

# RURAL HEALTH NETWORKS: CONCEPTS, CASES AND PUBLIC POLICY

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## PREFACE

Rural health providers have participated in consortia and federations with varying success for at least forty years. Such interorganizational forms have been studied in some depth by rural health services researchers; however, a recent evolution of such voluntary associations – the integrated rural health network – has not received similar scrutiny to date. Yet, the development of the integrated rural health network has been accompanied by widespread confidence in the ability of these networks to improve rural health care.

We use the term “integrated rural health network” to designate a voluntary entity formed by two or more different types of health care providers in order to plan, coordinate, provide and/or evaluate services to a defined rural population. The stated intent of such an entity typically is to reduce costs, improve quality of care, assure access, share risks and/or enhance the competitive position of participating providers.

The confidence in integrated rural health networks appears to be spawned, in part, by two beliefs: first, that networks improve system-wide efficiency and effectiveness; and, second, that the benefits of network cooperation accrue both to provider members and to the public at large. These conclusions reflect intuition rather than any documented evidence. Nevertheless, integrated rural health networks are increasingly being chosen by providers and policymakers alike as a preferred strategy for strengthening rural health care delivery systems. For that reason alone, they deserve greater study.

The ultimate goal of policymakers, and of local providers participating in networks, is to strengthen the delivery of health care services delivery in rural areas through such networks. It is not possible, however, to pursue this goal in a vacuum. Existing laws and market forces limit and shape networks from the outside, just as power and authority relationships influence networks from within.

Although some providers in some rural areas have a long history of cooperation, only recently have these relationships been reified by formal structure. Despite the wide and growing interest in networking in rural areas, few functioning rural health networks have an operational history. The small number of integrated networks and the relative newness of such networks are but two of the problems associated with their study. Other issues include the heterogeneity of membership and the difficulty of measuring network performance.

*Rural Health Networks: Concepts, Cases and Public Policy* is one of the first attempts to systematically study integrated rural health networks. It describes and analyzes in detail the cooperative efforts of selected rural providers. In addition, we propose a definition of integrated rural health networks, highlight key aspects of network formation and development, review the lessons we learned from the case studies, and discuss the public policy implications of these networks. Although not a manual for the development of rural health networks, this work may be useful to persons attempting to start up such networks.

We have divided *Rural Health Networks: Concepts, Cases and Public Policy* into three parts. Part One explores a definition of integrated rural health networks and discusses the motivations for the formation of such networks. This section may be of greatest interest to other researchers. Readers who are primarily interested in the case studies and their implications may wish to skim Part One and focus on Parts Two and Three. In Part Two, we present case studies of six rural multi-provider

arrangements. We studied these varying arrangements to improve our understanding of rural health networks and to examine the issues that arise in their formation and operation. Although the providers in each of these arrangements are integrated to some degree, not all of the arrangements are integrated rural health networks as we define them. Part Three synthesizes the findings from the case studies and then explores public policy issues related to integrated rural health network development.

We hope this book will contribute to a better understanding of what integrated rural health networks are and what they are not. A conceptual understanding of integrated rural health networks is essential for future empirical studies that seek to describe these networks' structure and operation, and to measure their performance. Objective data will help verify, temper, or challenge the confidence many providers and policymakers now have in the concept of integrated rural health networks.

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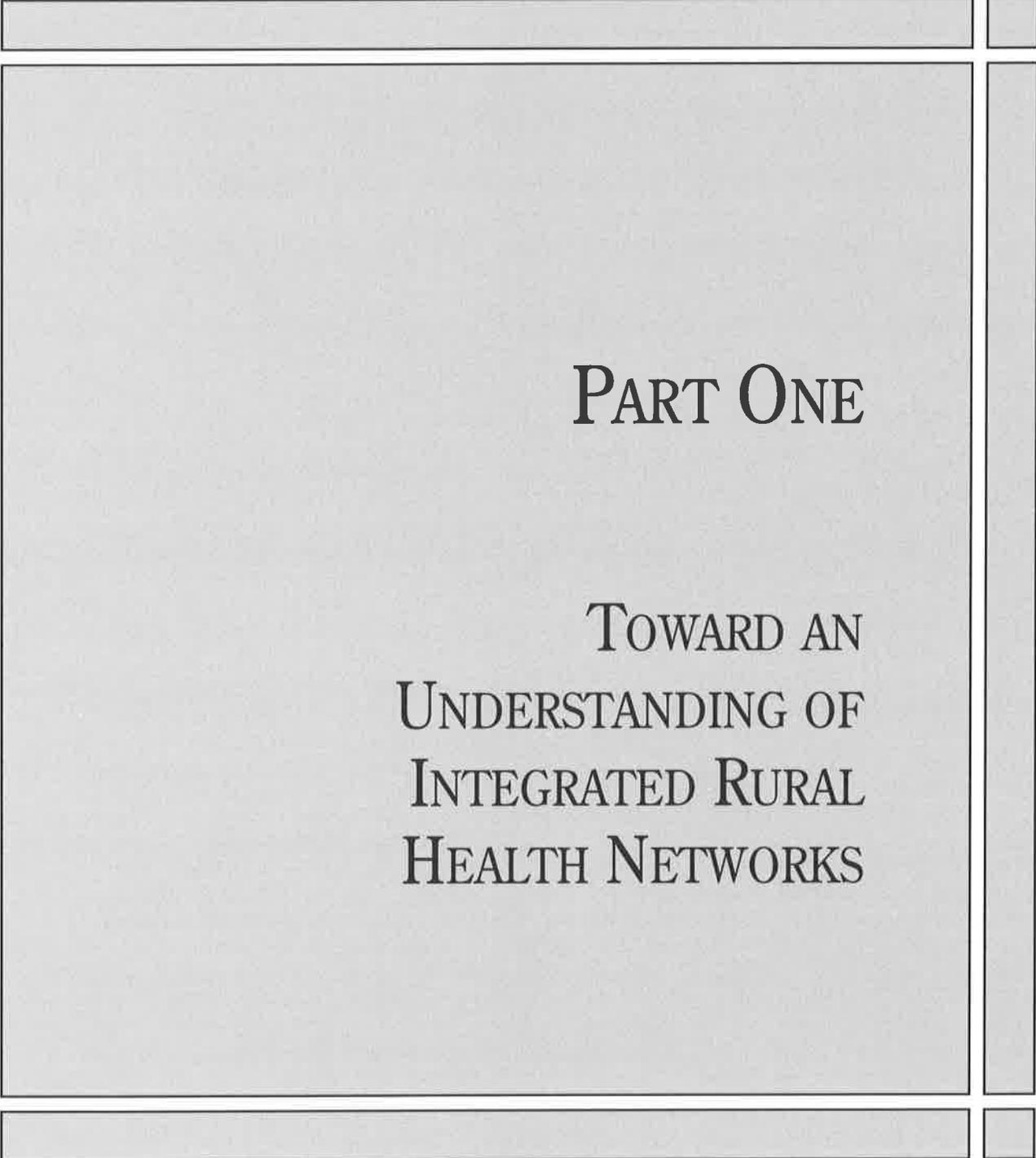
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PART ONE

TOWARD AN  
UNDERSTANDING OF  
INTEGRATED RURAL  
HEALTH NETWORKS



## INTRODUCTION

A new organizational form is beginning to appear in rural areas. Rural health researchers and policymakers have bestowed several different names on this arrangement: integrative alliance (Zuckerman, Kaluzny, and Ricketts, 1995), organized delivery system (Shortell, Gillies, and Anderson, 1994), integrated health care delivery system (Pointer, Alexander, and Zuckerman, 1994), integrated delivery system (Dowling, 1995; Hurley, 1993), integrated service network (Shortell et al., 1994), integrated delivery network (Shortell et al., 1994), and community care network (AHA, 1992). The variety of names used to identify this emerging organizational form is a potential source of confusion. For example, when we use these different names are we talking about different kinds of organizations? Do alliances and systems and networks really differ from one another and, if so, in what ways?

The terms "alliance," "system," and "network" each describe an interorganizational relationship, but the distinctions among them in the literature are not clear and they are sometimes used interchangeably. Each of these words requires one or more adjectives to bring its meaning into sharper focus. The combinations of adjectives most frequently selected to enhance our understanding of the form are "integrated" or "organized," combined with "service" or "delivery." Various arrangements of these nouns and adjectives describe an organization composed of multiple entities that work together to coordinate functions and activities across operating units to deliver health care services to patients. In their most complex state, these organizations may also accept clinical and fiscal responsibility for the outcomes of care and the health status of the populations they serve (Shortell, Gillies, Anderson, Mitchell, and Morgan, 1993).

Our book focuses on a particular variant of this new organizational form: integrated rural health networks. For the purpose of this book, the word "network" was selected over "system" and "alliance" to depict these interorganizational arrangements. Although definitions for these terms are far from precise, "system" implies a formal, permanent interorganizational arrangement in which there is common ownership of all or most of the components, whereas "alliance" implies a voluntary, loosely coupled arrangement of autonomous partners who come together to solve problems on an *ad hoc* basis. A "network" falls between these two organizational forms. It is a voluntary, relatively permanent arrangement based on a range of organizational structures that may become increasingly formal over time, depending on the success of the network.

Understanding how integrated rural health networks develop and function is important, because many people regard these networks as a powerful new tool for

overcoming the fragmentation of health services delivery in rural areas. In theory, such a network can establish new structures within which providers and communities can plan, coordinate, and possibly deliver and finance health care services. To date, however, little is known about the structure of integrated rural health networks or the possible effects that structure might have on performance.

Because the participants in rural health networks are drawn from a much smaller pool than those of urban networks, rural networks may have special problems that affect their structure and performance. For example, rural health networks may find it more difficult than urban networks to recruit the desired mix of network partners. In an urban area, if one provider refuses to cooperate with a network, another similar provider may be willing to take its place. Many rural areas will not have the luxury of selecting participants from among multiple providers. Rural providers who participate in rural health networks may do so for a variety of reasons, including material inducements, opportunities to increase prestige or personal power, or a belief that participation in cooperative networks is the "right thing to do." Integrated rural health network participation is voluntary. Therefore, the factors that initially induced participation must be maintained over time to preserve the ties that participants have to the network. The dual problems of inducing membership and rewarding participation may present special challenges to rural networks.

This book represents a first step toward improving the understanding of what integrated rural health networks are, how they are structured, what they do, and how effectively they do it. The remainder of Part One lays a foundation for the rest of the book by examining various motivations for participating in networks and considering certain fundamental concepts upon which to base a definition of integrated rural health networks.

## MOTIVATIONS FOR FORMING NETWORKS: THEORETICAL PERSPECTIVES

Several rationales have been suggested to explain the motivation of network participants to cooperate. The most common of these theoretical perspectives are 1) resource dependence, 2) transaction costs, and 3) organization-environment relations (D'Aunno and Zuckerman, 1987).

### Resource Dependence

The resource dependence model assumes that, in a turbulent environment, organizations will develop

strategies and structures to reduce uncertainty and dependence on powerful and potentially controlling elements in the environment (Thompson, 1967; Pfeffer and Salancik, 1978; Kimberly, Leatt, and Shortell, 1983; Zuckerman and D'Aunno, 1990). In other words, administrators of organizations "manage their environments as well as their organizations" (Aldrich and Pfeffer, 1976:83). Because organizations frequently cannot produce or control all essential resources internally, they must necessarily enter into exchange relationships with external parties to acquire resources, or at the very least, to reduce dependence on them. These exchange relationships form the basis of interorganizational collaboration. Dependence-reducing strategies include contractual arrangements, joint ventures, mergers, and interlocking directorates (D'Aunno and Zuckerman, 1987). Integrated rural health networks may be built upon the foundation of similar linking mechanisms.

### Transaction Cost

This theory holds that health care providers participate in interorganizational combinations in an effort to reduce their transaction costs. Transaction costs are defined as "the costs of running the economic system" (Arrow, 1983:134). Distinct from the costs of product or service production, transaction costs represent the expenses incurred for the transfer and use of information, coordination of activities, and monitoring of output both inside a single organization and between two organizations. Examples of transaction costs include preparing and maintaining patient records (information), patient and staff scheduling (coordination), and quality assurance (monitoring), as well as a host of other functions such as continuing education and materials management.

Transaction cost is an increasingly popular explanation in the health care literature for the decision of hospitals to vertically integrate (Mick and Conrad, 1988; Conrad and Dowling, 1990). Markets, the theory suggests, are the most common way to establish linkages between organizations, wherein one organization serves as a "buyer" and the other as a "seller" within a single exchange. High transaction costs, however, limit the utility of some interorganizational exchanges. In these cases, transactions are moved out of markets and into hierarchies (i.e., firms) to achieve greater efficiency (Williamson, 1975; Powell, 1990). Moving their transactions into hierarchies allows hospitals to decrease uncertainty, both by reducing the number of competitive exchanges and by institutionalizing decision rules.

Put another way, each organization, weighing its internal strengths and weaknesses, assesses whether it is more advantageous to produce a function or service internally (the "make" decision) or to obtain it externally (the "buy" decision). In some cases, buying functions or services externally may be less expensive, but may increase uncertainty. Purchasers may be unable to rely on supply availability and price stability. The trade-off for "making" the function or service may be accepting a somewhat higher cost in exchange for greater certainty.

In other cases, the costs of "buying" functions or services externally, regardless of their availability, may be too great; thus an organization may decide to produce them internally. Organizations decide whether to "make" or "buy" functions or services on a case by case basis. Transaction costs are variable and shift over time. Therefore, an essential component of the function of managers is to assess periodic changes in transaction costs and to re-evaluate "make" or "buy" decisions (Mick and Conrad, 1988).

Various linkages that fall between the extremes of a market and a hierarchy may help organizations moderate their transaction costs. Such linkages include long-term contracts and interorganizational structures that incorporate suppliers into the buyer's organization. Integrated rural health networks constitute one form of these "hybrid" arrangements (Borys and Jemison, 1989).

### Organization-Environment Relations

According to Meyer (1978), "The organizational effects and effectiveness which really operate in social life to regulate organizational survival are matters of political agreement and social definition negotiated between organizations and their environments" (p. 364). Interest in this negotiated relationship between organizations and their environments led to the development of institutional theory. Institutional theory holds that organizations depend on their environments for resources, but that environments will only support organizations they deem legitimate. To increase legitimacy — and thereby improve their chances for survival — organizations behave in ways that reflect the expectations of their environments. For example, health care providers choose to seek external accreditation from organizations such as the Joint Commission on Accreditation of Healthcare Organizations in part because accreditation is a powerful sign and symbol of organizational competence.

Some environmental expectations, such as belief in the effectiveness of medicine, are pervasive and have become incorporated into the social belief system (Meyer and Rowan, 1977). These beliefs and the social "rules" they spawn may be taken for granted, bolstered by public opinion, or incorporated into laws and regulations.

Certain of these environmental beliefs have been characterized as "rationalized myths" (Meyer and Rowan, 1977). "Rationalized myths" are beliefs that are "rational" inasmuch as they are elaborated statements of rules and procedures to be followed in achieving a given end. They are "myths" because (a) they cannot be empirically verified, and yet (b) they are widely believed" (Scott, 1981:141).

Organizational structures and strategies embraced by environments may become institutionalized; they are adopted by organizations because their legitimacy is assumed (Oliver, 1991a; Mohr, 1992). Because the formal structures of these organizations reflect the rationalized myths of their institutional environment instead of the demands of their work activities, those structures are selected without regard to technical efficiency or organizational effectiveness (Meyer and Rowan, 1977). As a result, the strategies chosen by an organization may prove ineffective or may even harm that organization.

Belief in the efficacy of networks is an example of a rationalized myth. There is widespread belief in the ability of networks to improve access to and quality of health care and to control health care costs, yet virtually no empirical evidence exists to support these conclusions. Thus, rural health care providers may elect collaborative strategies primarily in an attempt to mirror the expectations of the environment.

There can be little doubt that belief in the effectiveness of networks has become institutionalized by the environment as a structural expression of other deeply held institutional beliefs, e.g., "health care providers should cooperate rather than compete" and "joint planning will rationally distribute health care services thereby reducing cost and improving access." The endorsement of "Community Care Networks" by the American Hospital Association; the support of the Catholic Hospital Association for "Integrated Delivery Networks"; the Clinton administration proposal that care be delivered by "Accountable Health Plans"; and the coalescence of providers and payers in some urban markets: All of these environmental cues reinforce the notion to rural health care providers that participation in networks is an effective and valuable strategy.

Once an organization that is perceived as successful selects a strategy, other organizations begin to mimic that strategy. This phenomenon of environmental adaptation, termed a "bandwagon effect" (Mick and Conrad, 1988) or "mimetic isomorphism" (DiMaggio and Powell, 1983), is driven, in part, by the search for legitimacy. However, organizations joining the bandwagon have no way of assuring that the strategies they mimic have been responsible for the success of the successful organization — or that the external and internal conditions of the two

organizations are roughly equivalent (Mohr, 1992). The quest for legitimacy and the mimetic impulse among organizations almost certainly have contributed to the expansion of health care networking activity in rural areas.

Each of these rationales — resource dependence, transaction cost, and institutional theory — may explain the motivation for the recent formation of integrated rural health networks. Other, less theoretical, reasons may also help explain why integrated rural health networks form. For example, the aging of the population and the increased prevalence of chronic disease have increased the need to enhance continuity between different levels of care; in some cases, this need may serve as an important motivator for the formation of integrative arrangements, especially in rural areas where the elderly make up a disproportionately high segment of the population (Conrad and Dowling, 1990). No single reason is likely to explain fully why integrated rural health networks form. Rather, they are likely to form for a variety of theoretical and practical reasons that vary across networks, regions, and time.

## CHOOSING NETWORK PARTNERS: THE ROLE OF DIVERSITY

Zuckerman, Kaluzny, and Ricketts (1995) divide alliances in health care into two general types. Their categorization of alliances could as easily apply to networks. The first type, a "lateral" or "service alliance" (Kanter, 1989), is composed of similar types of organizations serving different geographical markets with similar products. Moscovice and his colleagues (1995) studied one type of lateral or service alliance, the rural hospital network. They found that rural hospital networks are a popular, low-cost strategy for dealing with an uncertain environment. Network survival is enhanced by the mutual resource dependence of members and the presence of a formalized management structure. However, this type of network, on average, fails to produce short-term economic benefits for its members.

The second type is characterized as an "integrative alliance." These alliances or networks are composed of organizations that come together "for purposes largely related to market and strategic position and securing competitive advantage" (Zuckerman et al., 1995:57). The integrated rural health network, as the name implies, exemplifies this second type of collaborative strategy. Organizations that join integrative networks may be pursuing either horizontal or vertical integration strategies, or both. Integrated rural health networks are formed by multiple types of health care providers. They

may be composed of several members of the same type (e.g., multiple clinics or hospitals and others) but, unlike lateral combinations, they are not composed exclusively of the same type of members.

Horizontal and vertical integration are corporate strategies that single firms adopt. Thus, the terms "horizontal" and "vertical" incorrectly describe networks. Individual firms may pursue strategies of horizontal or vertical integration in joining a network, but only under certain specific circumstances do networks themselves engage in horizontal or vertical integration strategies. For example, when a rural hospital engages in horizontal integration, it combines or shares all or part of its services with another hospital or hospitals. If several hospitals agree to combine or share services with each other, each of them is employing a strategy of horizontal integration.

This may be viewed as a network of horizontally integrating hospitals (a lateral association). It is the hospitals that are horizontally integrated and not the network itself. Despite this distinction, networks composed of single types of providers are frequently referred to as "horizontal networks," a term that will be avoided in this book in favor of "lateral association" or "lateral network."

Because horizontal networks are assumed by many to be composed of only one type of member, networks composed of different types of members are often referred to as "vertical networks." This usage is unfortunate, because it produces confusion: Vertical integration means one thing when applied to networks and another when applied to individual firms. Harrigan (1985) defines vertical integration as "a chain of processing" from raw goods to consumer. To reduce uncertainty in regard to the supply of inputs and the distribution of outputs, organizations attempt to control various stages of production by ownership or long-term contracting. These linkages to other organizations constitute vertical integration.

A vertical network might be defined as one composed of multiple, autonomous, vertically integrated firms that link their inputs and outputs in such a way that the outputs of one become the inputs of another. Although not likely, this arrangement could occur in rural areas. In such an arrangement, each rural participant, either through ownership or long-term contracts, would control various stages in the production of a final product that is itself an input in the production process of another participant.

Because health care products and stages of production are not clearly defined, however, it is difficult to link provider outputs and inputs in a serial fashion (Clement, 1988). For example, a patient may be admitted to a hospital from either a nursing home or a physician's

office; a patient may be admitted to a nursing home from either a hospital or a physician's office. With no set sequence of inputs and outputs, it is difficult to link the outputs and inputs of multiple providers in a serial fashion.

Vertical networks, therefore, imply more than simply networks composed of different types of participants. A vertical network is defined properly by the relationship of the participants' inputs and outputs, not simply by the diversity of membership. While it is theoretically possible for mature rural health networks to be vertically integrated, many other types of integrative linkages that exist among rural providers are less prescriptive and more likely to occur. Because vertically integrated rural health networks comprise only a narrow subset of the structural possibilities of the form, we prefer the term "integrated rural health network" to the term "vertically integrated rural health network": The former is a considerably more inclusive term.

Pointer, Begun, and Luke (1988) describe yet another type of interorganizational relationship that is more applicable to the notion of integrated networks. Organizations in symbiotic combinations support each other in the provision of their services and help each other to achieve joint competitive advantage. These combinations frequently occur between organizations operating in different segments of the same industry. Participating organizations have no significant exchange of inputs and outputs, and competition between participants is limited or non-existent (Pointer et al., 1988). In the health care industry, for example, participants in a symbiotic combination might include physician clinics (primary and specialty medical care), hospitals (acute care), and nursing homes (long-term care). At the margins, these providers may compete for some services (e.g., a physician-sponsored laboratory may compete with a hospital-based laboratory, or hospital swing beds may compete with a nursing home). However, in the provision of their core services these organizations typically do not compete. As the etymology of the word symbiosis suggests, the participants in symbiotic combinations live together in close proximity. Symbiotic combinations therefore may rely on local organizations for membership to a greater extent than horizontal or vertical integration strategies.

Typically, the members of integrated rural health networks pursue symbiotic combinations (rather than horizontal or vertical strategies) to accomplish activities that (a) they cannot accomplish by themselves, and (b) they regard as of strategic importance to their continued viability. The goal of these combinations is to integrate functions and activities in order to provide, or arrange to provide, a coordinated continuum of services to a defined population (Shortell et al., 1993).

## THE CONCEPT OF INTEGRATION

The word "integration" means bringing together previously separate and independent functions, resources, and organizations into a new unified structure (Morris and Lescohier, 1978). Integration can be achieved either by consolidating disparate functions, resources, and organizations under single corporate ownership, or by coordinating the functions and resources of independent organizations through governance structures that are more flexible than ownership (Mahoney, 1992; Zuckerman and Kaluzny, 1991). Network integration has two distinct dimensions: the type of integration employed, and the degree to which the members are integrated.

Shortell, Gillies, Anderson and their colleagues suggest that members of networks manage three different types of integration: clinical, functional, and physician-system integration. Within each of these types of integration, network participants must determine the degree to which functions and resources should be combined (Devers, Shortell, Gillies, Anderson, Mitchell, and Erickson, 1994; Shortell et al., 1994). "Clinical integration" means the coordination or combination of patient care services across various units; "functional integration" means the coordination or combination of key support and administrative functions and activities; and "physician-system integration" means the identification of physicians with the system as shown by their active participation in planning, management and governance (Shortell et al., 1994). These three types of integration are interrelated. For example, clinical integration may be promoted by certain kinds of functional integration and by the active participation of physicians in system decision making (Shortell et al., 1994).

Integrated rural health networks may engage in any combination of clinical, functional, and physician-system integration. No apparent hierarchy exists among the types of integration. Similarly, no one critical path must be followed to assure success. Some networks may participate in only one type of integration, while others may employ all three. The degree to which participants are integrated may vary among the types of integration.

To these three types of integration a fourth type must be added — financial integration. As defined above, functional integration includes the combination or coordination of financial management activities, but it does not include true financial integration. "Financial integration" means sharing the risk of losses and profits across the various parts of the network. Distinctive characteristics of financial integration will include all or some of the following: 1) an economic investment by participants; 2) acceptance by participants of operating risk (i.e., the possibility that costs may exceed revenues for joint activities); and 3) acceptance by participants of

business failure risk (i.e., the possibility that creditors will be owed money when joint activities cease) (Ronai and Hudner, 1992). A variety of network joint ventures and partnerships may result in financial integration. Integrated rural health networks with a managed care component almost certainly feature some degree of financial integration.

The impact on autonomy is also central to the idea of integration. Pfeffer and Salancik (1978:95) observe that "The price for inclusion in any collective structure is the loss of discretion and control over one's activities." When an organization engages in a cooperative linkage with another organization or organizations, it limits its organizational autonomy by reducing the freedom to make its own decisions about the use and allocation of its internal resources. The organization that joins a cooperative effort commits time, personnel, capital, and other resources to the venture; those resources then cannot be used for other purposes. The organization may also relinquish some amount of decision-making authority to external authority. For example, participants in an integrated rural health network may agree to abide by planning decisions made jointly, or to perform according to externally imposed clinical guidelines.

The amount of participant autonomy an organization forgoes in joining an interorganizational network ranges along a continuum from a very small amount to a nearly complete abdication of organizational discretion. According to Oliver (1991b:947), "The degree to which interorganizational relations reduce an organization's autonomy is a function of the type of relationship that an organization establishes." Higher degrees of integration typically reflect greater contributions of autonomy to the network.

## DEFINITION OF INTEGRATED RURAL HEALTH NETWORKS

For the purpose of this book, we define an integrated rural health network as "a formal organizational arrangement among rural health care providers (and possibly insurers and social service providers) that uses the resources of more than one existing organization and specifies the objectives and methods by which various collaborative functions will be achieved." This definition has four components:

1. **The organizational arrangement is formal.** "Formal" in this case means explicit and legal. Examples include memoranda of understanding, contracts, incorporation of a network in which the individual members are shareholders (if for-profit) or board

members (if not-for-profit), and consolidation of functions by acquisition or merger up to consolidation into a single entity.

**2. The membership is specified.** Integrated rural health networks are composed of a variety of health care providers, (i.e., they are not composed of only one type of provider, such as only hospitals or only community health centers). They may also include insurers and social service providers. Urban members may participate as network members as long as at least two rural providers also participate as members.

**3. Resources are committed by members.** Members contribute resources (e.g., money, time) to the network (but not necessarily in the same proportion by all members). The network is composed of already existing organizations. New organizations created by the network (e.g., a mobile imaging service or a health maintenance organization) are not considered members of the network; rather, they are activities of the network.

**4. The network is purposeful.** A network is more than a mission statement: It must be productive. Networks perform functions and activities according to an explicit plan of action. Examples of collaborative functions range from sharing services to coordinating and integrating services provided by member organizations to the direct provision and financing of care.

This definition is broad enough to cover a wide variety of rural health networks, but, at the same time, it is narrow enough to exclude a number of interorganizational arrangements. **Figure 1** depicts a spectrum of integrated interorganizational arrangements. Integrated rural health networks occupy one band in this spectrum. At one end of the spectrum, rural providers join together voluntarily to achieve one or a limited number of objectives. Each of the participants retains its autonomy, and the roles and responsibilities of members and the purposes of the network are not set forth in a written agreement. This is an informal network.

At the other end of the spectrum, multiple provider types work together, cooperatively integrating a variety of functions and patient services. The participants are not autonomous; all of the functions and services are owned by a single corporate entity. The roles, responsibilities, and relationship of participants to one another are outlined in corporate documents such as articles of incorporation, bylaws, and policies and procedures. A mission statement delineates primary objectives. This arrangement is known as an integrated system.

As hybrids, integrated rural health networks occupy the middle ground between informal networks and integrated systems. Integrated rural health networks are formal networks composed of autonomous members who coordinate and provide functions and services under the terms of written agreements that specify the roles and responsibilities of members and the purposes of their joint action.

**FIGURE 1**  
Spectrum of Integrated Interorganizational Arrangements

Type of Arrangement:	Informal Network	Formal Network	System
Attributes:	Joint action	Joint action	Joint action
	No written agreement	Written agreement	Written agreement
	Individual autonomy	Individual autonomy	Common ownership
Exchange Linkages:	Market	Hybrid	Hierarchy

## KEY DIMENSIONS OF INTEGRATED RURAL HEALTH NETWORKS

Even though the definition just proposed limits the number of interorganizational arrangements that may be considered integrated rural health networks, integrated rural health networks still exhibit considerable diversity: They feature a variety of participants, funding sources, activities, and governance and management structures. Despite their diversity, the temptation to claim that each network is unique should be avoided. While each network may have individual characteristics that set it apart from other networks, each network will also have features in common with some other networks, as well as other features in common with all integrated rural health networks.

Three key dimensions allow us to distinguish among integrated rural health networks: 1) integration, 2) complexity, and 3) assumption of risk. "Integration" refers to the degree to which transactions that were formally conducted through market exchanges are now internalized (Williamson, 1975). Higher levels of integration restrict participant autonomy. Autonomy, in this context, may be defined as the discretion of a participant to make choices in allocating its internal resources, and its freedom to invest its resources in activities unrelated to network obligations or expectations (Oliver, 1991b).

"Complexity" refers to variation in the characteristics of participants and the types of health care services offered (Harrigan 1984; 1985). And "assumption of risk" indicates whether or not a network shares financial risk for the services it provides.

### Integration

The nature of the interorganizational linkages that bind the participants together reflects a network's degree of integration. This dimension distinguishes networks that rely primarily on coordination to achieve integration from those that employ a strategy of functional and structural coalescence. Networks with higher degrees of integration behave more like a single firm than networks with lower degrees of integration.

Several different approaches have been taken to measure the degree of integration that exists in network and system arrangements (Devers et al., 1994; Coddington, Moore and Fischer, 1994). Shortell (1988) proposes six criteria for assessing the degree of integration:

1. A common culture shared by all members
2. Network-wide financial planning and control mechanisms

3. A formal network-wide strategic planning process
4. Network-wide human resource planning
5. Network-wide decision-making and information systems
6. A network-wide quality assurance program

### Complexity

The dimension of "complexity" relates to the number of participants, the technology or type of work carried out by participants, and how participants and work are combined in a network. Extending interorganizational linkages beyond simple dyadic relationships alters the nature of an integrated rural health network. Multiple partners increase the need for network coordination and control. Increasing the number of partners or the scope of services and products may expand the output of the network, change its combined productive capacity and/or alter its market position. Complexity can be described in terms of the variety of services offered by or through the network, and by the number of different organizational types that participate in the network (Harrigan, 1984; 1985).

### Assumption of Risk

Networks that combine the delivery and financing of services exhibit a unique kind of complexity. Although the characteristics of the providers in delivery networks and the services they offer may differ, they are functionally similar in that they provide health care services to individual patients or populations. Delivery and financing networks combine the frameworks of two functionally different industries: health care and insurance. In addition to providing health care services, combined delivery and financing networks accept financial risk for the health services they offer. The methods employed to coordinate the activities of these two functions add a new dimension of complexity to integrated rural health networks.

Within a single network, the degrees of integration and complexity may vary over time as environmental and intraorganizational characteristics change. Similarly, the decision to assume risk can also change. Consequently, a network may evolve as its governance, activities, or membership changes. Less formal and complex types of networks may provide a foundation for the eventual development of more permanent and sophisticated network forms (D'Aunno and Zuckerman, 1987). Across networks, the degrees of integration and complexity, and the assumption of risk, may vary by geographical area as well as by the characteristics of the networks' members.

## SUMMARY

Integrated rural health networks have become an increasingly popular way of organizing resources in rural areas. Multiple organizations voluntarily come together to coordinate functions and activities. The members of a network may be linked together by contracts, or they may choose to incorporate and govern the affairs of the network through a board of directors. In either case, integrated rural health networks provide or arrange health care services for a defined population.

Integrated rural health networks form for a variety of reasons. Among the most frequently cited explanations are: 1) networks reduce uncertainty and dependence on external elements in the environment, 2) networks reduce

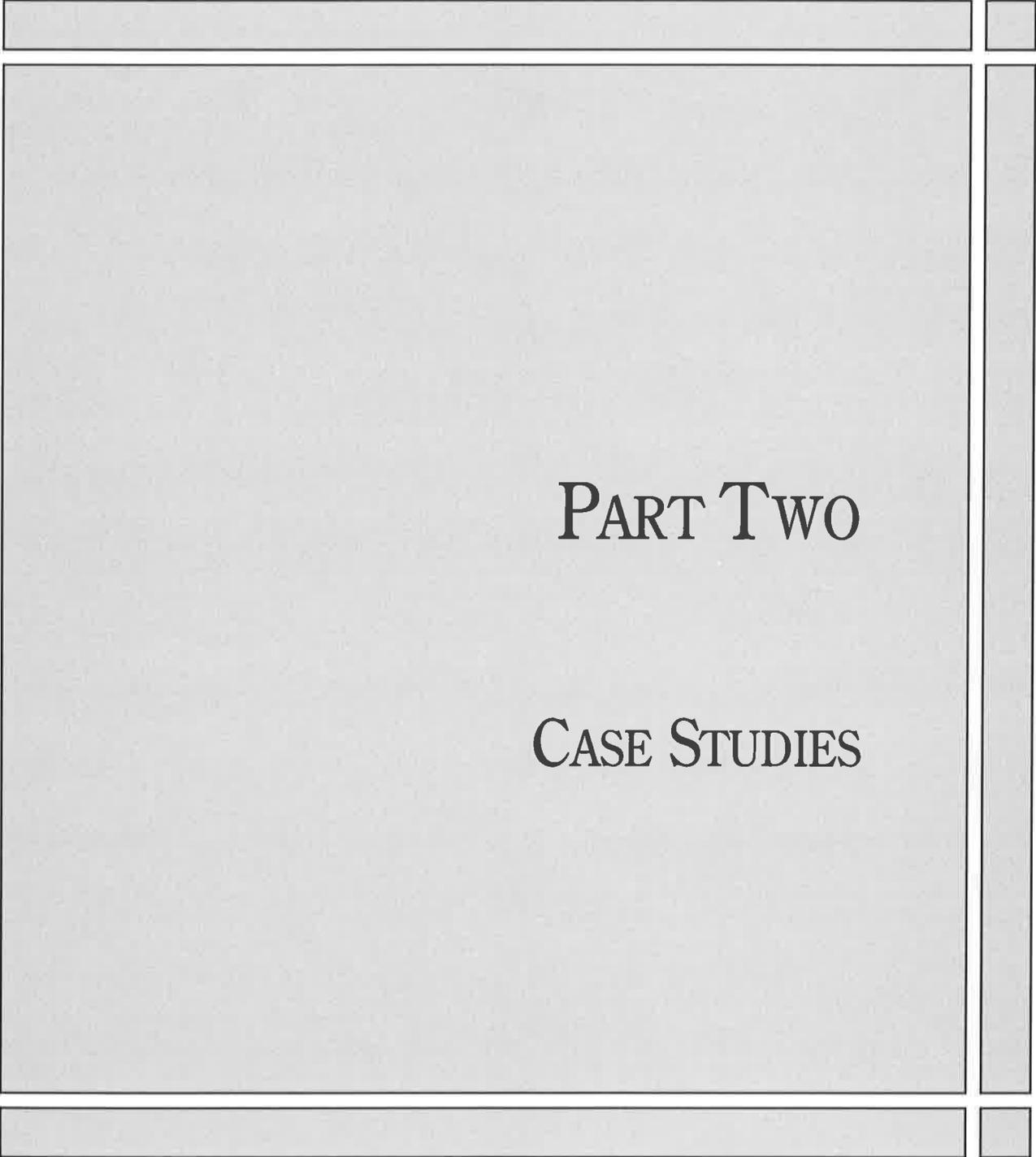
transaction costs and are a "middle way" between markets and hierarchies, and 3) networks form as a way to gain legitimacy from the environment.

The participants in integrated rural health networks engage in a strategy of symbiotic combination. Although vertical and horizontal combinations do exist in some rural health networks, symbiotic combinations are probably more common. Symbiotic combinations occur between non-competing organizations in the same industry, organizations that do not engage in significant exchanges of inputs and outputs. Integration occurs at the clinical, functional, physician-system, and financial levels. Integrated rural health networks may be integrated at any or all of these levels, and the degree of integration may vary among them.

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PART TWO

CASE STUDIES



## INTRODUCTION

Integrated rural health networks are but one type of interorganizational arrangement that may occur among health care providers in rural areas. In Part One, we distinguished between networks and systems and also between formal and informal networks. Integrated rural health networks were described as formal networks composed of multiple types of providers. Other interorganizational arrangements may pursue goals similar to those of integrated rural health networks and may integrate some of their participants' functions and services. However, unless those arrangements conform to the definition proposed in Part One, we do not consider them integrated rural health networks for purposes of this book.

Our observations in Part One on what integrated rural health networks are and what they are not rely heavily on our case studies of six rural multi-provider arrangements. The variety of arrangements studied suggests both the richness of organizational opportunities available to rural providers and the variable nature of interorganizational linkages.

In Part Two, we present six case studies. It is important to note that these case studies are not intended to serve as models of integrated rural health networks. In fact, three of the six arrangements we study are systems rather than integrated rural health networks. We deliberately selected a variety of arrangements as a means to help generate ideas and hypotheses about integrated rural health networks. Studying the variations also helped us assess what integrated rural health networks are, and how they evolved.

The sites selected for the case studies reflected our interest in studying arrangements in which multiple types of rural providers come together to integrate functions and patient care services. Our selection process favored sites that had established integrated relationships rather than those sites where such arrangements were just emerging, because we wanted to see how integrated relationships actually work. With the assistance of rural health services research colleagues throughout the country and a focus group of eight rural health networking experts, we compiled a list of approximately twenty potential sites.

It was difficult to identify *a priori* whether the potential sites were meaningfully engaged in the production of joint activities. Although several of the sites we considered were in the process of forming some type of collaborative arrangement, many of them appeared to be in the "pre-operational" stage of development. We evaluated the potential sites and selected six that had an operational history and some degree of functional, clinical, physician-system, or financial integration. Sites were selected in December 1993 and January 1994. They agreed to

participate in this study and, with their cooperation, we conducted site visits between February and September of 1994.

Some of the integrated rural systems we studied evolved from networks so, by examining them, we also were able to understand earlier stages in their development. These observations are worthwhile, because integrated rural health networks may be a stage through which some arrangements pass on their way to becoming systems. Just as networks may be seen as a middle ground *between* markets and hierarchies, they may also be viewed as a transitional form of organization *from* markets to hierarchies. Even if this evolutionary hypothesis is not supported by subsequent evidence, rural interorganizational arrangements are clearly in a dynamic state. In our presentation of the six case studies, we intend to convey some of the dynamism of interorganizational arrangements in rural areas. The six sites are:

### 1. Adirondack Rural Health Network.

Adirondack Rural Health Network is an integrated rural health network located in upstate New York. It is composed of a range of organizations, including community health centers, hospitals, public health, long-term care providers, and mental health providers. Network formation was aided by the receipt of a state rural health network demonstration grant. This network offers a glimpse into the organizational, economic, and political dilemmas facing autonomous providers in the early stages of integration.

**2. West River Health System.** This rural organized delivery system serves the residents of frontier areas of southwestern North Dakota and northwestern South Dakota. It was formed by the merger of Community Memorial Hospital and United Clinics in Hettinger, North Dakota. The merger capped several previous informal and formal networking experiences based upon the symbiotic relationship of the hospital and clinic. The system provides a wide variety of primary, acute, and public health services to residents in an area of approximately 15,500 square miles.

**3. Itasca Medical Care.** Itasca Medical Care is an integrated rural managed care network that serves the Medicaid population of Itasca County, Minnesota. The network is composed of primary care, mental health, and dental health providers and the County Human Services Department. This case illustrates how a public entity can develop a network to assume responsibility for an underserved population.

**4. Marshfield Clinic - Ministry Corporation Strategic Alliance.** Located in north central Wisconsin,

this network was formed by a large rural multi-specialty clinic and a small regional hospital system. Marshfield Clinic is composed of 420 physicians practicing in 23 locations. The Clinic also owns its own 71,000-member HMO. Ministry Corporation owns three hospitals in communities in which Marshfield Clinic is located, and participates in a hospital joint venture with Marshfield Clinic in a fourth community. In 1994, Marshfield Clinic and its HMO, Security Health Plan, were sued by Blue Cross Blue Shield United of Wisconsin for violations of antitrust law.

**5. Laurel Health System.** The Laurel Health System was formed by the merger of Soldiers and Sailors Memorial Hospital and North Penn Comprehensive Health Services, a network comprising seven community health centers plus a wide variety of health-related human services. Laurel's primary service area is Tioga County in north central Pennsylvania. This highly complex system is functionally integrated through its governance and management structures.

**6. AvMed-SantaFe.** AvMed-SantaFe, an integrated delivery system, began as a small hospital system in north central Florida when a large urban hospital acquired control of three nearby rural hospitals. In the late 1980s, the hospital system purchased an HMO. That HMO is now the largest not-for-profit HMO in Florida. The impact of the system's metamorphosis on rural communities is an interesting component of this story.

Before developing the interview protocols used to guide the site visits, we convened a focus group of eight rural health network experts in Minneapolis. These experts responded to a list of prepared questions about network formation, structure, governance, management, functions, and assessment criteria. The responses of the focus group provided valuable guidance as we shaped interview protocols for each type of person interviewed, for example, Chief Executive Officer, Network Member, and Community Representative. Nine different protocols

were prepared. The CEO interview protocol, contained in the Appendix, provides an example of the types of questions asked.

Our research team conducted intensive, two-day site visits to each of the sites. Two investigators visited each site and interviewed between 14 and 20 people during each visit. In addition, we collected written materials pertinent to each site before, during, and after the interviews. The investigators transcribed the interviews, reviewed the secondary data, and prepared draft case studies. Each draft case study was reviewed for accuracy by personnel from that site, and revised accordingly. The investigators were responsible for the interpretation of the information collected at each site.

We then collectively analyzed the case studies to ascertain cross-cutting patterns and themes. This "interpretive" style of analysis was selected to assist us in generating new insights about integrated rural health networks. Such interpretative analysis also helps create hypotheses about these networks which can then be tested in future empirical research (Miller and Crabtree, 1990).

Each case study begins with a background section which sets the geographical and historical stage and recaps the story of network or system formation. An overview of the operations of the network describes governance, organization structures, management, services and functions, and financial arrangements. We then highlight the factors that have most influenced the development and operation of that site.

For each case, we then assess its status on the three important attributes of an integrated rural health network as we defined them in Part One: level of integration, complexity, and assumption of risk. We also examine the extent to which each site measures its own performance. The concluding section identifies the site's major accomplishments, points out strengths and weaknesses, and offers our perspective on likely next steps and on the challenges facing that site. We hope these case studies will collectively serve as a window to a greater understanding of integrated rural health networks.

## CASE STUDY 1. ADIRONDACK RURAL HEALTH NETWORK

### BACKGROUND

The primary service area of the Adirondack Rural Health Network (ARHN) covers several upstate New York counties, including all of Warren County, the northern portions of Washington and Saratoga Counties, southern Essex County, and eastern Hamilton County. Clear geographic boundaries demarcate this 2,400 square mile area in all directions (Adirondack Mountains on the north, the Albany Capitol District on the south, Lake George and the State of Vermont on the east, and the Adirondack foothills and woodlands on the west). Limited public transportation, harsh winter weather, and the prevalence of two-lane mountain roads combine to create transportation problems for residents in portions of the service area.

With approximately 150,000 residents, the ARHN service area closely approximates the service area of Glens Falls Hospital. The largest city in ARHN's service area, Glens Falls is the center of a Metropolitan Statistical Area (MSA).

### Health Care System Overview

The 13 organizations participating in the Adirondack Rural Health Network have voluntarily agreed to work together to ensure the availability of improved health care services in the five-county service area. The receipt of funding from the New York State Department of Health's Rural Network Demonstration Program in January, 1992 cemented the formation of this network. These diverse organizations both provide and coordinate health services in the service area described above; however, the various organizational members of ARHN have their distinct service areas within the region.

ARHN members include:

**Adirondack Regional Emergency Services** - a not-for-profit organization that coordinates the training and multi-squad use of volunteers with advanced life support skills in northern Warren, eastern Hamilton, and southern Essex Counties.

**Essex County Public Health** - a state-licensed primary care, certified home health care and long-term care provider to residents of Essex County.

**Evergreen Health Center** - a state-licensed diagnostic and treatment center in Corinth, northern Saratoga County.

**Glens Falls Hospital (GFH)** - a 440-bed community hospital in Glens Falls, southern Warren County.

**Health Center of Northcare** - a state-licensed diagnostic and treatment center in Glens Falls, southern Warren County.

**Hudson Headwaters Health Network (HHHN)** - a seven-site licensed provider of primary care services in northern Warren, eastern Hamilton, and southern Essex Counties.

**Mary McClellan Hospital** - a 74-bed rural community hospital in Cambridge, southern Washington County.

**Moses-Ludington Hospital (MLH)** - a 39-bed rural community hospital in Ticonderoga, southeastern Essex County.

**Upper Hudson Primary Care Consortium (UHPCC)** - a state-licensed central service facility in Glens Falls serving multiple primary care providers and coordinating the interaction of providers throughout the region by administering a prenatal services network and the ARHN.

**Warren County Health Services** - a state-licensed primary care, certified home health care and long-term care provider to residents of Warren County.

**Warren County Long-Term Care Coalition** - a voluntary coalition of all long-term care providers operating in Warren County.

**Warren-Washington Community Services** - a bi-county coordinator of providers of local services to meet mental health, mental retardation, alcoholism, and substance abuse needs.

**Washington County Public Health** - a state-licensed primary care, certified home health care and long-term care provider to residents of Washington County.

Glens Falls Hospital and the Upper Hudson Primary Care Consortium represent two of the key actors in ARHN. Glens Falls Hospital (GFH) is somewhat of an anomaly for an institution located in a city with only one hospital. Larger than 95 percent of all of the hospitals in

the U.S., it serves a population of approximately 150,000 people. GFH is a non-profit community hospital governed by an 18-member board; physicians comprise approximately one third of the board members. The hospital provides a broad scope of inpatient and outpatient services and prides itself on early implementation of innovations such as day-surgery service, birthing rooms, mobile mammography, and a full continuum of cancer care services.

The hospital's medical staff of nearly 200 clinicians is responsible for approximately 14,000 discharges and 13,000 surgical procedures each year. Almost a \$100 million enterprise, GFH employs nearly 2,000 people; it is the largest private employer in the region. The geography of the area makes the hospital and its medical staff extremely dependent on each other.

The Upper Hudson Primary Care Consortium (UHPCC) is a not-for-profit corporation initially licensed as a central service facility in New York State in 1987 to serve as an umbrella administrative agency for four federally funded Community Health Centers in upstate New York. UHPCC does not provide services directly to patients but instead provides central services to its member facilities and other organizations. These services include health professional recruitment, employment, and retention; joint purchasing; technical assistance; strategic planning; grant writing; medical student clinical rotations; and quality assurance programs.

While the region has lost many private-sector physicians, UHPCC has responded by successfully recruiting physicians for the area. From 1987 through 1994, UHPCC recruited more than 30 primary care physicians to the area. UHPCC employs these physicians who then practice at the community health centers in northeastern New York. The recruited physicians represent approximately one third of the primary care physicians now practicing in the service area. UHPCC has also started to reach out with affiliate relationships to selected private practices in the area. In addition, UHPCC has facilitated rural health care provider networking in upstate New York by providing an administrative focal point for these activities.

### **Prior Collaboration**

The key actors in ARHN have worked together for many years. In the course of daily business, network members come into contact with each other frequently, and they serve on one another's boards. This history of collaboration is one of the factors that led the New York State Office of Rural Health to fund ARHN through its network demonstration program.

The origins of ARHN highlight this collaboration. Dr. John Rugge moved to the area in 1974. Hired as a Glens

Falls Hospital employee, he staffed the Chester Health Center, located about 35 miles north of Glens Falls. When many primary care physicians in the area began to retire in the mid-1970s, Hudson Headwaters Health Network (HHHN) was created as a unit of the hospital.

HHHN was expected to be a transitional organization leading to the eventual recruitment of private physicians to communities. However, the economics of practicing in an underserved area presented an increasing barrier to prospective physicians, and HHHN took on a life of its own. In 1981, HHHN separated from the hospital and formed a new not-for-profit corporation (with Dr. Ruge as Executive Director) in order to meet federal funding criteria as a Section 330 Community Health Center.

By the early-to-mid 1980s, other communities expressed interest in joining HHHN. It was decided not to expand HHHN, but instead to replicate it in the surrounding areas and to create horizontal linkages across all of the primary care clinics. After a three-year planning effort, UHPCC was legally established in 1987 to provide consolidated central services to the primary care clinics.

UHPCC has earned respect in the local medical community both because of the service it provided to surrounding underserved communities and because of its sizable referral base. UHPCC provides at least one third of the primary care in the service area; approximately two thirds of its patients are private pay or Medicare patients.

In the late 1980s, the State of New York established a Medicaid managed care program. HHHN applied to the program, seeking to better serve its large number of Medicaid patients. As awareness of the importance of managed care grew in the Glens Falls physician community, physicians responded to the changing environment through the formation of an Independent Practice Association (IPA) named Adirondack Medicine Inc. (AMI) in 1988. Essentially all the physicians in the greater Glens Falls community joined AMI. State grant support from the Medicaid managed care project was helpful in organizing AMI, which initially looked to HHHN staff for its administrative base. In addition, with support from both HHHN and AMI, the Health Center at Northcare in Glens Falls opened in 1987 as a licensed diagnostic and treatment center to help meet the health care needs of Medicaid and low-income residents in the area.

Adirondack Rural Emergency Services (ARES), the region's first attempt at networking, was made possible with New York State grant funds dedicated explicitly for this purpose. HHHN applied for the grant funds, and the first regional advanced life support program in the state was created through ARES.

A third iteration of state network grants invited the development of what the state termed "vertically

integrated networks" in rural areas with linkages to non-rural providers. In late 1991, UHPCC developed the grant application that proposed the formation of the Adirondack Rural Health Network. The participants viewed the ultimate goal of networking as the development of a single entity to receive funds and allocate them to stakeholders. The possibility of creating a regional, integrated system of care that would include physicians, hospitals, and other providers has been explored in more than 100 meetings. A tri-venture between AMI, GFH, and Community Health Plan (a non-profit managed care organization based in Albany, New York) also is attempting to restructure and broaden managed care arrangements in the region.

## NETWORK DEVELOPMENT

### Motivation for Formation

The initial stated reason for the formation of ARHN was to develop an entity that could plan health and social services for a seven-county area in upstate New York. Potential participants sought to share information for the purposes of planning and reporting to public and private bodies. In the middle of this cooperative planning process, New York's rural health initiative was passed and ARHN, through UHPCC, applied for a network grant. The receipt of grant support from the state created the possibility of alternative missions for the network, ranging from the coordination of horizontal linkages already existing in the area (e.g., emergency medical services, long-term care services, mental health services, etc.) to the development of a single entity to receive reimbursement dollars and allocate them to stakeholders.

At this juncture, the purpose of ARHN is not fully settled among all participants. Some view ARHN as a planning agency; others (more ambitiously) view it as a corporate shell for an emerging integrated health care delivery and financing system; and still other participants regard ARHN as something in between. UHPCC sees networks as a survival strategy to stabilize the financial base for primary care services in the region. GFH views networking as an important strategy as it shifts emphasis from keeping beds full to expanding outpatient services and developing a continuum of care focused on community health programs. The hospital's vision statement describes its desire to create a regional integrated delivery system that accepts accountability for the health of its service area population. The CEO of the hospital believes that getting involved with networking will benefit the institution.

The State Department of Health established its Rural Health Network Development Initiative after being encouraged by the State Rural Health Council to devise a

systemic approach to address the eroding position of rural hospitals. The Rural Health Council wanted to maintain a stable health care presence in small rural communities. The networking initiative held the potential to help rural hospitals manage the transition from their traditional acute care, inpatient focus to a broader, community-oriented, outpatient and long-term care focus.

### Key Actors

Key actors in the development of ARHN have included UHPCC, under the leadership of John Ruggie; Glens Falls Hospital, under the leadership of David Kruczynski; and State government, primarily through the Office of Rural Health. UHPCC initially envisioned a network which would provide some financial stability for fiscally fragile primary care clinics that served large numbers of Medicaid and uninsured clients. An integrated network was also perceived as a potential vehicle for the eventual sharing of risk under capitated payments.

GFH supported the development of ARHN. Three factors influenced the hospital's decision to participate in ARHN: a change in the hospital's mission to strengthen its commitment to networking; new state legislation under which designated networks could receive enhanced reimbursement; and limited antitrust immunity. The CEO of GFH believes that the strength of Glens Falls Hospital in the future will depend on the strength of primary care in the region, and, further, that primary care could be bolstered by network development. However, a few hospital staff and Board members remain hesitant about network participation. They express concern that the hospital will be asked to bear a disproportionate burden for financing network development. In addition, GFH will need to have a fair and representative role in the governance and leadership of the evolving network.

State government has been a powerful catalyst for network development in New York. Since 1986, the Department of Health has supported a variety of networking strategies including:

- a Rural Health Network Demonstration Program that has funded over 30 network planning and implementation projects (including ARHN),
- Rural Health Network Guidelines and Requirements that define network functions, service delivery models, and other requirements,
- alternative health care institutions including Primary Care Hospital and Upgraded Diagnostic and Treatment Centers, which would be allowed to operate only in network settings,

- a legislative proposal to create a permanent rural health network program that: establishes a grant program to support network planning, implementation, and start-up; provides enhanced reimbursement to network providers; and provides antitrust protection to network members, and
- technical assistance on network development for community and provider groups.

These creative and diverse state activities illustrate how government can support the development and operation of rural health networks.

### **Start-up Funding**

ARHN was initially financed through a \$50,000 planning grant from the New York State Department of Health's Office of Rural Health. This grant, awarded to UHPCC in early 1992, supported a 0.75 FTE project coordinator and covered administrative expenses, such as the costs of meetings. Some funds were also used to develop emergency medical system plans for the network. Although grants can play an important role in the formation of networks, they are not the long-term solution for financing networks. However, many of the participants in ARHN are struggling financially, due in part to their missions of providing needed services in rural underserved areas. Thus, these organizations cannot afford to pay substantial network dues.

### **Early Barriers**

Barriers to the development of ARHN resulted from two earlier false starts at system integration. First, Hudson Headwaters had separated from its original partner, Glens Falls Hospital, in 1981, when the hospital discontinued organizational ties to the primary care center. In the late 1980s, UHPCC negotiated with GFH for financial support to replace grant support that was ending. However, prior to reaching final agreement, UHPCC stopped sending its laboratory work to the hospital and decided to participate in a joint venture with a competing laboratory in a nearby community. That action created distrust toward UHPCC among hospital administration, board members, and staff.

The false start highlighted both the dependence of the hospital and the primary care clinics on each other and the failure of the parties to agree on who should control the network. This issue has surfaced repeatedly in the past few years as the parties have attempted to reconcile their respective visions of regional service delivery and financing.

The large amount of energy and effort used to aid Moses-Ludington Hospital, a small and struggling rural

community hospital in Ticonderoga, posed another barrier to ARHN. In the late 1980s, Moses-Ludington received service support from GFH, and its involvement with ARHN was in part based upon that historical relationship. The state insisted that an initial focus of its network grants be on EACH/PCH activities and on strategies to address potential local health service failures. The large amount of time spent on this issue diverted ARHN's attention from the larger goal of planning, coordinating, and integrating the broader set of health services in the region. As a result, the network risked losing the interest of non-hospital members such as mental health and long-term care agencies.

A final barrier to the initial development and progress of ARHN was the hospital's concern about losing its identity through participation in the network, a concern related to whether or not the hospital could trust UHPCC. In many ways, Glens Falls Hospital may have had the most to risk from network development, both because it had been the dominant player in the health care community for many years, and also because it was asked to provide a substantial amount of funding for initial network development.

## **OVERVIEW OF OPERATIONS**

### **Organizational Structure, Governance, and Management**

Several ARHN members have overlapping directorates that facilitate the development of member trust. ARHN initially used a steering committee approach to network governance. Under this arrangement, each participant had a representative on the ARHN Steering Committee. The 1993 and 1994 operational plans for ARHN indicate that ARHN will not be established as a separate corporate body. Instead, ARHN will avail itself of the UHPCC corporate vehicle when necessary. For example, governance of ARHN will be directed by appropriate provisions of UHPCC bylaws. UHPCC is the fiscal granting body for ARHN and provides staff work for ARHN that allows providers and others in the region who want to plan services together to "sit at the table."

Because of its informal organizational structure, ARHN does not have a CEO who reports to the Steering Committee. This situation gives UHPCC staff considerable leeway in their control of the ARHN agenda and in their interpretation of the will of the ARHN Steering Committee. ARHN uses the administrative resources of UHPCC; one UHPCC staff person is identified as the ARHN Project Coordinator. To help implement network operations, the Steering Committee also has created five subcommittees focusing on: finance,

planning/data, external relations, service delivery, and service outcomes.

Despite the convenience of using the UHPCC corporate vehicle for initial ARHN implementation, the lack of corporate status for ARHN has raised concerns. In its review of the 1993 operational plan, the state raised the issue of the legal implications of the "loaning" of UHPCC corporate status to ARHN. Others have noted that, at times, it can be difficult to separate UHPCC from ARHN because of the lack of a clear corporate identity for ARHN.

To date, all ARHN Steering Committee decisions are made by consensus without formal voting, perhaps an inevitable consequence of ARHN's lack of power to carry out controversial decisions that would affect the financial status of individual members. Under the current arrangement, consensus builds for decisions on activities that are supported by member resources. Several network participants now see the need to further develop ARHN's identity beyond the informal relationships that exist among its key members and with other entities. A principal challenge facing ARHN is the identification of an appropriate organizational structure.

## Services and Functions

ARHN was established to coordinate planning and share resources among its members, who all provide services to the rural residents of a multi-county service area in upstate New York. As initially envisioned, ARHN was not seen as a direct provider of patient services. ARHN seeks to enhance the foundation of service delivery already developed through the increased integration of efforts of its participants. Examples of these efforts include:

- establishing and expanding regional emergency services that coordinate the training and use of personnel with advanced life support skills,
- increasing the availability of primary care services,
- coordinating the implementation of a shared, mobile immunization system, and
- establishing a regional focus for comprehensive prenatal care services.

ARHN has used its resources to develop functions that support its members in their efforts to provide necessary population-based services. The network has developed or is in the process of developing initiatives in several functional areas.

### Service Integration

The integration of specific services is described in the agreement statements among network members (see Attachment 1 for an example). Agreements for coordinating services provided by hospitals, EMS, and primary care providers have been developed. The explicit responsibilities of each provider are defined in the agreement statements.

### Planning Coordination

While not the sole aim of the network, this function remains a high priority for ARHN. The network created a health care plan for its service area during the past year.

### Recruitment, Training, and Continuing Education

This emphasis focuses on the recruitment and retention of primary care physicians in the ARHN service area. As part of that effort, the network intends to develop a decentralized rural medical education program for third- and fourth-year medical students in the primary care specialties of family practice, pediatrics, and general internal medicine.

### Quality Improvement (QI)

ARHN's goal is to develop and implement a comprehensive, regional quality improvement program that builds on existing QI programs developed by individual network members. Such a program would also identify areas where joint activities are feasible.

### Case Management

The network's interest in case management represents an outgrowth of the planning coordination function. The case management system envisioned for the network will facilitate the cost-effective use of resources by patients as they use multiple levels of services available through network members. This system is in the initial stage of development by ARHN.

## Finance

The Adirondack Rural Health Network needs a stable financial base to support its continued operation. At present, UHPCC, the sponsoring agency for ARHN, employs several strategies to fund network activities, including the use of state and federal grants; contracts for physician and other services with the state, school districts, public health districts, and the local IPA; and memoranda of understanding (largely for health professional recruitment and primary care development) with both Glens Falls Hospital and Albany Medical Center.

The network needs to develop new and secure sources of funding to support the costs involved in network administration and planning activities. Grants

currently support network development by paying for administrative time. In 1994, state grants to ARHN totalled \$167,000. Other state incentives include rate enhancements for hospitals participating in networks, alternative payment methods for primary care hospitals and networks, and antitrust protection for network participants.

Finding partners to underwrite capital expenses is an important issue for rural health networks. The previous year's memorandum of understanding (MOU) between GFH and UHPCC committed \$150,000/year and focused on physician recruiting. The current MOU with UHPCC commits \$420,000 and seeks to rebuild and integrate primary care activities in the region. GFH has provided substantial investment for network activities.

Among ARHN members, GFH is likely to be the only participant that may have adequate financial capacity to fund future network development. However, the hospital does not want to be saddled with the major responsibility of underwriting the network over the long term. It too needs a sufficient financial incentive to continue its participation in the network.

It seems likely that future health reform efforts in New York State will include a combination of financing approaches, including fee-for-service payments, capitation payments, and global budgets. The state is assessing the applicability and feasibility of these approaches for supporting health service delivery in rural health networks.

In summary, no established mechanism currently exists to finance the ongoing activities of ARHN. The network has found it difficult to pay staff salaries without grants, yet staff are necessary to "help glue network members together." To date, ARHN has continued to assemble funds from a variety of sources, but it is economically fragile. In many ways, ARHN has been fortunate to receive financial support from the state. However, in the long run, network operations will require a sustainable source of revenue independent of grants. One possible revenue source would be the development and marketing of a network managed care product. The feasibility of making the network a risk-bearing entity is being examined by ARHN and by the State Department of Health.

### **Impact on the Community**

The major impact of ARHN on its service area appears to have been increased access to primary care services for the uninsured and Medicaid population through coordination of the efforts of existing providers. However, it is difficult to determine the marginal impact of network involvement on access as compared to the direct effect of individual providers.

The broader community (i.e. non-ARHN members) has not been involved to any significant degree in the development of ARHN. It is important to note that neither physicians (excluding Dr. Ruge) nor community representatives played key roles in the development of ARHN. Time will tell how difficult it will be to involve these actors at a later point and whether or not they should have been more heavily involved earlier in the network development process. The education of local community organizations about the goals, activities, and functions of ARHN has just begun.

## **INFLUENTIAL FACTORS**

Several factors have been critical to the development and operation of ARHN. Among them, four important factors deserve mention: 1) the geography of the area, 2) the historical relationship among network participants, 3) the role of the state, and 4) expectations concerning managed care.

### **Geography of the Area**

The geography of ARHN's service area suggests that the region is a natural laboratory for network development. Very little competition exists among network members for market share because the markets of most members are clearly defined by geography and do not overlap. Combined with the reasonably good dialogue that has existed historically among network participants, it is not surprising that networking activities have sprouted in the area. The geography of the service area will undoubtedly continue to be a positive force that supports the logic of local provider collaboration and integration through participation in networking ventures.

### **Historical Relationships among Network Participants**

The historical relationship among network members is a two-edged sword with respect to its effect on network development and operations. On the one hand, a broad base of trust generally exists among health providers in the region. Some of these providers also have a history of successful collaboration. This prior experience facilitated the formation of ARHN, which can be viewed as the linkage of several horizontal affiliations of homogenous provider entities (see **Figure 2**).

On the other hand, friction clearly exists between UHPCC and the hospital. Despite their obvious mutual dependence on each other, their historical relationship has not always been mutually supportive. The hospital has an interest in partnership building but expresses concern about its role in a future environment dominated

by managed care. UHPCC wonders how the fiscal stability of primary care practices in the area can be strengthened while avoiding unnecessary competition with the hospital and any other actors interested in expanding primary care services in the region.

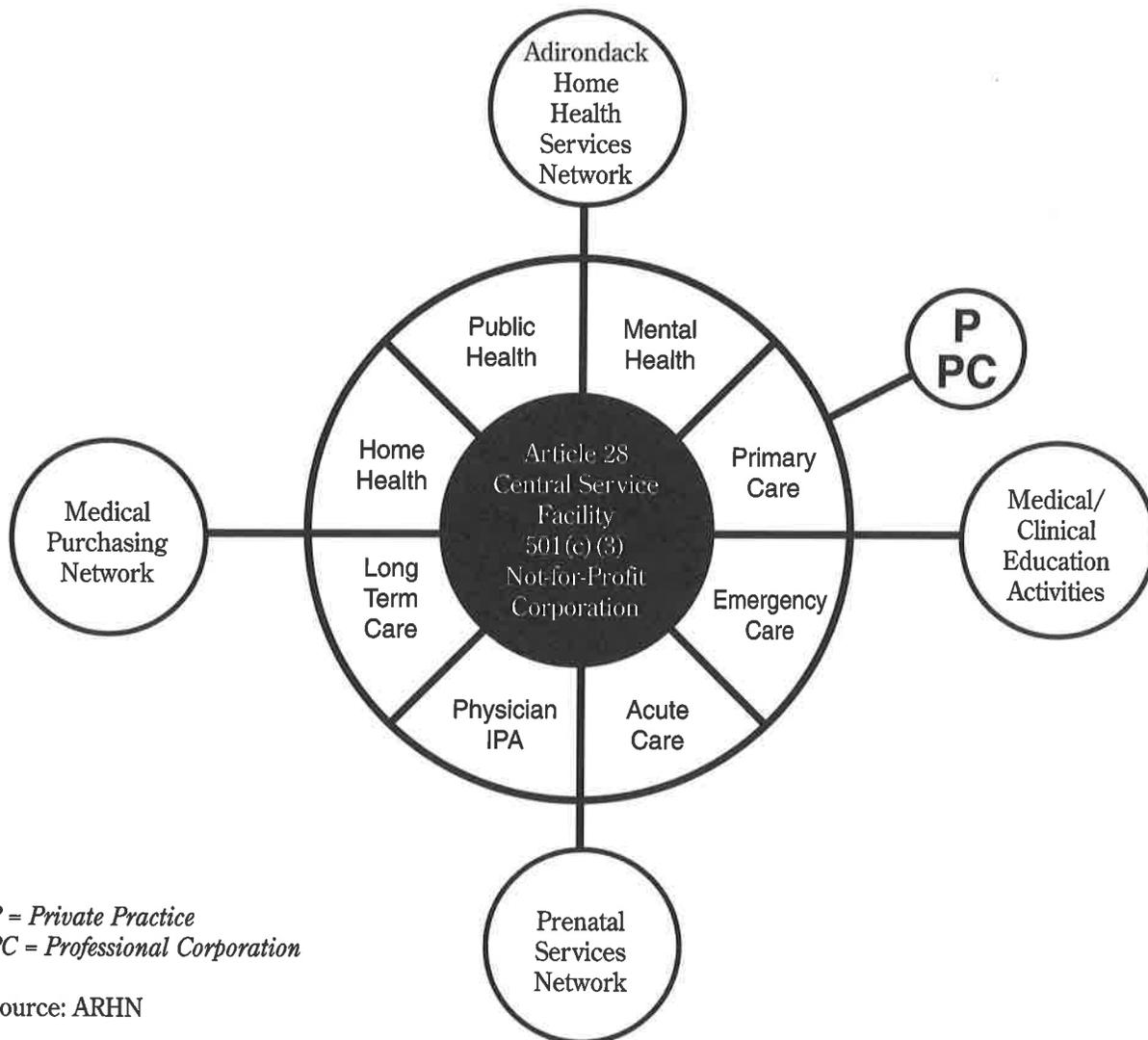
The most recent MOU between GFH and UHPCC attempts to address this issue. The agreement calls for using hospital resources to help the network expand its primary care efforts in the region while also assuring that new primary care physicians recruited to the region will be members of the GFH medical staff and will practice in the hospital. The future success of ARHN will

likely depend on whether or not the relationship between the hospital and UHPCC evolves in a constructive manner.

**Role of the State**

During the past decade, New York State has incorporated several strategies into its nationally recognized rural health network program. First and foremost, the state has created an environment that supports change, and has provided the flexibility and resources that have allowed the necessary political

**FIGURE 2**  
**Adirondack Rural Health Network**



*P = Private Practice*  
*PC = Professional Corporation*

Source: ARHN

process to occur. Specific ways that state government has facilitated the development and operation of ARHN include:

- providing financial incentives through grants to support the personnel and capital investment necessary for network building,
- enhancing reimbursement for providers participating in the network,
- exploring ways that financing systems (e.g., fee-for-service, capitation, global budgets) can be used to support network development,
- modifying and/or waiving state laws and regulations identified as problematic for rural networks, and
- implementing the state action immunity doctrine by establishing a state policy that addresses rural networks in legislation and by setting up a process that will meet the active state supervision requirements.

Future state involvement in rural health network development and operation will likely depend on the state's fiscal status and on policy initiatives developed by the newly elected leaders of the legislative and executive branches of state government.

### Expectations Relating to Managed Care

State and federal health care reform efforts heightened the consciousness in the region of ARHN's potential for integrating service delivery and financing under capitated arrangements. ARHN requires a sustainable stream of revenue to survive, and serving as the financial conduit for the region under managed care arrangements might be one such revenue source. GFH desires to be an integral part of future managed care arrangements, and UHPCC recognizes the potential of managed care to help stabilize the fiscal status of primary care practices while supporting the public health and prevention goals of the practices.

ARHN currently has no managed care product. The recent tri-venture between Glens Falls Hospital, the local IPA (i.e. AMI) and Community Health Plan (CHP), originally a staff model HMO based in Albany and now a managed care firm serving Northeastern New York, Western Massachusetts, and Vermont, was a move in that direction. However, an important issue related to the locus of control of decision making has arisen. Providers in ARHN's service area want the responsibility for care to

remain in the local area; but, a large insurer with a broader service area (e.g. CHP) might want to centralize decision making. This situation underscores the need for any outside entity such as CHP to become sensitized to the local environment.

Whether ARHN will develop and market a managed care product of its own is uncertain at present. Nonetheless, the potential of managed care has affected the interest and involvement of the key actors in ARHN, and likely will continue to be an important factor as the state examines ways that managed care can be used to support network development and operations — and vice versa.

## ASSESSMENT OF NETWORK ATTRIBUTES

### Level of Integration

The 1994 operational plan for ARHN discusses methods for integration including service integration, planning coordination, and direct services to be provided. The operational plan states that:

integration of services provided by ARHN members is assured through a combination of formal and informal agreements.... However, we are aware that more formal objective oriented agreements are necessary between all interacting parties if meaningful outcomes of networking are to be realized.

ARHN is not a direct provider of patient services. However, in one non-patient care area — provider recruitment — functional integration is occurring across network members, as evidenced by the most recent MOU between GFH and UHPCC. At this point, the principal area in which network members jointly work together in an integrated fashion is health care planning; as indicated, the network recently accomplished the development of an area-wide health care plan. Other potential areas that could benefit from integration of member efforts (e.g., financial systems, human resource administration, information systems, service delivery) either have not been initiated, or are in the early stages of initiation.

### Complexity

The diverse membership of ARHN is indicative of the complexity of the network. This diversity has several ramifications. Network goals and commitment to the network are not necessarily equally shared by the broad membership. Some members may perceive ARHN to be a planning entity while others may be more interested in its potential to become a corporate shell for an integrated

delivery and financing system. When initial activities of the network focused on saving a small rural hospital, some members (e.g., mental health, long-term care) grew frustrated and confused about their involvement with the network. These members began to question the relevance of their involvement in ARHN until it started working on the development of its area-wide service plan.

The challenge of involving all of its constituents to a meaningful degree represents another ramification of ARHN's complex nature. In the case of public health agencies, problems arose because of their organization on a county-by-county basis, an arrangement which did not translate readily into the service area of the network. In addition, it was not clear how one could designate a lead public health agency. This was particularly important since ARHN emphasizes access to public health and health promotion services for the population it serves.

Thus, network complexity has created some short-run problems for ARHN. Clearly, however, the diverse membership of ARHN also offers long-term opportunities. These opportunities may become especially important if ARHN becomes a managed care provider in the future.

### **Assumption of Risk**

ARHN has no managed care product at the present time and its members are not risk-bearing entities through their network affiliation. Individual members of ARHN (e.g., Glens Falls Hospital, Health Center at Northcare) are involved with managed care ventures through other vehicles. Several ARHN members believe that the network eventually will evolve into an entity that receives and distributes capitated payments to providers responsible for offering population-based services to the residents of the service area. At present, however, this scenario appears to be several years away.

### **Measuring and Evaluating Performance**

ARHN is too young and undercapitalized to have sophisticated information systems in place. In the short run, the network has focused on enhancing its own financial viability. In the long run, the network expects to focus on increased access and improved health status for residents of the service area. ARHN will need to determine how best to integrate the resources of its members as it develops an information system that appropriately measures and evaluates network efficiency and distributional effects. Some network members already have information and/or evaluation tools in place (e.g., the hospital has its own MIS, and UHPCC is developing a common computerized medical record for use by its primary care providers).

In its 1994 Operational Plan, ARHN identified the objective of developing and implementing a

comprehensive regional quality improvement program that involves all network members. In addition, the current State Office of Rural Health work plan includes the development of measures for monitoring network performance and the development of a regulatory and surveillance strategy for networks. Thus, both the network and the state are on the verge of investing in activities associated with measuring and evaluating network performance.

## **SUMMARY**

### **Unique Features**

Several unique features distinguish the Adirondack Rural Health Network. First and foremost is the attempt to develop ARHN as an integrated network encompassing a broad range of different types of providers (see Figure 2). The foundation of ARHN is a comprehensive network of primary care providers (i.e. UHPCC) that collectively represents approximately one third of the primary care practitioners in the service area. Formal and informal links to horizontal affiliations of mental health, long-term care, emergency care, public health, home health, and acute care providers support the network's foundation of primary care service. If it becomes fully operational, ARHN should be capable of providing a comprehensive range of services to the service area population. Moreover, ARHN could be a logical entity to distribute capitated payments to participating members.

Another unique feature of ARHN is the environment in which it is located. As described earlier, the natural geography of the area lends itself to provider cooperation rather than to competition. The development of a regional plan for service delivery and financing makes sense in this area.

Even more important than the geographic environment is a political environment in New York State that has supported network development. State government has stimulated the development of approximately 30 rural health network projects throughout the state. State support has been provided directly, through grants and increased reimbursement for network providers, and indirectly, through antitrust immunity and technical assistance for network development. The state has chosen network development as an explicit strategy to prevent further rural health system failures and to maintain access to primary care services in underserved areas.

### **Future Developments**

ARHN has received financial support since 1992 for its planning and development phase. The network now is

at the critical initial implementation phase. ARHN has many strengths, including a solid primary care foundation, a forward-looking regional hospital in the process of changing its vision, horizontal linkages established among the other vital components of the rural health system (e.g., EMS, long-term care, mental health, public health), and extraordinary support from state government.

However, for ARHN to mature into a fully implemented, integrated network, several issues need to be addressed including:

#### **Organization**

- What is an appropriate organizational structure for ARHN? What are appropriate roles for and linkages between the regional hospital and primary care centers in ARHN? How can administrative responsibilities be divided among the key actors in the network?

#### **Financing**

- How can a stable financial base be developed to support the network? How can capital be acquired

to invest in the network infrastructure and activities?

#### **Managed Care**

- How can managed care arrangements be used by the network? What risk-sharing mechanisms are appropriate for network participants involved with managed care arrangements?

The organizational issue is the largest stumbling block at this point. It will be overcome only if the leadership team can successfully guide a set of highly independent providers through the painful process of coming together under one charter. All of the network members believe they can better address the service needs of the region by working together as a team rather than as individual entities. Nevertheless, network formation is in essence a political process that requires reapportionment of control and power among participants. ARHN may need to create a new Board (one acknowledged by the state and able to receive grant support) and to hire staff separate from UHPCC in order to move beyond a planning entity to an operational organization.

**ATTACHMENT 1**

**STATEMENT OF AGREEMENT**

**GLENS FALLS HOSPITAL - HUDSON HEADWATERS HEALTH NETWORK**

This Statement of Agreement made and entered into between the Glens Falls Hospital (GFH) and Hudson Headwaters Health Network (HHHN) as participants in the Adirondack Rural Health Network (ARHN):

HEREBY indicates that GFH agrees to serve as a Core Hospital and that HHHN agrees to serve as an Upgraded Diagnostic and Treatment (D&T) Center within the ARHN.

In accepting these designations

- a. GFH agrees to provide HHHN with the following:
  - 1. Emergency and medical back-up services for all programs operated by HHHN in conjunction with plans set forth and approved by the ARHN.
  - 2. Acceptance of patients admitted or referred by HHHN regardless of payer status or ability to pay.
  - 3. A commitment to assist HHHN and the entire ARHN in the continued development and operation of an emergent and non-emergent transport system which shall facilitate transfers and referrals between network components.
  - 4. Acceptance of HHHN Medical Staff applications for admission and treatment privileges within GFH without prejudice according to normal GFH protocols.
  - 5. A commitment to work cooperatively with HHHN in the development and implementation of a comprehensive communication system between the two facilities which will, among other functions, provide for the regional and necessary exchange of patient data.
  - 6. Assurance of open data and information sharing relating to medical records, fiscal operations, and quality assurance activities to the extent that such information affects both facilities.

- b. HHHN agrees to provide GFH with the following:
  - 1. A commitment of full cooperation in the fulfillment of the Upgraded D & T obligation.
  - 2. A commitment of full teamwork in the care and treatment of collective patients.
  - 3. A commitment of full energy in joint planning, training, diagnosis and treatment.
  - 4. A commitment to provide primary care and follow-up care to the GFH patients in the HHHN catchment area.
- c. Both parties understand that further item or topic specific agreements and memorandums of understanding will have to be negotiated and entered into as the ARHN network programs evolve.
- d. Both parties agree to cooperatively seek full ARHN compliance with NYS DOH Rural Health Network Guidelines as well as New York State laws and regulations.

For: Glens Falls Hospital

By: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

For: Hudson Headwaters Health Network

By: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

For: Adirondack Rural Health Network

By: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

Source: ARHN

## CASE STUDY 2. WEST RIVER HEALTH SERVICES

### BACKGROUND

The service area of West River Health Services (WRHS) covers sparsely populated parts of three states (North Dakota, South Dakota, and Montana) and includes regions that meet the definition of a frontier area, i.e. six or fewer persons per square mile. Extending about 70 miles in every direction from Hettinger, North Dakota, the total service area of 18,000 square miles encompasses a population of about 25,000 to 30,000.

The town of Hettinger has 1,574 residents. Bismarck and Rapid City, the nearest metropolitan areas, are 150 and 185 miles away, respectively. With the exception of Bowman and Lemmon, towns slightly larger than Hettinger, most other communities in the service area are considerably smaller than Hettinger. Ranching forms the economic base of this region. With over 260 employees, West River Health Services is a major employer in the area.

### Health Care System Overview

WRHS includes a 46-bed private, non-profit hospital and main clinic in Hettinger, North Dakota, and six satellite clinics located in Bowman, Mott, New England, and Scranton, North Dakota; and Bison and Lemmon, South Dakota. WRHS physicians are the only physicians serving five of the network's six satellite communities. The sixth community, Bowman, also has a hospital, a nursing home, and two physicians who are not part of WRHS. Lemmon has a four-bed hospital, which primarily provides long-term care services, and an attached nursing home.

The hospital in Hettinger, West River Regional Medical Center, provides dietary, pharmacy and physical therapy services to the hospital and nursing home in Lemmon, plus 24-hour coverage of the emergency room through use of physician assistants. WRHS physicians also admit patients to the hospital in Lemmon.

The West River Health Services network consists of a parent corporation, West River Health Services (WRHS), which oversees the operations of three subsidiary corporations: the West River Regional Medical Center (WRRMC); the West River Health Care Network (WRHCN); and the West River Health Services Foundation (WRHSF). The 46-bed private, non-profit hospital and the main clinic, located in Hettinger, North Dakota comprise the WRRMC corporation. Six satellite clinics constitute the WRHCN corporation. Formed 10 years ago, the foundation (WRHSF) manages the

organization's fundraising and grantwriting activities, and administers its academic loan and scholarship programs.

### Prior Collaboration

Prior to the creation of the WRHS network in 1991, United Clinics in Hettinger and its satellite clinics in North and South Dakota had a long history of working cooperatively with the hospital in Hettinger. These efforts date back to the late 1960s, when the two physicians then practicing in Hettinger built a clinic attached to the hospital and began expanding their practice to serve satellite clinics in surrounding communities. Over the next two decades, the active medical staff grew to twelve members and satellite clinics were established in surrounding communities.

Meanwhile, the hospital and clinic in Hettinger expanded the volume and scope of health care services provided in the service area. In 1978, the hospital and clinic were instrumental in establishing a local HMO, West River HMO, that operated until financial difficulties forced its closure in 1989.

## NETWORK DEVELOPMENT

### Motivation for Formation

The medical staff, clinic and hospital administration, and board members began discussing the idea of merging the hospital and the clinic in 1989. The parties involved saw several potential benefits to a merger. At that time, the hospital relied heavily on inpatient care and saw a need to respond to continuing declines in the volume of inpatient services in the future. It viewed the merger as a potential opportunity to create efficiencies in administration, billing, and medical records.

For the physicians, the merger held the promise of allowing them to focus on practicing medicine rather than dealing with the paperwork and other business aspects of running a clinic. The physicians would no longer have either responsibility for any financial losses incurred by the clinic or the burden of carrying the clinic's accounts receivable. By eliminating the need for physicians to buy in and out of the practice, the merger also held potential for improving the practice's ability to recruit new physicians.

Although the merger offered a number of potential benefits, the parties involved had some reservations at the start of the process. Some hospital board members feared that some of the physicians might leave after they had received their share of the purchase price paid by the hospital for the clinic. The physicians in turn had concerns about their possible loss of autonomy and control. These fears have turned out to be unfounded. In

fact, only one physician has left the practice since the merger; his decision to leave was made prior to the merger, and for unrelated reasons.

### Start-up Funding

The merger process took approximately two years, and was finalized in April 1991. A law firm from Fargo was retained as counsel for the legal issues involved in the merger, including antitrust issues. Merger costs (including purchase of the practice, clinic assets, and legal fees) were covered through a combination of hospital operational revenue, funded depreciation accounts, and a federal Rural Health Transition grant.

### Initial Operation

To facilitate the process of operating a combined organization, several steps were taken prior to the actual merger. These included combining the medical records departments of the hospital and clinics, and consolidating data processing. Since the merger, the network has phased in a staff reduction program that relies on attrition and on cutting back staff hours at low census times. In this way the network has been able to reduce FTEs without layoffs. Three and a half years after the merger, administration, staff, board members, and physicians are positive about the results. At the same time, they acknowledge that they still have further work to do to fully integrate the two organizations.

## OVERVIEW OF OPERATIONS

### Organizational Structure, Governance, and Management

#### Structure

The physicians in this network are not employees of the WRHS or WRRMC corporations. They maintain their own corporate physician group, the United Clinics Professional Corporation (UCPC), which existed prior to the merger. UCPC provides physician and certified registered nurse anesthetist (CRNA) services to WRHS on a contractual basis. Under the current five-year contract with UCPC that began in 1991, WRHS pays UCPC an amount for compensation and overhead, and UCPC in turn pays the physicians' salaries and benefits. Physician salaries are paid on a fee-for-service basis that takes into account monthly production. The contracts require the physicians to stay with the practice for five years. A contract provision allows retirement at age 55 if the physician chooses.

Prior to the merger, the physician assistants (PAs) had been part of UCPC. With the exception of the two

dually certified CRNA/PAs in Hettinger, the PAs are now employees of WRRMC.

WRHS, the parent corporation, also has a contractual relationship with the Hettinger Building Partnership. This partnership owns some of the clinic buildings and leases them to WRHS. Shares in the partnership are owned by individual physicians (9 shares) and WRHS (2 shares). The terms of an agreement negotiated in 1989 specify that WRHS will purchase additional shares if physicians leave the practice.

#### Governance

WRHS is governed by a twelve-member board of directors elected by the corporate membership. The ten-member WRRMC Board is appointed by the WRHS Board, as is the eight-member WRHSF Board. Several members serve on both the WRHS and WRRMC Boards, and there is membership overlap between these boards and the WRHSF Board as well.

The network seeks board members who represent a cross section of the population it serves, including representatives from the satellite clinic communities. One seat on each board is allocated to a physician member. Board members serve three-year terms, except for the physician member whose term is one year, at the request of the medical staff. The WRHS and WRRMC Boards meet monthly, at consecutive times on the same date, while the WRHSF Board meets every two months. Board members are required to attend 60 percent of the meetings in a year and to participate in continuing education activities.

Each board member generally serves on one or two committees. WRHS committees include Finance and Executive Committees that meet monthly, and Education/Orientation/Bylaws, Nominating and Senior Retirement Housing Committees that meet as needed. WRRMC committees include Executive, Joint Conference, Bioethics, Buildings and Grounds, Home Health Advisory, and Physician Recruitment Committees. The Physician Recruitment Committee, whose members include three physicians, administration and community representatives, meets monthly to work on recruitment of physicians and other health care professionals on a continuous basis. WRHSF has two committees, Executive and Academic Loan.

Although physicians have only one seat on each of the boards, this has not been a problem for them. Four or five physicians usually attend board meetings, and physicians indicate that they have ample opportunities for providing input into the organization. A strategic action committee, composed of physicians and the administration, meets biweekly and is a major source of ideas and recommendations for the boards.

The board of the satellite clinic corporation, WRHCN, meets quarterly. This five-member board includes two representatives from a major tertiary care facility in Bismarck, two medical staff members, and a community member. Many of WRHS's patients in need of specialty care are referred to that tertiary care center.

### Management

The network's management team includes a CEO and five directors who report to him. These directors are responsible for the following five areas for the entire organization: Finance (including patient accounts, admitting and reception, billing, purchasing, and materials management); Support Services (including dietary, environmental services, community relations, library, fund development, and grantwriting activities); Ancillary Services (including pharmacy, lab, radiology and physical therapy); Quality Management (including medical records, quality assurance, and risk management); and Patient Services (including hospital departments, clinic medical services, home health, and education). The directors attend board meetings and give quarterly reports regarding their areas of responsibility.

In addition to their regular meetings, members of the boards, staff, and physicians participate in an annual planning retreat that is 2 1/2 to 3 days long. Several individuals cited this retreat as an excellent opportunity to assess the organization's progress in meeting long-term and short-term goals, and to develop new goals for the year ahead.

The WRHS, WRRMC and WRHSF Boards of Directors adopted new mission statements in 1993 that define each corporation's role in the overall health care system. The mission of WRHS focuses on providing "leadership, support and vision to its partners in health care in the fulfillment of their individual corporate missions." WRRMC's mission statement addresses its role of providing "comprehensive health and wellness services to the residents and visitors of the region." The WRHSF mission is one of supporting WRHS and its subsidiaries by providing fundraising and development services.

WRHS has also adopted a set of corporate values to guide the organization. These four corporate values are: "excellence in practice, innovation in service, compassion for the people we serve, and respect for one another."

### **Services and Functions**

The WRHS network provides a full range of primary, preventive, acute care, and emergency services. WRHS also provides administrative functions for the entire organization, including quality assurance, utilization review, billing (including billing for area ambulance

squads), purchasing, medical records, recruitment, and human resources functions.

### Staffing

The current active medical staff of eleven includes seven family physicians, two internists, a general surgeon and a podiatrist. Three of the family physicians practice obstetrics (including C-sections); they collectively deliver approximately 155 babies annually. One family physician and the two internists have specialties in geriatrics. A full-time radiologist position is currently vacant, and the organization is using locum tenens to provide radiology services while actively recruiting a radiologist.

Seven mid-level providers include five physician assistants and two certified registered nurse anesthetists. Three of the PAs are dually trained as nurse practitioners, and one of the CRNAs is a PA as well. An optometrist also provides eye care services at the Hettinger site.

A courtesy/consulting medical staff of 22 physicians and two dentists includes specialists in cardiology, urology, ophthalmology, orthopedics, and pathology; these specialists travel to Hettinger from Bismarck, about 150 miles away, on a regularly scheduled basis. The specialists perform some surgery at the Hettinger hospital, primarily in urology and ophthalmology. Most referrals for secondary and tertiary care are made to Bismarck, although some South Dakota patients chose to travel 185 miles to Rapid City.

WRHS primary care physicians indicate that they are in general judicious in their use of specialists. Moreover, they choose carefully which specialists will come from Bismarck to see patients in Hettinger. Local physicians use specialists to answer a specific question or deal with a specific problem, either in person or over the phone. They try to discourage their patients from self-referring to specialists, and also discourage the specialists from providing primary care.

The six satellite clinics are staffed by PAs, and by physicians on a rotating basis. All West River physicians except the general surgeon and the radiologist spend at least two days per week seeing patients in one of the satellite clinics. In satellites with PAs, those PAs take the first call, with back-up by physicians. The three family practice physicians who practice obstetrics cover their own OB patients to the extent possible, and the surgeon covers his own patients. The internists and family practice physicians in the practice take turns covering the emergency room at Hettinger on weekdays, weekends, and holidays.

Rotation of physicians to the satellite clinics and for call coverage means that patients have to get used to seeing different physicians within the practice. Some satellite clinic patients chose to drive to Hettinger or to another satellite clinic to see "their" physician, but the

physicians try to promote the "team approach" to their patients. One of the larger satellite communities, Lemmon, wants a physician to live there full time. As a compromise, West River is now recruiting a physician who would spend three days per week in Lemmon.

Network patients have access to a full range of medical technology, including ultrasound, mammography, and CT scans on site in Hettinger. A mobile MRI unit comes to Hettinger one day every other week. Radiology films are sent from the satellites to Hettinger to be read, using the physicians staffing the clinics as couriers. Hettinger has both EEG and fax connections with St. Alexius Hospital in Bismarck, in addition to fax connections with each of the satellite clinics.

The hospital and the clinic in Hettinger share combined medical records. Medical records for satellite clinic patients are transcribed in Hettinger. One copy of the record remains in Hettinger and one returns to the satellite clinic; the physicians serve as couriers for the medical records as well. The network has developed a long-term plan for upgrading its computer systems and implementing an electronic medical record system, and is seeking grant funding to assist with the costs.

#### Emergency Response Services

WRHS owns and operates an ambulance service; it also works cooperatively with several area ambulance services. The WRHS ambulance service provides an advanced life support (ALS) level of emergency medical services, as well as paramedic intercepts for area ambulance services that provide basic life support services. Thus, when a patient who is being transported to the hospital in an area ambulance requires ALS services, the ALS ambulance with a paramedic goes out to meet the area ambulance. Network physicians serve as medical advisors to area ambulance services, and the West River Health Services Foundation has provided several small grants to help area ambulance services upgrade their equipment.

With funding from a federal Rural Health Transition grant, WRHS has been developing an "emergency trauma network" with area ambulance squads. Grant activities include standardizing and upgrading ambulance squad training and equipment, increasing the number of paramedics, and improving communication systems between local ambulances and hospitals. The project aims to develop a planned system of first responders and of basic life support and advanced life support ambulance squads. A protocol for intercepts will also be created as part of this project.

#### Additional Services

WRHS provides home health services based in Hettinger for a service area that is larger than the hospital

and clinics' service area, due to the lack of other providers. Home health staff, including a manager, three FTE RNs, and supplemental staff, travelled 80,000 miles in 1993. Respiratory care services are provided in Hettinger. A Fargo-based company delivers physical therapy services in Hettinger, Lemmon, and Bowman. WRHS's cardiac rehabilitation program provides services in the Hettinger facility and in patients' homes. The network also employs a full-time registered dietician; this person provides clinical dietician services for hospital and clinic patients, consults at area nursing homes and a group home, and manages the county's Women, Infants and Children (WIC) nutrition program under a WRHS contract with the State of North Dakota.

WRHS provides preventive and health education services in community settings as well as in the hospital and clinic. Nursing staff teach prenatal and breastfeeding classes; they also follow up with new mothers at postpartum checks. Nurses teach health and sexuality education in the schools, and EMS staff teach the first responders course to high school seniors. Using state grant funding, the network also performs diabetic testing and education.

WRHS nursing staff work cooperatively with county public health nursing and participate in the Adams County Health Coalition, whose 22 members include senior organizations, county extension, public health, and social services. The WRRMC library has an extensive collection of medical books and journals and conducts on-line searches for medical staff; the library is open to community members and to students from area schools.

#### **Finance**

The hospital in Hettinger historically had positive operating margins prior to the merger in 1991; however, the organization incurred a number of expenses related to the merger, including substantial legal costs. In FY 1992, WRHS had operating revenues of \$12.95 million and an operating margin of 1.6 percent. In FY 1993, gross patient revenues decreased by \$419,000, due primarily to an 11 percent decrease in utilization, and the hospital had an operating margin of -2.9 percent on operating revenues of \$12.22 million.

Gross patient revenues increased by \$577,509 in FY 1994. This increase reflected a two percent increase in outpatient volume, a 2.6 percent increase in home health volume, and implementation of rate adjustments. FY 1994 operating revenues of \$12.35 million yielded an operating margin of -0.18 percent. The addition of non-operating revenues (including interest income, rental income, grant income, and outside support received for the satellite clinic operations) gave the organization a positive overall

margin of five percent in FY 1994. The chief financial officer anticipates a positive operating margin in FY 1995.

The six satellite clinics, all federally certified, provider-based rural health clinics (RHCs), are reimbursed by Medicare and Medicaid on a reasonable cost basis. Prior to the merger, one clinic (Bison) had been established by WRRMC as a provider-based RHC. The other five clinics were certified as free-standing RHCs, and the physicians were responsible for any financial losses of these clinics. WRHS has now assumed responsibility for any losses incurred.

Without the satellite clinics, WRHS's patient base would clearly not suffice to support the number of physicians and the range of services and technology currently available in Hettinger. However, the satellite clinics have high overhead costs, and many are in need of modernization and equipment replacement. RHC cost-based reimbursement helps to cover these costs.

The WRHS Board oversees the financial aspects of the corporation. Each subsidiary corporation develops its own budget, including anticipated capital expenditures; the budget is then submitted for approval by the WRHS board. Once the budgets are approved, expenditures must follow established policies and procedures (e.g., expenditures of more than \$10,000 need to be approved by the finance committee of the board; medical care equipment purchases of more than \$20,000 are reviewed by an equipment acquisition group that includes finance committee members and physicians).

### Impact on the Community

In 1965, the health care system in the WRHS service area consisted of two physicians and a 28-bed hospital in Hettinger. The hospital had very limited technology, and no surgery was performed there. Building a system from the ground up presented many challenges, but also provided an opportunity to shape a system that could efficiently address the problems of providing health care in a sparsely populated area with long distances between communities. Equally important, WRHS did not encounter opposition from entrenched providers. The historical paucity of health care services in the area meant that WRHS has been able to have a very significant and visible impact on access to care.

UCPC's original presence in the satellite communities resulted from requests by members of those communities. In some communities, new clinics were opened where there had been none; in others, UCPC purchased a practice from retiring physicians. Overall, WRHS's current relationships with the satellite communities appear to be quite positive. The network emphasizes its role as a regional medical care resource. It employs staff from the satellite communities at those

clinics and at the facilities in Hettinger, and makes an effort to involve satellite community residents as board members. Through WRHSF, the network has established a MEDGrant program to help fund health-related needs and services of communities in the service area, including medical equipment, ambulance purchases and equipment, and building construction and remodeling.

WRHS's relationship with the satellite community of Bowman is not as positive as it is with the other communities. UCPC originally began providing services in Bowman at the request of two physicians who associated with UCPC and then retired. Another physician built a new clinic in competition with WRHS, but left the community shortly thereafter. WRHS is working to develop a more cooperative relationship with the two physicians currently practicing in Bowman, and with community members. The CEO of WRHS and a board member are participating in a task force to examine ways to meet Bowman's health care needs.

Community response to the merger of the hospital and the clinic has been positive, after some initial confusion over billing was addressed. WRHS communicates regularly with community members through a quarterly newsletter that is disseminated to households in the service area. The newsletter includes the organization's annual report, describes current services being provided and names the staff providing them. In addition, the newsletter announces plans for new services and explains changes in hospital and clinic procedures.

## INFLUENTIAL FACTORS

In contrast to a number of rural health networks that have developed recently in response to outside forces such as federal or state health care reform initiatives or grant programs, West River Health Services is a locally driven effort that has evolved over a long period of time. Four factors have influenced the development and operation of this network: 1) a long-range vision on the part of one person, 2) stability and commitment of key actors, 3) creative ongoing recruitment, and 4) state and federal health care policies.

### Long-range Vision

The successful development of WRHS reflects in large part the vision of Dr. Gerald Sailer, who began practicing in Hettinger in 1965. For over 25 years, Dr. Sailer was a practicing physician who did not have a formal leadership position in the organization (other than President of UCPC for part of that time). However, individuals throughout WRHS describe Dr. Sailer's

leadership as instrumental in building WRHS as a regional medical resource, from the initial strategy of developing a group practice and satellite clinic system through the merger of the hospital and clinic. Although he recently retired from active practice, Dr. Sailer continues to maintain a presence in WRHS, consulting on a regular basis with the administration and the medical staff.

### **Stability and Commitment of Key Actors**

Another factor that complemented Dr. Sailer's leadership and contributed to the successful development of the network is physician stability. WRHS has a core group of physicians that have practiced together for a long time. The current active medical staff includes four physicians who have practiced in Hettinger for twenty years or more. Four other physicians have practiced there for over ten years.

WRHS has also benefitted from the guidance of a committed group of board members and a supportive community. The history of cooperative relationships between the key parties and their agreement on common goals have helped to guide them through difficult times in the transition to an integrated organization.

One of the difficult aspects of the transition was the departure of the CEO of WRRMC and WRHS shortly after the merger. However, he was replaced as CEO by an individual who had been the chief financial officer of the hospital for 11 years and thus could provide a measure of continuity in management.

### **Creative Ongoing Recruitment**

A long-range perspective on recruitment of physicians and other health care professionals also distinguishes WRHS from many other rural networks. The recruitment committee is continuously active: The organization "doesn't wait until the oldest physicians retire to recruit." Medical and nursing students come to the facility on a regular basis for short-term rotations, and two WRHS physicians serve as preceptors for the University of North Dakota Medical School.

WRHS participates in the National Health Services Corps program. In 1989, WRHS also established and funded its own loan repayment and scholarship programs. West River designed these two complementary programs to provide prospective physicians, mid-level practitioners (physician assistants, nurse practitioners and nurse midwives), nurses, and allied health care professionals with financial support for their education — in return for a commitment to practice at WRHS. The programs award loans and scholarships on the basis of the applicant's eligibility, the availability of funds, and a determination of the need for the student's profession at WRHS following his or her graduation.

The WRHS loan program allows medical students to borrow up to \$7,500 per year, for a maximum of \$30,000. Allied health professionals and mid-level practitioners are eligible to borrow up to \$3,000 in each of their final two years of education. Scholarship funding may be extended for up to three years, for a maximum amount determined by the Academic Loan Committee. Loan forgiveness at the rate of \$300 per month begins with the applicant's full-time employment at WRHS. If a position is not available at WRHS when the student graduates, the loan is written off. To date, the loan program has made loans totalling \$254,000, of which \$150,000 has been repaid or forgiven.

WRHS focuses its recruiting efforts on individuals who are comfortable with the rural environment, knowledgeable about rural areas, and have midwestern — mostly North Dakota — backgrounds and education. The network also looks for people who can work well together and who share a common philosophy. As one physician noted, "We try to find people that fit in as far as their temperament, personality, and ideals. None of us are out here to make a lot of money."

### **State and Federal Health Care Policies**

Although the impetus for development of the network was local, WRHS functions in a health care environment affected by outside forces, including the state and federal governments. To date, state and federal health care policies have had a mixed influence on the network. Fear of antitrust prosecution posed an initial hurdle to merger of the hospital and clinic. The organization incurred substantial financial cost for legal counsel to ensure that the merger was structured in a way that would not violate antitrust laws.

Federal and state Medicare and Medicaid reimbursement policies have had both negative and positive effects on the network. A North Dakota Medicaid law currently poses a barrier to WRHS's purchase of the 88-bed, for-profit nursing home in Hettinger. This law allows the state to recapture any depreciation expense charged to the Medicaid program from the sale price of the facility, making the price of the facility far too expensive for the network. Plans to acquire the nursing home have been set aside for the time being, while a subcommittee of the North Dakota legislature considers modifications to the law.

Medicare's method of reimbursing HMOs for risk contracts was a key factor in the demise of the West River HMO, which preceded formation of the network. At present, cost-based Medicare and Medicaid reimbursement for the certified RHC satellite clinics has had a positive effect on the network's financial situation.

Funding from a number of federal and state grant programs has contributed to the development of the

WRHS network and its ability to upgrade and expand its services. Federal regulations for the Essential Access Community Hospital/Rural Primary Care Hospital (EACH/RPCH) program initially prohibited WRRMC from being the EACH hospital for the RPCH hospital in the satellite community of Lemmon (South Dakota), since EACH/RPCH relationships were not allowed to cross state lines. However, federal legislation last year changed this requirement to allow bi-state EACH/RPCH networks, and WRRMC and the hospital in Lemmon have applied for designation as an EACH/RPCH network.

The EACH/RPCH program was designed to provide an alternative rural hospital model for communities that can no longer support a full service hospital. The benefits of designation as an EACH/RPCH network include grant funding for network development, enhanced Medicare payments, and some flexibility in meeting Medicare hospital regulations.

## ASSESSMENT OF NETWORK ATTRIBUTES

### Level of Integration

As measured by Shortell's (1988) criteria for assessing the "systemness" of a health care corporation, the WRHS network has achieved a fairly high level of integration. It has integrated financial planning and control mechanisms, a formal system-wide strategic planning process that includes an annual planning retreat and development of a five-year strategic plan, system-wide human resource planning, and network-wide quality assurance.

The organization's current management information systems, which are financially oriented, are integrated. WRHS's long-term plans call for developing a management information system focused on patient care. This MIS will include electronic medical records that can be accessed at the satellite clinics and in Hettinger.

Shortell's sixth criterion for assessing "systemness" — a common culture shared by all members — may be the most difficult to achieve. Overall, WRHS members share many values, including a willingness to do what's good for the entire organization, and a strong commitment to quality. At the same time, however, several individuals noted that the process of merging the two different cultures of the hospital and the clinic has not been easy. Work continues to eliminate the remaining "we-they" patterns of thinking that persist in parts of the organization.

### Complexity

WRHS exhibits a high degree of complexity, as evidenced by the number of different services offered through the network and the different types of organizations that are part of the network. The network continues to move in the direction of greater complexity, with its plans to expand further into long-term care.

### Assumption of Risk

The WRHS network does not currently bear risk, but the organizations that comprise the network have had experience with managed care. In 1978, United Clinics and the hospital in Hettinger helped to establish a local HMO with the financial assistance of federal HMO feasibility and start up grants. At the peak of enrollment, the West River HMO served about 6,000 members, including about 2,000 Medicare enrollees.

In its early years of operation, the HMO did well financially and built up a reserve. However, the HMO ran into serious financial problems by the late 1980s and was forced to close in 1989. The former director of the HMO and other individuals involved indicate that several factors contributed to the HMO's financial difficulties, including open enrollment and community rating requirements, a failure to effectively control utilization, and rapid increases in tertiary care costs.

The HMO's most serious problem appears to have been Medicare risk contracting. The change in the method of reimbursement for Medicare risk contracts from 90 percent of fee-for-service costs to the AAPCC resulted in a drastic reduction in reimbursement for the West River HMO and led to financial losses that the HMO could not sustain. The federal Office of Management and Budget later determined that an error had been made in calculating the Medicare reimbursement; however, by that time the HMO had collapsed.

Although United Clinic physicians took a financial loss from the HMO and remain somewhat bitter about the federal government's role in the demise of the HMO, WRHS is open to the possibility of developing another HMO in the area. There is general agreement, however, that only a locally managed HMO would be acceptable to the parties that would need to be involved.

### Measuring and Evaluating Performance

The importance of providing high quality medical care is a recurrent theme in the WRHS network. The network prides itself on providing "urban medicine in a rural setting," and its physicians stress the value of being able to practice "the kind of medicine we were trained to practice." The level of commitment to quality care is especially noteworthy in a relatively small rural organization with limited resources.

Medical records, quality assurance and risk management activities for the entire organization are combined in a Quality Management Department. Department managers throughout the organization take part in the "Quality First" program, which is a total quality management program. In addition, the chief of the medical staff annually appoints each physician to serve on two medical staff committees. These committees include Medical Records, Utilization Review, Morbidity and Mortality Review, Surgical Case Review, Pharmacy and Therapy, and Infection Control.

For quality improvement and risk management purposes, the medical staff and administration jointly review cases referred by the network's patient representative as well as a sample of 20 patient records per month. In the hospital, the Director of Quality Assurance reviews medical charts every day, using generic screening criteria. In the satellite clinics, ten charts per PA are reviewed on a quarterly basis by a PA from a different satellite clinic, using a standardized form. All clinics conduct patient satisfaction surveys twice a year to identify potential quality problems.

Evaluations by outside organizations have validated the quality of services provided by WRHS. The hospital in Hettinger has been fully accredited by the Joint Commission on Accreditation of Health Care Organizations (JCAHO) for 18 years, and recently received reaccreditation for a three-year period. Its laboratory is certified by the College of American Pathologists.

## SUMMARY

Many small rural communities throughout the United States are experiencing great difficulty in retaining and recruiting physicians and other health care providers. Given the geographic isolation of the region, Hettinger and the satellite communities served by WRHS could easily have found themselves in the same situation. Instead, WRHS has been able to maintain a stable medical staff, recruit new providers when needed, and expand the range of services provided in Hettinger and surrounding communities.

A key element in WRHS's success has been its 25-year-old satellite clinic system, which provides a sufficiently large patient base to support an active medical staff of twelve physicians. WRHS's staffing pattern involves the rotation of physicians to satellite clinics and substantial use of physician assistants both in the satellite clinics and in Hettinger. This strategy allows the medical staff to function as a group practice and to have many of the benefits inherent in a larger group practice (e.g., the presence of supportive colleagues, regular access to

consulting specialists, up-to-date equipment and technology, and a reasonable call schedule.) The merger of the hospital and the clinic also improved the recruitment environment for physicians by eliminating the need for new physicians to buy into the practice.

The network's philosophy of continuous recruitment of a range of health professionals has paid off in a committed, high-calibre work force. The WRHS loan and scholarship program, a creative offshoot of the focus on ongoing recruitment, is accessible not only to physicians but also to physician assistants, nurse practitioners, nurse midwives, nurses, and allied health care professionals.

WRHS also uses both cross-training and assignment of multiple responsibilities to make the most effective use of its current staff. For example, some PAs are also ALS certified and can staff ambulance runs when needed. Network paramedics also work in cardiac rehabilitation.

Future plans for West River Health Services include expansion of long-term care services and further development of the EMS system in the service area. The network remains interested in purchasing the nursing home in Hettinger if state law can be amended to make the price affordable. The hospital will add swing beds later in 1994, and is considering the potential addition of hospice and respite care services. Further development of the EMS system will include continued upgrading of area ambulance squads' equipment and training. In addition, planning is underway (and land has been donated for) a congregate housing project for seniors. Over the next four to five years, WRHS also plans to replace its computer systems. Upgraded system capacity will make possible computerized lab systems, teleradiology, and electronic patient records.

In an era when many more populous rural communities struggle to maintain a minimum level of health care services, WRHS has been able to provide a full range of medical services in a very isolated rural area, including high technology services. The West River health care system has received a considerable amount of attention, including several state and national awards, and visits from Congressional representatives and health care leaders over the last decade.

However, despite considerable interest in the West River health care system as a model for providing health care in rural areas, the system has been difficult to replicate to any degree. There may be several reasons why other rural areas have so far failed to replicate the WRHS system. First, the scarcity of health care resources in the area also provided an opportunity to develop a health care system from the ground up, and to do so without opposition. Second, WRHS had a strong leader with a vision, plus a stable group of medical staff. Third, the history of cooperative relationships between the

hospital and the clinics certainly facilitated development of the network.

Even with these multiple, positive factors, the West River network still evolved over more than twenty-five years to reach its current stage of development. Cooperative, trusting relationships are essential to network success, and such relationships require time to develop and nurture. The WRHS system continues to hold promise as an effective model for the delivery of

health care in rural areas, but more time may be needed to evaluate its replicability.

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## CASE STUDY 3. ITASCA MEDICAL CARE

### BACKGROUND

Itasca Medical Care (known as IMCare) is a rural provider network designed to serve Medicaid enrollees and persons who receive General Assistance, Medical Care (GAMC). IMCare operates in Itasca County, the State of Minnesota's second largest county in size. Located in north central Minnesota (north of the Twin Cities and west of Duluth), Itasca County covers two million acres and contains over 1,000 lakes within its borders.

Grand Rapids, the major community in Itasca County, has 7,000 of the county's 40,000 residents. The largest employer in the County is the Blandin Paper Company; headquartered in Grand Rapids, Blandin employs 1,000 people. Forest products and tourism industries dominate the local economy.

### Health Care System Overview

Itasca County is served by health care providers based primarily in three communities — Grand Rapids, Deer River, and Big Fork. Four primary care physician groups operate in those three communities: the Grand Rapids Medical Associates and Itasca Clinic in Grand Rapids; the Northland Medical Clinic in Big Fork; and the Deer River Community Clinic in Deer River. Grand Rapids also has two-person radiology, ophthalmology, and anesthesiology groups, a solo orthopedic surgeon, and two pathologists.

The two largest medical groups are based in Grand Rapids. The Grand Rapids Medical Associates contains nine family physicians, two internists, and a nurse practitioner. This group has also recruited two additional family physicians plus a surgeon. The Itasca Clinic of Grand Rapids has nine physicians, including two internists, one general surgeon, one obstetrician gynecologist, and five family physicians. Two nurse practitioners also work at the Itasca Clinic. These two medical groups function independently.

The Itasca Medical Center, also located in Grand Rapids, is a 108-bed acute care facility with 35 SNF beds; it employs 290 persons. Census for the acute care beds averages 28 patients per day. The SNF beds are fully occupied. The hospital has an obstetrical unit, three surgical suites, and separate intensive care and coronary care units. The hospital laboratory includes a full-time pathologist and provides consultation and testing services to community medical groups as well as to all three Itasca County hospitals.

Deer River is served by three family physicians who are employees of the Duluth Clinic (a large multi-specialty clinic based in Duluth, Minnesota, 100 miles from Deer River). The Duluth Clinic rents office space from the hospital for this practice. The Community Memorial Hospital in Deer River has 20 licensed acute care beds and 15 SNF beds. It has a home health care unit, an adult day care unit, and an obstetrical care unit. The average census for the acute care beds is six patients; the nursing beds are fully occupied. About 50 babies a year are delivered in the hospital. Basic laboratory services and radiology services are available on site with CT services provided by a mobile unit from the Itasca Medical Center. The medical staff consists of three physicians. A surgeon from Grand Rapids visits the hospital once per week.

The town of Big Fork is served by the Northland Medical Clinic, a four-person practice with three family physicians and a nurse practitioner. These providers also staff two satellite clinics in another county. An administrative group based in an adjacent county manages the Northland Medical Clinic. The clinic shares space with the community hospital and a dental office.

Big Fork's hospital, the Northern Itasca Health Care Center, is a small primary care facility with 20 beds. A 40-bed nursing home, an obstetrical care unit, and a 30-apartment assisted living complex are all attached to the facility. The hospital provides basic laboratory and x-ray facilities; a mobile CT scanner from Grand Rapids visits two days per month.

Dental services in Itasca County are provided by multiple groups based in at least six communities in the county. Optometrists are primarily solo practitioners and have offices spread throughout the county. The county mental health center was the only mental health care provider until 1989 when a single licensed psychologist established an independent practice. There are now at least five independent mental health practices in the county. Itasca is served by eight chiropractors, most of whom are solo practitioners.

Public health nurses are based in Grand Rapids but spend time in several of the smaller communities. In addition to providing immunization clinics, they serve as the school health nurses for the county and provide EPSDT screening and preschool screening. Public health nurses also make most of the home health visits, including visits for high-risk pregnancies and families in distress.

### Prior Collaboration

Prior to the formation of the current Itasca Medical Care, many of the Itasca County health care providers were involved in ICHO (Itasca County Health

Organization). ICHO, which began in 1982, was a physician/hospital organization that developed under the Blue Plus insurance program offered by Blue Cross and Blue Shield of Minnesota. The patient population of ICHO was drawn from several of the larger employers in Itasca County, including the county itself.

All the physician and hospital providers in the county contracted with Blue Plus as a group, rather than as individuals. Through ICHO, providers obtained more favorable reimbursement rates than those normally given to individual providers under Blue Plus. In return, participating providers shared risk for total expenditures each year.

ICHO paid participating providers on a fee-for-service basis, with only a rudimentary overlay of managed care. A local medical director and the central offices of Blue Plus in the Twin Cities provided oversight; however, the medical director had no authority to control utilization, and Blue Plus limited its oversight primarily to hospitalizations.

The organization disbanded in 1988 due to internal disagreements among the participating providers regarding reimbursement levels. Differences in practice styles translated into higher reimbursements for some physician groups despite equal risk sharing by all providers. Several providers in Itasca County believe antitrust laws would prohibit such an organization at the present time.

## NETWORK DEVELOPMENT

### Motivation for Formation

Area providers' interest in obtaining more equitable reimbursement for their services was the primary motivation for the formation of IMCare. In the early 1980s, the Minnesota Legislature reduced the reimbursement for services provided under GAMC by 25 to 45 percent. At the same time, Medicaid reimbursement also began to lag significantly behind fees and reimbursement from other third-party payers. Hospitals and physicians, as well as dentists, expressed concern over their ability to continue providing services under the deeply discounted payments, reportedly 60 percent or less of the fees charged by the providers.

In addition to inadequate reimbursement, both physicians and employees of the Itasca County Human Services Agency state that inappropriate use of the health care system by GAMC and Medicaid recipients also provided motivation for developing a different system to deliver and monitor care for this population. Local providers and program officials believed that they could improve patients' use of medical services if a managed care system were implemented.

### Key Actors

Several people played prominent roles in the development of IMCare during 1980-1982. The idea for IMCare apparently originated in the county office of the Itasca County Department of Human Services (ICHS) during a "brain storming" session between three individuals: the director of human services, an ICHS employee who has been the only director of IMCare, and the administrator of the county hospital. This trio patterned IMCare after ICHO. A member of the management staff of Blue Cross and Blue Shield of Minnesota (BCBSM) also participated in the early discussions and provided expertise in managed care and financial systems.

The local medical director of the ICHO functioned initially as a liaison to the provider community. However the administrator of the Grand Rapids hospital was the most influential provider among the early developers of IMCare. According to Itasca County Human Services (ICHS) personnel, the hospital administrator's excellent rapport with the Grand Rapids physicians made him an important advocate for IMCare. He was trusted by all the community providers. There was a strong consensus among interview respondents that, without the cooperation of the physicians, the development of IMCare would not have been possible.

Of the original three-person working group, only the administrator from Itasca County Human Services has been involved continuously in IMCare, serving as director of the program since its inception. The key physician participants have changed as IMCare has evolved. A dental care manager who had worked with local dentists in other managed care programs helped secure dentists' participation in IMCare.

### Start-up Funding

Funding for the design and early implementation of the program came, largely in the form of donated time, from the Itasca County Human Services, the Itasca Medical Center, a physician, and Blue Cross and Blue Shield of Minnesota. No new equipment or facilities were necessary for this program, since it was located organizationally in the offices of the ICHS. Existing billing forms were used; only referral forms and patient education materials required redesign and printing.

### Initial Operation

The program began in 1982 with IMCare providing services for the 400 General Assistance Medical Care recipients in Itasca County in return for a capitated payment per recipient. The capitation payment was sent directly to BCBSM, the fiscal agent for the program. For

its administrative services, BCBSM retained ten percent of the total capitation payment.

No salaries were paid by IMCare to any other employees during the first year. Each provider assumed responsibility for the required paperwork, and staff from the ICHS carried out all other necessary tasks. During the first year of the program, ICHS accepted all risk for costs of care that exceeded the capitation funds.

IMCare expanded membership to Medical Assistance in 1985, after three years experience with General Assistance Medical Care enrollees. The design and implementation of a managed care program for Medicaid recipients required a waiver from the federal government, a waiver and contract from the State of Minnesota, the development of a local centralized management system, and the hiring of a billing and financial agent.

The original proposal to the Minnesota Department of Human Services was a one-page document, and the original contracts with the State of Minnesota were simple documents providing IMCare with a capitated sum for each eligible person in the program.

IMCare was slow to evolve, with little if any management of care evident in the first several years. No specific systems to control or modify practice patterns of physicians and other providers existed in the initial years of the program. Attempts to modify patient care-seeking habits were made through denial of payment for services considered inappropriate, such as use of the emergency room for routine medical care. Usually the provider was not paid for that service; consumers experienced few negative consequences for inappropriate use of services. Developing systems to monitor provider patterns proved difficult.

Initially, Blue Cross and Blue Shield of Minnesota was hired to provide the financial and managed care expertise to IMCare and to handle all payments to providers. However, this contract proved too small to be administered by a full-time person at BCBSM, or to warrant a unique information system tailored to IMCare. Therefore, the data supplied by BCBSM were not available on a timely basis or in a form that met the needs of IMCare managers. Financial reports were not provided on a monthly cash basis, so it was difficult to assess total funds remaining or to make necessary adjustments in providers' reimbursements. This situation strained relationships with participating providers and eventually led to termination of the BCBSM contract, as described later in this report.

### Early Barriers

The contracts for provision of mental health and chiropractic services to IMCare enrollees caused difficulties in the initial years of IMCare operation.

### Mental Health

During the first three years of IMCare, all mental health was provided by Northland Counseling through a sole provider agreement. In the late 1980s, several independent mental health practitioners moved into the county or separated themselves from Northland Counseling. Therefore, in 1990 Northland Counseling was no longer offered "sole provider" status.

### Physician Gatekeepers for Chiropractic Care

Another barrier to harmony in the early years of IMCare was the "gatekeeper" physician model adopted for chiropractic care services. The first two years of IMCare operation generated many complaints by consumers and by chiropractors. In the third year of the plan, consumers were allowed direct access to chiropractic care. IMCare arranged for chiropractors to control a separate pool for reimbursement of care provided to enrollees.

## OVERVIEW OF OPERATIONS

### Organizational Structure, Governance, and Management

Itasca Medical Care (IMCare) is a subunit of the Itasca County Human Service Board, and ultimate governing authority resides with the Board. The Director of IMCare is the Associate Director of the Itasca County Human Services. The senior management group for IMCare consists of the Director of IMCare, the Medical Director, and the nurse who administers quality improvement activities. These three individuals interact with the Itasca Medical Care Task Force in quarterly meetings.

The Task Force is technically an advisory body, but its recommendations are usually accepted by the ICHS Board. The Task Force has two categories of members: private individuals, and representatives from public or non-profit organizations. At this time, the group of "private" individuals consists of two physicians, two dentists, two pharmacists, one consumer, one vision provider, and one chiropractor. The "public" group includes two hospital administrators, one mental health provider, one public health professional, and two ICHS professionals.

In its meetings, the Task Force updates members and responds to provider requests for changes in reimbursement and risk-sharing formulas. Task Force decisions are made by formal vote. Long-term, strategic planning issues typically are also addressed in these meetings. The Task Force produced its first written long-range planning document for IMCare in 1992.

The office of IMCare's Director carries out the operational duties associated with program administration. Major management tasks include overseeing data processing, payment of claims, utilization review, and quality improvement efforts. The Director also administers provider contracts and maintains up-to-date IMCare enrollment lists.

### Services and Functions

IMCare provides the full range of medical services authorized under Minnesota's Medicaid program. To carry out this mission, IMCare is divided administratively into several different components.

#### Quality Improvement/Utilization Review

IMCare's Quality Improvement/Utilization Review Committee is staffed by a nurse who is an Itasca County employee in the IMCare Division. This nurse and the IMCare Medical Director facilitate inspections of participating providers' offices and reviews of providers' medical records, carried out by state Medicaid authorities.

The QI/UR Supervisor also undertakes specific projects aimed at quality improvement. For example, she is currently working with participating providers to enhance compliance with state requirements regarding screening examinations for children. The Supervisor is implementing a provider education program aimed at improving the rate at which providers complete risk assessment forms for pregnant women at their initial and 28-week follow-up visits.

The Committee oversees the day-to-day utilization review activities carried out by the nurse QI/UR Supervisor and reviews the QI/UR reports. In addition, the Committee serves as the second level in dealing with patient complaints. Complaints usually relate to services that enrollees have used (or would like to use) but that are not reimbursed by IMCare.

All providers who are not at financial risk (the risk-sharing arrangements between providers and the plan are discussed below) must have pre-authorization from the plan before they provide services to IMCare enrollees. Even "at risk" providers must have pre-authorization from IMCare before making referrals to specialists out of the area. The Medical Director reviews these requests on a daily basis. Quite often, the "prior" approval is accomplished after services have actually been delivered by specialists. In these cases, the specialist submits the bill to IMCare and IMCare contacts the primary care physician to determine if a referral was made. If it was not, payment to the specialist is denied.

All participating hospitals must inform IMCare when an IMCare member is hospitalized. IMCare has an

agreement with Blue Cross and Blue Shield of Minnesota under which BCBSM determines the appropriateness of requested inpatient stays, certifying the length stay according to BCBSM criteria. Upon certification, an expected length-of-stay is assigned. The hospitals then carry out concurrent review activities using their own nurses.

The IMCare QI/UR Supervisor receives periodic reports from the hospital concerning patient progress, tries to initiate the discharge planning process in a timely manner, and receives notification from the hospital at the date of discharge. If an out-of-county hospital is involved, the arrangement of post-discharge transportation can be an issue. The QI/UR Supervisor discusses transportation with the hospital's discharge planner and tries to arrange for use of a transportation provider under contract to IMCare.

In the past, IMCare has had a relatively permissive policy with respect to the requirement that providers seek prior authorization. The real incentive for providers to cooperate in this process relates to timeliness of payment. If prior authorization is not requested, this can extend the payment cycle considerably. The providers in IMCare understand the necessity for utilization review but many resent the paperwork that it entails.

#### Information Services

In its initial years, IMCare contracted with BCBSM to serve as fiscal agent and to provide all billing and data analysis services. Billing rates for providers were established at approximately 80-85 percent of the usual BCBSM fee schedule. As the program grew, IMCare became dissatisfied with the administrative reports from its fiscal agent. These reports were not timely enough to help avoid financial shortfalls. IMCare also determined that BCBSM did not always pay claims submitted by out-of-network providers at appropriate rates, and it was difficult to ascertain how rates were being set for these providers.

In March of 1992, IMCare replaced BCBSM with a private-sector vendor. This vendor, although headquartered out-of-state, processes claims in an office in St. Paul and has a full-time staff person on site at IMCare. The providers pay the salary of this person and, in return, have received greatly improved turnaround on claims payment and data processing. IMCare no longer relies on BCBSM payment schedules as the basis for establishing its provider reimbursements (see discussion of payment procedures below).

#### Medical Director

From 1983 to 1986, two physicians informally shared the responsibilities of Medical Director for IMCare. In 1986, this position was formalized. During IMCare's early

years, the medical director's job consisted primarily of arbitrating disputes between physicians and other providers, as well as between providers and IMCare. As the position became more formalized, the duties became more routine.

IMCare's Medical Director spends about one-half to one hour a day reviewing referrals and approximately four hours per week on general issues relating to QI/UR. The Medical Director, who also responds to emergency referral requests daily as needed, is reimbursed by IMCare on a contract basis at the rate of thirty-five cents per enrollee per month.

#### Fiscal Management and Accounting

A salaried employee has responsibility for membership enrollment and provider contracting within IMCare. This person works with county financial workers to ensure that enrollment lists are current. The employee also assists providers in completing claims forms and reconciles member enrollment tapes with eligibility information provided by the Minnesota Department of Human Services.

A second individual serves as an accountant for the program. This person assists with general ledger and financial reporting, negotiates the contract with the information services vendor, and is the primary contact person in the plan for providers who have questions concerning fee schedules. The accountant also updates fee schedules in the bill-paying system as needed, issues interim payments to providers, and handles coordination of benefits.

### **Finance**

#### Setting Rates

The program receives capitated payments from the state based on rate cells defined by age, sex, and living arrangement. All non-metropolitan counties in Minnesota, excluding Itasca County, are combined for the purpose of computing these rates. The 1994 rates are based on 1992 data that have been projected forward. Itasca County then receives 95 percent of this average figure for each aged Medicaid beneficiary enrolled in IMCare and 90 percent for each AFDC beneficiary.

The state has supported the IMCare program in several ways when setting these rates. For example, the state agreed to exclude disabled Medicaid beneficiaries in the capitation payment, effectively improving the "risk selection" for IMCare. It also expedited the SSI eligibility determination process, which allows individuals to qualify for SSI benefits more rapidly and therefore remain in IMCare for a shorter length of time, again improving the risk mix served by IMCare. Finally, as described below, the state increased the capitation rate to allow

expenditures for dental care that exceed the average for other rural counties in Minnesota.

Administrative costs run 9.3 percent of total capitated income. Five percent of that 9.3 percent is withheld by IMCare from the payment received by the state. The county underwrites the balance of administrative costs.

#### Allocation of Funds

The remaining capitation funds are allocated among several different risk pools, including dental, vision, chiropractic, and medical care pools. The medical care risk pool includes physicians, hospitals, and mental health providers. A multi-step process determines the amount of money disbursed to the dentists, vision providers, and medical providers.

First, the capitated financing pool for the chiropractors is subtracted from the total amount. The amount subtracted reflects what the State's Department of Human Services (DHS) has determined to be the chiropractic portion of expenditures statewide. Each chiropractor then receives a capitated payment for each participant who designates him or her as a primary provider on the enrollment form.

Vision providers are paid from a pool of one dollar per member per month, a figure determined by previous cost experience. The vision providers bill on a fee-for-service basis from this pool; they do share risk for fees exceeding the vision pool.

A \$0.10 per member per month fee goes to the ICHS/Public Health Division to help fund preventative services for children. In addition, an escrow account provides reinsurance for any inpatient hospital charge amount over \$15,000 per person per year. The medical pool pays 20 percent of expenditures over the \$15,000, and the remaining 80 percent is reimbursed to the medical pool from the escrow account. The state itemizes how much of the capitation rate goes for this stop-loss payment.

A minor additional deduction covers bulk medications and prescribed over-the-counter drugs that are purchased by the program but are not client-specific. When all of these deductions from the capitated amount have been taken, the interest income that has been earned throughout the year, plus the income from third-party insurance recoveries, is added back into the pool.

Until October of 1994, participating IMCare dentists received ten percent of the remaining funds. If they spent more than that amount, they were at risk for the shortfall in their funds pool. Dentists were paid on a fee schedule based on the Delta Dental fee schedule, but at a reduced fee. (Delta Dental is a statewide private dental insurer.)

Beginning in October 1994, the dentists were no longer given 10 percent of the remaining monies. Instead, they received an amount specified by the State of

Minnesota. The state determined this payment by assessing dental fees and utilization throughout Minnesota. Historically, this payment has been considerably lower than 10 percent, often only 3 to 4 percent. The dentists did not wish to accept risk sharing under this new, smaller dental pool. Thus, Delta Dental now serves as the dentists' financial management company. It accepts all risk from IMCare and pays dentists on a fee-for-service basis at about 80 percent of their usual charges.

The remainder of the pool is divided between risk-sharing physicians, mental health providers, and hospitals. This medical pool must cover all other medical needs of the members, including medications. Pharmacists do not share risk in IMCare. Instead, they bill through a card billing system and are reimbursed at the Average Wholesale Price (AWP) plus \$4.20 for a dispensing fee. If they were being reimbursed by Medical Assistance, they would receive the AWP minus ten percent plus \$4.10 in a dispensing fee.

Risk-sharing physicians, outpatient hospital services, and mental health providers are reimbursed based on the MA fee schedule plus 20 percent. Hospital inpatient care is paid based on a prospective payment related to diagnosis as determined by the State MA program fee schedule. Participating (risk-sharing) hospitals receive this prospective payment plus 20 percent. Providers who do not share risk are reimbursed according to the MA fee schedule.

#### Recent Financial Issues

Recent provider payment issues for IMCare have included fluctuations in enrollee eligibility, dental care reimbursement, case management fees, and improving payment arrangements for mental health and vision providers. Issues relating to eligibility determination have posed ongoing problems for IMCare providers. In the AFDC program, the state automatically closes the case if the paperwork has not been submitted to keep eligibility current. However, individuals who have had their case closed can be retroactively reinstated. During this interim, providers may submit a request for reimbursement that is denied because records show that the beneficiary is ineligible. This often happens with respect to pharmacy care. Typically, the provider who receives such a notice will ask IMCare to resolve the problem.

The Task Force concluded that the state-determined capitation rate for dental services was not sufficient. It was based on an average expenditure for dental services in other counties; however, the lack of provider availability in some rural counties appeared to decrease those average expenditures. DHS concurred with the Task Force's conclusion and has increased the payment for dental care within the capitation payment to IMCare.

The Task Force implemented payment of a case management fee per member per month to the primary physician and primary mental health provider. These providers are paid for each enrollee registered with them. The case management fee is intended to compensate for a) extra time devoted to monitoring the progress of the patient's care plan, and b) administrative expense associated with patient communication and referral procedures.

IMCare considered creating a separate risk pool for mental health providers but decided not to do so. The mental health provider would have received a capitation payment for each enrollee who designated that provider as his/her usual source of mental health care.

Vision providers were capitated in this manner early in the plan's history, but disputes arose over the capitation payment arrangement. Many clients designated the only ophthalmologist in the community as their vision provider, but then reportedly were not able to get an appointment to see him as quickly as they desired. As a result, the ophthalmologist would receive the capitation payment until the beneficiary needed services. Then the beneficiary would change his or her primary vision provider to obtain access; however, the new provider would not have received any capitated payment for this individual before the change. (Enrollees can change providers once in their first year and/or at the time of annual open enrollment.)

#### Settlement of the Risk Pool

Ultimately the Task Force members decide how the risk monies will be distributed. The actual distribution does not occur for 12 to 18 months after the close of books in any given year, to ensure that all claims for the year have been processed. Monies from the hospital, physician, and mental health pool are divided between physicians, mental health professionals, and hospitals, depending on the dollar proportion of their IMCare enrollee business during the course of the year.

In the past, providers have been frustrated by a lack of timely information concerning the status of their risk pool. Now, the providers and the Task Force receive much more frequent financial updates. A summary of monies received by other providers now accompanies the check each provider receives after reconciliation of risk pools. (IMCare does not disclose individual financial data to everyone else, due to concerns about confidentiality and antitrust laws.)

In the early days of IMCare, the physicians chose to pay themselves about 85 percent of their BCBSM fee schedule, knowing that they probably would have to pay back some of this money at the end of the year. However, inadequate data systems led to a lengthy delay in the settlement of the risk pool. In 1989, a settlement was

finally calculated for the first four years of IMCare. (IMCare bylaws required a settlement within 18 months.) On average, providers were required to return \$10,000 each to the plan.

While this settlement met with considerable resistance on the part of providers, plan physicians recognized that, even after the settlement, their financial experience under IMCare was better than it would have been if they had been reimbursed under the Medicaid fee schedule. The payback might have been even larger if the Minnesota Department of Human Services had not shared in the risk for the first two years.

The three participating hospitals have also found the settlement process to be difficult from a financial management standpoint. The hospitals are paid the Medicaid prospectively determined, diagnosis-related rate plus twenty percent, with a settlement to occur at the end of the year. However, the settlement typically has occurred about 18-24 months after the end of the year in which care was delivered. Having to reimburse IMCare for "overpayment" two years after care was delivered can be difficult for a small hospital operating on a thin margin.

The hospitals perceive that they have little control over their financial risk under the program. They cannot reconcile the IMCare settlement with their own ledgers, and they believe that the actual utilization of their services is determined primarily by the participating physicians. Nevertheless, as with the physicians, the hospitals indicate that their financial experience under IMCare has been better than if they had been paid normal Medicaid rates. Recent improvements in the IMCare financial data systems shortened the settlement period for 1993 to six months. The hospitals' 1993 settlement occurred in July of 1994.

From the state's standpoint, IMCare has been a financial success. The state estimates that, during 1988 and 1989 alone, the net savings to the state from IMCare were \$400,000 annually.

### **Impact on the Community**

The direct impact of IMCare on the community has been restricted primarily to the Medicaid and GAMC populations. Periodically, the possibility of extending the program to the private sector has been raised. However, community physicians have opposed this because they believe it could result in a reduction in the fees they receive for private patients. When the possibility of offering IMCare to county employees was discussed, the labor unions representing these employees objected on the grounds that it would restrict their members' choice of physicians.

The indirect effect of IMCare on the community is more difficult to assess. The experience that providers

gained through cooperating in the delivery of services under IMCare may have facilitated the implementation of joint projects in other areas. For instance, the Itasca Partnership for Quality Health Care (IPQH) was recently formed with provider involvement. This local response to the demands for health care reform is presently implementing three projects: the dissemination of information on preventive care; the development of broad community support for the recruitment of additional specialists to the medical care community; and the development of a computerized medical record to be used by all community providers. In addition, there is some indication that the quality improvement efforts initiated by IMCare for Medicaid beneficiaries have been adopted more generally in some of the physicians' practices.

Other long-term effects of IMCare may yet be forthcoming. IPQH research showed that 80 percent of IMCare expenditures for medical care remained in Itasca County. This contrasts sharply with medical expenditures for persons with other insurance coverage; most of those medical expenditures are incurred outside of Itasca County. Such findings may hasten additional joint ventures.

## **INFLUENTIAL FACTORS**

Three factors have greatly influenced, and continue to influence, the development and operations of IMCare: 1) relationships with county government, 2) relationships with state government, and 3) the performance of the contractor for information services.

### **Relationships with County Government**

Because IMCare is located organizationally within the Itasca County government, its operations are influenced by its relations with other county governmental components. In general, the County's Board of Commissioners has been supportive of IMCare, primarily because the participating providers are pleased with it. Moreover, there have been very few complaints from Medicaid recipients enrolled in IMCare. Periodic satisfaction surveys conducted by IMCare indicate a high overall level of satisfaction on the part of enrollees.

In 1990, the County Departments of Health and of Social Services merged. Before the merger, IMCare was a component of the Department of Social Services. The merger led to better integration of public health nursing into IMCare, with more dollars allocated for the purchase of preventive services, particularly those designed to address the needs of children and pregnant women. The county has reallocated existing staff to serve IMCare and has hired new personnel for quality assurance activities.

Itasca County also allocated \$600,000 in its 1991 budget towards the purchase of computer software for bill processing and provider payments. This coincided with the termination of the contract with BCBSM and the negotiation of a contract with a new vendor for information services.

### **Relationships with the State**

As noted previously, the State Department of Human Services has generally been supportive of the program. Recently, however, the State Attorney General's office raised issues with respect to provider participation in the program that threatened IMCare's survival. These issues arose in the context of a disagreement between physicians and dentists concerning the portion of the capitation payment to be allocated toward dental care.

The dentists participating in IMCare had received 12 percent of the capitation payment. With these dollars they paid themselves their full fees, provided services beyond the usual Medicaid coverage, and were never forced to pay back any monies to IMCare in the settlement process. This 12 percent rate substantially exceeded the average portion of medical care dollars spent by the Medicaid program on dental care in other rural areas of Minnesota (3-4 percent). Faced with another required "payback" of dollars to IMCare in their end of the year settlement, IMCare physicians lobbied the Task Force to reduce the allocation to dental care.

However, when the physicians, acting as a group, tried to negotiate an acceptable settlement with the dentists, the State Attorney General's office raised the possibility that they were violating antitrust laws. The various contracting clinics were forced to hire separate attorneys, at their own expense, to represent them in dealings with the Attorney General. The issue was eventually resolved when the state agreed to increase the amount of dollars earmarked for dental care that it contributed to the capitation rate, and Delta Dental agreed to a risk management contract. Nevertheless, the entire episode threatened the governance process within IMCare and raised issues about the continuance of the organization.

### **Relationships with Information Contractors**

Developing a satisfactory information system was a major issue for IMCare during its first eight years. As noted, BCBSM, the original information vendor, assumed responsibility for information processing, the generation of reports, and the paying of providers. However, plan management did not feel that it received the timely information that it needed to effectively manage service delivery.

Furthermore, the payment system used by BCBSM apparently resulted in payments to out-of-area providers (particularly hospitals) that were excessive for Medicaid patients. This did not become clear to plan management until the early 1990s. At that time, plan managers attributed much of the shortfall in the medical care risk pool to these excessive payments. BCBSM's inability to provide data to participating providers that clearly detailed the finances of IMCare was a source of continuing irritation between plan providers and management.

In 1992, IMCare negotiated a new contract with a different vendor for these services. Both plan management and providers cite this contract as a significant event in the history of IMCare. The information needs of all parties are now apparently being met, and the vendor is implementing improvements in the system on an ongoing basis.

## **ASSESSMENT OF NETWORK ATTRIBUTES**

### **Level of Integration**

IMCare has substantial financial integration but limited practice integration. Each provider or provider group functions separately with no oversight of practice patterns or resource utilization except when physicians or dentists refer to out-of-county facilities or specialists. Many provider groups use the same consultants merely because those consultants are available in the community on a full- or part-time basis. However, no formal requirements exist to standardize referral patterns.

IMCare has no common medical or health care record. It does use a common billing form, the HCFA 1500, for all services. Those IMCare providers who are required to use referral and prior authorization forms utilize common forms. In addition, IMCare has developed and made available some standard patient education materials.

The three hospitals in Itasca County share some services such as laundry and waste disposal, and the Grand Rapids Medical Center provides CAT scanning and MRI services to the two smaller hospital facilities. However, these cooperative efforts did not result from IMCare's existence.

There is no centralized care coordination of IMCare patients. The Medical Director oversees medical referrals, the Dental Director oversees the total dental budget, and the chiropractors and optometrists attempt to stay within their respective budgets. Mental health services were originally overseen by the Medical Director. The mental health providers are now attempting to develop a structure to review the mental health needs of their clients and to provide peer review. However, none of

these systems will provide integration of services across categories of providers.

Through the intervention and urging of the public health nurses, a system of immunization tracking across the county is being developed. The IMCare medical providers have also begun to develop a system to coordinate the care of enrollees with diabetes. Such a system could ultimately integrate eye care, primary medical care and specialty care for diabetic patients, but it is currently in its infancy. No standards of practice or practice guidelines are being considered by IMCare at this time.

### **Complexity**

IMCare has a relatively simple approach to financial integration of services for a limited and well-defined group of people. The patients are all Medical Assistance and General Assistance Medical Care recipients residing in a single county. The administrative oversight of the program resides within the Department of Human Services, whose staff members determine eligibility for Medical Assistance and have responsibility for total Medical Assistance expenditures in the county.

Several potentially complex aspects of IMCare have not yet been addressed by the network. These include tracking of provider practice patterns, oversight and control of patient utilization across categories of services, administrative or philosophical integration of similar services, and strict cost accounting for each service center.

### **Assumption of Risk**

During the first year of IMCare's operation, the Itasca Department of Human Services accepted all the risk for disbursements above the funds provided by the State of Minnesota. The county assumed this financial responsibility because the rapidity with which the system developed, combined with the small number of people initially included in the program, made it impractical to transfer the financial risk to participating providers.

Although IMCare currently capitates nine separate groups of providers, only the physicians, the hospitals, and the mental health providers are risk-sharing providers. The dentists moved out of the medical risk-sharing pool in 1989 because they decided that they did not want to be at risk for hospital and physician services. Nonrisk providers must agree not to refuse service to any clients of the IMCare network. They must also allow audits of their health care records, follow CQI plans, and obtain authorization for any services they provide.

Two local Itasca County physicians are not included in the IMCare risk pool and are reimbursed at usual Medicaid levels. All other physicians who work full time

in the county are included in the risk pool. In addition to the members of the medical groups, this includes the anesthesiologists, radiologists, pathologists, and an orthopedic surgeon.

IMCare has been unable to buy reinsurance from any private company because of its small size. Therefore, IMCare has developed an escrow stop-loss account. Four percent of the total MA capitation payments is paid into that fund each year. IMCare currently allocates \$260,000 annually to the escrow stop-loss account on a \$6.3 million yearly book of business. The provider pool is responsible for all services up to a \$15,000 maximum on hospital inpatient costs. The stop-loss escrow account covers inpatient hospital payments that exceed this amount for any one patient in a single year.

### **Measuring and Evaluating Performance**

The IMCare program is required by both the state and federal governments to have a quality assurance (QA) program. Accordingly, the Minnesota Professional Review Organization (PRO) conducted a review in 1993. IMCare providers were able to convince the PRO that a program in which they participate for other groups of their patients, and which is administered by Blue Plus (BCBSM's HMO), would suffice for QA assessment under IMCare.

This decision has limited the extra burden of paper work which a separate review process could entail. Only physicians, nurse practitioners, hospitals, and mental health providers are part of this QA process. According to the medical director of IMCare, the QA program has demonstrated decreased ER utilization and "increased appropriateness of care."

No other systems for evaluation of performance or outcomes are in place at this time. The mental health providers are setting up a peer review and QA system for mental health providers and clients. This would be the first formalized peer review mechanism in IMCare.

Since the IMCare program operates under the auspices of the Itasca County Department of Human Services, performance evaluation for the administration and staff of this program is presumably done by the head of this county government department. No formal measurement tools or assessments of the activities of the Task Force, its members or the IMCare Medical Director are in place.

Patient satisfaction surveys have been mailed to clients active in the program each year beginning in 1990. Every enrolled household receives a survey, and about one third of those households respond (38 percent in 1991, 31 percent in 1992, and 33 percent in 1993). As with most patient satisfaction surveys, most enrollees have responded that they are satisfied with IMCare.

## SUMMARY

IMCare is a rural health network with a population limited to recipients of MA and GAMC in a single rural county of Minnesota. Employees of Itasca County's Department of Health and Human Services administer the network. Financial and information services are provided by an out-of-state vendor with offices in Minnesota plus a full-time information systems person on site in the main office of IMCare.

Several features may make IMCare a relatively unique rural health care network. Most obviously, the network is located organizationally within county government, is managed by a county government employee, and exclusively serves enrollees in a public program. However, the participating health professionals, with few exceptions, are in private practice. As in most rural health networks, the success of the network depends critically on the willingness of local providers to participate. To secure provider participation, IMCare has devised a governance structure that offers providers considerable influence on program management. As a result, IMCare is governed, in essence, as a public/private sector partnership. Twenty-three primary physicians in the county participate in IMCare.

The "glue" that holds this partnership together is the realization by participating providers that they benefit financially from the arrangement. This occurs because IMCare's payment from the State of Minnesota is based on average expenditures for Medicaid recipients in other rural areas of Minnesota. By managing service delivery, the IMCare providers can deliver services at a lower per capita cost than this average figure.

In addition to the public/private sector partnership that characterizes IMCare governance, another relatively unique feature of the plan is the stability of its management. Both the administrator of IMCare and the medical director have served in these roles since the

network's inception. The continuity of its key managers has allowed the organization to mature without continual adjustments to changing management philosophies.

With a captive population, IMCare need not spend any of its administrative fees on marketing. However, a client services position has recently been added to the staff to provide better orientation to new enrollees. Yearly surveys indicate that over 90% of clients are satisfied or very satisfied with the services they receive.

IMCare has been able to learn as it developed. A predetermined clientele and no need to establish itself in the marketplace has allowed IMCare this luxury. Integration for anything other than the billing system has been slow to evolve. Except for prior authorization requirements, no managed care processes have been implemented to date although some are now under discussion. The mental health providers are attempting to develop a case conference or case management approach to individuals seeking mental health services, particularly those provided by a licensed psychologist. In addition, public health nurses are trying to integrate immunization and diabetic care across providers.

While some interview respondents believed that IMCare could serve as a model for a broader network, providers were not eager to expand IMCare since they currently are reimbursed at higher rates by other insurers. The county's largest employers are currently self-insured and have expressed little interest in joining such a plan. County employees have rejected the idea of joining such a program, fearing possible elimination of the unrestricted access to providers they currently enjoy.

IMCare is a small network that fulfills a limited and well-defined need for providers, county administrators and Medical Assistance patients. It continues to grow and evolve inside those limited boundaries but appears unlikely to expand to the private sector market in the near future.

## CASE STUDY 4. MARSHFIELD CLINIC - MINISTRY CORPORATION STRATEGIC ALLIANCE

### BACKGROUND

The primary service area of Marshfield Clinic encompasses a 14-county area of central, north central, and northwestern Wisconsin. This service area covers more than 14,000 square miles and contains approximately 511,000 residents. The service areas of Marshfield Clinic and Ministry Corporation overlap, but within Wisconsin Marshfield Clinic's service area is larger and subsumes that of Ministry Corporation. Ministry Corporation operates rural hospitals in Marshfield, Rhinelander, and Stevens Point, in addition to a hospital in Park Falls which it operates as a joint venture with the clinic. The Marshfield Clinic system contains a large multi-specialty medical clinic with multiple satellite clinics (regional centers), a health maintenance organization (HMO), a research foundation, and other health-related services.

### Health Care System Overview

Marshfield Clinic was established in 1916 as a six-member physician group practice in the small central Wisconsin town of Marshfield. Then as now, Marshfield Clinic physicians used St. Joseph's Hospital, founded in 1890 by the Sisters of the Sorrowful Mother,<sup>1</sup> as their primary inpatient care facility. Over the years, the staff of Marshfield Clinic has multiplied to include approximately 420 physicians employed in 23 different locations, and St. Joseph's Hospital increased its inpatient capacity to 524 beds.

The symbiotic relationship that developed between the clinic and the hospital has been beneficial to both institutions. Throughout their long history together, each institution has maintained its autonomy; however, they have periodically ventured into formal cooperative ventures. In 1991, the clinic and St. Joseph's Hospital's parent corporation, Ministry Corporation, developed a strategic alliance for the purpose of forming an integrated health care network. Top managers of the two organizations meet routinely to plan and coordinate services. The absence of a formal governance structure

uniting the two organizations increases the need to resolve network conflicts through negotiation.

The strategic alliance between Marshfield Clinic and Ministry Corporation is but one of the networking relationships in which the clinic participates. Marshfield Clinic has developed at least four other networking arrangements. The five clearly defined Marshfield Clinic relationships may be described as follows:

- **Marshfield Clinic - Ministry Corporation (St. Joseph's Hospital) Network** is a loosely coupled integrated network composed of the clinic and four rural hospitals in central and northern Wisconsin.
- **Marshfield Clinic Regional Center System** is a lateral network of primary care and specialty clinics serving mostly underserved areas of central and northern Wisconsin. All of the clinics are owned by Marshfield Clinic.
- **Security Health Plan** is a not-for-profit 501(c)(4) managed care network that is wholly owned by Marshfield Clinic. The network includes over 1000 doctors (420 of whom are employed by Marshfield Clinic) and 13 hospitals located throughout the region.
- **Family Health Center of Marshfield** operates a program (administered by Marshfield Clinic but governed by a consumer board) that makes comprehensive ambulatory and outpatient health care services available to families with incomes at or below 200 percent of poverty.
- **The Outreach Network** is a network through which Marshfield Clinic sells a variety of clinical and administrative services to over 1,000 hospitals and clinics throughout the country.

To a degree, each of these relationships overlaps with the others. The focus of this study is on integrated rural health networks, and consequently, the Marshfield Clinic-Ministry Corporation relationship is of primary interest. It is neither possible nor desirable, however, to view that relationship in isolation from the clinic's other networking relationships. The other networking activities of the clinic help explain why the Marshfield Clinic-Ministry Corporation strategic alliance came about and show the diversity of services provided to the residents of the area by and through Marshfield Clinic. This case study, therefore, will describe certain cooperative relationships of Marshfield Clinic that provide a fuller picture of the scope of its network.

<sup>1</sup> Since 1984, St. Joseph's Hospital in Marshfield has been operated by Ministry Corporation, a regional division of the Sisters of the Sorrowful Mother that owns and manages hospitals in Wisconsin, Minnesota, and Iowa.

Marshfield Clinic began to build a system of regional clinics in central and northern Wisconsin during the mid-1970s. In 1976, the Marshfield Medical Research Foundation, a not-for-profit corporation affiliated with Marshfield Clinic, applied for and received a Rural Health Initiative grant. This grant was intended to help Marshfield Clinic develop a rural health network in which primary care services would be available locally in communities throughout northern Wisconsin and would also be linked to a regional system of back-up, secondary, and tertiary care services.

With grant-funded assistance, the clinic developed the Northcentral Wisconsin Rural Health Network. The goals of the Northcentral Wisconsin Rural Health Network were to 1) establish new rural medical practices, 2) enhance existing practices, and 3) develop linkages between these practices and medical resource centers such as Marshfield Clinic. According to an evaluation of the program, the network "offered diagnostic and technological services, consultation services for medical and administrative problems, and continuing education for physicians in [existing] rural practices, particularly those associated with the NHSC [National Health Service Corps]." "Most importantly," the report continued, "the project sought to develop, within the network, primary care sites in medically underserved and/or critical manpower shortage areas." (Rural Health Initiative Evaluation Report, 1979) The Rural Health Initiative project lasted for three and one-half years.

Between 1976 and 1978 the total number of physicians in Wisconsin increased by 11 percent. During the same period in the 25 counties served by the network, the number of physicians increased by 36 percent, much of it due to the development of new primary care practice sites. Some of these sites were developed by Marshfield Clinic itself. Between July 1976 and May 1978, Marshfield Clinic established four regional centers (i.e., clinics). Prior to that time, Marshfield Clinic had established only one regional center (in October 1973).

The success of the Rural Health Initiative at stabilizing local medical services led some local leaders to invite Marshfield Clinic to establish regional centers in their communities. Between 1978 and 1984, the clinic responded cautiously to such proposals, establishing only three new regional centers, one of which closed within 18 months. Each time a community approached the clinic for assistance the clinic board of directors debated the merits of expanding the regional center system. Some clinic board members believed that the regional system should be expanded to serve as a primary care base for the clinic. Other clinic board members believed that Marshfield would receive specialty referrals anyway and that the regional centers were a financial drain on the clinic.

Between 1985 and 1994, there was a significant increase in the establishment of regional centers. During this period, Marshfield Clinic established 16 new regional centers, some by acquisition of existing practices and some by the creation of new practices. In cases where Marshfield Clinic purchased an existing practice, the seller approached the clinic with an offer to sell. These practices were typically small, composed of three or fewer physicians at the time of incorporation into Marshfield Clinic.

Two notable exceptions to this trend should be noted. In the late 1980s, Marshfield Clinic negotiated a management contract with Lakeland Medical Associates in Woodruff, Wisconsin. This 21-physician group practice had satellite clinics in Minocqua, Park Falls, and Phillips. Approximately one year later, the Lakeland physicians approached Marshfield Clinic and asked to join the Marshfield practice. After considering the proposal, Marshfield Clinic purchased Lakeland Medical Associates.

Indianhead Clinic represents a second exception to the prevailing trend of small acquisitions and start ups. In 1991, Marshfield Clinic purchased Indianhead Clinic in Rice Lake, Wisconsin, a nine-member group practice with a satellite clinic in Bruce, Wisconsin. Marshfield Clinic had been affiliated with Indianhead Clinic in different ways for approximately ten years prior to acquisition.

With the exception of Ladysmith, located approximately 100 miles from Marshfield, all of the regional centers acquired before 1985 were within a 75-mile radius of Marshfield. In contrast, most regional centers acquired after 1985 are in the northern and western parts of the state, more than 75 miles from Marshfield.

The growth of Marshfield's regional center system has not been guided by an acquisition plan. Regional center additions were made on a case-by-case basis in response to requests from a community, offers to sell a practice, or both. Once practices are acquired, Marshfield Clinic typically infuses them with needed capital (purchasing or building new offices and expanding medical equipment) and augments them with additional physicians if necessary.

Today, the regional clinic system is viewed by virtually all of the shareholders as "an incredible asset" to the clinic. Two full-time administrators, one of whom is a physician, manage the regional services. These administrators travel between the main campus and the regional centers on a daily basis sharing information, solving problems, coordinating services, and connecting the centers with each other as well as with the main clinic.

The physician in charge of regional services also meets with a cross section of physicians and administrators who sit on a series of three regional

operating committees. These meetings present opportunities to resolve conflicts and coordinate care between and among nearby clinics. The meetings also facilitate the direct sharing of information from the regions to the executive committee of Marshfield Clinic. Video/voice telecommunications and a network of some 3,000 personal computers also assist inter-site communications.

### Prior Collaboration

In 1975, Marshfield Clinic, which had been located in downtown Marshfield, moved to a new location adjacent to the newly constructed St. Joseph's Hospital addition. Not only were the buildings built side by side, but corridors connected the buildings on multiple levels. Physically connecting the buildings enabled the two institutions to integrate services and functions to a degree not previously possible. The co-location of the clinic and the hospital, itself an act of collaboration, positioned the two organizations for greater future cooperation. The clinic and the hospital took cautious first steps to integrate services. For example, in planning for the move to the new site, the clinic and the hospital decided to develop a joint venture on laboratory services, dedicating space for the combined laboratory in the new clinic building. This collaboration has lasted for 20 years.

The clinic and the hospital were also partners with Blue Cross and Blue Shield United of Wisconsin in the development of one of the first rural health maintenance organizations (HMO) in the country. Called the Greater Marshfield Community Health Plan, this HMO started up in 1971. Blue Cross provided administration and marketing for the plan while Marshfield Clinic and St. Joseph's Hospital served as the principal provider panel. The Plan was financed by subscriber premiums with per member per month allocations, in 1972, distributed as follows:

Clinic	\$ 7.50
Hospital	\$ 5.84
Blue Cross	\$ .90
Referral out-of-area	\$ .41
Total	\$14.65

This partnership lasted 16 years. When Blue Cross of Wisconsin withdrew from the venture in 1987, it took the entire net assets (approximately \$1.8 million) that had been generated from Plan premiums.

Marshfield Clinic decided to assume complete control of the successor organization to the Greater Marshfield Community Health Plan. The clinic loaned the new plan, named Security Health Plan, the money necessary to fund its initial operations. St. Joseph's Hospital was not invited

to form a partnership with Marshfield Clinic to own and operate Security Health Plan.

The proximity of the Marshfield Clinic and St. Joseph's Hospital, combined with the dependence of the hospital on the clinic to fulfill certain medical staff functions, led to increased involvement of clinic physicians in the internal affairs of the hospital and the formation of joint committees between them, such as the professional practice committee. Despite the need to cooperate, the clinic and the hospital viewed each other warily throughout the 1980s. The hospital in particular wished to maintain an identity separate from its better known neighbor.

## NETWORK DEVELOPMENT

### Motivation for Formation

By 1991 the service area of the Marshfield Clinic's regional center network contained three hospitals owned by Ministry Corporation, the same organization that owned St. Joseph's Hospital in Marshfield. Despite areas of cooperation, relations between the clinic and St. Joseph's Hospital were occasionally strained as the two organizations competed for resources and services.

Eager to reduce the tension between the two entities and to foster better physician-hospital relations throughout the region, the president of Ministry Corporation approached the Marshfield Clinic leadership with the idea of forming a strategic alliance. Ministry Corporation decided that it could not develop a consistent strategy in the region without cooperating with the clinic. A strategic alliance with the Marshfield Clinic, it was reasoned, would provide Ministry Corporation with the potential for integrating physician and hospital services at the local level. Ministry Corporation contributed money to pay for consulting fees to facilitate planning between the two potential partners. Before discussions were allowed to proceed very far, consultants surveyed physician attitudes about the strategic alliance. With physician opinion generally favorable, discussions proceeded.

Not only the assent of Marshfield physicians but also the support of the local hospital boards was needed to proceed with discussions about the proposed strategic alliance. Ministry Corporation local hospital boards have been assigned a substantial amount of decision-making authority. Only the hospital budget is approved by the corporate office; the local boards make all other operating decisions. Ministry Corporation executives explained to their local boards that the alliance was intended to coordinate care within the region and to make the

delivery system “seamless” and “user friendly.” The local boards largely supported the alliance.

The lack of a single owner or formal inter-institutional agreement defining governance has required Marshfield Clinic and Ministry Corporation to negotiate points of potential conflict between them. It has taken time for the two participants to understand the other’s organizational culture and to begin to forge a common vision for the network. According to one participant, both organizations are still learning to share “ownership” of the network. However, the negotiations between the two parties are aided by the shared belief that cooperation between them will improve their individual long-term and strategic planning. Both parties are still in the trust-building phase of their relationship.

The quality of relationship between Ministry Corporation and Marshfield Clinic is currently being tested in the small town of Park Falls, Wisconsin. Marshfield Clinic, Ministry Corporation, and the community of Park Falls are engaged in a hospital, clinic, home health joint venture. The Park Falls joint venture is not the first example of Marshfield Clinic and Ministry Corporation cooperation. For example, in Rice Lake, the Ministry Corporation owns the clinic building and the Marshfield Clinic leases it. The situation in Park Falls, however, provided a new opportunity for cooperation, one that might provide a model for other joint ventures in northern Wisconsin.

The Marshfield Clinic operated a regional center in Park Falls. In 1992, the Marshfield Clinic decided to move out of space it rented from the community hospital and to build a new clinic building adjacent to the hospital. The hospital had been having financial difficulty; during the construction of the new clinic building, the hospital board approached the Marshfield Clinic to discuss the prospect of the clinic assuming ownership of the hospital. Marshfield executives met with the Park Falls City Council to obtain the city’s opinion of the proposed takeover. There was no major opposition to the sale voiced from City Council members.

Upon further assessing the offer, Marshfield Clinic told the hospital that it was not interested in acquiring the hospital, because it was not in the acute care business. Marshfield executives suggested that the Ministry Corporation might be interested in acquiring the hospital. The Ministry Corporation was approached by the hospital board and it made a bid to acquire the hospital. Failing to obtain the needed two-thirds majority of hospital corporate members to sell the hospital, the Ministry Corporation’s bid was rejected. However, a subsequent joint bid from Marshfield Clinic and Ministry Corporation was accepted by the corporate membership of the hospital.

The new hospital board is composed of community, Marshfield Clinic, and Ministry Corporation representatives. Community board members represent a plurality among the three types of members, but the joint venture partners together represent a majority of board seats. The Ministry Corporation is responsible for employing the hospital administrator and for providing managerial and technical support to the hospital. Marshfield Clinic and Ministry Corporation own the hospital. Should the hospital close in the future, the joint venture partners have agreed to allow the primary physical assets of the hospital (e.g., building and land) to revert to the community.

Connected by a common corridor, the hospital and the clinic in Park Falls are now attempting to integrate services. For example, the hospital and clinic plan to develop joint ventures for laboratory and radiology services. They also plan to reduce cultural differences between the two organizations to further enhance cooperation at the middle management and staff levels of the two organizations.

## OVERVIEW OF OPERATIONS

### Organizational Structure, Governance, and Management

#### Organizational Structure

Marshfield Clinic is a physician-governed not-for-profit 501(c)(3) business corporation that exists as a charitable trust. Marshfield Clinic owns Security Health Plan, a not-for-profit 501(c)(4) health maintenance organization. Security Health Plan of Wisconsin, Inc. is licensed by the State of Wisconsin to offer group and individual prepaid health coverage, plus comprehensive Medicare Select supplemental coverage, to the residents of a 24-county service area. Security Health Plan is composed of three divisions. Each division is responsible for marketing, organizing, and delivering services within a geographical area. The divisions were given unique names (e.g., NorthCare Region) to “give different markets a local flavor.” The divisions have their own operating statements and are held accountable for their performance. Security Health Plan serves approximately 71,000 members.

The Marshfield Medical Research Foundation was founded as a not-for-profit 501(c)(3) corporation in 1959. It was created by Marshfield Clinic to conduct and foster research, education, and community service. Through a merger, the Foundation became a division of Marshfield Clinic in 1990. The Foundation, one of the largest private medical research facilities in Wisconsin, conducts basic, clinical, and health services research projects. It houses a

number of research programs; areas of emphasis include genetics, epidemiology, and rural health and safety.

Marshfield Clinic also closely collaborates with the Family Health Center of Marshfield, Inc., a community-governed, not-for-profit 501(c)(3) corporation funded in part with a grant from the U.S. Public Health Service to help medically underserved populations obtain needed health care services. Approximately 26,500 low-income users were served through the Family Health Center in 1994. Over 6,400 of these represented individuals who otherwise would have been uninsured or underinsured (i.e., their incomes were at or below 200 percent of the federal poverty level).

As indicated previously, Marshfield Clinic has a laboratory joint venture with St. Joseph's Hospital. In addition, the two organizations also collaborate in the Marshfield Cancer Center and Marshfield Children's; the latter provides a range of child and adolescent health services.

In addition to facilities at the main campus in Marshfield, the clinic owns and operates 23 regional clinics that employ approximately 120 physicians. Due in part to distance, weather, and demographics it has not been possible or desirable to centralize all medical specialist services in Marshfield. Although most of the 23 clinics are small group practices, three somewhat larger clinics (in Woodruff, Rice Lake, and Chippewa Falls) serve as regional referral hubs within the Marshfield Clinic system. The regional clinic in Woodruff employs 40 physicians in 14 different specialties; the clinic in Rice Lake employs 20 physicians in five different specialties; and the clinic in Chippewa Falls employs 11 physicians practicing seven different specialties.

### Governance

After an initial period of associateship (usually lasting two years), each Marshfield Clinic physician — including those working in the regional clinics — is entitled to purchase a single share in the clinic for a price of \$1,000. Shareholders have voting privileges at Board of Directors meetings. With one exception, every eligible physician has elected to purchase a share when eligible to do so. In monthly Board meetings, conducted in the style of a New England town meeting, each physician has one vote. Approximately one-quarter of the Board is composed of regional center physicians who may participate in Board meetings in person, through video/voice telecommunications from four designated sites throughout the network, or by designating a proxy.

Between Board meetings, the business of the clinic is conducted at weekly meetings by a nine-member Executive Committee composed of the four corporate officers (president, vice-president, secretary, and treasurer) and five at-large members elected annually by

the shareholders. Within the past year, a regional center physician was elected to sit on the Executive Committee for the first time in its history. The Executive Committee has limited interim power. For example, it may approve non-budgeted capital expenses up to \$15,000, and it is responsible for hiring new physicians. The four corporate officers of the Marshfield Clinic have dual roles as the corporate officers of Security Health Plan. The clinic's Executive Committee serves as the Security Health Plan Board of Directors.

Several committees, composed of physicians and non-physicians, report to the Executive Committee. Such committees include the Business, Quality Assurance, and Salary Committees. Three regional operating committees provide forums for discussing the concerns of the regional centers; those committees report to the Executive Committee through the Regional Medical Director.

The Marshfield Clinic and St. Joseph's Hospital buildings are physically connected on five levels, enabling significant task coordination. The responsibility for coordinating clinic and hospital activities and for making shared resource allocation decisions falls to the Joint Conference Committee. Composed of top management from both institutions, this committee meets weekly. The clinic and the hospital share clinical committee responsibilities such as the joint professional practice committee.

In addition to the Marshfield Clinic - St. Joseph's Hospital relationship, the clinic has entered into a strategic alliance with Ministry Corporation. Although there is no formal linkage between the two (i.e., a written agreement defining how authority is allocated and how decisions are made), top managers from the clinic and Ministry Corporation meet monthly in Marshfield to coordinate strategic planning. These meetings are augmented by more frequent communications between top managers. The President of Ministry Corporation speaks with the President of Marshfield Clinic over the telephone at least one or two times per month. The Executive Vice President of Ministry Corporation communicates with the Executive Director of the clinic several times per week.

In addition to St. Joseph's Hospital and the Park Falls joint ventures, Ministry Corporation owns two hospitals in communities in which Marshfield Clinic has regional centers. These regional sites have begun to mimic the model of cooperation provided by Marshfield Clinic and St. Joseph's Hospital.

The Marshfield Clinic-Ministry Corporation joint venture in Park Falls is the most ambitious example of cooperation between the two organizations to date. The participants view the joint venture as a chance to develop a new model of cooperation at relatively low risk.

### Management

Within the Marshfield Clinic system itself, operations are managed by a pairing of physician and non-physician managers. All of the physician managers continue to see patients. The clinic takes pride in its democratic foundation, exemplified by the breadth of participation in decision-making; the principle of one-physician, one-vote; and rotation in office, which assures that no "permanent" physician leadership develops. A physician can serve only six successive years as president, a term limit intended to "spread the expertise" while maintaining continuity of leadership.

The combination of physician governance and management affects the culture of Marshfield Clinic. The leaders rely heavily on consensual decision making and disdain the outward appearance of bureaucracy. Personal relationships and education constitute the primary control systems in the organization. Throughout the organization, there is an emphasis on quality, innovation, and the cultural heritage of the clinic as portrayed by a succession of Marshfield Clinic physician-historians. In publications and in discussions with leaders, the same themes appear repeatedly: commitment to rural medicine; the efficiency and effectiveness of multi-specialty group practice; democratic decision making within the clinic; the "leveling" of physician salaries; and a dedication to quality health care, research, and education.

### **Services and Functions**

The main campus at Marshfield provides all of the administrative functions for the regional clinics. Patient billing, personnel administration, payroll, accounting, physician recruitment, biomedical engineering, and facility management are centrally administered. The regional centers have responsibility for their own scheduling and for non-physician hiring. The clinic may decentralize the budgeting process in the near future. Regional centers currently receive accounting and operating reports generated by the mainframe computer on the main campus.

The primary function of the Marshfield Clinic is to provide medical services to individual patients. As described above, the clinic also supports its regional system through an array of administrative services. In addition to these services, Marshfield Clinic offers: 1) clinical outreach services to physicians and hospitals not affiliated with the Marshfield system, 2) community health center services through a separately incorporated entity, and 3) managed care insurance products.

### Clinical Outreach

Through the Marshfield Clinic Outreach Network, the clinic provides more than 1,000 hospitals and

physician practices with off-site consultations in 38 specialties (e.g., cardiology, oncology, and psychiatry) and technical services (e.g., laboratory, echocardiography, and orthotics/ prosthetics). The reference laboratory alone serves clients throughout the Midwest, performs over 10 million tests annually, and employs over 330 people.

### Community Health Center

The Family Health Center became operational in 1974 following a two-year, Public Health Service grant-funded planning cycle. The Marshfield Medical Research Foundation had lead responsibility for planning and developing the Family Health Center. The Foundation currently employs the administrative staff who report to an eleven-member consumer board that is separate from the Marshfield Clinic.<sup>2</sup> Certified originally as a federal Community Health Center under Section 330 of the Public Health Service Act, the Family Health Center is also a Federally Qualified Health Center (FQHC). As an FQHC, it provides services to over 18,000 Medicaid patients at Marshfield Clinic and ten satellite clinics located in or near medically underserved areas.

The Family Health Center also operates an insurance-like program covering 6,400 low-income residents. All participants pay a monthly sliding fee based on income and family size. Although all Marshfield Clinic physicians participate in the Family Health Center by providing care, the Family Health Center network also includes private providers who are not employed by Marshfield Clinic. Public providers, such as local public health organizations, also collaborate with Family Health Center to increase health screenings.

The Family Health Center obtains operating funds from its Public Health Service grant, patient sliding-fee payments, Medicaid reimbursements, and cash contributions from Marshfield Clinic. Because inpatient services are not an allowed service of the federal program, they are not part of the services covered by the grant and sliding fee payments. The Family Health Center is viewed by Marshfield Clinic as a way to address medical underservice and improve community health. The program reduces financial and geographic barriers to care and enhances collaboration with public health agencies and community groups interested in addressing issues that affect community health (e.g., adolescent pregnancy prevention, substance abuse, and inadequate use of clinical preventive services).

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<sup>2</sup>The President and the Executive Director of Marshfield Clinic are the only provider members of the Family Health Center Board; the remaining nine Board members are either Family Health Plan enrollees or community representatives.

### Managed Care Insurance

Security Health Plan (SHP), the health maintenance organization of Marshfield Clinic, is composed of a network of over 1,000 physicians and chiropractors plus 13 hospitals. Of the SHP physicians, 420 are employed by Marshfield Clinic. SHP enrollees may choose any physician from the panel of participating physicians. Enrollees need not select a primary care physician, and they are free to self-refer to specialists within the system. For services to be paid by SHP, enrollees must be seen by a plan physician, but SHP will also pay for services provided by an out-of-plan physician if the patient is referred by a participating physician. Annual contracts with participating physicians require that enrollees be referred within the physician panel except when an enrollee requires care while outside of the normal SHP service area.

SHP has achieved its highest penetration rates near the regional centers and in the areas closest to Marshfield. Within a 30 to 40 mile range of Marshfield, approximately one half of the patients treated by Marshfield Clinic are covered by SHP. In more distant areas, SHP enrollment tapers off. Approximately 30 percent of all patients seen by physicians in the Marshfield Clinic system are covered by SHP.

SHP has approximately 71,000 enrollees. Although most SHP enrollees are covered by group employer contracts, approximately 8,400 enrollees are individuals who purchase coverage for themselves and their families. Medicare beneficiaries account for another 17,000 enrollees. Until 1986, group premiums were based on community rating, but since that time SHP has used experience rating to set premium rates.

### **Finance**

Marshfield Clinic is a large rural system. It employs approximately 3,000 people in 23 sites and handles over one million patient encounters per year. Marshfield Clinic's annual revenue for 1993 was \$250.7 million; its net income was \$4.0 million. The clinic is funded by patient revenues, augmented by revenues from the sale of clinical services through the outreach network. Public and private grants, private gifts and endowments underwrite the clinic's research division.

HMO health insurance premiums provide the operating income for Security Health Plan. Its annual revenues for 1993 were \$96.3 million and its net income was \$1.9 million. Since 1986, Security Health Plan has posted a profit in all but one year. According to plan administrators, this performance reflects in part a substantial reduction in the utilization of hospital services.

For SHP enrollees, Marshfield Clinic as a whole is capitated by SHP. Marshfield Clinic contracts with

affiliated doctors and pays them from its capitated rate. Most of the affiliated physicians are not at risk; they accept discounted fee-for-service payments. Some affiliated physicians in the NorthCare and Wausau regions however are at risk. In the past, SHP has experimented with capitating affiliated physicians, but it currently has no risk-sharing contracts with them. Marshfield Clinic physicians receive a salary and are not directly affected by the capitation arrangement.

SHP has contractual arrangements with 13 local hospitals as well as agreements with hospitals in Madison, Milwaukee and Minneapolis/St. Paul for more complex cases. All hospitals are paid on a discounted fee-for-service basis. SHP has had difficulty obtaining discounts from hospitals. The largest discount it enjoys is 10 percent; more typical discounts represent only two to three percent of charges.

### **Impact on the Community**

The Marshfield Clinic network has had a significant impact on access to care in the region it serves. It has played a key role in serving both physician shortage areas and disadvantaged populations. Residents in outlying communities served by the Marshfield system repeatedly express their satisfaction with the care received from clinic physicians and credit the clinic with preserving local health services. Indeed, 10 of the 22 regional clinics are located in areas designated as either Health Professional Shortage Areas, Medically Underserved Areas, or both. Marshfield's ability to place primary care physicians in these locations and to provide residents with a point of entry to a system of specialty care, through its secondary (i.e., regional hubs) and tertiary (i.e., main campus) referral network, has improved access to health care services in the area.

The services provided through the Family Health Center of Marshfield provide access to people who are disadvantaged by unemployment or other economic hardship. Without the existence of the Family Health Center, care would be substantially less available for patients who are unable to pay full rates and charges either directly or through their health insurance. The inability to obtain health care services easily usually means that patients receive little or no early detection and intervention services and minimal preventive care.

In addition to providing private health care services to individual patients, the Marshfield Clinic network also plays a role in supporting county public health programs in outlying areas. One example may be found in Rusk County. The ten physicians who compose the staff of the Marshfield Clinic regional center in Ladysmith are the only medical providers in Rusk County. They provide a number of services to the local public health department.

One Marshfield physician serves on the county public health board; another is the medical director of the county home health agency; yet another serves as medical advisor for the maternal and child health program. The clinic's involvement with the Rusk County Public Health Department has several additional facets:

- The local clinic has agreed to treat patients referred to it from the county's maternal and child health program at Medicaid payment rates (i.e., at rates less than full established charges).
- Marshfield Medical Research Foundation donated 100 child safety seats for a child safety seat program administered by the department.
- Marshfield Medical Research Foundation awarded the Rusk County Public Health Department a grant to develop a Women's Health Alliance. In the first six months of the project the County engaged in "alliance building" and identifying women's organizations in the community. During the second six months of the project, the Alliance developed an action plan.
- Marshfield Clinic has selected Rusk County as an implementation site for its computerized immunization program. The clinic is developing a user-friendly computerized immunization system. The system will allow all local providers including the public health agency to input data and to query what immunizations have been given to patients within the region.
- Staff from the main campus and local physicians participate in in-service training for the nine registered nurses on the staff of the public health agency.

## INFLUENTIAL FACTORS

Two related factors are influencing the current operations and may affect the future of this network: 1) an antitrust lawsuit filed against Marshfield Clinic; and 2) the impact of the suit on expansion and joint ventures.

### Antitrust Suit

In 1994, Marshfield Clinic was sued by its former HMO partner, Blue Cross and Blue Shield United of Wisconsin, for violations of antitrust law. The complaint filed in United States District Court (February 16, 1994)

alleged that Marshfield Clinic,<sup>3</sup> SHP, and independent physicians contractually bound to SHP:

have monopolized, attempted to monopolize and otherwise conspired to restrain trade in physician services and in products and services that are dependent on physician services. This objective has been accomplished through direct employment and affiliation of physicians in various geographic markets and definable submarkets in Northern and North Central Wisconsin (*Blue Cross & Blue Shield United of Wisconsin v. The Marshfield Clinic*, DC WWis, 94-C-0137-S, 2/16/94).

Claiming that these alleged activities caused "millions of dollars in damages," the plaintiffs requested that Marshfield pay Blue Cross treble damages for loss of sales and business opportunities and for overcharges. In addition, Blue Cross asked the Court to "order divestiture of physicians, clinics and services acquired by Marshfield in furtherance of its illegal monopoly power, particularly its HMO."

In December 1994, Marshfield Clinic lost the jury trial and in January 1995 it was ordered to pay a \$48 million antitrust judgement to Blue Cross, an amount that was later reduced to approximately \$17 million by the trial judge. In September 1995, the lower court decision against Marshfield Clinic was reversed on most points by the Seventh Circuit Court of Appeals. Ruling that Marshfield Clinic and Security Health Plans are not monopolies, the appellate judge nullified all previous awards against Marshfield. The case is not over yet. Blue Cross intends to appeal the latest ruling to the U.S. Supreme Court. The Court of Appeals also found that the Clinic and SHP acted incorrectly in agreeing with Wausau-based North Central Health Protection Plan to "divide the market" and ordered a new trial to decide the amount of damages. Marshfield attorneys, however, believe that damages resulting from a new trial will not be substantial.

### Impact on Expansion and Joint Ventures

Marshfield Clinic was reluctant to acquire new sites until the appeal was settled. This placed the clinic in a state of suspended animation in regard to network expansion at precisely the time that regional competitors (the Gunderson Clinic and the Mayo Clinic) were aggressively acquiring physician practices in west central Wisconsin.

<sup>3</sup>The complaint also singles out "physicians and physician groups which Marshfield has acquired."

Uncertainty concerning the appeal also slowed proposed joint ventures between Marshfield Clinic and the Ministry Corporation. Ministry Corporation was considering the purchase of a hospital in Minocqua, Wisconsin that is located only two blocks from one of Marshfield's regional centers. Because of the suit, the Ministry Corporation decided not to pursue the acquisition. To the extent that the lawsuit made Marshfield Clinic defer, cancel, or reduce business plans, the suit could affect the clinic's future effectiveness.

## ASSESSMENT OF NETWORK ATTRIBUTES

### Level of Integration

Despite the fact that the regional clinics are part of Marshfield Clinic, they are, in some ways, distinctly different from the main clinic. Some of the regional center physicians view their clinics as the offices of "country doctors" and the main campus as a high-tech "medical mall." Among the reasons cited for differences between the regional centers and the main campus are the cultures of practices prior to acquisition and the physical isolation of regional practices from the main clinic. Both the regional centers and managers at the main campus recognize these differences. The regional clinic managers based in Marshfield are attempting to integrate the regional centers more completely into the Marshfield Clinic system.

Many of the systems and programs developed for the main clinic are used by the regional centers. The quality assurance and utilization review systems, credentialing procedures, patient billing system, and personnel systems have all been imported to or developed jointly with the regional centers. Continuing education programs sponsored by the main clinic are transmitted to four strategically located teleconferencing sites so that regional center employees may participate in the programs. This technology also allows regional center physicians to participate in clinic board meetings from a remote location.

Marshfield Clinic has used a unified paper medical record within the clinic system for several years, i.e., a single record with a discrete patient ID is created for each patient. The clinic is taking the first steps to automate the record. Beginning in 1993, laboratory and radiology reports were automated and placed on line. Some physician notes are also accessible by computer. Marshfield Clinic is laying fiber-optic cable to its regional centers from the main campus as the first step in implementing a fully automated, confidential patient record system to be developed in the coming years.

The medical director for the regional clinics plays an important role in facilitating communications between the

regions and the main campus. He is responsible for visiting the regional clinics to resolve problems with the main clinic, interpret policy, and act as a conduit of information both from and to the main clinic and its top management. The regional clinics are also structurally integrated into Marshfield Clinic decision-making through the regional operating committees.

Efforts to integrate services and functions within the clinic-hospital relationship are somewhat mixed. Considerable clinical service integration takes place. The care of patients is coordinated between the clinic and St. Joseph Hospital through a variety of programs (e.g., the cancer center) and shared services (e.g., laboratory) as well as through typical physician-hospital relationships. The use of a combined clinic-hospital medical record on the main campus illustrates the level of service integration. Much of the "campus record" is automated and is available on line. Automated ancillary reporting, physician notes, ordering, and electronically transmitted signatures have all been implemented.

Other improvements, such as the addition of graphic capability, are planned for the system. Improvements made to the "campus record" will be shared with the regional centers. Both clinic and hospital administrators have spoken favorably about cooperating in the development of a management information system that would enable them to more effectively measure outcomes of care.

Quality assurance is one of the most highly integrated functions of the network. One person has administrative responsibility for quality assurance functions at the main clinic, the regional centers, the Family Health Center, and St. Joseph's Hospital. Because of the level of involvement in hospital affairs, St. Joseph's Hospital pays 25 percent of this physician's salary.

Marshfield Clinic is also attempting to coordinate its strategic planning with Ministry Corporation. Although the clinic and Ministry Corporation both continue to plan separately, they share with each other information about their individual plans, allowing the other partner to adjust its plans as necessary. The two partners also participate in regional joint ventures, such as the acquisition of the hospital in Park Falls. Until the unfavorable jury decision in the Marshfield antitrust case, the Marshfield and Ministry Corporation were actively searching for opportunities for future cooperation.

Other areas of the Marshfield Clinic-Ministry Corporation/St. Joseph's Hospital relationship show less evidence of integration. No financial integration exists, and there is no sharing of human resources administration. Resolving cultural differences between the two organizations has been a time-consuming and, according to participants, as yet not wholly successful, process.

## Complexity

Both the high number of participants in the physician network and the remote locations of those physicians indicate the complexity of this component of the Marshfield system. Network complexity increases the need for systems of coordination and control. The efforts made to more fully integrate the regional clinics into the Marshfield Clinic system, as described in the previous section, demonstrate the activities undertaken to manage the complexity of this component of the network.

As measured in terms of different types of members, the complexity of the Marshfield Clinic system is relatively low. The physician network has a solid core of primary care physicians: Thirty-eight percent of the physicians employed by the clinic are primary care physicians (this percentage includes obstetrician-gynecologists). Thirty percent of the physicians in the Marshfield area itself are primary care physicians.

Both the Marshfield Clinic - Ministry Corporation network and the clinic-HMO network exhibit low complexity. The linkage in each network is essentially dyadic, but those linkages are made somewhat more intricate by the size and the organizational complexity of Marshfield Clinic and Ministry Corporation.

## Assumption of Risk

Security Health Plan executives characterize the original development of the HMO as an "experiment" in prepayment and community rating. Initially built around an existing system of care, SHP paid limited attention to insurance practices. It took time for the clinic to develop a "managed care mentality" and it was only able to do so because of the support of the top management of the clinic. When Blue Cross withdrew from the HMO venture, the insurance expertise that had been available to Marshfield Clinic through Blue Cross also departed. SHP replaced that expertise by hiring key managers from Wausau Insurance Company, 45 miles away in Wausau, Wisconsin.

As SHP improved its claims processing and utilization management programs, it began to serve self-insured groups as a third-party administrator. There is no sharing of risk in this line of business for SHP. Marshfield Clinic, acting separately from SHP, contracts directly with large employers and purchasing alliances to assist them in managing their medical costs through activities such as credentialing of physicians, design of formularies, sizing of provider networks, and utilization review.

## Measuring and Evaluating Performance

Financial indicators constitute the major tool for assessing system performance. Profitability and budget variances historically have been discussed at board

meetings. The clinic monitors its own referral practices within the region, to track what patients its physicians are referring out of the Marshfield system. SHP out-of-area referrals are also monitored. The referral information helps in planning the clinic's recruitment and marketing strategies.

The clinic also monitors quality of services on a routine basis. The clinic routinely obtains data on 40 generic screening criteria. Although it has the capacity to monitor individual physician performance, Marshfield Clinic does not produce reports that do so. Performance improvement is expected to result from broadly diffused education. Department managers share clinical information aggregated by department with individual physician employees.

Currently not accredited, SHP plans to seek National Committee on Quality Assurance accreditation in the near future. SHP also plans to develop HEDIS standards and other data systems to monitor utilization and quality.

## SUMMARY

### Unique Features

The Marshfield Clinic system is a complex web of integrated health service delivery and financing with many layers and several component networks. Ministry Corporation cooperates with Marshfield Clinic sites in certain communities. The Marshfield Clinic - Ministry Corporation strategic alliance qualifies as a true network by our definition. However, rather than a network composed of independent facilities, the Marshfield Clinic - Ministry Corporation relationship is a network of two laterally integrated systems.

Independent of the Clinic - Ministry Corporation relationship, Marshfield Clinic participates in another integrated combination — the clinic-HMO relationship, but since the HMO is owned by the clinic, that relationship does not qualify as a network.

### Clinic-HMO Interdependence

The ownership of SHP by Marshfield Clinic indicates a high degree of integration between the two organizations. The boundaries between SHP and Marshfield Clinic are quite porous. They share common information and accounting systems and, as indicated, common governance. However, as Marshfield's experience with managed care grows, SHP is viewed more as an insurance company and less as a marketing arm of the practice.

Because the relative profit margin for the HMO is greater than that of the clinic, it makes good business sense to expand the revenues of SHP without regard to

the interorganizational contribution that SHP might make to the clinic in terms of referrals. As the market for SHP expands, so too must its provider network. An expanded provider network may mean fewer patient referrals to Marshfield for testing services and treatment; many such patients may be cared for by other affiliated practices closer to the patient's home. Consequently, the growth of SHP in the future may be largely decoupled from the growth of Marshfield Clinic.

#### Strategic Alliance with Ministry Corporation

The strategic alliance between Marshfield Clinic and Ministry Corporation is notable for its lack of formality. Contracts binding them together are limited to specific joint ventures; there is no overarching memorandum of understanding between the two entities. Yet, by virtue of their mutual dependence, they have adopted a strategy of implicit adjustment and accommodation. The ability to routinely coordinate clinical/technical services and the willingness of managers to resolve differences in good faith as the need arises appear to have been adequate substitutes in this network for higher degrees of structure. Custom, rather than formal structure, provides the primary source of coordination and control. As suggested earlier, the typical physician's disdain for bureaucracy may be responsible for the lack of structure in this aspect of the network.

#### **Major Accomplishments**

Five major accomplishments may be attributed to Marshfield Clinic and its networks. First, the clinic has successfully organized a system of primary and specialty care physician practices over a wide area of north central and northern Wisconsin. Through a program of integrated clinic management and other support services, a number of independent physician practices have been successfully subsumed into the Marshfield Clinic system.

Establishment of the regional center system has stabilized health care services (doctors, hospitals, and public health) in several rural underserved areas of northern Wisconsin. According to hospital administrators, public health administrators, and consumers in communities served by regional centers, Marshfield Clinic has played a key role in assuring local access to a wide variety of health services.

Third, Marshfield Clinic organized and operates a rural HMO that is profitable. Security Health Plan's

enrollment of 71,000 members reflects high levels of penetration in the immediate Marshfield area plus enrollment by Medicare beneficiaries and by individuals.

Entry into the strategic alliance with Ministry Corporation represents another significant accomplishment for Marshfield Clinic. Ideally, the alliance will help the two organizations jointly plan how to meet the needs of the region's residents. Finally, the network has created an integrated system of care to which residents of north central and northwestern Wisconsin have access through a single point of entry. The point of entry for many of these residents is as close as their local doctor's office.

#### **Future Developments and Next Steps**

Marshfield Clinic administrators plan to continue to work on a number of current initiatives. These include: improving the data system (e.g., medical records, clinical/utilization reporting); establishing community councils to improve the process of obtaining local consumer input; and upgrading the clinic's transportation system to aid in the movement of people and materials within the service area. The clinic also plans on developing local needs assessments to improve system-wide planning. Enhancing graduate medical education in regional centers is another Marshfield aim. The clinic regards this strategy as a means to improve recruitment and retention of rural practitioners.

In concert with Ministry Corporation, its strategic partner, Marshfield Clinic also intends to continue attempts to integrate clinic and hospital services at selected sites within the region. One of the key leaders of the alliance observed that as the clinic and Ministry Corporation continue to work together, they are beginning to develop a shared vision and a common organizational culture, attributes that may diminish the need for formal governance in the future.

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## CASE STUDY 5. THE LAUREL HEALTH SYSTEM

### BACKGROUND

The Laurel Health System's primary catchment area is Tioga County in north central Pennsylvania. Agriculture predominates in Tioga County, although the southern part of the county also has a history of coal mining. Currently, the largest non-agricultural employers in the area include Ward Manufacturing plus the health care, tourism, and timber industries. Of the county's 41,000 residents, 14 percent have incomes below the poverty level. Approximately 22 percent of the patients treated within the Laurel Health System can be classified as medically needy.

### Health Care System Overview

The Laurel Health System (LHS) was formed in 1989 by the affiliation of Soldiers and Sailors Memorial Hospital (SSMH) and North Penn Comprehensive Health Services (NPCHS). Located in Wellsboro, SSMH is a 103-bed acute care, sole community hospital with a medical staff of 39 physicians representing 18 medical specialties. Twelve of these physicians are formally affiliated with LHS; this includes eight primary care physicians employed by Laurel Health Centers, two gynecologists employed by SSMH, and two psychiatrists employed by Laurel Counseling.

LHS has three competitors in neighboring counties: Guthrie Healthcare System in Bradford County to the east; Susquehanna Health System, including both Divine Providence Hospital and Williamsport Hospital and Medical Center, in Lycoming County to the south; and Charles Cole Memorial Hospital in Coudersport, located in Potter County (west of Tioga County). The Coudersport hospital, a federally qualified sole community hospital, serves four counties and operates two clinics in the LHS market, one in Galeton, near the Tioga County line, and one in Westfield, within Tioga County. This hospital also operates three additional clinics in Potter County (two in Coudersport and one in Shinglehouse).

The Guthrie Healthcare System, based in Sayre, has supported physician practices in three Tioga County communities (Elkland, Mansfield and Wellsboro), although the Guthrie practice in Elkland closed in 1994. While the Geisinger Health System, located southeast of Williamsport, does not compete directly with SSMH, Geisinger opened a physician practice in Wellsboro in August, 1994.

NPCHS (also known as North Penn) operates federally funded Community Health Centers in six communities, one of which is in neighboring Potter County.<sup>4</sup> In addition to receiving Section 330 funding, these facilities all operate as Federally Qualified Health Centers (FQHCs); thus their mission is to provide primary care using salaried physicians and midlevel practitioners (nurse practitioners and physician assistants).

In addition to the eight primary care physicians employed by the Tioga County centers, a group of five family practitioners affiliated with the Guthrie Healthcare System practices in Wellsboro. A group of three family physicians also operates independently in the county.

Other Tioga County specialists include an otolaryngologist, an orthopedic surgeon, two internal medicine specialists, an ophthalmologist, a general surgeon, a urologic surgeon, an oral/maxillofacial surgeon, and the Medical Director of the Laurel Health Centers, who is board certified in pediatrics and internal medicine. Three psychiatrists (two on salary at Laurel Counseling Services), two general surgeons, a podiatrist, and a pediatrician also practice in Wellsboro.

NPCHS's six community health centers are located in Blossburg, Elkland, Galeton, Mansfield, Wellsboro and Westfield. NPCHS provides a very broad range of health and human services including home-delivered meals, hospice care, personal care, case management, numerous services for adjudicated youth, and several mental health programs. NPCHS also operates several residential facilities tailored to the needs of special populations (e.g., low-income elderly, mentally challenged). North Penn's educational enterprises range from Head Start programs and a toll-free information and referral service to the newest, the North Central Pennsylvania Area Health Education Center (AHEC). The AHEC develops and promotes primary care education and training experiences for health professionals in medically underserved rural areas throughout a 10-county region. In all, NPCHS employs approximately 500 persons.

Another recent addition to Laurel Health System is The Green Home, a 122-bed skilled nursing facility located in Wellsboro, across the street from SSMH. Two other long-term care facilities operate in Tioga County: Broad Acres Nursing Home, which is owned and operated by Tioga County; and the Carleton Nursing Home, a privately owned and operated facility.

<sup>4</sup>Community Health Centers (CHCs) are authorized by Section 330 of the Public Health Act and are administered by the Health Resources and Services Administration's Bureau of Primary Health Care. CHCs are partially funded by federal grants.

## Prior Collaboration

Before SSMH and NPCHS affiliated to create Laurel Health System, SSMH had entered into a three-year management contract to provide management services to NPCHS. While SSMH had been admitting patients from both private practice physicians and the North Penn health centers for several years, this management contract represented the first formal collaboration between the two entities.

Although NPCHS has received funding to provide several services on a subcontract basis through the Tioga County Human Services Agency, LHS has had difficulty establishing a truly collaborative working relationship with this organization.

## NETWORK DEVELOPMENT

### Motivation for Formation

The history of NPCHS traces a series of expansions and diversifications beginning with a Community Health Center that opened in 1973 at Blossburg, a town in the economically depressed coal mining region of Tioga County. In 1972 the State of Pennsylvania decided to close the general hospitals that provided free care in regions with a large low-income population. Blossburg, a 125-bed hospital with a 25 percent occupancy in its last year of operation, was one of the first to be closed.

When the hospital closed, the state arranged to lease the building to the town of Blossburg for one dollar per year, in hopes that the town could use the facility to provide health care for the area. In March, 1973, a one-physician Community Health Center opened in the building, employing some of the nurses who had worked in the now defunct hospital. In 1974, a second Community Health Center was opened in Mansfield, and the Cowanesque Valley Health Center at Elkland opened in 1975. With the closing of the state hospital, the region qualified as a health professional shortage area; thus National Health Service Corps (NHSC) physicians could be used to staff these Community Health Centers.

North Penn added several inpatient and outpatient services over the next decade; however, they all depended on various forms of government financing, with sliding fee scales or minimal charges to patients and clients. This resulted in an unstable financial base for some operations due to the uncertainty of continued funding under some programs. The instability reportedly contributed to the difficulty of recruiting non-NHSC physicians and retaining the Corps physicians.

During the mid-1980s, NPCHS had been operating with an annual deficit of approximately \$300,000. Recognizing the potential advantages of a closer

relationship with SSMH, an NPCHS board member asked to join the SSMH board and became a member in June, 1984. No immediate advantage was realized from this move. However, the prospects for cooperation between the two organizations improved when Bob Morris was hired as the new CEO of the hospital in May, 1986.

SSMH had also lost money on operations in the year prior to Morris's arrival. The losses experienced by SSMH were covered by an endowment, so the hospital was not experiencing the same degree of fiscal crisis as North Penn. At the end of his first year (May, 1987), a consulting firm was hired to assist with a strategic planning process. This resulted in recommendations for more integrated services; moreover, the consulting firm concluded that SSMH was the only entity in the county with the ability to lead the local health system toward integration.

In February of 1988, the SSMH Board decided to accept the recommendations of the consulting firm and to alter the SSMH strategy. Rather than focusing on the hospital's survival, SSMH elected to work toward becoming part of a system that would deliver integrated health services to the population. This decision included embracing a five-year plan for progressive integration of services. NPCHS was the logical partner for this enterprise, since it had already assembled a variety of the necessary services under a single corporate entity.

Other market and reimbursement factors motivated SSMH to move toward service integration. Seventy percent of SSMH inpatients were covered by Medicare and/or Medicaid. This very high proportion of government-reimbursed patients pressured the hospital to retain privately insured patients in its catchment area from leaving the community for health services. Morris reports fear that "...either on their own, or through their physician's referral, community residents who could afford to pay for care were going to other providers" (AHA, 1993). SSMH regarded the NPCHS health centers as potential "feeder" clinics in a hub and spoke arrangement; the affiliated clinics would enhance both referrals to Wellsboro specialists and admissions to SSMH.

In April of 1988, the two firms began discussing the possibility of a management contract. Before the contract was signed, the NPCHS board dismissed its Executive Director and named an interim Director to serve for a six-month period. The management contract signed in July, 1988 was originally intended to last three years. One of the first actions under this contract was to hire a new Director for NPCHS. That person assumed her duties in November, 1988, and is still in the position. The management contract proved to be a successful "trial marriage" for both parties. Thus the formal affiliation of SSMH and North Penn became effective on July 1, 1989, one year later.

## Barriers and Key Actors

Several barriers made the marriage between Wellsboro-based SSMH and Blossburg-based NPCHS appear unlikely, yet a few individuals came forward to help overcome those difficulties. Historical misunderstanding and suspicion represented one major obstacle. When the state hospital at Blossburg closed in 1972, the team that arrived to make the announcement of closing included the former CEO of SSMH. This error in political judgment fueled the belief that SSMH had somehow engineered the closing of the state hospital in order to create a natural monopoly market for itself — and Wellsboro. The long-standing “Wellsboro versus the rest of the county” issue still persists, according to a Community Health Assessment completed in 1994 by an independent consulting firm.<sup>5</sup>

### Building Bridges Between Blossburg and Wellsboro

The animosity between Wellsboro and Blossburg, and between SSMH and NPCHS, was overcome largely through the efforts of one member of the NPCHS board. This individual had demonstrated his commitment to both Blossburg and NPCHS by his many acts of personal philanthropy, particularly when North Penn’s financial difficulties were especially severe. He was identified by another Blossburg resident as “...one of the biggest fighters in the struggle between North Penn and Soldiers and Sailors.”

When, in 1984, he asked to join the board at SSMH in hopes that it would help relieve the animosity between the two entities, it appeared that he was motivated both by NPCHS’s financial problems and by his commitment to serving his community. His first few months on the SSMH board were difficult. He resigned at one point but rejoined the board a short time later. He was still on the board when the consulting firm made its recommendations, and he became a chief proponent of the five-year plan.

### Overcoming Federal Barriers

Another obstacle to the affiliation was raised by the Region III Department of Health and Human Services’ Bureau of Primary Care office, which oversees the federal funding of NPCHS’s Community Health Centers. This office had to approve the bylaws of the affiliation if federal funding was to continue. The regional office did not originally approve the bylaws, fearing that control of the

health centers would shift from the community to an external corporation.

Several board members from NPCHS visited the Region III office in Philadelphia, bringing documents to show that NPCHS would have adequate representation on the board of the new corporation, and that it was entering into the affiliation voluntarily. The bylaws were then altered, giving NPCHS three votes on the new board, and SSMH five votes. In addition, SSMH’s Chief Executive Officer became a member of the NPCHS board. (The overlap between boards of the various entities within the Laurel system will be discussed in greater detail in a later section.)

### Influence of a Medical Director

The continued turnover of National Health Service Corps physicians at the NPCHS Community Health Centers could have posed another obstacle to integration of services, since integration often relies on familiarity and trust among primary providers, specialists, hospitals, and other service providers. One NHSC physician who decided to stay with North Penn may have played a key role in reducing physician turnover. Dr. Regina Olasin is board certified in internal medicine and pediatrics and also has a masters degree in public administration. She now serves as the Medical Director of Laurel Health Centers and reports to the NPCHS Board.

Dr. Olasin believes that the affiliation has helped to stabilize the work force by giving the North Penn Community Health Centers an enhanced identity. According to her, NHSC physicians had been viewed by North Penn, and to some extent by patients, as “cheap labor” in the past. To improve physician retention, she began by establishing predictable on-call duty and creating flexible work schedules. Compensation adjustments reflected varying workloads, and changes in the pay scale brought salaries up to competitive levels.

All physicians recruited to North Penn Community Health Centers now sign long-term (minimum five-year) contracts and must be board certified or board eligible. The National Health Service Corps no longer serves as the primary source for recruited physicians.

In addition to recruiting and retaining well qualified physicians, NPCHCs have hired new midlevel practitioners for the clinics at Galeton, Wellsboro, Blossburg and Elkland. North Penn also participates in a training program for masters-level nurse practitioners through Syracuse University.

Other opposition to the SSMH-NPCHS affiliation reportedly stemmed from some independent physicians in Tioga County, who apparently feared that primary care physicians in the new Laurel Health System would not refer to specialists outside of the system. While one independent physician reported a belief that he and other

<sup>5</sup> This assessment was based on interviews with approximately 100 persons representing a broad cross section of the community in Tioga County, eastern Potter County, and western Bradford County.

independents were receiving fewer referrals from LHS physicians, the only specialists formally affiliated with LHS are two psychiatrists and two obstetrician/gynecologists. Thus, LHS primary care physicians must refer patients to independent specialists unless they choose to refer outside of the county.

### **Start-up Funding**

Since NPCHS had been operating with net annual losses for many years prior to the affiliation, it had no cash resources to assist in the formation of a network. Although SSMH had experienced a one-year operating loss, it had a history of financial stability and also had an endowment. Thus, the initial organizational expenses for the affiliation were borne by the hospital.

The affiliated corporate structure includes a cost allocation mechanism that assesses all network members for the costs of operating the network in two ways. First, each affiliate within the network (NPCHS, SSMH, The Green Home, etc.) is assessed a management fee, similar to what would be assessed under a management contract arrangement. The second method of cost allocation involves the distribution of overhead expenses that appear on revenue and expense spreadsheets for each cost center. For example, the budget for Laurel Health Centers (the six Community Health Centers operated by NPCHS) includes line items for the management information system (MIS) operated by Laurel Management Services.

## **OVERVIEW OF OPERATIONS**

### **Organizational Structure, Governance, and Management**

The Laurel Health System is an umbrella corporation, unifying the six components of the System under a single governance structure. Laurel Health System has a corporate board of 48 members. Nine of those members comprise the LHS Board of Directors. Many LHS board members also serve on the boards of the System's member affiliates. North Penn Comprehensive Health Services (NPCHS) has a corporate board of 45 members; 17 of those members make up the NPCHS Board of Directors, and LHS Directors have four seats on the NPCHS board. The other five system components include: 1) Soldiers and Sailors Memorial Hospital (SSMH); 2) Soldiers and Sailors Memorial Service Volunteers (SSMSV), auxiliary volunteers plus various types of inpatient volunteers; 3) Laurel Realty, a not-for-profit real estate holding company providing access to housing for physicians and others who move to the area to work in the Laurel system, plus access to office space for

physicians; 4) Laurel Management Services, which provides management support to all other member firms in the System; and 5) The Green Home, a 122-bed skilled nursing facility.

As part of the System's interlocking board structure, the nine members of the Board of Directors of Laurel Health System also comprise the Board of Directors of Laurel Management Services. Seven of those directors also sit on the ten-member Board of Directors of SSMH, and four of them sit on the seventeen-member Board of Directors of NPCHS. Each of the boards has several standing committees as well as occasional ad hoc committees or task forces; any of those groups may include corporate members who are not on the Boards of Directors.

It is estimated that at least 150 individuals are involved in some aspect of the LHS governance system. This extensive system allows for leadership development as well as recruitment. As these corporate members work on committees alongside the directors, potential leaders are identified and eventually nominated for more responsible positions.

Considerable overlap exists within LHS management as well as governance. Laurel Management Services employs the senior management of the System, including the CEO, CFO, Vice Presidents for Human Resources, Facilities and Development, the Administrative Assistant to the CEO, and the Executive Directors of NPCHS, SSMH, and The Green Home.

This management group sets annual goals in the form of an annual management action plan for Laurel Health System as a whole, and action plans for each of the six system entities. These plans are coordinated by the senior staff of Laurel Management Services. Under this arrangement, each of the Executive Directors is aware of the overall direction of the System, and can place the individual organization's interests in the broad context of the Laurel Health System as a whole.

### **Services and Functions**

As indicated, Laurel Health System provides a wide array of health and social services. In addition to the core of hospital and physician services, LHS offers nine discrete services: mental health; a skilled nursing facility; a subsidized independent living facility; home health; non-health services to support independent living through the Area Agency on Aging; Head Start; a variety of services for delinquent youth; a three-county, toll-free information and referral service; and an Area Health Education Center. Some of these services overlap with those provided in Tioga County by a three-county public health office. LHS has had some difficulty establishing a collaborative relationship with that office, although that difficulty may be

resolved. The two organizations are now collaborating with other local groups in the Tioga County Partnership for Community Health, an effort that grew out of the 1994 Needs Assessment report.

Many physicians who are not affiliated with Laurel continue to provide services in Tioga County. While there are no formal agreements between LHS physicians and independent physicians regarding referrals or shared information, some interesting informal arrangements have developed. For example, the Laurel Health Centers employ no primary care physicians who practice obstetrics. Center physicians had provided uncomplicated first and second trimester prenatal care to their patients, and then referred them to a group of three independent family physicians in Wellsboro. No problems with continuity of care were reported, and many of these patients were returned to their LHS physicians for pediatric and post-partum care. However, SSMH recruited two obstetrician/gynecologists who began practicing at SSMH in November, 1994. As a result, many LHS and non-LHS primary care physicians now refer their obstetric patients to these two specialists.

Five of the eight salaried primary care physicians working in the Laurel Health Centers participate in on-call rotation and have active staff privileges at SSMH. The hospital contracts with the Geisinger Clinic for physicians to cover its emergency room. This arrangement has reportedly been a factor in improving physician recruitment and retention, since it allows physicians the kind of work schedule more commonly associated with a large urban clinic.

At this time, LHS has no referral protocols. Nor does the System conduct any formal monitoring of the referrals made by Laurel Health Center physicians. The midlevel practitioners employed by all six of the Laurel Health Centers now have clinical treatment protocol practice guidelines that were developed by LHC physicians.

Laurel Health System does not currently offer any health insurance products, nor does it have any risk arrangements with its insurers. Several of those interviewed indicated that they believed managed care was imminent; they felt that the important next steps in network development would prepare LHS for managed care. Toward that end, LHS conducted a five-month national search in 1993 and hired as Vice President for Finance a person with managed care experience.

The VP for Finance believes that LHS operates much like a managed care system now, with most of the pieces in place. However, he thinks that the 41,000 residents of Tioga County do not constitute a sufficient base for a full risk arrangement. He indicates that a different mechanism, or a partner, will be required before LHS could offer a managed care product. Substantial cash reserves — more than the one million dollar cash reserve required by the

state — would also be needed to establish a managed care product.

#### Information Systems

Since the arrival of the VP for Finance, LHS has invested in new accounting software. The position of Manager of Information Resources now reports to the VP for Finance. The new software, a multi-corporation, multiple entity package, generates combined totals for the entire system as well as individual totals for each service within the system. Security codes limit the various network members to data areas necessary for their own service or institution.

Currently, SSMH, the Laurel Health Centers, and Laurel Counseling Services are linked by means of a base network with a local area network bridge operating over a dedicated communication line linking Wellsboro, Blossburg, and the six Laurel Health Centers. This network was developed for general accounting, payroll, patient financials, medical records and materials management.

Patient care components are being added incrementally. The hospital, the Laurel Health Centers, and Laurel Counseling Services now have a master-patient index with patient history data. Eventually, Information Resources plans to convert to fiber-optic transmission lines to handle the larger data demands of imaging. In the near future, plans call for the addition of the hospital's laboratory and nursing stations to the computer system. By spring of 1995, it is hoped that all patient scheduling will be on line.

As components of the information system were installed at NPCHS sites (the Health Centers and Laurel Counseling), there was some initial resistance. The regional DHHS Bureau of Primary Care objected to the cost of the new system, claiming that it was more than was needed by the health centers. Part of the Bureau's objection was based on specific Community Health Center reporting requirements that were not being met by the new system. Once they understood that the data they needed were easily provided by the new patient accounting system, albeit with different labels assigned to some of the variables, they accepted the new system.

Some employees at NPCHS also believed that the computer costs assigned to their cost centers were too high. The Manager of Information Resources, a former NPCHS employee, believes that his familiarity with both the North Penn health centers and the North Penn employees has helped in overcoming employee resistance to the centralization of information resources. He also reports that the installation of new computer hardware and the subsequent training on the new system made the affiliation real to employees. Some employees had not had to deal with the affiliation on a day-to-day basis until the information system was installed.

## Finance

LHS reported an annual profit in 1993 of \$1 million on total revenues of \$33 million, for a total margin of three percent. However, when non-operating revenues are excluded, the System reports an operating margin of one percent. The trend of annual losses for NPCHS has been reversed, and it is now breaking even. The Laurel Health Centers remain a source of losses; however six of the nine services provided by NPCHS now operate at break even or better. LHS also has non-operating income of approximately \$250,000 to \$300,000 per year from investments. The Vice President for Finance manages these investments.

SSMH opened a new addition in 1994 and planned to complete major renovations in the spring of 1995. This construction/renovation project has allowed the hospital to expand its outpatient capacity while downsizing inpatient capacity, at a cost of \$9.8 million. Loans for a majority of that cost were provided by three local banks. These loans allowed LHS to avoid the cost of issuing bonds and thus to save approximately one million dollars. In addition, through a capital campaign, community citizens contributed \$1.7 million to the hospital for this project.

## Impact on the Community

LHS has received a great deal of national attention. Publications describing LHS include the American Hospital Association's "Working from Within, Integrating Rural Hospitals," *Hospitals and Health Networks*, *Medical Staff Leader* and *Newsweek* magazines, and the Hospital Association of Pennsylvania's *Pennsylvania Hospitals Nineties* newsletter. In November, 1994, the AHA's Hospital Research and Educational Trust, in collaboration with the Kellogg Foundation, held an Action Learning Lab in Wellsboro, offering participants a tour of LHS and a series of presentations on the workings of a rural health network.

Despite this national attention from health services professionals, several of those interviewed reported that LHS is neither well-known or understood in the local community. One NPCHS manager indicated that if she told someone in the community that she worked for LHS it wouldn't mean anything. The 1994 Community Health Assessment also reported a lack of community involvement in the Laurel Health System.

While community members who do not work for LHS or have regular dealings with its member entities may not recognize the Laurel name, network formation has had an observable positive effect on the sizable LHS work force. Prior to the affiliation, the community health centers of NPCHS relied on NHSC physicians. The Centers now have no NHSC physicians on staff. Their physician turnover is minimal, resulting in more stable relationships between

doctor and patient, and between primary care and specialist. Similarly, other services within LHS, such as North Penn's home health and mental health programs, report that it is easier to recruit employees as a network affiliate.

At the time of the affiliation, the pay scales and benefits of NPCHS employees were significantly lower than those of SSMH employees. Since then, an incremental series of adjustments has established parity for the entire LHS work force. Since LHS is the major employer in the county, this process may result in a modest increase in the standard of living in some of the smaller communities where NPCHS has employees.

Initially, the difference in pay plus the poor financial position of NPCHS caused many NPCHS employees to feel like the "poor cousins" in the LHS family. This led to some resentment toward SSMH. Most respondents indicate that such feelings have diminished considerably over time, due in large part to the open management style of Morris and good communication among the various services within LHS.

## INFLUENTIAL FACTORS

Four principal factors have shaped the development of the Laurel Health System and continue to influence its operations and outlook: 1) the long-range vision of LHS leadership, 2) the breadth of services, 3) physician attitudes, and 4) community integration.

### Long-range Vision

The affiliation between Soldiers and Sailors Memorial Hospital and North Penn Comprehensive Health Services resulted from several events that occurred in 1984-1988, including the financial struggle of NPCHS and the dismissal of its Director, the arrival of a new CEO at SSMH, and the subsequent initiation of a strategic planning effort with consulting help. These events set the stage for affiliation; nevertheless, Laurel Health System would not have been created without the vision and zeal of a key SSMH staff member and NPCHS board members. These individuals were able to see beyond geographic rivalries, deficits, and takeover fears to appreciate the possibilities inherent in affiliation.

The strategic planning process instigated by the hospital CEO helped broaden the vision of other people associated with the hospital. This process helped SSMH start thinking of itself as one component in a series of health services needed by its service area population. The result, a shared long-range vision, created the psychic climate needed for affiliation and began to pave the way for other major changes.

After five years of affiliation, the clinical integration of LHS services has not yet occurred. However, the necessary precursors of governance/management integration and information system integration have been substantially accomplished. Equally important, the discussions and explorations of managed care options continue to raise the consciousness of physicians and other System employees.

### **Breadth of Services**

North Penn Comprehensive Health Services brought to the Laurel Health System an array of services created over a period of 17 years. The breadth of services distinguishes the Laurel Health System from other rural health care networks or systems. These services bring both opportunities and challenges to LHS. The major opportunity, of course, is the chance to create an integrated managed care system that would link ambulatory care, acute care, mental health, home care, and long-term care under the Laurel umbrella. Other intriguing opportunities include access to populations outside of Tioga County and the potential for selective contracting (e.g., for mental health services) with other health systems. In addition, economies of scale should be realized through the sharing of fixed expenses and ancillary services.

Along with these opportunities, the spectrum of services has also generated challenges and problems for LHS. Many NPCHS programs were losing money at the time of affiliation. Turning them around absorbed substantial management attention during the first years of affiliation. Several NPCHS services depended on federal funding, either for subsidies or reimbursement, creating chronic uncertainties about the continuation of funding.

In addition, while some of these services such as the skilled nursing facility and home care would become valued components in an integrated health services continuum, others (e.g., Head Start programs and services for delinquent youths) would not fit as well into a health-oriented continuum of services. Nevertheless, some of the social service programs generate significant revenue for the System, providing unusual growth opportunities.

### **Physician Attitudes**

The health care environment in which LHS operates is characterized by a divided medical community. Physicians who are not formally affiliated with LHS not only distrust the Laurel system, but some also harbor resentment toward physicians practicing in the Laurel Health Centers. Some of these independent physicians feel that federally subsidized physicians have an unfair

competitive advantage. While we did not observe this sentiment in the non-system physicians interviewed for this report, it was documented in the consultant's Community Health Assessment. The divided medical community also manifests itself within LHS. Reports of poor communication among LHC physicians surfaced. Communication between LHC physicians and the hospital has also been less than optimal. In May, 1994, only one physician served on the LHS board, and that appointment was relatively recent. Several of those interviewed commented on the lack of physician involvement in both the development and current governance of Laurel Health System.

Recent steps have been taken to improve physician-LHS communication. A Laurel Health Center physician now serves on the Executive Committee of SSMH's medical and dental staff. Another physician, who also serves as the vice president of the SSMH medical and dental staff, was added to the hospital's Board of Directors; this addition brought the number of physicians on the ten-member SSMH board to three.

In addition, all North Penn physicians are participating in the planning stage of a Physicians Organization (PO) and a Physician Hospital Organization (PHO). All members of the hospital's medical and dental staff have been invited to participate in these organizations when and if they are created. Fewer than half of the doctors who work within the Laurel Health System are LHS employees. Creation of a PO (the initial entity to be formed) would enable more formal organizational arrangements between participating physicians and LHS. Proponents of the PO and PHO regard such organizations as useful steps to enlarge physician participation in LHS policymaking and to better align physician and System incentives.

### **Community Integration**

Tioga County residents in general do not appear to understand either the accomplishments of LHS or its future direction. Despite the substantial community involvement in the corporate boards of NPCHS and LHS, there is clearly a need for greater community participation. The Community Health Assessment identified twelve strategies for improving community health. Eight of these strategies stressed the need for community involvement, responding to specific comments made by those interviewed concerning a narrow power structure and little community involvement.

In response to these observations, LHS has formed the Partnership for Community Health of Tioga County in concert with representatives from health services, human services, local business, and youth from four identified geographic areas of the county. Four

Partnership work groups have been created to focus on youth, the elderly, access to primary care, and community health status. The latter work group has initiated a community-wide health status survey.

In addition, the Partnership for Community Health is sponsoring a series of Town Hall Meetings to encourage broad involvement in the development of a community vision for health improvement. LHS's leadership role in these efforts is consistent with the decision by SSMH in 1988 to alter its mission from one of hospital survival to one of community health.

## ASSESSMENT OF NETWORK ATTRIBUTES

### Level of Integration

In its first five years following the affiliation, LHS has had mixed success in integrating its many components. As previously mentioned, a management information system currently links most services to a central data base by means of a wide-area network. Clinical information linkage between sites, however, is limited.

Within NPCHS, functional integration is effected by means of management team meetings involving managers from the nine service units. In addition, LHS has instituted a continuous quality improvement program that brings together staff from its various service units to work on specific problems. One service that appears to have benefitted from network affiliation in terms of enhanced integration of services is home health. If discharge planning from the hospital and nursing home includes home health, someone from the home health service can easily be brought in to attend planning meetings.

Integration also takes place at the governance level. The overlapping board structure means that the diverse perspectives of the many services within LHS have a voice when decisions are made. This not only affects the allocation of scarce resources within the System, but provides unique opportunities to increase efficiency and improve quality. For example, NPCHS now sends its laboratory work to the lab at SSMH when cost-effective and appropriate. Similarly, The Green Home sends its laundry to SSMH.

While there is a specific plan for expanding the information system to include more clinical data, there are no specific plans for the development of referral protocols or other mechanisms by which the continuum of care might be integrated more explicitly. The Laurel Health Centers' Medical Director has implemented prescribed clinical protocols for use by health center practitioners — both physicians and midlevels.

The lack of more assertive mechanisms for managing clinical care may be due to the fact that LHS employs only

about one third of the physicians in the county. Moreover, some of the physicians not employed by the System appear to distrust LHS. The recent Community Health Assessment reported that the local dominance of LHS was cited by several physician respondents as a source of mistrust.

### Complexity

LHS is a very complex network in terms of the variety of services offered. Given its complexity, however, a relatively small total number of corporate entities exist within the System. North Penn developed as a single corporate entity, and LHS has only one hospital, with no major network or consortium linkages to other hospitals.

With the small number of service sites represented for each of the many services encompassed by LHS, the System may be well-positioned to address the problems of integration inherent in any entity that offers many different services with varying information needs. Moreover, while the relatively small population base (41,000) represents a liability from the standpoint of risk assumption, it may facilitate attempts to increase community participation and develop a broad-based community vision for improving health, as called for in the Community Health Assessment.

### Assumption of Risk

All members of the Laurel management team identify managed care and the assumption of risk under a capitation arrangement as the next logical step in network development. Their plans to prepare for this step include the development of their information system as previously described. Another step is the feasibility study undertaken in 1994 to consider a self-insurance program for LHS employees' health benefits. In addition, the LHS-commissioned Community Health Assessment gathered data that can be used to profile potential groups and assess risk. LHS also continues to explore opportunities for collaboration with other regional entities such as the Hershey Medical Center, Guthrie Healthcare System, Geisinger Clinic, and Tioga County Human Services Agency. While each of these steps helps prepare for managed care, the lack of involvement and support from independent physicians in Tioga County remains as a barrier. As noted, SSMH and its physicians are currently exploring the possibility of developing a Physicians Organization (PO) and a Physician Hospital Organization (PHO). All members of the hospital's medical and dental staff have been invited to participate. At this point, all of the NPCHS Health Center physicians have agreed to participate, as have the majority of the independent physicians in Tioga County. The PO and PHO are now being designed.

## Measuring and Evaluating Performance

The LHS senior management staff establish annual goals in the areas of quality, human resources, finance, services, facilities, and governance. Each goal includes a projected completion date, and a member of the management team (or a team of members) is designated as responsible for achieving that goal.

Specific quantitative measures such as financial ratios or indicators of clinical activity are not used system-wide, but many are used by some entities within the System. For example, SSMH uses cost-per-adjusted-admission (adjusted for outpatient activity) and monitors outmigration of patients. With data obtained from the Health Care Cost Containment Council, SSMH was able to estimate how many Tioga County residents are admitted to hospitals outside the area for specific DRGs. Such analysis helped SSMH identify a serious obstetrics/gynecology outmigration problem. As a result, SSMH recruited and hired two obstetrician/gynecologists.

## SUMMARY

Despite serving a small geographic area, the Laurel Health System offers an impressive range of services under a unified governance structure. While hospitals and physicians constitute the core of most integrated health service networks, LHS offers nine identifiable services beyond that core. This broad array of services is functionally integrated at the governance level and at the administrative level. However, integration at the clinical level is only partially realized.

The Laurel Health System has three major strengths:

1. Strong leadership from the chief executive, the NPCHS medical director, and key board members.
2. A complex governance structure that ties the system's organizations together, involves key community leaders, and develops new leaders.
3. A diversified range of services including home health, long-term care, mental health and human services.

If LHS is unique, it is largely due to the last of these strengths. Few systems, whether rural or urban, include the diversity of human services assembled over the seventeen-year history of North Penn Comprehensive Health Services that preceded the affiliation with SSMH.

Since several of these services have a broader catchment area than Tioga County, this diversity may present opportunities to form partnerships outside of the

county that would expand the population base and improve LHS's ability to assume risk.

While the services offered under the LHS umbrella are not yet fully integrated, the annual Management Action Plan developed by senior management appears to include the logical next steps. LHS is investing in its information infrastructure, and should be well-positioned to enter into a financial risk arrangement involving capitation.

Physicians — both Laurel-affiliated and independent — could undermine the progression from functional integration to the clinical integration necessary for managed care. Physicians were not instrumental in the creation of the affiliated system and, until recently, they have not played major roles in LHS governance. This problem has been recognized, and several steps are being taken to alleviate it.

Laurel Health System needs to actively involve not only area physicians but also local residents. Community residents must perceive LHS physicians to be of high quality and must value the array of services available to them before they will contemplate joining a managed care system built around LHS. Given the area demographics, LHS would have to be a provider of choice for middle-income residents. If the PHO can be successfully developed, it should broaden the group of physicians associated with LHS; this move could help LHS appeal to a wider demographic spectrum.

LHS will also need to take seriously the feedback it is now receiving through its involvement in the Partnership for Community Health of Tioga County. In the long run, Laurel Health System will need both supportive physicians and an involved community to create and sustain a successful managed care system.

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## CASE STUDY 6. AvMED-SANTAFE

### BACKGROUND

AvMed-SantaFe, a not-for-profit organization made up of health plans, hospitals, and other health-related services, serves six major markets in Florida including Miami, Fort Lauderdale, Tampa, Orlando, Jacksonville, and Gainesville. In the Gainesville market — the primary focus of this case study — the AvMed-SantaFe service area mirrors the collective service area of the four hospitals that comprise the AvMed-SantaFe hospital system (Alachua General Hospital in Gainesville, plus rural hospitals in Starke, Lake City, and Live Oak). This service area encompasses the five north central Florida counties of Alachua, Bradford, Columbia, Suwannee, and Union. The combined population of these counties is approximately 292,600, with Alachua, the most heavily populated, accounting for over 60 percent of the area's residents. Home to the University of Florida, the City of Gainesville is the county seat of Alachua County, and is a designated Metropolitan Statistical Area.

### Health Care System Overview

As with many areas of the country, competition among hospitals in and around Gainesville began to accelerate in the mid-1970s. Alachua General Hospital (AGH), a county-owned facility, was competing locally with a university medical center and a for-profit hospital. AGH felt that its governmental status was a competitive disadvantage. Not only was its governance linked to county politics and its operations subjected to the scrutiny of its public owners, but the open meetings law, which regulates the meetings of public agencies, allowed AGH's competitors to attend meetings of the AGH Board of Directors.

To enable AGH to more effectively compete in the Gainesville market, in 1978 Alachua County leased the hospital to AGH, Inc., a newly formed, not-for-profit hospital corporation. In 1983, the county signed over the assets of the hospital to AGH, Inc. The conversion of AGH to private, not-for-profit status began a series of events that led to the formation of AvMed-SantaFe, a health care system that continues to evolve.

Eager to demonstrate that it could succeed without county financial support, AGH attempted to consolidate its market position by creating a "feeder system" of rural hospitals that would refer patients to AGH. AGH created relationships with a number of rural hospitals throughout Florida by providing them with contract management services.

AGH soon discovered that this lateral networking effort produced neither an effective "feeder system" nor hoped-for cost reductions through economies of scale. The hospital discontinued its statewide rural hospital management system and reoriented its strategy towards assembling a hospital system within the geographical area surrounding Gainesville.

### Prior Efforts

In 1982, SantaFe HealthCare, Inc. was created as the parent organization of a multi-corporate regional health care delivery system. The Chief Executive Officer of AGH became the President of SantaFe. SantaFe first acquired Alachua General Hospital and, in short order, added three rural hospitals in northern Florida to the system — Bradford Hospital in Starke, FL; Suwannee Hospital in Live Oak, FL; and Lake Shore Hospital in Lake City, FL.<sup>6</sup> Physicians serving the three rural hospitals had typically referred patients who required secondary and tertiary services to Gainesville. SantaFe hoped to improve AGH's market share by encouraging physicians in the three rural communities to refer their patients to physicians who used AGH.

The three rural hospitals and the communities they serve benefitted from their association with SantaFe. SantaFe replaced the old hospitals with new facilities in both Starke and Live Oak. In addition, SantaFe recruited new physicians to the communities, stabilized staffing of emergency services, and provided professional administration. Initially somewhat cautious about having their hospitals taken over by a large system, community members soon began to recognize the benefits of affiliation with SantaFe. Community acceptance of the acquisition was aided by the name recognition and the reputation of SantaFe/AGH.

At approximately the same time the northern Florida hospital system developed, SantaFe also planned to buy a large hospital in southern Florida and cluster rural hospitals around it. SantaFe executives initially believed that the rural hospitals would assure that local patients would be referred to the hospitals' larger system partner in the urban market. The experience in northern Florida

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<sup>6</sup>Bradford Hospital and Suwannee Hospital are designated as statutory rural hospitals under the following definition: "rural hospital" means an acute care hospital licensed under chapter 395, with 85 licensed beds or less, which has an emergency room and is located in an area defined as rural by the U.S. Census, and which is the sole hospital within a county with a population density of no greater than 100 persons per square mile (s. 395.102(2), Florida Statutes). SantaFe purchased Bradford Hospital and Suwannee Hospital from their county owners. Lake Shore Hospital is operated under a thirty-five year lease with Lake Shore Hospital Authority, a political subdivision of Columbia County.

with the "AGH network," however, convinced SantaFe that hospital networks possessed limited ability to determine physician referral patterns. In northern Florida, physicians had their own referral systems, independent of their hospitals. Because these physicians had no accountability to the hospitals and because they realized no economic consequences from their referrals, physicians were reluctant to alter their established referral patterns.

## NETWORK DEVELOPMENT

### Motivation for Formation

Realizing that hospital ownership would not create an effective feeder system, SantaFe decided not to invest in additional hospitals; instead, the organization began to look for other growth opportunities. Between 1982 and 1985, SantaFe began to experiment with managed care. As its initial foray into managed care, the organization developed a preferred provider organization (PPO) for its own employees, making fee-for-service payments to physicians for hospital-related services based on diagnostic related groups (DRGs). The PPO was later opened to other employers.

From this experience, SantaFe learned that financing the infrastructure necessary to manage care effectively required a substantial number of enrollees. This understanding, coupled with a general belief in the efficiency of managed care, convinced SantaFe executives to either purchase an existing health maintenance organization (HMO) or, failing that, to hire an HMO management team and develop an HMO themselves.

In 1986, representatives of SantaFe learned that AvMed, a for-profit HMO owned by National Medical Enterprise, was available for sale.<sup>7</sup> Established in 1969, licensed by the state in 1973, and federally qualified in 1977, AvMed was an individual practice association (IPA) model HMO that served primarily southern Florida.

### Start-up Funding

SantaFe executives assessed the prospective purchase of AvMed and concluded that the acquisition was both consistent with SantaFe's mission and strategic direction and also financially feasible. Believing that integrated systems need the support of a strong management team, SantaFe executives felt that the key to

buying AvMed was the retention of AvMed's management team.

SantaFe had previously obtained a multi-million dollar line of credit in anticipation of system acquisitions. With this financial backing, SantaFe entered into negotiations with NME that resulted in the purchase of AvMed. SantaFe retained critical members of AvMed's management team and maintained its southern Florida offices, but immediately changed the structure of the corporation from for-profit to not-for-profit, a change consistent with the original principles of SantaFe.

### Initial Development

In addition to operating its hospitals and AvMed, SantaFe HealthCare, Inc. established or acquired several other lines of business. These ventures included 25 medical practices in rural communities and Gainesville, a hospice that serves 11 counties in northern and central Florida, a free-standing 40-bed inpatient rehabilitation hospital, an 83-bed inpatient psychiatric and substance abuse facility, an ambulatory surgery center, mobile diagnostic services, retirement housing and personal care services, a medical office building, a laundry, a retail pharmacy, a third-party administration service, various insurance products (including two other HMOs), and property management services. With the exception of the managed care and insurance products, virtually all of these activities and facilities are located in or within a 50-mile radius of Gainesville. SantaFe also provides various centralized management and support services to its affiliate organizations. These central services are housed in yet other corporate entities.

By 1992, SantaFe had become a complex health care delivery and financing system. Surveying the mix of business opportunities available to it in conjunction with an update of its strategic plan, SantaFe concluded that managed care was the most viable of its core businesses. Accordingly, the executive staff and Board of Directors reorganized SantaFe, placing emphasis on HMO growth as the chief corporate priority. SantaFe decided to commit assets to manage care development and to realign management structures and systems to support AvMed.

Nowhere is the change in corporate emphasis more apparent than in the decision to change the name of the organization from SantaFe HealthCare, Inc. to AvMed-SantaFe. Within six years, the investment had consumed the investor. By 1992, the organization could no longer be considered a hospital system that owned an HMO. It was now an integrated managed care organization.

The decision to realign the corporation around managed care was motivated by two primary considerations, one financial, the other ideological. When SantaFe acquired AvMed, hospital business accounted for

<sup>7</sup> AvMed was developed in 1969 by a physician in Miami to serve the health care needs of the aviation industry. He named the organization "Av-Med," a trade abbreviation of "Aviation Medicine." When NME attempted to establish a nationwide system of HMOs, it acquired AvMed to serve as its southern Florida managed care product.

70 percent of SantaFe's revenues. By the time of the realignment, the situation had reversed. During years of relatively flat hospital financial performance, HMO revenues had grown rapidly. By 1992, AvMed contributed roughly 70 percent of corporate revenue, making managed care truly SantaFe's core business.

SantaFe executives also experienced a concomitant shift in thinking. They came to believe that an HMO can potentially have a greater influence on the health of a community than a hospital. In a logical extension of this belief, executives decided that a not-for-profit HMO has a "public health mission." These ideas were incorporated into the mission and philosophy statements of AvMed-SantaFe:

#### **Mission**

To be Florida's leading health improvement company, providing comprehensive, coordinated services to enhance the health of our members and patients through an integrated system which emphasizes quality, affordability and user satisfaction, and which operates in keeping with our not-for-profit, humanitarian tradition.

#### **Philosophy**

Quality health care is cost-effective health care when it is based upon an on-going relationship with a primary care physician, allowing as much emphasis on prevention as on treatment.

#### **Key Actors**

The President and Chief Executive Officer of AvMed-SantaFe, Edward C. Peddie, is largely responsible for the evolution of the organization from a county-owned hospital to a managed care system. He served as the chief executive of AvMed-SantaFe's two predecessor organizations, AGH and SantaFe HealthCare, Inc. The scope and emphasis of AvMed-SantaFe reflects, to no small degree, this CEO's vision.

Many of the people in key leadership positions have "grown up" with the company. Their understanding of management roles has evolved as AvMed-SantaFe has changed over the years. Many of the key leaders, at one point, were hospital (AGH) employees. Two physicians who were among seven physician members of the PPO board created by SantaFe in 1983 augment this core leadership group, as does the one remaining member of the pre-acquisition AvMed management team.

Although AvMed-SantaFe acquired AvMed's vice presidents when it purchased the HMO, all but one resigned approximately five years ago because their

management styles did not fit with the not-for-profit orientation of AvMed-SantaFe. According to one observer, the ex-AvMed managers believed that the "level of discipline" at AvMed-SantaFe was not comparable with "private sector" HMOs.

#### **Barriers**

The transition from a hospital system to a managed care system has not been without its difficulties. The change in the core business required a systemwide shift in operating logic. This shift manifests itself in two primary ways. First, emphasis is no longer placed on selling hospital services, but on managing the utilization of subscriber health services. Second, the market for the organization's primary product is no longer Gainesville and its environs, but rather the entire State of Florida.

Top management made the transition successfully, but it has been more difficult for other AvMed-SantaFe employees and Board members. Conditioned to believe that the system rewards the expansion and consumption of health care services, some AvMed-SantaFe employees have not been able to shift from a hospital orientation to a managed care orientation. The inability to shift orientations is exacerbated by the relatively low penetration of managed care in the Gainesville area. This means that the benefits of changing behavior are not immediately apparent.

Several factors have lessened the initial organizational dissonance to some extent: a reorganization removed some of the hospital business from the agenda of the AvMed-SantaFe governing board; efforts to educate the board bore fruit; and board and staff gained more experience operating as a managed care organization. The lively tension that continues to animate this network will be explored in greater depth in the sections that follow.

## **OVERVIEW OF OPERATIONS**

AvMed-SantaFe is now a complex, urban-based health care system with a rural component. There are 18 affiliates to the AvMed-SantaFe system, each independently incorporated. For the purposes of this case study, we will focus on a subset of these organizations: the acute care hospital group, the HMO, and the corporate functions that support those enterprises.

### **Organizational Structure, Governance, and Management**

#### Organization and Governance

AvMed-SantaFe, a not-for-profit corporation, is the parent organization for a regional health services delivery

and financing system. The membership elects a Board of Directors of at least six members, including the President of AvMed-SantaFe who is an ex officio member.<sup>8</sup> Board members are elected to staggered three-year terms, and there is a limit on the number of terms a Board member may serve. The AvMed-SantaFe Board meets six times per year.

To foster integration among the various components of the AvMed-SantaFe system, members of the Boards of Directors of each affiliate serve on standing committees of the AvMed-SantaFe Board. Standing committees include the Executive Committee, Finance Committee, Membership/ Bylaws Committee, and Audit Committee.

Until 1992, each of the acute hospitals maintained a local board. Because AvMed-SantaFe legally served as the sole voting member of its affiliate organizations, the local boards were advisory in nature. Nevertheless, the local boards had significant input into local decisions. AvMed-SantaFe and its predecessor organization perceived the need to obtain the approval of the local boards on issues before proceeding.

One former member of a rural hospital board recalled that when the AvMed-SantaFe president attended a meeting, "we knew we had to pass something." The anecdote illustrates the reciprocal power relationships that occur in the system. On the one hand, AvMed-SantaFe had the power to change local hospital policy, but felt the need to receive the approval of the local board. On the other hand, the local board thought of itself as largely autonomous, yet when petitioned by top AvMed-SantaFe management, it felt pressure to agree.

In 1992, the local hospital boards were discontinued in favor of a consolidated Medical Center Board of Directors. This move combined the governing board and medical staff functions of all four acute care hospitals in the system. The Medical Center Board is composed of representatives from the local communities. During the transition, these representatives were former local board members.

The Medical Center Board currently has about 35 members. Board members are reimbursed for their attendance at meetings. Medical Center Board members participate in an elaborate committee structure (e.g., quality assurance, medical affairs, operations). Members of the Medical Center Board may also be chosen to serve on AvMed-SantaFe Board committees.

In the view of one local hospital administrator, the Medical Center Board is better informed than were the local boards. Its members gain subject expertise by participating in the committees; they also develop closer

relationships to key members of the AvMed-SantaFe management staff. AvMed-SantaFe staff (largely administrators from the four hospitals) serve as staff to the Medical Center Board and its committees. Consistent with the change in organization priorities, neither the Chief Executive Officer nor the Executive Vice Presidents of AvMed-SantaFe attend meetings of the Medical Center Board.

Two factors motivated the creation of the Medical Center Board. First, the Medical Center Board was established to relieve the AvMed-SantaFe Board agenda of many hospital-related items. This allowed the AvMed-SantaFe Board to more successfully orient itself toward its core business — managed care. Second, AvMed-SantaFe executives wanted to reorganize the hospital system so that it could better plan for the medical needs of the rural population of the service area. The organization intends to create "one system — one laboratory, one x-ray, one emergency system." According to the chief executive officer of AvMed-SantaFe, for rural health care to "work," it must be managed. He believes that managed care will force the systemization of care in rural areas.

Each institutional participant of the Medical Center Board retains its corporate identity. For legal reasons, all boards are considered to have the same membership. Individual minutes are created for the component organizations from the Medical Center Board meetings.

### Management

The CEO of AvMed-SantaFe rotates the assignments of key management staff. These reassignments can bring new management insights to the functions supervised (for example, the pre-acquisition AvMed vice president is now the vice president in charge of hospitals), but they can also cause uncertainty among middle managers. A manager of one allied service observed that due to reorganizations she had reported to four different vice presidents in four years.

Both the Chief of Staff and Chief Financial Officer have a staff relationship to the CEO. Five senior vice presidents (SVPs) report to the CEO. These SVPs are responsible for the following five units: the Facilities Management Group (hospitals and other affiliate provider organizations); the Customer Group (marketing and sales of managed care products); the Primary Care Group (primary care network development/physician contracting); Medical Operations (medical direction, quality improvement); and the Specialist Care Group (specialist contracting, claims processing, MIS management).

The hospitals in the system are staffed by administrators (called chief operating officers) and directors of nursing; these employees of SantaFe Management Services are expected to live in the

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<sup>8</sup>The current Board of Directors has 19 members.

communities they serve. Administrators are also encouraged to insinuate themselves into the social life of the community through membership in service clubs and civic organizations.

AvMed-SantaFe employs several physicians; they typically receive salaries of between \$80,000 and \$100,000 and are eligible for pay incentives based on billable charges. AvMed-SantaFe physicians in Starke and Lake City operate either out of offices in the hospitals or in a separate, company-owned medical office building.

In contrast to the administrators, the physicians employed by AvMed-SantaFe to serve rural communities are not required to live in the community. In at least one case, the hospital bylaws had to be changed to allow members of the active medical staff to live outside of the county. This policy has caused some concern in the communities. Residents complain that, because the physicians have no social ties to the community, they do not get to know those physicians. Moreover, local physicians not employed by AvMed-SantaFe complain that the policy affects the ability of AvMed-SantaFe physicians to accept calls.

### Services and Functions

AvMed-SantaFe provides various services to its affiliate organizations, including centralized cash management; physician recruitment; the purchase of insurance; short- and long-term planning and CON-related activities; risk management; legal services; marketing and public relations; assistance in the preparation of cost reports and in the maximization of third-party reimbursement; and the design and supervision of construction and renovation projects. Additional services cover the development and conduct of training and education programs; accounting, budgeting and financial services, including regulatory reporting; and human resource management. Affiliates are charged for these services through intracompany billings.

These centralized functions help to integrate the disparate parts of the organization since the various service units of the organization have similar financial, personnel, marketing, and physical plant management systems. In this regard, AvMed-SantaFe appears to exhibit a high degree of "systemness" (i.e., it operates more like a single organization than like a loose collection of organizations under a corporate umbrella).

According to one senior vice president, integration of services, while cost effective, is difficult to implement and manage. He cited conflicts among the providers and users of shared services over the management of those services. Serving dissimilar "clients" with a similar product occasionally results in charges that the product lacks relevance or has a misplaced emphasis. In these

cases, the affiliates would rather provide the services themselves than spend the money to have them provided by the corporation.

AvMed-SantaFe performs all patient billing, accounting, planning, and hospital reporting for the rural hospitals in the system. The hospitals obtain supplies and purchased materials from AGH general stores. They use the AvMed-SantaFe shared laundry. Computer services are also shared within the network. As JCAHO requires, quality assurance is performed internally by the hospitals, but AGH provides QA guidelines and consultation. As one administrator put it, the hospitals "only" provide patient care.

Neither of the two smaller hospitals (in Starke and Live Oak) offers inpatient surgery or obstetrical services. Both provide outpatient surgery and a wide variety of diagnostic services, some available via the mobile technology supplied by AvMed-SantaFe. Pathology, reference laboratory, and radiology services are all provided by AGH. Both hospitals have relatively short lengths of stay and view themselves as "primary care hospitals."

Administrators would prefer that patients transferred from the smaller hospitals were transferred to AGH. When patients, for some reason, cannot be admitted to AGH, the second alternative is to transfer them to the hospital in Lake City (128 beds) that is also owned by AvMed-SantaFe. The emergency rooms are staffed by separate services.

### Finance

All of the AvMed-SantaFe hospitals approximately break even on operations. In every case, the current financial position of the hospital is better than it was prior to the acquisition. In addition to improving the operating performance of the hospitals, AvMed has invested in new assets for the hospitals, most notably new buildings for the two smallest hospitals. Records of the revenues and expenses for each of the hospitals are maintained separately. The hospitals are charged for the services they receive from AvMed-SantaFe on intracompany billings. Expected to operate profitably, the hospitals are allocated capital budgets based on their retained earnings.

The AvMed-SantaFe hospitals contract with AvMed to deliver care to subscribers on a capitated basis. Although managed care penetration in rural areas is not great, AvMed-SantaFe executives believe that the number of large employers in rural areas (e.g., the school system, county, state, and federal employees) suffices as a base for future development.

Until three years ago, AvMed used a modified community rating to set premium rates, but now it uses an experience rating approach. This change was made in

response to an increasingly competitive HMO market in Florida. Approximately two years ago, AvMed determined that its costs were too great. The cost problem was caused not by excessive utilization but by unusually high hospital and physician unit costs. AvMed was able to reduce its costs by working with its participating providers.

These corrections to the revenue and expense structure of AvMed have kept profit margins at a consistent three to five percent throughout the period. AvMed executives do not feel the need to reduce costs or trim premium rates unnecessarily. AvMed has a good reputation with providers built on a history of fair dealings, timely payment, and high quality. AvMed wants to position its premium rates 5-10 percent greater than the low-cost plan in a competitive market.

### Impact on the Community

In the opinion of one AvMed-SantaFe executive, network development in rural areas is non-competitive. The goal of rural health networking should be how to organize scarce resources efficiently. To a large extent, AvMed-SantaFe has attempted to fulfill that goal with its rural hospitals. AvMed-SantaFe has had observable positive impact on the communities it serves.

For example, AvMed-SantaFe has:

- Built two new hospitals in rural areas (replacing early Hill-Burton hospitals).
- Improved emergency room coverage.
- Improved access to specialty services by sponsoring specialty clinics on a weekly basis.
- Improved access to technology (e.g., mobile CT, ultrasound, mammography).
- Recruited new primary care physicians to the areas and improved physician retention by employing them (i.e., removing practice-associated financial risk).
- Improved the profitability of the rural hospitals by improving the management capabilities of the management staffs.
- Transferred the financial risk of operating the hospitals and the burden of recruiting physicians from the communities to AvMed-SantaFe.
- Facilitated patient transfer between rural communities and AGH.

- Improved in-service training of staff and the quality of services delivered.

AvMed-SantaFe may also have a beneficial effect on urban areas, but the effect is more difficult to measure at this point. Through a public health managed care model, AvMed-SantaFe intends to improve the health status of the communities it serves. It remains to be seen whether this goal, at once more ambitious and more ambiguous than the rural goal, can be achieved through AvMed-SantaFe's efforts.

### INFLUENTIAL FACTORS

Four factors have affected the recent development and current operations of AvMed-SantaFe. They are: 1) the differences in demographics, mission, and corporate history between northern Florida and southern Florida; 2) the increase in managed care competition throughout Florida; 3) Florida's state-level health care reform; and 4) the development of a state-sponsored rural health network within AvMed-SantaFe's hospital system market.

### Acute Care/Managed Care Dichotomy

In the Gainesville area, AvMed-SantaFe is known primarily as a hospital system, anchored by AGH. The rest of Florida knows AvMed-SantaFe as a managed care company, yet most members of the AvMed-SantaFe Board of Directors live in the Gainesville area. The evolution of the network's primary business from acute care to managed care — and the accompanying change in corporate identity and mission — has had and continues to have a profound effect on the operation of the organization.

The change in operating logic from producing health care services to managing care has been difficult for some employees. Previously thriving departments whose successes were based on the expansion of utilization and the revenues that accompanied such expansion now find themselves recast as cost centers expected to contribute to the bottom line by controlling unit costs and providing only medically necessary services.

The northern Florida/southern Florida and acute care/managed care dichotomies in AvMed-SantaFe have resulted in what a number of its managers have characterized as corporate "schizophrenia." AvMed-SantaFe currently faces a transitional phase in its development. The schizophrenia may diminish over time as the managed care ethos takes greater hold of middle managers. Alternately, the system could elect to divest

itself of its hospitals. This solution might result in greater system unity.

### **Strong Managed Care Competition**

Competition from other managed care organizations in Florida has also had an effect on AvMed-SantaFe. Competitive pressures caused AvMed-SantaFe to manage its costs more closely and to move away from strict community rating. These and similar actions will help position AvMed-SantaFe to better withstand competition from the large national HMOs expected to enter the Florida market under state health care reform.

### **State Health Care Reform**

In addition to increasing competition among managed care organizations, Florida's state-level health care reform has also helped broaden public understanding of managed care. Reform has therefore simultaneously expanded the market for managed care and increased competition among managed care providers.

In addition, health care reform has also kindled interest in rural health networking. The Florida Legislature defines a rural health network as:

a nonprofit legal entity, consisting of rural and urban health care providers and others, that is organized to plan and deliver health care services on a cooperative basis in a rural area, except for some secondary and tertiary care services.

(Section 381.0406(2) (c), Florida Statutes)

The state views rural networks as transitional models that will lead to fully implemented managed care systems.

### **State-sponsored Rural Health Network**

The legislature also created a grant program to support rural health network development. To assure geographic dispersion of grants, the state decided to make one award in each of four different regions. The AvMed-SantaFe hospitals participate in the network that was awarded the grant for its region of the state. That network, known as the Health Partnership of North Central Florida, Inc. (HPNCF), serves five rural counties and rural areas of Alachua County. It is composed of all willing providers in the six-county region.

AGH and its Gainesville competitors are members of the network. The network contracted with the North Central Florida Health Planning Council (a former Health Systems Agency) to administer the network. The Health Partnership is not well developed at this time.

## **ASSESSMENT OF NETWORK ATTRIBUTES**

### **Level of Integration**

AvMed-SantaFe demonstrates varying levels of integration. It exhibits high degrees of integration relative to financial planning and control, strategic planning, and human resource planning. These functions have been centralized across all affiliated organizations.

AvMed-SantaFe displays intermediate levels of integration in relation to the development of a unified corporate culture and the development of a system-wide quality assurance program. A well-defined organizational mission exists; however, it exerts only marginal influence on the behavioral norms of the participants. Participants identify more strongly with their individual system components than with the system as a whole. Quality assurance programs are shared among homogeneous members of the system (e.g., hospitals) but, due to the complexity of member composition, a quality assurance program that integrates quality measurement across all of the affiliate members is yet to be designed.

AvMed-SantaFe's integrative efforts have been less successful in the development of system-wide decision making and information support systems. The four hospitals are electronically linked for the purpose of patient accounting, but the other affiliate organizations are not linked. The failure to develop a system-wide management information system may be due to the organizational complexity and to the recent change in corporate emphasis.

The complexity of the system and the change in mission have also impeded development of higher levels of system integration. Managers express concern about the clarity and consistency of goals. For instance, physician staffing decisions for the rural hospitals are not made by the hospital group but by another group. Reportedly internal communications between the two groups are such that rural hospital-physician problems frequently are overlooked. Lack of clarity about goals is also reported in primary care practice management; some confusion exists over whether its principal goal is to support the hospitals or to support the HMO. For example, the tactic of downsizing unprofitable primary care practices in order to reduce costs may have a negative impact on the system's rural hospitals.

Despite problems such as this, the level of integration is quite high in numerous instances. Like the hospital system, the primary care practices are highly integrated. The physician billing system is unified and all practice management policies and procedures have been centralized.

Home care offers another example of successful integration. The home care service provides care to

patients in 16 counties from seven regional offices. According to its administrator, the key to its growth has been to "keep it local." For example, in Bradford, the local home care service is integrated into the fabric of the hospital. The home health provider attends hospital meetings and also acts as a laboratory courier to convey specimens from the field to the hospitals.

### **Complexity**

AvMed-SantaFe is a highly complex organization which offers many different services and includes several different types of organizations. The corporate decision to make managed care the focal point of the system has intensified this complexity. The other component organizations in the system have become subordinate to the HMO and are called upon to change their operating behaviors in order to support that HMO.

Most of the top managers understand and accept the shift in priority, but the change in outlook has not percolated down fully to lower levels of the organizations. Some hospital administrators have had difficulty accepting the new operating rules; they continue to try to maximize the profitability of the hospitals.

Physicians have also shown a reluctance to embrace the change in focus. Many do not like HMOs, and they fear restrictions on their clinical autonomy. One key respondent suggested that when hospitals were the focal point of AvMed-SantaFe, physicians were the center of attention. Now that the emphasis has switched to managed care, physicians do not have the power they once enjoyed.

### **Assumption of Risk**

AvMed-SantaFe operates as a risk-bearing entity. It is responsible for financing and providing care to enrolled populations. AvMed has IPA contracts with approximately 1,500 physicians throughout Florida, about 650 of which have a "meaningful portion" of their practices committed to managed care. Some of these practices have AvMed use rates as high as 70 percent.

Primary care physicians act as case managers, a term AvMed management prefers to "gatekeepers." They share no risk on specialty care referrals, because AvMed does not want to place primary care physicians at jeopardy for expenses that they cannot control. Physicians employed by AvMed-SantaFe also receive capitated payments for AvMed patients.

AvMed also contracts with approximately 100 hospitals throughout the state. The system-owned hospitals receive capitation payments. All other hospitals are paid on a per diem basis. The average per diem rate is approximately \$850. The manager of provider contracting suggested that AvMed may have contracts

with twice as many hospitals than are needed to serve the enrolled population. In the future, AvMed will decide how many and which hospitals to continue to use. Currently, AvMed performs on-site utilization review at all of its hospitals. With fewer hospitals, the costs of utilization management and average utilization performance of hospitals should improve.

AvMed has an established referral management process. All physicians must obtain prior approval for referrals. Enrollees may not self-refer to specialists except as mandated by state law.

AvMed managers estimate that at least 1,500 enrollees are required to begin a rural HMO. More than 1,500 enrollees would be needed if no managed care infrastructure existed prior to the initiation of the HMO. In rural areas, an HMO must have enough enrollees to account for 30 to 40 percent of one primary care physician's office volume. At this level, physicians respond to the incentives of managed care.

### **Measuring and Evaluating Performance**

AvMed physicians are beginning to use HEDIS reports (the Health Plan Employer Data and Information Set developed by the National Committee for Quality Assurance) to identify health outcome problems and to design intervention strategies. Routine, informal assessments of performance augment the HEDIS reports. AvMed-SantaFe managers also meet with small groups of community members to discuss health-related issues. One manager indicated that the outcome assessment process "is not data-driven yet." AvMed-SantaFe intends to develop a formal, system-wide quality assessment process in the future.

The system also uses more conventional indicators such as patient satisfaction and financial reports to track performance. The HMO, the hospitals, the home care service, and the hospice each perform patient satisfaction surveys. Satisfaction is also tracked by service area. Monthly per capita cost serves as a primary indicator of the system's financial performance. Other financial indicators are calculated from the income statement and balance sheet.

In addition to internal evaluation, external parties also assess the performance of AvMed-SantaFe. AvMed was the first HMO in Florida to be accredited by the National Committee for Quality Assurance. Because it did not have a well-developed system for measuring patient outcomes, AvMed received provisional accreditation. Although AvMed has been working on the problem, it still does not have a system that allows collection of the data needed to assess outcomes. Most AvMed data still come from claims forms. Treatment protocols or guidelines have been developed for hypertension and diabetes. The

medical director indicated that protocols for other diseases would have only a small impact on patient outcomes.

AvMed-SantaFe's peer review system is anchored by a "sophisticated medical record audit process." AvMed screens the charts (e.g., follow-up tests, appropriateness of referrals) for approximately 500 primary care physicians. Six regional Quality Improvement Committees have decentralized authority. Adverse events (e.g., incidents) and sentinel events (e.g., caesarian section rates) are monitored at the regional level. In addition to peer review, physicians employed by AvMed-SantaFe have their performance appraised according to the established employee evaluation procedure for all other AvMed-SantaFe employees.

## SUMMARY

AvMed-SantaFe exemplifies a highly integrated, highly complex, mature rural health system. In addition, AvMed is an urban-based system with a rural health component, a model that will likely be replicated in other areas of the country. Like AvMed-SantaFe, networks that assume risk may find a conflict between their traditional health services mission and a newer managed care focus. While AvMed-SantaFe has not yet fully resolved this conflict, it has made progress.

Four features distinguish AvMed-SantaFe. First, because AvMed-SantaFe owns the various parts of its "network," it is considered an integrated delivery system. In theory, AvMed-SantaFe should achieve greater efficiencies than more loosely coupled networks because ownership should both increase coordination and lower transaction costs. It is not clear whether AvMed-SantaFe has succeeded in exploiting its efficiency advantage, but the organization is positioned to do so.

Second, AvMed participates in multiple rural health "networks." It belongs to two distinctly different integrated rural health networks — its own and the network funded by the state. AvMed-SantaFe's participation in the Health Partnership network may be motivated as much or more by a desire to track the rural networking activities of its competitors as by genuine interest in participating in that network. Nevertheless, AvMed-SantaFe seems committed to the development of the Health Partnership. AvMed-SantaFe rural hospital administrators and other staff members serve the Health Partnership network in leadership roles.

Third, AvMed-SantaFe is an urban-based health system with a history of commitment to rural areas. Initially formed in Gainesville, the organization subsequently reached into adjacent rural areas. Originally intended to provide a base of referrals to AGH,

the addition of the rural hospitals with AvMed-SantaFe also created benefits to rural health care systems in terms of improved physician supply, new facilities, and enhanced management.

Finally, AvMed-SantaFe's integration has been achieved with relatively small input from physicians. AvMed-SantaFe is loosely coupled with physicians through the IPA associated with AvMed and through its relationship with the physician-tenants of its medical office buildings. In the past, AvMed-SantaFe has chosen to employ physicians primarily to protect market share, e.g., employing physicians in rural shortage areas, hiring physicians to strengthen the AGH referral network, and establishing specialty practices (obstetrics and neurosurgery) to support competitive hospital services.

Observers often cite early and active participation of physicians as a critical component of successful efforts to integrate health services. The AvMed-SantaFe experience suggests that there may be multiple ways to address the issue of physician participation.

AvMed is also considering restructuring its IPA. By reducing the number of physicians with which it contracts, AvMed could increase the proportion of each physician's practice that is attributable to AvMed subscribers. In addition, a heightened focus on utilization should allow AvMed to exert more influence over physicians in the provider network.

Positioning itself as "the health improvement company," AvMed-SantaFe executives anticipate the development of regional community needs assessment tools. These needs assessments will help AvMed-SantaFe design new services and modify existing services.

The most important issue that AvMed-SantaFe plans to confront in the near future concerns the structure of the organization. AvMed-SantaFe will decide which businesses to own and which to operate via other arrangements such as outsourcing contracts. The CEO of AvMed-SantaFe indicated that a network does not have to own everything to successfully integrate. Alignment of interests — rather than ownership — is the key issue. The primary "outsourcing" opportunities for a managed care organization are to contract with physicians and hospitals for services and shared risk.

Ownership of AGH provides AvMed-SantaFe with a laboratory to test managed care concepts in an acute care setting. Some managers of AvMed-SantaFe believe that maintaining ownership of AGH provides AvMed with a strategic advantage over other HMOs because AvMed can share the lessons learned at AGH with other contracting hospitals. To the extent that AGH is successful at controlling its costs, it can be held up as a model to other facilities.

AvMed-SantaFe managers repeatedly used the terms "primary care facility" and "primary care hospital" to

describe a conversion option for its rural hospitals, i.e. a limited service hospital along the lines of the federal Rural Primary Care Hospital (RPCH) program or the Medical Assistance Facility (MAF) demonstration project. The two small rural hospitals in the network might adapt well to these new roles, but these conversion options are not legally available to Florida hospitals at this time.

AvMed-SantaFe has a historic commitment to rural northern Florida. To this point, the network has maintained that commitment despite the pressures of competing in a statewide managed care market. AvMed-SantaFe has evolved from a free-standing, county-owned hospital to a statewide managed care system. In rural northern Florida, AvMed-SantaFe also developed a self-contained system that includes physicians, hospitals, insurers, buildings, technology, and support functions

spread over a four-county area. Successful at bringing these resources under single corporate ownership, AvMed-SantaFe is now considering a different mix of owning versus contracting for services.

AvMed-SantaFe recognized that it was not a health services company but a health improvement company. Furthermore, it decided that managed care is the best vehicle for realizing this altered vision. Under this new paradigm, for example, success is measured not by maximizing the number of deliveries made by physicians or hospitals in a given year, but by reducing the number of low birth weight babies born during that period. Changing from an institutional focus to a community focus has been a major accomplishment — and a continuing challenge.

PART THREE

LESSONS LEARNED  
AND  
PUBLIC POLICY ISSUES



## INTRODUCTION

In an era of constraints on public and private sector health care budgets, organizational restructuring of hospital and physician practice, and the shifting of financial risk to patients and providers, rural health professionals and communities are grappling with the issue of how to assure access to a comprehensive and affordable set of health care services. Given the diversity that exists in rural America — not to mention the wide variation in market forces and political climates — no unique strategy can best accomplish this objective.

Over the past few years, the strategy of developing voluntary network relationships involving rural health providers has been promoted. These collaborative relationships represent alternatives to system strategies or diversification strategies that entail ownership and management by one entity. However, their limited history precludes an assessment of their success in meeting the needs of their members and rural communities.

The first section of Part Three synthesizes the lessons learned from the six case studies. As indicated, the case studies represented a range of rural multi-provider arrangements including three networks and three systems, according to the classification approach we proposed in Part One. In the second section, we identify and analyze public policy issues related to the development of integrated rural health networks. We also suggest several possible roles that state-level policymakers might play if they desire to support network development in their rural environments.

## LESSONS LEARNED FROM THE CASE STUDIES

Neither the case studies in this volume nor the published literature suggests a critical path that must be followed to assure success for an integrated rural health network. However, the case studies do yield some important insights into network development and operations. The lessons presented here struck us with particular force after we analyzed the case studies as a group. We hope they may point the way toward future areas of research as well as inform policy discussions and decisions.

- 1. The formation and operation of integrated rural health networks is the result of a political and economic process that is incremental in nature and requires a substantial amount of time.**

Integrated rural health networks cannot be developed quickly and may require up to a decade to mature. All of the sites described in the case studies benefitted from a history of informal collaboration among their members. In many ways, this informal collaboration can be considered the initial period of joint activity of network members.

The participation of network members is influenced by economic and political considerations. As discussed earlier, members may join networks to reduce uncertainty and dependence on environmental forces, to reduce transaction costs and/or to increase legitimacy. Institutions assess the costs and benefits of network participation as they determine whether it makes sense to sacrifice some of their autonomy, contribute resources, and actively participate in shared decision making with other network members. Networks that can provide direct financial benefits for their members should be able to attract and retain participants. In the current environment, there is considerable interest in risk-sharing activities within a managed care framework as a means of securing financial resources to be shared by network members. However, risk-sharing arrangements are rarely, if ever, the first initiatives of a network. They are more likely to become part of the network agenda after less intrusive activities have been successfully completed and trust has developed among network members.

The sheer dynamism of one visionary often provides a catalyst for network formation. However, as important as a key individual may be, the formation of integrated rural health networks implies the uniting of multiple entities to work together on joint activities. Issues of power and control eventually arise as plans are translated into actions. Network members may struggle for control of the network (e.g., are physicians or hospitals in charge?) and, within organizations, network participation may produce conflict over leadership (e.g., is the hospital administrator or hospital board leading the change strategy?). The long-term stability of network leadership is an important issue since networks are dependent on the personal relationships among key actors. The introduction of new players inevitably slows or redirects the process of network development.

The time frame for network development can be lengthened when institutional mimicry provides the main motivation for institutions to join the network. The "Everybody else is doing it, it must be right for us" mentality can play a strong role in legitimizing the initial decision to join a network. However, if that is the primary reason for coming together, active member participation in the network may be delayed — or may never happen at all. All network members need to go through the calculus of weighing the pros and cons of network membership and active participation. The longer this process is

delayed, the longer it takes a network to become fully operational.

Network development also can be stifled by perceived legal disincentives to collaboration among rural providers. Regardless of the final outcome, the Marshfield case has had a chilling effect on provider interest in network participation. Antitrust lawyers suggest that a blanket exemption to federal antitrust laws is not the solution for the problems of rural health care. What is needed, instead, is a clear articulation of the circumstances under which the collaboration of rural providers in a defined geographic area does, or does not, violate antitrust law. Several states, including Wisconsin, Florida, Minnesota, and New York, are actively involved in clarifying the issues surrounding competition, collaboration, and antitrust enforcement in rural areas. Addressing these issues has consumed the resources of financially vulnerable rural providers, forcing them to hire legal counsel to craft creative options for collaborative activities that satisfy existing antitrust statutes.

In sum, there are several reasons why networks develop and mature over extended periods of time. Rural health professionals, institutions, and policymakers need a long-term commitment to and investment strategy for networks if they want those networks to generate benefits for the rural populace.

## **2. Integrated rural health networks need product lines that provide ongoing sources of revenue.**

The prestige associated with membership in a rural health network may diminish rather quickly if the network does not develop activities that provide benefits to its members and to the communities it serves. This is not a trivial point, as indicated by the difficulty that many networks have experienced in their search for a network mission that yields financial advantages for all members. Networks need to be able to differentiate their product lines from those of individual network members and also from those of other groups in which network members participate. Equally important, networks need to be able to develop new products that are clearly understood by providers, managers, and local communities.

At present, networks are more likely to be involved in the coordination of administrative functions (e.g., marketing, management information systems) and sharing of services provided by their members (e.g., health promotion) than in the direct provision and financing of health services. This may lead to identity problems for networks and confusion surrounding the issue of what the network does. Because of this confusion, third-party payers fail to recognize networks as provider entities. Some current proposals for Medicare reform would permit provider-sponsored networks to

receive Medicare managed care contracts. The recognition of networks as a provider type by Medicare would be an important step in the transition of rural providers from a fee-for-service environment to one in which there is greater acceptance of financial risk through collaborative arrangements.

## **3. Rural health networks are not well integrated, either from clinical or financial perspectives. The rural physician group practice, rather than the rural hospital, may be the more appropriate foundation for network integration.**

Although one of our criteria for case study site selection was involvement in collaborative activities with some degree of clinical, financial and/or administrative integration, the case study networks proved to be still in the initial stages of development with regard to integration. Most of the sites had integrated some administrative functions (e.g., strategic planning, human resource administration) but few sites had made major strides toward integrating their members from either a financial or a clinical perspective. The reasons for the lack of progress along these dimensions include diverse network membership with different levels of stability and commitment, lack of organization of the primary care medical community, organizational complexity and changing missions, inability to create a stable funding base for the network, and the nascent stage of information system development.

As networks develop and mature, an important issue will be what organization, or which individual, will provide the leadership for integration among network members. Historically, the local hospital has been viewed as the hub of health care activities in rural communities. It has, in many cases, provided the leadership, management and resources necessary for the initiation of new health care endeavors. In the past decade, the central role of the local hospital has been questioned as the financial strength of these institutions has been threatened.

It is no coincidence that fewer rural hospitals are being purchased at the same time that purchases of rural medical group practices by non-local entities are increasing. Implicit control of the local hospital can be accomplished through explicit control of the majority of the local physicians. The importance of the medical group practice also has been enhanced by the newly emerging trend of direct contracting between physicians and employers. Although direct contracting may strain the management, information systems, and financial capabilities of some medical group practices (particularly smaller rural groups), it does highlight the potential for physicians, as organizational entities, to play an increasingly important role in rural health care systems.

If the major purpose of network activity is service integration, the rural physician group practice, rather than the hospital, may be the key coordinating element. Networks need physician involvement to accomplish either clinical or financial integration. Physicians are essential to network efforts to improve quality and control costs. Organization of the primary care medical community into a single group, IPA, or horizontal network can expedite integrated networking. Rural group practices are usually small and likely to be run as democracies. Typically less bureaucratic than hospitals, they have more flexible decision-making styles. However, most rural group practices do not yet have the sophisticated information systems now possessed by many rural hospitals. Rural physicians will need the support of hospitals, or else may require more time, to develop collaborative activities that lead to increased financial and clinical integration among rural health network members.

**4. Organizational structure varies substantially among integrated rural health networks. Developing an appropriate organizational structure is a major concern to network members; however, there is no unique approach to formalizing relationships among relatively independent rural entities.**

Part One of this book described the spectrum of interorganizational arrangements available for coordinating functions and activities of multiple entities. Integrated rural health networks were defined and conceptualized as a transitional form of organization between markets and hierarchies. Organizational structure varied considerably among the sites in the case studies. Collaborations ranged from loosely structured alliances to a web of contractual relationships between public and private organizations to ownership of subsidiary corporations by a not-for-profit parent corporation.

The case studies illustrate the difficulties of developing appropriate organizational structures that formalize voluntary relationships among rural health providers that wish to protect their independence and yet have a history of substantial collaboration with local and distant entities. The diverse membership of integrated rural health networks, and changes in network mission over time, suggest the need for flexible organizational structures that can accommodate the evolution of networks from one form to another.

Hospitals tend to view network organization from the perspective of their own hierarchical organizational structure. As a result, networks with hospitals as dominant participants may err on the side of using

hierarchical models of control when less bureaucratic approaches might achieve the same goals and might be more useful in securing the allegiance of a diverse membership.

On the other hand, physician groups in rural locales have limited experience with alternative organizational structures. The real or potential expansion of managed care into rural environments has fostered a new wave of organizational structures — such as independent practice associations (IPA), physician-hospital organizations (PHO), management service organizations (MSO) and medical foundations — to promote joint activities involving physicians and other entities. Rural physician involvement in these relationships can be used as a basis for network organizational structures that are less hierarchical in nature and less centralized in control.

If a primary goal of rural health networks is to promote clinical, financial, and administrative integration through joint member activities, a central issue is whether rural health providers can voluntarily integrate a set of functions and activities in response to a relevant set of incentives and/or fear of environmental turbulence. Alternately, is complete ownership of all participating entities necessary to truly integrate the activities of rural health providers? As mentioned earlier, most of the six sites had made progress with the integration of some administrative functions (e.g., strategic planning, personnel administration). The networks that evolved into systems were more likely to have implemented financial planning and control mechanisms than to have progressed in the integration of clinical activities or information systems. Networks that had evolved into systems did not appear to be different from networks with less hierarchically structured relationships with respect to the level of clinical and administrative integration of activities. There was room for substantial integrative activity in this respect at all sites.

Development of an appropriate organizational structure may affect who decides to join a network, what activities or functions a network may undertake, and the degree of integration of network members, as well as a network's financial stability. In the long term, a network's structure may affect overall network performance including system-wide efficiencies and population-based health outcomes. Little if any empirical evidence addresses the above issues. The case studies provide snapshots of a range of network structures, but they do not suggest an optimal approach to formalizing relationships among rural health network participants.

**5. External catalysts can stimulate or retard the development and growth of integrated rural health networks. The value of participation of**

**external catalysts should be measured by their effect on network accomplishments.**

The appropriate role and value of external catalysts, such as state government or dominant regional providers, in network development is not entirely clear. On the one hand, external entities can expedite network development through underwriting initial capital expenses and stimulating preliminary interest in network participation. Such forces can also provide ongoing support via technical assistance and enhanced reimbursement for institutions that are network members. However, there are potential drawbacks to the use of external catalysts in motivating network development. External support for network development allows network members to avoid making difficult choices between operating joint programs or maintaining autonomy. This may impede network maturation by delaying the development of strong bonds of commitment between network members.

The use of external catalysts to help initiate and structure network development could be characterized as a top-down approach to network development in which local entities invite external entities into the community and then abide by the latter's rules for network formation. However, the dichotomy between top-down and bottom-up approaches may be more apparent than real. There are likely to be top-down and bottom-up activities initiated at each stage in the evolution of networks. Of most relevance is not the top-down versus bottom-up issue, but rather the issue of whether the benefits of network development and operations remain in rural communities. Do community residents benefit from increased access to services, reduced costs, and enhanced quality of care? And do local health providers benefit from the stability created by increased use of their services and/or an enhanced ability to offer services relevant to the needs of community residents? The use of external catalysts may lead to a scenario in which the amount of resources allocated to network members expands due to the cooperative efforts of a non-local entity.

Several of the sites we studied received support (e.g., grant funds, initial endowment, technical assistance, enhanced reimbursement) from public entities, including state government, to help nurture network formation and early operations. Although more work is needed to evaluate the impact of rural health care networks on provider performance and the health status of populations, the growing level of interest in networks and the pace of their formation suggests the need to analyze public policy issues related to rural health network development. Concerns about access to care in rural areas, the protection of health care consumers served by

networks, and the potential impact of expansion by large, urban-based health care systems into rural areas indicate a potential role for public sector involvement in rural health network development.

## PUBLIC POLICY ISSUES

In addition to helping build the infrastructure to support network development directly, states can shape network development through their roles as health care policymakers, regulators, and payers. Public policy can influence the number and type of networks that are developed, their membership, governance structures, and the services they provide. Through their regulation of health care facilities, health professionals, health plans, and networks themselves, states can have a significant impact on network development. Finally, the federal government and states can influence network development through their roles as payers and administrators of Medicare, Medicaid, and other publicly funded health care programs.

The failure of comprehensive national health care reform efforts has refocused attention on state health care initiatives. Although several states have slowed the pace of their reform efforts, state-level health care reform, along with Medicare reform, presents the most likely prospect for public sector health care reform in the near future.

There are several ways that the state may serve as an external catalyst in network development and as a force for achieving greater network integration. A state may define networks, remove legal and regulatory barriers to network formation, and provide incentives for network development and operation. States may also stimulate network development through health care purchasing activities involving public employees, Medicaid managed care initiatives, and the promotion of purchasing alliances. A state's decision to encourage network formation through one or more of these activities will be influenced by its political environment, attitudes toward health care regulation, and the extent of rural health network development.

Clearly, states will differ in their perceptions of the purposes of rural health networks and in the extent to which they view state policy as a means of helping to achieve those purposes. Some states with limited network development may choose to rely on the market to develop rural networks. Some states may want to gain experience with informal guidelines and demonstration projects before proceeding with legislation or regulation, while others may use authorization of networks in statute or rule early in the process to set the direction for state policy development. Whether or not a state chooses to adopt

legislation or regulations specifically governing rural health networks, other state health laws and regulations may affect network development and operation.

### **Defining, Licensing, and Certifying Rural Health Networks**

A fundamental public policy issue that states must address regarding rural health networks is whether to adopt a formal rural health network definition in legislation, regulation, or guidelines and, if so, what form the definition should take, and how it should be implemented. A legal definition provides a framework for future network formation, and may be used as the criterion by which states provide incentives for the development and operation of rural health networks (e.g., grant support) and establish regulatory policies regarding network activities.

States that adopt a formal rural health network definition face several policy issues relating to implementation, including whether to license or certify networks as organizational entities; how the process should be coordinated with licensure or certification of individual network members; and whether network licensure or certification requirements should replace any of the regulatory requirements currently imposed on network members. States may also want to consider how the recently developed Joint Commission on the Accreditation of Health Care Organizations (JCAHO) network accreditation process relates to the state licensure or certification of networks. The JCAHO standards constitute a framework for evaluating network performance that incorporates both information about individual network components and the network as a system of care (JCAHO, 1994).

#### State Rural Health Network Definitions

Most states have not adopted formal rural health network definitions. For the most part, the definitions that have been adopted focus on networks as a means of coordinating or integrating service delivery in rural areas, but do not address financing issues. A rural health network definition may include membership requirements (e.g., "any willing provider" or "essential community provider" provisions), and requirements regarding the corporate structure, governance, minimum services, and service area boundaries of a network. In deciding which of these requirements to include in their network definitions, states need to achieve a balance between guiding network formation and being overly prescriptive. A network definition must be flexible enough to allow local development of a variety of network models and also to accommodate networks in various stages of development.

#### *Network Membership*

A network definition may include an "any willing provider" (AWP) requirement which obligates a network to accept all potential members willing to meet the conditions of membership. Alternatively, a network definition may allow a network to select participating providers based on its own criteria. Existing AWP state laws developed to regulate managed care plans may also apply to networks. In rural areas with a small number of health care providers, an AWP requirement may not have much impact since networks will probably include most, if not all, providers in the service area. The exclusion of providers from networks in these areas may have a negative effect on access to care, especially if it causes providers to leave the area.

However, in more populated rural areas, an AWP requirement may limit a network's ability to choose only the providers it needs to effectively and efficiently provide health care services. It may also allow some organizations to continue outdated patterns of service provision rather than make the transition to providing services currently needed by an area's population. In these cases, an AWP provision may serve the interests of some rural providers who want to maintain their patient bases rather than those of rural consumers and employers interested in obtaining the most cost-effective health care.

A network definition also may include an "essential community provider" (ECP) provision that requires inclusion of certain provider types (e.g., local public health agencies, community health centers, or sole community hospitals). The inclusion of local public health agencies in rural health networks is consistent with the idea of integrating services provided by the public health system (including community needs assessment and population-based community health services) more closely with the medical care system. Requiring networks to include community and migrant health centers and similar providers can be justified as a means of assuring access for medically underserved populations.

An ECP provision may also require networks to reimburse ECPs differently than other providers, e.g., on a cost basis. Reimbursement of providers who serve medically underserved populations is an important policy issue in light of the failure of national health care reform, the reluctance of states to move forward with universal coverage initiatives, and widespread state implementation of Medicaid managed care. Recent experience with Section 1115 Medicaid waiver requests, however, suggests a lack of state support for differential reimbursement of these providers. A majority of the initial state 1115 waiver requests sought to eliminate cost-based Medicaid reimbursement of federally qualified health centers and rural health clinics (Rosenbaum and Darnell, 1994). To limit ECP designation to organizations that are essential

for access, states may want to establish ECP criteria in state law and evaluate designation applications on a case-by-case basis.

#### *Corporate Structure and Governance Issues*

Another issue for states to consider is whether to establish corporate structure and governance requirements for rural health networks, such as non-profit status or majority consumer membership on a network's governing board. A state may want to require non-profit status as a condition of receiving state funds. States that are strongly committed to the establishment of community-based rural health networks will want to encourage network governance structures that emphasize community control.

#### *Minimum Services*

States should consider whether to require networks to provide or arrange, either directly or by referral, a minimum set of health care services within defined travel times or distances. Such requirements may help improve access to care by ensuring that all networks provide basic services. In recognition that some rural areas may not currently have the capacity to provide these services, a minimum services requirement may only be achievable if additional resources are allocated to these areas, or links are made to institutions that can provide these resources. Minimum service requirements need to be carefully structured so that networks have local control in establishing and maintaining these linkages, and are not locked into exclusive relationships.

#### *Service Area Boundaries*

A rural health network's service area boundaries have several implications for service delivery and for the financial status of the network. Policy issues include whether the state should have a role either in determining or approving service area boundaries; if it should allow or encourage multiple networks to serve a single service area; if service area designation should be considered differently in more isolated or frontier areas than in more densely populated rural areas; and how the state should deal with network service areas that cross state lines. State decisions regarding network service areas will depend in part on whether the state envisions a competitive or a cooperative model of rural health networks, and whether the state has a long-range goal of statewide coverage of rural areas by networks. A state's determination of service areas may help assure access to care if, for example, a network is required to serve more isolated portions of the service area as a condition of receiving approval to serve areas that are easier and more financially advantageous to serve. However, providers may have overlapping service areas, making it difficult to define distinct network service areas. State determination of service areas is likely to be controversial

and might discourage rural health network development overall. A preferable alternative for a state to achieve its access goal would be to develop an overall policy on rural health network service areas, and then allow networks to define their own service areas, with state oversight to prevent inappropriate exclusion of at-risk populations and to address conflicts over service areas and state border issues.

In summary, states that have adopted a formal rural health network definition have found it to be a useful means of articulating state policy and setting a direction for network development in the state. States that want to encourage network development should consider adopting a formal rural health network definition and a method of approving networks (e.g., licensure, certification, or a less formal designation) that maintains flexibility in network models that can be developed. In developing and implementing a regulatory structure for rural health networks, states need to ensure that providers have sufficient incentives for seeking state approval of their network.

Network regulatory requirements can be coordinated with existing federal and state regulatory requirements for individual network members, so that they do not place additional compliance burdens on network members. States may also allow approved networks to qualify for exemptions from specific state laws or regulations. To allow innovative local models to develop, states may grant approved networks priority for receiving state-funded incentives, but refrain from restricting the operation of undesignated networks unless they raise quality of care problems that cannot be resolved through other regulatory means (e.g., facility licensure.)

### **Legal and Regulatory Barriers to Rural Health Network Formation**

Existing health laws and regulations may negatively affect network development and operation, and serve as barriers to the wider development of integrated rural health networks. These potential barriers include health insurance and HMO laws and regulations. In order to encourage network development, states may consider providing rural health networks with flexibility in the form of exceptions, modifications or alternatives to certain regulatory requirements. As they evaluate options for modifying regulatory requirements, states need to ensure that mechanisms remain in place to protect health care consumers, e.g., financial standards to reduce the likelihood of network insolvency and arrangements to assure continued provision of care in the event of network dissolution.

#### Health Insurance and HMO Laws and Regulations

State regulations governing health insurers and HMOs typically include benefit, financial solvency, underwriting,

quality assurance and consumer protection requirements. The degree to which these requirements apply to rural health networks will depend in large part on the extent to which the networks assume direct financial risk for the delivery of services. A risk-bearing network may exhibit many characteristics of an HMO or health insurer and as such will be subject to state laws and regulations governing HMOs and insurance companies.

Most states have had little experience regulating rural managed care plans due to the limited presence of managed care entities in the majority of rural areas (Wellever and Deneen, 1994). However, as some integrated rural health networks begin to take on a financing role in addition to their health care delivery role, states will need to determine whether specific health insurance or HMO regulations will be problematic for networks that assume financial risk, and then decide whether and how the state should modify these regulations to address the circumstances of rural health networks. For example, financial requirements established to protect health care consumers from insolvent health plans may prevent small, community-based networks from forming unless the network includes an entity such as a large urban hospital or health plan which is able to underwrite potential losses. State options for modifying these requirements include: providing state funding or allowing local governments and large, urban-based entities to provide the funds networks need to meet reserve requirements; phasing-in requirements over a period of time; or allowing network providers to pledge the future provision of uncompensated services in lieu of a portion of cash reserves.

Low population densities and concentrations of high-risk individuals in some rural service areas may create unacceptable levels of risk for potential rural health networks with a managed care component. Jones, Cohodes, and Scheil (1994) suggest several actions federal or state governments can take to help manage the increased risk inherent in a health care system undergoing rapid transition. Adapting these actions for risk-bearing rural health networks could include assuming the role of a reinsurer for a transitional period of time by establishing a "risk-sharing fund." Through such a fund, the government would share with health plans the financial risks associated with new coverage arrangements and unpredictable changes in price and volume of health services resulting from health care reform. Another approach would be a "risk equalization fund" through which assessments on each participating plan/network's premium could be redistributed among plans/networks according to their favorable or adverse risk selection.

States will also need to decide whether and how to address the issue of direct contracting between provider-

sponsored rural health networks and employers. Provider sponsored networks (PSNs), which are also called provider service networks or provider service organizations (PSOs), are groups of physicians and hospitals that contract directly with employers and other health care purchasers to provide health care services, bypassing health insurers and HMOs. In a number of rural areas, self-insured employers account for a significant proportion of the health care market. Self-insured employers' health plans are exempt from state regulation under federal ERISA preemption provisions. However, the National Association of Insurance Commissioners (NAIC) recently issued a bulletin warning state insurance commissioners that some PSNs were engaged in risk-sharing arrangements that amounted to selling health insurance without a license. NAIC advocated for the application of state health insurance solvency and consumer-protection laws to these arrangements (Aston, 1995). NAIC is currently developing a health plan licensing model act to help states develop a consistent approach to the regulation of risk-bearing entities, including PSNs (Alpha Center, 1995).

#### Antitrust Laws

The collaborative activities of rural health network members may be subject to litigation brought by the U.S. Department of Justice (DOJ), the Federal Trade Commission (FTC), or private parties under either of two federal laws. The Sherman Act prohibits conspiracies, contracts, and combinations in restraint of trade; the Clayton Act prohibits mergers and acquisitions of stock or assets that may substantially lessen competition or tend to create a monopoly. The policy of limiting market concentration through antitrust law is based on the assumption that a lack of competition will result in higher prices or costs than those of a competitive market. The public interest is best served, therefore, by limiting market concentrations and promoting competition.

Although some rural areas, especially those adjacent to urban areas, are able to support more than one provider network, many less populated rural areas will not be able to support multiple networks. Rural providers who cooperatively plan and operate rural health networks in these areas may be liable to antitrust actions. Fear of antitrust liability may also retard the development of collaborative activities in rural areas.

Several states have passed legislation to protect rural providers, when in collaborative relationships such as networks, from antitrust liability. These legislative efforts are based on the doctrine of state action immunity, which exempts certain activities from antitrust liability in the belief that cooperation, in defined circumstances, serves the public interest better than competition. The antitrust exemption for rural providers is based on the assumption

that rural health network collaboration reduces costs and improves quality and access to health care through sharing and coordination of services. Some states have immunized hospitals from antitrust liability for hospital-to-hospital collaboration, while others have attempted to immunize all participants in rural health networks.

The state action immunity doctrine requires more than a simple legislative declaration of a policy to replace competition with cooperation. It also requires active supervision of the cooperative activities by qualified state officials. Some states have established processes that require providers seeking antitrust immunity to apply to a state agency, commission or board for an exemption. To be approved for an exemption, the providers must show that cooperation is likely to result in lower cost, greater access, or better quality of health care than would otherwise occur under existing market conditions. They may, for example, describe the extent to which the proposed arrangement will result in cost savings to health care consumers or make specific health care services more financially or geographically accessible to persons who need them. Providers who are approved for exemptions are required to submit periodic reports to assure the state that the projected benefits of collaboration are actually achieved. To date, however, rural providers have been reluctant to apply for immunity, making it difficult to judge the effectiveness of the state processes.

Even in the absence of state action immunity, there are cooperative activities that rural providers can engage in legally. Nevertheless, some rural providers may not have pursued these activities because of fear of breaking the law. In 1993 and 1994, DOJ and FTC attempted to provide some direction to health care providers contemplating mergers and other joint activities by issuing statements that defined "antitrust safety zones" or circumstances under which the agencies will not pursue prosecution for anticompetitive acts. Unfortunately, the agencies did not describe a safety zone for multi-provider networks, claiming that they needed more experience in evaluating the costs and benefits of these activities. Instead, they listed the analytical principles they will use in evaluating the likely effect a particular multi-provider network will have on competition. These principles address the following antitrust issues: financial integration, joint pricing and joint marketing, market definition, competitive effects, exclusivity, exclusion of providers, and efficiencies.

This policy statement does not offer blanket protection from enforcement, but it does provide a framework for the analysis that should be undertaken on a case-by-case basis by emerging networks and their local legal counsel. In addition, the antitrust safety zones only indicate the circumstances under which the federal government itself will not pursue antitrust prosecutions.

Private parties are still at liberty to bring suit. Even a successful defense of an antitrust suit can be extremely expensive for and detrimental to a rural health network.

The two federal agencies also set forth their policies on expedited business reviews and advisory opinions, procedures by which providers may obtain information concerning their antitrust enforcement intentions. DOJ and FTC suggest that persons considering forming a multi-provider network who are unsure of the legality of their conduct request a business review or advisory opinion. The agencies pledge to respond to requests within 120 days (DOJ/FTC, 1994). In the absence of DOJ and FTC guidelines for networks that clearly define legal and illegal activities, rural providers who are interested in greater cooperation should petition DOJ or FTC for a business review or advisory opinion, although they need to be aware that the process will delay network development.

At this time, it is difficult to judge how effective the state action immunity doctrine will be in providing antitrust relief to rural health network participants. Rural providers appear hesitant to apply for exceptions, and the state processes have not been tested in court. Nonetheless, states that have implemented the state action immunity doctrine believe that it has helped reduce fear of network formation. Other states, therefore, may want to consider establishing a state policy that supplants competition with cooperation in rural areas, and instituting a process for actively supervising rural health networks.

### **State Incentives for Rural Health Network Development and Operation**

Rural health networks face start-up costs, as well as ongoing operating costs. It may be difficult for small, community-based networks to obtain capital. Developing rural health networks also need access to technical expertise, including financial and legal consultation. To help meet these needs, states should consider implementing a variety of incentives for network development, including grant, loan, and technical assistance programs.

In comparison to state implementation of a rural health network definition or removal of legal and regulatory barriers to network development and operation, the provision of state incentives for rural health networks will probably involve greater and more direct public expenditures (e.g., a network grant program will require a specific state budget appropriation). Thus, network incentive proposals are more likely to raise questions about the appropriate role of market forces and government in rural health network development.

Clearly, network development is occurring in some rural areas and will occur in other areas without public sector involvement. However, networks are unlikely to develop without assistance in rural areas that have a high level of need and are especially lacking in local resources (i.e., in high poverty or medically underserved areas). In these situations, the provision of carefully targeted network incentives can be justified if the network is likely to improve the delivery of health care services in the underserved area (e.g., by enhancing health care provider recruitment and retention, or by increasing access to specialty services that were not previously available).

#### Grant and Loan Programs

States designing a network grant or loan program need to address several policy and programmatic issues such as eligibility, award criteria and amounts, allowable uses of the grant or loan dollars, and matching requirements. Required local matches for both grants and loans help to ensure community "ownership" of the project as well as increase the overall funds available. Encouraging rural health networks to involve local businesses and link up with economic development efforts helps to increase the likelihood of network success. A variety of methods may be used to select grant or loan applicants for funding, including criteria that take into account the financial resources of network members and communities. In addition, state policymakers need to consider whether funds should be distributed geographically within the state, and to what extent the state should seek to fund different types of networks to serve as models for other rural areas of the state.

State officials designing a grant or loan program need to develop a means of assessing the organizational and management readiness of applicants. In order to make effective use of available funding, recipients must either have the capacity to successfully implement a network, or the state must be prepared to provide or arrange for the provision of technical assistance to help the grantee or loan recipient develop that capacity. Such assistance is especially critical for providers in high need rural areas.

Loans have some advantages over grants for network development. They force a network to focus on financial self-sufficiency early in the process in order to be able to repay the loan. In contrast, the availability of grant dollars may delay difficult decisions on the part of network members, e.g., they may postpone making a financial commitment to the network. Repaid loan funds can be loaned out again to other potential networks, so the initial state investment is recycled. However, loans are likely to be more difficult than grants for a state to administer. They may also be less appealing to potential network members. Rural providers in financial difficulty may be especially reluctant to take on the risk of a loan; thus,

network development in underserved rural areas may be limited, unless local businesses and community members are willing to secure a network's loans.

States with limited resources need not be discouraged from providing grants or loans. Even small grant awards allow networks to pay expenses that may be difficult to fund otherwise. This might include staff salaries and consultant fees for initial networking activities such as joint planning and establishment of an organizational and governance structure. Another option for states with limited resources is to encourage potential network members to apply for other state and federal rural health grant programs such as rural health transition, outreach or primary care grants that can support network development activities.

#### Technical Assistance

Like grant programs, technical assistance programs present a number of design and implementation issues such as eligibility criteria and the types of assistance that should be provided. States need to decide whether to provide technical assistance directly to networks, contract with private consultants, or use a combination of approaches. Initially, many states may need to rely on consultants to some extent, but they should build internal capacity over time to provide the types of assistance needed by networks. A technical assistance program should facilitate the sharing of knowledge between existing rural health networks and potential networks. Workshops and resource manuals can be cost-effective means of disseminating information of interest to many potential rural health networks. Networks may need a variety of technical assistance, ranging from support for community needs assessment and development, organizational development, system planning and program development, to setting up network information and quality improvement systems.

In summary, in addition to their practical value in assisting networks, incentives have value as evidence of the state's commitment to rural health network development. States should provide financial incentives for rural health network development, giving special consideration to high need rural areas, and encouraging networks to become financially self-sufficient prior to the end of the grant or loan period. States should also provide or arrange technical assistance for grantees, loan recipients, and others interested in rural health network development.

#### Network Financing

The long-term financing of network operations exceeds the scope of this discussion. However, it raises a number of public policy issues that will need to be

addressed cooperatively by rural providers, states, the federal government and third-party payers. In particular, Medicare and Medicaid have potentially significant roles to play in rural health network development, since the two programs pay for a considerable portion of rural health care services. Moreover, commercial insurers often follow Medicare's lead in determining coverage, covered providers, and payment mechanisms.

States and the federal government need to implement demonstration projects that examine ways in which financing systems can be changed to support rural health network operations over time (e.g., through provision of capitation payments or global budgets to networks.) Recognition of integrated rural health networks as a distinct provider type is an important first step. This would allow networks to bill for the services of members, receive revenue for the services provided, and allocate funds to members according to the needs of the network as a whole. The Health Care Financing Administration (HCFA) recently invited health plans to participate in the Medicare Choices Demonstration project, designed to evaluate the suitability of health care delivery system options, including provider-sponsored networks (PSNs) and preferred provider organizations (PPOs), for the Medicare program (U.S. Department of Health and Human Services, 1995). Although the primary focus of the project is on metropolitan areas, HCFA is also interested in funding projects that serve rural areas.

Proposed Medicare reform legislation would allow PSNs to qualify as eligible organizations for Medicare managed care contracts (Congressional Research Service, 1995). Enactment of this legislation could provide significant incentives for the development of rural health networks by substantially increasing the pool of enrollees for which networks could receive direct payment. The actual impact on rural health care delivery will depend on how the final legislation and federal regulations address several policy issues, including:

- **Reimbursement:** The willingness of rural providers to develop PSNs that serve Medicare enrollees through managed care contracts will be greatly influenced by capitation payment rates. Provisions to establish a minimum floor on capitation rates in rural areas and reduce the amount of variation in capitation rates between rural and urban areas are likely to encourage rural Medicare PSN development.

- **Financial solvency standards:** Proposed Medicare reform legislation would exempt PSNs from state licensure requirements for HMOs and health insurers. Potential alternative financial solvency requirements being considered for PSNs by Congressional leaders include those in the NAIC Model HMO Act. The risk-based capital standards that NAIC is developing as part of its model health plan licensing act present another option. These standards base the level of financial reserves required for a plan on the amount of risk assumed (Alpha Center, 1995). The adoption of more flexible financial standards that continue to protect consumers would facilitate rural Medicare PSN development.

- **Antitrust exemptions:** Proposed legislation would allow the conduct of provider networks that are negotiating joint pricing agreements to be judged on a case-by-case basis according to the "rule of reason," rather than automatically being considered a violation of antitrust law. Provider groups, including the American Medical Association, support this proposal and maintain that it is needed to allow integrated networks to function properly; the insurance industry opposes it (Weissenstein, 1995).

In summary, the establishment of rural health networks requires fundamental changes in health care delivery and financing. Several states have made considerable progress in defining rural health networks, establishing formal designation processes, and providing incentives for network development. However, much work remains to be done in several policy areas, notably the impact of state health insurance and HMO regulations on risk-bearing networks and network financing issues, including Medicare and Medicaid reimbursement.

As policymakers address issues related to rural health network development, they should bear in mind not only the costs of developing networks but also the potential and the limitations of these entities. Rural health networks are not a panacea for all of the challenges health professionals and policymakers face in assuring the accessibility and affordability of health care services in rural America. However, networks hold potential for improving the delivery and financing of rural health care by maintaining local access to care and supporting the implementation of managed care in rural areas.

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# APPENDIX

NETWORK CEO  
SITE VISIT  
INTERVIEW PROTOCOL



## NETWORK CEO SITE VISIT INTERVIEW PROTOCOL

### A. Role Description

1. Please describe your responsibilities as CEO of the network.

### B. Description of the Network

#### Membership – Development and Complexity

2. Who initiated the formation of the network? When did this occur and why? (**Probe:** Dates)
3. When did the network first begin to undertake activities jointly? (**Probe:** What type of activities?) How has the network developed since then? (**Probe:** Were there easily recognizable stages in the development of the network? Request timeline)
4. What problems were encountered related to the development of the network?
5. Please describe the impact (either positive or negative) the following have had on network development:
  - a. Actors who may have had an impact on network formation
    - Physicians
    - Rural hospitals
    - Urban hospitals
    - Rural referral centers
    - Local businesses
    - Community
    - Consultants
    - Other (Please specify)
  - b. Factors that may have influenced network formation
    - The desire to decrease health care expenditures (**Probe:** for whom this was a factor)
    - The desire to increase access to services (**Probe:** for whom this was a factor)
    - The desire to improve the quality of care (**Probe:** for whom this was a factor)
    - Anticipation of either federal or state health care reform (**Probe:** How their actions have better prepared them for reform)
    - Preservation of market share (**Probe:** for whom this was a factor)
    - Access to capital (**Probe:** for whom this was a factor)
    - Other (Please specify)
6. Do network participants apply for membership? If yes, what are the membership criteria? Are the criteria the same for all members or are there categories of membership?
7. What are the obligations of membership? (e.g. payment of dues, contributions of staff time, etc.).

#### Systemness – Degree of Integration (request documents (doc) where applicable)

8. Please describe the network organizational structure. (**doc**)

9. Does the state formally recognize the network as an organizational entity that is distinct from its members through incorporation, designation, certification, etc.?
10. Is there a network:
  - a. Mission statement (**doc**) (**Probe:** When was it established? How frequently, if ever, is it revised?)
  - b. Set of goals (**doc**) (**Probe:** Explain the goal-setting process. How frequently are goals set?)
11. Now I would like you to describe how patient care is coordinated between the various network components. (**Probe:** Are there network referral protocols? Are there restrictions on referrals?)
  - a. How are referrals made within the network?
    - How are they monitored?
    - If specialists are network members, is there an implicit or explicit requirement that patients referred out of the community for specialty care be “returned” to the care of the primary physician at the end of specialty treatment?
  - b. Are there referral agreements between the network and other providers who are not part of the network?
    - What are they?
    - Are there implicit or explicit agreements with specialists outside the network that patients referred out of the community for specialty care be “returned” to the care of the primary physician at the end of treatment?
  - c. Do primary care physicians assume the role of system gatekeeper? If so, how comfortable are they with this role? How does the network support or assist them in acting as a gatekeeper?
  - d. Can patients self-refer to urban providers?
  - e. Is there a common unified medical record? If no, is there a common patient ID number used by all members of the network?

### Governance

12. What is the function and composition of the network governing board? (**Probe:** What does the governing board do? Describe a typical meeting.)
13. Describe how new ideas or agenda items are brought to the attention of the board.
14. How are decisions made and implemented within the network (e.g. formal votes, use of advisory panels or committees)? Please give a recent example.
15. How frequently does the board meet?
16. Does the network have a paid staff? If so, what positions are staffed? How were staff members hired? Were there any selection criteria used for hiring?

### Community

17. What is the service area of the network, in terms of:
  - a. Geographic area
  - b. Population

18. Is the service area different for some network activities or functions? If yes, for which activities or functions does this apply, and how is the service area different?
19. Have the health care needs of the community been assessed recently? If so, by whom? How frequently is this done?

### C. Network Functions

20. Earlier we discussed how patient care is coordinated by the network. Are there other network functions that are currently in operation?
  - a. Quality assurance
  - b. Physician credentialing
  - c. Utilization review
  - d. Billing services
  - e. Practice management services
  - f. Human resources (e.g. hiring of allied health professionals/ benefits administration)
  - g. Recruitment and training (physicians or non-physician providers)
  - h. Continuing education
  - i. Case management
  - j. Joint venture provision of clinical services (**Probe:** What are they?)
  - k. Emergency Medical Services (EMS)
  - l. Non-EMS transportation
  - m. Group Purchasing
  - n. Other (Please specify)
21. What factors have facilitated or impeded the operations of the network?
22. What network projects are being planned in the next year? Next 2 years? Next 3 years?

### D. Network Risk Sharing (Only for Networks with Health Insurance Products)

23. Please describe any risk-sharing arrangements that you may have.
24. Who provided the start-up capital required for risk sharing? How much was provided?
25. How long has the network been engaged in risk sharing?
26. Is all health insurance coverage purchased through employers or may individuals enroll as members?
27. Please explain your basic benefits package.
  - Are additional benefits (e.g., chiropractic, pharmacy, dentistry) mandated by state law? Do you have contractual relations with these providers?
  - Are access to these services limited to a referral from a primary care provider?
28. Is the risk product operating at a profit, breaking even, or at a loss?
29. What incentives are used to encourage cost-effective decision making by network members?

## E. Network Performance

30. Are there specific objectives the network is expected to accomplish? What are they and how are they measured?
31. Which, if any, of the following measures do you use to monitor network performance?
  - Health outcomes (e.g. immunization rates, disease specific outcomes of care)
  - Consumer satisfaction
  - Monthly per capita cost
  - Administrative costs as a percent of total costs
  - Financial performance of network members (as measured by profitability, liquidity, and leverage ratios and other financial indicators)
  - Outmigration of patients and services
  - Accessibility of services (e.g. primary care, specialty care) within reasonable travel times
  - Other (Please specify)

## F. Rural Health Environment

32. How have federal, state or local health policies affected network development? (**Probe:** Are there state requirements or guidelines for networks?)
33. What effect, if any, has concern about antitrust had on network development?
34. Are there local providers (e.g. physicians or institutions) not involved in the network? If so, why?
35. Have some members elected to discontinue participating in the network or been excluded from the network? If so, why?
36. How have community residents been informed about the network (e.g. meetings, newsletter, newspaper, radio)? How has the community been involved with the development and operation of the network?

## G. Summary

37. How satisfied are you with the network?
38. What lessons have been learned about network formation and development? What would you do differently if you had the chance to do it all over again?
39. What are the next steps that should be taken to further develop the network?

## ABOUT THE AUTHORS

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