VA NEW YORK HARBOR HEALTHCARE SYSTEM:

THE INTEGRATION OF AFFILIATED VA MEDICAL CENTERS

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HIGHLIGHTS

The VA New York Harbor Healthcare System (the Harbor) was created in January 1999 with the integration of the Brooklyn Veterans Affairs (VA) Medical Center and the New York VA Medical Center (referred to in this report as Manhattan for clarity). Since that time, the Harbor has made considerable progress in integrating its system in the context of a wide array of forces supporting and opposing integration.

Progress and accomplishments

By early 2002,

- The Harbor had integrated almost all administrative services and selected clinical services across campuses. It retained both the Brooklyn and Manhattan campuses as acute inpatient facilities with independent Medicine and Surgery services, while beginning to create specialized clinical niches at each campus. It successfully passed review as an integrated system by the Joint Commission for the Accreditation of Healthcare Organizations (JCAHO) in 2000.
- Harbor leaders were pleased with the system's progress. In addition to the organizational changes and JCAHO success, they emphasized several improved and new programs that resulted from the synergy of all campuses working together, and they emphasized the flexibility the integrated system offered to allocate resources where needed.
- Harbor staff had mixed opinions about integration and its effectiveness. At the beginning of integration, morale was low and cultural differences between campuses created tensions. By the fall of 2001, roughly half the staff were optimistic about integration. Staff rating of clinical coordination improved significantly over time, with just over half reporting by 2001 that patient care was well-managed across campuses. More staff reported positive effects of integration on clinical care than on needed resources.
- By design, medical education was not substantially changed by integration. Early in the integration process, leaders at VA and the two medical school affiliates (New York University [NYU] and the State University of New York at Brooklyn [SUNY]) agreed to preserve medical education and the role of both affiliates in the Harbor. Consistent with this agreement, teaching and training were affected very little by integration because the core clinical services were maintained in Manhattan and Brooklyn. There were, however, some concerns about maintaining adequate caseloads to support resident training in a few services. Research was integrated administratively with the appointment of a system-wide chief and joining of research committees. Integration created new opportunities for joint research across campuses and schools.
- In terms of system performance, system efficiency improved between FY 1998 and FY 2001 – an important gain for a system facing budget problems. Patient satisfaction and quality of care measures were mixed.

Forces affecting integration

Many forces affected the Harbor integration – some facilitating integration, others working against it. An examination of these forces offers understanding of the development of the Harbor and lessons for other systems considering integration. (A diagram of the most important forces and their effects on integration can be found in Exhibit 10 on page 28.) The forces can be grouped under four headings:

1. *Organizational features.* The system's characteristics heightened the integration challenges. These are factors that cannot easily be changed.
    - *Similarity of size and complexity.* Brooklyn and Manhattan were roughly equal in size and complexity. Earlier VA studies found that integration of similar medical centers is more difficult

because more decisions have to be shared and more effort is made to divide authority and responsibility among campuses than in systems with a clearly dominant partner.

- *Academic affiliations.* Brooklyn and Manhattan were both academic medical centers prior to integration with strong teaching and research programs. Research in the private sector concludes that teaching hospitals resist integration into systems.
- *Differences in organizational culture.* The campuses had strong differences in their organizational cultures. Despite their outward similarities as complex urban teaching hospitals, the organizational cultures of Brooklyn and Manhattan were very different. Brooklyn staff described themselves as a cohesive, stable community, while Manhattan was more fast-paced. These differences, exacerbated by Brooklyn's concern that its inpatient services would be closed, created tension and suspicion that were barriers to integration.
- *Geographic distances.* Manhattan and Brooklyn are separated by the East River and city traffic. Historically the two campuses drew patients from different areas. Geographic distance and location were seen as barriers to consolidating services while still maintaining patient access and workable schedules for clinicians and students.

2. *Players.* Different players brought competing interests to the table, some working for and others against integration.
   - *Harbor leadership.* As would be expected, the new leadership was the driving force for integration.
   - *Integration office.* The Integration Office, as the focal point of integration activities, was an important facilitating force. Its staff organized the communication with the rest of the organization, facilitated integration planning teams and oversaw the development of joint policies. People across the organization came to the Integration Office for information and, in some cases, to vent their confusion and frustration about integration.
   - *Medical school leadership.* Leaders at the two primary medical school affiliates, NYU and SUNY, actively participated in the integration processes but strongly supported the status quo. They resisted clinical integration that would affect their core teaching services.
   - *VA staff/faculty.* There appeared to be few champions, and many early opponents, of integration among the staff, including clinical faculty. Staff who participated in integration processes and who worked in integrated services, together with managers, were more positive than staff who were less involved or affected.
   - *Unions.* Early in the process, union leaders were uneasy about integration and worried about losing hold on one of the campuses. Lack of nursing union support delayed the implementation of the patient-centered care model in St. Albans.
   - *VSOs/patients.* VSOs and patients did not appear to take a strong position, probably because most services remained where the veterans were used to receiving them and VSOs were adequately briefed by Harbor leadership.
   - *VISN leadership.* VISN leadership initiated integration and advocated it, but allowed the Harbor leadership to decide the extent and form of integration.

3. *Internal processes and strategies.* The internal processes and strategies the Harbor used to integrate the system were positive forces toward integration – with some caveats.
   - *Integration teams and steering committee.* The integration teams facilitated integration by developing detailed plans for integrating different functions in the system, and the steering committee set the direction and oversaw the process. While team members appeared to value

their participation, a few were frustrated with the outcome, believing that no action was taken or their recommendations were not followed.

- *Communication.* Most staff were aware of the multiple methods used to communicate information about integration. Yet many were unclear about the goals of integration during the first year. Others believed they were not being told the whole story about plans for merging specific services. Some staff expressed frustration that system leaders did not want to hear their concerns.
- *Building synergy.* Major initiatives across campuses both facilitated integration and benefited from it. For example, database integration and the development of new clinical information systems, including the development of the electronic medical record (CPRS), provided a strategy for bringing people together to work across campuses. And working across the Harbor improved the CPRS development because it brought new people into system discussions and increased clinician buy-in as they recognized that CPRS would facilitate patient care across campuses. Developing CPRS during the integration process also opened people to new ideas since the larger system was in flux.
- *Targeted opportunities.* The Harbor pursued a strategy of targeted opportunities in its approach to changing the new system's organizational structure. The integration plan provided a broad framework for the new system and a timetable for integration, but without full details about which services would be integrated. Details were worked out with stakeholder involvement and as opportunities arose. This approach facilitated integration because it was low-key and presented a path for change without generating organized opposition. It also increased staff anxiety because they were uncertain about what would come next, and it appeared to leave Harbor leadership without a firm position from which to negotiate further clinical changes, especially with the affiliates.

4. *External pressures.* Two external forces facilitated integration.
   - *JCAHO review.* Preparation for the JCAHO review provided an additional integration strategy. The external pressure and looming deadline of the JCAHO survey accelerated the early integration process. It facilitated integration by bringing people together on high-priority, shared tasks – and provided a common externally-imposed challenge – that focused them beyond their internal differences.
   - *Budget constraints.* In FY 2001, the urgency of the budget shortfalls accelerated the integration of targeted clinical services. In some views, the integrated system also expanded managers' flexibility to reallocate staff across campuses or employ joint purchasing arrangements to meet budget demands.

With strong forces arrayed against integration, the Harbor has made solid progress in creating an integrated system, especially across its administrative functions. Harbor leaders can point to substantial accomplishments over the last three years. At the same time, integration – especially coupled with budget shortfalls – was difficult for many staff. Important questions remaining are how much farther will the Harbor move in integrating its clinical services, and if it does consolidate more, how will that affect the academic affiliations and the veterans?

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ACKNOWLEDGEMENTS

We would like to thank the leadership, staff and patients of the VA New York Harbor Healthcare System who graciously shared with us their time and opinions. We also thank the staff across the system who completed the integration surveys we sent out on three occasions. We would especially like to thank Mary Doherty who served as our primary liaison over the full course of the study. Mary responded to our information requests, coordinated the feedback of the Harbor leadership on our study reports and, with able help from others in the Integration Office, arranged and hosted our site visits.

Within the MDRC, we would like to thank Martin Charns, DBA, and Lois Camberg, PhD, for their participation in the site visits and for their insights about the Harbor's experiences and lessons. We appreciate Danielle Valley's excellent work in administering and analyzing the three integration surveys and Jennifer Cheslog, Thomas Deschaine and Marjorie Nealon Seibert's assistance in the report preparation.

Finally, we must recognize the tragic events of September 11, 2001. The VA New York Harbor Healthcare System was close to the heart of the attack on the World Trade Center. Many employees lost friends and relatives. We express our heartfelt sympathy to them.

NEW YORK HARBOR HEALTHCARE SYSTEM: THE INTEGRATION OF AFFILIATED VA MEDICAL CENTERS

INTRODUCTION

In January 1999, the Department of Veterans Affairs approved the integration of the Brooklyn VA Medical Center and the New York VA Medical Center, to create a new entity, the VA New York Harbor Healthcare System (the Harbor).[1] With the approval came the appointment of a single director for the new system. Beyond that appointment, however, the two medical centers were still, in the main, operating independently. The approved integration plan included an organization chart for the overall system, but by design few details had been worked out about the structure and operations of the new system.

The challenge, then, was to bring the previously independent medical centers together to maximize system resources by achieving economies of scale and reducing duplication, while maintaining, if not improving, access and quality for patients. The challenge was heightened by the medical centers' strong affiliations' with two medical schools and the importance of maintaining the system's academic mission of teaching and research.

This report documents and analyzes the progress and accomplishments of the Harbor in meeting those challenges. Shortly after the integration was approved, the clinical leaders contacted the HSR&D Management Decision and Research Center (MDRC) about studying the process and results of integration of the new system. System leaders believed there were lessons to be learned from their experiences in integrating complex, highly affiliated medical centers to a single system. This report is the result of that study.

We begin by presenting the study questions and describing the analytic design for the study. In Section 2, we provide brief profiles of VISN 3, the two medical centers and the two primary medical school affiliates to provide a context for the analyses. In Sections 3 to 5 we answer the study questions and conclude in Section 6 by highlighting the forces that affected integration and offering lessons to other medical centers that may be integrating.

1.0 ANALYTIC DESIGN

This study was designed to answer three questions:

- *By what processes did the Manhattan and Brooklyn VA Medical Centers integrate?*
- *How did integration affect the organization of the system?*
- *How did changes in the delivery system and staffing affect:*
  - *Quality of care?*
  - *Patient satisfaction?*
  - *System efficiency?*[2]
  - *Teaching and research?*

[1] Definitions of integration and the ways in which it and related terms are used in this report can be found in Appendix A.

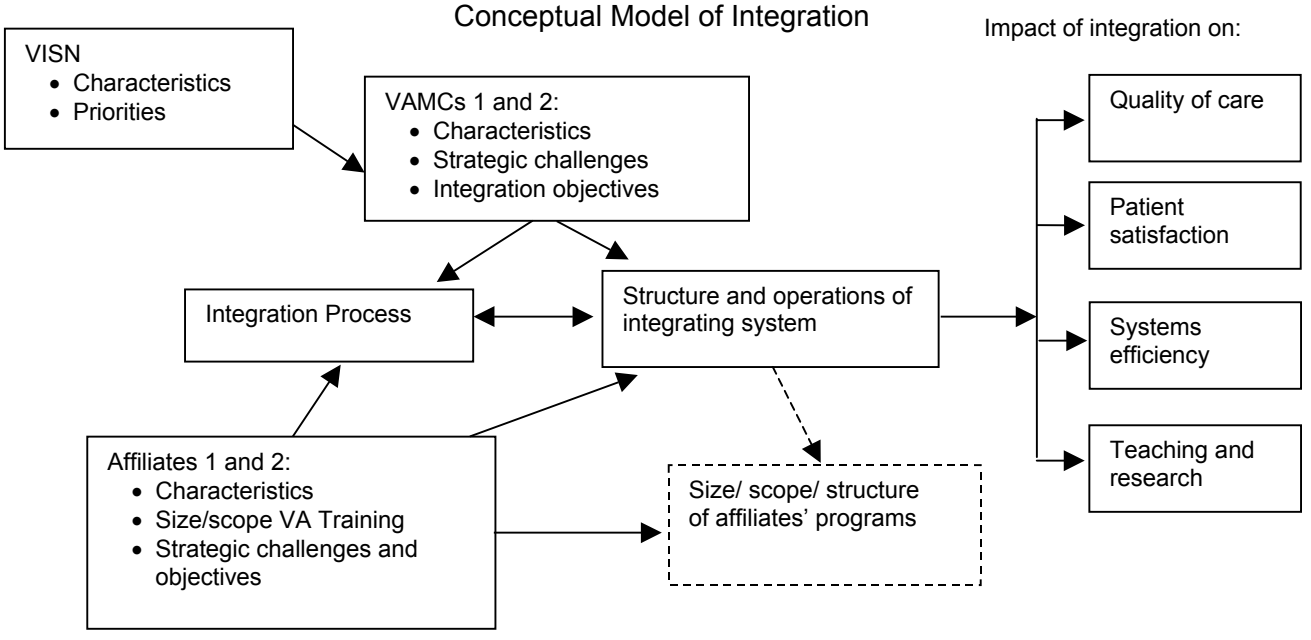
[2] System efficiency was not originally an explicit part of the study question. Given the growing attention in the system to budget constraints and the opinion among many staff that the aim of integration was to save money, we added it.

The Harbor has formally completed the integration process, but system leaders recognize that the system will continue to evolve both in terms of its organizational structure and the comfort staff have in working in it.

1.1 Conceptual framework

Our basic conceptual framework for addressing these questions was straightforward, as illustrated in Exhibit 1. We expected the characteristics of the newly integrated VA health care system and its component VA medical centers (VAMCs), together with the characteristics of the academic affiliates, to determine the nature of the integration processes and the organizational structure of the integrated system. The organizational structure, in turn, should affect quality of care, patient satisfaction, system efficiency, and teaching and research. We also expected the integrated system and the pre-integration medical centers to be affected by the broader healthcare environment in which they operate; in VA, the dominant feature in the environment is generally the Veterans Integrated Service Network (VISN) in which a medical center is located. Our goal in this project was to describe the integrated systems on these dimensions to address the study questions and to begin to identify the key relationships among the dimensions and the factors that affect them.

Exhibit 1
Conceptual Model of Integration



Underlying the conceptual simplicity of our model, the reality of bringing the previously independent Brooklyn and New York (for clarity referred to in this report as Manhattan) VA medical centers together in a single integrated system was complex. Beyond the usual complexity of integrating two medical centers, the Harbor integration was especially challenging for two reasons.

First, the two medical centers were of roughly the same size and complexity**.** From earlier studies of facility integration in VA, we know that integration between two medical centers that are roughly equal (in

terms of inpatient admissions, percent of non-acute beds, complexity scores and extent of academic affiliation) is more difficult than between a dominant and a much smaller medical center.[3] In integrating medical centers with a clearly dominant partner, there appears to be little debate that the dominant partner will serve as the system headquarters, take the leadership positions, and generally impose its policies and procedures. In integrating roughly equal medical centers, where the dominance of one center is not widely assumed or accepted, these decisions have to be negotiated, generally with an effort to treat the facilities as equal partners. In the analytic scheme created in the earlier studies, Brooklyn and Manhattan were classified as equal partners.

Second, both Brooklyn and Manhattan were academic medical centers with extensive teaching and research programs, and their primary affiliations are with different medical schools. Private-sector research shows that teaching hospitals resist integration into systems. In contrast with non-teaching hospitals, they respond to different constituencies (such as faculty members), give priority to teaching and research goals and are relatively high cost. These factors complicate negotiations for horizontal integration.[4]

1.2 Methodology

To address the study questions, MDRC investigators tracked the Harbor integration for two and a half years, from the spring of 1999 to the fall of 2001. Using a case study framework to combine data sources, we used four qualitative and quantitative sources of data:

- **Interviews**. We interviewed leaders and staff at the Brooklyn and Manhattan campuses, primarily during site visits to the Harbor in the summers of 1999, 2000 and 2001 and augmented by telephone interviews;
- **Documents.** We reviewed integration documents (such as newsletters and planning documents) to extend and corroborate information obtained during interviews.
- **Surveys.** We surveyed employees across the system in the summers of 1999, 2000 and 2001; approximately 800 employees at all levels of the organization responded to each survey. From the survey results, we created the scales included in this report.
- **Administrative databases.** We analyzed VHA administrative databases to obtain information about Harbor characteristics and performance on standard VHA measures.

A more detailed description of the study methodology is provided in Appendix B.

During the course of the study, we provided feedback from the employee surveys and interviews to Harbor leadership to help them gauge the progress of integration and to offer information, from the perspectives of staff, on the major factors affecting integration. Much of this information was shared across the system through the Integration Office newsletter.

2.0 INTEGRATION CONTEXT

The integration of highly affiliated medical centers does not begin with a blank slate or occur in a vacuum. Instead, it is highly influenced by the characteristics of the medical centers prior to integration, the medical schools with which they are affiliated and the external environment in which they operate (with the most dominant external force in VA being the VISN).

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[3] CV Lukas, Mittman BM, Hernandez, J, Macdonald JD, Yano, E, Simon, B. Analysis of facility integrations. Management Decision and Research Center. July 1998; and CV Lukas and Desai, K. Analysis of facility integration: second report. Management Decision and Research Center, December 1999.

[4] JW Begun and Luke RD. Factors underlying organizational change in local health care markets, 1992-1995. *Health Care Management Review,* 2001, 26(2), 62-72; 70.

To provide a context for answering the three study questions about the Harbor integration, this section describes the medical centers prior to integration, the affiliated medical schools and the VISN role in the integration.

2.1 The medical centers prior to integration

Brooklyn. The Brooklyn VA Medical Center had two major campuses, Brooklyn and St. Albans. The Brooklyn campus is an inpatient facility located in the Bay Ridge section at the southern end of Brooklyn near the Verrazano Bridge**.** It is a large sprawling structure with a new ambulatory care wing. The St. Albans Primary and Extended Care Center in Queens is a long-term care facility with Primary Care outpatient services, a Dementia unit and a domiciliary. The Brooklyn VAMC operated two Veterans Health Care Centers: the Chapel Street Clinic in downtown Brooklyn and the Staten Island Community-Based Outpatient clinic (CBOC) in Staten Island. Centers of Excellence included a comprehensive Cancer Care program with full Radiation Oncology services, Cardiac Electrophysiology, community-based Primary Mental Health Care, and Rehabilitative and Extended Care services.

Many staff at Brooklyn prided themselves on being a neighborhood hospital. Almost two-thirds of its patients came from Kings County. Staff characterized Brooklyn as a cohesive, family-like medical center. Many staff members, like their clients, lived in the Brooklyn community.

Manhattan. The Manhattan VA Medical Center was located on First Avenue and 23rd Street, a busy urban neighborhood in Manhattan, the southern link in a string of medical facilities on First Avenue. There are businesses across the street and an extensive apartment complex next door. The New York VA provided outpatient services at the main site on 23rd Street at First Avenue as well as through the Harlem Care CBOC in Harlem and the Compensation & Pension Unit in Soho, and Substance Abuse programs and Readjustment Counseling centers in Manhattan. The Manhattan VAMC was a referral Level 2 tertiary care facility for Cardiac Surgery, Neurosurgery, Rehabilitative Medicine, Psychiatry and various other special treatments for the VISN and VAMCs nationwide such as HIV/AIDS, state-of-the-art Urology treatment, and Prosthetics. The organizational culture at the Manhattan VAMC was fast paced and assertive.

The geographic distance between Brooklyn and Manhattan is not great as the crow flies—12.5 miles, but in New York traffic, travel times can range from 20 minutes to well over an hour. The two medical centers historically have drawn patients from different parts of the New York area. In 1999, for example, the Manhattan VAMC drew 36% of its patients from New York County (Manhattan), 22% from Queens, 14% from Kings County (Brooklyn) and 1.17% from Staten Island. The Brooklyn VAMC drew 61% of its patients from Kings County, 23% from Queens only 4% from New York County and 8.23% from Staten Island.

Although the Brooklyn and Manhattan VA Medical Centers were roughly equal in size and complexity in the context of the whole VA system, they were not identical, as shown in Exhibit 2. Prior to their integration, Brooklyn was the larger of the two facilities. Brooklyn was also somewhat more efficient in its staff per workoad than Manhattan. Manhattan, on the other hand, was more complex. Manhattan also had more physician full-time equivalents (FTEE), both in terms of absolute numbers and in terms of physician FTEE per 1000 adjusted workload.

Exhibit 2 Pre-Integration Characteristics		
Characteristics	**Brooklyn**	**Manhattan**
Patients	36,335	31,109
FTEE	1,929	1,684
Care Budget (Million $)	172.7	151.1
Adjusted FTEE per 1000 adjusted workload	55	59
Complexity Score	68	73
Physician FTEE	109	121
Physician FTEE per 1000 adjusted workload	3.1	4.2

Both Brooklyn and Manhattan were academic medical centers prior to integration. For the academic year 1998-1999, Manhattan had 128.5 filled VA medical resident positions and Brooklyn had 118. Manhattan historically had more funded research than Brooklyn. In FY 1999, Manhattan had research funding totaling over $6.3 million, with $4.5 million coming from VA and $2.0 million from other sources. In the same year, Brooklyn had approximately $1.18 million in research funding, with $758,000 in VA funding and $422,000 from other sources.

2.2 The medical schools

The primary affiliated medical schools, New York University (NYU) and the State University of New York, Downstate (SUNY) have long-standing relationships with VA. Both indicated that VA was an important training site, although both schools also had other training sites with similar patient populations.

Located about 12 miles away from the Brooklyn VA Medical Center, SUNY also trains at its University Hospital and at Kings County Hospital, a public hospital, across the street from the medical school. SUNY has a history of strong ties to the Brooklyn VA through its fully integrated training program (with residency programs at VA in Medicine and Surgery) and contribution to VA staff salaries. Most VA clinicians with SUNY faculty appointments are full-time VA employees. VA service chiefs are typically active at the medical school, but because of the distance between VA and SUNY, many other clinicians are not. Some VA service and section chiefs perform duties at SUNY and are appropriately compensated. SUNY was in the midst of a substantial reorganization following the arrival of a new president when the Harbor was created.

NYU is a short walking distance from the NY VA Medical Center. Many Manhattan VA clinicians with NYU faculty appointments are part-time VA employees and have active NYU responsibilities. Because of the close proximity of VA and NYU, clinicians at all levels frequently move back and forth during the day. However, in some opinions, NYU's relationship with VA historically was underdeveloped. NYU maintained a separate residency track for VA residents in Medicine, though residencies in other areas were fully integrated (including Surgery, Psychiatry, Physical Medicine and Rehabilitation, Pathology and Laboratory Medicine, Nuclear Medicine and Radiology). Since the Harbor's creation and with the recent appointment of a new Dean and a new Chair of Medicine, the school is strengthening its relationship with VA. The new Chair of Medicine has prior ties to VA and uses lab space at the VA to carry out his research. In 2001, NYU merged its residency programs in Medicine into a single track that includes a

VA rotation. Under this system, the entire residency program, not just residents in VA-funded positions, will rotate through VA.

According to annual ratings in *U.S. News and World Report* , NYU ranks in the top 30 medical schools nationwide. Interview respondents from both VA facilities and the medical schools agreed that NYU had a stronger academic reputation overall than SUNY and was a center of excellence in several important areas. However, SUNY also had strong programs, and, in some opinions, was stronger than NYU in some services, such as Ophthalmology.

2.3 VISN priorities

The Harbor is part of the VA New York/ New Jersey Veterans Healthcare Network, VISN 3 (the Network). The Network is comprised of five hospitals, three of which are integrated, with nine main divisions in greater New York City and New Jersey. Veterans in VISN 3 are among the oldest and frailest in the country.

The VISN was an important player in the Harbor integration in three ways. First, it initiated the integration, as will be described in section 3.1.

Second, it had already regionalized some clinical services, which affected the Harbor's organizational structure. In fact, the creation of the Harbor was just one of several initiatives to consolidate and streamline services in the Network. Two other facility integrations in the Network (in New Jersey and the Hudson Valley) preceded New York Harbor. Early examples of regionalized Network programs and services included Contracting, Prosthetics, Laundry Services and Spinal Cord Injury**.** Some newer programs included Food Preparation and product lines for Homeless and Mental Health. In addition, councils and task forces were established to share approaches and best practices in areas such as Hepatitis C management, long-term care and clinic waiting times. The Network was also centralizing its information systems.

Third, budget constraints VISN-wide had a strong impact on the Harbor. The Network's biggest challenge has been to deal with substantial budget reductions resulting from VA's shift in FY 1997 to a new budget allocation system (VERA) that distributes funding based on the number of veterans served.[5] Since the adoption of this resource allocation system, VISN 3 has faced severe budget shortfalls. With a history of high cost care, Network budget concerns—striving to keep unit costs for these older, sicker veterans in line with the rest of the nation—grew even more severe during the study period.

3.0 BY WHAT PROCESSES DID THE MANHATTAN AND BROOKLYN VA MEDICAL CENTERS INTEGRATE?

The integration of medical centers – unless it is purely an administrative merger of top leadership – represents a major organizational change. Generally the employees of an organization, and often its external stakeholders, resist change. When the change involves the merger of two previously separate organizations, resistance to change is usually compounded by distrust of the "other" group. To minimize resistance to change, it is generally accepted that the involvement of internal and external stakeholders

[5] *VERA system for allocating budgets*: In 1996, VA adopted a new system for distributing its $17 million medical care budget to VISNs and then to medical centers. The new system, the Veterans Equitable Resource Allocation (VERA), replaced a system based on historical medical center costs with a system based on the number of veterans having the highest priority for health care. The new system resulted in substantial shifts in the distribution of resources among VISNs, creating what were commonly referred to as VERA winners and losers. Although the new system was phased in over several years to cushion its impact, several VISNs saw substantial budget reductions under VERA. VISN 3 was among the highest losers under VERA.

in the change process together with extensive communication about the change plans and progress are important. The Harbor, despite attempts to use inclusive approaches and despite regular communication, faced challenges to these efforts over the course of the change process.

Beginning with the initial decision to integrate, this section describes the process of integration in the Harbor, presents the staff perceptions of integration, and highlights two factors that had a strong influence on the process: the cultural differences and rivalry between campuses, and the importance of the JCAHO review as a facilitator of integration.

3.1 The integration objectives and decision

The process of integrating the Brooklyn VA Medical Center and the Manhattan VA Medical Center began with a leadership vacancy. With the departure of the Brooklyn VA Medical Center Director in 1997, the Director of the Manhattan VA Medical Center was asked to serve as acting director of Brooklyn while also continuing his position in Manhattan. While the most pressing reason for the appointment was to fill the immediate vacancy in Brooklyn, the VISN Director asked the Manhattan director also to explore the potential for integrating the two medical centers. The VISN Director was responding to questions from VA Central Office and from Congress about whether Manhattan City really needed three VA hospitals (the third is located in the Bronx), or whether one of them should be closed. (This was consistent with the previously described ongoing analyses and consolidations in VISN 3 to identify efficiencies in the system.)

A Joint Executive Committee of the two medical centers was appointed to investigate the potential for integration in December 1997. By January 1998, the Joint Executive Committee notified VA Central Office of its intent to integrate the two facilities. Kenneth W. Kizer, M.D., Under Secretary for Health, then authorized development of a full integration plan.

All stakeholders agreed that some form of partnership was necessary between the two institutions to ensure provision of VA health care in the area. Unlike the experience of some other VA medical center integrations, the reaction of the various constituencies was low-key.

After internal discussions and analyses, with involvement of major internal and external stakeholder groups in the planning processes, Manhattan and Brooklyn submitted their plan to VA Central Office to integrate the two medical centers to form the VA New York Harbor Healthcare System. The key goal, according to planning documents, was to merge in a way that would achieve a more flexible, efficient and cost-effective system while maintaining, if not improving, the quality of care provided to veterans.

Anticipated benefits of integration, according to these planning documents, were to:

- Create a single standard of care and standard of practice
- Support continued high quality care, increased access and expanded customer service
- Maximize available resources and capitalize on expertise
- Eliminate duplicate clinical programs while improving quality and containing costs
- Tap the best programs clinically and educationally through ties to two academic affiliates
- Consolidate duplicate administrative programs to achieve cost savings
- Coordinate opportunities for outreach.

It was anticipated that these benefits would be achieved by:

- Defining a single strategic direction under one leader
- Providing complementary, and in some cases synergistic, services
- Maintaining centers of excellence at each division
- Combining medical staff

- Consolidating duplicate administrative programs
- Expanding access points.

Thus, the expectation of VA Central Office, the leadership of the two medical centers and the major stakeholders was that the new system could achieve efficiencies by consolidating or combining administrative and, at least some, clinical services. Although an overall plan for an integrated organizational structure was included in the plan, details had not yet been worked out. The integration plan was approved and the new system, the New York Harbor Healthcare System, was formed in January 1999.

3.2 Integration planning and roll out

Formal analysis and exploration of the feasibility of integration was underway for more than a year before approval by VA Central Office and, planning activities moved to an intense level in the summer of 1998 as the two medical centers joined forces to develop the integration plan. Four formal integration vehicles were already organized in July 1998.

Planning Forum. The Planning Forum was convened to solicit input on the integration from staff and external stakeholders. The 200 participants included representatives from each facility, labor unions, veteran service organizations (VSOs) and medical school affiliates. The Forum outlined a framework and timetable for integration and solicited stakeholders' ideas and comments on a broad spectrum of integration topics. Stakeholders involved in the Planning Forum were also invited to review a draft integration plan before it was submitted to VA's Central Office in October 1998. The Planning Forum was convened again in 1999.

Integration Teams. As a result of discussions at the Forum, the Medical Center Director chartered 14 Integration Teams to collect and evaluate data on particular areas of operation (such as transportation, communication, access), and to recommend actions for potential reorganization efforts**.** (See Appendix C for list and description of the Integration Teams.) Several other teams were added later. Through the Integration Teams, employees from all levels of each facility and stakeholders were given the opportunity to participate in the integration process.

Each team's charter described its focus and specific charge, and determined selection of members. The teams were inclusive across disciplines. Generally, the teams were to evaluate customer needs, availability of services, and potential clinical and economic impacts of integration in their area. The teams identified ways to develop and enhance Harbor identity and to facilitate coordination of care and services among the facilities, in concert with stakeholders' needs.

The teams were expected to act quickly with the initial charters calling for completed reports by September or October 1998. Most teams completed their reports on time with some finishing in November and December 1998. Most developed other teams to work further on individual aspects of their charter. The Communication Team, for example, set up other teams to integrate the databases and launch the clinical software package, CPRS. Many of the teams worked through 2000 and some through 2001. Some elements of the teams were incorporated as ongoing process structures for the Harbor; for example, policy review teams, both clinical and administrative, continued to review policies for substantial changes across the Harbor.

Integration Steering Committee. The Integration Steering Committee was appointed to set the direction for integration and oversee the integration process. Members included representatives of senior facility leaders, VSOs, labor unions, and affiliates. The committee initially met monthly. The Integration Teams reported regularly to the committee on their progress and presented their final

recommendations for approval. The last formal Integration Steering Committee meeting was held in July 2001. The committee continued to meet until all the teams had made a final progress report and no longer needed the Steering committee assistance. The final committee meetings were utilized to oversee progress made by individual services with responsibilities for completing long-term recommendations from the Integration Teams, such as Patient Services and Mental Health. Work on refining the organizational structure of the Harbor continued outside the committee.

Integration Office. The Integration Office was established to coordinate planning and early phases of consolidation between facilities. This small group of three staff initially had wide-ranging responsibilities to:

- Serve as liaisons for all stakeholders and staff on all aspects of the integration process;
- Provide support for Integration Teams;
- Disseminate information on integration to all stakeholders.

Among its communication efforts, the Integration Office organized Director's Forums (or town meetings) with employees early in the integration process; sponsored informal employee lunches and workshops to discuss integration issues and organizational change, also early in the integration process; and issued an integration newsletter until the Integration Office closed. It disseminated site-visit and survey results from this study through the newsletter and with bulletin-board summaries of survey results at all campuses. The office served an important function in facilitating the Integration Teams and keeping them on target. In its role as liaison, the Integration Office served as the place where people from all parts of the organization came to obtain information – and, in many instances, to vent about their confusion and unhappiness.

In addition to their initial responsibilities, Integration Office staff were responsible for overseeing the integration of all policies and committees in preparation for the Joint Commission on Accreditation of Healthcare Organizations (JCAHO) review.

The Integration Office continued its operations until the spring of 2002, albeit at much lower levels of activity in its final months**.**

3.3 The role of other stakeholders

Medical affiliates, unions and the Veteran Service Organizations (VSOs) each played a role in the integration process.

Both SUNY and NYU were closely involved in the Harbor integration from the beginning. Deans from both affiliates actively participated in the Integration Steering Committee, and representatives formed a Medical School Affiliates Team to assess the impact of integration on the medical schools. Early in the integration process, the Harbor combined the two Dean's Committees into a single Dean's Committee. At an early meeting with Under Secretary for Health, both Deans voiced strong opinions and serious concerns in order to try to protect their own training programs. As will be described in section 4.5, each medical school had different priorities for and concerns about the integration of the Brooklyn and Manhattan campuses.

Unions were important stakeholders in the integration process. Harbor leadership stressed the importance of union buy-in to successful integration. A Joint Partnership Council agreement between management and the labor unions was signed in February 1999. Early in the integration process, some unions were uneasy about integration, uncertain about how they would fare and fearing that they would lose their hold on one campus or another. In both Manhattan and Brooklyn, nursing was more favorable

to partnership than other unions. Lack of union support was a significant barrier to implementing patient care lines at the St. Albans campus.

The Veteran Service Organizations (VSOs) were regularly kept apprised of the integration process through the Management Advisory Council. They appeared to voice no strong objections to – or support for – the integration plans. Their positions would probably have been stronger if more changes were proposed to consolidate clinical services to one campus.

3.4 Staff perceptions of integration

The integration of two medical centers, as stated earlier, represents a major organizational change that is difficult for staff. Typically, in the early stages of major change, staff morale will be negatively affected. Some staff will resist change. To combat both resistance and anxiety about change, texts on change recommend that staff be involved in planning processes and that leadership communicate with staff continuously and through multiple channels.

Consistent with these recommendations, the Harbor integration processes used several mechanisms for involving staff and for extensive communication across the system, as we have described. From the perspectives of some staff we interviewed, however, these efforts were only partially successful. Staff who participated in the Integration Teams seemed more likely to view the integration favorably than people who had not. Several people spoke positively about their participation on an integration team and were proud of the documents their team produced. But they were frustrated when no action was taken or their recommendations were not followed. Others talked about the multiple communication channels, but felt they were not being told the whole story. When leadership said they were pursuing opportunities for integrating services rather than following a master plan, some staff did not believe them, convinced there was a secret master plan, and their anxiety continued. Some staff expressed frustration that system leaders did not want to hear their concerns.

From our interviews, morale of Harbor staff appeared low in the early stages of integration. By some accounts, staff morale was already low in 1999 because of several years of budget cutbacks under the new VA budget allocation system (VERA). The integration of the two medical centers created additional feelings of insecurity. There was a natural fear of the unknown. Staff were uncertain about how the system would be reorganized and, most important, how the changes would affect them personally in terms of their job, supervisor and location. For Brooklyn campus staff, the concerns were heightened by concerns that their campus would close, as will be described in section 3.5.

By the summer of 2001, according to our interviews, morale was still low, more as a result of budget pressures and the resulting staff reductions than of integration. From interviews, it appeared that morale at Brooklyn continued to be lower than at the other campuses. Reportedly, some Brooklyn staff still felt like the stepchild whose future was uncertain, although the new ambulatory care wing helped assure some staff that Brooklyn was not facing imminent closure. The move of the Inpatient Psychiatry unit from Brooklyn to Manhattan in the summer of 2001, accelerated because of severe financial constraints facing the Harbor, by some accounts renewed staff distrust of system leadership and the belief in a master plan that was not being shared.

The integration survey results provided additional insights from a broader group of staff about staff involvement in and opinions about the integrating system. Survey items were clustered by factor analysis into four scales:

- Involvement in the Integration Process;
- Optimism about Integration;
- Identification with New York Harbor;

- Job Satisfaction.

The first three scales[6] reflect a growing understanding and commitment to the new system as it matures. Meaningful involvement in the change process, for example, typically fosters understanding and eventually commitment to change. As a change process proceeds and the integration matures, one expects staff to begin to identify with the broader integrated organization, rather than just their own campus.

The last scale is a direct measure of personal satisfaction with one's position in the system at the time of the survey.

The survey results show overall that staff opinions about integration were mixed and generally stable over time. In 2001, as shown in Exhibit 3 on the next page:

- Just over half the respondents were positive about Involvement in the Integration Process and about System Identification, indicating that roughly half the staff agreed that staff had played a role in the integration process, understood how their work fit into integration, were working well together across campuses and were committed to making integration a success.

Scale Definitions

Involvement in Integration Process: Staff played a role in the integration process; have been kept informed about its status; have had a chance to discuss it with their supervisors; and understand both the effect of integration on their work and how their work furthers system goals.
Optimism about Integration: The integration process is inclusive and well-considered; staff expect increases in the overall level of system integration.
Identification with NY Harbor: Staff across campuses are working together toward the same goals; have compatible ways of operating and provide excellent care; are committed to making the integration a success.
Job Satisfaction: Staff have the support they need to do their jobs well; are positive about their pay and opportunities in VA; and are positive about future improvements in the overall quality of their work life.

- Just under half agreed that they were Optimistic about Integration, indicating that a somewhat smaller proportion of staff believed the integration process to be inclusive and well-considered and expected system integration to increase.

- Half the respondents were positive about their Job Satisfaction in terms of having support to do their jobs well, being positive about pay, opportunities and their future work life.

- On all four scales, roughly one third of the staff were neutral and a small group disagreed. Thus, according to the survey, by the third year there were relatively few staff expressing negative opinions about integration.

Looking at the survey results over time (not shown in the exhibit), *the scores on three of these four scales surprisingly remained essentially stable between 1999 and 2001.* Ratings on Process Involvement rose by a statistically significant amount (up by .20), indicating that over time staff felt more involved in the integration process and understood how their work was affected by the integration.

[6] Each scale presented in the accompanying box was developed through factor analysis from a set of questions that were rated by respondents from 1-5, based on agreement or disagreement on how positive they felt about the questions posed. The *mean* is the average score on the set of questions for all staff respondents, including staff and managers. In conducting the survey, staff were segmented into three groups: managers, clinicians and general staff. The *managers' mean* looks at the response of managers only. See Appendix B for details on study methodology.

However, contrary to expectation that perceptions would grow more positive as the system matured, ratings on Identification with the Harbor, Optimism about Integration and Job Satisfaction did not change significantly over the three years.

Looking at statistical differences among groups, managers were significantly more Optimistic about Integration (3.80), saw higher Involvement in the Integration Process (4.21) and experienced a higher Identification with the Harbor (3.86) than did clinicians and general staff. These differences were consistent across years.

These findings are not surprising. The literature shows that staff closer to the top of an organization tend to be more positive about organizational change and perceive that more has changed; in this case, more has been integrated. This may reflect both a deeper involvement with the change process and a broader view of the organization. Of note, managers did not report higher job satisfaction than clinicians or general staff, nor did their satisfaction improve over time, suggesting that they distinguished between their perceptions of the system and their perceptions of their personal work situation.

Exhibit 3
Staff Perceptions about Integration
(2001 results)

Scale	*Distribution of Responses*			*Mean*
	Agree %	*Neutral %*	*Disagree %*	
Involved in Integration Process	54	36	10	3.50
Optimistic about Integration	47	36	17	3.34
Identify with New York Harbor	54	36	10	3.45
Satisfied with Job	49	39	12	3.38

3.5 Factors influencing the integration process

While many factors affected the processes by which NY Harbor was integrated, two stand out as having particularly strong influences: cultural differences posed a barrier to integration while the accreditation review by the Joint Commission for the Accreditation of Healthcare Organizations (JCAHO) served as a facilitator.

Cultural differences and rivalry. Cultural differences among the campuses played an important role in the integration process. Despite their outward similarities as complex urban teaching hospitals, the organizational cultures of Brooklyn and Manhattan were very different. Brooklyn staff described themselves as a stable, cohesive community, while Manhattan was described as more fast-paced and with regular turnover of staff. By some accounts, the cultures translated, for example, into initially different working styles in committees with Manhattan staff being assertive and Brooklyn staff being more laid-back.

These differences created natural tensions in the integration process, giving rise to an early sense of suspicion and competition. The rivalries between the campuses were exacerbated by the perception that Manhattan was taking over Brooklyn. Early in the integration, fears and concerns about a potential closing of Brooklyn as an inpatient campus contributed to perceptions among Brooklyn staff of a hostile Manhattan takeover. For example, several staff respondents told us that the use of the name and station number of the Manhattan campus for the integrated Harbor system was evidence that Manhattan was

favored. Others talked about the predominance of Manhattan people among the top leadership -- the Director, the Deputy Director, the Executive Chief of Staff, the Associate Director for Patient Services and the Associate Director for Finance and Information.

System leadership attempted to counter these impressions and anxieties about a Manhattan takeover. For example, the Harbor Director located his primary office at the Brooklyn campus and highlighted the opening of Brooklyn's new ambulatory care building as evidence of the system's continued commitment to the campus. Brooklyn staff were appointed to leadership positions including the Associate Director for Facilities and Human Resources, Performance Improvement Manager and the Compliance Officer.

Nonetheless, some respondents reported that lower patient volume and some loss of surgeons at the Brooklyn campus made that campus vulnerable to closing all inpatient services since they did not think that they could have inpatient Medicine without Surgery. To some respondents, the new ambulatory care building was not a reassurance but evidence that Brooklyn would be an outpatient center, while Manhattan would be the inpatient center.

The concerns among Brooklyn staff about closing – and undoubtedly a factor contributing to them – were heightened by the two primary medical school affiliations in the Harbor. Across the country, according to other MDRC studies of facility integration in VA, the VA campus with the stronger or more prestigious medical school affiliation usually dominates the integrated system. The majority of leadership positions tend to be from that campus, policies from that campus often are simply adopted for the whole system and staff from that campus often see themselves as more skilled and smarter. For Brooklyn staff, while not aware of the MDRC findings, the higher academic prestige of NYU than SUNY appeared to add to the concerns that Manhattan would take over all tertiary services and inpatient care would be closed in Brooklyn.

Over time, cultural differences and rivalry between campuses became less of a factor but did not disappear. Many Harbor staff recognized that these feelings would continue but were surmountable. A few people were still vocal in interviews about the Brooklyn campus being the less-favored partner. For them, the original concerns about Manhattan had come to pass— in their view, most decisions favored Manhattan and in time, all inpatient services would move to Manhattan.

An interesting internal cultural change related to the Brooklyn campus centers on the changing role and thus image of the St. Albans campus. A long-term care campus that reportedly felt like a stepchild to Brooklyn, St. Albans now enjoyed increased stature because of a clarified mission and its expertise in long-term care recognized.

The JCAHO review. In the fall of 2000, the Harbor underwent its first JCAHO survey as an integrated system. Preparing for JCAHO provided a strong external impetus that accelerated the early integration process along two dimensions. First, it served as the catalyst for integrating policies, mandated committees and medical by-laws much more quickly than would have happened without the pressure of the external deadline.

Second, the JCAHO survey was important in establishing relationships and communication channels across campuses, especially in the clinical services that were not integrated. The external pressure and looming deadline brought people together on high-priority, shared tasks – and a common enemy, as some people expressed it – that focused them beyond their internal differences.

Still, the staff interviewed reported, joint policy development was difficult. By some accounts, the cultural differences between campuses played an early part in committee deliberations. We were told that some services worked well together and had no problem determining joint policies, while others had enormous

difficulty. In some cases, staff reported, the ways that the two campuses operated was so different that one would have to make a major change. In many cases we were told that both ways of operating were valid, just different. Many Brooklyn staff perceived a preference for Manhattan policies over Brooklyn policies, even though they believed some Brooklyn policies were better for their campus. One staff member described a team in which Manhattan clinicians attempted initially to dominate the discussion. The attempt was rebuffed, however, by a strong chairperson and firm committee members, so that by the end of the process the policies reflected what was being done at all campuses and there was greater understanding and respect for Brooklyn's ways of operating. But while some believed that working together on common policies in preparation for the JCAHO survey was beneficial in bringing the campuses together, others believed that it was a paper exercise that simply wasted resources and added no value to the organization.

As a result of these system-wide efforts, the Harbor passed the JCAHO survey with high scores – a major accomplishment for the newly integrated system and a notable success for staff working across campuses.

4.0 HOW DID THE INTEGRATION OF MANHATTAN AND BROOKLYN AFFECT THE ORGANIZATION OF THE SYSTEM?

The organizational structure of an integrated system can take many forms. At one extreme, one of the medical centers closes entirely; at the other, top leadership merges without changes in the rest of the organization. The Harbor chose a middle path: It created a single leadership structure, integrated virtually all administrative services and selected clinical services. The system maintained two inpatient campuses with Medicine and Surgery continuing under separate leadership at each.

In this section, we describe the organizational structure that evolved in the Harbor, the reorganization of patient care services that occurred as part of integration and the synergies and collaboration that were by-products of integration. We also present staff perceptions of system integration. Finally, we highlight four factors that affected the organizational structural of the Harbor: the geography of the system, the medical schools, a strategy of target opportunities and budget constraints.

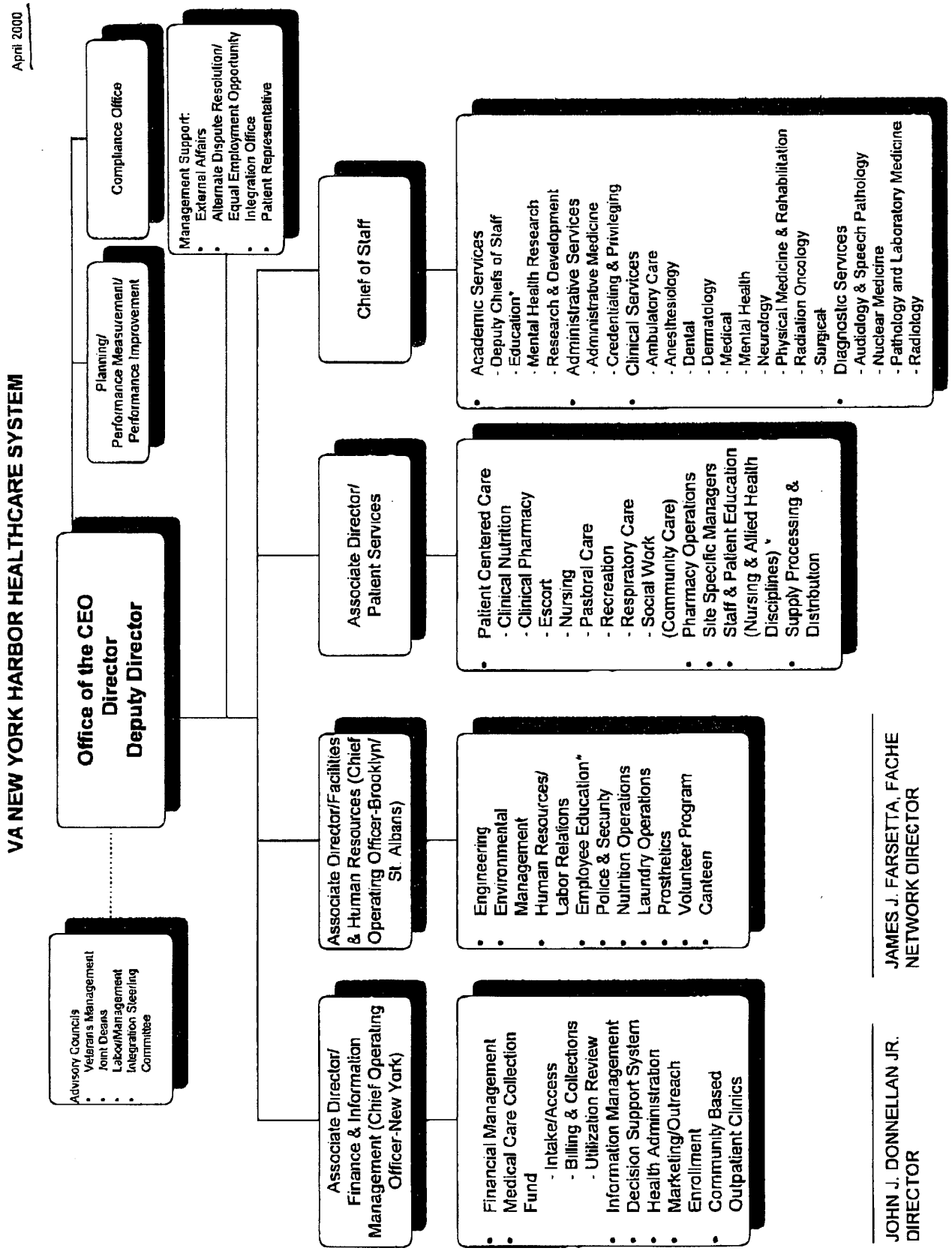
4.1 Organizational structure

The Organizational Model Team, led by the Medical Center Director, developed a structure for the Harbor that was included in the plan submitted to VA Central Office in 1998 and approved in 1999.

The new organizational structure, as described in the March 1999 Harbor newsletter, *Inside the Integration Office,* was designed as "a balance between the status quo and radical change – a viable structure that meets the needs of an integrating facility." Tactical and strategic planning could occur from a "one facility" perspective where a single executive staff and single service-level leaders could implement decisions that efficiently meet new challenges. It was determined, however, that reorganizing to fully integrated service lines would introduce too much change in the Harbor's complex dual medical school environment. It was felt that a complete break from tradition—with decentralized autonomous service lines, for example—would render the organization unrecognizable to stakeholders. Instead, the organizational change "would allow for meeting necessary challenges and allow for additional incremental change as opportunities emerge, yet maintain sufficient ties to traditional structures to allow for a smooth transition for internal and external stakeholders." The organization chart is shown in Exhibit 4 on the next page.

Under the approved integration plan, the Harbor integrated top leadership and then followed an opportunistic strategy to integrating specific services. By design, there was no detailed master plan of which services would integrate. Most administrative services were integrated early in the process, with

Exhibit 4


VA NEW YORK HARBOR HEALTHCARE SYSTEM
April 2000
Advisory Councils
• Veterans Management Joint Deans
• Labor/Management Integration Steering Committee
Office of the CEO
Director
Deputy Director
Planning/ Performance Measurement/ Performance Improvement
Compliance Office
Management Support:
• External Affairs
• Alternate Dispute Resolution/ Equal Employment Opportunity
• Integration Office
• Patient Representative
Associate Director/ Finance & Information Management (Chief Operating Officer-New York)
• Financial Management
• Medical Care Collection Fund
- Intake/Access
- Billing & Collections
- Utilization Review
• Information Management
• Decision Support System
• Health Administration
• Marketing/Outreach Enrollment
• Community Based Outpatient Clinics
Associate Director/Facilities & Human Resources (Chief Operating Officer-Brooklyn/ St. Albans)
• Engineering
• Environmental Management
• Human Resources/ Labor Relations
• Employee Education*
• Police & Security
• Nutrition Operations
• Laundry Operations
• Prosthetics
• Volunteer Program
• Canteen
Associate Director/ Patient Services
• Patient Centered Care
- Clinical Nutrition
- Clinical Pharmacy
- Escort
- Nursing
- Pastoral Care
- Recreation
- Respiratory Care
- Social Work
(Community Care)
• Pharmacy Operations
• Site Specific Managers
• Staff & Patient Education (Nursing & Allied Health Disciplines)*
• Supply Processing & Distribution
Chief of Staff
• Academic Services
- Deputy Chiefs of Staff
- Education*
- Mental Health Research
- Research & Development
• Administrative Services
- Administrative Medicine
- Credentialing & Privileging
• Clinical Services
- Ambulatory Care
- Anesthesiology
- Dental
- Dermatology
- Medical
- Mental Health
- Neurology
- Physical Medicine & Rehabilitation
- Radiation Oncology
- Surgical
• Diagnostic Services
- Audiology & Speech Pathology
- Nuclear Medicine
- Pathology and Laboratory Medicine
- Radiology
JOHN J. DONNELLAN JR.
DIRECTOR
JAMES J. FARSETTA, FACHE
NETWORK DIRECTOR

clinical services proceeding more slowly, consistent with the priority of maintaining viable relationships with both medical schools. Opportunities were generally created by the resignation or retirement of a service chief. By the third year, almost all administrative services and selected clinical and clinical support services were integrated. Integrated clinical services included Anesthesiology, Audiology and Speech Pathology, Dental, Mental Health, Pharmacy, Pathology/Laboratory, Podiatry and Radiology. The system retained both Brooklyn and Manhattan as full-service hospitals with the expectation that each would strengthen its specialized service niches. Each campus had its own separate Medicine and Surgery services. (In addition, selected clinical services had already been regionalized by a VISN network plan. Thus, prior to the creation of the Harbor, Radiation Oncology was consolidated to one campus and Physical and Rehabilitation Medicine was combined under one service chief. Prosthetics was consolidated under one leader from the Manhattan campus with the continued presence of Prosthetics satellites at all VISN campuses.) During this same period, St Albans expanded its primary care and mental health services and later began to offer chronic nursing-home Rehabilitation services.

In the summer of 2001, budget shortfalls accelerated integration steps. The Harbor had experienced budget pressures in previous years, but they were more severe in FY 2001. Inpatient Psychiatry was consolidated to Manhattan and the bulk of Oncology services were brought together in Brooklyn. The changes in Inpatient Psychiatry had been under consideration for some months for clinical reasons, but they were implemented very quickly -- in two weeks – to meet budget needs. In January 2002, consideration was given to consolidating other surgical specialties, but no action had been taken.

The organizational structure of the Research service was integrated under a single Associate Chief of Staff (ACOS) for Research for the system, and the Research and Development, Institutional Review Board, Animal and Biosafety committees and policies were integrated across the Harbor in a relatively short period of time. There was one Institutional Multiple Project Assurance (MPA) agreement in place.

4.2 Patient care services.

In addition to combining services under a single leadership system-wide leadership, the nursing service and most allied health staff underwent a major reorganization at two campuses as part of integration as the system moved to a more uniform patient-centered care (PCC) model in the new integrated system. Before integration, nursing and allied health professionals at Manhattan were reorganized under this model. Brooklyn and St. Albans operated under different structures with different functions and services not included under Patient Services. With the appointment of the Manhattan Associate Director for Patient Services (ADPS) as the system-wide nurse executive, and following five months of planning and orientation by task forces and steering committees, the patient-centered care model was adopted system-wide. Care-line managers were appointed in April 2000 to begin the reorganization. By the summer of 2001, Medicine and Surgery had care line managers at Brooklyn and Manhattan campuses, Mental Health had a system-wide care line manager. Social work had co-chiefs, one based at Brooklyn and Manhattan campus but with programmatic responsibilities evolving into substantive specialties. Nursing Home Care had a Nursing Site Manager at St. Albans, the primary campus for long-term care. St. Albans did not implement the PCC model because of labor objections. In the spring of 2002, the union was negotiating to strengthen the role of the Nursing Site Manager and clarify lines of authority for that position, rather than move to the PCC model.

Some staff coming under the PCC model reported little change in their jobs and many in Brooklyn were not aware of the change. For a few, the change was quite dramatic and early in the process there was intense frustration and anxiety about their roles and lines of authority. Many stated the close, cohesive culture that existed among Brooklyn staff before the reorganization had been damaged. Later in the process, staff unhappiness, where it existed, seemed to stem from budget concerns and service consolidations rather than from the reorganization of patient services.

4.3 Synergy and collaboration

Beyond the organizational integration brought on by combining services across campuses under a single system-wide leader, and in addition to joining policies and committees in preparation for JCAHO, the creation of VA New York Harbor brought opportunities for collaboration and synergy that, in the opinion of system leaders, would not have been possible if the medical centers remained separate. The leadership cited improvements in clinical information systems, compliance initiatives, structures for billing third-party payers, oncology, and palliative care as examples of synergies that went beyond what each facility would have done independently.

Leadership was particularly proud of its efforts in clinical information technology to adopt a new electronic medical record system called CPRS and to adapt a technology called MUSE. Manhattan had implemented some aspects of CPRS, but the other campuses had not. As a newly combined system, they brought new people into discussions and listened to people not normally consulted. Reportedly, they also had early buy-in from the medical staff because they realized the necessity of having data available across sites. As a result of these efforts, the Harbor has become, according to system leaders, a CPRS leader in VISN 3 with the rest of the Network relying on Harbor experience in implementing CPRS at their facilities. In addition, teams working across Harbor campuses successfully connected the Marquette Universal System of Electrocardiograms (MUSE) with the VA patient databases so that clinicians can view EKGs from any clinical workstation across the Harbor.

By leadership accounts, these and other changes came about because staff – and the system more generally – were open to new ideas and could try new things since the whole system was in flux and was rebuilding. Without integration, they argued, the needed changes in these areas would simply have been layered on the existing structures.

4.4 Staff perceptions of the integrated system

To take a step beyond the organization chart and shared policies to determine how integrated the Harbor actually is in practice, the survey asked about staff experiences working across campuses in the integrated system. Through factor analysis, we clustered these survey items into three scales that reflect aspects of system integration:

- Clinical Coordination;
- Improving Quality; and
- Transport Coordination.

The survey results paint a picture of moderate levels of integration with significant improvement over time.[7] As shown in Exhibit 5, just over half the respondents in 2001 agreed that the Harbor is coordinated clinically across campuses and that patient and employee transport work well across campuses. Just under half of the respondents agreed that efforts to improve quality are shared across campuses.

Scale Definitions

Clinical Coordination: Patient care is well-managed across campuses; reliable, timely patient data are available; specialists are available; the referral process is efficient.
Improving Quality: Efforts to improve quality are shared across campuses; system-wide clinical guidelines, protocols and/or algorithms are used; new technologies and best practices are shared.
Transport Coordination: Patient and employee transport between campuses is timely and reliable.

[7] The survey items were statements describing an aspect of an integrated system. Respondents were asked to rate each item on a 1 to 5 scale indicating their extent of agreement that the statement reflected their experience in New York Harbor. A higher mean score indicates greater agreement and thus perceptions of more cooperative efforts across campuses. Means scores were used to make comparisons across time, across different groups of staff and across campuses.

Looking at the survey responses across 1999, 2000 and 2001 (not shown in the exhibit), the strongest area of improvement was Clinical Coordination (up by .45), reflecting staff perceptions that the system's ability to manage patient care well across campuses had increased. This scale moved from being the lowest-rated scale in 1999 to the highest in 2001.

Improving Quality also rose by a statistically significant, but smaller, amount over these years (up by .24), indicating that increasing numbers of staff saw evidence of guidelines, best practices, new technologies and other quality improvements being shared.

Coordination of the transportation function in a multi-campus setting was given special emphasis in the integration planning. Not surprisingly, then, the gains perceived by staff in transportation across campuses came early in the integration. Transport Coordination showed a small statistically significant improvement between 1999 and 2001 (up by .12), but not between 2000 and 2001.

Looking at statistically significant differences among groups in 2001 (not shown in the exhibit), St. Albans scored significantly lower than the other campuses on Transport Coordination (2.98), undoubtedly reflecting its greater distance from the other locations and possibly its specialized functions as a long-term care facility.

Managers reported significantly higher scores on Clinical Coordination (3.91) and Improving Quality (3.95) than clinicians or general staff, suggesting broader experience with cross-campus care and quality activities – or a generally more positive attitude toward integration. The only scale on which managers were not significantly higher was Transport Coordination. In contrast, general staff scored significantly lower than the system average on Improving Quality, probably because they have less exposure to the collaborative clinical quality initiatives and best practices reflected in this scale.

Exhibit 5
Staff Perceptions about the Integrated System
(2001 results)

Scale	***Distribution of Responses***			***Mean***
	Agree %	***Neutral %***	***Disagree %***	
Clinical Coordination	52	41	7	3.50
Improving Quality	47	44	9	3.43
Transportation Coordination	53	38	9	3.39

4.5 Factors affecting the organizational structure

Four interrelated factors had particularly strong effects on the organizational structure of the Harbor: geographic distance and the medical schools' priorities were barriers to integration while budget constraints facilitated it. The opportunistic strategy worked in both directions, facilitating integration in its early phases and hindering it later.

Geography. The geographic distance and traveling time between Brooklyn and Manhattan were seen as barriers to consolidating more clinical services to one campus. Clinicians believed that the time required to move regularly between the Brooklyn and Manhattan campuses (anywhere from 20 minutes to over an hour depending on traffic), was prohibitively long. The physical distance between the two campuses also expressed itself in cultural differences and competition between the two campuses, which are located in very different neighborhoods. Brooklyn and Manhattan veterans generally use only their "local" VAMC.

The assumption is that they would resist going to the other location for care, and that some would choose to get care in the private sector rather than travel to the other VA location. It was thought necessary, therefore, to maintain both Brooklyn and Manhattan as comprehensive hospitals with inpatient Medicine and Surgery services.

Medical school priorities. The two primary medical schools viewed the integration process with different concerns and perspectives, but both were committed to maintaining their training programs at the VA campus with which they had traditionally been affiliated.

As described in section 2.2, NYU appeared to be more focused during the integration period on its own internal changes than on VA efforts to integrate Manhattan and Brooklyn. However, some of these internal changes -- the arrival of a new Dean, a new Chief of Medicine with VA ties and a reorganization of the residency program – were thought to strengthen the school's relationship with VA substantially. NYU was also exploring possibilities for leasing laboratory space at the Manhattan VA campus. In this context, NYU medical school leaders were optimistic about new opportunities with the Harbor.

SUNY leaders, in contrast, believed that the VA integration posed a strong threat to the SUNY training programs at VA. Their concern when integration began was that NYU was the favored affiliate, and that all tertiary services would be moved to Manhattan. In this scenario, Brooklyn would close its inpatient services and become a primary care facility, forcing SUNY to substantially revamp its training programs. By the summer of 2001, with the consolidation of Inpatient Psychiatry and discussions of consolidating Invasive Cardiology, SUNY leaders believed their fears were being confirmed and predicted that the move of tertiary services to Manhattan was inevitable.

Despite these different perspectives, the two schools shared the position of opposing integration of clinical services in which they had strong training programs. The services that have been integrated were not core to both schools training programs. Reportedly, when Inpatient Psychiatry was consolidated to Manhattan, SUNY did not object because it does not have an active residency program; for NYU, on the other hand, it is a key program. When Inpatient Rehabilitation Medicine was consolidated under one leader, NYU sent its residents to Brooklyn, but it also trains at Rusk – which is praised by NYU leaders as a premier rehabilitation facility – so NYU has a strong alternative to VA if it needs it. However, when Harbor leadership proposed integrating Microbiology laboratories, the medical schools argued strongly against the plan and it did not move forward. Both schools have fellowship programs requiring Microbiology labs so consolidation reportedly was not considered feasible.

By the summer of 2001, then, the Harbor had not strongly challenged the medical schools by integrating core services. One medical school official predicted, however, that complex Surgery will be the next area integrated. This is an area where the schools are in direct competition, so the stakes will be high.

A strategy of targeted opportunities. The Harbor was opportunistic in its approach to change. The integration plan provided a broad framework for the new system but no details about which services would be integrated, either by combining staff at both campuses under single leadership or by consolidating services to one campus. The leadership's strategy was to begin by integrating services as opportunities arose, usually when a service chief resigned or retired. Opportunities arose first in administration, both through vacancies and through service leaders developing proposals to realign services, and those services were integrated fairly quickly. Fewer opportunities arose in clinical services where not only the opening in the chief's position, but also the strength of the training and residency programs had to be considered.

In the early development of the Harbor, the opportunistic strategy had several advantages. First, it enabled the system to make changes relatively easily by targeting areas where there was not strong

resistance. The strategy worked well in administrative services and the system made considerable progress toward creating an integrated system. Second, the integration of administrative services and one or two clinical services without major problems provided Harbor leadership with early successes -- which change experts advocate on the theory that they build support for long-term, more difficult change by demonstrating that change is possible and works well. Third, the absence of a master plan most likely facilitated integration because there were no details to object to. This may have been particularly important in avoiding public opposition to integration by the medical schools and VSOs.

But the strategy of pursuing opportunities rather than following a master plan also had a downside in its implications for longer-term change. The strategy hindered change in three ways. First, it heightened staff uncertainty and thus anxiety. Without a overall plan of what services would integrate and when, staff in services that had not integrated were anxious about what would happen next; their uncertainty remained high for a long time. (From interviews it appeared that staff working in integrated services seemed happier and more identified with the new Harbor system than staff who were not working in integrated services.) The strategy also added to mistrust of leadership because some staff assumed that there had to be a master plan, but that leadership was keeping it secret.

Second, the absence of a framework that provided a overall vision or direction to integration seemed to make it easier for the medical schools to oppose the integration of any clinical service that they felt was important to their teaching mission. It was more difficult for Harbor leadership to make a compelling argument that a service proposed for integration was an important component of a larger scheme. To date, the medical schools have not had to grapple with sharing or losing a service that is important to them.

Third, the strategy of pursuing opportunities lacked urgency – and change experts state that an organization needs a shared sense of urgency for large scale change to succeed.

Thus, while the opportunistic approach facilitated integration at first because it was low-key and presented a path of least resistance, it also increased staff anxiety and left Harbor leadership without a firm position from which to negotiate more significant changes in a more timely fashion.

Budget constraints. In 2001, the third year of integration, the pressure of budget shortfalls increased. The Harbor, like other medical centers in VISN 3, had faced budget constraints since VA's new budget allocation system was implemented in 1997. But by 2001, budget problems were more urgent because the obvious system cuts had already been made. The urgency of the budget accelerated cutbacks in some inpatient services and integration of others. Some managers commented that the integrated system expanded their flexibility in addressing the shortfalls. It allowed them to reallocate staff across campuses or employ joint purchasing arrangements, without having to resort to more draconian measures of consolidating services.

At the same time, budget pressures accelerated the integration of targeted clinical services. With unrelenting budget constraints, Harbor leadership recognized that further integration of clinical services was inevitable in order to extract savings from economies of scale and service consolidations and thus reduce costs. And against the budget pressures, system leaders are more actively proposing services to be consolidated to one campus. The affiliates' responses have been lukewarm at best.

5.0 HOW HAVE THESE CHANGES IN STAFFING AND THE DELIVERY SYSTEM AFFECTED QUALITY, PATIENT SATISFACTION, EFFICIENCY, TEACHING AND RESEARCH?

The anticipated benefits of integration, as outlined in the 1998 integration plan, included continued high quality care, increased access and customer service, maximized resources and cost savings by eliminating duplicative programs. To consider the Harbor's success in realizing these benefits in this section, we look first at staff perceptions of the impact of integration and second at objective measures system performance in terms of quality of care, patient satisfaction and cost efficiency.

We also look at the impact of integration on teaching and research as part of the answer to this third study question about the effects of integration.

5.1 Staff perceptions of the impact of integration

Perhaps not surprisingly, staff opinions about the impact of integration were mixed at all levels below leadership.

During interviews, a few respondents told us that they had witnessed a slight improvement in patient access and continuity of care since integration. However, a few others believed that clinical care was being fragmented with some services being offered at only one campus. Several respondents reported difficulties with the integration of support services, for example, in obtaining lab results.

Perceived problems focused more on inadequate staffing resulting from budget cuts. Some respondents were concerned about the lack of staffing to adequately treat patients. Staff were concerned about good people leaving and about being expected to do work previously done by several people. In this context of staffing cutbacks, many staff questioned savings from integration because they believed that new layers of management had been added, though in fact there were fewer managers than before integration.

To assess staff opinions more systematically, the survey included a series of items on the effects of integration on patient care and on resources. Respondents were asked to rate the items on a 1 to 5 scale from very negative to very positive.

Scale Definitions

Effects on Patient Care: Integration had a positive impact on patient access to care, the array of services available, coordination of care, the ability to obtain support from other campuses, the ability to train new clinicians, and the quality of services provided.

Effects on Resources: Integration had a positive impact on workload, staffing levels, adequacy of resources, the ability to eliminate unnecessary duplication of staff and equipment, and the ability to operate efficiently.

The survey results for 2001 show that *staff were more positive about the impact of integration on clinical care than on system resources.* As shown in Exhibit 6:

- Roughly half of the respondents judged that integration had a positive effect on patient care in terms of access to care, range and quality of services offered, care coordination, support across campuses and ability to train new clinicians.
- Only a third judged that integration had a positive effect on resources in terms of the adequacy of available resources and staff ability to operate efficiently to meet workload demands. These lower ratings were consistent with interview discussions but probably reflect budget problems more than direct effects of integration.

Surprisingly, these judgments remained stable over time for the whole system. We had expected perceptions of positive effects to increase as the integration matured. There were no systematic differences among groups of staff or among campuses on these scales.

Exhibit 6
Staff Perceptions about the Effects of Integration
(2001 results)

Scale	*Distribution of Responses*			*Mean*
	Agree %	*Neutral %*	*Disagree %*	
Effects on Patient Care	53	34	13	3.45
Effects on Resources	34	44	22	3.09

5.2 System performance

Using data from VHA standard databases, we analyzed the Harbor's performance on measures of quality of care, patient satisfaction and system efficiency. For measures of patient satisfaction and system efficiency, we tracked the Harbor's performance from FY 1998 to FY 2001. For measures of quality of care, we did not compare performance over time because the VHA performance measures changed from year to year. In all three areas, we compared Harbor performance with the national VHA system performance in 2001.

The analyses present a mixed picture of Harbor performance. Looking at the analyses in each area in turn:

Quality of care. One of the expectations of the Harbor integration was continued high quality care to veterans. Because VHA tracks quality of care on many measures, we elected to use a summary measure to present a high-level picture of the Harbor's quality performance. On the FY 2001 Network Performance Measures (excluding patient satisfaction), the Harbor exceeded the target for fully satisfactory performance on 18 measures, fell below the target on 20 measures and equaled the target on two measures.[8] This was slightly below national performance, with VHA nationally exceeding the target for fully satisfactory performance on 20 measures and falling below target on 17 measures. To be noted, the Harbor had strong/exceptional results on six clinic waiting times measures, a high national priority in VA in FY 2001.

Patient satisfaction. Maintaining patient satisfaction is always a concern in any major organizational change, initially because of confusion and uncertainty when change is first introduced and possibly later because of shortfalls in the newly-implemented service delivery arrangement. *The Harbor's performance, as judged by veterans, was mixed with stronger outpatient than inpatient ratings*.[9]

As shown in Exhibit 7, veteran satisfaction with inpatient care was low in 2001. With problem rates ranging between 19.92 and 45.38, the Harbor was more than two standard errors above the national problem rate mean on all scales in 2001, and the problem rates rose on all scales between 2000 and

[8] Source: Office of Quality & Performance, Performance Measures Reports, http://vaww.oqp.med.va.gov/oqp_services/performance_measurement/reports.asp. Performance measures were not compared over time because they changed between FY 1998 and FY 2001.
[9] Source: Office of Quality & Performance, Patient Satisfaction Reports, http://vaww.oqp.med.va.gov/oqp_services/veterans_satisfaction. Patient satisfaction scores reported here are problem rates. Thus low scores, reflecting few problems, indicate higher satisfaction. A full description of the patient satisfaction survey and its scales can be found through the website.

2001. Among the inpatient scales, the strongest areas in 2001 were courtesy (19.92) and physical comfort (22.42). Problem rates on all scales were higher in 2001 than the rates for the separate facilities in 1998.

On ratings of outpatient satisfaction in 2001, the Harbor met the national performance target of reducing its problem rate by 1 point from 2000 on three scales: access, continuity of care, and pharmacy (appropriateness and timeliness). However, on two of these scales, access and pharmacy, the problem rates were still two standard errors above the national average. The problem rates were also two standard errors above the national average on courtesy and emotional support (though courtesy had relatively few problems compared with other scales); the problem rates rose on these scales between 2000 and 2001.

On a brighter note, the Harbor's problem scores were lower than or equaled national scores on four outpatient scales: continuity of care, visit coordination, overall coordination and specialist (timely coordination). Comparison of 2001 scores with 1998 scores for the separate medical centers, showed improvement from both campuses' pre-integration problem rates in access, visit coordination, overall coordination and pharmacy access; and improvement from Manhattan's pre-integration preferences rating. Pharmacy showed the strongest improvement, dropping from a problem rate of 31.19 at Brooklyn and 39.02 at Manhattan in 1998 to 24.81 in the Harbor in 2001 – still significantly higher than the national average.

Exhibit 7
Patient Satisfaction Measures: Problem Rates

Inpatient (Except Psychiatry)	2001 NYHHS	2000[10] NYHHS	1998 Manhattan	1998 Brooklyn	2001 National	2000 National	1998 National
Access	32.22	26.15	25.69	25.15	23.10	22.33	21.37
Coordination	27.64	25.68	24.73	24.02	23.20	22.67	22.52
Courtesy	19.92	16.92	14.58	14.53	13.63	13.72	13.53
Emotional support	45.38	39.82	40.25	39.88	36.66	36.64	36.17
Family involvement	33.99	28.98	27.86	29.00	28.29	28.78	28.27
Patient education/info	40.38	34.79	36.01	38.32	34.23	34.25	33.83
Physical comfort	22.42	21.37	16.03	18.32	18.33	17.98	16.57
Preferences	40.36	34.11	36.43	37.77	29.81	29.70	30.17
Transition	39.25	34.90	35.83	35.16	33.61	33.71	32.53
Outpatient							
Access	16.94	17.91	17.02	17.52	12.06	12.65	12.62
Continuity of care	24.95	26.28	24.85	25.08	24.64	23.31	21.80
Courtesy	11.28	10.01	10.16	9.52	7.00	7.07	7.08
Emotional	23.35	21.45	19.90	22.44	19.44	20.00	20.70
Overall coordination	26.88	27.15	29.29	29.22	27.15	27.88	29.80
Patient education/Info	31.20	29.58	28.60	29.70	29.84	30.35	30.97
Pharmacy	24.81	27.77	39.02	31.19	16.14	19.11	24.14
Preferences	20.36	20.36	23.29	20.37	20.07	20.64	21.30
Specialist	24.95	24.72	NA	NA	26.97	27.32	NA
Visit coordination	15.97	14.14	18.75	19.16	15.78	15.43	18.63

[10] 2000 scores are included because the target performance for 2001 is a 1-point decrease in problem rate between 2000 and 2001 on each satisfaction measure.

Efficiency. Consistent with its objective of maximizing resources, *the Harbor succeeded in reducing its staff and costs in relation to its workload* over the first three years of integration. As shown in Exhibit 8,[11] staffing and costs are lower in the Harbor in FY 2001 than they were in the Brooklyn and Manhattan VAMCs in FY 1998 before integration on all but one measure. The exception is physicians per 1000 adjusted workload where the physician level across the Harbor is the same as Brooklyn's before integration.

On all measures, Manhattan had higher costs and staffing per workload prior to integration and therefore showed a larger drop than Brooklyn in relation to the combined figures for the system. We do not know how costs and staff were distributed across campuses in FY 2001, and therefore cannot conclude that Manhattan had taken a larger proportion of the efficiencies – that is, had lowered staff and costs more.

Given the emphasis on the consolidation of administrative services in the Harbor, we expected to see that administrative resources were being redirected into clinical care. However, the patterns were not as strong as expected. With the increasingly severe budget problems, both direct and indirect costs were reduced, as shown in Exhibit 8. In partial support of our expectation, indirect costs were reduced by a larger proportion. On the other hand, in comparison with national changes during this period, the Harbor reduced direct costs by a larger proportion and administrative costs by a smaller proportion.

Exhibit 8
Efficiency Performance Measures

Measure	FY 01 NYHHS	FY 98 Manhattan	Percent change from Manhattan FY 98 to FY 01	FY 98 Brooklyn	Percent Change from Brooklyn FY 98 to FY 01	FY 01 National	FY 98 National	Percent Change from National FY 98 to FY 01
Adjusted FTEE per 1000 adjusted workload	43.37	58.65	-26%	55.08	-21%	40.24	51.20	-21 %
Physicians per 1000 adjusted workload	3.11	4.20	-26%	3.10	0%	2.50	2.92	-14%
Nurses per 1000 adjusted workload	8.94	11.19	-20%	9.67	-8%	7.74	9.65	-20%
Adjusted costs/adjusted workload	$4,603	$5,728	-20%	$5,369	-14%	$4,174	$4,660	-10%
Direct costs per adjusted workload	$3,328	$4,072	-18%	$3,743	-11%	$3,232	$3,367	-4%
Indirect costs per adjusted workload	$1,276	$1,656	-23%	$1,626	-22%	$942	$1,310	-29%

[11] Source: Allocation Resource Center. Unit Cost Reports, http://vaww.arc.med.va.gov/reports/ucr/UCR_toc.html Cost data were adjusted for inflation.

The Harbor also moved closer to the national performance standards during this period, although it remained above them as would be expected in a highly affiliated teaching system. In comparison with two systems also created by the integration of highly affiliated medical centers, the VA Boston and Chicago Health Care Systems, the Harbor showed greater improvements in efficiency between FY 1998 and FY 2001, as shown in Exhibit 9. However, the Harbor's staffing and costs per adjusted workload remained higher than Boston's and Chicago's in FY 2001.

Exhibit 9
Comparison of Efficiency Measures: NYHHS, Boston, Chicago

Measure	NYHHS			Boston			Chicago		
	FY 98[12]	FY 01	% change	FY 98	FY 01	% change	FY 98*	FY 01	% change
Adjusted FTEE per 1000 adjusted workload	56.87	43.37	-23.7%	47.82	41.48	-19.3%	42.89	37.05	-13.6%
Adjusted costs per adjusted workload	5548.5	$4,603	-17.0%	$5040	$4,364	-13.4%	$4,092	$3,823	-6.6%

5.3 Impact of integration on teaching and research

Integration has not yet had a strong impact on the academic mission of the Harbor. The organizational changes made to date have not resulted in major changes in either teaching or research.

Impact on teaching and training programs. By the third year of integration, teaching had been affected in only a few consolidated services. Overall, the number of VA-funded residency positions rose by 6 in Academic Year (AY) 2001/2002 to 257, bring the number back to AY 1997/1998 pre-integration levels.

However, according to interviews, some people, especially those affiliated with Brooklyn, expressed concern about insufficient patient volume remaining to support training as more services are integrated, or about whole areas being consolidated and the training opportunities disappearing entirely. Some of the residents interviewed, particularly those at Brooklyn, were concerned about reduced patient load and therefore declines in specific surgical/procedural experiences. We were told, for example, that several types of cases are done only at the Manhattan campus. For patients referred to Manhattan, the Brooklyn residents only were able to take care of patients after the procedure or if they had post-procedure problems. These residents were very concerned about the deficits in their training experience.

[12] Means of the pre-integration site scores are shown for both Chicago and Boston.

Many respondents also reported a decrease in their time available to train because of increased clinical responsibilities. This is a trend common across the healthcare industry, especially in a system with budget pressures and does not appear to be a direct result of integration.

Education programs will be more deeply affected if the Harbor consolidates more clinical services.

Impact on research. The emphasis in research was on seeking joint opportunities in targeted areas, not in making organizational changes. Many respondents described the leadership of the Harbor as very supportive of research and that they were encouraged that this academic mission was valued. Research funding rose to $9.1 million in FY 2001, $1.5 million higher than the previous year and about level with combined funding in FY 1998.

Several positive examples of collaboration were described including joint tumor boards, some specific collaborative research projects, and opportunities to include new patients in their studies. New collaborations with NYU researchers were also described as providing exciting opportunities to expand research.

As with teaching, however, many researchers reported that budget cutbacks and increased patient caseloads had interfered with their ability to conduct research. Some researchers cited the push for policy integration and VERA cutbacks as having hindered support (personnel and resources) for research. Some respondents reported that access to the ACOS for Research was more difficult now that the leadership had been consolidated in one position.

6.0 CONCLUSIONS AND LESSONS LEARNED

The VA New York Harbor Healthcare System has made good progress in developing an integrated system across campuses, but that progress is not without limits and was not accomplished without difficulties. In this section, we first summarize the progress the Harbor has made and then step back to consider the forces that brought it to this point.

By early 2002,

- The Harbor had integrated almost all administrative services and selected clinical services across campuses. It retained both the Brooklyn and Manhattan campuses as acute inpatient facilities with independent Medicine and Surgery services, while beginning to create specialized clinical niches at each campus. It successfully passed review as an integrated system by the Joint Commission for the Accreditation of Healthcare Organizations (JCAHO) in 2000.
- Harbor leaders were pleased with the system's progress. In addition to the organizational changes and JCAHO success, they emphasized several improved and new programs that resulted from the synergy of all campuses working together, and they emphasized the flexibility the integrated system offered to allocate resources where needed.
- Harbor staff had mixed opinions about integration and its effectiveness. At the beginning of integration, morale was low and cultural differences between campuses created tensions. By the fall of 2001, roughly half the staff were optimistic about integration. Staff rating of clinical coordination improved significantly over time, with just over half reporting by 2001 that patient care was well-managed across campuses. More staff reported positive effects of integration on clinical care than on needed resources.
- By design, medical education was not substantially changed by integration. Early in the integration process, leaders at VA and the two medical school affiliates (New York University [NYU] and the State University of New York at Brooklyn [SUNY]) agreed to preserve medical education and the role of both affiliates in the Harbor. Consistent with this agreement, teaching and training were affected

very little by integration because the core clinical services were maintained in Manhattan and Brooklyn. There were, however, some concerns about maintaining adequate caseloads to support resident training in a few services. Research was integrated administratively with the appointment of a system-wide chief and joining of research committees. Integration created new opportunities for joint research across campuses and schools.

In terms of system performance, system efficiency improved between FY 1998 and FY 2001 – an important gain for a system facing budget problems. Patient satisfaction and quality of care measures were mixed. Many forces affected the Harbor integration – some facilitating integration, others working against it. Exhibit 10 arrays the major forces in four areas:

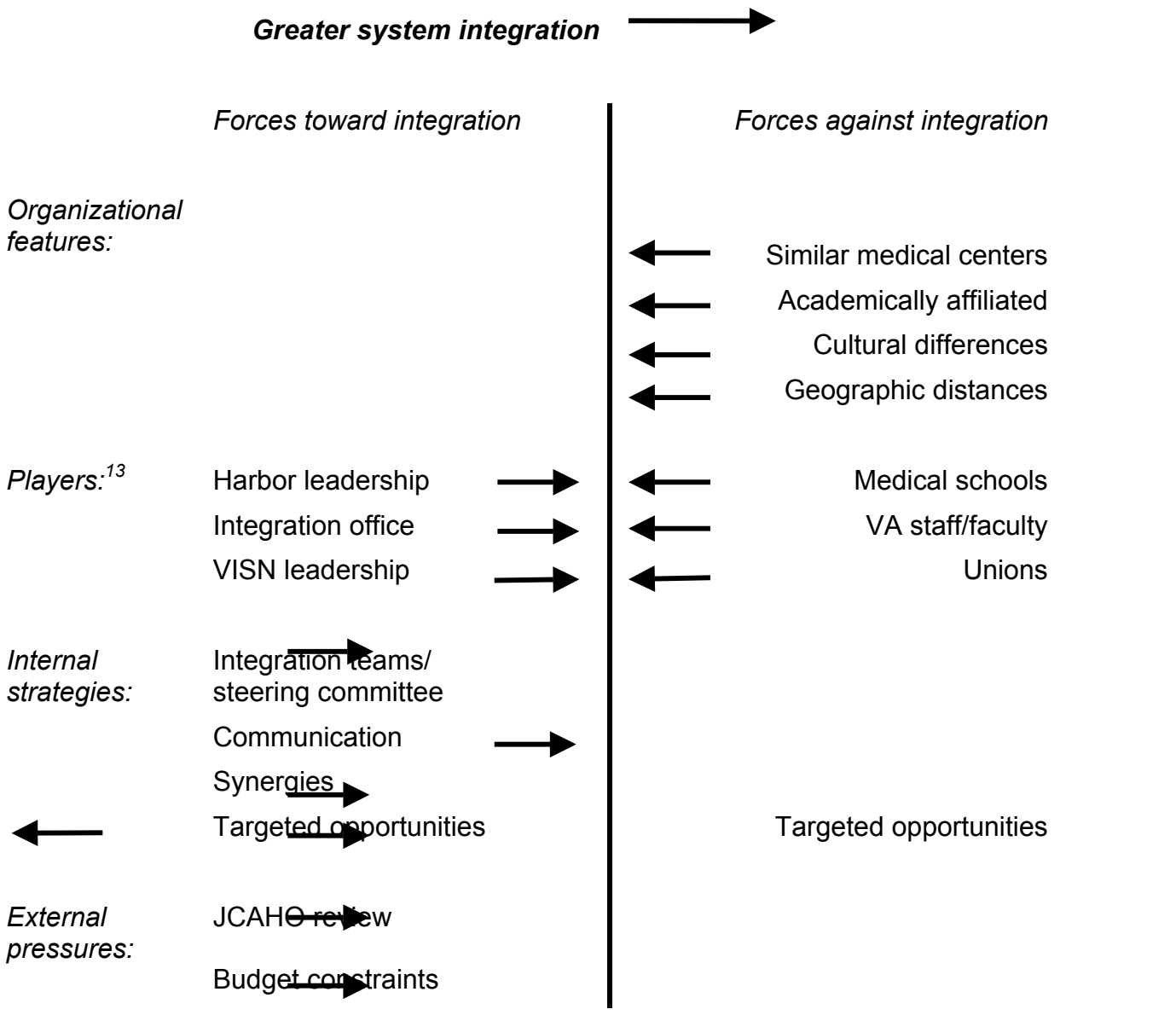
- Organizational features,
- Players,
- Internal processes and strategies, and
- External pressures.

Forces on the left side of the figure are forces driving or facilitating integration. Those on the right are forces hindering integration, typically in favor of the status quo but potentially pushing in another direction. Larger arrows indicate stronger forces.

An examination of these forces offers understanding of the development of the Harbor and lessons for other systems considering integration.

1. *Organizational features.* The system's characteristics worked against integration. These are factors that cannot easily be changed.
    - *Similarity of size and complexity.* Brooklyn and Manhattan were roughly equal in size and complexity. Earlier studies of VA integrated facilities found that integration of similar medical centers is more difficult because more decisions have to be shared and more effort is made to share responsibility than in system with a clearly dominant partner.
    - *Academic affiliations.* Brooklyn and Manhattan were both academic medical centers prior to integration with strong teaching and research programs. Research in the private sector concludes that teaching hospitals resist integration into systems.
    - *Differences in organizational culture.* The campuses had strong differences in their organizational cultures. Despite their outward similarities as complex urban teaching hospitals, the organizational cultures of Brooklyn and Manhattan were very different. Brooklyn staff described themselves as a stable, cohesive community, while Manhattan was described as more fast-paced and with regular staff turnover of staff. These differences, exacerbated by Brooklyn's concern that its inpatient services would be closed, created tension and suspicion that were barriers to integration.
    - *Geographic distances.* Manhattan and Brooklyn are separated by the East River and city traffic. Historically the two campuses drew patients from different areas. Geographic distance and location were seen as barriers to consolidating services while still maintaining patient access and workable schedules for clinicians and students.
2. *Players.* Different players brought competing interests to the table, some working for and others against integration.
    - *Harbor leadership.* As would be expected, the new leadership was the driving force for integration.

Exhibit 10
Forces Affecting New York Harbor Integration



[13] VSOs/patients not shown because they did not take a strong postion in the integration.

- *Integration office.* The Integration Office, as the focal point of integration activities, was an important facilitating force. Its staff organized the communication with the rest of the organization, facilitated integration planning teams and oversaw the development of joint policies. People across the organization came to the Integration Office for information and, in some cases, to vent their confusion and frustration about integration.
- *Medical school leadership.* Leaders at the two primary medical school affiliates, New York University (NYU) and the State University of New York at Brooklyn (SUNY) actively participated in the integration processes, but strongly supported the status quo and resisted clinical integration that would affect their core teaching services. Beyond this shared position, they had different interests during the integration period. NYU, because of internal changes in its leadership and faculty, moved to strengthen its ties with VA and focused on the opportunities that created. SUNY was threatened by integration believing that it signaled a movement of all VA tertiary services to Manhattan, a change that would harm its teaching and residency programs.
- *VA staff/faculty.* There appeared to be few champions for integration among the staff, including clinical faculty, and many early opponents. Staff who participated in integration processes and worked in integrated services, together with managers, were more positive than staff who were less involved or affected.
- *Unions.* Union members were involved in the integration process, and a Joint Partnership council was established. Early in the process, union leaders were uneasy about integration and worried about losing hold on one of the campuses. Lack of nursing union support delayed the implementation of the patient-centered care model in St. Albans.
- *VSOs/patients.* VSOs and patients did not appear to take a strong position, probably because most services remained where the veterans were used to receiving them and VSOs were adequately briefed by Harbor leadership.
- *VISN leadership.* VISN leadership initiated integration and advocated it, but allowed the Harbor leadership to decide the extent and form of integration.

3. *Internal processes and strategies.* The internal processes and strategies the Harbor used to integrate the system were positive forces toward integration – with caveats.

- *Integration teams and steering committee.* The integration teams facilitated integration by developing detailed plans for integrating different functions in the system, and the steering committee set direction and oversaw the process. While teams members appeared to value their participation, some were frustrated by the lack of feedback on their teams recommendations. For some, it appeared that no action was taken or their recommendations were not followed.
- *Communication.* Most staff were aware of the multiple methods used to communicate information about integration. Yet many were unclear about the goals of integration during the first year. Others believed they were not being told the whole story about plans for merging specific services. When leadership said they were pursuing opportunities for integrating services rather than following a master plan, some staff did not believe them, convinced there was a secret master plan, and their anxiety continued. Some staff expressed frustration that system leaders did not want to hear their concerns.
- *Building synergy.* Major initiatives across campuses both facilitated integration and benefited from it. For example, database integration and the development of new clinical information systems, including the development of the electronic medical record (CPRS), provided a strategy for bringing people together to work across campuses. In addition, working across the Harbor improved the CPRS development because it brought new people into system discussions and increased clinician buy-in as they recognized that CPRS would facilitate patient care across

campuses. Developing CPRS during the integration process also opened people to new ideas since the larger system was in flux.

- *Targeted opportunities.* The Harbor pursued a strategy of targeted opportunities in its approach to changing the new system's organizational structure. The integration plan provided a broad framework for the new system and a timetable for integration, but without full details about which services would be integrated. Details were worked out with stakeholder involvement and as opportunities arose. This approach facilitated integration because it was low-key and presented a path for change without generating organized opposition. It also increased staff anxiety because they were uncertain about what would come next, and it appeared to leave Harbor leadership without a firm position from which to negotiate further clinical changes, especially with the affiliates.

5. *External pressures.* Two external forces facilitated integration.

   - *JCAHO review.* Preparation for the JCAHO review provided an additional integration strategy. The external pressure and looming deadline of the JCAHO survey accelerated the early integration process along two dimensions. First, it served as the catalyst for integrating policies, mandated committees and medical by-laws much more quickly than would have happened without the pressure of the external deadline. Second, the JCAHO survey was important in establishing relationships and communication channels across campuses, especially in the clinical services that were not integrated. The external pressure and looming deadline brought people together on high-priority, shared tasks – and a common challenge – that focused them beyond their internal differences.

   - *Budget constraints.* In FY 2001, the third year of integration, the pressure of budget shortfalls increased. The Harbor, like other medical centers in VISN 3, had faced budget constraints since VA's new budget allocation system was implemented in 1997. But by 2001, budget problems were more urgent because the obvious system cuts had already been made. The urgency of the budget accelerated cutbacks in some inpatient services and integration of others. Some managers commented that the integrated system expanded their flexibility in addressing the shortfalls. At the same time, budget pressures accelerated the integration of targeted clinical services. With unrelenting budget constraints, system leaders were more actively proposing services to be consolidated to one campus.

With strong forces arrayed against integration, the Harbor has made solid progress in creating an integrated system, especially across its administrative functions. Harbor leaders can point to substantial accomplishments over the last three years. At the same time, integration – especially coupled with budget shortfalls – has taken a toll on staff. In some views the Harbor has not moved far in its clinical integration. Important questions remaining are how much farther will the Harbor move in integrating its clinical services, and if it does consolidate more, how will that affect the academic affiliates, the Harbor staff and the veterans?

APPENDIX A: DEFINITION OF TERMS

Since the term integration is broad and commonly used in many ways, we need to define integration and related terms as we will use them in this study:

- Because our focus is on VA, when we refer to *integrated system* or the *integration* without a modifier, we refer to the joining of two or more previously independent VA medical centers into one organizational entity.

- In VA, the term *integrated system* is an administrative designation, not a description of the structure and functioning of the system. VA medical centers (VAMC) are formally integrated when a single director is appointed, the databases are merged, and, of high importance in a bureaucracy, a single station number is assigned. Clearly this top-level administrative linking does not mean that all the functions within the two previously independent medical centers are merged and/or coordinated into one seamless system. Similarly, when we talk about "when the system was integrated," or "before or after integration," the reference point is the date on which the medical centers were formally designated as integrated. Clearly the actual integration of the structures and processes of the medical centers occurs over a period of months or years, not on a single day.

- The linkages between a VAMC and its affiliated medical school are very important and of great relevance to this study. In conducting our interviews, many people used the term integration to describe the close relationships between their VA and medical school rather than to describe the merger of the two VA medical centers. We do not use the term in that way. However, we use the term *integrated training programs,* as the sites do, to refer to medical school programs in which VA-funded residents are trained in the same program with the school's other residents rather than be trained in a separate VA track.

- Within the VA integrated system, the formerly independent VAMCs are referred to as *campuses*.

- Within the VA integrated system, individual services, departments or sections can be integrated under different structures: a *consolidated* service brings all staff and care to one physical location; a *combined* service brings all staff and care under a single leadership for the system, but staff remain and care is provided at more than one campus. Services that have separate leadership and staff at different campuses, remaining relatively unchanged from the structure before integration, are not considered to be integrated.

- We do *not* use the term integration in this study to mean the coordination across services within the medical center, for example, by bringing traditionally separate services into service lines.

APPENDIX B: METHODOLOGY

The study is designed as a case study drawing on a combination of qualitative and quantitative methods. As a model of empirical inquiry, according to Robert Yin, "case studies are the preferred strategy when "how" or "why" questions are being posed, when the investigator has little control over events, and when the focus is on a contemporary phenomenon within some real-life context." [14] The case study is especially appropriate when the boundaries between phenomenon and context are not clearly evident. "The case study copes with the technically distinctive situation in which there will be many more variables of interest than data points, and as one result relies on multiple, sources of evidence with data needing to converge in a triangulating fashion…."

The study began in March 1999 and the last formal data collection was completed in October 2001. Site visit summaries were prepared for the leadership team and reports of survey findings were completed after each survey. A draft of this report was reviewed by New York Harbor leadership team and Integration Office.

Within its case study framework, the study used four methods of data collection and analysis.

1. Interviews

Four-person teams made three visits to the Brooklyn and Manhattan campuses of New York Harbor at roughly one-year intervals: July 1999, June – September 2000 and May - June 2001. On each visit, we conducted approximately 25 individual and 12 group interviews to obtain a wide range of perspectives from employees across the main campuses of the system and the primary medical school affiliates.

At VA, individual interviews were conducted with chiefs and managers of selected clinical and administrative services and with union leadership. The chiefs and managers were selected in conjunction with a liaison in the Harbor Integration Office to represent a diverse group of services that had and had not integrated. Medicine, Surgery and Mental Health were always included.

Group interviews were conducted with clinical faculty, other clinical staff (including nurses, social workers, pharmacists, dieticians and others), residents, chief residents, administrative staff, patients and researchers. Group members were selected by the Integration Office to represent a variety of services and a variety of opinions about integration.

At NYU and SUNY, over the first two years, we interviewed the Dean or Associate Dean most closely associated with VA and chairs of selected services with close VA relationships. In the third year, we interviewed only the Dean or Associate Dean from each school. (We focused on the primary medical school affiliated with each campus – we did not investigate the affiliates that only train in one or two services, that train in dentistry, or that train allied health professionals.)

The Network Director was interviewed in October 2000 and October 2001.

By design, some people were interviewed during all three visits so that we could track their perspectives over time. Others were interviewed only once or twice because of scheduling conflicts, their change in situation or, because we needed to extend our investigation to other services.

We used a semi-structured interview approach to cover a specified set of topics but in an open-ended manner so that specific questions and probes could be tailored to the position of the respondent and the

[14] Robert K. Yin. *Case Study Research: Design and Methods*. 1994. Thousand Oaks, CA, Sage Publications.

themes he or she raised. All interviews lasted approximately one hour. The emphasis of the interviews changed as integration matured, but the common topics focused on:

- Services integrated and other organizational changes in the system;
- The role of the primary medical school affiliates and changes in the relationship between them and VA;
- The impact of these changes on service delivery, staffing, education and research;
- Major successes and challenges to integration and the Harbor system more generally;
- Staff morale;
- Remaining integration issues and future strategies.

Interview data were used descriptively to report the progress of integration and the organizational structure of the integrated system. Standard methods of content analysis were used to identify themes and patterns from the interview data to analyze factors affecting integration.

2. Document review

Integration documents were reviewed to extend and corroborate information gathered in interviews. The documents included, but were not limited to, newsletters, integration plans, minutes of integration council and committee meetings and committee reports. The documents were used for reference. No systematic content analysis was done.

3. Employee survey

Harbor employees were surveyed about their experiences with and opinions about the integrated system on three occasions at roughly one-year intervals: June–September 1999, May-August 2000 and May-July 2001. For each survey, written questionnaires were sent via intra-facility mail to a sample of employees across the Harbor. The sample was stratified to represent the three main campuses (Brooklyn, St. Albans and Manhattan) and three groups of employees (managers, clinicians and general staff); samples were drawn randomly within these groups. Completed surveys were returned by respondents in business reply envelopes directly to the data entry firm contracted by the MDRC. A second mailing was sent to non-respondents. The response to each survey was adequate to conduct reliable data analyses:

- In 1999, 791 staff completed the survey, a 47% response rate;
- In 2000, 840 staff completed the survey, a 51% response rate;
- In 2001, 800 staff completed the survey, a 47% response rate.

The survey asked respondents to:

- *Describe their integration experience* by rating their agreement with statements about coordinated functions and activities across campuses;
- *Judge the effect of integration on patient care and system resources* by rating the impact of integration on aspects of their service's operation*;*

- *Assess their job satisfaction* by rating their agreement with a series of statements about their position and work situation.

Respondents were asked to rate statements on 5-point scales. For statements about system integration and job satisfaction, the scales ranged from "strongly agree" to "strongly disagree." For statements about the effects of integration, the scale ranged from "very or mostly negative" to "very or mostly positive." For purposes of analysis, a higher score indicates greater agreement; 3 equals neutral. All items were phrased as a positive statement about an integrated system, e.g., "The joint services are operating well."

The reported analyses are based on nine summary scales developed statistically through multi-trait scaling analysis of the 1999 survey results. The validity of the instrument was thoroughly assessed in 1999 using tests of convergent and discriminant validity. The summary scales consist of clusters of items on which people gave similar responses. Creating scales rather than analyzing individual items has two advantages: (1) by combining items, the results are more stable; and (2) because there are fewer of them, it is easier to identify and interpret patterns among the scales. The scales include:

- Process involvement
- Integration optimisms
- System identification
- Clinical coordination
- Improving quality
- Transport coordination
- Effects on patient care
- Effects on resources
- Job satisfaction.

The scales are defined in the body of the report in the sections where the survey results are presented.

Reliability of the summary scales was assessed using the method of internal consistency and measured by Cronbach's alpha statistic. Alpha levels of .70 and higher are considered adequate for making group comparisons. In the 2001 NYHHS data, scale alphas ranged from .70 (Transport Coordination) to .94 (Effects on Patient Care) among clinicians and managers. Among general staff, alphas ranged from .60 (Improving Quality) to .88 (System Identification). Due to the relatively low reliability of the Improving Quality scale among general staff, results regarding this scale among general staff should be interpreted with caution.

Differences among the three major campuses and among staff groups were tested by analyses of variance.

A more detailed presentation of survey results can be found in a separate report titled "Integration Survey: Third Results, VA New York Harbor Healthcare System," issued by the MDRC in October 2001. This report summarizes the results of all three surveys.

4. VHA administrative databases

Quantitative data were drawn from existing national VA databases. Using standard databases and performance measures provided the basis for tracking system performance over time and comparing Harbor performance with national VA data. Second, and particularly important with variables that can be defined in multiple ways (e.g., costs per patient), the standard databases offer versions that are recognizable and generally accepted within VA.

Data for all variables were used in aggregate at the medical center, VISN or national VA levels. FY 1998 was used as the baseline year and compared with FY 2001, the most recent full-year data available. To create combined FY 1998 measures, data from Brooklyn VAMC and Manhattan VAMC (labelled Manhattan here) were summed or averaged. Data were used descriptively and simply reported. No statistical analyses were conducted.

The variable domains used and their data sources are listed below.

Analyses of VHA databases	
Variable domain	*Data source*
Research funding amounts	Office of Research and Development data report, "Research Funding Information: Chicago HCS/ Boston HCS / New York Harbor HCS."
VA-funded residency slots	Office of Academic Affiliations data report, "VA Filled Medical Resident Positions, AY 95/96 – AY 00/01."
Performance measures	Office of Quality & Performance, Performance Measures Reports, http://vaww.oqp.med.va.gov/oqp_services/performance_measurement/reports.asp
Patient satisfaction	Office of Quality & Performance, Veterans Satisfaction Reports, http://vaww.oqp.med.va.gov/oqp_services/veterans_satisfaction/vss.asp
Costs and staffing	Allocation Resource Center, Unit Cost Reports, http://vaww.arc.med.va.gov/reports/ucr/UCR_toc.html

APPENDIX C: INTEGRATION TEAMS

Sixteen integration teams were chartered at or near the beginning of the integration planning process. Integration teams were given a charter describing their focus and scope of task:

Access, Coordination and Continuity of Care Across Multiple Sites Team will assess access for patient care at all health care delivery sties and identify opportunities for expansion. The Team will identify processes needed to deliver seamless and equal health care across all services and campuses.

Communication Team will develop an ongoing and bi-directional communication plan on the integration process for internal and external customers. Additionally, the Team will identify support services needed to deal with employees regarding position, authority, change in job responsibilities, etc.

Information Technology Team will identify methods to improve the access and flow of information among health care delivery sites and to establish plans for an integrated database.

Labor Partnership Team will identify methods to enhance communication between union officials and management.

Medical School Affiliates Team will assess the impact of integration on the medical schools.

Mission, Vision and Values Team developed a mission, vision and value statement for the integrated organization.

Organizational Models Team proposed a structure for the integrated organization.

QM Process Improvement, Risk Management and Utilization Team will develop evaluative measures to analyze the achievement of the integration's stated goals and objectives. The Team will also make recommendations for one QM Improvement Program for the integrated organization.

Single Standard of Care Team will establish one standard of care for the integrated facilities.

Transportation Team will recommend a transportation system for patients, records, specimens and employees for the integrated facilities.

Mental Health Services Team will develop an organization model for the provision of mental health services in the new integrated VAHCS.

Patient Services Team will assess current best-practice models for the establishment of Patient Centered Care within Patient Services and to recommend appropriate care lines and subsequent team activities to operationalize the concept for the integrated facility.

Chartered later in the planning process: **Patient and Staff Education, Outreach and Marketing, Business Office and Capital Improvements Teams.**