Analysis of
Facility Integrations

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Highlights

In response to a request from the Under Secretary for Health, the Management Decision and Research Center and the Center for the Study of Healthcare Provider Behavior, both part of VHA's Health Services Research and Development Service, are analyzing facility integration in 14 VHA health care systems. In this report, we focus primarily on the processes and structures of integration and consider only preliminary short-term effects. Subsequent reports will focus on longer-term effects. Among the key findings and lessons presented in this first report:

Pre-Integration Perspective

- *The pre-integration similarity of the participating facilities strongly influences structural integration.*

  Dissimilar facilities—a small facility and a larger, more complex tertiary care facility—achieved structural and operational integration more quickly than did similar facilities attempting to integrate. This was particularly true with respect to clinical services. Following integrations between dissimilar facilities, acute inpatient services generally were offered only at the dominant, tertiary care campus. The larger facility in these integrations became the *dominant partner* in the system.

  Integration of facilities that were similar in size, complexity and academic affiliation were less likely to have consolidated their services to one campus or to have integrated departments across campuses at the time of our data collection. These facilities integrated as relatively *equal partners*.

- *Integration of similar facilities tends to take longer and/or result in a less complete clinical integration than integration of dissimilar facilities.*

  Slower integration in equal-partner systems appears to be related to two factors. First, if there is substantial service overlap, it is more difficult to determine which services should be consolidated and where. Second, the dynamics of negotiation are different: Among equal partners, more issues have to be negotiated extensively; a dominant partner often gives prompt answers.

Processes of Integration

- *Effective early planning processes are based on a model of shared leadership.*

  Formal literature and broad experience with organizational change highlight the importance of staff involvement in change during integration. Yet at VHA, involvement without direction was frustrating. Staff morale and satisfaction with the planning process were higher in systems where top management clearly led the integration process, but also appointed and involved middle management early in the process, and involved staff within the framework of a new system organization chart and clear guidelines for planning.

- *Prompt appointment of a system director is a marker for swifter integration, more complete service integration and higher staff morale.*

  Systems whose directors were appointed immediately moved through the integration process more quickly and had a higher proportion of integrated services than systems where these appointments lagged. At these early-appointment systems, staff was more satisfied with the integration process, and service chiefs felt that integration had a more positive impact on staff morale. The slower director appointment appears either to signal a system with more complex integration challenges, or to have repercussions on other decisions and activities that further delay the overall integration process.

- *Delayed appointment of service chiefs fosters uncertainty among staff and diminishes productivity.*

  Prompt appointment of service chiefs was important for two reasons. First, planning workgroups were not as effective when led by two facility chiefs vying for the system chief position. Second, long delays left staff uncertain about their reporting relationships, depressed morale and reportedly paralyzed the organization as staff waited for a new leader. Interim chiefs can fill an important gap, but they need clear authority during their assignment. Most systems selected service chiefs from within the system, although several systems recruited nationally for a limited number of positions.

- *Integration workgroups need clear direction and leadership.*

  Extensive staff participation in workgroups did not by itself guarantee satisfaction with the integration process. Staff was disillusioned when workgroup products were submitted to a governing board or system leadership – only to languish without any action or feedback. This suggests, first, that workgroups need clear charges and guidelines from the system leadership team or integration governing body, and they need leaders with authority. Second, the workgroup products should be reviewed against clear criteria and used if they meet those criteria.

- *Academic affiliation plays a key role in defining the cultures and standards of the integrating facilities, but medical schools generally are critical players in the integration process only when both facilities have strong academic affiliations.*

  At the 10 systems where only one campus had a strong academic affiliation, medical schools participated but did not play a pivotal role in integration planning because the teaching relationship was secure. At the one system where both campuses had strong affiliations with different medical schools, the medical schools have played a pivotal role—and the process was difficult initially. Early negotiations with and between the deans about how academic activities will be shared or divided are essential.

- *The JCAHO accreditation process can facilitate or impede integration.*

  Depending on the timing, the Joint Commission accreditation process may either impede or assist integration. When facilities were surveyed separately, the accreditation usually slowed integration because the facilities had to hold off on integrating policies, medical by-laws, and committees. When facilities chose or were required to do joint surveys, the survey speeded integration, for two reasons: Accreditation deadlines required systems to move quickly to combine policies and committees, and a common goal brought staff together.

Structures of Integrated Systems

- *Careful attention is needed to manage the campus(es) where top management is not located, particularly in dominant-partner systems.*

  In nine of the 10 dominant-partner systems, the larger, more complex, affiliated facility served as the system headquarters where top leadership and all or most service chiefs were based. While efficient for managers, the strong headquarters arrangement potentially created a management vacuum at the smaller campus (es). To deal with this problem, six of the 10 dominant-partner systems designated a site manager, often an associate director for the system. Site managers provided day-to-day supervision and advocated for the campus on systemwide issues. However, staff sometimes found themselves in the middle of conflicting decisions and directives from site managers and service chiefs. Care should be taken to clearly delineate and communicate the responsibilities of site managers in relation to service chiefs.

- *While reorganization of functions and reporting relationships complicates and frequently slows the integration process, most system leaders feel reorganization is needed to meet the changing demands on their system.*

  Eleven integrating systems reorganized to new structures with redefined functions and reporting relationships, usually into service lines. Five systems reorganized during early stages of integration while six systems integrated first under their existing organizational structures and reorganized later. Reorganization usually complicates integration. While early appointment of appropriate leadership is critical in integrating systems, chiefs and senior managers serving under the traditional structure may lack the skills and experience required for the new structure. One strategy for making early management appointments while maintaining flexibility to bring in appropriate leaders as the system reorganizes is to appoint interim chiefs. In VHA, this was a viable but not a perfect solution. At several systems, the interim chiefs felt that they were without authority. The roles, responsibilities and authority of the interim chiefs should be clearly defined.

- *Systems with a higher proportion of integrated services are more likely to report a positive impact from integration than systems in which many services remained separate at each campus.*

Chiefs of integrated departments were more likely to perceive a positive impact of integration on their clinical and managerial operations than were chiefs of departments that remained separate. Across departments, systems with a higher proportion of integrated departments were more likely to report positive impacts from integration. At systems where most departments remained separate, integration probably did not produce much change at the department level, and therefore would not be expected to show a significant impact.

- *Clinical as well as administrative departments are integrated in most systems.*

  Clinical integration is key to improving patient care. Unlike many private-sector hospital mergers, VHA systems were successful in structurally and operationally integrating clinical services, usually at the same time as administrative services. Across systems, four-fifths of clinical and administrative departments were structurally integrated, either by consolidating services to one campus or by combining them under single leadership with staff at more than one campus. In general, clinical chiefs perceived a higher positive impact from integration than did administrative chiefs.

- *Combined departments can provide an effective structure for coordinating services and creating a single standard of care across the system.*

  By combining departments under single leadership with staff at multiple campuses, systems can maintain veteran access and minimize staff dislocation. They can also coordinate services, develop a single standard of care and potentially eliminate duplication if they are operationally integrated, as the majority of VHA combined departments were. Across systems, four-fifths of combined clinical departments and three-quarters of combined administrative departments had the same policies across campuses; two-thirds of combined clinical departments had common clinical protocols. In addition, more than two-thirds of combined clinical departments tailored their services for each campus. Chiefs of combined departments perceived a stronger positive impact from integration than did chiefs of separate departments.

- *Chiefs of combined departments must balance the need for regular communication with staff at all locations and the physical strains of travel.*

  Management across campuses is essential in an integrated system. While many department chiefs tried to both split their time between campuses and use video/teleconferencing to meet with staff, most chiefs tended to use one method more than the other. The tradeoff depended on the type of service (administrative chiefs were more likely than were clinical chiefs to spend time at each campus), and, not surprisingly, on the distance between campuses. Despite these efforts, staff at some systems felt that they received inadequate attention from their chiefs. In a multi-campus system, broad-based communication is particularly important. It is not enough, however, to tell service chiefs that they should communicate well. System leadership should work with chiefs to plan and carry out effective mechanisms and processes to support communication, decision-making, and accountability across campuses.

- *Integrated systems will continue to evolve, but there are practical advantages to formally drawing closure to a facility integration.*

  Systems defined integration and judged its completion in different ways. Many VHA systems announced their integration complete after they reached certain milestones, such as reassigning staff or creating common policies and procedures. While the leaders at these systems generally recognized that their systems would continue to evolve and change, they also saw benefits to delineating the integration period. For example, they found that a time limit allowed them to make and keep specific promises -- such as no RIFs resulting from integration. In addition, a time limit enabled the system to move beyond facility integration and the negative connotations associated with it. These systems found that by declaring an end to integration, they were able move on to face new challenges as an integrated system.

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1 INTRODUCTION

Facility integration is an important component of the Veterans Health Administration's (VHA) strategy to achieve the goals outlined in the *Vision for Change* and transform VHA into a more efficient, patient-centered healthcare system. In VHA, facility integration means bringing two or three previously independent facilities together as a combined medical center under a single management. At a minimum, integration involves the appointment of a new director, adoption of a new name and assignment of a new station number. In practice, integration assumes a much broader meaning to encompass the merger of operations and services at varying degrees. In VHA, integration generally combines clinical as well as administrative services. Since January 1995, 48 Veterans Affairs medical centers (VAMCs) have been approved for integration into 23 healthcare systems.

Given the scope of integration activities in VHA and the extent of organizational change they entail, the Under Secretary for Health asked the Management Decision and Research Center (MDRC), which is part of VHA's Health Services Research and Development Service (HSR&D), to draw management lessons from early integrations by systematically assessing their implementation and effectiveness. The MDRC is working in collaboration with the Center for the Study of Healthcare Provider Behavior, the HSR&D center of excellence at Sepulveda, to respond to this request.

1.1 Context of Integration

Our study focuses on 30 VAMCs that were approved for integration into 14 VHA healthcare systems between January 1995 and November 1996 (Exhibit 1.1). Many of these medical centers included nursing homes, and, in growing numbers, satellite and community-based outpatient clinics that were integrated in the new healthcare systems as well. Thus, integrating medical centers often involves multiple facilities that provide different levels of care.

The 14 systems were approved in two waves: between January and March 1995, and between May and November 1996. All of these integrations were initiated, at least in part, by the participating facilities and/or their regional or Veterans Integrated Service Network (VISN) offices. Even in the seven systems that appeared on the Headquarters list of integrations in March 1996—and where many staff believed that facilities were simply told to integrate by Washington—there had been earlier discussions locally about the possibility of integrating. In many systems, the facilities had integrated selected services several years before the full system integration.

These integrations have taken place amid extensive and rapid changes in the healthcare environment, both in VHA and in the private sector. During the past 10 years, healthcare spending throughout the country has shifted dramatically from inpatient to outpatient settings. Growing cost consciousness in the healthcare sector, fueled by national debate on healthcare reform, led to dramatic increases in managed care enrollment. But within VHA, resources were focused largely on hospital and specialty care until the early 1990s, partly by intent and partly by congressional mandate. In addition, many of the veteran populations served by VHA began to move away from the high-cost urban centers within which many large VAMCs were concentrated, creating geographic gaps between patients and their needs and VHA resources.

Recognizing the disparity between traditional VHA organization and current healthcare delivery needs, VHA leadership, under the direction of the Under Secretary for Health, set a new course for VHA, as described in the *Vision for Change* in October 1995, followed by the *Prescription for Change* and the *Journey of Change*. This new course resulted in substantial reorganization of delivery systems and redirection of resources within VHA, including the creation of VISNs and integrated delivery systems at the network level. Facility integrations are an important component of VHA's new direction. Massive system change and the underlying drive to match resources with patient needs provided both motivation and challenges for facility integration, as we will describe in this report.

1.2 Study Overview

Within this context of broad system change and drawing from the literature on hospital integration,[1] integrated delivery systems[2] and organizational change,[3] we began with certain assumptions about facility integration in VHA. We believed that, for any given integration, the objectives of integration would determine the structure of the new system, or how the system was organized to meet its objectives. In turn, we expected that structure—including the organizational framework for the system, the roles of each campus, the mechanisms for managing across campuses and the structures of the individual administrative and clinical services—would influence the effects of integration, or the realization of the objectives. To a much lesser extent, we also expected the objectives to influence the process of integration—including its progress, the roles of internal and external stakeholders, activities of workgroups and governing boards and communication. Process, we predicted, would in turn influence the structure and effects of integration. Cutting across and influencing all these dimensions is the context in which the integration occurs, particularly the characteristics of the integrating facilities. As the study progressed, this basic model fit well with our observations, although the relationship between process and structure was weaker than we expected. For the most part, processes and structures appear to operate independently; where they are related, structure is more likely to affect process than the reverse. The revised working model is shown in Exhibit 1.2.

Building on this working model, this report is organized around five broad questions:

- What are the objectives of integration?
- Who are the integrating systems and what was their status during the study?
- By what processes did the systems plan and implement their integrations?
- Under what structures and working arrangements do the integrated systems operate?
- What are the preliminary effects of integration?

The focus of this report is on the process and structure of integration. Over the next two years, we will examine integration effects in more detail.

Our analyses are based on qualitative and quantitative data drawn from four sources:

- Group and individual interviews conducted in the summer of 1997 with senior and middle managers and with representative staff and clinicians from all facilities in the 14 systems;
- A survey of all system department heads and service chiefs administered in September 1997, with a 91 percent response rate;
- Integration documents provided by the 14 systems; and
- VA administrative databases.

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1 Gillies RR, Shortell S, Andersen DA, Mitchell JB, Morgan KL. "Conceptualizing and measuring integration: findings from the health systems integration study." *Hospitals and Health Services Administration* 1993; 38(4):467-89; Alexander JA, Halpern MT, Lee SD. "The short-term effects of merger on hospital operations." *Health Services Research* 1996; 30(6):827-47; Bogue RJ, Shortell SM, Sohn MW, Manheim LM, Bazzoli G, Chan C. "Hospital reorganization after merger." *Medical Care* 1995; 33(7):676-86; Dranove D. "Economies of scale in non-revenue producing cost centers: Implications for hospital mergers." *Journal of Health Economics* 1998; 17:69-83.

2 Shortell SM, Gillies RR, Andersen DA, Erickson KM, Mitchell JB. *Remaking Health Care in America: Building Organized Delivery Systems.* San Francisco: Jossey-Bass, 1996.

3 Kotter JP. *Leading Change.* Boston: Harvard Business School Press, 1996; Peterson SL, Fisher JC. "Designing an internal organizational merger." *Journal of Nursing Administration* 1991; 21(12): 42-48; Newman JA. "Key issues in mergers and acquisitions." *Health Progress* 1991; May:56-59, 65; Jemison DB, Sitkin SB. "Corporate acquisitions: a process perspective." *Academy of Management Review* 1986; 11(1):145-63.

The report presents a snapshot of the integrating systems in the summer and early fall of 1997. All systems, but especially those that were in progress during our data collection, have continued to evolve in the subsequent year.

A full description of the study methodology may be found in Appendix A.

2 INTEGRATION OBJECTIVES

In general, VHA facility integrations are intended to create care systems that minimize duplication, maximize access and enhance quality. As summarized by the Under Secretary for Health, VHA integrations should "pool resources to better meet the healthcare needs of the populations that were formerly served by the separate facilities. The resources previously used to support duplicative administrative infrastructure or redundant clinical services are redirected to enhance quality, access or other clinical needs. In doing so, beneficiaries' healthcare needs should be better served."[4]

Within this broad framework, the 14 integrating systems had specific objectives that were described in their planning documents. Among the common elements of these objectives:

- Ten of the integrating systems aimed to optimize resource use by reducing or avoiding duplication of functions, achieving operational efficiencies and redirecting resources to improve or expand patient care.
- All of the integrating systems sought to improve patient care and customer service directly through integration by strengthening care coordination across the continuum, improving the consistency of care across locations and expanding access to care.

To achieve their goals of improving care and patient access to care, it is important for systems to integrate their clinical services. Shortell and colleagues define clinical integration as "the extent to which patient care services are coordinated across people, functions, activities and sites so as to maximize the value of services delivered to patients …" In their view, clinical integration "is the most important element in the ability of organized delivery systems to achieve more cost-effective delivery of care because it is most directly associated with the direct provision of such care."[5] For example, private-sector integrations of two or more hospitals that were designed to increase operating efficiency, expand market share or decrease costs[6] were at best modestly successful in achieving these goals,[7] in part because they typically addressed only administrative functions at the hospitals, and did not integrate clinical services. Thus, without improved coordination and delivery of medical care services, the value added by integration is limited.

In order for VHA integrating systems to achieve their goals, then, we would expect them both to strive to reduce administrative duplication and costs, and to integrate clinically by increasing coordination and reducing unnecessary duplication of services while maintaining or improving access to care.

3 CHARACTERISTICS OF INTEGRATING SYSTEMS AND THEIR INTEGRATION STATUS

3.1 Characteristics of Integrating Systems

Integration brought together 30 diverse medical centers into 14 healthcare systems that are the subject of this study, as illustrated in Exhibit 3.1. Three characteristics were particularly important to the integrating systems:

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4 Kizer KW. *A Guidebook for VHA Medical Facility Integration*, Department of Veterans Affairs, April 1998.

5 Gilles, 1993; Shortell, 1996.

6 Dranove, 1995; Alexander, 1996.

7 Bogue, 1995; Dranove, 1995.

3.1.1 Complexity of Facilities

As a group, integrating facilities were not systematically different from other VA medical centers except in their complexity. While the most complex facilities (level I) were equally represented among integrating and non-integrating medical centers, the least complex facilities (level IV) were over-represented among the integrating facilities. Given VHA's emphasis on improving efficiency through integration and a low inpatient census at many VAMCs, it is not surprising that the least complex – and generally small – facilities tended to integrate with facilities that were larger and had an academic affiliation.

3.1.2 Similarity of Facilities

Among the integrating facilities, the most important characteristic was the level of similarity between partner facilities. Most integrations were between facilities that were unequal in size, complexity and academic affiliation:

- Nine integrations were between a large, complex tertiary teaching facility and a smaller community or specialty facility with limited or no affiliation. In these integrations one facility was the ***dominant partner*** in the integration process from the beginning.
- Four integrations were between facilities that were similar in size, complexity and affiliation: Three were between facilities with limited academic affiliations and the fourth was between facilities with tertiary affiliations. In these integrations, the facilities joined as relatively ***equal partners***.

The distinction between dominant-partner and equal-partner integrations holds important implications for the structure of integration, which we will discuss later in the paper.

3.1.3 Distance Between Facilities

The majority of integrating facilities is between 26 and 50 miles apart (two are more than 50 miles apart). As we will discuss later, long distances between facilities can impose new hardships on staff, some of whom may have onerous commutes if they are reassigned to work at a newly integrated facility. In addition, personal communication and management are more difficult to maintain over longer distances.

3.2 Status of Integration

A description of integration status at the time of our data collection provides a backdrop against which to interpret the analyses of the process and structure of integration.

Judgments about the progress and completeness of integration depend in part on how integration is defined. Completing an integration means different things from different perspectives. When we asked about integration status during our site visits last summer, we sometimes heard different answers within the same system. Leaders at several systems declared that their integrations were complete. The structure of the integrated system was in place with a revised organization chart; new leadership, chiefs and department heads were installed; and staff were assigned to their positions in the new organization. Most had rewritten or were rewriting their department policies and procedures. Several leaders who declared their systems' integration complete wanted a clear conclusion to integration, so that they could move on to other challenges. Staff in many of these same systems, however, felt that integration was not complete because of continuing differences in operating styles and lingering loyalties to individual campuses rather than to the new system.

Perspective affects how people think and talk about integration and the boundaries they put on it. For example, in one system, top management felt that integration was accomplished the day it was approved, and that everything that followed fell under the heading of reorganization. In other systems, reorganization was viewed as a central component of integration.

To report integration progress in roughly comparable terms across systems, we defined five dimensions of integration based on information we gathered during the site visits. Because earlier research in the private sector

found that many multi-hospital systems integrate administrative but not clinical functions[8], we tracked progress separately in clinical and administrative departments. As shown in Exhibit 3.2, most systems judged their integrations to be complete last fall, except for cultural integration. Based on our qualitative assessments during the site visits and confirmations or corrections in November by the system directors, we concluded that:

- **All systems were administratively integrated:** A new director had been appointed, the data systems were merged and the new name and station number had been approved.
- **The clinical departments in nine systems and administrative departments in 12 systems were structurally integrated:** An organization chart for the new structure had been approved, new leadership and service chiefs had been appointed and staff had been assigned under the new system structure.
- **The clinical departments in eight systems, and administrative departments in nine systems were operationally integrated:** Medical by-laws had been consolidated and formal policies and clinical protocols were the same across campuses—or differed according to the services offered at each campus within a common policy framework.
- **Cultural integration had not been completed at any system:** Staff did not yet consistently identify themselves with the newly integrated healthcare system. Rather they tended to think of themselves as employees of an individual campus or facility.

4 PROCESSES AND METHODS OF INTEGRATION

Integrating two or more organizations requires extensive effort. At one level, the new system has to work out myriad practical details ranging from major policy decisions about system mission and organizational structure to specific operational issues such as telephone systems and transportation schedules between campuses. At another level, the system must deal with the dynamics of major organizational change, which generally include organizational inertia and strong resistance to change.[9] In cases of facility integration, these dynamics are heightened by the challenges of trying to coordinate, communicate with and bring together the organizational cultures of two or three previously independent entities.[10] The dynamics of change are particularly challenging when they involve not only administrative but clinical services,[11] which often are accompanied by teaching and research functions.

Relatively little guidance and few constraints were imposed by VA headquarters on integrating facilities as they developed and implemented their integration plans. Facilities were therefore free to develop a variety of approaches to integration. In this section, we describe the approaches and identify those that seem to produce smoother and quicker processes. We begin with two frameworks that look at key dimensions of the integration process from different perspectives:

- phases through which integration proceeds over time, and
- models of management and staff involvement in the planning phases

Following these frameworks, we examine six process components:

- appointment of the system director
- roles of other players in the process
- roles of planning and implementation bodies
- role of the Joint Commission on the Accreditation of Healthcare Organizations
- communication structures
- integrating cultures

At the end of this section, we consider the indicators of a successful integration process.

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8 Shortell, 1996.
9 Gillies, 1993; Alexander, 1996; Kotter, 1996.
10 Alexander, 1996.
11 Shortell, 1996.

4.1 Integration Phases

Previous studies of healthcare facility integrations and other major organizational changes have proposed a sequence of typical process phases.[12] Consistent with this literature, the Under Secretary for Health and VA Headquarters have published guidelines for facility integration that feature a planning and implementation framework with five major phases:

1. **Strategic assessment** involves an evaluation of the conditions and circumstances that may make integration an opportunity for improving performance and/or a possible solution for shortcomings in organizational efficiency and effectiveness, as well as consideration of other possible solutions to these problems.
2. In the **strategic planning** phase—after the decision to integrate has been made—alternative approaches to integration are examined, the decision whether to integrate is made and the broad, strategic outlines of the integration are developed.
3. **Detailed implementation planning** translates the broad strategic plan into a set of specific plans for integration, including overall and department-by-department organizational structures, policies and procedures.
4. **Integration implementation** makes the actual organizational changes required to achieve integration, including shifts in staff and capital and implementation of new policies and procedures.
5. **Evaluation** includes ongoing activities to monitor and assess integration effects to help guide—and possibly redirect—the integration process.

4.1.1 Observed Integration Phases

For the most part, the activities outlined for each phase occurred across the 14 systems. Often, however, they did not occur in the order the phases would suggest. Consequently, several phases overlapped or occurred simultaneously.

Phase 1 (strategic assessment) generally occurred informally and quickly. For example, facilities did not systematically examine their markets, patient needs and available medical services in reference to potential integration partners; nor did they evaluate such information with stakeholders to make a decision. In many cases, facility leaders reviewed data, talked among themselves about the potential benefits of integration and eventually consulted stakeholders. However, most of these activities were carried out after a decision to at least apply for integration approval had been made by top leadership.

After integration approval was received, facilities quickly began implementation of key leadership changes, essentially deferring Phases 2 and 3 until new leadership was in place. **Phase 2** (strategic planning) and **Phase 3** (detailed planning) were thus affected markedly by the stability and power base of the new leadership, as well as by the level of commitment and expertise of middle management. In general, we did not see detailed written plans generated prior to integration for how to carry out the integration, such as timelines and personnel assignments for key activities. Written plans were often developed over the first six months or so of the integration.

Phase 4 (implementation) is at the core of the integration process, beginning immediately after approval for integration, overlapping with the planning phases and unfolding over the succeeding six months to three years. In many cases Phase 4 overlapped with Phase 3, for example, with detailed planning taking place under new system service chiefs. Sometimes, problems in Phase 4 led to reassessment with re-institution of Phase 2 and Phase 3, or with revision of the initial leadership structure.

Phase 5 (evaluation) was rarely implemented as an organized phase, but rather occurred as facilities reviewed VHA performance measures and assessed the initial success of programs. Ideally it should be planned early in the process.

Exhibit 4.1 illustrates the overlap in phases and variability in timing by showing the order and timing of the key integration milestones presented in section 3.2. Where integration was still in progress at the end of 1997, not all numbers are shown.

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[12] Shortell, 1996; Kotter, 1996.

4.2 Management and Staff Involvement in Planning

All systems had to develop methods for involving top management, middle management and line staff in the integration process. Top management includes the system director, associate director, chief of staff and—in some systems—VISN leadership. Middle management includes service chiefs and other managers. Line staff includes non-management staff of all kinds.

In most systems we studied, staff at all levels of the organization were involved in some aspect of planning and implementing the integration. Across systems, the process was more inclusive in the implementation phases. Systems differed, however, in the roles of top and middle management during the planning phases of integration. Based on our site interviews and document analysis, we defined three models of involvement to describe system approaches to early planning. Integrating systems tended to fall under one of three models, as described in Exhibit 4.2. The fit between any one integrated system and the model we assigned it to is imperfect, but the models capture core features of a continuum that shapes the process of integration. There were no strong relationships between system characteristics and the model it used.

4.3 Appointment of the System Directors

The role of top management in integration planning and implementation depended, in part, on the timing and manner in which management—particularly the system director—was selected and appointed.

4.3.1 Prior Status of the New Integrated System Director

The initial director of the integrated system was appointed from within the system at 13 of 14 study systems, as shown in Exhibit 4.3. At only one system (Southern California System of Clinics) was the integration director appointed from outside the system. At the three systems with two system directors since integration, the second director was from outside the system.

Among dominant partner systems that appointed their directors from within, the director of the lead facility usually got the job (nine out of 13). In at least one of the three cases in which the director of the non-lead facility received the appointment, the decision may have been influenced by the director's prior integration experience.

4.3.2 Speed of Appointment

Rapid appointment of the new system director (on or before the integration approval date) occurred in seven out of 14 integrations. Early appointment was facilitated in at least three of seven cases by the resignation or reassignment of one of the prior facility directors (Palo Alto, Black Hills and Connecticut). In three of the four remaining rapid appointment sites (South Texas, Puget Sound and New Jersey), appointment of the system director occurred concurrently with integration approval and faced active opposition to the integration by the director of the smaller facility.

4.4 Roles of Other Players

4.4.1 Integration Coordinators

Six of the 14 study systems formally appointed a full-time integration coordinator to assist in integration planning and implementation. Management at several systems (e.g., Black Hills, Pittsburgh) singled out the importance of appointing a full-time, dedicated integration coordinator as key to successful integration.

Integration coordinators were involved in four types of activities at study systems:

- strategic planning with top management and the integration governing body;
- selection of members for integration planning work groups and task forces;
- acting as a liaison between the integration governing body or top management and mid-level managers or workgroups; and

- providing guidance and feedback to work groups and/or mid-level managers.

The roles of these coordinators varied widely: Some played relatively minor administrative roles, while others had high visibility and organizational prestige and were actively involved in guiding integration planning and decision-making. For example, New Jersey appointed an integration coordinator to chair the integration governing body during the implementation planning and implementation phases. At South Texas, an individual was hired to serve as an Assistant Director for Integration during the implementation phase. Integration coordinators at several systems, including Alabama and Pittsburgh, had experience in quality management.

Reports from study systems (e.g., Maryland, South Texas) indicated that the role of the integration coordinator was extremely challenging when the integration governing body or top management relied on service chiefs or multiple working groups to generate strategic recommendations on the structure of the new system. These systems tended to be characterized by bottom-up idea generation and delegating integration processes . In these instances, there was greater need for coordination, because different work groups came up with different and sometimes incongruent service-level integration plans. Integration coordinators at these systems thus had to play a very active role in facilitating communication between work groups and different levels of management, often acting as a liaison or screener.

4.4.2 Integration Consultants

Outside consultants often were hired to provide guidance and coordination during the strategic planning and/or implementation planning phases, particularly in systems without a designated integration coordinator. In some systems, consultants were brought in during the strategic planning phase, but not the implementation planning phase. In those instances (e.g., Indiana), mid-level managers often complained about the need for additional guidance and feedback from upper management in developing and carrying out implementation plans that might have benefited from the involvement of a qualified integration coordinator. In other systems, however, consultants were described as expensive but unnecessary—or even harmful.

Integration consultants were utilized by 10 of 14 study systems. Management at seven systems reported that these consultants were substantively and integrally involved in the strategic decision-making process.

In other systems, consultants were brought in to provide meeting facilitation, communications consulting or psychological or placement counseling for staff. Local and national private management consultants were utilized, and at least two consultants provided services to more than one study system.

Internal consultation by nationally identified VA experts was used to support database integration. Staff at many systems praised the internal assistance provided by members of the national VA database integration task force. They called for the VA to take advantage of its internal staff experience and to develop and promote additional consultation resources to support other aspects of integration.

4.4.3 Unions

Unions were involved in most of the integrations we studied. Union representatives often served as full members of integration work groups and governing bodies, although some representatives felt that their role on the governing bodies was often one of communication rather than active contribution. Generally, the labor-management relationship during integration was determined by the relationship prior to integration, though in a few cases the appointment of a new director altered the relationship, where the pre-integration relationship was strained or acrimonious, the integration process was usually difficult. For example, in another system, one of the locals did not participate.

In another system, unions and top management disagreed over union representation. Management felt that the unions were well represented, since union members were included in all of the work groups, but union officials felt that they should have been permitted to designate which union representatives would serve on those groups. Unions also played important roles in integration decisions involving staffing changes, such as reassignments between facilities.

Some unions were actively supportive of integration, but the majorities were neutral or actively opposed to it. Across all systems, union concerns included staff reductions, pay level discrepancies and staff travel and reassignment. Although staffing reductions at many integrating facilities were unrelated to integration, unions—and

union members—occasionally attributed these reductions to integration. They also expressed skepticism about reductions in duplicate management, stating that redundant managers were often simply "renamed" rather than reduced.

4.4.4 External Stakeholders

Stakeholder organizations representing external groups also played a role in integration planning and implementation at most of the 14 systems.

VSOs: Veterans Service Organizations (VSOs) in the majority of integrating facilities appeared to be supportive of the integrations. All were periodically informed about the integration plans and process; some were actively involved in the process. Many VSOs were initially suspicious or resistant to integration, fearing loss or changes to services. Most of these organizations became more supportive of integration over time as evidence of significant cuts failed to appear. In general, VSOs at the smaller, acquired facilities were more likely to have concerns about integration than those at the larger, acquiring facilities.

Congressional Representatives: Most integrating systems reported that their congressional representatives and staff were interested in remaining informed of integration and were generally supportive, but active involvement in integration planning and implementation was rare. However, the local representatives in Central Alabama, Chicago and New Jersey did become involved in the integration process. In each case, involvement stemmed from constituent resistance to integration. Active involvement in the integration process was modest in New Jersey and had little impact on its progress or direction. However, significant disruption in Alabama and Chicago, led to congressional involvement hindering the progress of planning and implementation activities and adversely influencing staff and community acceptance.

Medical School Affiliates: Ten of the integrating systems involved one or more facilities with a strong medical school affiliate. The affiliates generally played little or no role in integration planning and implementation processes, although some did have an impact on service chief selections when one integrating facility was a large tertiary hospital with a significant affiliate presence. Medical school affiliates played a major role at only two sites, Palo Alto and Chicago. Both Palo Alto integrating facilities were affiliated with the Stanford Medical School, which helped facilitate integration. The two Chicago facilities had separate affiliates, leading to significant concerns over power, access to training positions and patient care opportunities. As a result, the two affiliates initially actively resisted integration, generating substantial coverage by the local media and involvement from other stakeholders. More recently, the appointment of a new dean at one of the medical schools marked a change in the relationship between them. The Combined Deans Committee, which is taking the lead for clinical integration, is reportedly making good progress.

4.5 Roles of Integration Planning and Implementation Bodies

4.5.1 Role of Integration Oversight Body

The appointment, roles and visibility of the oversight bodies were quite distinct across systems, with activities including some or all of the following:

- communication regarding the integration to internal and external stakeholders;
- feedback to top and middle management on the content and progress of integration;
- development of integration strategic and/or implementation plans;
- decision-making authority regarding the integration.

In five of the 14 systems, members described the primary role of the integration governing body as providing communication and feedback to those levels of management involved in developing and implementing integration plans. In most of the remaining systems, the integration governing body had a more significant role in the integration planning process with actual decision-making authority over strategic planning, implementation or both. Governing bodies that primarily provided communication and feedback (Palo Alto, Connecticut) tended to be larger, involving individuals from all levels of staff and a wide range of external stakeholders, than those that were

integrally involved in strategic planning and integration decision-making (Black Hills, Puget Sound, Western New York, Pittsburgh). When the integration governing body had decision-making authority, it usually involved higher-level management and a small group of external stakeholders.

The vast majority of integration governing bodies were led by top management of the integrating facilities. At three systems (Central Alabama, Pittsburgh and Chicago), the VISN director also played a key leadership role in guiding the activities of the integration governing body. In only one integration was there no representation of top system management on the integration governing body: Chicago's integration governing body was chaired by the chief of staff of the newly integrated New Jersey system. The top management triad for the new Chicago system elected not to participate in the integration governing body in order to encourage members to have open and unencumbered discussions. In several systems, the role of the governing body evolved and the membership was greatly expanded (Palo Alto) or replaced (New Jersey) during the course of integration. This happened in response to new needs or to a change in top management during the integration process.

4.5.2 Role of Integration Work Groups and Task Forces

Like many major organizational restructurings, work groups or task forces of staff with specific areas of expertise were convened at most integrating systems to assist in various aspects of integration planning and implementation. Work groups were involved in a variety of activities, but tended to be particularly involved in the development of strategic recommendations for the structure of the new system and development of detailed operational plans.

The number of integration work groups ranged from none (Palo Alto) to more than 30 (Maryland). Work groups were convened for periods ranging from approximately two to six months and, at some systems, separate work groups were convened during both the design and implementation phases of integration (South Texas, Puget Sound, New Jersey, Central Alabama). At some sites (e.g., Connecticut, Indiana), top management or the integration governing body appointed a task force prior to designation of the new system's interim or permanent middle management and asked the task force to develop strategic recommendations for the new system's design. At other sites (e.g., Black Hills), work groups were appointed under the clear leadership of middle management for the new system and asked to carry out more discrete, implementation-oriented integration activities.

In most cases, work group membership included representatives from all facilities, weighted equally or in proportion to the number of affected staff at each site. In some sites (e.g., Puget Sound, South Texas), work group composition was limited to people with expertise in a specific clinical or administrative area, whereas other sites (e.g., New Jersey) deliberately appointed members from multiple areas of expertise. In two sites (Central Texas and Chicago), work group members were elected by their peers rather than appointed by top management, the integration governing body or service chiefs. In general, work groups that were convened during the early strategic planning and design phase of integration involved members with a broader range of expertise and developed their recommendations more swiftly than work groups that were convened during later implementation-oriented phases of the integration process.

The degree of guidance provided to work groups regarding their roles and responsibilities varied. Some sites gave work group members brief or generic charters containing little or no specific information on the group's scope, objectives and decision-making roles. Other sites provided detailed guidance on the process and scope of each assigned aspect of work group activity.

4.6 Role of the Joint Commission on the Accreditation of Healthcare Organizations

Although the Joint Commission on Accreditation of Healthcare Organizations (JCAHO) does not have a formal role in VA integrations, its accreditation review process played an important function. Among the 10 systems whose integrating facilities chose or were required to do joint JCAHO surveys, the survey facilitated integration in two ways. First, the deadline of the survey forced systems, by their accounts, to develop joint policies, procedures and infrastructures sooner than they would have without the external deadline. Second, the accreditation process was an external force around which clinicians and staff in different parts of the system rallied. By cooperating in the face of immovable deadlines and an external challenge, staff from different campuses grew to know and appreciate each other.

In contrast, in two of the four systems that elected to have their facilities surveyed separately (Maryland and Pittsburgh), the survey impeded the integration because the facilities had to hold off integrating policies, medical by-laws and committees, for example, until after the survey.

4.7 Avenues of Communication

Methods and strategies used to facilitate staff involvement in—and support for—integration proved critical to the progress of integration. Integration entails a high level of organizational change and disruption—change that must be managed carefully to minimize adverse effects on staff and on the integrating organizations. VHA facilities have undergone considerable changes in recent years due to budget reductions, VISN reorganization and other actions taken to implement the *Prescription for Change*. Yet even against this backdrop of continuous change, the magnitude and pervasiveness of disruption involved in most integrations is considerable. Integration produces significant levels of organizational and staff stress, uncertainty, disruption and anxiety.

One key difference between integration and most other forms of organizational change is that integration involves more than one facility, which makes the entire process more complex. Communication and support must be compatible with and appropriate to the cultures of all of the integrating organizations. Many of the hurdles encountered during planning and implementation stemmed from stark differences in the integrating facilities' organizational cultures, which comprise the employees' beliefs, values and assumptions. As independent facilities with long histories, employees at each medical center we visited had very distinct ways of working, thinking and understanding their responsibilities and roles.

Frequent, clear communication can diminish staff anxiety. Managers at the integrating facilities we studied generally used a variety of communication strategies, including Town Hall meetings, e-mail and newsletters. The specific mix of tools varied, as did the frequency and content of internal communications, but managers at many integrated systems successfully faced the challenges of managing multiple changes simultaneously, minimizing morale and other staff problems. The techniques they used offer valuable lessons for other VHA facilities negotiating similar changes.

4.7.1 Town Hall Meetings and Follow-up Supervisor Meetings

Most systems held one or more town hall meetings at key stages of integration planning and implementation, but the number and timing of these meetings varied, as did the information relayed—and its acceptance by facility staff. Staff views of town hall meetings revealed several features that contributed to success, including:

- meeting schedules that allowed staff from all facilities and all shifts to attend;
- meeting agendas that provided complete information about integration plans and processes -- including plans that remained tentative or still under consideration; and
- follow-up meetings or communications between service chiefs and middle managers and their staff to confirm and elaborate on information provided by senior managers at the initial town hall meetings.

When a town hall meeting was held at only one facility, during daytime shifts or at other times when significant numbers of staff could not attend (due to job responsibilities), information was incomplete and staff were dissatisfied. Town hall meetings that provided little information about the integration, including tentative plans, often gave rise to perceptions that management was holding back or failing to reveal "secret" plans (e.g., plans to close one facility altogether, plans for a large-scale Reduction In Force or RIF). Rumors and other misinformation frequently resulted.

Staff reactions to town hall meetings often appeared related to staff-management relationships more generally, including staff members' general perceptions of senior management. But management and staff alike felt that more frequent, honest communication—even regarding tentative, provisional plans—was more effective than communication policies that limited information to final, definitive plans and decisions. Some managers believed that they could prevent rumors, misinformation and staff disruption by communicating only final plans, but failure to discuss tentative plans usually had the opposite effect, encouraging and contributing to rumors rather than preventing them.

Although periodic town meetings can be an effective mode of communication, they are not enough on their own. Town hall meetings were often ineffective if they were not followed by smaller meetings or communication between middle managers and staff, or if they were not part of a broader communication program (including newsletters, electronic mail messages, telephone "rumor hotlines" and other mechanisms). Staff tended to distrust senior management or to view town hall meetings as an opportunity for management to communicate an "official" version of events rather than to provide accurate information.

4.7.2 E-mail Communication and Internal Newsletters

At most systems, management used e-mail as another avenue to communicate to staff about the integration. E-mail frequently was used to send broadcast ("all staff") messages regarding integration plans and implementation progress, and to permit staff to communicate back to management. One site devised anonymous, campus-wide e-mail groups: Staff could post anonymous questions and comments to management on a system in which all staff received copies of the questions and responses. Although this system functioned well for a while, abuses (e.g., personal attacks on management and staff) led to its replacement by a "moderated" forum in which a management representative screened questions for suitability prior to posting them.

Printed newsletters were also used to communicate integration progress. These newsletters tended to be less frequent than e-mail updates and less detailed than town hall meetings. The quality, length and frequency of newsletters varied widely across the facilities we studied, with no apparent relationship between use of newsletters, email, town hall meetings or other communication mechanisms: Facilities did not seem to coordinate these media in an integrated communication plan.

Staff reactions to e-mail systems and internal newsletters corresponded with their reactions to town hall meetings. Staff with positive attitudes toward management generally felt that these communication methods were effective and contained valuable information whereas those with negative attitudes seemed to view them as less valuable and informative.

4.7.3 Level of Information Communicated

As noted, management at some sites felt that they could prevent disruptive rumors by limiting communication regarding tentative integration plans or options and keeping a closed lid on work group meetings and deliberations. Other sites preferred more open communication and complete disclosure. Staff involved in integration planning at closed-information sites complained that inability to learn what other work groups were planning and discussing made their jobs more difficult, because of the high level of interdependency across work groups. Staff at closed-information sites also noted that attempts to prevent dissemination of tentative plans or options typically failed, or gave rise to rumors regarding "secret plans" that were often more likely to be rejected by staff than the actual plans under discussion. These results suggested that more open policies were more effective overall (as long as they clearly distinguished between plans that were "tentative," "under consideration" and "final").

Approaches to communicating "bad news" (e.g., RIFs and staff reassignments) also varied. The most effective strategy appeared to be one in which management clearly communicated an explicit position regarding RIFs and other staffing issues, committing to that position as much as possible without overstating it. For example, the director at one system promised staff that there would be no RIFs for the remainder of the fiscal year, but stated that he could not make any promises regarding future years. Staff appeared to appreciate this honesty and he was able to follow through on his commitment. Another director promised that there would be no RIFs due to integration and was committed to keeping that pledge. However, recognizing that he might need to implement RIFs in the future, he set a time limit on integration and declared it complete after two years.

4.7.4 Distinguishing Integration Effects From Other Changes

It proved important for managers to help staff distinguish between the effects of integration and the effects of other simultaneous changes (e.g., budget reductions). Staff at many sites attributed a variety of adverse events and changes to integration, when in fact they stemmed from other, unrelated trends. This misperception resulted in negative feelings toward integration. Because the success of integration depends in large part on staff acceptance and positive contributions, clarifying the costs and benefits of integration as distinct from other changes is important.

4.8 Integrating Cultures

The culture of an organization includes the shared norms, ideologies, values, beliefs and assumptions that guide employee behavior and the frame of reference in which employees think of the organization (e.g. "It's like a family."). These typically are learned by employees through everyday participation as members of the organization

rather than being formally written down and taught[13]. Cultural integration is generally the slowest part of the integration process. As shown in Exhibit 3.2, none of the systems reported that they were culturally integrated, even though most were structurally and operationally integrated. Changing organizational structure and formal working arrangements is, in very relative terms, easy because they are definable and under management control. Changing culture evolves more slowly because it is generally beyond direct management control.

Newspapers frequently report on business mergers that dissolve because of cultural differences. In VA, integrating systems are fortunate in that they are part of the same national system and share the VA culture. However, the cultures of medical centers differ and many integrating facilities have a history of rivalry. Integrating facilities typically came to the integration with very different ways of operating, institutional pride and biases and misconceptions about each other.

Although such differences were evident at each of the 14 integrating systems, they were most frequently discussed at acquisition-style integrations between a large, urban tertiary care medical center and a smaller rural facility, especially if that facility had a significant long-term care or mental health focus. The small facilities typically were likened to a family, with informal means of operating and low turnover. The tertiary facilities, because of their size, mission and urban location, were described as more formal and bureaucratic, with higher staff turnover. Differences in culture often played out through distrust or perceptions of lack of respect among staff in integrating facilities. These differences then made it difficult to communicate and reach consensus on alternative approaches to integrating departments or activities.

Complicating cultural integration is the fact that integration generally involves wins and losses. With dissimilar facilities as we have mentioned, there were feelings of loss at the smaller campus. Often the reality of losing staff, service or status exacerbated perceptions of unfairness and generated mistrust of colleagues at the other campus. Even when facilities were fairly evenly matched and when top management strove to be even-handed so that both facilities were partners in the integration, staff at one site typically felt that the other site was benefiting by receiving a disproportionate share of resources or more favorable treatment in other ways. In such a setting of mistrust, merging the cultures of two or more previously independent facilities is difficult even if the cultures of the facilities are similar.

Staff at every system we visited spoke of the cultural differences that remained and that needed to be resolved even after the integration was formally completed. Systems used a variety of methods to try to bridge gaps in culture and to facilitate more effective communication and collaboration among staff at integrating facilities. Examples range from simple, symbolic changes to ongoing management techniques. Among them:

- Promoting the system by using the system name on badges, signs and all written communication as soon as possible.
- Bringing people together around a common initiative. As stated earlier, many systems highlighted the importance of a joint Joint Commission accreditation process in bringing people together. The survey process served multiple purposes: bonding in response to an external force; providing opportunities for staff to begin to know each other, understand each others' perspective, trust each other, and learn each other's strengths; and working to develop common policies and procedures that advance system integration.
- Creating opportunities and strong expectations for all staff—not just middle managers—to spend time at each campus. These "visits" should occur early during the integration process; they offer another way for people to get to know each other, to learn how their new partner campus operates and to learn from each other.
- Holding planning meetings at a neutral site. Although this technique does not directly address cultural issues, it supports the perception that both sites are being treated equally. Alternating meetings between facilities would probably accomplish the same goal.
- Holding joint social events as another way to encourage people to get to know each other, away from work responsibilities and potentially away from both medical centers.

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[13] Kilman RH, Saxton MJ, Serpa R. *Gaining Control of the Corporate Culture.* San Francisco: Jossey-Bass, 1986.

4.9 Indicators of a Successful Process

We expected that some integration processes might work better than others or better in certain situations than others. To examine these expectations, we first defined process success on two dimensions and looked at system performance for each dimension:

- duration of integration planning and implementation,
- level of staff morale and staff satisfaction with the processes.

Second, we looked for aspects of the process that were related to these success dimensions and identified two:

- speed of appointment of system director and
- model of involvement in early planning.

4.9.1 Duration of Integration Planning and Implementation

Because integration causes considerable uncertainty, disruption and stress for facility staff and patients, the duration of the integration process is an important indicator of success. Slowing major organizational change frustrates staff, creates unnecessary resistance and sometimes stifles change initiatives.[14] We therefore assumed that shorter integration processes would be smoother and less disruptive. A shorter integration period is also consistent with organizational change models that suggest that substantial organizational transformation is more likely to be accomplished through rapid and discontinuous change across most or all domains of organizational activity, rather than through small, incremental changes.[15]

We defined the duration of integration for this analysis as the number of months between the approval of integration and the adoption of common policies across campuses. Although we recognize that systems continue to evolve following the integration of policies, this is an objective point to measure and, we believe, represents a major accomplishment, after which the system begins to settle into its new modes of operation and service delivery.

Among the seven systems that described their integrations as complete last fall, four (Palo Alto, Puget Sound, South Texas and Western New York) reported that integration took 13 months or less, and three (Central Texas, Connecticut, and New Jersey) reported that integration took 18 to 22 months to accomplish. Exhibit 4.4 illustrates these findings. Among the remaining seven systems still in flux, integration had been underway for 17 to 30 months. The long duration of integration at several systems suggests that they are having difficulty or experiencing other complications with integration. Northern Indiana, for example, first integrated with limited objectives and then restarted a more comprehensive integration with the appointment of a new system director in June 1996.

Speed of Appointment of System Director. The duration of the integration process was directly linked to the time required to appoint a permanent system director after approval of the integration[16]. The director appointments ranged from immediately after approval (0 months) to eight months, as shown in Exhibit 4.6 at the end of the section. Among the seven sites that appointed the director immediately, the mean process duration was 14 months[17], compared with more than 22 months for the remaining sites. Either delayed appointment is a marker for a facility with more complex integration challenges or it causes a series of effects that further delay the overall integration process.

Model of Involvement in Early Planning. Systems which used the shared leadership model in their early planning processes tended to move from integration approval to standard policies and procedures more quickly than systems

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14 Kotter, 1996.

15 Romanelli E, Tushman ML. "Organizational transformation as punctuated equilibrium: An empirical test." *Academy of Management Journal* 1994; 37(5): 1141-1166.

16 For this analysis, we counted the formal appointment of the system director, not the appointment of a lead facility director when the other facility director was still in his or her position.

17 Without Palo Alto, where the process length was 0 because the system decided to mandate adoption of the lead facility's policies and procedures by the secondary facility at the time the integration, the mean duration for the rapid appointment sites was 16.5 months.

using a bottom-up planning model: in 16 months for the shared leadership systems and 22 months for bottom-up systems (Exhibit 4.6). The top-management model systems fell in between, averaging 19 months. Involving many staff early in the process without a clear framework or guidelines from system leadership appears to slow the integration process, consistent with interview findings that staff felt they worked hard in the planning effort without always seeing forward movement.

Duration of integration is also related to the characteristics of the integrating system and to the structure of the integrating system. As we will discuss in Section 5.1, the four systems that integrated in 13 months or less are dominant-partner systems with strong system headquarters and high levels of service integration across campuses. At the opposite end of the spectrum, four of the six systems where integration has been slow are equal-partner systems without a dominant system headquarters. At three of those systems, a moderate to high proportion of services remain separate.

4.9.2 Staff Morale and Satisfaction

Two staff measures—perceptions of the impact of integration on staff morale and staff satisfaction with the integration process—are important indicators of success. Integration entails significant and potentially disruptive changes in organizational structures and processes and in staffing patterns and assignments. These changes can have significant negative impacts on staff morale and functioning. Ideally, major organizational changes such as integration are accomplished with only minimal adverse impacts on morale. More severe impacts on morale are likely to be associated with higher turnover, lowered productivity and diminished effectiveness of integration planning and implementation processes. We expected staff morale at integrating systems to be low at the time integration was announced-a time of great uncertainty and therefore anxiety-and to rise, as uncertainty was resolved with new structures, system configurations and working arrangements.

For the first staff measure, service chiefs rated the impact of integration on the morale of their department staff using a 5-point scale for two distinct points in time: immediately upon announcement of the integration, and in September 1997, when the survey was conducted. The scale ranged from 1 ("very/mostly negative") to 5 ("very/mostly positive"), with 3 defined as "neither negative nor positive." We recognize that there are limitations to using a retrospective measure of morale. Problems with recall are well-documented in the research literature. Although these retrospective judgments should be used cautiously, we feel that they provide a useful rough measure of the direction of change in morale after integration.

As Exhibit 4.5 indicates, morale scores varied from a low of 1.86 (Central Alabama) at the time integration was announced to a high of 4.10 (South Texas) at the time we surveyed system managers. As expected, all systems showed increases in morale between initial announcement and late 1997. Only Central Alabama showed an increase of less than a half-point on the 5-point rating scale. These results provide encouraging evidence that the integration planning and implementation processes employed at the integrating systems we studied did not adversely affect morale. In fact, they may have helped improve staff morale relative to levels immediately upon announcement of integration.

Two process elements appear to be related to both staff morale and satisfaction with the process, as shown in Exhibit 4.6:

Speed of Appointment of System Director. Staff morale immediately following the integration announcement was virtually the same among systems, regardless of how long it took to appoint a system director. However, rapid-appointment systems reported a more positive impact on staff morale (3.19) than systems with longer appointment times (2.71).

Systems with rapid-director appointments also score higher on staff satisfaction with the planning process (1.57 v 0.86). These results are consistent with the finding that the speed with which the system director is appointed is related to the overall duration of the integration process, and that a shorter process is generally desirable to staff because it limits the period of disruption and uncertainty.

Model of Early Planning Involvement. Mean staff morale scores at systems following a bottom-up planning process (2.82) and top-management approach (2.61) were consistently lower than those at systems following a shared-leadership approach (3.16). The association between low morale with a top management approach is not surprising but the association between low morale and a bottom-up approach is at first glance. Virtually all literature on organizational change emphasizes the importance of staff involvement. But involvement without clear

guidance from top management or a consistent framework in which to work appears frustrating to staff. Staff at bottom-up systems reported considerable discomfort with perceived uncertainty and lack of direction when involved in early planning workgroups, consistent with their lower morale scores.

Similarly, staff at bottom-up systems and top-management systems were less satisfied with the process of integration (0.25). It was common for staff in bottom-up systems to report that considerable work group time was spent developing recommendations that later were not used or had to be fundamentally revised after they were found to be inconsistent with top management's vision of integration. At systems where service chiefs had not yet been appointed when work groups were convened (e.g., Connecticut and Northern Indiana), work group members reported that their meetings were controversial, unproductive and marked by unclear lines of authority and intense competition, rather than cooperation.

In contrast, staff at shared leadership systems reported higher levels of morale (3.16) and satisfaction with the process (2.10). This is consistent with our interview data that suggested that staff in these systems had a clearer understanding of their roles where top management and middle management made high-level strategic decisions, followed by broader staff participation in subsequent design and implementation issues.

5 STRUCTURES AND SYSTEMS OF INTEGRATION

Just as there is no single path for integration processes, there is no single model for an integration structure. Beyond basic requirements for a single director and a single information system, integrating healthcare systems in VHA have considerable flexibility to develop their structures to fit their own circumstances and needs. However, integration must bring structures and operations together across campuses to reduce duplication and improve coordination and access. To improve patient care, clinical as well as administrative structures and operations must come together.[18] This involves considerable change at multiple levels.

At the system level, we defined structure by the system-wide organization chart and by the division of services and management responsibilities across campuses. To create the new structure, the system can either retain the organization chart of one or both of the independent facilities, or it can reorganize to define new roles, responsibilities and reporting relationships—and potentially re-engineer its operations. At the department level, we defined structure by the location of staff, their reporting relationships to their service chief and the type of work done at each campus. Within departments, we defined the operations, or arrangements through which work is done, by policies, clinical protocols, financial management and communication methods. At all levels, the challenge in a multi-hospital or integrated delivery system is to create structures and processes for working horizontally across campuses as well as vertically in more familiar reporting structures.[19]

In analyzing the structures and operations of the integrating facilities, we identified four types of integrating systems: three dominant-partner clusters and one equal-partner cluster. In this section, we first profile the types of systems, beginning with the three types of dominant-partner systems, followed by a description of equal-partner systems. We then look more closely at the dimensions of structure and the operational arrangements in three areas:

- system-level management,
- system reorganization and
- department structures and operational arrangements.

At the end of the section, we look at the relationship between the integration structure and the early impacts of integration perceived by service chiefs.

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[18] Shortell, 1996.

[19] Hasselbein F, Goldsmith M, Beckhard R. *The Organization of the Future*. San Francisco: Jossey-Bass, 1997.

5.1 Types of Integrating Systems

The structures of the integrating systems were strongly influenced by the characteristics of the facilities before integration: Systems which were dissimilar in terms of size, complexity and academic affiliation tended to integrate with different structures than systems that were similar on those dimensions. The systems were clustered, first, by their pre-integration similarity and, second, within the dominant partner group, by their structural features. The characteristics of each system are summarized in Exhibit 5.1. The systems are ordered by type to highlight the characteristics of each cluster.

5.1.1 Dominant-Partner Systems

Among the nine systems in this group, there were strong differences between integrating facilities prior to integration. Each system had a clearly dominant facility that was larger and more complex, with a tertiary academic affiliation. At all of these systems, the dominant partner remained dominant after integration and served as the hub of inpatient care. All but one system closed acute care at the smaller campus (es). (South Texas kept acute care both at San Antonio and Kerrville.) Within this broad category, systems fell in three clusters. (Southern California, did not fit any of these types.)

Highly integrated with an exclusive system headquarters. *(Palo Alto, Connecticut, South Texas, Western New York)* In these systems, as the integration was planned and implemented, the dominant partner became more dominant, as reflected by the location of a distinct system headquarters for top management and service chiefs at the large tertiary care campus. The large facilities in this group on average were the largest and most complex. Differences between these facilities and their smaller integrating partner facilities were the sharpest. All systems in this group were early integrations and reported their integrations to be complete**.**

The tertiary campuses appeared to be strong, not nominal, headquarters. While top managers in three systems spent time at all campuses, the service chiefs did not travel frequently among campuses: relatively few chiefs spent more than 10 hours each week at each campus (8%-26%). All systems except Palo Alto had a designated site manager at the smaller campus.

None of these systems reorganized to redefine roles, functions and reporting responsibilities in a new organization chart at the time of integration, although two did later. All systems appointed the system director quickly—either prior to or immediately following integration approval. Palo Alto also hired the system service chiefs quickly, but the other systems moved more slowly.

The campuses in these systems were fairly specialized, with complementary service mixes. At three systems, inpatient acute care was provided only at the tertiary facility. In addition, all four systems consolidated relatively high proportions of their clinical services to one campus. However, one system had substantial overlap in services across campuses.

Most services in these systems were structurally and operationally integrated. Very few services (0–6%) remained separate on different campuses. Many services were combined under single leadership but staff at both campuses and had the same policies (89%–96%) and clinical protocols across campuses (85%–89%). However, ongoing communication across campuses was only moderate. As discussed, low proportions of service chiefs spent time at each campus; in addition, only a moderate proportion of chiefs used video- and teleconferences periodically to communicate across campuses (46%–63%).

When surveyed last fall, the service chiefs reported that integration had a relatively high impact on their services' management, and a moderate to high impact on clinical care. They rated staff morale in the middle to high ranges.

Highly integrated with less exclusive system headquarters. *(Puget Sound, Pittsburgh)* While the larger, tertiary campus was still the dominant partner in these systems, service chiefs were spread across campuses. Most of the service chiefs were at the larger campus, but some were at the smaller campus(es). In this way, the smaller campus (es) shared system leadership, albeit in a more limited role, with the larger campus. Not only did these systems have service chiefs based at both campuses, but a relatively high proportion (41%–43%) of service chiefs with staff at multiple campuses spent more than 10 hours a week at each campus, regardless of which campus was their base.

Within this common framework, the two systems differed in their approaches to managing across campuses. Pittsburgh focused on managing at the site level while Puget Sound managed at the level of the individual services.

Pittsburgh had a site manager for the smaller campus; Puget Sound did not. The individual services in Puget Sound appeared to be more operationally integrated: Almost all combined services with staff at both campuses had shared policies across campuses (93%) and most used regular video- and teleconferencing to communicate among service staff across services (78%). In Pittsburgh, fewer than half of the combined services staff had the same policies (48%) and less than one-third used regular video- and teleconferencing (30%).

Both systems delayed reorganization until after the initial phases of integration and hired the new system chiefs quickly. But whereas Puget Sound took only 12 months to accomplish integration (from time of approval to standardization of key policies and procedures), Pittsburgh took more than 22. Several factors contributed to this difference: First, Puget Sound appointed its system director immediately; Pittsburgh made the appointment five months after integration approval. Second, Pittsburgh initially appointed only interim service chiefs and it took longer than expected to appoint all of the permanent service line managers as the system reorganized into service lines. Third, the integrating facilities in Puget Sound underwent joint JCAHO review 12 months after integration was approved; the two Pittsburgh facilities had separate surveys shortly before integrating and therefore were not under external pressure from JCAHO to move quickly.

Both systems were fairly specialized, with acute inpatient care provided at only one campus. Most services were structurally and operationally integrated, with comparatively high proportions of clinical services that had consolidated their staff and services to one campus (30–33%), and low proportions of uncombined services at each campus (3–7%).

When surveyed last fall, service chiefs in both systems reported at least moderate positive effects from integration. Puget Sound reported a high clinical impact and Pittsburgh reported only a medium impact, which is consistent Puget Sound's higher level of operational integration. Staff morale at Puget Sound as perceived by service chiefs was medium when the integration was announced and high at the time we surveyed the systems. Morale at Pittsburgh was perceived to be low at both times, which may reflect the longer time Pittsburgh took to complete its integration.

Predominantly integrated with less exclusive system headquarters. *(New Jersey, Central Texas, Maryland)* These integrations were not as clear-cut as the first two clusters. The systems also had one larger campus with a tertiary or intermediate teaching affiliation that served as the primary system headquarters. However, the headquarters were less dominant with service chiefs spread across campuses, and the systems were less structurally integrated with moderate proportions of services remaining separate and somewhat less campus specialization. Two of the systems were early integrations; one of the early integrations reported its integration was still in progress while the other two systems reported their integrations to be complete. This cluster included both of the three-campus integrations in the study.

In two of these three systems, the spread of service chiefs primarily reflected the comparatively high proportion of services that had not been integrated. While Maryland had a few chiefs of integrated services at each campus, the chiefs of the integrated services in New Jersey and Central Texas were at the larger, teaching campus. Maryland and Central Texas had designated site managers while New Jersey did not. They also had a tiered structure in some services with a system-level associate director or service chief, and managers of the service at each site. For example, at the time of our survey, Maryland had an associate director for patient care services for the system with several services reporting to him, including nursing; each campus had a chief nurse. Maryland also reported a high proportion of chiefs relying on assistant chiefs to manage across campuses. (Most systems had no assistant chiefs.)

The systems in this cluster were slower to integrate, taking between 18 and 27 months to move from approval of the integration to standard policies. While New Jersey appointed its system director quickly, the other systems took longer. They were also somewhat slower to select service chiefs.

Like most of the other dissimilar systems, the campuses were specialized in that only one provided acute care, but the systems in this cluster had fewer other clinical services consolidated to one campus (15–22%).

Within the three systems, integration was uneven across services. A comparatively high proportion of services remained separate across campuses when surveyed in September 1997 (19–32%). In two of the systems, these proportions, to some extent, reflected their tiered organizational structures: some of the managers responsible for a service at a campus indicated that they led a separate department, when in fact their service was part of the larger systemwide organization. The combined services with staff at both campuses were well-integrated operationally as measured by a high proportion of services with the same formal policies across campuses (74–97%), and in two of

the systems, the same clinical protocols (83-90%). (Maryland had only 53% of the combined clinical services working under the same clinical protocol, perhaps because the campuses had separate JCAHO surveys 17 months after the integration was approved). The systems differed in the communication across campuses within combined services, as measured by the proportion of chiefs who spent more than 10 hours a week at each campus (12–83%) and the use of periodic video- and teleconferencing (33-70%).

When surveyed about early effects of integration on their services, service chiefs in all three systems judged the clinical impact to be at least moderately high, and in two of the systems judged managerial impact to be at least moderately high; Maryland chiefs reported that the integration had only a slight positive impact on department management (such as efficiency of operations). In all three systems chiefs judged current morale to be moderately high in contrast with low initial morale.

Southern California System of Clinics *(SCSC)* As the newest integration studied and the only system with only outpatient services, SCSC presented a different profile. Like all the other systems in the group, of dissimilar facilities, it had a dominant partner in Sepulveda, which prior to the Northridge earthquake was a complex tertiary inpatient teaching facility. Following integration, SCSC had top management and all chiefs located at one campus. However, unlike the other systems with exclusive headquarters, it reorganized early in the integration process and had integrated only a moderate proportion of its departments. More administrative departments were integrated—69% combined under a single chief but with staff at all campuses and 25% consolidated to one campus—than clinical departments—56% combined and 26% consolidated. The integration was clearly still in progress, and at the time of our visit anticipating further possible integration with West Los Angeles. Among the combined departments, only 43% had combined policies and 26% combined clinical protocols. Communication across campuses within combined departments was also low: only 10% of the chiefs reporting spending more than 10 hours per week at each campus, which is understandable given four campuses and very long distances between some of them; however, only 14% relied on periodic tele- or video-conferences with staff at the other campuses as an alternative for in-person visits.

5.1.2 Integration of Equal-Partner Systems

Integration of equal-partner systems (Black Hills, Central Alabama, Chicago, Northern Indiana) Black Hills, Northern Indiana and Central Alabama all included pairs of facilities that were small or moderate size, low-complexity and have limited affiliations. Chicago had two larger, highly affiliated, moderately complex facilities. In each pair, one site was not naturally the dominant partner, although one campus was designated as lead, at least for purposes of communicating with Headquarters. (In Northern Indiana the designation of the lead campus had changed over the course of the integration.) Service chiefs were spread across campuses. There had been relatively little movement of services across campuses and only Northern Indiana provided acute care at only one campus. In two of the systems, well over half of the services remained separate on each campus. Three of the four systems were later integrations and all reported that the integration was still in progress when we checked with them last November.

Within these broad characteristics, the integration experiences and structures of the four systems differed.

Black Hills was structurally integrated with virtually all of its services combined under systemwide chiefs with staff remaining on both campuses. When we visited last summer, there was little campus specialization and no services were consolidated to one location. Both campuses operated as community and non-acute hospitals with considerable service overlap. There was no dominant system headquarters. Service chiefs were spread across campuses by design. The integration was still in progress because the system has postponed their operational integration of policies until their preparation for the upcoming JCAHO survey. Recently the system also closed inpatient surgery at Hot Springs and consolidated the service to Fort Meade. Chiefs reported medium perceived impact and medium staff morale.

Northern Indiana followed a two-stage integration. As initially approved in March 1995, the integration of Fort Wayne and Marion was limited, combining only top management and leaving the rest of the structure in place at both facilities. However, with the retirement of the system director, the Network director decided that more extensive integration was needed and integration restarted when the second system director was hired. At the time of our visit and survey, Northern Indiana's focus had been on integrating administrative services. Almost all of its administrative services were combined under a single chief. Less than two-thirds of the clinical services were

combined, a substantial proportion but much lower than administrative services. Few, if any, services had consolidated to one campus. A moderate proportion of services remained separate. Many staff were still reportedly skeptical that it would move further. Appointment of service chiefs had been slow. More recently, however, the system is emphasizing clinical integration: the new organizational structure has been developed and the new system Chief of Staff has begun to hire service chiefs, but he plans to move deliberately in that process. In the fall of 1997, Northern Indiana was accredited by JCAHO as a single organization. System leaders believe that the historically dissimilar missions of the two campuses make them compatible in creating a complementary organization.

Central Alabama and Chicago had more difficulty integrating. Both systems had more than half of the services remaining separate in September 1997 at the time of our survey. Appointment of the chiefs was slow in both systems. The spread of chiefs across campuses reflected services remaining separate as much as a design to give leadership positions to each campus. Both Central Alabama and Chicago had experienced highly-politicized opposition to the integration with high Congressional interest and GAO investigation of their plans and processes. Chicago had two heavily-invested medical schools who did not want to lose their teaching location; both Chicago and Alabama had groups of clinicians and staff who were outspoken against integration. Not surprisingly, when surveyed last fall, the chiefs in these two systems judged the operational and clinical impact of integration to be minimal and the staff morale to be low. Both systems have made progress since our formal data collection. Central Alabama, more recently, was recruiting for service chiefs. Chicago appointed a number of chiefs of integrated administrative departments shortly after our survey, and three services (A&MM, HRM and Fiscal) were consolidated at the Network-level. In addition, the appointment of a new Dean at one of the Chicago medical schools changed the dynamics of the affiliate negotiations; clinical integration has been delegated to a new Dean's committee and is moving forward.

5.2 System-Level Management

One of the key issues in designing a multi-campus health care system is developing a management structure that builds an integrated, efficient system that is effective across distances. Among the important elements in creating a new structure, as we discuss in this section, are: the mission and service mix of each campus, the location of top management and system service chiefs, and campus management. Recognizing that in integrations of dissimilar facilities, the transformation to a single system is particularly difficult for the smaller campus, as we also discuss, it is important for system leaders to pay close attention to the impact on the small campus.

5.2.1 Campus Service Mix

Creating a system in which each campus is specialized to some extent with a distinct mission and a service mix that is complementary to other campuses is advantageous because it reduces duplication of services. It can also result in higher quality care by increasing the workload of previously-duplicated low-volume services. Eight of the 14 systems specialized to the extent of closing inpatient acute care at one campus. In these systems, the non-acute campus typically strengthened other services it already provided such as long term care, substance abuse or inpatient psychiatry, and in many cases became the only site in the system for those services.

All of the systems that closed inpatient care were dominant-partner systems in which only the larger teaching facility continued to provide inpatient acute care. Specialization appeared to be easier to implement in integrations of dissimilar facilities because the campus service mixes were already complementary prior to integration, and a clearly dominant partner generally resolved service overlaps. Overlaps in service were much more difficult to sort out in equal-partner systems if services were similar prior to integration. The pattern of dissimilar facilities being more likely to close acute care at one facility than mergers of similar facilities is consistent with private sector research.[20]

One potential disadvantage of specialization is diminished access for veterans if they have to travel longer distances for care. To address this potential problem, the systems that had specialized campuses maintained, or in some cases expanded, access in several ways. All systems provided outpatient care at all campuses. Several systems also increased their specialty clinics; in some cases, integration permitted smaller campuses to offer new services with specialists who came in from the larger facility for one or two clinics a week. In addition, systems worked hard to

[20] Bogue, 1995.

improve transportation services between campuses for veterans. They found that transfers and referrals within their systems generally improved.

5.2.2 System Headquarters

Five of the systems we studied created a system headquarters with top management and all service chiefs based at that campus. While locating all chiefs together at the tertiary site offered management efficiencies, it also tended to exacerbate two problems: it heightened the sense at the small campus that it had been taken over and it created a management vacuum at the smaller campus.

In eleven systems, chiefs were spread across campuses. Among the dominant-partner systems, the majority of chiefs were at the tertiary facility – but some were at the smaller campus. In New Jersey and Central Texas, the spread of chiefs primarily reflected services that had not integrated. In Puget Sound and Pittsburgh, the chiefs at the smaller campus headed integrated services. In addition, Pittsburgh located its headquarters at a neutral location rather than one of the major medical centers in the system. Maryland had a mixture of chiefs of separate and integrated services at its smaller campuses. (Maryland also had a two-tiered structure in several services, such as nursing, with service site managers at each campus who report to a systemwide associate director.) Black Hills also had chiefs of integrated services spread across campuses.

5.2.3 Campus Management

Systems used a variety of strategies for managing the campus where top management was not located. While the need for a campus management presence was particularly strong when there were very few or no systemwide service chiefs on the campus, simply having service chiefs on campus did not necessarily address campus management. Unless they had specific campus-wide responsibilities, service chiefs appropriately focused on their own services.

In all systems, top management spent time at both campuses, sometimes formally scheduled to be at the smaller campus one or two days a week. This offered the advantage to campus staff of having senior staff presence and to the senior managers of maintaining direct contact with all campuses. It did not guarantee a daily management presence to deal with crises and operational issues.

Seven systems designated site managers, often an associate director for the system, based at the smaller campus full time. Pittsburgh, for example, appointed recognized leaders as site managers for each campus, and viewed the position as critical not only for the success of the integrated system but in developing prospective VHA leadership. Site managers brought day-to-day supervision to the campus and, in some cases, ensured an advocate for the campus in systemwide decision making. In some cases, however, it created an uncertain and frustrating situation for staff when the associate director made decisions and issued directives that conflicted with policies and directives set by their service chief based at another campus.

5.2.4 Impact on Smaller Campus

Integration was difficult for smaller campuses, especially when acute inpatient care closed as a result. Staff felt a strong sense of loss as their facility's status was diminished—even in cases where the smaller facility had been in danger of closing prior to integration and was saved by the integration. In South Texas, for example, staff at Kerrville recognized that their facility had been at risk for closure since the opening of Audie L. Murphy and they appreciated the integration for staving off that threat. At the same time, they felt keenly their loss of autonomy, as virtually all senior management for the system were appointed from Audie Murphy, as Audie Murphy's policies were adopted for the whole system, and as decisions formerly made at Kerrville now were made, or at least had to be cleared, at Audie Murphy.

The integration of facilities, however, also resulted frequently in new resources for the smaller campus, usually in the form of expanded or new clinical programs. In some cases, new resources came in the form of technological upgrades or renovations to the physical plant. American Lake, for example, acquired new computers – equipment that previously had been unavailable to American Lake because of fiscal constraints, but was now a fundable expense in the larger, combined Puget Sound budget.

As another strategy for managing the impact on the smaller facility, Pittsburgh located its headquarters at a neutral site to minimize the perception that the larger facility was taking over the smaller.

5.3 Reorganization

In moving to an integrated system, system leaders can either simply adopt the organizational structure of one of the facilities, or they can reorganize the system to create a new structure with redefined functional areas and reporting relationships, usually along service lines. With changing demands on the system—the general health care environment, the desire to create an integrated delivery system and the need to manage across distances, 11 of the 14 systems felt a new structure was needed to operate effectively. Only three systems integrated without also reorganizing. Reorganizing while integrating slows the integration process but holds promise for moving the integrating facilities toward an integrated delivery system.

The 11 systems that reorganized differed in the timing of reorganization in the sequence of integration activities. Thus far, we have no evidence that one approach is better than another is. Of the 11 systems,

- Five systems adopted new structures as part of integration, believing not only that they needed different structures to manage a system across long distances but also that they should make all changes at once while the system was already disrupted.
- Six systems integrated first under their existing organizational structures and reorganized later. In some cases, the systems focused first on integration because top management felt that the system could only absorb a limited amount of change at once, and because integration is highly emotional and has negative connotations. They wanted to define integration fairly narrowly, accomplish it and put it behind them so that other reorganization would not take on the negative connotation of integration. In Puget Sound, for example, with the basic integration accomplished from top management's point of view, they moved to service lines in selected areas. They felt they were wise to change "step-wise," focusing first on bringing existing services together—consolidating management, unifying policies and procedures and getting to know each other—and later moving to service lines which require additional integration across disciplines. Other systems did not begin with the intention to reorganize but decided it was necessary as the integration progressed. Western New York, for example, began with a traditional organization and then disbanded their service chiefs in favor of product line managers last fall after deciding that the traditional organizational structure was not meeting system needs.

In a few cases, differences in organization prior to integration slowed reorganization. In Pittsburgh, for example, Highland Drive had begun to implement service lines before integration; but University Drive had not. Therefore, service lines at Highland Drive were put on hold for the early stages of integration. Later the whole system began to reorganize to service lines.

Reorganizing while integrating makes the process more complicated because it takes time and resources to develop a new structure, to work out authority and reporting relationships, and to select and hire service line managers. One important challenge in evolving a new organizational structure over time is the need to appoint appropriate leadership early in the integration. As mentioned earlier, we heard a strong and consistent message from staff across integrating systems that new leadership should be appointed quickly after integration is approved. But the individuals appointed as chiefs and senior managers under a traditional structure may not have the leadership and managerial skills required in a different type of organization, such as a service line structure. One strategy for balancing the need for prompt appointment of service chiefs and the need for flexibility in changing leadership with redefined structure is to appoint interim chiefs under the traditional structure, with the understanding that the appointment of permanent chiefs or other leaders will take place when the new structure is developed. This is a far from perfect solution, however. In several systems, the interim chiefs felt they were without authority. Their roles and responsibilities needed to be more clearly defined.

5.4 Department Structures and Operational Arrangements

Within the framework of the system-level structures, systems must also attend to the structures of the individual departments, or services and sections. Because they control front-line staff and services, departments are the elements through which systems will implement a single standard of care, will realize operating efficiencies and in some cases, will manage across campuses. For this analysis, department-level structures include the staff's reporting

relationships to the service chief, the location of services and staff and campus responsibilities. Beyond structure, the working relationships under which the departments operate—the policies, clinical protocols, and communication mechanisms—are also important in creating an integrated delivery system.

Within and across the 14 systems, individual departments were organized differently. Based on survey responses from service chiefs, in September 1997,[21] we classified departments into three groups:

Consolidated: services were merged under a single leader, were consolidated to one site, and had no counterpart department elsewhere in the system;

Combined: services were merged under a single leader with staff, but continued to operate at multiple sites;

Separate: services remained relatively unchanged with different leadership at different sites.

Both clinical and administrative departments fell into these groups. Clinical departments were those that provided direct patient care. Administrative departments, for purposes of this analysis, included not only services traditionally classified in VA as administrative but also those classified as support or ancillary.

We considered both consolidated and combined departments to be structurally integrated. We expected that a well-integrated system would generally include a mix of consolidated and combined departments to reflect differing opportunities for the efficiencies of consolidation and the continued access of combined services. Separate departments were not considered to be structurally integrated, although they could be coordinating operations, such as policies and communications, across campuses.

As described below and shown in Exhibit 5.2, all systems reported a mixture of department groupings, though the patterns differed substantially. In this section we look at:

- each of the three department groupings;
- operational integration in combined departments since they have the biggest challenge in managing across campuses; and
- clinical versus administrative integration since clinical and administrative departments followed somewhat different patterns.

5.4.1 Consolidated Departments

Conceptually, consolidated departments are the most integrated of the three department structures because they can improve efficiency by eliminating duplication across campuses. However, drawing from the earlier discussion of campus service mix, there are tradeoffs between lack of duplication and access. In addition, consolidating departments to a single campus usually involves staff relocation, which can be disruptive.

Across the 14 systems, just under one-fifth of the departments were consolidated to one campus. Clinical departments were more likely to consolidate (21%) than administrative departments (13%). South Texas was the exception with one-third of its administrative departments consolidated. Dominant-partner systems, especially the highly-integrated clusters, were more likely to have relatively high proportions of consolidated departments than equal-partner systems. This is consistent with the generally greater campus specialization of dominant-partner systems.

Consolidation can put a heavy burden on staff at the campus where the service or function is discontinued. Staff in some systems discussed at length the difficulties of an extended commute and the challenges of fitting into a new organizational culture with new colleagues when they were reassigned to a new location. Across the 14 systems, 40% of the departments reported shifting staff from previously separate departments and 55% reporting shifting workload (Exhibit 5.3), with the shifts being substantially higher for administrative than clinical departments.

[21] Service line managers were included in this survey. Using each integrated systems organization chart, we worked with the integration coordinator in each system to identify the Chiefs and other department heads to survey.

In many cases, the clinical consolidations pre-dated integration: only 33% of the consolidated departments had shifted staff from previously separate departments following integration and only 43% shifted workload from other departments. Connecticut had the highest proportion of clinical departments reporting shifts in staff (80%).

Since each facility tended to have a full complement of administrative services before integration, it is not surprising that consolidated administrative departments were more likely than clinical departments to shift staff (56%) and workload (82%) from other departments following integration. In five systems, all consolidated administrative departments reported shifting staff and in seven systems, all consolidated administrative departments shifted workload.

5.4.2 Combined Departments

By coordinating policies, clinical protocols, and practices, and by communicating extensively across campuses, combined departments can improve care coordination and reduce variation in care across campuses. In addition, by offering different services at each campus to reflect each site's needs and potentially reduce duplication, combined departments can increase the system's efficiency. Combined departments offer two potential advantages over consolidated departments. First, they maintain better access to patients for medical care and to staff for support services, especially at systems whose campuses are separated by long distances but have relatively little service differentiation.

Second, they reduce staff reassignment from one campus to another—thus diminishing staff upheaval and disruption. Combined departments, however, do not have built-in mechanisms for reducing duplication of staff and functions.

Across the 14 systems, the majority of departments were combined (60%) with staff at multiple locations reporting to a single service chief. Five of the 10 dominant-partner systems (Palo Alto, Puget Sound, Connecticut, South Texas and Western New York) and two of the four equal-partner systems had more than 70% of their departments combined (Black Hills and Northern Indiana). Reversing the pattern of consolidated departments, administrative departments were more likely than clinical departments to combine (67% administrative versus 55% clinical).

Clinical combined departments were much more likely than administrative departments to provide different services at each campus. Across systems, three-quarters of clinical departments tailored their services by campus, with four systems having at least 90% tailored (Puget Sound, Maryland, SCSC and Central Texas). In contrast, administrative departments were more likely on to offer the *same* services at all campuses in combined departments (65%), with three systems having at least 80% the same (Central Texas, Northern Indiana and Western New York).

5.4.3 Separate Departments

Although separate departments are by our definition not structurally integrated, it is of note that several systems with relatively high proportions of separate departments coordinated operations of those departments across campuses. More than two-thirds of clinical departments in Central Texas (100%) and Northern Indiana (67%) set policies jointly across campuses. All of the separate administrative departments in New Jersey set policies jointly. In Central Texas, two-thirds of the chiefs of separate departments met at least quarterly with their counterparts and contracted jointly for services; all held periodic conference calls with them. New Jersey showed a similar pattern.

5.4.4 Operational Integration in Combined Departments

Joining operations across campuses in combined departments is a key element in creating an integrated delivery system. To build a base for implementing a single standard of care and improving clinical coordination as well as achieving operating efficiencies the system, combined departments should develop shared policies and clinical protocols. For service chiefs trying to manage the services across distances, good mechanisms for communicating are important.

Policies and clinical protocols: Among the 14 systems, those with high proportions of combined departments were also likely to be operationally integrated with shared policies, and to a lesser extent, common clinical protocols as shown in Exhibit 5.4. Among the eight systems with at two-thirds of their departments combined, seven had more than 85% of their departments with the same policies across campuses. (Black Hills reported combined policies in only 56% of its departments, consistent with interview reports that they had not yet focused on integrating policies, particularly in their clinical services.) With two exceptions, each of these systems also reported more than 70% of

their combined clinical departments shared clinical protocols—with the four highly integrated exclusive headquarters systems having 89% or more department with common protocols (Palo Alto, Connecticut, South Texas, Western New York). Both Black Hills and Northern Indiana reported lower proportions of shared clinical protocols, consistent with their emphasis on later operational integration of clinical departments. Developing standard policies and clinical protocols across campuses is an important step toward operational integration, and thus toward creating a single standard of care and a coordinated delivery system.

Service chief management across distances: In managing a department with staff in multiple locations, often many miles apart, chiefs needed to balance the need for communication and interaction with staff in all locations with the strains of physically traveling back and forth. The interactions in early phases of integration were often complicated as new relationships settled out: the staff at the campus where the chief was based usually did not know the chief well and in some cases found him or her inaccessible; staff at the campus where the chief was based—and where frequently he or she was the chief prior to integration—also sometimes found the chief inaccessible because now he or she was splitting time between both campuses and often systemwide responsibilities.

Across the 14 systems, less than one-third of the chiefs spent ten hours a week or more at each campus (Exhibit 5.4). Clinical chiefs on average were much less likely (23%) than administrative chiefs (42%) to spend time regularly at each campus. More chiefs relied on meetings with supervisors across campuses at least monthly (70%) and on periodic tele- or videoconferencing (55%).

Systems differed in their combinations of communication modes. Some systems (e.g., Puget Sound and Black Hills) reported relatively high levels of communication across all categories. Other systems (e.g., Pittsburgh, New Jersey and Central Texas) traded off between in-person and telephonic communication. A very high proportion of chiefs in New Jersey (83%) and a moderate proportion in Pittsburgh (44%) spent time at each campus—in both systems the campuses were fairly close—but comparatively low proportions communicated by tele/video-conferences (33% and 30%). In Central Texas—where the distances were greater—the pattern was reversed with few chiefs spending more than 10 hours a week at each campus (12%) but a moderate proportion having periodic tele/video conferences (54%). We have no evidence that one combination is more effective than another.

5.4.5 Clinical versus Administrative Department Integration

In contrast with most private-sector hospital mergers where integration of administrative services is typically far-advanced over clinical services, integrating systems in VA have structurally and operationally integrated clinical services as well as administrative services. Across the study systems, four-fifths of both clinical and administrative departments are structurally integrated. While the same proportions of clinical and administrative departments are integrated, their patterns of integration are somewhat different.

Drawing from findings reported above, administrative departments were more likely to operate as single, undifferentiated departments, even when working across campuses. Administrative departments showed two patterns:

- They either combined and tended to continue parallel functions at each campus with a single chief supervising both campuses by spending time at each; or
- They consolidated and, because each facility had a full range of administrative services prior to integration, substantially shifted their staff and workloads to the newly consolidated department.

Clinical departments were more likely to specialize by campus with each campus functioning day-to-day somewhat independently:

They were more likely than administrative departments to be consolidated to one campus, but relatively few clinical departments shifted staff or workload, suggesting that campus clinical specialization and some service integration predated clinical integration at many systems.

In combined clinical departments, they generally provided different services at each campus, with the chief relying more on video- and tele-conferencing than on spending time at each campus to manage the department.

These patterns seem consistent with the different professional traditions and demands of clinical and administrative staff.

5.4.6 Perceived Impact of Integration Structure

In the long run, leaders of the integrating systems strive for system structures that will move them toward their integration objectives of improving care and access to veterans while maximizing their system efficiency. At the same time, integration is a major organizational change that represents significant upheaval to the system and may, in the short run, depress staff morale and disrupt services and operations. To check on whether the structural changes associated with integration are moving the system in a positive direction in the short run, we analyzed managers' perceptions of the impact of integration in two broad areas:

- Staff morale, and
- Their departments' management and clinical operations.

In addition, to explore factors associated with positive movement, we looked for aspects of structure related to these dimensions and identified two with the strongest relationships:

- Type of system, and
- Percent of departments not integrated.

5.4.7 Perceived Impact on Staff Morale

Staff morale is an important, though somewhat indirect, measure of the impact of the structure of the integration system. Using it as an indicator of confidence in the system, we expected morale to be low at the time the integration was announced—a time of great uncertainty and therefore anxiety—and to rise as uncertainty was resolved as the new structures were put into place and the system settled into its new configurations and working arrangements. As described in section 4.9, managers in each system were asked to rate the impact of integration on the morale of their department staff on a scale of 1 (very/mostly negative) to 5 (very/mostly positive) for two time points: currently (at the time the survey was sent out last fall) and at the time the integration was announced (initial). As stated earlier, the initial morale scores should be used cautiously, because they are based on retrospective judgments but we believe offer a fair indicator of the direction of change. The scores reported here are averaged across managers.

As Exhibit 5.5 indicates and as reported in section 4.9, the initial morale scores were low, with all systems except South Texas reporting a negative impact of integration. All systems also showed the expected increases in morale between their initial announcement and the time the survey was administered in September 1997, although eight systems still reported a somewhat negative impact. In large part the current negative perceptions reflect a shorter time since integration began in those systems. Early integrations (approved in 1995) on average had higher scores than late integrations (approved in 1996): 3.22 versus 2.60. South Texas and Palo Alto reported the highest judgments about the impact of integration on staff morale (4.1 and 3.5).

Perceived impact on staff morale is related both to type of integrating system and to the proportion of departments in a system that are not integrated.

Type of system: The current impact of integration on staff morale was likely to be somewhat negative in the equal-partner systems (2.6), and likely to be somewhat positive in the highly-integrated dominant-partner systems with strong system headquarters (3.4). The difference may, in part, reflect the fact that three of the four equal-partner systems are late integrations and the fourth restarted its integration; thus all are still evolving their new systems. With the systems still in flux, staff may continue to feel anxious or upset about the continuing changes. However, not all late integrations report low morale, indicating that age of integration is not the only issue. Some of the same factors which resulted in the equal-partner systems being less integrated—factors such as the absence of a clearly dominant facility, and in some cases, lack of clear specialization of facility functions before integration and/or lack of acceptance of the integration—may have been associated more uncertainty, disruption or opposition at the time the integration was announced.

Proportion of Departments Not Structurally Integrated: By definition, the proportion of departments not integrated is embedded in the type of system groupings. This variable thus overlaps with the previous one. We have elected to look at it separately for two reasons: First, as a single variable, it provides a cleaner measure than a qualitative cluster of variables (which is what the type of system groupings are) and can be used as a continuous

variable. Second, it taps a dimension that we believe is a particularly important indicator of integration. The analysis showed a strong inverse relationship between proportion of departments not integrated and impact on staff morale: Integration had a more positive impact on morale in those systems with few or no departments (<10%) that have not integrated (3.23) than in those systems with a high proposition (>50%) of departments not integrated (2.60).

5.4.8 Perceived Impact on Department Operations

As a preliminary measure of integration impact, the study survey asked chiefs to judge the impact of the integration on their departments on a range of dimensions from very/mostly negative (1) to very/mostly positive (5). Using factor analysis, we created two perceived impact scores:

- **Managerial impact:** includes ability to operate efficiently; the adequacy of resources provided; the ability to deliver service or support in accordance with the department's mission; and the ability to obtain services or support from staff or departments at other campuses in the system; and
- **Clinical impact:** applies only to clinical departments and includes quality of services provided; patients' access to care; and ability to coordinate care among providers and services for patients seen by the department's staff.

Across systems, the average perceived managerial impact of integration was marginally positive: (3.51) and the average perceived clinical impact was somewhat higher (3.81), as shown in Exhibit 5.5. Perceived impact on managerial and clinical operations is related to two variables:

Type of system: Highly-integrated systems with strong headquarters reported the highest impact, especially clinical impact (4.05 clinical; 3.86 managerial impact) as shown in Exhibit 5.6. Equal-partner systems reported the lowest impact (3.56 clinical; 3.28 managerial impact). In line with our discussion of morale, the difference in perceived impact, in large part, reflected the fact that the four equal-partner systems were still in progress. With the systems still in flux and, in three cases, with moderate to high proportions of clinical departments not integrated, it is not surprising that the perceived impact was relatively small.

Proportion of departments not integrated: Differences in perceived impact, both managerial and clinical, were related to department structures. As we expected, chiefs in systems with low proportions of departments remaining separate, or not integrated (< 10%), reported significantly higher positive impacts (3.75 managerial, 4.01 clinical impact) than chiefs in systems with high proportions of departments not integrated (> 50%) (3.18 managerial, 3.32 clinical impact) as shown in Exhibit 5.6. If most departments remained separate, integration probably had not resulted in much change at the department level and we would not expect to see much impact.

Looking further at the structures of the integrated departments, chiefs of combined departments across systems reported significantly higher positive impacts than chiefs of separate departments, as shown in Exhibit 5.7. Chiefs of consolidated departments fell between the other groups. The finding that chiefs of combined departments reported higher impacts of integration than chiefs of consolidated departments is intriguing. The difference was particularly strong among clinical departments. At least two explanations are possible: 1) Combining departments could be a more effective strategy than consolidating them. 2) Since many consolidated clinical departments were consolidated before the facilities integrated; integration resulted in fewer changes than in newly-combined departments and the perceived impact of integration was been relatively small.

6 SHORT-TERM INTEGRATION EFFECTS

Despite significant private and public sector activity, the effects of healthcare mergers, consolidations and integrations on the quality and economy of care are not fully documented. The integration of previously independent organizations reflects a series of strategic planning and implementation phases that usually entail fundamental changes in how the member institutions are led and organized and how they function on a day-to-day basis. Given the scope of change, it takes time, first, to make the change and then to have the newly integrated organizations and operations settle in. As a result, the expected effects may not be seen immediately. In the very short term, certain measures may show diminished rather than improved performance. For example, we would expect that costs might rise moderately early on in the integration process, due to the costs of integration

implementation itself, before stabilizing or reducing in a successful integration as administrative and clinical services consolidated.

With this in mind, we assessed selected *early* changes in system performance in the 14 integrated systems in three areas: two areas where we would expect to see early effects reflecting shifts in resources—reductions in costs-per-patient and redirection of resources to clinical services – and a third area where we wanted to check that the upheaval of organizational changed was not translating negatively to services provided to veterans-patient satisfaction. We examined changes in performance in relation both to the performance of their facilities prior to integration and to non-integrating facilities.

We used the VHA Performance Measurement System to extract aggregate cost and FTEE data as indicators of economic performance[22]. Analysis of cost across VA facilities is problematic, as total costs reflect budget allocations based on historical workload, and as cost components (e.g. administration, clinical and support) have not been fully validated. Changes in costs over time also reflect factors independent of integration, especially with respect to changes in allocations based on the Veterans Equitable Resource Allocation (VERA) that shift funds to VISNs serving more veterans. We have included the percentage change in VERA allocations in Exhibit 6.1 to provide a context for evaluating the fiscal changes described. To create a crude measure of efficiency at this stage of integration, we estimate costs/patient using total costs divided by unique patients for each system. We extracted the number of unique patients from the Outpatient Clinic file (OPC) for each integrated system and non-integrated system, eliminating duplicates across facilities within a system. We used National Customer Feedback Survey data to assess patient satisfaction.[23]

In this preliminary analysis, we have not accounted for the stage or level of implementation nor the contribution of the uniqueness of a given integration in our analysis of early effects. With several of these integrations being less than a year old in FY97, we initially grouped systems by age of integration. We did not find strong differences and therefore report data here for the integrating systems together. In the future analyses, we will refine the analyses by stage and level of integration. We excluded performance data from the Southern California System of Clinics (SCSC) in aggregated comparisons between integrated and non-integrated systems, primarily because the earthquake, resulting closure of the hospital and associated drops in FTEEs were not associated with integration, although they likely contributed to the decision to integrate and concurrent reorganization efforts. We have, however, retained SCSC performance data in detail tables for review and discussion.

To examine early effects of integration, this section looks at:

- Reductions in costs-per-patient,
- Redirection of resources to clinical services,
- Patient satisfaction.

The section ends with an examination whether dominant-partner and equal-partner systems show different patterns of preliminary effects.

6.1 Reductions in Costs-Per-Patient

One expectation of facility integrations is that they will streamline administrative operations and create more coordinated, managed care delivery systems across previously independent, if not competing, institutions. Systems seek to lower costs by eliminating redundant positions and by reducing bed size, often by eliminating a bed tower at one of the campuses. In general, we would also expect costs per patient to drop with integration as the organization becomes more efficient and effective. Reduced costs per patient should thus reflect improved continuity, coordination, and access to care, with perhaps moderate increases in patient numbers and reduction or stabilization of FTEEs and total costs. Clinical consolidation (i.e., elimination of duplicate specialty services across sites), better utilization management, and reduction and integration of administration across sites may also contribute to lower costs per patient.

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[22] Inpatient data from the Patient Treatment File (PTF), outpatient data from the Outpatient Clinic File (OPC), cost data from the Cost Distribution Reports (CDR), and so on.

[23] The VHA National Customer Satisfaction Surveys were launched in September 1995 and have been conducted annually ever since; no comparable data for 1994 are available.

We examined changes in costs among integrated vs. non-integrated facilities to see whether integrations had an advantage in cost savings (or less pronounced cost increases) recognizing that the early stages of integration were likely to increase or stabilize costs as the facilities underwent administrative and clinical reorganization. At the same time, expanding the patient base, specifically in terms of increased numbers of unique veterans seen (i.e., covered lives for capitation), is crucial to the funding base or budget allocation for VA medical centers, integrated and non-integrated alike.

With the shifts in costs and patient bases occurring simultaneously, perhaps the best measure of the efficiency and cost savings that might be attributed to facility integration is the cost-per-patient. We found that, overall, the total costs-per-patient *decreased* 8% between FY94 and FY97 at integrated systems and *decreased very slightly* by 2% in non-integrated systems. Most of the decrease in total costs-per-patient were reflected in 12% lower support costs-per-patient and 9% lower clinical costs-per-patient in integrating systems. Administrative costs-per-patient was held nearly constant at these integrations (1% between FY94 and FY97). Non-integrated systems increased their administrative costs-per-patient slightly by 4% and otherwise lowered the support costs-per-patient by about 6% and lowered the clinical portion by 2%.

Although our measures of costs are crude, we evaluated costs-per-patient among individual integrations to place them along a continuum. Costs-per-patient varied in FY94 from a low of $4,370/patient (South Texas) to a high of $8,960/patient (Palo Alto), with similar ranges being seen in FY96 (low of $3,650/patient at SCSC and a high of $10,480/patient again at Palo Alto) and FY97 (low of $3,100/patient at SCSC and a high of $8,450/patient at Palo Alto). The largest *reductions* in per-patient costs by far occurred at SCSC, with 60% lower total costs-per-patient by FY97 (Exhibit 6.1).[24] Pittsburgh, a later integration, achieved a 35% reduction in costs-per-patient. The other late integrations at Chicago and Central Alabama lowered their per-patient costs by 20% and 13%, respectively, but like SCSC, the attribution of these cuts to integration are unclear. During integration, Black Hills incurred the largest *increase* in per-patient costs (28%). We do not currently have data on the extent to which these reflect casemix variations, budget changes from new VERA allocations or other changes in scope or mission that would account for such changes. They are not consistent with our measures of the extent or process of integration. Absent such adjustments, the results are difficult to interpret, and cannot be attributed to differences in the extent of integration achieved by each system or to other measures of the systems' progress in achieving integration.

6.2 Redirecting Resources to Patient Care

Consistent with the stated goals of many integrations, we also expected signs of redirected resources from administrative support to direct patient care, providing opportunities to expand access to care and shift resources from inpatient care to primary care delivery in the face of a fixed budget.

Looking at the integrating systems as a group, our analyses show no evidence they achieved that goal by FY97. The ratio of administrative-to-total costs was virtually unchanged between FY94 and FY96, and, by FY97 when most of the integrations had completed major phases of implementation, integrating systems had higher administrative-to-total costs by about 7.8% (Exhibit 6.2). The systems may still be in transition and bearing the higher costs of the integration process.

As a mechanism for enhancing the ratio of clinical-to-administrative FTEEs, integration appeared to play a small, albeit not statistically significant role: integrated systems showed very small increases of 1.7% and 1.1% in these ratios from FY94 to FY96 and 97 (respectively), vs. very small declines (.2% and 1.9%) for non-integrated systems (Exhibit 6.3).

[24] Reductions at SCSC likely partially reflect the fact that they were not "paying" for the hospitalizations of their outpatients getting admitted to neighboring VA medical centers within the same VISN. More recently, individual facility and/or system budgets are being modified to reflect these patterns of care. An evaluation of hospitalization rates is needed to show the extent to which per-patient cost reductions persist were lower hospital costs fully accounted for.

6.3 Patient Satisfaction with the Accessibility, Coordination, or Continuity of Care

Given the organizational changes and expected staff reactions to facility integrations, we were concerned about whether patients' satisfaction with care would mirror the dampened morale among staff or, in some other way, reflect upheaval in operations and clinical services. We were similarly interested in how veterans receiving care in integrating systems might perceive their care differently compared to veterans receiving care in systems that were not integrating at the time of the survey.

Using the VHA National Ambulatory Care Survey, we examined the Customer Service Standard (CSS) scores for 1995 (the first survey year) and 1996,[25] focusing in this early analysis on three domains that are particularly related to the goals of integration: access/timeliness, coordination of care and continuity. Among integrated systems, we analyzed the CSS scores for individual facilities, comparing not only satisfaction over time (1995 vs. 1996) but also between main and secondary facilities and across integrations. We included interaction terms for each combination of main effects as well (e.g., year by integration, year by type of site, integration by type of site). We used two-way analysis of variance (ANOVA) to evaluate these relationships, assuming no 3-way interaction, followed by a generalized linear model predicting change in satisfaction score from 1995 to 1996 using the same variables to confirm the relationships.

We found that for each of these domains of satisfaction, significant statistical variations occurred across the integrations we studied ($p<.0001$)[26], which is, in and of itself, not surprising given the variations we have documented among systems in their planning phases, processes of implementation and subsequent structures. Of note among these variations, we found significant differences in satisfaction with care between lead and secondary facilities. Secondary facilities usually had significantly higher levels of satisfaction with access/timeliness of care ($p<.0001$), perceived better coordination of care ($p<.0001$), and better continuity ($p<.05$). We also found significant gains over time in coordination ($p< .01$) and continuity ($p<.01$) among integrating systems, regardless of the internal differences between main and secondary facilities, but not in access/timeliness ($p=.10$).

How do these results compare to non-integrated systems? Adjusting for baseline performance, we found that integration did not produce significant declines in any domain of patient satisfaction. However, integrated and non-integrated VAMCs alike showed statistically significant gains in veterans' satisfaction with the coordination of their care ($p<.001$) and the continuity they experienced ($p<.0001$). Satisfaction with the access/timeliness of care remained essentially constant among integrating and non-integrating systems. Thus, integrating and non-integrating facilities experienced similar changes in patient satisfaction during the period studied, suggesting that any adverse impacts (or any beneficial improvements) integration might have on patient satisfaction were small and undetectable among the 14 systems studied.

6.4 Dominant-Partner Versus Equal-Partner Systems

We also reviewed the early shifts in performance among the dominant-partner and equal-partner systems, and found no clear patterns of difference. Three of the eight dominant-partner integrations had lower costs by FY97 (Pittsburgh, Western, New York and New Jersey) which, among the 20 facilities they represent, resulted in a statistically significant decline ($p<.05$). Two of the four mergers had lowered their total costs during the same time period (Northern Indiana and Chicago).

Drops in FTEEs among dominant-partner systems were on the order of 5.9% (South Texas) to 21.0% (New Jersey and Western New York), while equal-partner drops ranged from 9.4% (Black Hills) to 17.5% (Chicago). Two-thirds of the dominant-partner integrations lowered their average per-patient costs, although the extent to which they were successful at doing varied from a 35.2% reduction (Pittsburgh) to a 10.1% increase (South Texas). Three of the four mergers lowered total costs-per-patient, despite the fact that two of the three that did so were late integrations, reflecting from 12.8% to 20.1% reductions during their first implementation year (Chicago, Central Alabama).

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[25] This mailout survey to random samples of VA outpatients from each VA medical center (VAMC) and satellite outpatient clinic (SOC) nationwide has been administered each September since 1995. To date, only the 1995 and 1996 data are available via the Austin Automation Center, while 1997 data will be forthcoming shortly.

[26] Measured as the extent to which they had one provider (or team) in charge of their health care.

If we include SCSC as a dominant-partner integration, eight of the nine dominant-partner integrations increased their patient base (from a 1.9% drop to a 25.0% gain), while all four of the mergers did as well (3.8% to 18.9% increase).

7 LESSONS LEARNED: ANTICIPATING WHAT LIES AHEAD FOR NEWLY INTEGRATING SYSTEMS

Our analysis of facility integration in VHA has offered an excellent opportunity to document and learn from the experiences of 14 VA integrated systems. Numerous factors drive VA facilities to integration: Participating facilities at 13 of the systems represented in this study were natural candidates for integration because of their relative proximity. (The Southern California System of Clinics cast a wider net.) More importantly, all of these facilities recognized integration as a possible strategy for reducing excess capacity at one or both facilities, and for improving the quality, as well as the efficiency, of services provided to veterans. Most of these integrations, particularly the earlier ones, were between large and small facilities. Generally, integration offered an expanded referral network to large facilities and new resources to small facilities, several of which faced closure otherwise.

In the private sector, multi-hospital integrations are often designed to increase market share, eliminate competition or achieve economies of scale—objectives that do not necessarily involve clinical integration. While most integrating systems at VHA also seek to maximize their efficiency, all strive to improve patient care and customer service by strengthening the continuum of care, eliminating variations in the quality of care across locations and expanding veterans' access to services. To meet these goals, integration of clinical—as well as administrative – services is required.

At the time of our data collection last fall, eight systems reported that structural and operational integration was complete; six systems reported that integration was still in progress. No system felt that it had completed cultural integration.

From our study, we drew many lessons in three broad areas:

- the pre-integration perspective,
- processes of integration,
- structures of integrated systems.

7.1 Pre-Integration Perspective

- *The pre-integration similarity of the participating facilities strongly influences structural integration.*

  Dissimilar facilities—a small facility and a larger, more dominant and more complex tertiary care facility—achieved structural and operational integration more quickly than did similar facilities attempting to integrate. This was particularly true with respect to clinical services. Following integrations between dissimilar facilities, acute inpatient services generally were offered only at the dominant, tertiary care campus. The larger facility in these integrations became the *dominant partner* in the system.
  Integration of facilities that were similar in size, complexity and academic affiliation were less likely to have consolidated their services to one campus or to have integrated departments across campuses at the time of our data collection. These facilities integrated as relatively *equal partners*.

- *Integration of similar facilities tends to take longer and/or result in a less complete clinical integration than integration of dissimilar facilities.*

  In the private sector, integration between similar facilities generally results in more substantial operational changes because there is more potential in overlapping services for eliminating duplication. This is not true in VHA, where integration between similar facilities has taken longer and been less extensive than integration between dissimilar facilities.
  Slower integration in equal-partner systems appears to be related to two factors. First, if there is substantial service overlap, it is more difficult to determine which services should be consolidated and where. Second, the dynamics of negotiation are different: Among equal partners, more issues have to be negotiated extensively; a dominant partner often gives prompt answers.

7.2 Processes of Integration

- *Several phases or stages of integration identified in the VHA Integration Guidelines may overlap or occur simultaneously to accommodate different aspects of organization and local needs.*

  Most of the phases outlined in VHA guidelines occur, although not necessarily in the order described. For example, systems often deferred strategic and detailed planning until the integration was approved and new leadership was in place. In some cases, there was a second round of planning if problems arose in early implementation or if new leadership was appointed.

- *Effective early planning processes are based on a model of shared leadership.*

  Formal literature and broad experience with organizational change highlight the importance of staff involvement in change during integration. Yet at VHA, involvement without direction was frustrating. Staff morale was low when top management designed integration activities with little staff input. However, it was also low when top management involved middle management and line staff deeply early in integration planning – and failed to provide strong leadership that set the framework for the new system and gave direction for staff efforts.
  Staff morale and satisfaction with the planning process were higher in systems where top management clearly led the integration process, but also appointed and involved middle management early in the process, and involved staff within the framework of a new system organization chart and clear guidelines for planning.

- *Prompt appointment of a system director is a marker for swifter integration, more complete service integration and higher staff morale.*

  Systems whose directors were appointed immediately moved through the integration process more quickly and had a higher proportion of integrated services than systems where these appointments lagged. At these early-appointment systems, staff was more satisfied with the integration process, and service chiefs felt that integration had a more positive impact on staff morale.
  The slower director appointment appears either to signal a system with more complex integration challenges, or to have repercussions on other decisions and activities that further delay the overall integration process.

- *Delayed appointment of service chiefs fosters uncertainty among staff and diminishes productivity.*

  Prompt appointment of service chiefs was important for two reasons. First, planning workgroups were not as effective when led by two facility chiefs vying for the system chief position. Second, long delays left staff uncertain about their reporting relationships, depressed morale and reportedly paralyzed the organization as staff waited for a new leader. Interim chiefs can fill an important gap, but they need clear authority during their assignment. Most systems selected service chiefs from within the system, although several systems recruited nationally for a limited number of positions.

- *The role of the integration governing body often evolves in response to changing needs as the integration progresses from planning to implementation.*

  During the planning process, the composition of the governing body varied according to its role. At five systems, the governing body's primary role was to provide communication and feedback to managers and groups who were developing and implementing integration plans. In this model, the governing body typically was large, with staff from all levels and many external stakeholders. At nine systems, the governing body had more significant decision-making authority for strategic planning and/or implementation. Typically in this model, the governing body was smaller and composed of higher-level management and a small group of external stakeholders.

  In some cases, the governing body's membership expanded as integration proceeded from planning to implementation and as it became clear that additional staff and stakeholders needed up-to-date information on a regular basis. In other cases, both the name and membership of the governing body were revised when its role changed from strategic planning to implementation oversight.

- *Integration workgroups need clear direction and leadership.*
  Extensive staff participation in workgroups did not by itself guarantee satisfaction with the integration process. Staff was disillusioned when workgroup products were submitted to a governing board or system leadership – only to languish without any action or feedback. This suggests that:
  Workgroups need clear charges and guidelines from the system leadership team or integration governing body, and they need leaders with authority.

The workgroup products should be reviewed against clear criteria and used if they meet those criteria.

- *A full-time integration coordinator can help support plan development, coordinate implementation and promote communication.*

  Seven systems had full-time integration coordinators, although their roles varied widely. In systems with bottom-up planning processes, these individuals helped keep the integration process on track, reconcile different and sometimes incongruent service-level integration plans and facilitate communication between workgroups and management.

- *Frequent, clear communication to staff about integration is essential.*

  Disruption and uncertainty from major organizational change created anxiety and stress among staff. Open, full communication—even about tentative plans—worked better than closed-door approaches. Systems used a variety of communication strategies, including town hall meetings, newsletters, e-mail exchanges and rumor hotlines. Systemwide communication from leadership worked best when followed up with frequent, personal communication between middle managers and their staffs.

- *Stakeholders should be informed frequently about, and, in some cases, involved in the integration process.*

  VSOs: All systems appropriately involved VSOs in their planning processes. After initial skepticism about integration at some systems, VSOs supported integration.
  Congressional representatives: In most cases, Congressional representatives were informed early about integration plans and simply kept informed as integration progressed. Congressional representatives became more actively involved when their constituents opposed integration at three systems.
  Union leadership: Relations between labor and management prior to integration in large measure determined the union stance toward and role in the integration process. Most systems formed joint partnership councils with representatives from all of the locals.

- *Academic affiliation plays a key role in defining the cultures and standards of the integrating facilities, but medical schools generally are critical players in the integration process only when both facilities have strong academic affiliations.*

  At 10 systems, only one campus had a strong academic affiliation. In those cases, medical schools participated but did not play a pivotal role in integration planning, because the teaching relationship was secure. At one system, both campuses had strong affiliations with different medical schools. There, the medical schools have played a pivotal role—and the process was difficult initially. Early negotiations with and between the deans about how academic activities will be shared or divided are essential.

- *The JCAHO accreditation process can facilitate or impede integration.*

  Depending on the timing, the Joint Commission accreditation process may either impede or assist integration. When facilities were surveyed separately, the accreditation usually slowed integration because the facilities had to hold off on integrating policies, medical by-laws, and committees. When facilities chose or were required to do joint surveys, the survey speeded integration, for two reasons: Accreditation deadlines required systems to move quickly to combine policies and committees, and a common goal brought staff together.

- *Cultural integration is usually the slowest element of integration.*

  Informal norms, values, beliefs and assumptions that govern employee behavior and the frame of reference in which people think of their organization define an organizational culture. At the time of our study, no integrating system reported that its cultural integration was complete. Differences in culture were most apparent when merging a large tertiary facility with smaller specialty or community hospital. However, even among similar facilities, anxiety about integration and early distrust of colleagues at the other campus impeded the merging of cultures. Cultural integration should not be equated with cultural "homogenization," but it should reflect willingness across campuses to discard parochialism and share a new identity as a larger system. Systems used a variety of techniques to bridge cultural gaps. For example, some systems expected staff at all levels to spend time at each campus or to participate in common initiatives.

7.3 Structures of Integrated Systems

- *In the dominant-partner systems, the larger facility almost always becomes the system headquarters.*

In the 10 systems with dissimilar facilities, the larger, more complex, affiliated facility remained dominant in the integrated system; in eight of those 10, it became the only campus to provide inpatient acute care.[27] In nine of the 10 systems, the dominant facility served as the system headquarters where top leadership and all or most service chiefs were based.
Pittsburgh was the exception in selecting its third campus as its system headquarters for top management. System leaders felt this choice diffused the perception that one facility was taking over the other.

- *Careful attention is needed to manage the campus(es) where top management is not located, particularly in dominant-partner systems.*

  Integration was difficult for smaller campuses, especially when they lost their acute inpatient care services as a result of integration. Staff felt a strong loss of status and autonomy – even though they recognized that joining a larger system would bring new security and access to new resources.
  This sense was heightened when few or no top- or middle-managers were based at the smaller campus. Reliance on department-level management by non-resident service chiefs as the sole means of managing the smaller campus was generally inadequate, for two reasons. First, staff at the smaller campus often did not know their new chiefs well, and, in some cases, found them inaccessible. Second, service chiefs focused – appropriately -- on their service responsibilities, not on assuming new campus-wide responsibilities.
  Six of the 10 dominant-partner systems dealt with this problem by designating a site manager, often an associate director for the system. Site managers provided day-to-day supervision and advocated for the campus on systemwide issues. However, they sometimes found themselves in the middle of conflicting decisions and directives from site managers and service chiefs. Care should be taken to clearly delineate and communicate the responsibilities of site managers in relation to service chiefs.
  In addition, system leadership should make an effort to recognize and incorporate the strengths of the smaller campus into the new system, rather than simply assume that the practices and policies of the larger facility are best for the system. For example, several systems reported that their smaller campuses had superior primary care service delivery models and practices.

- *Reorganization of functions and reporting relationships can slow the integration process, but most system leaders feel reorganization is needed to meet the changing demands on their systems.*

  Eleven integrating systems reorganized to a new structure with redefined functions and reporting relationships. These systems usually created service lines. Leadership at these systems decided that, in the face of many changing demands on the system, a completely new structure was needed to operate effectively. Five systems reorganized during integration, seizing the opportunity to reorganize while the system was already disrupted. Six systems integrated under their existing organizational structures and reorganized later, believing that the system could absorb only a limited amount of change at one time. Both approaches are supported in the literature and neither was consistently more effective among VHA systems.
  Reorganization complicates integration because it takes time and resources to develop a new structure, to define lines of authority and reporting relationships, and to select and hire service line managers. For integrating systems undergoing reorganization, early appointment of appropriate leadership is critical. Problems arise, however, when chiefs and senior managers serving under the traditional structure lack the skills and experience required for the new regime. One possible strategy is to appoint interim chiefs under the traditional structure, with the understanding that permanent chiefs or other leaders will be appointed when the new structure is developed. In VHA, this was a viable but not a perfect solution. At several systems, the interim chiefs felt that they were without authority; their roles and responsibilities should be clearly defined.

- *Clinical as well as administrative departments are integrated in most systems.*

  Clinical integration is key to improving patient care. Unlike many private-sector hospital mergers, VHA systems were successful in structurally and operationally integrating clinical services, usually at the same time as administrative services. Across systems, four-fifths of clinical and administrative departments were structurally integrated, either by consolidating services to one campus or by combining them under single leadership with staff at more than one campus.
  However, clinical and administrative departments integrated in somewhat different ways. Clinical departments were more likely to be consolidated to one campus, to be specialized by campus, and to be operated more independently across campuses. Administrative departments were more likely to be combined and to operate as

[27] SCSC does not offer acute inpatient care at any of its campuses.

single, undifferentiated departments, even when working across campuses. In general, clinical chiefs perceived a higher positive impact from integration than did administrative chiefs.

- *Systems with a higher proportion of integrated services are more likely to report a positive impact from integration than systems in which many services remain separate at each campus.*

  Chiefs of integrated departments were more likely to perceive a positive impact of integration on their clinical and managerial operations than were chiefs of departments that remained separate. Across departments, systems with a higher proportion of integrated departments were more likely to report positive impacts from integration. At systems where most departments remained separate, integration probably did not produce much change at the department level, and therefore would not be expected to show a significant impact.

- *While maintaining or expanding primary care at all campuses, most integrated systems create specialized clinical roles for their campuses.*

  The creation of distinct service niches for campuses through consolidation can reduce service duplication, but it may also compromise patient access. Consequently, consolidation should be targeted carefully. All systems maintained primary care services at all campuses. Most systems expanded primary care by bringing new specialty clinics staffed by physicians from the larger campus to the smaller campus and/or by freeing resources to open new access points. Specialization was more pronounced in dominant-partner systems, with nine of 10 providing acute inpatient care at one campus only. Equal-partner systems, where service overlap prior to integration is usually more pronounced, were less likely to create specialized campuses in their first two or three years of integration.

- *Combined departments can provide an effective structure for coordinating services and creating a single standard of care across the system.*

  By combining departments under single leadership with staff at multiple campuses, systems can maintain veteran access and minimize staff dislocation. They can also coordinate services, develop a single standard of care and potentially eliminate duplication if they are operationally integrated, as the majority of VHA combined departments were. Across systems, four-fifths of combined clinical departments and three-quarters of combined administrative departments had the same policies across campuses; two-thirds of combined clinical departments had common clinical protocols. In addition, more than two-thirds of combined clinical departments tailored their services for each campus. Chiefs of combined departments perceived a stronger positive impact from integration than did chiefs of separate departments.

- *Chiefs of combined departments must balance the need for regular communication with staff at all locations and the physical strains of travel.*

  Management across campuses is essential in an integrated system. While many department chiefs tried to both split their time between campuses and use video/teleconferencing to meet with staff, most chiefs tended to use one method more than the other. The tradeoff depended on the type of service (administrative chiefs were more likely than were clinical chiefs to spend time at each campus), and, not surprisingly, on the distance between campuses. Despite these efforts, staff at some systems felt that they received inadequate attention from their chiefs.
  Typically, organizations neglect communication across sites and across organizational divisions. In a multi-campus system, broad-based communication is particularly important. It is not enough, however, to tell service chiefs that they should communicate well. System leadership should work with chiefs to plan and carry out effective mechanisms and processes to support communication, decision-making, and accountability across campuses.

- *Integrated systems will continue to evolve, but there are practical advantages to formally drawing closure to a facility integration.*

  Systems defined integration and judged its completion in different ways. At one extreme, one system argued that its integration was accomplished when its system director was appointed; everything following the appointment was considered reorganization, not integration. At the other extreme, some argued that system integration is an ongoing process—system integration seeks continuously to create structures and a culture that enables the system to move with change and respond effectively to market forces. Many VHA systems took a middle ground and announced the integration complete after they reached certain milestones, such as reassigning staff or creating common policies and procedures. While the leaders at these systems generally recognized that their systems would continue to evolve and change, they also saw benefits to delineating the

integration period. For example, they found that a time limit allowed them to make and keep specific promises—such as no RIFs resulting from integration. In addition, a time limit enabled the system to move beyond facility integration and the negative connotations associated with it. These systems found that by declaring an end to integration, they were able move on to face new challenges as an integrated system.

Appendix A

Summary of Project Methods

The project's general research plans and approach were designed to capture the complexity and dynamic nature of the study's focus and to achieve the study goals in a valid, reliable manner. The VHA facilities undergoing integration are complex organizations operating in a rapidly changing environment; we expected their integration contexts, processes, structures and outcomes to be similarly complex and dynamic.

We used a broad range of data collection and analysis methods to study the context, processes, structures and outcomes of VHA facility integrations. These included preliminary activities designed to develop a conceptual framework and plan for the project's specific data collection and data analysis tasks, and activities involved in the collection and analysis of the data themselves. Copies of data collection instruments, protocols and other materials are available from the authors upon request.

Study Design

The study design draws its strength from a detailed organizational analysis based on comparative (primarily qualitative) case study methods (Yin, 1994) combined with targeted quantitative analysis of data from integrating systems and secondary analysis of administrative VA data.

The development of the project conceptual framework and research plan included:

- reviews of existing literature, including published articles, existing project reports and manuscripts, unpublished works-in-progress and internal VA documents,
- identification and derivation of specific research questions and hypotheses to guide the project data collection and analysis phases,
- development of lists of variables and measures and possible sources for these measures, and
- development of data collection instruments and data analysis strategies and methods.

Qualitative Data Collection and Analysis

We compiled and analyzed a significant amount of information about each integration through document reviews and creation of facility profiles using VA administrative data prior to conducting site visits to each integrated system. We identified a primary contact at each integration (usually a designated "integration coordinator") to help with each stage of the project, including identification and retrieval of pertinent integration documents, identification of key personnel, facilitation of site visit arrangements, and coordination or facilitation of the distribution and return of the project's written survey of service chiefs (described below).

- **Document Review**. We collected and analyzed numerous types of documents provided by the integrating facilities. The research team developed a check list of desired internal integration documents and mailed a copy to each integration coordinator. The coordinator was asked to collect and forward copies of these documents, and to identify and provide any additional documents felt to be relevant to the study. The project team organized each system's documents by type (e.g., organization chart, planning documents) to create an extensive "document library" for subsequent analysis and reference. Analysis of the documents entailed development of a systematic coding scheme for content analysis, followed by creation of structured summaries of each integration based on the coded content of the documents. The resulting document review summaries documents were integral to preparing for the site visits.
- **VA Facility Profiles.** We used selected VA administrative databases to create profiles listing key facility characteristics for each integrating site. Profiles included variables such as bed size, the mix of beds in each facility (e.g., medicine vs. psychiatric vs. long term care), academic affiliation, number of admissions per year, number of outpatient visits per year and so on.

- **Site Visit Interviews.** Site visits were designed to facilitate systematic structured interviews of key staff at each integrating system. Interviews were designed to collect detailed information concerning integration planning and implementation processes, as well as selected information regarding system structures and characteristics. In planning for site visit interviews, we identified key internal respondents at each organizational level (top management, middle management, line staff) and key stakeholder group representatives. We then created personnel "Locator" forms from the system organizational charts we had previously obtained (through the document review phase of the project) and consulted with the integration coordinator at each system to identify specific respondents to be interviewed. Interview protocols were developed to guide the interviews conducted with each type of respondent; these protocols included questions from a series of common topics and categories, with each specific interview included questions and topics relevant to the respondent's role and position in the organization. Interviews were conducted with individual respondents and with groups of similar respondents (e.g., two union representatives in a group interview; six administrative service chiefs in a group interview). Site visit interviewer teams were comprised of two team members, one serving as interviewer and the other as recorder. Upon their return, each site visit team used a systematic coding scheme, based on topic area, to summarize the site visit data corresponding to each topic. For selected questions, we coded respondent level and type of staff and then aggregated interview data by topic. The combined notes were then used to develop comprehensive site visit reports using a standard report structure and style.

Integration Survey

The project's literature review, administrative data analysis and site visits were supplemented by a self-administered survey of department chiefs in all 14 integrated systems studied. Service chief lists were developed from the Locator forms described above, with additional review and input from the integration coordinators. Top administrative and clinical managers (Directors, Associate Directors, Chiefs of Staff), heads of stakeholder organizations (Union locals, Veterans organizations) and managers of specialized programs (e.g., TQI, EEO) were excluded because the primary focus of the survey was the structure of integrating departments. Recognizing that organizational changes were being made frequently, if not daily, during the integration process, integration coordinators were asked to update the final list to reflect current organizational changes in manager positions.

The surveys were mailed out to each integration coordinator to facilitate or arrange for their distribution to—and return from—the respondents. Integration Coordinators also helped perform follow-up for missing or incomplete surveys.

The surveys collected objective information and subjective ratings and perceptions of department chiefs in areas related to integrated system structure and operational arrangements; the integration's impact on staff morale, system efficiency and effectiveness; and other topics. The survey obtained such information in a broader and more consistent, systematic manner than would have been possible through site visit interviews or interviews with selected respondents only. While it would also have been desirable to systematically survey staff at lower organizational levels, the likelihood of obtaining acceptable response rates without intensive follow-up, and issues of institutional burden and appropriate use of study resources, led us to limit the survey target group department chiefs only. We also felt that department chiefs were most likely to be well-informed about the integration attributes under study, such as allocation of staff resources and services between campuses, modes and extent of communication among staff at each campus, development and implementation of departmental policies and procedures and authority for decisions about department purchases.

We developed two questionnaires, one for managers of clinical services and one for non-clinical departments (including administrative and support departments). Survey questions regarding system structure and integration processes were based on items from the study's original variable matrix and question library. Additional items, including perceived "system-ness" and integration measures, were adapted from Shortell's Health Systems Integration Study (HSIS). We conducted a pretest of the survey among clinical and administrative department chiefs with feedback from a sample of integration coordinators. We fielded the final Integration Surveys from September to October 1997. The final content of the VHA Facility Integration Survey included the following categories:

- **Department Structure,** including location and responsibilities of staff and department chiefs (e.g., staff located at one or more campuses within system; presence of one or more service chiefs).

- **Department Management Arrangements**, including frequency and nature of communications among department staff and between chiefs and staff (particularly when located at multiple campuses), standardization of policies and procedures across campuses, centralization of decision making regarding fiscal matters, etc.
- **Satellite Outpatient Clinics (SOC's) and Community-Based Outpatient Clinics (CBOC's)**, measuring presence of SOCs and CBOCs and department responsibility for supporting these clinics.
- **Integration Impacts** on department operations and performance and on staff morale.

To promote survey completion, we obtained support letters from each integrated system Director and a Facility Director letter of endorsement, and included a self-addressed return envelope for direct return to the research team. We achieved a 91% completion rate, with completion rates for individual sites ranging from 85% to 100%. Complete survey results (summarized in site profiles) were sent to each site, including a comparison of individual sites to the aggregate or total answers for all integrated systems surveyed.

Costs, FTEE and number of patients

We examined baseline performance for FY94 (prior to formal integration approval in any of the systems studied) in terms of costs and FTEEs, including administrative, clinical and support components of each. We compared FY94 to FY96 and FY97 performance to change in the early phases of integration. We used data from the VHA Performance Measurement System, which extracts unadjusted data from VA administrative datasets using standardized definitions.[28] We also examined other integral indicators, such as clinical-to-administrative FTEEs and administrative-to-total costs. We used the Student's t-test (assuming equal variances) and Wilcoxon rank sums to evaluate change scores and differences in proportions and ratios in FY94 between integrated and non-integrated facilities.

Consistent with the stated objectives of most of the 14 integrated systems, we examined *changes in the numbers of unique patients seen, total costs and FTEEs* (including an examination of the administrative, clinical and support components of costs and FTEEs) between FY94 and FY96 and FY94 and FY97 using the Outpatient Clinic File (unique patients seen in each integrated system) and the same VHA Performance Measurement System (for costs and FTEEs) among the 14 integrated systems (comprised of 30 VA Medical Centers). The number of unique patients for each integrated system (comprised of two or more individual facilities) were calculated by counting the unique Social Security Numbers (SSNs) among outpatient visits to each facility and removing the redundant SSNs from the overlap or shared patients across facilities. Shifts in component FTEEs, e.g., from administrative to clinical positions, were also examined as a measure of redirected resources.

We also compared the 14 integrating systems with all non-integrated VAMC on the *same cost and FTEE measures.* To create comparable measures for non-integrated facilities nationwide, and to examine unique patients for non-integrated facilities, we repeated the analysis of uniques performed among integrated facilities for all other facilities in each VISN.

We focused the evaluation on the effects among main facilities (VAMCs and OPCs), indicating when performance data does and does not include their satellite outpatient clinics (SOCs). We compared the baseline (FY94) characteristics and performance of the integrated (14 systems among 30 VA Medical Centers) and non-integrated facilities (n=132 VA Medical Centers) to assess variations in performance by calculating the percent difference between integrated and non-integrated facilities' performance measures (I_{FY94}-U_{FY94}/I_{FY94}). We also compared the performance among integrated and non-integrated facilities over time, controlling for baseline performance (FY94 to FY96) (i.e., did integrated sites improve significantly better than non-integrated sites).

[28] Inpatient data from the Patient Treatment File (PTF), outpatient data from the Outpatient Clinic File (OPC), cost data from the Cost Distribution Reports (CDR), and so on.

Patient Satisfaction

We analyzed ***changes in patient satisfaction*** from September 1995 to September 1996 using the National Customer Feedback Center's National Ambulatory Care Survey[29] using t-tests for mean differences in Customer Satisfaction Scores (CSS).

Limitations of Effects Analyses

The data sources from which the effects evaluation is drawn include self-reported organizational data, as well as extractions of existing administrative data, the validity and reliability of which are under ongoing review. Some analyses may under- or over-estimate performance of integrated systems in years prior to the aggregation of all sites into a single station number. For example, the VHA Performance Measurement System reports unique patients (extracted from the PTF, and therefore unique inpatients) for each main facility nationwide. However, integrated facilities, depending on geographic distances, may share a significant proportion of patients, especially if one facility is the hospital for both. Therefore, adding up the number of unique patients noted for each individual site in an integration in the database results in an overcount. We therefore used the original PTF and OPC files to identify the unique patients per facility and to eliminate duplicated SSNs.

The administrative datasets are also undergoing some changes, especially with respect to reporting data from integrated sites. The station numbers that are used in the inpatient and outpatient datasets tend to change secondary facility station numbers to that of the lead institution (e.g., 999 is used for the lead, and 999A and 999B are used for the secondary facilities), which requires careful checking of the analytical programs to assure that sites are being identified and monitored over time in each dataset correctly. We took care to review each integration for this type of coding variation. We expect future analyses to require similar careful review, cleaning and recoding for each year and each dataset and variable examined. We are also presently limited to an analysis of main facilities, which poses dilemmas for evaluating change over time. Specifically, we prefer to develop change scores at the individual facility level, but that becomes problematic when station numbers are merged and substation numbers are not available (e.g., cost totals have been merged into a system-level aggregated cost for many integrated systems, removing the opportunity to evaluate site-specific costs). We also do not have information regarding the validity of the extracts that have been made for inclusion in the VHA Performance Measurement System. Many of the administrative measures are also not available prior to FY94.

[29] The VHA National Customer Satisfaction Surveys were launched in September 1995 and have been conducted annually ever since; no comparable data for 1994 are available.

Appendix B

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