The Multihospital Movement Defined

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A SIGNIFICANT DEVELOPMENT in the medical care industry today is the growing trend among hospitals toward shared services and other multihospital arrangements. Most of the nation's hospitals are engaged in such arrangements in some way—whether it be in a simple shared service or in a complex corporate structure that owns and manages multiple hospitals. An intriguing aspect of this phenomenon is that some Federal policies seem to recognize and, in some cases, even endorse movement in this direction. Certainly part, but by no means all, of this activity is a response to past Federal policies.

My purpose here is to provide information on and a framework for understanding the developing multihospital movement. This movement (perhaps trend would be a better term) is essentially the growth in cooperative arrangements among multiple health facilities—notably hospitals. To define this movement further, I review the significance of the topic, suggest definitions, discuss the nature and extent of the movement and some of its complexities, and present a few organizational models for integrating some of these concepts.

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Several key questions are pertinent at this point: Are multihospital arrangements in the public interest? If so, what kinds of arrangements? In which environments? Should they be encouraged by government policies? If so, how should they be encouraged?

Significance of the Topic

Organizational theorists suggest that the success of an organization is largely determined by the effectiveness of the organization's interaction with its environment. Frequently, the environment is subdivided into several different subenvironments, all of which have different thrusts and require differential planning. We who work in the medical care industry have a continuing requirement to understand our environments. For the hospital industry in particular, the environments have grown in number and complexity as the traditional role of the hospital has been challenged, if not rejected. Hospitals have historically evolved from "havens for the sick poor" to the central and most vital part of the health care delivery system in most communities. With this evolution has come the challenge to the industry to expand its traditional role of acute care to include other activities such as long-term care and preventive care. We are still very much in this transitional phase.

The need for those of us who work in one segment of the industry to understand how that segment interacts with others has become much greater in recent years. It has also become increasingly apparent that no single hospital can continue to function independently in attempting to meet all the health care needs of a

given population. The growth of regulations, the cost of new technology, shifting population trends, and many other factors preclude this independence.

Is the multihospital movement really significant? In a 1975 American Hospital Association (AHA) survey on selected hospital topics (unpublished) it was found that one of every four short-term general community hospitals and one of every three beds are part of a "system." In another survey on shared services participation in 1978, the AHA found that 84.4 percent of all U.S. hospitals were sharing at least one service (unpublished).

Public Law 93–641, the National Health Planning and Resources Development Act of 1974, indicates that the Congress considers shared arrangements significant. That at least 3 of the 10 priorities listed in section 1502 relate directly to the accelerated growth of multi-institutional arrangements is even more significant if this law is considered as a first step toward systematizing the organization of medical care in this country.

Now we are faced with the pressure of other issues, ranging from consideration of national health insurance, industry's Voluntary Effort, wage and price guidelines, and Proposition 13. All of these issues reflect increasing concern for the efficiency of government and for the delivery of human services. The impact of this pressure —which will continue for many years—is that all of us in the medical care industry must seek the most efficient and effective ways for the delivery of needed medical services. Multihospital arrangements, in their many forms, may represent the survival formula for a significant number of U.S. hospitals.

The Multihospital Movement Defined

The multihospital movement refers to the changing configuration of the hospital industry; multiple facilities are forming more and more relationships for sharing of equipment, personnel, and other resources. At this time, we have more questions than specific answers. There is no consensus on the issues. It is doubtful that anyone will claim that the movement is a panacea for all the ills facing the industry; nor is it likely that many in the industry reject outright the concept of sharing among health facilities.

Multihospital arrangements include a number of cooperative arrangements:

Formal affiliation—close association under formal agreement, usually for conducting a joint education program (for example, medical school affiliation with a community hospital for residency programs).

Shared or cooperative services—formal or informal agreement to share one or more administrative or clinical services, which can be provided by a hospital or a group of hospitals, or through a separate, taxable or tax-exempt organization (for example, a shared-service organization providing purchasing services).

Consortiums for planning or education—voluntary alliance of institutions—usually in the same geographic area—for a specific purpose, most often planning or education (for example, the Capital Area Health Consortium in Hartford, Conn.).

Contract management—total responsibility for management of a health facility is contracted to a separate entity for a specified period, usually 3 years (for example, a contract between Hospital Affiliates and the new Tulane Medical Center).

Lease or condominium—transfer of property under a contract at a specified rental fee for a specific period, or ownership of shared and unique space in a single facility (for example, Metropolitan Medical Center, Minneapolis, Minn.).

Corporate ownership but separate management—assets are owned by a single organization but management responsibilities are delegated by the owner (for example, Fairfax Hospital Association, Falls Church, Va.).

Integrated ownership and management—assets are owned and controlled (managed) by a single entity (for example, Greenville Hospital System, Greenville, S.C.).

Devries (*1*) classified similar arrangements along a continuum (table 1). The continuum is arranged from one extreme of less commitment and more institutional autonomy to the other extreme of more commitment and less institutional autonomy or more "system" control.

Multihospital system is a commonly used term today. System implies an interrelationship between parts. It also implies some form of synergy where an outcome is potentially greater than the sums of the outcomes of the individual parts. In this paper, I define a multihospital system as two or more hospitals owned or controlled (managed) by a single organization. Anything short of this would imply that the interrelationship between the parts, in this case the functioning units or hospitals, is not realistically capable of some form of synergistic outcome. The multihospital systems include the categories IV through VII shown in table 1.

An evolutionary perspective regarding the development of multihospital systems indicates that most such efforts begin with simple shared arrangements and other "presystem" configurations. Thus, it could be hypothesized that by measuring the extent of sharing one can predict the future extent of multihospital development.

Some results of the AHA's 1975 and 1978 surveys to determine the extent of shared services are shown in tables 2–4. As mentioned earlier, 84.4 percent of the nation's short-term, general community hospitals participated in at least one shared service in 1978 (table 2). Table 2 also indicates that sharing was more extensive as bed size increased for all hospitals. In short-term, general community hospitals sharing tended to increase up to the 300–399 bed size category and then to decline slightly. This pattern suggests that over a certain threshold size economies of scale may become diseconomies of scale. If one accepts the earlier hypothesis, the data in table 2 suggest that further movement toward multihospital systems can be expected in the future.

Viewed from the perspective of an administrator of a hospital or related health organization, what are the possible areas for sharing? Table 3 lists the 10 most common shared services in 1975 and 1978. It is useful to divide these services into administrative and clinical categories. Only four of the most common shared

Table 1. Classification of multihospital arrangements

Types or Categories / Characteristics	I Formal Affiliation	II Shared or Cooperative Services	III Consortia for Planning or Education	IV Contract Management	V Lease	VI Corporate Ownership but Separate Management	VII Complete Ownership
	Less commitment, more institutional autonomy ◄ CONTINUUM ►						More commitment, more system control
Descriptions, Definitions, Terms	Patient transfer agreements, House officer affiliations, referral agreements	Financial, political commitment over time for selected products or services	Voluntary health planning council for a specific geography; Area Health Education Centers (AHECs)	Corporate management; full management without ownership	Policy as well as management provided by a single board	Owners do not interfere in the management of hospitals even though they have legal authority; absentee ownership	1. Mergers, consolidations 2. Satellites, branch operations 3. Authorities, chains 4. Holding companies
Corporate Ownership	No	No	No	No	No	Yes	Yes
Corporate Management	No	No	No	Yes	Yes	No	Yes
System Influence on Major Policy Decisions	No	No	Yes	Minor	Yes	Maybe	Yes (Absolute)

NOTE: Table reproduced from DeVries (*1*).

services are clinical—blood banking, education and training, laboratory, and diagnostic radiology. The greatest cost benefits of multihospital arrangements will be derived ultimately through shared or consolidated clinical services.

The 10 shared services that grew the fastest between 1970 and 1975 are listed in table 4. All but three of these services—laboratory, blood banking, and biomedical engineering—were administrative. The rank order suggests that administrative areas such as purchasing, electronic data processing (EDP), and education and training are good services with which to begin shared efforts. The few clinical services currently being shared suggests that the greatest cost benefits are yet to come.

Table 2. Community hospitals [1] sharing services, by bed size, 1975 and 1978

Bed size	Percent of total respondents		Percent point change
	1975	1978	
6–24	48.2	73.7	25.5
25–49	48.4	74.6	26.2
50–99	59.0	81.7	22.7
100–199	65.8	87.5	21.7
200–299	74.0	89.8	15.8
300–399	78.8	92.8	14.0
400–499	80.2	92.2	12.0
500 or more	77.2	90.4	13.2
Total	63.2	84.4	21.2

[1] Includes nongovernment not-for-profit, investor-owned (for-profit), and State and local government hospitals.

Table 3. Ten most common services shared, 1975 and 1978 [1]

Service	1975		1978	
	Number hospitals	Percent	Number hospitals	Percent
Purchasing	1,927	38.0	3,080	64.9
Blood banking	1,104	21.8	1,459	30.8
Electronic data processing	1,062	20.9	1,617	34.1
Education and training	957	18.9	1,249	26.3
Laboratory services	885	17.4	1,294	27.3
Laundry and linen	720	14.2	1,027	21.7
Insurance programs	689	13.6	....	...
Credits and collections	436	8.6	721	15.2
Diagnostic radiology	431	8.5	746	15.7
Management engineering	423	8.3	691	14.6

[1] Number of hospitals responding: 1975, 5,074; 1978, 4,744.
SOURCE: American Hospital Association surveys, 1975 and 1978.

Extent of Multihospital Movement

The true extent to which multihospital arrangements exist throughout the country is not known. As mentioned earlier, a 1975 AHA survey revealed that one of every four short-term community hospitals and one of every three beds were in a system. A total of 370 multihospital systems were identified at that time; the majority of these were nonprofit, church-owned systems. The total seems somewhat overstated in that church-owned systems are not always centralized. Rather, they usually decentralize control to operating units to the extent that many of these units function autonomously. Thus, such units cannot influence synergistic outcomes; however, in many cases, this situation is changing.

Of the 293,000 beds in hospital systems in 1974 (table 5), 37,000 (less than 15 percent) were investor-owned or for-profit systems (2). It is often suggested that most multihospital systems are for-profit or part of investor-owned chains. This was not the case in 1974. However, the vast majority of for-profit hospitals currently are in systems, and investor-owned systems seem to be the fastest growing segment of the industry at this time. Andrew Miller, an officer of Hospital Corporation of America, reported in a recent forum that for-profit management contracts accelerated greatly from 1974 to 1978. He noted that in 1973 only 24 hospitals were operated under a management contract by for-profit management companies; by 1978, the number had increased to 250 hospitals.

Although no empirical data are available, as of this writing, to substantiate the recent growth in multihospital arrangements, undoubtedly such growth is taking place. The topic has become of widespread interest, and there are almost daily reports of new arrangements being developed nationwide. Why would hospitals or other health facilities be interested in forming such arrangements?

Table 4. Ten fastest growing shared services, 1970–75

Service	Number hospitals adding service [1]
Purchasing	1,321
Electronic data processing	640
Education and training	640
Laboratory services	461
Laundry and linen	429
Blood banking	411
Management engineering	383
Insurance programs	354
Biomedical engineering	351
Credits and collections	286

[1] A total of 5,909 responses (82.5 percent) were received from 7,165 hospitals surveyed.
SOURCE: American Hospital Association surveys, 1975 and 1978.

Brown and Lewis (2) have suggested four major advantages to multihospital arrangements: economic, quality of care, accessibility, and power. However, these four categories can also be disadvantages, depending on how an arrangement is developed. Elaboration of these advantages and disadvantages follows.

Economic. Many arrangements seem to stem from a perceived ability to achieve economies of scale. Greater volume of purchases or use of services decreases the unit cost of the input of service; sharing allows elimination of duplicative staffs and equipment; greater return on investment and decrease in interest costs can be achieved through pooling assets; and by having multiple locations and facilities, administrators may be able to allocate resources where the greatest benefit can be derived most efficiently. On the other hand, there are risks that additional layers of bureaucracy can be created which do not justify the additional cost, and the increased flexibility in resource allocation can result in the subsidization of inefficient and ineffective facilities or services.

Quality. Quality is an extremely difficult concept to research. It is not a reason commonly cited for the formation of a multihospital arrangement. Yet, some suggest that it is an area of tangible results and a motivating factor in the formation of such arrangements (3). On the positive side, there may be improved continuing education programs through the use of an expanded number of resources; increased uniformity and standardization in the provision of care; greater flexibility to provide a service by the most effective means available throughout a group of facilities; and the sharing of data relative to patient outcomes, which could lead to regional analyses of the effectiveness of health care delivery. On the negative side, there may be the potential for developing "self serving" referral patterns that tend to maximize the revenue producing, educational, or research objectives of a facility while not meeting the direct needs of the patient. There may also be the potential for alienation of physicians who believe that their practice is at risk through such a cooperative arrangement. (Some might consider the latter point to be an advantage in breaking down existing "fiefdoms" and opening up the medical practice to more competition.)

Accessibility. Multihospital arrangements also may possibly spread risks among multiple facilities that subsidize various services and facilities which otherwise might not be able to survive independently. The ability to attract and retain physicians and other staff, to experiment with new forms of care, and to provide a greater spectrum of care can be enhanced through the interaction of multiple organizations. At the same time, consolidation of services might result in a decline in access to specific services at certain locations, as well as in an alienation of some physicians who might choose to take their practices elsewhere.

Power. Both economic and political power can be increased through the consolidation or merger of multiple groups. A multihospital arrangement is by definition larger than any single component part. This increase in economic power may allow the group to exercise greater influence over its own destiny by controlling the use of resources, as well as by influencing the ability of the group to attract other resources. Political power can also be enhanced by combining the collective influence of individuals in multiple political jurisdictions. The power that can be used to benefit the consumer can also be used detrimentally. Many issues, such as potential antitrust violations and the ability to circumvent areawide planning decisions, remain unresolved with respect to power.

Complexity of Multihospital Movement

Among the variables that exist in different forms of multihospital arrangements are ownership, management, location, medical staff, governance, and tax status. Each of these variables allows a number of choices. Several choices in the ownership and manage-

Table 5. Community hospitals and beds in hospital systems, by type of ownership, 1974

Ownership category	Total hospitals	Total hospitals in systems		Total beds [1]	Total beds in systems [1]	
		Number	Percent		Number	Percent
Nongovernmental, not-for profit	3,355	940	28	649,000	210,000	32
Investor owned, for profit	755	309	40	70 000	37,000	51
State and local government	1,745	156	8	207,000	46,000	22
Total	5,855	1,405	24	926,000	293,000	32

[1] Rounded numbers. SOURCE: reference 2.

ment categories shown in figure 1 indicate numerous (19) possible combinations or forms of systems arrangements. Determination of whether multihospital systems are beneficial becomes very complicated, since it is difficult to generalize about a concept that is so differentiated. Rather, the question really becomes which arrangements might be of benefit in which situation.

Implications for Management

The great number of possible arrangements contributes to the difficulty in exploring the management implications of various arrangements. At the generic level, it is notable that what is taking place in the hospital industry has been taking place in other industries since the turn of the century. Some suggest that U.S. industry in the future will consist entirely of large diversified conglomerates. The following brief review of earlier activities puts this statement in context.

Three general merger periods are often referred to in the history of U.S. industry. Beginning in 1879 with the organization of the Standard Oil Trust, merger was first looked upon as a means of developing economic monopolies. At the time of this merger, it represented more than 90 percent of the U.S. oil refining capacity. Two major influences affected merger activity between 1895 and 1904: changes in State incorporation laws and changes in capital markets.

During the second merger era, in the late 1920s, up to 1,245 firms disappeared annually. Again, the changing structure of antitrust laws is given most of the credit for the activity during this period. The depression quickly ended this second era.

In the third merger era, which some argue still exists, annual disappearances of firms due to mergers numbered 126 in 1949; by 1967, the number was 1,496. This era differed from the previous two in that it lasted longer.

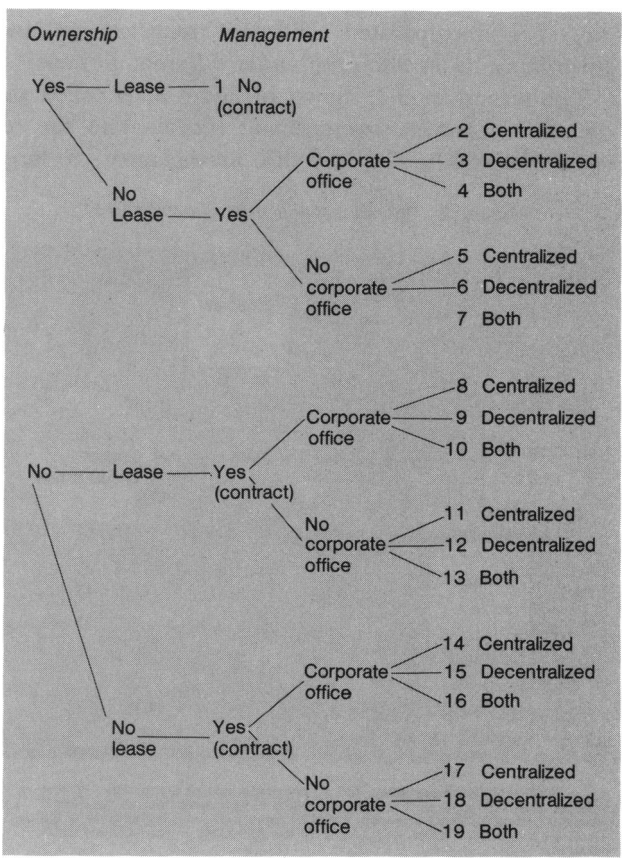
Several elements from these three general merger eras deserve emphasis:

- Many, if not most, of the mergers at the beginning of the century were devised for the expressed purpose of forming monopoly power; later, their purpose was to diversify risk.
- Promotion by underwriters and public relations firms is given much credit for the merger activities in the first two eras.
- In all cases, antitrust laws have largely influenced the merger activities.

It may be that the hospital industry is merely applying established trends from the business industry to medical care. It is quite possible that the business community, as it continues to take a greater interest in the medical care industry, will look upon the multihospital movement as a means of injecting additional "sound business practices" into the hospital industry. The ultimate acceptance or rejection of multihospital arrangements from the business community, however, is not yet in evidence.

Multihospital arrangements have significant implications for management. Traditional concepts of span of control, unit of command, centralization or decentralization, and governance apply differently in different situations. How the different arrangements influence major policy decisions is apparent in table 1. On the more autonomous end of the spectrum, decisions rest with the individual facility. Consortiums tend to elevate major decisions to a joint board. However, there is some skepticism because consortiums have no *de facto* control over the assets of the organization; thus, few major decisions tend to reach the joint board. Yet, consortiums remain a "safer" commitment by the participating facilities. As arrangements move up through contract management to integrated ownership and management, the system takes over more control of major policy decisions.

Figure 1. Nineteen possible combinations of ownership and management



The loss of control causes understandable concern for administrators who must decide on developing or perhaps joining such an arrangement. The anticipated loss of autonomy and authority has caused some administrators and boards to reject specific cooperative arrangements. Such action is not entirely capricious. There is legitimate concern over the extent of consistency between arrangement or system goals and the goals and needs of the local community—similar to the interface between Federal health planning guidelines and local health planning efforts. Part of this resistance may also be the result of misconceptions, misinformation, or misguided motivations.

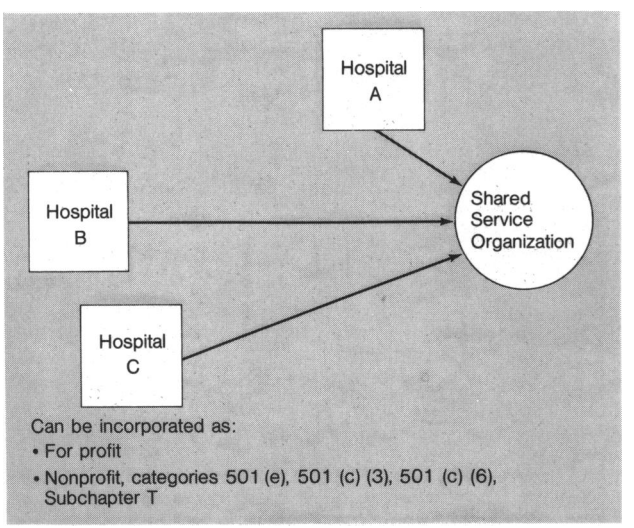
Several organizational models have been developed to categorize multihospital arrangements further. These models should not be viewed in any way as definitive. It is hoped that they will be refined further over time.

The first model is called the shared-service organization model, shown in figure 2. In this case, an organization is set up apart from a hospital. This separation might be done for several reasons; one reason may be the desire to protect the assets of the new corporation from being considered for reimbursement purposes. The new organization can also be set up in numerous ways; it can be a for-profit organization or it can be organized under several nonprofit categories. Government treatment of the organization will differ, depending on which way it is incorporated. Different management and governance issues also arise under different formats.

The second model, shown in figure 3, is called the functional contract management model—also the referral hospital model. In this arrangement, a large teaching hospital is the "hub of a wheel" in providing services to other hospitals nearby. The referral hospital contracts with hospital A for management services, and specific clinical services are provided directly by the department at the referral hospital. For example, radiology services are provided on a consulting basis to hospital A by the department in the referral hospital. As implied by the name referral hospital, it is likely that patterns of referral for patients will develop—which is one incentive for a large tertiary care hospital entering into such an arrangement. Because of the clinical objectives of this model, management's relations with the medical staffs are crucial to this type of arrangement.

The next model, shown in figure 4, is called the centralized, geographically integrated model. In this

Figure 2. Shared service organization model[1]



[1] These separate organizations can be unincorporated or incorporated as taxable (for-profit) or tax-exempt entities, according to various sections of the Internal Revenue Code of 1954, as amended. Eligibility varies in the different sections of the Code, as do the restrictions which apply to the operations of the separate organizations.

Figure 3. Functional contract management (referral hospital model)

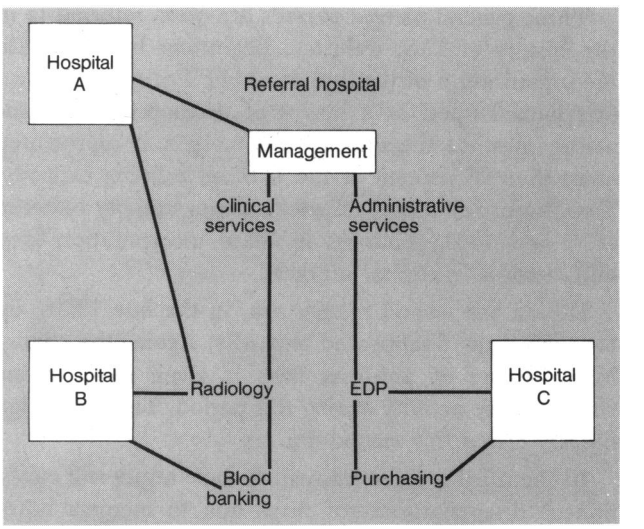
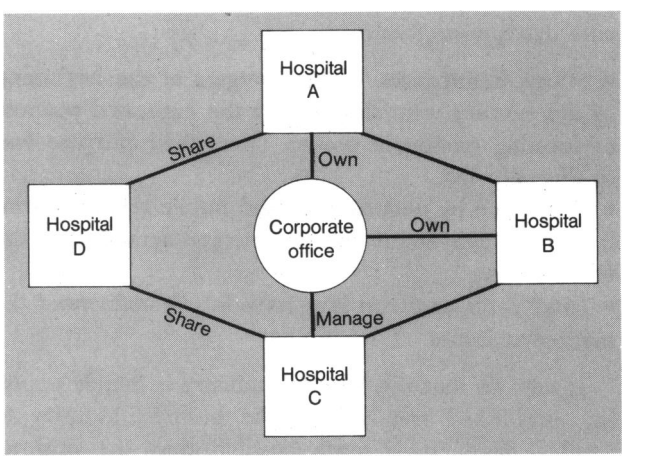


Figure 4. Centralized geographically integrated model

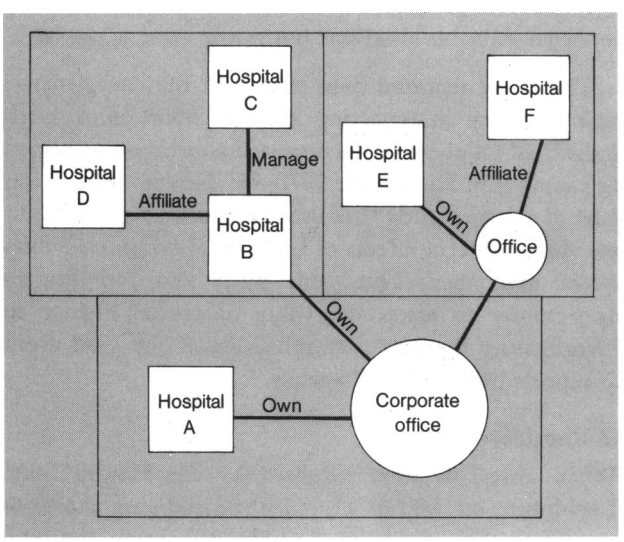


model, a corporate office exists and the corporation owns and manages a number of hospitals. As the name implies, all these hospitals are located in a single geographic area (city, county, State). The management is highly centralized, and functions such as EDP, payroll, accounting, and other administrative services are usually centralized at the corporate office. Hospital A and hospital B can, in turn, provide services to each other or refer patients, or both. Hospital A and hospital D may share several services, although hospital D is not owned or managed by the system.

The final model is called the decentralized, geographically dispersed model, shown in figure 5. In this example, hospitals are owned and managed in multiple jurisdictions. For example, hospital A is in the same area as the corporate office and is owned by the corportion. Hospital B is owned by the system, manages hospital C, and is affiliated with hospital D. Hospital E is owned by the corporation but managed through another office remote from the corporate office. That remote office provides shared services through an affiliation agreement with hospital F. This simplified model can also represent a typical investor-owned or for-profit hospital chain.

These models are but a few simplifications of the many different forms that multihospital arrangements have taken throughout the country. Different environmental factors may lead to a similar model in different locations, and the same environmental factors may lead to different models. Also, any one system may include components that are characterized by several of these models. Management style appears to be a prime determinant of the form that a system may take.

Figure 5. Decentralized geographically dispersed model



Conclusion

Multihospital arrangements are not a panacea for all the ills of the medical care industry. The nature of the movement, its expansion to date, and the interest being expressed by government officials and others suggest that considerable benefit can be derived from such cooperative arrangements. However, many questions remain unanswered.

Empirical research to date is both sparse and unclear. A major research effort by Cooney and Alexander (*4*) was completed in 1975. A number of research designs were employed in a series of studies conducted between 1969 and 1974. Many of the results suggested specific economies in the operating performance of systems' hospitals as contrasted with freestanding hospitals of like size.

In another study by Treat (*5*), mergers were specifically targeted. The findings of this study did not bear out economies through merger except for small rural hospitals. While acknowledging an increase in service capacity, the author questioned cost savings due to merger of large urban facilities. More empirical study is required to arrive at a better determination of where cost savings or cost avoidance can be derived through multihospital arrangements, as well as other potential advantages and disadvantages.

Pressures for cost containment often have the unfortunate effect of allocating research dollars to efforts with short-term benefits so that longitudinal studies, needed to analyze further the potential benefits and problems of such arrangements, may be delayed. One conclusion, however, is gaining acceptance: multihospital arrangements, in their many forms, are not temporary and will likely occupy a central position in our evolving national system of medical care.

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