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MANAGEMENT DECISION AND RESEARCH CENTER

Integration of Affiliated VA Medical Centers: Second Report

HEALTH SERVICES RESEARCH AND DEVELOPMENT SERVICE

OFFICE OF RESEARCH AND DEVELOPMENT
DEPARTMENT OF VETERANS AFFAIRS

INTEGRATION OF AFFILIATED VA MEDICAL CENTERS: SECOND REPORT

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June 2002

Management Decision and Research Center
Health Services Research and Development Service
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HIGHLIGHTS

In the spring of 2000, John R. Feussner, MD, commissioned researchers at the HSR&D Management Decision and Research Center to study the integration of medical centers in three health care systems in the Veterans Health Administration. The three systems – Chicago, New York Harbor and Boston – were of interest because the integrating medical centers had strong affiliations with different medical schools. The purpose of the study was to examine the impact of integration on the academic mission of these systems.

We reported on the first round of analysis for this study in the fall of 2000.[1] At that time, the three systems shared many features, but differed in their approaches to integrating clinical services.

In this second study report, we update the integration progress in the three systems. More detailed attention is given to Boston since it was making the most changes in its organization and operations, and therefore was expected to offer more new lessons than the other systems about the impact of integration on the system's academic mission.

Integration progress

1. ***All three systems have achieved some success***.

All passed Joint Commission review during the year with high scores. All reported efficiencies as a result of their administrative integration.

2. ***The three systems continue to follow different approaches to clinical integration***.

- *Wait and see.* Chicago maintained comprehensive services, generally under separate leadership, at both campuses. Only selected services were integrated. Last summer, Chicago leaders were waiting for outcomes of the Capital Asset Realignment for Enhanced Services (CARES) process before integrating further clinical services. In January 2002, the Secretary of Veterans Affairs announced his acceptance of the CARES recommendation that inpatient services at Lakeside be closed and transferred to West Side.

- *Targeted opportunities.* New York Harbor also maintained comprehensive services at two campuses, with the core services of Medicine and Surgery still operating under separate leadership at multiple campuses. Within this framework, Harbor leadership is moving to create selected specialized clinical niches at each campus.

- *Full consolidation.* In Boston, VA's commitment early in the planning process to closing inpatient services at one campus guided integration. Boston made organizational changes to consolidate its core inpatient services to one campus with the other campus, becoming a complex ambulatory care site.

3. ***Against its reorganization progress, Boston faced challenges to its integration in four areas.***

- *Transition issues: working and learning together*. As with any major organizational change, there was some resistance to change and some rough spots as previously separate staff, faculty and residents began to work, teach and learn together.

- *Implementation challenges: getting all the pieces in place.* Reorganizing medical centers requires coordination. In Surgery, the first service to consolidate its inpatient care to West Roxbury, not all necessary staff and physical plant components were in place at the times needed.

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[1] C VanDeusen Lukas and L Camberg. *Integration of Affiliated VA Medical Centers: Preliminary Report.* Management Decision and Research Center, Department of Veterans Affairs. December 2000.

- *Organizational challenges: fallout from the organizational structure.* Two features of the organizational structure were challenges: combining services under a chief from one campus and a co-chief from another, and separating inpatient and outpatient care to separate campuses.

- *Big-picture challenges: budget shortfalls, tertiary care, and external priorities.* The severe budget problems facing Boston overshadowed integration. Many of the problems the system faced resulted not from integration per se, but from integrating without promised investments from Central Office and from making staffing and resource cuts while integrating. The recent adoption of VISN service lines complicated integration.

Academic mission

4. ***To date, integration has had limited direct impact on education in Chicago and New York Harbor and on research in all three systems.***

- In Boston, both primary medical affiliates have residents and trainees in most integrated services. In New York, integration is beginning to affect education in the consolidated specialties, but not broadly otherwise since core clinical services remain on both campuses. In Chicago, integration has had little impact to date but that will change in time as the CARES recommendations are carried out.

- Research has been less directly affected. Some administrative functions have been integrated, and in New York Harbor there have been active attempts to develop joint grant proposals across campuses and affiliates, but integration has not brought large organizational changes. Research funding levels have been maintained, though Boston's has fallen somewhat.

5. ***Across systems, the role of the primary medical school affiliates has been key in setting the tone and direction of integration.***

- In Chicago, the medical schools opposed clinical integration beyond a limited set of services. In this instance, the close ties between VA and the primary affiliates (University of Illinois at Chicago and Northwestern University), heightened by each campus's co-location with its affiliate, impeded integration between the two VA medical centers. The delays caused by VA indecision in the face of continued external studies of Chicago appeared to harden medical school opposition.

- In New York Harbor, the primary medical schools (New York University and State University of New York) did not oppose integration publicly, but each worked to keep the core teaching services at "their" campus. Over the first two years of integration, they successfully challenged proposed integration of targeted services. More recently, the Harbor consolidated selected specialties to one campus to meet budget shortfalls. As more consolidations were being examined, the medical schools were considering their teaching options for those services.

- In Boston, after initial positioning for which campus would house inpatient services, the primary medical schools (Boston University and Harvard University) worked together to develop a plan for sharing services in the integrated system. They also participated in Oversight Committees in Medicine and Surgery to address problems that arose in implementing the new organizational structure. An important factor in the success of their cooperation appeared to be that faculty and administrators from both schools generally respected each other. The medical schools continued to support integration but were worried about the viability of the VA Boston Healthcare System as an academic medical center if the budget crisis continues. Boston's experience of cooperation between medical schools may be unique.

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INTEGRATION OF AFFILIATED VA MEDICAL CENTERS: SECOND REPORT

BACKGROUND

In response to a request from John R. Feussner, MD, VA's Chief Research and Development Officer, investigators at the HSR&D Management Decision and Research Center are conducting a study of three health care systems in the Veterans Health Administration that are integrating medical centers with strong affiliations with different medical schools. The systems are Chicago, New York Harbor and Boston. The purpose of the study is to examine the impact of integration on the academic missions of these systems.[2] The study grew out of a concern that the academic mission is neglected or compromised when medical centers merge. Our goal is to describe the organizational structures and processes of facility integration, and the role of the primary medical school affiliates in order to begin to identify the key factors that affect integration and the impact of integration on the systems' academic missions. The focus is on clinical integration. This is the second comprehensive report for the project.

At the time of our first report in the fall of 2000, all three systems had consolidated their administrative systems across campuses, but differed in their approaches to clinical integration – with differing impact on their academic activities:

- *The three systems shared many features*. All faced the same initial impetus for integrating: declining inpatient census and over-capacity. Their formal integration objectives were similar. All set out, first, to create a single standard and/or continuum of care across the system and, second, to achieve cost savings or cost avoidance. All had consolidated their administrative systems across campuses. All had merged, or were in the process of merging their clinical policies, committees and medical by-laws in preparation for review as integrated systems by the Joint Commission for the Accreditation of Healthcare Organizations.
- *On the clinical side, however, the three systems offered very different models for integrating highly affiliated medical centers*. Chicago and New York Harbor were pursuing strategies that had limited impact on their academic missions. Both integrated selected clinical services as the opportunity arose, but maintained their core services, including Medicine and Surgery, as separate services running in parallel with their own leadership at both campuses. Only Boston made organizational changes to consolidate its core inpatient services to one campus, with the other campus becoming a complex ambulatory care site.

When we reviewed the results of the first report with the study steering committee[3], the committee recommended that the second round of analysis focus primarily on Boston. Since Chicago and New York Harbor had made few organizational changes to consolidate services that the medical schools considered to be core, integration had not had a major impact on the systems' academic missions. Therefore the advisory group recommended that we continue to monitor those systems for further changes, but look more closely at Boston where the organizational changes were expected to have a direct impact on teaching and, potentially, on research. Dr. Feussner concurred with this recommendation.

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[2] Definitions of integration and the ways in which it and related terms are used in this report can be found in Appendix A.
[3] Members of the Steering Committee are listed in Appendix D.

Organization of report. Following the recommended approach, this report, first, provides very brief updates on the progress of integration in Chicago and New York Harbor, and then a detailed analysis of integration progress, challenges and impact in Boston. As described in Appendix B, the updates and analyses are based primarily on interviews conducted in the summer and fall of 2001, and updated in January 2002. In Boston, we also surveyed clinicians and researchers with a written questionnaire. We include a limited number of quantitative measures in the Boston analysis.[4]

VA CHICAGO HEALTHCARE SYSTEM (VACHCS): UPDATE

Organizationally, most clinical services remained separate, operating under separate leadership at the two campuses – West Side and Lakeside. The system appointed a new Chief of Staff and Associate Chief of Surgery for the Lakeside campus in the summer of 2001, with responsibilities only for that campus. Joint recruitment of system-wide chiefs from outside VACHCS had not been successful, reportedly because of both uncertainty about VACHCS' future and lack of medical school enthusiasm for recruiting for a position without full control of resources or clear lines of authority. The primary medical school affiliates resisted clinical integration.

Two factors appear important to VACHCS' integration challenges. First, both campuses are very closely linked with their respective medical schools – the University of Illinois at Chicago and Northwestern University. The VA campuses are adjacent to the schools, and most VA physicians also practice at the university hospital. Further, VA physicians are augmented by many university physicians who work without compensation (WOC) at VA because they consider VA patients to be a part of their service. These valued relationships between VA and the affiliates were given as reasons why VACHCS could not further consolidate services to one campus. Any move would reportedly threaten the withdrawal of one affiliate. It was argued that neither campus could absorb the caseload of the other campus without that campus's physicians, especially without the WOC contribution. At the time of our interviews in June 2001, each campus appeared to be drawing closer to its affiliate than to the other VA campus. At both campuses, VA and the affiliates were investigating Enhanced Lease Use options to upgrade physical plants and generate revenue with the universities.

Second, the extensive political attention and continuing outside studies by the US General Accounting Office (GAO) and consulting firms had stalled progress. Several groups had made recommendations for restructuring the VA system in Chicago. Expecting an organizational structure to be externally imposed, VACHCS leaders were reluctant to further reorganize the system because such changes might run counter to an external plan. With VA not making decisions, the affiliates seemed more opposed to more clinical integration than they had the previous year.

Since we conducted our interviews last summer, the results of the Capital Asset Realignment for Enhanced Services (CARES) process for Chicago were released, and in January 2002 were formally accepted by the Secretary for Veterans Affairs. The CARES plan calls for VACHCS to close inpatient services at the Lakeside campus and consolidate them to West Side. Lakeside will then become a complex ambulatory care campus. The primary Lakeside affiliate, Northwestern University, strongly opposed the

[4] The steering committee recommended a number of quantitative markers to track the impact of integration on the academic mission of the three systems. Despite agreement from the systems about the measures to be used, they could not consistently provide data on all measures, especially when asked to provided data for earlier fiscal years in order to track trends over time. As a result, the quantitative markers are not included in this report.

plan when it was first released and lobbied intensively, but unsuccessfully, against it. Reportedly, the medical school is considering withdrawing its affiliation. The plan will not be implemented for at least several years because West Side has to be extensively renovated before inpatient services can be consolidated there.

To date, neither education nor research has been directly affected by integration because few organizational changes have been made. The number of VA-funded residency slots remained about level, with 228 slots funded in Academic Year 2001/2002, down slightly from 232 slots funded AY 1997/1998, soon after integration. Research funding increased in FY2001 to $14.7 million, up $4.2 million from the previous year and almost double its level of $8.3 million in FY1998. Looking forward, however, if the consolidation of inpatient services to West Side and the change in mission at Lakeside go forward as planned, they will bring substantial change to the academic mission of the system.

NEW YORK HARBOR HEALTHCARE SYSTEM (NYHHS): UPDATE

New York Harbor had integrated selected clinical and clinical support services. From the beginning, it followed a strategy of targeted opportunities to identify clinical services to integrate, with integration triggered primarily by the resignation of a service chief at one campus. Integration was relatively low key. The system retained both campuses as full-service hospitals, with the expectation that each would develop specialized niches. Each campus had its own Medicine and Surgery services. In the summer of 2001, budget shortfalls accelerated integration steps. Inpatient psychiatry and invasive cardiac services were consolidated in Manhattan, and the bulk of oncology services were brought together in Brooklyn.

Both affiliates were heavily invested in keeping their core teaching services at “their” campus. At the New York campus, virtually all VA faculty teach at the medical school and NYU-affiliated hospitals as well as at VA, relationships fostered by the three-block walking distance between institutions. Faculty based at NYU-affiliated hospitals come regularly to VA to teach. The State University of New York - Downstate also has close ties with VA, but the 12-mile distance between Downstate and the Brooklyn campus makes daily interactions far less frequent. Affiliated faculty at Brooklyn teach when students and residents rotate through VA, but only a minority travel to Downstate to teach. To date, the Harbor has integrated services that are not central to the medical schools, and dropped one plan the schools opposed. Now with more severe budget pressures, the Harbor is more actively pursuing consolidation initiatives. One school, fearing that inpatient services would close at “its” campus, was reportedly developing other programs.

Geography also favored maintaining full-service hospitals at both campuses. Travel between campuses takes from 20 minutes to over an hour depending on city traffic, and historically the campuses have drawn patients from different parts of the New York area. It is argued, therefore, that it is difficult to consolidate services to one campus while maintaining patient access and workable schedules for clinicians and students.

To date, teaching has been affected in only a few consolidated services. The number of VA-funded residency positions in the Harbor rose by 6 in AY 2001/2002 to 257, bringing the number back to AY 1997/1998 pre-integration levels. The emphasis in research has been on seeking joint opportunities in selected areas. Research funding rose to $9.1 million in FY2001, $1.5 million higher than the previous year and about level with combined funding in FY1998.

VA BOSTON HEALTHCARE SYSTEM (VABHS): CASE STUDY

1. OVERVIEW

As described in our first report, an early decision in considering integration of the VA Brockton/West Roxbury and Boston medical centers was that inpatient tertiary care would be consolidated to one campus. It took several years and multiple planning committees to determine which campus would house the inpatient tertiary services, but the consolidation decision held. The primary affiliates, Boston University and Harvard University, showed their strong commitment to VA by collaborating to develop a model for sharing training sites in the consolidated system. They agreed on a structure of service chiefs and co-chiefs with equal representation of Harvard-affiliated and BU-affiliated appointments, and on training together in the services.

By the fall of 2001, the VA Boston Healthcare System (VABHS) had made good progress toward organizational integration. All inpatient services, except psychiatry, had been consolidated to the West Roxbury campus (West Rox). The mission of the campus at Jamaica Plain (JP) was changed to emphasize complex ambulatory care. Most outpatient clinics moved to JP, although three surgical clinics moved to West Rox in January 2002 so that inpatient and outpatient care in these surgical services would be located on one campus.[5] Academically, the combined teaching and precepting were reportedly going reasonably well and the research service had established joint committees, though it had not combined its leadership across the system. An important accomplishment was VABHS' successful review last fall as an integrated system by the Joint Commission on the Accreditation of Healthcare Organizations (JCAHO).

Despite these successes, VABHS faced serious challenges in many areas. These challenges had resulted in poor staff morale, reportedly with an unhappy work environment, staff leaving and vacancies not being filled; substantially reduced surgical workloads that compromised patient access and threatened residency programs; fragmented clinical services that were thought to compromise the quality of care, diminish clinician efficiency and interfere with teaching; and inability to make needed capital improvements.

This case study is organized into four sections following this one. Section 2 describes the system's integration progress. Section 3 summarizes the challenges facing VABHS in the fall of 2001. Section 4 considers the impact of integration and the challenges on system performance and staff morale. Section 5 looks forward to consider implications for the future of academic medicine in VABHS and offers lessons for other affiliated medical centers considering integration.

As described in Appendix A, the Boston case study analyses are based primarily on two sources of data: 1) focused interviews with faculty and leadership at VABHS in late summer 2001 (with updates in January 2002), and with VISN and primary affiliate leadership in the fall of 2001; and 2) results of a mailed survey of physicians, psychologists and researchers in VABHS administered in August and September of 2001. These data were augmented by reviews of integration documents and VABHS performance data.

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[5] The Brockton campus is devoted primarily to psychiatric services and long-term care. These remained relatively unchanged after integration. Therefore the case study focuses primarily on the West Roxbury and Jamaica Plain campuses.

2. INTEGRATION PROGRESS

The key organizing principles of the integration of VABHS were, first, that inpatient and outpatient care would be consolidated within separate campuses and, second, that all activities – clinical care, education and research – would be integrated. Both principles have been carried out for the most part, though with differing degrees of success.

In this section, integration progress is described in terms of 1) organizational changes that have been made in clinical care, education and research, and 2) staff opinions about integration elements in each area.

2.1 Clinical care

By the fall of 2001, the organizational integration had been carried out, with the exception of inpatient psychiatry. Acute inpatient care is now delivered at the West Rox campus, JP provides outpatient care, and Brockton specializes in psychiatric services and long-term care. Inpatient psychiatry is the only inpatient service remaining at JP. As of January 2002, plans for moving inpatient psychiatry temporarily to the Brockton campus, 20 miles south of Boston, were being debated with considerable public attention in the media. The central argument against the move was that it would leave the city of Boston without an inpatient psychiatry unit. Also as of January 2002, three surgical clinics (General, Vascular and Thoracic) which had been consolidated at JP were relocated to West Rox so that all components of those surgical services would be located on one campus.

Clinical services generally are organized with a chief from one campus (and with an academic appointment at one affiliate) and a co-chief from the other campus (with an appointment at the other affiliate). There are some modifications, such as mental health which is led by a service line manager, but not many. The service chief positions are evenly divided between former West Rox and former JP chiefs. The major services plan to rotate chief and co-chief in five years. There has been turnover in the Chief of Medicine, but as specified in the integration plan, the replacements have been from the same affiliate. Mental Health plans to rotate leadership every 18 months.

According to our interviews late last summer, faculty and staff from the previously separate medical centers were working fairly well together, though not without some problems and need for adjustments.

Reportedly, Surgery had more integration problems than other services. First, there were implementation problems resulting from surgeons transferring from JP to West Rox before inpatient surgical nurses; unrenovated and inadequate physical space; and, initially, lack of support services at West Rox. Second, many surgeons found the split of inpatient surgery on one campus and outpatient clinics on another to be difficult and, in some opinions, unworkable.

The integration survey findings[6] suggest that as of late last summer, there was still a way to go in bringing together operations and cultures across campuses. Only 10% of clinicians and researchers who responded to the survey agreed that most operational issues in combining services from JP and West Rox have been resolved; two-thirds

[6] In presenting the MDRC integration survey findings in this section, we report only the proportions of respondents who agree or disagree with a statement. These proportions do not add up to 100%. The remainder of respondents indicated either that they were neutral or "did not know." The survey methods are described in Appendix A. The full survey findings are presented in a separate report, *Survey of VA Boston Healthcare System Clinicians and Researchers*, completed in November 2001 by the HSR&D Management Decision and Research Center.

(68%) of the respondents disagreed with the statement. Just over half (54%) of the respondents disagreed that the JP and West Rox cultures have blended well (12% agreed). (The responses were similar when Brockton was included in the question.) Half (50%) of the clinicians and researchers disagreed that the joint services were operating well (18% agreed).

Opinions were more evenly split on two items about physicians working together: 28% of clinicians and researchers agreed and 30% disagreed that physicians from JP and West Rox are working well together. (The responses were similar when Brockton was included in the question.)

Disagreement did not necessarily mean that things were bad, just that they were not fully resolved.

2.2 Education

In creating an integrated system, the organizing principle was to have education as well as clinical care integrated. As one Harvard-affiliated person stated,

> *We didn't want to have a fragmented system. We felt comfortable because the quality of medical schools was comparable.*

The medical schools were involved early in the integration and took the lead in developing the plan for working together in the merged facilities. From an academic perspective, there were two major issues in creating an integrated education system: first, developing structures and processes that were equitable between the primary affiliates, Boston University and Harvard University, and, second, creating a structure for supervising and evaluating students and residents in combined services. To address these issues, the leadership of the services was divided equally between faculty from each affiliate, with the clinical leadership structure also serving as the academic leadership structure. Faculty from both affiliates work and teach together in most services.

By the time of our interviews in the summer of 2001, VABHS was finishing its first academic year with a combined program. The number of filled VA medical resident positions funded by OAA in Academic Year 2001/2002 had remained roughly level (243.5 compared with 244.90 in AY 97/98). There were several models being used for integrating house officers. In Medicine, attendings and residents were mixed across the service. In Surgery, there were BU teams and Harvard teams, with patients assigned to each with an even/odd number system, but it was not unusual for BU and Harvard residents to work together. Mental Health and Neurology had kept two separate training programs, in Mental Health because the programs were still geographically separate and in Neurology because while both affiliates had residents in outpatient Neurology, only BU had them in inpatient Neurology.

Residents can be supervised by a chief resident and attending from either school. Initially, undergraduates were also to be taught and supervised by faculty from either affiliate. However, some people were uncomfortable with the idea of students being evaluated by faculty from another school, so the plan was changed and students now work with faculty from their own school.

Faculty, residents and students from the two affiliates reportedly were working and learning reasonably well together with support from the major affiliates, though there were still issues to be worked out. For senior faculty who lost leadership positions, integration in some instances meant a career redirection. For faculty in general, it meant

new routines and ways of operating. For students and residents, there had not been major changes.

Medicine and Surgery each had an Oversight Committee organized to troubleshoot problems that arise during the initial period of integration, primarily to address issues that the chiefs and co-chiefs could not resolve on their own. The group was made up of the associate dean of each medical school and the service chief and co-chief. By some accounts, the committee had been more successful in Medicine than in Surgery.

From the survey results, teaching and training were seen as relatively positive aspects of integration. Clinicians and researchers showed modest agreement that having residents and trainees from different affiliates in the same service was working well. For example, 49% agreed that residents and trainees benefit from working with counterparts from other affiliates; 45% agreed that it is invigorating to work with colleagues, residents and trainees from more than one affiliate. The lowest-rated item in this cluster (30% agreed and 29% disagreed) related to exposure of residents and trainees to a wider variety of cases in the integrated system, reflecting, no doubt, the lower inpatient caseload, especially in surgery, since integration. Perceptions about teaching and training differed on some items by service, with respondents in Medicine tending to have more positive views. In contrast, respondents in Mental Health agreed less strongly or disagreed, most likely reflecting their experience in training programs that have remained essentially separate.

Stepping back from individual experiences, there were differences of opinion about whether the schools were being treated equitably. In the survey, only 19% of the clinicians and researchers responding agreed that the integrated structure is equitable to both primary affiliates, while 43% disagreed. BU faculty disagreed more strongly than Harvard faculty about affiliate equity.

From the perspective of a senior leader, however,

> *Both BU and Harvard are performing honorably. They are working things out.*

In some opinions, the level of cooperation between Harvard and BU faculty and academic leaders was unique. Generally medical schools are strongly competitive and not willing to work together, especially to the extent of sharing services. In part, the cooperation appeared to stem from their early involvement in the integration planning. More important, however, were situational factors not found in other places. Both schools are highly-rated academically, and therefore faculty and academic leaders respect the other institution. Second, there is considerable movement between schools, with many faculty who have trained or attended at both schools. Third, the broader environment of Boston has a history of medical schools moving among hospitals and of hospitals having multiple affiliates.

2.3 Research

VABHS is heavily involved in research. In FY2001, it had 59 projects, with funding totaling $14.1 million – $9.4 million in VA funds and $4.7 million from other sources. The FY2001 level of funding, however, was down from pre-integration research funding of $17.7 million in FY1998.

The structure of the Research Service at VABHS has not changed substantially with integration. The R&D committee and the IRB and its subcommittees were combined, but there are still two ACOSs for Research and two Research Offices with separate accounting systems. One ACOS/R left the system and there is an acting ACOS/R at that campus. The system is recruiting for a joint ACOS/R but has not completed the

search. The continued separation of the Research services reportedly causes problems. By some accounts, for example, each campus so closely protects its lab space and equipment that it is virtually impossible for researchers at one campus to get lab space at the other, even though it would be the most appropriate lab to use. This difficulty is, according to some, contributing to problems with recruitment.

Beyond changes in structure, there were mixed opinions about the effect of integration on research. Some people stated that research was fine, and that it either had not been affected or had improved because of integration. One person talked about the positive impact of integration in expanding opportunities to interact with faculty at other schools. At the other extreme, another person believed that there would never be research cooperation across campuses. More frequently, researchers talked about problems stemming from budget constraints and changes in clinical services – pressures that directly affected researchers but were not unique to an integrating system.

The mixed opinions about research heard in interviews were mirrored in the survey results. Respondents were fairly evenly split in their opinions: having an integrated medical center offers access to more patients for their research (20% disagreed; 18% agreed); and having an integrated medical center has given them opportunities for working with new research collaborators (22% disagreed; 19% agreed). Only 12% of respondents agreed that the IRB process has been streamlined since integration, while over a quarter of respondents (29%) disagreed.

3. INTEGRATION CHALLENGES

Despite its progress in creating an integrated system, VABHS has faced serious challenges on a number of levels. Taken together, these challenges have resulted in poor staff morale, reportedly with good staff leaving and vacancies not being filled; inability to make needed capital improvements; substantially reduced surgical workloads that compromise patient access and threaten residency programs; and fragmented clinical services that reportedly compromise the quality of care, diminish clinician efficiency and interfere with teaching. Moreover, during this period the leadership team has been hampered by turnover of the Chief of Staff and Associate Director. By most accounts the integration of facilities is not the key issue facing VABHS.

In this section, we look at four sets of challenges that VABHS has confronted since its formation:

- Transition issues: Working and learning together
- Implementation problems: Getting all the pieces in place
- Organizational challenges: Fall out from the organizational structure
- Big picture challenges: Money, tertiary care and competing priorities

The first three sets of challenges are directly related to the integration process and structure. Each offers lessons about the integration of a highly affiliated medical center. Not all are directly related to teaching and research, but they strongly affect the academic mission by determining the vitality of the system and the climate in which teaching and research are conducted. The answers to most of these challenges are within the control of VABHS. Some have been successfully addressed in Boston while others have not, but all offer lessons to other integrating systems.

The fourth set includes major system challenges, such as budget shortfalls, that are not the result of integration, but directly affect it. These challenges are at best only partially

within the control of VABHS. They pose threats to VABHS and, therefore, to the academic mission of VABHS.

We present these challenges separately to highlight the issues. In fact, they interact and compound each other.

3.1 Transition issues: Working and learning together

Clearly the integration of clinical services and teaching programs across formerly separate medical centers and different medical schools represents a major organizational change. As would be expected, some people resist change. Even without strong resistance there are operational issues that need to be addressed as people move from the old organizations to the new, and work closely together for the first time. While these issues can be minimized through good preparation, they will appear in some degree no matter how well the organizational structure of a newly-integrated system is designed and how thoroughly its implementation is planned.

There were two sets of transitional issues in Boston: merging operations and cultures, and merging educational programs.

Merging operations and cultures

There was some general resistance to change in the system. Among the physicians, there were reportedly several vocal opponents of integration, the most vocal of whom left the system. There were other physicians who still argued that JP should have been the site chosen for inpatient care. As one system leader stated,

> *The status quo forces are enormous.*

In another person's opinion,

> *Some people don't like change. We have to make them appreciate that we are an integrated system.*

Another said,

> *The big challenge is that you have to include everybody and make them feel like they are part of the process through communication. It didn't work perfectly because there were a lot of problems.*

In large measure, however, people reportedly were trying to get on with working together, with what appeared to be no more than usual transition issues. Some issues were raised around general attitudes and perceptions. For example, one person talked about problems resulting from sterotyping people from the other campus. Others gave examples of people feeling they were not welcomed by their counterparts from the other campus.

There were also operational issues that were the direct result of bringing together groups that previously worked in separate places. Some were technical, such as having three separate paging systems. Others were cultural. One person described cultural differences stemming from dramatically different management styles at each campus. One reflection of these differences, by her account, was a strong interdisciplinary workstyle at JP and a heavy reliance on direction from service chiefs at West Rox. In a similar vein, another person described problems because physicians from one campus were not willing to sit down at the same table with nurses to work as a team or to co-sign nurses' notes.

From our interviews, it appeared that these transitional issues of working together were being worked through in Boston – they were issues that were not easy and needed attention but, given everything else that was going on, were not a major source of concern – at least among clinicians and researchers. There were still differences in ways of thinking and operating, but people were learning to work together.

Merging educational programs

The BU and Harvard medical schools had different practices and curricula. For example, the schools had different call schedules. Harvard residents (from Brigham and Women's and Beth Israel hospitals) stayed in the hospital every four nights, while BU residents never stayed overnight. Other differences related to who received the phone call about an admission (resident at Harvard, intern at BU) and who was responsible for discharge documentation (resident at BU, intern at Harvard).

The house officer rotation schedules also differed. BU Chief Medical Residents spent a full year at VA while Harvard Chief Medical Residents rotated every 6 to 10 weeks. Harvard resident rotations were for 2 to 4 weeks, while BU rotations were from 4 to 6 weeks. Also, the BU Chief Resident was a PGYIV while the Harvard Chief Resident were PGYIII, a difference that caused some friction initially, but was not a major issue.

The Chief Residents we interviewed described the differences in academic programs, but did not seem particularly upset by them. They were much more animated in talking about problems in caring for patients. They talked, for example, about incredibly slow discharges and the lack of support they received in that process. They talked, as another example, about the difficulty in getting radiology support because all the radiologists were at JP.

3.2 Implementation problems: Getting all the pieces in place

Major organizational redesign typically requires changes in a number of areas, changes that must be coordinated if the reorganization is to be implemented smoothly. In the case of VABHS, the consolidation of inpatient services to the West Rox campus depended not only on moving physicians, but also on transferring nursing staff and other support staff, and on renovating West Rox.

With Surgery, the first major service to be physically integrated, these elements were not synchronized. System leaders, concerned that VABHS could not continue to operate surgical services of marginal volume at both campuses, decided to move quickly to consolidate inpatient surgery to West Rox all at once rather than according to a staged plan that had also been considered. Leaders took this step even though union negotiations were not complete and expected funding for renovations was withheld by VA Central Office. Staffing and the physical plant both posed implementation problems in Boston.

Staffing

When the surgeons were moved quickly, union negotiations were not complete. Negotiations were complicated and time consuming because they involved two unions at each campus. Early in the process, Boston labor and management met with representatives of the National Labor Relations Board for advice on conducting joint negotiations, but that was not possible. In order to transfer staff from one campus to the other, therefore, management had to negotiate with each bargaining unit separately. Since each contract was different, an agreement reached with one unit was often not acceptable to another, and the process would have to be repeated. It was several months before the issues were worked out. Some JP surgical nurses accepted other

opportunities at JP, including newly created ambulatory care positions, but the majority transferred to West Rox. Delays through negotiation were compounded by a nursing shortage across the system so there were not enough registered nurses available. Nurse recruitment and retention were reportedly very difficult. Salaries of nurses were increased, but only by a relatively small amount. As a result, the Surgical Service did not have enough nurses in the operating rooms or the surgical intensive care unit to run inpatient surgery at full capacity.

The shortage of nurses was compounded by the lack of physical renovations described below and by other space, resource and priority constraints in the Surgical Service. Together they created problems from which the service has still not recovered. Since integration, the surgical caseload had dropped by roughly one-third. Veterans faced with waiting for long periods for surgery went elsewhere. The reduced caseload also affected surgical education. With the caseload dropping, there was not enough work for surgical residents, especially in General Surgery.

In hindsight, system leaders believed they had no choice but to consolidate inpatient surgery when they did. The service was under duress and, in their view, waiting would not have improved the situation. Their major challenge was to manage the personnel issues once they announced the consolidation. At the same time, they acknowledged that they were unprepared for the general shortage of ICU and inpatient nurses beyond VA. They were embroiled in implementing other national mandates and were not paying adequate attention to the local health care environment. They also did not manage the loss of surgical nurses to other positions at JP. As a result, the problems in the surgical service were more severe than they expected.

Fortunately, VABHS avoided these problems when inpatient Medicine was consolidated to West Rox. The leadership of Medicine followed a deliberative approach to integration, beginning with an impact statement from each service within Medicine, creating an executive implementation committee with far-reaching membership to oversee the process and tracking all necessary tasks on flowsheets. The dynamics of this consolidation were different and more constructive. They learned from Surgery and had all the systems in place before moving services. The transfers between campuses went more smoothly.

Physical plant

VABHS began integration with the expectation of a substantial infusion of funding to renovate the West Rox campus for its expanded inpatient role, and JP for its new mission. Without renovation, West Rox was neither large enough nor configured well for its new mission. Space was of particular concern because the projections of declining census and overcapacity in the system were inaccurate. However, in the summer of 2000, well after the integration was approved by VA Central Office and implementation had begun, system leaders were informed that the promised funding would not be forthcoming until the CARES process was completed in New England. CARES, the Capital Asset Realignment for Enhanced Services, was still being piloted in VA's VISN 12 as a methodology for analyzing needs and resources in a geographic area as the basis for determining what capital investments would be made. Under the new CARES rules, not only did VABHS not receive the expected funding, but was not allowed to make other physical or clinical changes without approval from CARES. As a result, the operating rooms were not renovated. As one senior clinician stated,

> *We don't have enough ICU beds, operating space, etc….Fixing the operating rooms will make a big difference from the morale point of view. The current ORs are horrible.*

A more recent example of areas held up for renovations is inpatient psychiatry, which, as of January 2002, was the only inpatient service remaining at JP. This raised questions about the adequacy of support services for patients, concerns for patient and staff security in an almost empty building at night and the costs of keeping the building open around the clock. The long-range plan was to move inpatient psychiatry to West Rox with other inpatient services. But the renovations had not been done. As an interim measure system leaders proposed to move the unit to Brockton with other inpatient psychiatry services. There was public protest against the plan because it would leave the city of Boston without an inpatient psychiatry unit, but the issue was resolved. The move will be complete by July 1, 2002. In addition, there will be a three-bed psychiatric observation unit at West Rox.

The CARES process and funding for capital improvement were externally imposed and remained a serious problem. Even when VABHS had resources, it did not have the authority to make the improvements because of the CARES process restrictions.

3.3 Organizational challenges: Fallout from the organizational structure

A newly-integrated system may also face problems stemming from its organizational structure. An organizational structure that looked workable in the integration plan – and perhaps was even essential in reaching agreement about integration – may be less successful in practice. Problems with the organizational structure may, in part, be transitional in that some aspects will be resolved as people get used to working together and as operational differences are accommodated. However, they also reflect gaps or weaknesses in the structure of the new system that need modification.

In our interviews, we heard about four organizational challenges facing VABHS: service leadership, service organization, educational accountability and fragmented services. The third was resolved early in the integration process; the others continued.

Service leadership

The structure of combining services under a chief from one campus and affiliate and a co-chief from the other is equitable for the system overall, and in VABHS was undoubtedly a key element of agreement between the affiliates in developing the integrated structure. However, it creates individual winners and losers, and new lines of authority.

In VABHS, it was difficult professionally for people who had been in leadership positions in their service to step back to second in command. In addition, the responsibilities of co-chief were not clearly defined before the structure was implemented. In some services, it was working out reasonably well. In others, it was more difficult, especially when the co-chief was professionally senior to the chief. Some co-chiefs left the system. As one person stated,

> *Much of this depends on the chief and co-chief and their willingness to interact.*

Understandably, there was jockeying for position as the structure was implemented. For example, one co-chief proposed that he, rather than the chief, be the clinical supervisor for the physicians from his affiliate. The Oversight Committee played a central role in resolving this issue. It did not agree with the co-chief, but instead backed the principle that the chief is the chief of the entire integrated service.

The system was also tested when the Chief of Medicine, a BU faculty member, resigned a year and a half after the integrated system was put into place. The question was whether BU should appoint a new chief since the system was still within the initial five

year period, or whether the vacant position should immediately rotate to the co-chief, a Harvard faculty member. System leadership decided that the position should remain as a BU appointment until the five-year period expired. The second BU-appointed chief resigned after a year, and a third BU-affiliated Chief of Medicine was appointed.

Looking beyond these important but primarily transitional issues, the chief/co-chief structure also potentially created longer-term problems for retention and recruitment, in people's opinions, and hence raised concerns about the continued quality of academic medicine in VABHS. In some opinions, the co-chief position is not viable. Some co-chiefs were leaving the system. When the current chiefs rotate in some services after five years, it is not clear how they will handle stepping back to the co-chief position; some may leave. There was also concern that the structure may dampen recruitment, at both senior and junior levels. One chief talked about being accustomed to recruiting physicians, in part, on the basis of having them come to work under the chief's leadership. But with the system of rotation, physicians may be reluctant to join the system because they will be working under a different chief in a few years. At the senior level, there were concerns about the affiliate's ability to recruit for the co-chief position or for a chief position that will rotate in a few years.

The jury is still out on the success of the chief/co-chief structure. In some opinions, this structure of service leadership allocated by affiliate should be considered a transition plan. As one person put it,

> *I think the arbitrary position of people leads to inherent instability and also retention problems. I hope that a logical leadership system will evolve.*

The chief/co-chief structure and rotations in key positions may have been necessary to reach agreement for initial integration, but might not work in long term.

Service organization

Below the service leadership, the services were integrated in different structures. Again, Surgery and Medicine were frequently cited as contrasting approaches, with seemingly wide agreement that the strategies used in Medicine were more successful. In Surgery, surgeons were organized into Harvard teams and BU teams. Nursing staff, because of the decision to move Surgery quickly and all at once, were transferred from JP in units. For example, the JP Surgical Intensive Care Unit (SICU) moved as a unit to form a new 24-hour recovery unit at West Rox, a surgical subspecialty unit moved to create a new surgical ward and another unit created an 8-bed Cardiac Care Unit (CCU). While this approach helped to move things quickly, it also caused problems. Whole units of JP staff had no institutional knowledge of how things worked at West Rox. JP used a different system for managing nursing than West Rox. For example, JP nurses were used to support services that initially did not exist at West Rox, such as ward secretaries, 24-hour pharmacy, someone to empty needle boxes. West Rox surgical nurses in turn were reportedly uncomfortable with the new JP-staffed units. By some accounts this JP/West Rox separation led to ongoing friction in the Surgical Service. In Medicine, all physicians and some nursing wards worked on integrated JP/ West Rox teams, reportedly with minimal friction.

Educational accountability

One of the central principles of the VABHS integration was that all activities – including education – would be integrated. In implementing the new system, the integration of the educational programs raised, issues of cross-school supervision and authority, and of equity, in addition to operational issues of differences in curricula and practices across medical schools described earlier.

Here too, there were instances of faculty challenging or trying to circumvent decisions to integrate education. One physician, for example, did not think it appropriate that attendings from one affiliate should oversee the work of residents from the other affiliate and initially persuaded the department chair to post a call schedule with two attendings. At least one other clinician reportedly objected. There were also reports of challenges to recruitment plans and service chief rotations based on concerns about equity between the schools – or in some cases, on a perceived desire to promote one's own affiliate. With the assistance of the Oversight Committees in Medicine and Surgery, these issues were resolved through compromise or adherence to the original plans and structures.

From the trainee perspective, one debate was over the access of BU fellows to the Harvard catheterization lab. On the Harvard side, VA has a combined cardiology fellowship program with Mass. General Hospital and Brigham and Women's Hospital, so there are a large number of fellows and a very active catheterization lab. BU fellows wanted equal access to the lab. After considerable debate and consideration through the Oversight Committee, a compromise was reached that gives BU more fellows and more, but not equal, catheterization cases.

An important early debate was around student evaluation. In this instance, the schools took a measured step back from fully-integrated services. As one person described the issue and its resolution,

> *At one point we had to step back [from the principle of functioning as one integrated service]. It was important that Harvard students be evaluated by Harvard faculty. Originally if the students didn't have a Harvard attending, a Harvard faculty was assigned to oversee the student, but that didn't work. Now there are enough attendings that all Harvard students have Harvard attendings. It has pulled back a little bit, but is basically working well.*

The Oversight Committees provided essential support in resolving these issues. Working through the Committees, the medical schools supported the principles of integration rather than promoting their faculty's individual interests. This support appeared key in moving integration forward.

Fragmented services

The separation of inpatient and outpatient care to different campuses raised concerns on a number of levels, particularly around reported fragmentation of clinical care and the logistical inefficiencies for both staff and patients of getting care on multiple campuses. These concerns were thought to have a negative impact not only on patient care but also on teaching and research.

Fragmented clinical care. Clinical care was reportedly fragmented in a number of areas. By several accounts, physicians were sometimes not accessible to patients because they were at another campus. Some surgeons who saw patients in their clinic did not end up operating on them. The internal consulting and referral processes were not working well. Clinicians did not know whom to call and complained of not being able to get hold of people for consults. As one person expressed it in the survey,

> *I don't oppose the concept of integration- it is silly to have two major hospitals a couple miles from each other. However, it has not worked well and the patients have suffered. For example, when I need to get a specialty consult, I call the operator at JP who either gives me wrong # or doesn't know, so I call West Rox operator (who seems to have a different phone list), after which I spend 15-45 minutes trying to track someone down- even when I reach a specialist clinic, they don't necessarily know how to help me. I have difficulty physically finding clinics*

> *and offices, and patients have been sent to the wrong facility (JP & WR) for clinics, because there is so much confusion.*

There seemed to be particular discontent around fragmentation in primary care. Several people commented about the lack of continuity between primary and specialty care. One person complained about primary care clinicians referring patients out to private hospitals for surgery because they didn't understand the VA system. A person in primary care talked about specialty support being pulled from the clinics. To add to the fragmentation, a few people talked about the difficulty of providing primary care in a team manner because the primary care attendings changed every two weeks.

Logistical difficulties. Informants also reported that multiple campuses created logistical problems for patients, and stress and inefficiency for clinicians. For example, patients getting inpatient care at West Roxbury had be transported to JP for radiation therapy. Patient transfers reportedly did not consistently work smoothly. By one report, patients were reluctant to go to JP because of loyalty to West Rox and their perception of the urban neighborhood of JP. Also, in some cases there were major delays in care because of the time lost in traveling. Reportedly, patients at JP who were ready for admission had to wait hours for beds to open at West Rox.

For clinicians, as one senior academic explained,

> *The separation of facilities adds stress to everyone's day. Surgeons have operating rooms in West Roxbury, but they see ambulatory patients at Jamaica Plain. It is hard to go back and forth. We are trying to address the issue, but there are not enough rooms at WR. For general and cardiac surgery, it does not make sense that they have to see ambulatory patients at JP. The idea would be to move these two. Most of the house staff is at JP. The faculty members who are at WR for inpatient don't see much of them. I didn't realize it would be a problem until it got going.*

These problems affected research and teaching as well as clinical care. For example, as one person summed it up in his/her survey:

> *Because of my split time between clinical and research duties, changes in the management / efficiency of the clinical side of the house affect my research time. The logistical inefficiency of managing patients between 3 campuses means I spend more time doing case management for less return to the system. Ultimately it cuts into the academic activities. Management needs to smooth out the bumps and get the 3 campuses better connected. How about designated liaison staff?*

Several people commented in their interviews on difficulties for teaching caused by multiple campuses – e.g., residents could not make it to all conferences; attendings were not available because they were at the other campus. These difficulties were exacerbated by the loss of staff – e.g., with few staff, conferences were difficult. As one person expressed it:

> *Integration is affecting the quality of training. Actual integration is a misnomer geographically. We have segregated outpatient and inpatient care. This has had a profound effect. Attendings have offices in JP. They see clinics in JP, unless they are Medicine or subspecialty attendings. So it is hard to get them to come here – it's a tremendous loss. As a result, we don't have people walking around here who can be approached for advice on certain cases.*

Not an integration issue but exacerbating the fragmentation in care in some opinions, is the high number of residents and students rotating through VABHS, especially in

Medicine. Training was reportedly very different from a year previously. In Medicine, 400 students came through, most for three weeks at a time. Harvard residents were only at VA for 10 weeks. As another person put it,

> *So we have residents changing all the time. It's like a bus station….This is like foster care. We provide a very short-term experience for people.*

The key question for VABHS is whether these are transitional issues that can be worked through and resolved, or whether they are weaknesses in the structure that should be corrected. For Surgery, system leadership decided on the latter. In some opinions, surgeons were the hardest hit by traveling between campuses for inpatient surgery at West Rox and clinics at JP because their operating schedules were so demanding. In addition, their clinic schedules required them to spend most of their time at JP while their sickest patients were at West Rox. In January 2002, three surgical clinics (General Surgery, Vascular Surgery and Thoracic Surgery) were moved from JP to West Rox so that these surgical services would be consolidated to one campus. Other issues remained.

3.4 Big picture challenges: Budget shortfalls, tertiary care and external priorities

The integration of VABHS is taking place in a context of larger pressures and priorities. These contextual factors are independent of facility integration – that is, they are not caused by integration and are not unique to integrating sites – but they exert strong influence on the integrating system. These are the hardest challenges from which to draw lessons about how to avoid or solve them because they are externally imposed and are continuing. At the time of our site visit and survey last fall, three contextual factors stood out: budget shortfalls, tertiary care expectations and externally-imposed priorities.

Budget shortfalls

The severe budget problems facing VABHS overshadowed integration. Between FY1998 and FY2001, VABHS budget allocation increased by only 8.7%, without inflation adjustment,[7] while the number of unique veterans served by the system declined by 4%.[8] In the last year, between FY2001 and FY2002, the financial situation worsened with the budget allocation actually falling by 0.1% (from $299,856 to $299,472) while the number of veterans served rose by 11% (from 36,872 in January 2001 to 40,969 in January 2002).

Many of the problems the system faced over the last several years resulted, by most accounts, not from integration per se, but from integrating without promised investments from Central Office and while making staffing and resource cuts while integrating. The impact of budget constraints on staffing was compounded by the nursing shortages and union resistance to moving staff among campuses, described above. The shortage of funds, compounded by the CARES process, delayed needed physical renovations – for research labs as well as clinical care.

As one system leader expressed it,

> *High-end integration is difficult, but combined with resource depletion, it is almost impossible.*

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[7] VA New England Healthcare Network report, "Resource Allocation FY97-02."
[8] VA New England Healthcare Network *Vantage Points,* January 2002. http://vaww.visn1.med.va.gov/finance/vantageview.asp.

And as an academic leader stated,

> *The merger is not the problem. The problem is resources….I would say that with those two problems [leadership rotation and separation of facilities], there would be a moderate amount of discontent, particularly with respect to two locations. This is all dwarfed by the major problem of inadequate resources for day-to-day operations in the VA and also for the construction of physical aspects of the merger. That continues to be a major problem. There are not enough nurses and it is hard to retain faculty.*

Similar points were made in response to the open-ended question in the integration survey. To give two examples:

> *Integration has been a minor variable compared to budget cuts. Integration could have been very positive but severe budget cuts threaten clinical care, teaching, research and morale*.

> *The failure to provide adequate resources has completely undermined the consolidation. The inability to replace needed workers who have left both saps morale and threatens our clinical mission. The loss of skilled WR nurses is an immediate threat to our ability to provide quality care.*

With no light at the end of the tunnel, morale appeared to be low and many clinicians and researchers were worried about good people leaving the system and about the negative impact on patient care. By leadership accounts, the budget shortfalls required their priority attention in areas other than the academic mission.

Tertiary care expectations

Many people also talked about VABHS' role as a tertiary medical center in a system that does not seem to value tertiary care. They pointed out that there were no national performance measures or published priorities for tertiary care or inpatient care. They talked critically about the enormous investment and priority given to primary care when tertiary care issues were not being addressed – and when private-sector medicine has moved away from an HMO model of gatekeepers. They saw inpatient medicine as being at the heart of a tertiary medical center, but all the resources were being moved to primary care. As three people expressed it,

> *There is less sympathy for patients with acute distress*.

> *There are no advocates for inpatient medicine in Washington…. [The system has been] driven too far by Kizer's thrust to primary care.*

> *Tertiary care is in more demand than primary care, but that is not the way the agency is structuring the budget.*

In some opinions, VABHS' role as a tertiary center was not recognized in the budget allocations within the VISN. They believed that the budget put VABHS on the footing of a community hospital and, in addition, did not recognize Boston's role as a tertiary referral center with reimbursements from other medical centers. Since FY1998, system leaders cite, VABHS' budget allocation has grown by only 8.6% while the total VISN allocation grew by 17.9%. Between FY2001 and FY2002, VABHS' allocation dropped slightly, by 0.1%, while the total VISN allocation grew by 7.5%.

Hence, the lack of recognition of VABHS' role as a tertiary health care system combined with the national emphasis on primary care were seen as compounding the budget problems. While these issues were not caused by integration, and certainly were not unique to integrating systems, they added to the discouragement and frustration among VABHS staff, leaders and affiliates.

External priorities

There were a number of externally-imposed programs and policies that VABHS needed to address during this integration period. The most frequently-mentioned was the introduction of service lines. At the direction of the VISN leadership, clinical care in VISN 1 medical centers, at the time of our site visit, was being reorganized into clinical service lines. Under this structure, services were to be organized into multi-disciplinary teams or divisions that cared for a particular population or cluster of illnesses, such as mental health. This was a substantial reorganization that was not directly related to integration, but was being imposed at the same time the integration was taking place.

Most of the people we interviewed did not welcome service lines. Several were skeptical that service lines were an improvement over the functional organization arrangement. In one person's opinion,

> *Service lines are a good way to throw the baby out with the bath water…A medical center is more than an aggregation of unrelated service lines.*

According to another person, the disadvantages of service lines were evident in the lack of success of the existing service lines such as primary care. For some people, the clinical decision-making and managerial apparatus was dismantled – without an adequate replacement – as the system reorganized into service lines. As one person said,

> *We can't plan and execute because we have been devolving into service lines. Directors have to look at everything, whereas service line managers have narrow perspectives.*

Another person talked about the additional bureaucracy that had resulted from the implementation of the service line arrangement.

Some people mentioned their concerns about the negative impact of service lines on the academic mission of the VA healthcare system. As two clinicians expressed it,

> *People wonder how academics will be valued in service lines. A service line does not have first-line interest unless there is some powerful academic representative. There is a question of whether a service line does improve delivery of care.*

> *Care lines are not good for academic purposes. In our care lines, academic leaders are also the operational leaders…. It is hard to find time for teaching.*

Another clinician talked about his concerns with the combination of service lines and rotating service leadership created an unstable leadership situation that threatened his professional development and career advancement.

Thus for many people, service lines were seen as another factor with which to contend – for some they were another factor threatening the system, diverting attention and funding, and bringing morale down.

More broadly, system leaders argued that integrating systems should be held harmless for other national initiatives. They cannot be embroiled in multiple mandates and held accountable for all performance measures and still, in their opinion, pay adequate attention to all aspects of merging medical centers successfully.

4. THE IMPACT OF INTEGRATION AND SYSTEM CHALLENGES

In many opinions, as stated previously, the system challenges resulted in inability to make needed capital improvements; substantially reduced surgical workloads that compromised patient access and threatened residency programs; reductions in staff and reportedly good staff leaving; and fragmented clinical services that reportedly compromise the quality of care, diminish clinician efficiency and interfere with teaching.

Some of the impacts of the system challenges are readily observable, like the delay in capital improvements. Others require further scrutiny. While we cannot definitively separate the effects of the challenges from the effects of integration itself or from other factors affecting this system, we can look at two sets of indicators of organizational health and success: system performance and staff morale.

4.1 System performance

Objective system performance measures show a mixed picture, but one that is generally better than the national average. Looking across measures in the January 2002 VISN 1 Scorecard and using VA's classifications,[9] VABHS performance was exceptionally strong on 17 measures, fully successful on 11, and under goal on 25 (using VA's classifications). This roughly matches the VISN-wide performance (exceptional or fully met on 30 measures) and exceeds national performance (exceptional or fully met on 19 measures).

Looking more closely at patient satisfaction measures as indicators of both access and quality of care, satisfaction in FY2001 improved on some dimensions and declined on others,[10] as shown in Table C.1 in Appendix C. Between FY1998, before integration took place, and FY2001, satisfaction improved (that is, problem scores went down) in Outpatient Visit Satisfaction and Outpatient Overall Coordination; in FY2001, satisfaction on these measures was also better than the national average. But satisfaction fell during this period in Outpatient Continuity of Care, Outpatient Access, Inpatient Access, and Inpatient Coordination, although Outpatient Continuity was better than the national average in FY2001. This rise in problem rates may reflect the access difficulties for inpatient surgery and the physical location access problems that some clinicians were concerned about.

Measures of system efficiency improved over the period of integration. As shown in Table C.2 in Appendix C, Boston's costs per workload and staff per workload both declined between FY1998 and FY2001. Using standard VA measures: [11]

- Cost/ patient workload fell by 13.4%, from $5039.74 (a simple average of the two campus scores before integration) to $4,364; if the pre-integration scores of the two campuses are considered separately, the drop is 18.1% over Brockton/West Roxbury FY1998 score.

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[9] VISN 1 Scorecard: Abbreviated Executive Summary, January 2002. http://vaww.visn1.med.va.gov/perform/.

[10] Office of Quality & Performance, Veterans Satisfaction Reports, http://vaww.oqp.med.va.gov/oqp_services/veterans_satisfaction/vss.asp. Satisfaction scores are risk adjusted.

[11] Allocation Resource Center (ARC) Unit Cost Reports, http://vaww.arc.med.va.gov/reports/ucr/UCR_toc.html. Costs were adjusted for inflation to FY2001 using information from the Bureau of Labor Statistics. In ARC terms, c*ost/ patient workload* is adjusted cost/ adjusted FACWORK and e*mployees (FTEE)/ 1000 patient workload* is total adjusted FTE/ adjusted FACWORK. These terms are defined in Table C.2 in Appendix C.

- Employees / 1000 patient workload fell by 19.3%, from 51.38 (an average of the two campuses) in FY1998 to 41.48 in FY2001; again with the drop greater over the Brockton/West Roxbury FY1998 score (24.5%, from 54.93 per workload in Brockton/West Roxbury to 41.48 FTEE in VABHS.

Both changes are in line with declines over this period at the VISN and national VA levels, though VABHS' costs per workload and staff per workload remain slightly higher than the VISN and national levels in FY2001. In comparison with two similar complex and highly affiliated systems, Chicago and New York Harbor,

- VABHS cost per patient workload ($4,364) was lower than New York Harbor's ($4,603) and higher than Chicago's ($3,823), though VABHS' costs declined more than Chicago's (-6.6%) between FY1998 and FY2001.
- VABHS employees per 1000 patient workload (41.48) was lower than New York Harbor's (43.37) and roughly the same as Chicago's (41.75), with Boston having a bigger decline from FY1998 than Chicago.

From this rough analysis of VABHS performance, then, it appears that performance is being maintained in most areas, though there are some aspects of patient satisfaction that warrant attention and are consistent with staff concerns about access and continuity of care. Efficiency is improving.

4.2 Staff morale

While performance measures were mixed, there was little debate that morale in the system was very low. Morale was a frequent theme in both the interviews and the narrative survey comments, with some people expressing themselves strongly about the negative atmosphere in the system. For example, one survey respondent wrote:

> *I am looking for a position outside of VA. The work environment is toxic. The mission of administration is cost reduction. Service to veterans is not the goal. It is a dehumanizing environment for anyone who truly cares about patients.*

People spoke about morale in the context of the myriad of challenges the system was facing, but particularly emphasized the impact of budget constraints and lack of resources. One person talked about the level of staff animosity that has developed as a result of budget constraints. Others emphasized discouragement because there was no light at the end of the tunnel with the budget shortfalls. People also talked about the impact of staff reductions as the cause of low morale. One person stated,

> *We don't have the capacity if people leave for vacation or maternity leave. If we happen to lose people, the task of the remaining people gets harder, morale becomes lower, [and the] prospect of hiring more people becomes small.*

Many people mentioned staff leaving. Some senior clinicians who were not made chiefs in the new system have left, creating, according to some respondents, a gap in knowledge and experience. Others talked of front-line clinicians and researchers leaving because the system is unstable – they believe that all the good young people are gone and they can't hire new ones. Others spoke of the difficulties of recruitment and their concerns that the system will be unable to recruit good clinicians.

5. LOOKING FORWARD

To date, the integration of the VA Boston Healthcare System is at best a mixed story. The system has made good progress in integrating services across the system in clinical care and education. The Research services are still administratively separate but have combined the R&D committee and its subcommittees. The transition issues of working and learning together across cultures and operating practices are being tackled. The loss of nursing staff in consolidating inpatient surgery contributed to a substantial drop in caseload from which system has not fully recovered, but the system was able to retain the nursing staff in consolidating Medicine. Issues of educational accountability in shared services appear to have been worked through, but some feel rotating leadership could contribute to longer-range problems. Having separate inpatient and outpatient campuses created problems of logistical inefficiency and fragmented care that have not been fully addressed yet. The imposition of service lines complicates integration. And the budget problems overwhelm the other issues, with no light at the end of the tunnel. In addition to the practical problems of operating within a limited budget, continued budget uncertainty and staff reductions have taken their toll on the staff. Performance has not dropped precipitously, but there are some areas for concern. Morale by almost all accounts is poor.

From VABHS' experience to date, we can look forward in two directions, first to the implications for the future of academic medicine in the system and, second, to lessons Boston might offer other affiliated medical centers that are considering or attempting integration.

5.1 Future of academic medicine in the VA Boston Healthcare System

At the time of our interviews, the leaders of VABHS believed that the academic future of VA was in some doubt. They acknowledged that teaching and research were not priorities under the severe budget pressures the system was – and is – facing.

Clinicians and researchers concurred. As one person wrote in her/his survey:

> *The integration would be working just fine if the medical center were adequately funded. As it is, the clinical load has increased as staffing levels have decreased, and the "academic mission" is a laughable concept. I see no evidence of a commitment to protecting the research & teaching mission of the VA, even with regards to VA funded research.*

Concerns about the budget translated into concerns about the future of academic medicine in several ways. First, many people were worried about VABHS' ability to recruit and retain academic faculty. In some opinions,

> *Both schools believe that budget problems will cost us senior and junior faculty.*

> *VA has been attractive in the past because of its ability to develop research programs. This is being affected now.*

Second, budget shortfalls translated into concerns about residents' workload and support. In Medicine, the workload had reportedly increased to the extent that residents were working much harder, and were overworked because there were not support staff and not enough beds. Education was seen to be taking a backseat in these circumstances.

Budget shortfalls had resulted, by several accounts, in under-investment in research space and equipment. Research funding has decreased in VABHS in recent years, and

with staff leaving and space and equipment neglected, at least some researchers were worried about the future success of Research in this system.

Budget shortfalls also likely exacerbated clinicians' ability to protect time for research. In the integration survey, only 4% of respondents agreed with the statement, "I can better balance clinical and research demands since integration," while 42% disagreed. This item was included, not because increased balance was a goal of integration, but because balance is an important element of our ability to carry out VA's academic mission and is a growing challenge for clinician researchers across virtually all health care settings in this country. It is a particular challenge in a system with budget constraints. Several people talked about VA's historical attractiveness to physicians in offering them the opportunity to do research, but that attractiveness is being lost with the current pressures on the system.

Changes in caseload and in service delivery practices – issues not unique to this system – also have implications for future education in VABHS. In contrast with Medicine, some services faced falling caseloads and concerns about whether future caseloads will be adequate to support a quality teaching program. For example, the caseload in Surgery and Neurology was dropping to such an extent that, in some opinions, residents did not have enough cases and not enough to do. The vascular fellows program disbanded because critical beds dropped from 29 to 8. This reportedly translates to having too many residents. As one senior leader summed it up,

> *Our academic workload is too much. All residents bring money. Some bring value. We have too many residents. Neither school is dealing with it at this point primarily because of practical options.*

It appears, then, that the future health of academic medicine in the VA Boston Healthcare System is in jeopardy because of ongoing budget constraints. Several people talked about the importance to VABHS of reconciling its funding and its mission. In their view, if VABHS is to continue with a tertiary mission, it cannot be funded at what they consider the level of a community hospital.

From the medical school perspectives, both Harvard and Boston University officials expressed commitment to VA but feared that there were not enough resources being allocated to support high quality care, particularly in VABHS' tertiary care system. The Deans of both schools recently met with the Secretary of Veterans Affairs, Anthony Principi, to express their concerns.

While VABHS is struggling to resolve its funding, it must also – like other medical centers – work with its affiliates and the VA Office of Academic Affiliations to realign its residency programs with current caseloads and service delivery practices.

5.2 Lessons for other integrating systems

The challenges the VA Boston Healthcare System has faced offer lessons to other highly affiliated medical centers that are seeking to integrate. Some lessons were articulated by the VABHS leaders, clinicians, researchers and affiliates whom we interviewed and surveyed. Others are extrapolated from our analysis of the VABHS system.

- *Staff should be prepared for the transition.* Integration brings major organizational change that will require a transition period as people get to know each other and resolve differences in ways of doing things. Some rough spots are always to be expected, but they can be smoothed out with preparation. Extensive communication with staff at all levels of the organization – including clinicians – to keep them well-

informed about integration plans and processes is essential, as is well known. The challenge is to help staff understand the often difficult realities of changed circumstances; some staff may resist the message. Beyond communication, opportunities should be created in the integration process for staff to get to know their counterparts at other sites before changes take place. Getting acquainted can help people move beyond stereotypes so they can work more comfortably on tackling operational problems after integration. In some opinions, VABHS could have done more with this opportunity.

- *Components of reorganization should be synchronized as closely as possible.* Reorganizing medical centers, especially if it involves restructuring of reporting responsibilities and moves in physical space, requires coordination of many pieces. VABHS transferred surgeons to consolidate inpatient Surgery quickly before labor negotiations were complete with surgical nurses and before the surgical suites were renovated. Negotiations were lengthy because four bargaining units were involved and each negotiation had to be done independently. System leaders recognized that the move would create problems, but felt it had to be done. Their challenge was to manage the personnel consequences once the consolidation was announced. In hindsight, they acknowledged that they underestimated the movement of JP surgical nurses to other positions at JP and the nursing shortage in the health care industry. The resulting loss of nurses compounded by space and other resource issues in Surgery contributed to a backlog of work and lasting drop in caseload. In consolidating inpatient Medicine, where the transfer moved with deliberation, union negotiations were completed before changes were made and renovations were less pressing, the transition was smoother.
- *Splitting inpatient and outpatient care creates problems.* In the negotiations to create VABHS, the division of inpatient and outpatient care to different campuses made conceptual and practical sense. In practice, however, the division created a number of logistical and patient care problems. Some of these problems may be transitional and will be resolved as the system gains experience under the new organizational structure. Other systems planning to consolidate services might benefit from a careful operational analysis of patient and staff flow before implementing changes. Other problems created by splitting inpatient and outpatient care may require modifications in the original organizational structure of the integrated system. For example, VABHS recently moved its surgical clinics to the same campus as inpatient surgery. Some structures might turn out to be temporary, perhaps essential to gain support from stakeholders and staff at the beginning of integration, but not the best solution in the long term.
- *Educational programs can be integrated, but shared leadership is difficult.* The primary affiliates in VABHS were committed to sharing services, rather than dividing them up. Despite some early rough spots, faculty, residents and students seem to be working reasonably well together. Early concerns about the negative impact of integration on educational programs were not borne out. One critical component in integrating clinical services was to share leadership equally, with the faculty from each affiliate serving as chief in half the services and co-chiefs in the other half. While this division appears to have been very important in launching integration, in many opinions, it creates instability that will affect clinical recruitment and retention in the longer term, and the selection of chiefs based on their affiliation should be phased out as the system matures.

- *Strong, consistent support from medical schools is key.* In Boston, early in the integration planning process, VA committed itself to consolidating acute inpatient care to one facility. The primary medical schools, after initial positioning for which campus would house inpatient services, worked together to develop a plan for creating integrated services across the system. Equally important, they continued their involvement as the new system was being implemented. The Oversight Committees for Medicine and Surgery have been important vehicles for resolving issues. The specific support for the principles of integration in resolving particular issues – rather than simply championing each school's faculty parochial interest – has been critical. Unfortunately, Boston's experience with strong cooperation between medical schools may be unusual, growing out of a context of mutual respect between institutions and interaction among faculty that is not found in other places.
- *Integration requires a financial investment.* Medical center integration is usually undertaken with the expectation of saving money. What is often overlooked is that integration usually requires an investment before savings can be expected. The VABHS integration was premised on a plan that required substantial capital investment to renovate the campuses to meet their new missions. However, after integration began, the promised resources and inducements were withheld. One important lesson is to not begin integration until funding is assured, so a system does not get caught halfway down the integration path without necessary resources. From Boston's experience, trying to integrate and cut costs simultaneously does not work.
- *Support of the academic mission should be an explicit goal of integration.* Research and Education are critical missions of VA. VA's accomplishments in producing high quality research and training the nation's physicians are well known. What is sometimes overlooked, however, is that the academic mission is also integral to the quality of care VA provides to veterans. Maintaining the academic mission should be an explicit goal in any integration of affiliated medical centers. In addition to making sufficient investments to maintain the quality of patient care, as recommended above, integration plans and resource commitments should incorporate the resources needed to support the academic mission, such as investment in research labs and equipment.
- *Politics often delay or contort integration.* In Boston, the initial choice of the site of the inpatient campus went through three planning committees, in large measure because the medical schools and veterans service organizations lobbied strongly for one site or the other. More recently, the temporary transfer of inpatient psychiatry was delayed by public objections from politicians. Looking to our other two case study sites, Chicago's integration was highly political from the beginning. Public hearings and Congressional inquiries effectively stalled any substantial changes in the system. New York Harbor, in contrast, kept a low profile politically, probably by not making large or sudden changes. Instead of beginning with major organizational changes in consolidating services to one campus, the Harbor followed a strategy of targeted opportunities to integrate services that had a vacancy in leadership and did not have a strong investment by both affiliates. They succeeded in integrating virtually all administrative service and selected clinical services.

APPENDICES

A. Definitions of integration

B. Methodology

C. Performance data

D. Steering committee members

A. Definitions of integration

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 to one organizational entity.

- In VA, the term *integrated system* is an administrative designation, not a description of the organizational 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 organizational 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 being trained in a separate VA track.

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

- Within the VA integrated system, individual services, departments or sections can be integrated under different organizational 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 care is provided and staff remain at more than one campus. Services that have separate leadership and staff at different campuses, remaining relatively unchanged from the organization 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.

B. Methodology

The project is designed as a set of comparative case studies of three health care systems. 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." [12] 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…."

Within its case study framework, this project uses four methods of data collection and analysis. Data from all four methods are used together in analyzing the three systems. The case studies bring the data and analyses together in a primarily narrative presentation.

In this report, the most detailed data collection and analyses were done on the VA Boston Healthcare System. Interviews and a survey were the most important sources of data. A draft of the Boston case description was reviewed by the Director, Chief of Staff, Acting Chief of Staff, Associate Director for Nursing Programs and Administrative Assistant to the Chief of Staff.

1. Interviews

Three sets of interviews were conducted in the data collection for this report. The report also draws information from earlier data collection for the project.

Telephone interviews with key leaders in Chicago and New York Harbor. In these two systems, we interviewed the Director, Chief(s) of Staff, and Associate Chief(s) of Staff for Research in VA and the Dean or Associate Dean in the two primary medical school affiliates in May and June 2001. We updated our information through telephone discussions with our liaisons in these systems in December 2001 and January 2002.

In-person interviews with leaders and selected staff in Boston. The Boston interviews were conducted on-site between July and September 2001. At VA Boston, we interviewed the Director; Chief of Staff; Chiefs of Medicine, Surgery and Psychiatry; selected other clinical chiefs; service line managers; Associate Chiefs of Staff for Research and Education; and representatives of clinicians with faculty responsibilities, researchers and chief residents. We attempted to interview residents but were unsuccessful.

At the affiliates, we interviewed the Dean of the Boston University School of Medicine and the Associate Dean of the Harvard University School of Medicine.

We interviewed senior VA officials and medical school representatives alone, or in a few cases, in pairs. VA clinicians, researchers and residents were interviewed in small groups.

Interviews with Network Directors and leadership of the VA Office of Academic Affiliations. We interviewed the directors of the three VISNs in which the case study

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

systems are located in October 2001. We also met by telephone with leaders in the Office of Academic Affiliations, also in October 2001.

We used a focused 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 themes he or she raised. All interviews lasted approximately one hour. The common topics focused on:

- new services integrated and other changes in the system since last year,
- the role of the affiliates and changes in the relationship between VA and the primary medical school affiliates,
- the impact of these changes on service delivery, staffing, education and research,
- major successes and challenges in the last year,
- staff morale, and
- remaining integration issues and future strategies.

Interview data were used descriptively to report the progress of integration. Standard methods of content analysis were used to identify themes and patterns from the interview data to analyze factors affecting integration. We coded transcribed interview notes for key concepts and tabulated the frequency with which concepts were mentioned and the organizational role of the person mentioning them. Quotes from the interview transcripts were used to illustrate themes.

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. Survey

The Boston integration survey was conducted in August and September 2001. Questionnaires were sent via intra-facility mail to 469 clinicians and researchers in the VA Boston Healthcare System by the MDRC. The mailing included all staff clinicians on the list provided by the Chief of Staff's office and all non-clinician researchers on lists provided by the Jamaica Plain and West Roxbury Research Offices. Twenty-eight surveys were returned as undeliverable. Surveys were anonymous, with no tracking or other identification numbers. Completed surveys were returned by respondents in business reply envelopes directly to the data entry firm contracted by the MDRC. A second mailing after four weeks was sent to encourage non-respondents. Because the surveys contained no tracking numbers, the follow-up mailing was sent to everyone on the initial mailing list. Two hundred and thirty five respondents completed the survey, a response rate of 53% [235/(469-28)].

The survey asked respondents to:

- Describe their integration experience by rating their agreement with statements about teaching, research and clinical aspects of VABHS.
- Provide personal background information to allow us to analyze results by subgroups of clinicians and researchers.

- Offer any additional comments they chose about the impact of integration on the academic mission of VABHS. Sixty-three respondents offered narrative comments.

Respondents were asked to rate statements about the integrated system on a 5-point scale of "strongly agree" to "strongly disagree." 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."

Survey responses were analyzed descriptively. In this report, results are presented as frequency distributions of percent of agreement or disagreement for the total sample. For ease of presentation, "strongly agree" and "agree" were collapsed to a single category labeled agree; similarly, "strongly disagree" and "disagree" were collapsed under disagree. Also for ease of presentation, neutral responses were not reported; they can be calculated by adding the agree and disagree proportions and subtracting from 100. Quotes from the open-ended comments were used to illustrate points in the report.

A more detailed presentation of survey results can be found in a separate report prepared for the VA Boston Healthcare System in November 2001 and titled "Survey of VA Boston Healthcare System Clinicians and Researchers."

4. VHA administrative databases

Quantitative data were drawn from existing national VA databases. The standard databases were used for two reasons. First, they provide data in forms that are comparable across sites. 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 was used in aggregate at the medical center, VISN or national VA levels. Data are used descriptively and simply reported. No statistical analyses were conducted.

The variable domains we used and their data sources are listed on the next page.

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	VA New England Healthcare Network, "VISN 1 scorecard: abbreviated executive summary," January 2002. http://vaww.visn1.med.va.gov/perform/
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
Unique patients	VA New England Healthcare Network, "Vantage Points," January 2002. http://vaww.visn1.med.va.gov/finance/vantageview.asp
Budget allocations	VISN 1 report, "Resource Allocation FY97-02"

C. Performance Data

Table C.1. VABHS Selected Performance Data: Veteran Satisfaction

Table C.2. VABHS Selected Performance Data: Cost Efficiency

Table C.1
VABHS Selected Performance Data: Veteran Satisfaction

Measure	FY 98 Jamaica Plain	FY 98 Brockton / West Roxbury	FY 98 Boston mean	FY 01 VABHS	FY 98-01 Boston % change	FY 98 National	FY 01 National	FY 98-01 National % change
Outpatient Satisfaction - Problem Rate for Access	0.1107	0.1192	0.11495	0.1306	13.61%	0.1262	0.1206	-4.44%
Outpatient Satisfaction - Problem Rate for Continuity of Care	0.1713 +	0.1813	0.1763	0.2149+	21.89%	0.2180	0.2464	13.03%
Outpatient Satisfaction - Problem Rate for Coordination of Care (Visit)	0.1657	0.1933	0.1795	0.1371+	-23.62%	0.1863	0.1578	-15.30%
Outpatient Satisfaction - Problem Rate for Care Management (Overall Coordination)	0.2624+	0.3057	0.28405	0.2499+	-12.02%	0.2980	0.2715	-8.89%
Inpatient Satisfaction - Problem Rate for Access	0.1996	0.1997	0.19965	0.2275	13.95%	0.2137	0.2310	8.10%
Inpatient Satisfaction - Problem Rate for Coordination	0.2286-	0.1942	0.2114	0.2256	6.72%	0.2252	0.2320	3.02%

Notes:
Satisfaction scores are reported as problem rates so low scores are better. All scores are risk adjusted. A + or – sign after the number indicates that the problem rate is significantly better or worse than the national average.

Notes:
Boston mean is the unweighted average of the Jamaica Plain and Brockton / West Roxbury pre-integration scores for 1998.

Source: Office of Quality and Performance, Veteran Satisfaction Reports, http://vaww.oqp.med.va.gov/oqp_services/veterans_satisfaction/vss.asp

Table C.2
VABHS Selected Performance Data: Cost Efficiency

Measure	FY 98 Jamaica Plain	FY 98 Brockton / West Roxbury	FY 98 Boston mean	FY 01 VABHS	FY 98-01 Boston % change	FY 98 National	FY 01 National	FY 98-01 National % change
Adjusted Cost / Adj FACWORK	$ 4,752.36	$5,327.12	$5,039.74	$4,364.00	-13.41%	$ 4,649.15	$4,174.00	-10.22%
Adj FTE / 1000 Adj FACWORK	47.82	54.93	51.38	41.48	-19.27%	51.20	40.24	-21.41%

Notes:
Boston mean is the unweighted average of the Jamaica Plain and Brockton / West Roxbury pre-integration scores for 1998.

Adjusted Cost: The data used to create Adjusted Costs are obtained from the total expenditures for the specified timeframe identified at the top of the report (e.g. quarterly, annually etc.). This cost data is extracted from the Financial Management System (FMS) expenditure report and is adjusted to remove the following costs: all specific purpose funds including education stipends, prosthetics funds, depreciation and national support center costs. In addition, the cost associated with accounts that do not have SSN clinical patient specific information are removed as well. As a general result, Adjusted Costs are intended to include expenditures made against the general purpose allocation. The intent of Adjusted Costs is to provide a "bridging" from year to year for comparative analysis purposes.

Adjusted FTE: The facility's total adjusted full-time equivalent staff based on those Cost Distribution Report (CDR) accounts associated with patient care.

Adjusted FACWORK: FACWORK is a weighted workload measure used to describe the intensity of resource requirements for grouping of patients. An adjusted workload value allows for unit-level comparisons. It is computed using FACWORK that is adjusted to account for sharing agreements and high cost treatments (such as open-heart surgery). In addition, it is further adjusted using a comprehensive indexing methodology (formula described on UCR table of contents) to neutralize or control for unit-level differences in salary costs, as well as research and education initiatives.

Source: Allocation Resources Center, Unit Cost Reports, http://vaww.arc.med.va.gov/reports/ucr/UCR_toc.html

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