network. In this case, managed care plans are likely to be the competitors whose actions are most important in defining rural strategy with respect to physician linkages. The managed care product offered by the regional system competes with other managed care plans to be included in the health benefits offerings of public and private sector employers. An important element in this competition is the geographic coverage of each plan's provider network; many large employers, especially state governments, favor plans with networks that cover an entire state, or large portion of a state. A second important consideration is the ability of the managed

care plan to effectively manage the costs of care delivered by its physician networks. Both of these factors affect the nature of the linkages that regional systems seek with rur al physicians.

Implementing Linkages With Rural Providers. The emphasis given to the needs of the system's managed care plan can lead systems to explore a variety of different arrangements with rural physicians. The simplest of these arrangements is a contract with a rural physician to participate in the system's managed care network. If the rural physician's practice is critical to network development, the contract may also involve practice support provided by the system, such as vacation coverage or help with billing and collections, with little, if any, shared financial risk.

Under a second type of arrangement, the physician may be linked to the system through participation in a Physician-Hospital Organization that contracts with the managed care plan on a risk basis. While the rural physician is a "business partner" with the system under this relationship, the linkage that this establishes between the rural physician and the regional system is relatively weak.

A third alternative is for the system to purchase the rural physician's practice. All of the regional systems in our study have pursued this strategy in specific cases. Purchasing rural practices is considered a reasonable approach in any of several circumstances: when a practice is critical for insuring that the managed care network can provide services in a particular rural area; when a practice critical to network coverage is experiencing financial difficulties and the physician may move; when a practice in a growing rural area wishes to expand but needs capital and help recruiting new physicians; or, when a practice in the network is at risk of being purchased by a competing managed care plan.

In summary, the key consideration in most these cases is the development or maintenance of the managed care network rather than, as with sub-regional systems, the referrals the practice may generate for urban providers. A second benefit to the regional system of owning the rural physician practice is that the stability of the network can be emphasized in negotiations with purchasers.

Finally, although this happens relatively infrequently, regional systems sometimes establish new physician practices in rural communities. This tactic can occur as an outgrowth of contract negotiations with a large purchaser; the regional system may need to guarantee network coverage in a rural area where there are no physician practices or where existing practices refuse to become part of the network of the managed care plan.

The organizational structures used by regional systems to implement stronger linkages with rural physicians vary, but usually involve individuals responsible for development and maintenance of the managed care plan's provider network. When the plan's network is built around an urban-based group practice, this person may be a physician in a management role in that practice. In other cases, it is a manager within the managed care plan sponsored by the system, working in consort with the system's strategic planning and development group. As one would expect, decisions about contracting with rural physicians individually, or through a PHO, are treated as relatively routine business decisions. Proposals to purchase a physician practice, or establish a new practice, receive more attention because they require commitments of scarce organizational capital. In markets where price competition among managed care plans is intense, proposals of this type are sometimes rejected in favor of other uses of system resources. When a decision is made by a regional system to acquire or establish a rural physician practice, the

process moves relatively quickly, with the limiting factor typically being the need to educate the rural community about the change before it is finalized.

PART IV: THE FUTURE FOR LINKAGES BETWEEN URBAN ORGANIZED DELIVERY SYSTEMS AND RURAL PROVIDERS

The future for linkages between urban organized delivery systems and rural providers clearly depends on a large number of factors that could influence the missions and strategies of these systems. However, many of our study participants affiliated with sub-regional systems expressed the view that the "race to rural" may be over, or largely over; the rural providers in their geographic market areas were all attached to one system or another and little switching of rural providers between systems in the future was expected.

One a major question facing these sub-regional systems, as they move forward, is how to manage their existing rural physician linkages effectively. Virtually all system executives in our study commented on the difficulty of achieving integration of rural physicians with urban-based organized delivery systems. In addition to general barriers that need to be overcome to achieve clinical integration within organized delivery systems, two issues related specifically to rural practices were noted. First, the geographic distance between rural physician practices and urban areas was seen as an important limiting factor in the ability of urban-based systems to involve rural physicians in governance issues and thereby achieve "buy-in" to the mission and goals of the system. Second, while rural physicians typically appreciated the administrative support that they derived from their linkages to urban-based systems, they strongly valued their clinical autonomy. Consequently, they were not all receptive to clinical integration efforts.

We also found that, for many of the sub-regional systems in our study, clinical integration was not a goal with respect to the evolution of linkages with rural physicians. These linkages were seen as providing support, through patient referrals, for the urban-based organized delivery

system, but rural practices were not necessarily viewed as an integral part of that system. The clinical integration efforts that were underway in these sub-regional systems were focused on urban providers, particularly where the system had just been formed or had expanded through the recent merger of two hospitals or a hospital and an urban multispecialty group practice.

A second major question relating to the future of urban system linkages with rural providers is whether sub-regional systems will evolve to become regional systems. The answer to this question will depend on whether the urban hospital is able to maintain its position as the system's central component. Many of the sub-regional systems in our study have managed care plans that, if they grow in importance, could displace the hospital as the dominant force in the system. If this occurs, future relationships with rural providers are likely to revolve much more strongly around issues relating to risk-sharing, utilization management, and quality improvement processes, rather than around referrals to the urban hospital or group practice. While this scenario certainly could develop over time, it does not appear to be on the immediate horizon for the sub-regional systems in our study. It seems more likely that these systems will increase their contracts with managed care plans, and that rural providers will be included in the provider network under these contracts. Ultimately, these arrangements could have the same impact on the nature of linkages between rural providers and urban organized delivery systems as would growth of the systems' own managed care arrangements.

In conclusion, the findings of our study clearly indicate that, in order to understand the forces shaping rural health care systems in the future, it will be important to track the evolution of linkages between urban-based organized delivery systems and rural providers. In addition to documenting changes in the nature of these linkages, a better understanding is needed of the benefits such linkage confer, and the constraints they impose, on rural providers. Most critical,

however, is the need to assess the impacts of these evolving linkages on the health care systems of rural communities and on the health care available to rural residents.

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