Pulling the Pieces Together:
Consolidation and Integration in Health Care Systems

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Introduction

Over the last ten years, the hospital industry has become increasingly consolidated through the formation of multi-hospital health systems and networks and the legal merger of institutions under a single license. In relation to the former, health networks are strategic alliances or contractual affiliations of hospitals, in which affiliated institutions retain their individual ownership. Health systems, on the other hand, typically own and operate a core set of hospitals that offer an array of services and products. In many markets across the country, there are now only three to five hospital organizations in operation, after one accounts for their combined ownership or network affiliations.

Despite extensive structural consolidation and relationship development, however, service line integration and coordination within structurally aligned hospital organizations have lagged behind. Namely, the extent of service integration and coordination that exists as we look across the hospital landscape is much lower than we would expect given the extent of structural consolidation that has taken place. In many instances, hospitals that enter into merger or that affiliate with a system or network look no different after these actions, in terms of their operations and services, than they did before.

Over the last few years, there has been some success in service line reorganization, especially in selected systems and service areas. We are beginning to see more efforts in this regard given new market imperatives. In prior years, managed care pressures were considered a driving force to consolidating and rethinking service structure to create cost efficiencies. In the last few years, we are seeing service line reorganization as a response to strained hospital capacity and to specialty facility development in particular markets.

In September 2004, my colleagues and I published an article in *Medical Care Research and Review* that synthesized twenty years of qualitative and quantitative literature on organizational change (Bazzoli et al. 2004). This article focused on nearly 100 research and consultant reports and spanned not only changes in hospital organization but also physician organization and hospital-physician relationships. We looked at many things, including organizational motives and expectations, the process of change as new organizational structures and configurations developed, and also the outcomes of change.

This paper draws on that article and also the many reports and studies it synthesized to examine what hospitals have accomplished through their efforts to structurally consolidate – what exactly changed about their operations and what were the barriers and facilitators of that change. In addition, the paper brings in some new data and focuses on some recent observations drawn from my qualitative studies and conversations with hospital executives.

The paper first describes historical trends in structural consolidation activities. Then, data are presented on operational and service integration in consolidated health organizations. Barriers and facilitators to service integration are discussed. Finally, changes on the horizon that will affect organizational consolidation and service integration are considered.

Structural Consolidation Activities in the Hospital Industry

As noted above, structural consolidation in the hospital industry has included not only ownership consolidation but also relationship development between hospitals focused on cooperative activities. Thus, it includes the gamut of full-legal asset mergers and system acquisition to less formal development of health networks, in which involved hospitals agree to work together to meet certain objectives. Primary sources of data on trends in hospital structural consolidation come from Modern Healthcare and the American Hospital Association (AHA).

Historical Trends in Hospital Consolidation

Table 1 presents data reported annually by the trade magazine, *Modern Healthcare*.[1] The actions captured are identified in the footnote to the table and include mergers, system acquisitions, joint ventures, long-term leases, and formation of partnerships to coordinate activities. The number of "deals" relates to the number of actions they can identify in each year. They also report the total number of hospitals involved in these actions.

Table 1
Modern Healthcare:
Annual Merger and Acquisition Activity*

	1998	1999	2000	2001	2002	2003	2004
# of deals	198	142	129	95	60	68	84
# of involved hospitals	687	530	318	272	163	100	170

*Defined to include: mergers, system acquisitions, joint ventures, long-term leases and other partnerships involving coordinated activity.

These data indicate that merger and acquisition activity dropped markedly from 1998 to 2002, both in terms of the number of deals and the number of involved hospitals. The number of deals,

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[1]*Modern Healthcare* usually reports results from its merger and acquisition monitoring activity in January of each year. For example, see Gallaro and Evans (2005).

though, started to increase in 2003 and continued to do so in 2004. This is not a large jump but it surprised some in the field who felt that the consolidation trend had run its course, in part because there were very few free agents around to become involved in new arrangements.

Table 2 presents AHA data on two types of organizational arrangements that the AHA tracks, namely multi-hospital systems and multi-hospital networks. The AHA defines a multi-hospital system as a corporate body that owns, leases, religiously sponsors, and/or manages health provider facilities. A health network, on the other hand, is a group of hospitals, physicians, other providers, insurers, and/or community agencies that voluntarily work together.

Table 2
American Hospital Association:
Multi-Hospital Arrangements

	1998	**2000**	**2002**	**2003**
Multi-Hospital Systems:				
# of systems	271	296	299	319
# of hospitals	2,387	2,382	2,400	2,424
% of US community hospitals	47.6%	48.5%	48.7%	49.5%
Multi-Hospital Networks:				
# of networks	247	n.a.	n.a.	n.a.
# of hospitals*	1,325	1,285	1,284	1,330
% of US community hospitals	26.9%	26.1%	26.1%	27.2%

n.a.= not available
*approximately 55% of network hospitals are also in systems

Table 2 reports the number of hospitals in systems and networks in each of the years. While Table 1 focused on the number of new transactions that occurred in a year, Table 2 examines something different, more of a "stock" concept than a "flow" concept. Some hospitals have been in multi-hospital arrangements for years whereas others may be newly affiliated in the years noted. The AHA data in Table 2 capture both long-standing members and new affiliates but only the latter is picked up in the *Modern Healthcare* numbers.

As reported in Table 2, the number of health systems has grown steadily over the period that AHA data are available. The number of hospitals has also increased to the point where nearly ½ of US community hospitals are in systems. Overall, the number of hospitals per system went from 8.8 in 1998 to 7.6 in 2003.

In terms of health networks, we are only able to compute the number of networks in 1998 given available data. The number of hospitals in networks declined from 1,325 in 1998 to 1,284 in

2002. In fact, the number of network hospitals has been declining since about 1995 when 1,450 hospitals reported being in these arrangements. However, we see a slight up-tick in the network numbers for 2003, and like the *Modern Healthcare* data, it is uncertain whether this upward change will be sustained over time. Overall, the data in Table 2 indicate that about 62% of US hospitals in 2003 were involved with a health system or network, and as noted in the footnote to the table, a large share of those in networks also belong to systems.

Changes in System Strategy over Time

It is interesting to consider how system formation and acquisition strategies have changed over time in relation to the hospitals targeted by systems for acquisition. Alexander and Morrisey (1988) examined the distinguishing characteristics of hospitals joining systems in the 1980s. They found that small, financially weak urban hospitals were most often acquisition targets. These hospitals were ailing and in need of an injection of management expertise to turn them around. At that point in time, health systems, which tended to have a large number of members dispersed nationally, were looking for good turnaround candidates.

In Bazzoli et al. (2003), however, we found a very different system acquisition strategy during the 1990s. This was the era of organized delivery system development and, in that period, we observed that larger hospitals (namely, those with bed-sizes of around 200 to 300) and more technically advanced hospitals were system acquisition targets. In this period, the objective was to create strong local networks of care that could become more efficient, manage capitation, and gain leverage with managed care plans.

In the 2000s, it appears that rural and small urban hospitals are the targets for system acquisition. The improved financial condition of these hospitals after enactment of the 2003 Medicare Modernization Act makes them more attractive targets. This is an observation from *Modern Healthcare* (Gallaro and Evans 2005),which has not been rigorously examined empirically.

Accompanying the changes in acquisition strategy described above was another change in strategy that is illustrated in Table 3. In this table, a long time trend is presented to illustrate the strategy change. Overall, the data, which were compiled from AHA Annual Survey, indicate that systems have increasingly become more localized in their hospital holdings. Cuellar and Gertler (2003) reached similar conclusions.

Table 3 specifically focuses on urban hospitals and their participation in health systems. Researchers frequently consider urban areas, as defined by Metropolitan Statistical Areas (MSAs), to represent geographic hospital markets. The data indicate that the percentage of urban hospitals that are not in systems and thus freestanding has declined from 55% in 1990 to 36.4% in 2003. Among urban system hospitals, we increasingly see that that they tend to have system partners located in their MSAs. The percentage of system hospitals located in MSAs with at least one local system partner increased from 23.2% in 1990 to 44.1% in 2003. On average, systems with multiple local hospitals had 4 hospital affiliates in an MSA in 2003. Large geographically dispersed systems still exist, like HCA, Daughters of Charity, and Quorum, and they own many facilities in multiple markets. But generally speaking, we are seeing more focus on developing localized health systems.

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Table 3
System Status of Urban Hospitals*

Hospital System Status	1990	1994	1998	2003
Hospital in a system with at least one system partner in MSA	23.2%	31.3%	40.5%	44.1%
Hospital in a system with no local system partner in MSA	21.8%	9.7%	17.8%	19.5%
Non-system hospital	55.0%	59.0%	41.6%	36.4%

*Urban hospitals are defined as those located in Metropolitan Statistical Areas (MSAs)

The historical data presented thus far cover the period in which hospitals and their systems were seeking to develop organized delivery systems. Given this, Table 4 provides additional insights on how some additional organizational features have changed over time. During the organized delivery system movement, hospitals and their systems were developing relationships vertically as well as horizontally. These vertical relationships included aligning with physicians who either refer to the hospital or who would serve as primary parties managing care if capitation became the norm for provider payment. In addition, systems vertically integrated the financing or insurance side of health care business into their systems through the development of provider-based insurance arrangements.

Table 4
Health System Involvement in
Physician Arrangements and Insurance Products

	1998	2000	2002	2003
Physician-Hospital Arrangements:				
% with contractual affiliations*	49.2%	35.7%	29.2%	26.5%
% that own physician practices**	23.4%	20.1%	17.6%	18.2%
Provider-Owned Insurance Products:				
% with HMO products	21.3%	18.7%	15.0%	15.2%
% with PPO networks	22.2%	18.7%	15.9%	14.9%

*includes hospital-sponsored Independent Practice Associations (IPAs), Physician-Hospital Organizations (PHOs), Management Service Organizations (MSOs)
**includes medical foundations, in which a hospital affiliate or subsidiary owns practice assets and physicians sign a professional service agreement

The data in Table 4 is based on analysis I originally reported in Bazzoli et al. (2001) and have extended through 2003. The conclusion drawn from this table is consistent with my earlier study and also with observations of Lesser and Ginsburg (2000). Specifically, the data suggest that systems are eliminating vertical features of organized delivery systems. The percent of hospitals that have contractual arrangements with physicians (i.e., PHOs, MSOs, and hospital sponsored IPAs) has diminished sharply, from 49.2% in 1998 to 26.5% in 2003. In reality, some of these physician contractual arrangements may be empty shells in 2003 in that systems still report them because they exist on paper but they are not really functioning in any true sense. In addition, system ownership of physician practices has declined from 23.4% to 18.2% over the period.

Table 4 data also indicate that system ownership of insurance products or development of PPO networks was never particularly widespread and the limited activity that was present has declined over time. In relation to system-sponsored HMOs, the percent of systems with this feature declined from 21.3% in 1998 to 15.2% in 2003. In many markets, hospital systems have sold their provider-sponsored insurance products to private health plans and thus have contributed to the consolidation we observe in the health insurance industry.

Summary of Structural Consolidation Activity

Overall, the data reported in this section indicate that the pace of annual consolidation transactions slowed after the late 1990s, but this has left us with a very concentrated hospital industry. Multi-hospital arrangements represent a dominant organizational form in most markets in the US. About 62% of US hospitals in 2003 were in a health system or network. In urban areas, this percentage is even higher, with about 72% of hospitals in a system or a network. In many urban markets, there may be only 3 to 5 dominant hospital organizations once one accounts for system/network arrangements. Multi-hospital systems are becoming increasingly localized. Large national systems still do exist and some own several hundred hospitals but system development has largely become a local affair, especially the development we have seen over the last decade.

Operational and Service Integration in Consolidated Hospital Organizations

The next area explored in this paper is how hospital operations and service structures change once hospitals consolidate structurally. Organization researchers typically expect that some aspects of operation will change as institutions combine together under common ownership or under a common objective. Not all aspects of operations will change, but if hospitals are coming together to achieve something they could not do on their own, we should expect some aspects of operations and service structure to change.

Existing research provides clues as to the areas of operation and service structure that hospitals themselves expected to reorganize as they consolidated. Specifically, Bogue et al. (1995) surveyed hospitals that merged during the 1980s and Bazzoli et al. (2002) conducted a similar survey of mergers in the 1990s in part to identify the reasons hospitals undertook merger. In both studies, the three top reasons identified by hospitals were:

- To strengthen combined financial position of involved organizations

- To achieve operational efficiencies by consolidating duplicative administrative and support functions
- To consolidate clinical services that were redundant across merging hospitals

These three top reasons were consistently listed as principal objectives by hospitals merging in the 1980s and 1990s. They provide a basis for assessing whether hospitals actually accomplished what they said they hoped to do through the consolidation.

The top reason for merging, to strengthen financial position, is not examined here but the research literature has consistently demonstrated that structural consolidation has led to higher hospital revenues and thus better financial performance. This is true of both hospital mergers and system formation (see Cuellar and Gertler 2005; Bazzoli et al. 2004).

The other two objectives, namely streamlining duplicative functions and consolidating service lines, will be examined in the following subsections. There have been a number of studies that shed light on these areas, all of which are very different. Some studies have examined hospitals that have undertaken full asset merger in which involved hospitals consolidate under one owner and one license. Other studies have examined changes implemented by hospital systems. Merger studies have examined a broader array of potential operational and service changes and the system studies have largely focused on service centralization, namely, decisions by a system to rearrange and coordinate services across affiliated hospitals. We will review the findings from both types of studies below.

Hospital Mergers and Reorganization Activities

Bogue et al. (1995) and Bazzoli et al. (2002) both examined special surveys of merging hospitals to assess what reorganization activities were implemented. They focused on hospitals that had been merged for at least 2 years prior to the time of the survey. This time lag was important because it provided an opportunity for hospitals to begin to implement their merger plans. Survey items covered a broad range of reorganization activities, including consolidation of administrative units and the elimination of duplicative administrative functions and staff. In addition, survey items focused on consolidation of support functions and departments, consolidation of selected clinical departments, and closure and conversion of involved institutions. Table 5 provides summary data that are adapted from Bazzoli et al. (2002: Table 4).

The survey data in Table 5 indicate that substantial administrative consolidation and streamlining occurred after hospitals merged – 87% of responding hospitals indicated that some type of administrative consolidation took place. In relation to support departments, the study divided various responses reflective of medical support units (such as nursing, pharmacy, laboratory services) and non-medical support (such as dietary, laundry and housekeeping). Generally, about 1 in 4 or about 1 in 5 responding hospitals reported this type of consolidation occurring post-merger.

Table 5
Operational/Service Integration and Hospital Mergers: 1990s

Operational Change	% Implementing
Consolidate Administration	87%
Consolidate Support Depts.:	
-- medical support	26%
-- non-medical support	21%
Consolidate Clinical Services:	
-- inpatient pediatrics	29%
-- OB/GYN	32%
-- inpatient psychiatrics	7%
-- cardiac surgery	1%
Convert Service Line	35%
Closed a Facility	7%

Source: Adapted from Bazzoli et al. (2002: Table 4)

Table 5 also reports on clinical service consolidation, which is an important precursor to service line development. The survey examined 11 different service areas, and the reported findings in Table 5 illustrate the range of survey responses obtained.   Specifically, the table reports two services that had the most consolidation (i.e., inpatient pediatrics and OB/GYN), one service with a moderate level of consolidation (inpatient psychiatrics), and a final service with the least consolidation (cardiac surgery). The two services with the most consolidation plagued hospitals with high excess capacity and peak load problems during the study period. Thus, service consolidation for inpatient pediatrics and OB/GYN made sense strategically. Cardiac surgery, on the other hand, has high profit margins and is often difficult for a facility to give up as a matter of organizational prestige or due to strong physician resistance. For the study period examined, little consolidation occurred in cardiac surgery if both merging hospitals offered the service pre-merger.

Finally, in relation to closure and service conversion, we see a diversity of action taking place. Service conversion was common with 1 in 3 mergers deciding to convert the service focus of one of the merging institutions after the transaction. Common service conversions included transition to a psychiatric or rehabilitation hospital for merging urban hospitals or transition to a long-term care facility or primary/urgent care center when one of the merging hospitals was rural. Full-scale closure of one merging hospitals with the transition of all patient care to the remaining open institutions was rare, occurring only 7% of the time for the mergers studied.

Generally, the conclusions from Bazzoli et al. (2002) and those drawn from the similar survey effort of Bogue et al. (1995) were similar. Administrative consolidation was a common event

post-merger. However, clinical service consolidation was quite rare when merging hospitals all remained general acute care facilities.

Health Systems and Reorganization Activities

Other researchers have examined changes in service structure and organization among hospitals in health systems. This work, for which I am largely responsible, examined whether particular service lines were centralized in one or a few system hospitals rather than being dispersed in that many if not all hospitals in a system offered the service (Bazzoli et al. 1999). When this work began, our interest was in the development of organized delivery systems and we wanted to develop tools for assessing the degree to which individual service lines were becoming centralized in particular system hospitals. One can aggregate these individual service line assessments to derive the organizational typology of systems described in Bazzoli et al. (1999). We focus here on individual service lines to illustrate the degree to which systems have integrated and centralized them over time.

Before presenting the data on service centralization, it is important to discuss the construction of our centralization measure. It is fairly complex and difficult to interpret. In Bazzoli et al. (1999), we used AHA annual survey responses from individual hospitals on the facilities and services they offered or that were otherwise available through their systems. We categorized these individual service and facility items into service areas based on earlier research. The centralization measure is a weighted average across services in a service area and across hospitals in a system. Direct interpretation of the centralization measure is not possible given the complicated nature of the weighting process. However, a zero value means that there is no centralization of a service in a system, namely all hospitals in the system offer the service. Non-zero values of the index indicate that some service centralization is occurring, with higher values indicating greater degrees of centralization. High values of the index typically range in the .35 to .45. A value of 1 is impossible because it implies that none of the hospitals in a system provide the service even though the service is offered within a system. Also, some of the components of each service area are very basic, so the index tends to fall more in the middle range of values even when the system is centralizing a number of services.

Table 6 reports data on the centralization measures from 1998 to 2003 by selected service areas in health systems. The data clearly indicate that centralization scores are generally low if we think of the .35 to .45 as the maximum. However, centralization scores have been growing over time, especially for the group of services that we called hi-tech services, which includes Level 3 obstetrics, transplant services, open heart surgery, lithotripter, and PET. Of the service areas examined, cardiac care services and psychiatric services started relatively higher than the others in terms of centralization and have generally remained high. However, centralization of hi-tech services has caught up.

Overall, the various studies of hospitals that consolidate structurally, either through merger or system formation, have found that these organizations were able to streamline administrative units and functions, including financial management, human resources, managed care contracting, strategic planning, and quality improvement activities. In addition, support

Table 6
Service Centralization and Integration in Health Systems

Index of Service Centralization	1998	2000	2002	2003
Surgical Services	.041	.058	.065	.064
Hi-Tech Services	.064	.080	.096	.101
Cardiac Care Services	.090	.098	.097	.103
Diagnostic Services	.051	.050	.059	.058
Psychiatric Services	.100	.112	.117	.127
Long-Term Care Services	.074	.084	.091	.089

Source: Author analysis of AHA data.

departments, such as nursing, pharmacy, laboratory, laundry, and housekeeping, and low-volume clinical services were combined in a significant number of instances. However, there was only limited success in broader clinical service integration among hospitals that merged and those that joined health systems.

**Barriers and Facilitators to Operational and Clinical Service Integration**

As we have seen through the earlier sections of this paper, there has been much structural consolidation but the extent of clinical service integration has been fairly limited. Indeed, observed service integration is much less than one would expect given the often-stated objectives of consolidating hospitals in relation to achieving operational efficiencies and consolidating redundant services (Bazzoli et al. 2002; Bogue et al. 1995).

There has been a great deal of carefully conducted research examining why certain hospitals did not make headway in this regard – namely, what barriers existed as hospitals sought to rethink and rearrange services across affiliated hospitals. In addition research has examined why other hospitals did make progress, focusing on what factors facilitated their actions. This research includes a number of qualitative research studies, including those emanating from the Community Tracking Study of the Center for Studying Health System Change and the research of organized delivery systems conducted by Shortell and his colleagues. With qualitative research, one cannot quantify contributors and their relative importance. Instead, one looks for patterns of similarities across different organizations examined. As we worked on our paper for *Medical Care Research and Review* (Bazzoli et al. 2004), we found a number of similarities in findings across qualitative studies, much more than originally anticipated. This section first

examines a few studies that have developed a model of organizational change for structurally consolidated organizations. These studies describe how the process of change typically plays out for hospital organizations. Then the section focuses on research that examined the facilitating factors and barriers that arose as organizations sought to implement major change.

Model of Organizational Change

A few qualitative studies have tracked events over time and provide us with a longitudinal profile of the sequencing and timing of various actions to implement operational and service integration. The studies of Wick et al. (1998) and Eberhardt (2001) are especially informative in this regard. In addition, Shortell et al. (1996) suggested a very similar process of change in their examination of the development of organized delivery systems. Figure 1 below presents this model of organizational change.

Figure 1
Model of Change: Operational and
Clinical Service Integration
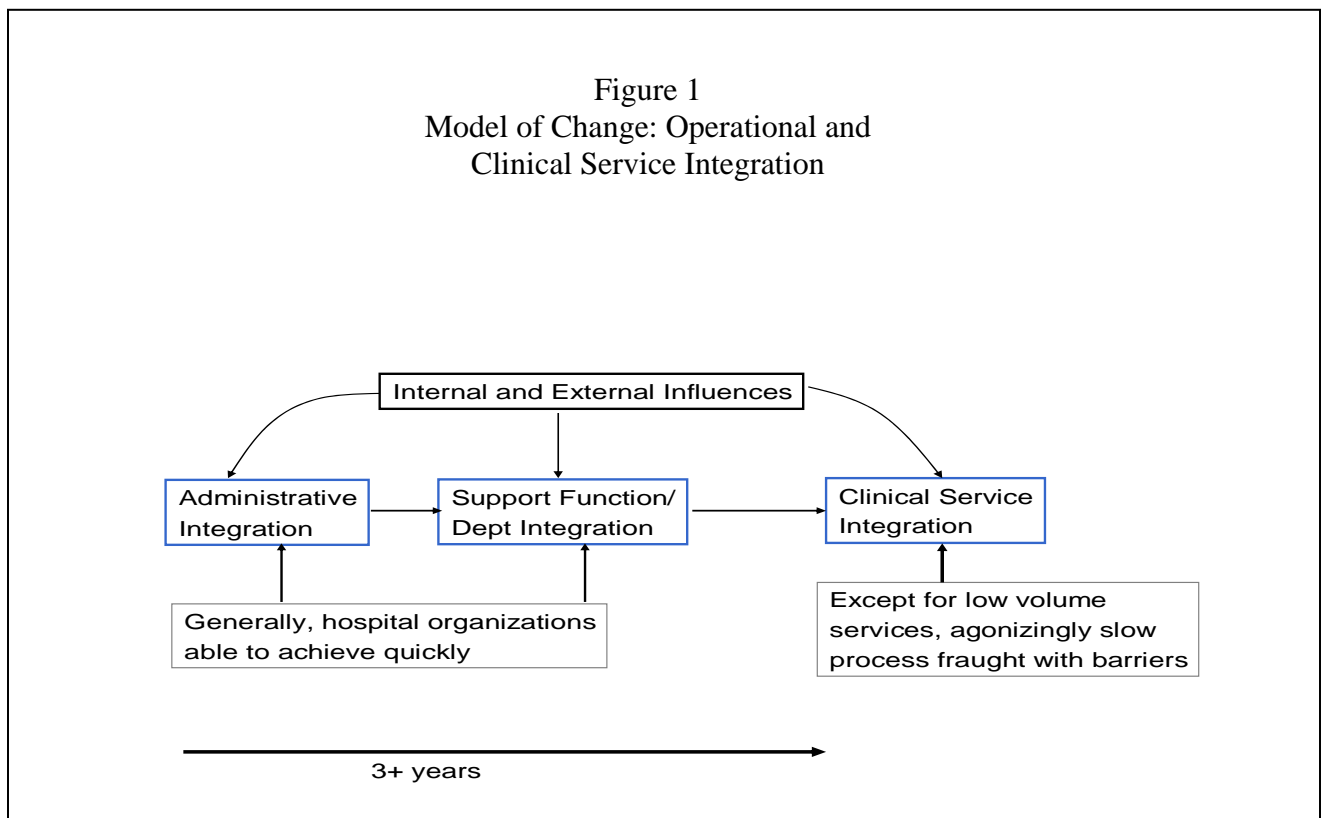
The model suggests that we should first observe administrative integration, namely the consolidation and elimination of duplicative administrative functions across organizations that structurally align. Shortell et al. (1996) referred to this as functional integration. As noted in the last section, Bazzoli et al. (2002) found that 87% of merged hospitals did indeed consolidate administrative functions after they merged. Figure 1 suggests that administrative integration provides the foundation for subsequent consolidation and integration of support functions and departments. Shortell and his colleagues included support department integration, as described in Figure 1, under their broader umbrella definition for clinical integration. Recalling the prior

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section, we observed the consolidation of medical and non-medical support departments for a number of hospitals that merged in the 1990s. Finally, once these pieces are aligned, we should expect to see clinical service integration begin. In relation to Shortell and his colleagues' work, the clinical service integration depicted in Figure 1 relates most specifically to what they called the development of shared or centralized service lines.

Figure 1 suggests a smooth or linear path for organizational change, and, of course, nothing happens in such a straightforward manner. As the figure notes, internal and external influences can affect the process, either from a facilitating perspective or as a barrier.   In terms of the pace of change, existing research suggests that administrative and support department consolidation occurs relatively quickly, typically within the first year or two of structural consolidation. Hospitals are able to act on these dimensions quickly because of the presence of hierarchical organizational structures in affected units, which facilitates implementation of restructuring efforts and staff reductions.

What about the initiation of clinical service integration? The study by Wicks et al. (1998) is especially informative. They tracked a number of hospital mergers over a 5 year period and found that even 3 years post-merger, the involved hospitals were still attempting to integrate medical cultures to the point where they could begin service centralization. They characterized the process as being agonizingly slow and fraught with barriers. Other studies, including Brewster and Lesser (2001) and Kastor (2001), found that except for low volume services with substantial excess capacity, clinical consolidation was difficult and took a long time to achieve.

Barriers to Clinical Service Integration

Existing research is extremely helpful and yields fairly consistent findings about the types of barriers that hospitals confront as they attempt to implement clinical service integration. The primary barrier has been the lack of buy-in among physicians and other key staff. This is, of course, no surprise. Physicians do not want their admission patterns disrupted. If they are doing orthopedic surgery at a hospital near to their offices, they do not want to travel to a farther away hospital where orthopedic services are being centralized.

Other barriers may, however, be more surprising to health organizational leaders. Studies have shown, especially Wicks et al. (1998) and Eberhardt (2001), that a lack of patience among hospital executives and board members may have undermined the process of change. Defeat may have been declared too soon, perhaps given the length of time required to win over dissenting parties and identify an acceptable resolution.

In addition, the lack of good benchmarking data has been identified as an impediment to implementing organizational change in a number of studies. The right data can be very persuasive in winning over dissenters because it can make apparent that a problem exists and that change is needed. In addition, data can be used to track progress and demonstrate that change is having a tangible effect. Often, though, organizations do not have good data to use as benchmarks nor do they have information systems in place to track their progress.

Another barrier identified by Eberhardt (2001) was community resistance, which can boil up and stop the process of clinical service integration. Specifically, he studied a merger that occurred in New Hampshire and found that the merging hospitals had great success moving along the pathway in Figure 1. Indeed, the merged hospitals were on the verge of wide-scale clinical service integration when the community became upset about the loss of convenient access. After regulatory intervention, the merger fell apart and the organizations eventually returned to the operational and service structure that existed pre-merger.

A final barrier to implementing clinical service integration is the distractive influence of short-term gains. Many hospitals that merged or formed systems suddenly discovered they had more leverage with health plans and were able to negotiate improvements in payments. While helping the revenue side of hospital finances, this also provided ammunition to those who wanted to derail clinical service integration. Financial performance had improved through higher revenues so what was the point of going through painful actions to consolidate services? From this perspective, short-term financial improvements distracted the system from their clinical service integration plans.

Facilitators to Clinical Service Integration

A number of consolidated hospital organizations have been successful in bringing the pieces together to integrate clinical services. A key question addressed by some researchers is: what factors set these organizations apart and, thus, may have led to their success? Existing research points to several specific management actions that were important. One major action identified in several studies, including Shortell et al. (1996), Kastor (2001), Shih-Jen et al. (1999), Walston et al. (2000), and Cohen et al. (2000) was the establishment of a centralized decision-making authority that spanned the involved organizations and key clinical departments.   Shortell and colleagues also noted the importance of this centralized authority developing shared values and vision that provided a clear and sensible description of the future that involved organizations could buy into.

In addition, researchers have found that there must be a commitment of staff and budget to the centralized authority to get the job done. Too many times, hospital staff are assigned to a merger task force in addition to doing their "day" jobs. This approach consistently fails because it is difficult and time-consuming work to develop detailed implementation strategies and identify methods to gain stakeholder buy-in. Thus, the reorganization falls flat because staff are over-burdened if they are not released from routine obligations.

Two additional facilitating factors noted by Shortell et al. (1996) include: the need to develop information systems that allow data sharing, especially clinical information sharing; and the development of budgeting policy and practices that promote coordination rather than continued fragmentation. These are important to ensure that organizations have mutual dependency and a sense of a shared future.

Another factor that is important to successful clinical service integration relates to system plans to create centers of excellence through service consolidation. If this is indeed an organizational objective, there must be an investment in the center to make it truly "excellent" and different.

There are many cases described in the literature in which a health system said it was developing a center for excellence but all it did was name a floor or unit. Nothing fundamentally changed in terms of care processes or referral patterns. Such an action might look good on paper and the branding may attract certain patients, but it does not create much movement along the pathway of service consolidation and integration as illustrated in Figure 1.

Another key finding from the literature is that the pacing of change is very important. This means more than simply following the linear path of change illustrated in Figure 1. It relates instead to careful identification of actions that should be done quickly, such as reducing staff in a department so that they are not left in uncertainty, versus other tasks that require time to build trust and identify viable options. Identifying what action should be swift and what action requires time is difficult but essential for organizations to make progress.

Finally, several studies talk about the importance of clear strategic communication, not only within an organization but externally. It is absolutely vital to implementing major organizational change because uncertainty breeds organizational paralysis. Shih-Jen et al. (1999) and Woodard (1999) identified strategic communication as an important means for creating bottom-up acceptance in relation to a hospital restructuring project and for minimizing internal conflict.

Summary of Findings: Barriers and Facilitators

Generally, studies have found that clinical service integration, when it does occur, takes much time and requires much patience on the part of hospital executives. Barriers to these activities largely arise when hospital executives do not create the right culture for change across the involved organizations and this, in turn, results in insufficient buy-in from physicians and other key stakeholders. In addition, lack of data to establish measurable objectives and to track progress is an issue because some stakeholders want ongoing proof that reorganization is making a difference. Studies have examined factors that facilitate the execution of strategies to integrate services and the two most commonly identified facilitators include: (1) the development of a centralized decision-making group spanning involved organizations with sufficient authority and budget; and (2) the importance of clear strategic communication about organizational plans and its likely impact on units and people. In addition, research indicates that stakeholders need to be constantly reminded that there is an important need to undertake disruptive change so that they are not sidetracked by potential small gains that are achieved along the way.

Changes on the Horizon

There are a number of current market imperatives that necessitate the rethinking of service structure within health systems. Previously, the primary market imperative facing hospital systems was the growth of managed care but this factor dissipated in the late 1990s. New forces are present, though, that are shaping hospital system strategies in several markets. Two key ones appear to be: (1) the substantial wave of hospital construction and renovation that is currently underway across the US; and (2) the recent development of specialty hospitals and other specialized facilities in certain hospital markets.

Nationwide, many hospital systems are engaged in renovation and new construction to replace aging hospital facilities, to create amenities that patients desire (especially private rooms), and to restructure capacity so that new clinical and information technology can be utilized. In some markets, hospital systems are also expanding capacity in response to increased demand for health services. The availability of low-cost financing given historically low interest rates has facilitated hospital actions to undertake major capital projects.

Hospital construction and renovation present interesting opportunities for health systems to reconsider how to arrange services across their affiliated hospitals. In particular, is there a more efficient and sensible way to deliver services? In some markets, systems that are thinking along these lines are building new facilities in a central location to house specific services, such as cardiac care or oncology services. Their plans are to move these services out of several system hospitals to the central facility. These actions will in turn free up space in existing system hospitals to allow further restructuring of services. For the most part, systems involved in these actions have the objective of better utilizing their available space and creating more efficient patient throughput.

It is interesting that the efficiencies systems are hoping to achieve through these efforts are not tied to traditional motives of creating cost efficiencies due to constrained reimbursements. More so, these efforts are a response to hospital capacity constraints. Namely, systems are rebuilding their hospitals with an eye on improving the flow of patient care within a facility and facilitate quicker discharge to the community. In essence, this increases a system's effective capacity because delays in care are eliminated or reduced, which in turn frees up space to provide care to additional patients. Although the centralization of services in one location presents some challenges because it can create inconvenience for patients and their families, the belief is that improved patient throughput will allow patients to return home more quickly after definitive hospital care is provided.

A second factor in the environment that is causing hospital systems to rethink service structure is the threat of specialty facility development. There was a wave of specialty hospital development in the late 1990s and early 2000s, which has slowed given the recent Center for Medicare and Medicaid Services moratorium. However, currently there are about 100 specialty hospitals nationwide and an additional group of around 40 that obtained CMS approval to move forward (General Accounting Office 2003; Center for Medicare and Medicaid Services 2005). One response of hospital systems in markets where specialty hospitals have developed, or have threatened to enter, is the development of system-sponsored centers of excellence or hospitals-within-hospitals.

These system-developed facilities provide a means for centralizing certain hospital service lines in one place. Additionally, in some markets, health systems are thinking about how they can emulate the features of specialty hospitals within their own system-developed centers of excellence or hospitals-within-hospitals. This is in response to growing evidence that patients and their families like the amenities and atmosphere of specialty hospitals, especially the feeling of intimacy of a smaller facility and the presence of specialized staff (Center for Medicare and Medicaid Services 2005).

Overall, recent actions in selected hospital markets lead me to believe that health systems are seeing advantages in rethinking service structure across their affiliated hospitals. This makes sense given current market imperatives and opportunities, especially the need to identify ways to better utilize available hospital space, provide patients with the amenities they desire, and respond to the competitive threat of specialty facility development. One hopes that future actions to reorganize services will be informed by what we have learned in the past. There is an extensive literature that exists in relation to hospital efforts to clinically consolidate services, including the obstacles to that action and factors that facilitated progress. It is important to learn from the past so that prior mistakes are not repeated. Further, it is vitally important that new market imperatives be explained to key stakeholders and their importance reinforced through continuing strategic communication. These imperatives are quite different from those of the past and some stakeholders might not recognize their impact on a system's long-term viability.

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