Case Study: The Stanford University School of Medicine and Its Teaching Hospitals
Philip A. Pizzo, MD

Abstract

There is wide variation in the governance and organization of academic health centers (AHCs), often prompted by or associated with changes in leadership. Changes at AHCs are influenced by institutional priorities, economic factors, competing needs, and the personality and performance of leaders. No organizational model has uniform applicability, and it is important for each AHC to learn what works or does not on the basis of its experiences. This case study of the Stanford University School of Medicine and its teaching hospitals—which constitute Stanford’s AHC, the Stanford University Medical Center—reflects responses to the consequences of a failed merger of the teaching hospitals and related clinical enterprises with those of the University of California–San Francisco School of Medicine that required a new definition of institutional priorities and directions. These were shaped by a strategic plan that helped define goals and objectives in education, research, patient care, and the necessary financial and administrative underpinnings needed. A governance model was created that made the medical school and its two major affiliated teaching hospitals partners; changes, pressures, and other phenomena. One of the most notable external factors in recent history was the creation of Medicare, Medicaid, and other entitlement programs in the mid-1960s that fueled the size of clinical faculty at AHCs. Another was the series of investments by the National Institutes of Health (NIH) in biomedical research that drove the engine of discovery and innovation; that, in turn, brought enormous strength and quality to AHCs. These changes have been significantly influenced and modulated by local institutional goals and cultures and have led to a spectrum of AHCs that vary in depth and emphasis, such as “research intensive” or “primary care,” sometimes with overlap among these or other areas of focus.

In reality, although each AHC shares a commitment to the tripartite missions of education, research, and patient care, the degrees of emphasis and excellence in these separate but overlapping purposes are determined by institutional commitments and resources, the expectations of the community, sources of support (public versus private), and the vision of faculty and leaders. Thus, it is to be expected, and even desired, that AHCs have differentiated in how they approach the interrelated processes of educating students and trainees, conducting research, and even caring for patients. In many ways, the face of AHCs is really a blending of many different genealogies, phenotypes, and behaviors. Hopefully, this variety is a source of strength and distinction to U.S. medicine.

Stanford Medicine: Then

In many ways, the character of an AHC is significantly influenced by that of its home university or institution. Stanford Medicine has gone through two historical phases, the second shaping its current configuration and organization. The first phase began in 1908 when Stanford University assimilated the Cooper Medical College, which was located in San Francisco. For the subsequent nearly 50 years, Stanford students did their initial preclinical education on the Palo Alto campus and then moved to San Francisco for their clinical training. The emphasis of the school during the first half of the 20th century was largely focused on training excellent clinicians, many of whom practiced in San Francisco or the greater Bay Area. In the mid-1950s, the president and the provost of Stanford University, along with several key faculty leaders, made the bold decision to move the medical school in its entirety to Palo Alto and to locate it on the university campus, where it would be proximate to the school of engineering as...
well as the schools of biological and physical sciences and other university disciplines. This was a transformative decision that, more than any other single factor, determined the current phenotype of Stanford as a research-intensive medical school.

Three important events occurred with the school’s move in 1959. First, a number of extraordinary basic scientists were recruited to Stanford. Among these were such luminaries as Dr. Arthur Kornberg, who brought his entire department from St. Louis to Stanford to found a new department of biochemistry, and Dr. Joshua Lederberg, who was recruited from Wisconsin to develop a department of genetics. Indeed, virtually every department had a stellar leader who was strongly steeped in research, which quickly became the currency of the school of medicine. The second factor was that, with rare exceptions, most of the other clinical leaders elected to remain in San Francisco, where they had robust clinical practices. The third factor was the establishment, also in 1959, of the Stanford Hospital on the same campus as the new school of medicine, thus forming Stanford’s current AHC, Stanford Medicine.

During the ensuing five decades, Stanford’s AHC has gone through a series of changes. In the first decade after the move to Palo Alto, the focus of the faculty and students was almost singularly on research and education. In the early 1960s, faculty physicians provided care for fewer than a third of the patients admitted to Stanford Hospital, and there was a division of services between the faculty and community doctors. Many of the medical students who attended Stanford School of Medicine in the 1960s took part in the “Five Year Plan,” in which laboratory and research training was integral to the school’s mission. The curriculum was also unique compared with those of peer schools because it required a research experience.

Since those early days of the school of medicine’s move to Palo Alto, the basic science programs have remained strong and vibrant, and they provide a source of unique strength and character to both the medical school and the AHC. At the same time, clinical services have grown, although not in a completely coordinated and uniform manner. Today, faculty care for more than 80% of the patients admitted to Stanford Hospital, and there is a clear commitment to excellence in patient care, although research still remains the currency of the realm.

**Stanford Medicine: Now**

**Important contributing factors**

Several factors have contributed to the current organization and governance of Stanford Medicine. Foremost is the colocation of the medical school and major affiliated teaching hospitals (Stanford Hospital and Clinics [SHC] and Lucile Packard Children’s Hospital [LPCH]) on the same campus as the rest of Stanford University. The proximity of the medical school to the school of engineering, the school of humanities and sciences, the graduate school of business, and the schools of education and law is enormously important because this arrangement brings a diverse faculty into many unique and virtually seamless collaborations and interactions. Coupled with this is the “Stanford culture” that has limited the size of faculty growth such that every school has a fixed faculty (or billet) cap—which makes every recruitment precious and which, in turn, forces more horizontal interactions and makes “empire building” anathema.

Although this model of restraint can be successfully embraced for many disciplines, it does pose challenges for clinical science specialties, because with restricted growth, choices have to be made about areas of emphasis and about the depth of the clinical services that can be provided or sustained. That said, faculty and students prefer to be part of a smaller school where the proximity of the basic and clinical sciences, hospitals, and university faculty and students provide a strong source of interaction and collaboration. This ease of interaction has also fostered an entrepreneurial spirit that is consonant with the Stanford culture and the close partnerships with the information technology and biotech communities that characterize the surrounding Silicon Valley and Bay Area. Currently, Stanford has approximately 820 full-time faculty, 472 medical students (which includes the many students completing medical school in five or more years), 574 graduate students, approximately 900 residents, and 1,100 research or clinical postdoctoral fellows.

**Impact of a failed merger on organization and governance**

The culture of Stanford Medicine changed dramatically in the 1990s because of the impact of managed care. Concerns among institutional leaders about the viability of the clinical programs and the potential effects on the university should their financial performance decline resulted in significant organizational and programmatic changes. The most notable was the attempted merger of the clinical enterprises of Stanford Medicine with those of the University of California–San Francisco School of Medicine (UCSF), an effort that took place at a time when many AHCs across the nation were seeking to enhance their market negotiating power through mergers. The attempted Stanford–UCSF merger was unique in trying to bring together the resources of public and private AHCs that were some 35 miles apart and that had long been regional competitors. The details of the merger attempt are beyond the scope of this case study except to say that it quickly failed, resulting in significant financial losses for both institutions as well as some uncertainty about their missions and goals. It also created some fracture lines at Stanford between basic and clinical science faculty and, equally important, between university and AHC leaders—all of whom were concerned about the potential erosion of university resources as a result of the AHC’s financial losses. Ultimately, this contributed to a general loss of morale and direction.

As the demerger process unfolded, among the activities that occurred at the AHC was an assessment of leadership and governance. Not dissimilar to other AHCs, Stanford’s AHC had gone through various models during the prior decades. But, with both SHC and LPCH incurring significant financial losses after the demerger with UCSF, and with the many other challenges facing the faculty, a decision was made to recruit a new dean of the medical school. Subsequently, when the individual who had served as vice president for medical affairs and previously as dean elected to leave his position, it was decided to create a new governance model in which hospital and school leaders would work collaboratively and in coordination. Specifically, the school of medicine was to be led by the dean, who had been selected through a national search and who reported to the provost and the president, while the two hospitals would be led by chief executive
officers (CEOs) reporting to hospital boards of directors. These three leaders were charged to work together in redefining the future of Stanford Medicine. This governance model went against the trend of a more centralized and integrated leadership model that was being put in place at many other AHCs.

Of course, there has been ongoing concern about whether a model of three separately governed entities operating under the umbrella of Stanford Medicine could, in fact, function in a coordinated and even integrated manner. Many other AHCs have elected to have a single leader, and Stanford was clearly going against the conventional wisdom and trend of AHC governance. But, as was noted earlier, each AHC is unique. For instance, at Stanford all the faculty are employed by the school of medicine and the university and report to the dean of the medical school. To facilitate coordination between the school and the hospitals, the two CEOs and dean formed the Medical Center Executive Committee, which meets regularly for medical-center-wide planning. Separate and quite rigorous interactions also occur on many other levels between the school of medicine and SHC and LPCH.

Although such a model has its limitations and challenges, it has worked successfully during the past five years, largely because the key leaders and faculty have worked diligently to make it successful. Although organizational reporting lines can influence and direct institutional behavior and decision making, the relationships between leaders are often the most important factor determining success or failure. However, even though the model at Stanford has largely worked, it must be recognized that it is likely dependent on the individuals in place and will surely need to be reassessed as changes in leadership occur. The governing bodies of the university and affiliated hospitals would determine such a decision.

**Stanford Medicine Since 2001**

**The dean’s perspective**

The current dean of the Stanford University School of Medicine (P.A.P.) assumed that position in April 2001 and was motivated to work on behalf of academic medicine, the future training and education of physician–scientists, the support of basic science research, and to maximize opportunities for translating research into clinical outcomes. These goals established by the dean were based largely on the view that a small, private, research-intensive medical school strategically located on the campus of an outstanding university that was also physically contiguous to its two major affiliated teaching hospitals provided an outstanding environment for interdisciplinary education, training, research, and their translation to improve patient care.

Given the situation at Stanford at the time the dean was appointed (i.e., immediately after a demerger with UCSF, with the attendant fiscal challenges for both hospitals and morale issues for faculty and the university leadership), it was clear that broad institutional planning for the future was critical. There was an immediate need for a redefinition of mission along with tangible goals and objectives that would help the faculty and the institution overcome the demoralization of the prior years of discord and lack of direction. But the delivery of results and evidence of both short-term and long-term success were also needed. Hence, before his official arrival, the newly appointed dean spent the antecedent months meeting with leaders in the school, hospitals, and university trying to better learn the Stanford landscape.

On the basis of those observations and his personal reflections, the dean formulated the outline of a broad strategic plan, which was published online on his first day at Stanford (April 2, 2001) and sent to all faculty, students, trainees, and staff at the medical school (as well as various university leaders) in the first installment of the biweekly "Dean’s Newsletter" (http://deansnewsletter.stanford.edu). (This communication vehicle, which the dean personally writes, has become one of the signatures of his deanship at Stanford and serves as a resource to share thoughts, ideas, and events as well as to engage faculty, students, and staff in the future directions of the medical school and its AHC.) The dean realized that consistent and even constant communication is essential in keeping a broad and diverse community informed and invested in a process of change. Although he recognized that plans and objectives require wide vetting and discussion, his leadership style was and continues to be to begin the dialogue by sharing his own thoughts, even when controversial or even unpopular, with the understanding that they will be shaped and improved by critical feedback and input.

The dean spent the first several months of his tenure visiting with institutional leaders (many of whom he had met with before his arrival) to gather their reactions and recommendations for proceeding. By September 2001, he initiated a more formal strategic planning process that engaged some 10 work groups, each composed of faculty, students, and staff, which focused on key missions and enabling resources. Included were groups entitled (1) Undergraduate Medical Education, (2) Graduate Student Education, (3) Post-Graduate Education and Training, (4) Research, (5) Patient Care, (6) the Professoriate and Academic Affairs, (7) Finance and Administration, (8) Communications and Public Affairs, (9) Public Policy and Government Interactions, and (10) Philanthropy. The groups developed plans around each area and then prioritized the specific elements of each that would be addressed and the timeline that would be followed to implement them. Although some would (and did) argue that these were too many topics to focus on at one time, the leadership of the medical school believed that they were quite interlinked and that the solution to one depended on how other initiatives were handled.

Once the work groups had developed their respective vision, goals, objectives, and timelines, the leadership of the school and the AHC gathered in February 2002 at an off-site, two-day strategic planning retreat. In attendance were the senior leadership from the dean’s office, basic and clinical science chairs, hospital CEOs, and representative medical and graduate students, residents, and fellows. Several key university leaders, including the provost, the chairs of the hospital boards of directors, and university trustees were also invited. In contrast to many other strategic planning exercises, an outside consultant was not employed. The dean felt strongly that having the process run by the school leadership rather than an outside consultant would result in greater institutional ownership of both the process itself and its outcomes. Accordingly, the dean served as the chair of the first strategic leadership retreat and
The first strategic planning retreat proved to be even more seminal to future progress than anticipated. Perhaps most important, it enabled a highly diverse group of leaders to learn about the complex interactions of an AHC (Stanford Medicine) from many different points of view and perspectives. Although it was assumed that senior members of the AHC had a broad understanding of its missions, goals, members, and constituencies, this was not fully true. Indeed, by the second day of the retreat, there was a veritable hum of recognition by basic and clinical science leaders (who had become somewhat dichotomized during the Stanford–UCSF merger and demerger) of how their goals and missions interacted and how they were different. More specifically, by reviewing in depth the issues, goals, and plans of the 10 working group areas, along with the resources needed to enable and support them, light was shed on the critical factors faced by faculty who, although part of a common community, faced different challenges and had different understandings about the interrelated roles they played in the complex quilt that defines Stanford’s AHC. Equally important, this shared experience helped to bring the communities together—something that has been reinforced with each subsequent annual strategic planning retreat. This institutional recognition and healing, even if at a high level, created a platform for positive institutional change—although deliverables to accompany the words and promissory notes were also required.

On the basis of the reports and discussions of this initial strategic planning process, the 10 work group reports were unified under the umbrella of a schoolwide strategic plan entitled “Translating Discoveries.” To ensure its transparency to the entire community, the strategic plan was published on the school Web site (see http://medstrategicplan.stanford.edu), including all the slides and materials that had been presented at the retreat. Several town hall meetings were also held. In addition, the dean has continued to communicate updates in the Dean’s Newsletter. Recognizing the need to sustain progress, the Office of Institutional Planning was established to continue strategic planning on an ongoing basis with clearly delineated benchmarks and goals. To provide a reality-based critique of institutional progress, a high-level national advisory council comprising leaders in academic medicine, science, and policy was established. The council visits the school each year to review progress and report its findings to the president and the provost. In addition, the annual leadership retreats have continued to provide a forum for discussing accomplishments, failures, and challenges in meeting defined strategic initiatives and for recalibrating and directing an admittedly organic and evolving planning activity.

Aligning the missions

One of the highest priorities has been to align the missions in education, research, and patient care while still being respectful of their discrete and individual importance. Because Stanford University School of Medicine is a small, research-intensive medical school, it is essential that strategic choices be made about what can be done well and how it can be distinguished from its peer institutions. This was particularly necessary during the postdemerger period when morale was compromised and institutional direction was less defined. It is also imperative to recognize that as strategic choices are being developed, there needs to be awareness and recognition of the institutional culture and other factors that ultimately govern and influence recommendations that come forth—and that define whether they are accepted or rejected by the broader community. As noted earlier in this case study, in the move of the school of medicine to the Stanford University campus nearly 50 years ago, a high value was placed on discovery, innovation, and interdisciplinary education and research. The close proximity of the medical school to its teaching hospitals also created an alignment around teaching, research, and patient care. With this in mind, the strategic plan, Translating Discoveries, sought to rebase and reaffirm the medical school’s core values, missions, and objectives. On the basis of those principles and a coordinated planning process, the following has transpired largely during the past five years and, hopefully, will continue to unfold during the years ahead.

First, between 2001 and 2003, a task force, led by the senior associate dean for medical education, made fundamental changes in the medical student education programs that culminated in the New Stanford Curriculum, which commenced in the fall of 2003. This accomplishment was predicated on basic alterations in the school’s operating budget that redirected considerable general funds to education. This, too, was a major undertaking and was only made possible by the decision to move a number of work group agendas forward simultaneously.

The overarching goal of Stanford’s medical student education (see http://med.stanford.edu/md) is to train and develop future leaders and scholars. To accomplish this, medical students are selected on the basis of their academic performance as well as interest and commitment to research and inquiry. The school is fortunate in having more than 6,500 applicants for its 86 incoming medical student places in each incoming year, thus permitting the school to be highly selective. All medical students are now required to complete a “Scholarly Concentration” in tandem with their other medical school requirements, and most students do spend five or more years completing the MD degree. (A Scholarly Concentration includes courses, mentoring, and research in a specific knowledge domain spanning a wider range of opportunities, such as bioethics and the humanities, bioengineering, community health and public service, health policy research, and molecular medicine, to name a few.) Because of Stanford’s financial aid programs, this extended education program does not result in additional debt, and, in fact, Stanford students graduate with among the lowest levels of indebtedness in the nation. During the past decades, approximately a third of Stanford’s medical school graduates have pursued full-time academic careers. The goal of the New Stanford Curriculum is to increase that to at least 50%. In addition, students are encouraged to pursue joint degree programs throughout the university as part of their Scholarly Concentration, and it is anticipated that, over time, the majority of students will leave Stanford with dual degrees. This more defined focus on educating and training physician scholars and scientists has had an effect on the types of students who come to Stanford and has resulted in...
a better alignment between students and faculty than was present before these major curricula changes and educational objectives were delineated and made apparent.

Stanford enrolls about the same number of PhD students as MD students each year. Given the strength and excellence of the basic science programs, these students are also highly selected. Although all of these students will pursue basic discovery science, and the majority will have careers in academia, there was an interest by nearly a quarter of the incoming PhD students in also educating and training a selected number of these students to pursue translational research. To help facilitate this, in 2006, a professor of neurobiology took the lead in developing a masters in medical science program that exposes a small number of PhD students to the challenges of clinical medicine. This, too, created an additional point of alignment of the school’s graduate and medical education programs.

In addition, the advanced residency program at Stanford (ARTS), led by a professor of radiology who is also the director of the molecular imaging program, has recently been introduced. The ARTS program permits clinical residents or fellows who have become committed to research to do a PhD degree. This program is modeled on the highly successful STAR program at UCLA and, along with other integrating efforts led by the senior associate dean for graduate medical education, also helps connect programs in graduate medical education with the undergraduate emphasis on training physician–scientists, scholars, and leaders.

Thus, a continuum of programs from undergraduate medical education through graduate education and postdoctoral training is focused on training future physician–scholars, scientists, and leaders and is, therefore, very much aligned with the medical school’s core missions in research and patient care—and also very consistent with the medical school’s strategic plan, Translating Discoveries. Importantly, these education and training programs have helped foster more dialogue and communication between basic and clinical science faculty and among those committed to education across the temporal continuum of medical and scientific training.

As noted earlier, Stanford’s medical school, both historically and at the present moment, is largely focused on research, discovery, and innovation. To that regard, it is imperative that planning activities not be allowed inadvertently to have a negative impact on what has truly worked well at Stanford—namely, a commitment to excellence in fundamental, discovery-based research. Perhaps also unique to the institutional environment is the abundance of interdisciplinary collaborations extending across the university—something that is very much part of Stanford’s institutional fabric. Coupled with this is the highly entrepreneurial nature of Stanford’s faculty and their willingness to engage with startups and other companies in Silicon Valley, especially in biotechnology and devices. This, too, has shaped the nature of the medical school. During the past seven to eight years, an informal as well as formal interface has been created under the name and umbrella of “Bio-X” to foster interactions and collaborations between and among the physical, engineering, and life sciences, largely through innovation grants and fellowships. From Bio-X has also emerged the new joint department of bioengineering (between the schools of medicine and engineering—a first at Stanford) that is rapidly becoming highly successful, mainly because of its focus on using engineering principles to study biology, and vice versa. This very strong commitment to basic science and interdisciplinary research (including bioengineering) can be viewed as a fundamental foundation for Stanford’s medical school and among its most distinguishing attributes.

Because Stanford’s medical school is a small school and part of a small AHC and cannot “do everything,” one of the most important facets of strategic planning was the selection of those areas that would best further align the school’s missions in education, research, and patient care. Accordingly, in 2002 the dean and the school’s executive committee selected five major disease/disipline themes to be the basis for the Stanford Institutes of Medicine (SIMs), each composed of 150 to 200 faculty members from across the university who engage in collaborative research and education. The SIMs were designed to foster translational discoveries and to create exciting venues for garnering philanthropic support. Specifically, the SIMs are Stem Cell Biology and Regenerative Medicine; Cancer; Cardiovascular Institute; Neuroscience; and Immunity-Transplantation-Infection. Each of these institutes was provided a limited number of positions for new recruitments, and each was expected to build its membership from the basic and clinical science faculty in the medical school as well as throughout the university. Importantly, each SIM is also connected to a center of excellence at SHC, LPCH, and the Palo Alto VA Medical Center, which, along with the medical school, form Stanford’s AHC. The SIMs were designed to foster translational discoveries and to create exciting venues for garnering philanthropic support. One of the ongoing challenges is to strike the correct balance between the fundamental role of departments and these new institutes—striving to make them synergistic wherever possible.

To further the research opportunities of the five SIMs, several cross-cutting strategic centers that complement and enhance institutional research efforts have been delineated. These are the Centers for Genomic Medicine, Imaging, Clinical Informatics, and Clinical and Translational Research.

Supporting these mission-based efforts has required significant financial and other resource planning. For example, for the next 10 to 15 years, a major transformation is planned for Stanford’s research and education facilities—as well as for both major teaching hospitals. This necessitates integrated planning not only within the medical school but also collaboratively with both major hospitals and the university. Included in this planning has been a determination of the numbers of recruitments that will be needed to fulfill the missions of the medical school and its AHC, as well as the space and resources required to house and support them, and the sources of funding that need to be employed or created to make these efforts successful.

The challenges

Although it is assumed that thoughtful and integrated planning is the best way to achieve a vision, it is also clear that many internal and external forces can alter or challenge that vision and its success. This
realities calls for constant adjustment, consistent communication, and anticipation of events or forces that could thwart otherwise exciting institutional efforts. As noted at the beginning of this case study, Stanford has a blend of characteristics emanating from its size, location, history, resources, and focus. But, like every medical school, it is subject to significant regional and national challenges. Today, those include the decreased funding from the NIH, the changing cycle of payments for clinical care, and the fact that the lack of an organized health care system in the United States makes all medical schools and AHCs subject to serious compromise—financially as well as in their perceived value by the public they seek to serve. That said, the best buffer to such forces is to stay true to one’s institutional mission and uniqueness and to not lose sight of the vision and goals that have been established. In the case of Stanford, that vision is to be a premier research-intensive medical school that improves health through leadership and a collaborative approach to discovery and innovation in patient care, education, and research.

Lessons Learned

• Because AHCs are often highly matrixed by interdependent interactions and relationships between academic and clinical programs, they are also fragile and can be adversely affected when one mission gets off track or dominates the enterprise in an unhealthy way. This was true at Stanford Medicine when the merger with UCSF created distractions, financial losses, and distrust between the faculty in basic and clinical departments and between the AHC and university. To overcome these challenges, a transparent and thoughtfully articulated plan was essential.

• Overcoming a major disruption such as a failed merger requires a redefinition of the mission, goals, and objectives of both the medical school and the AHC. It requires buy-in from multiple constituencies including the basic and clinical science faculty, students, and staff. It also requires healing among communities that had felt disenfranchised or even abandoned by an institutional direction they did not understand or support.

• Communication is a key component of institutional transformation, along with clearly delineated plans that are modified and adjusted to accommodate to the various institutional constituencies and their not infrequently differing perspectives. This requires communication from the leadership that is transparent, engaging, informative, and continuous.

• Institutional progress requires plans and objectives that are not only transparent but also achieved. Institutional ownership of the planning process and its deliverables is essential and should not be delegated to outside consultants or individuals who are not responsible and accountable.

• Transformational planning is a constant process with frequent ebbs and tides. Because of the diversity of talents, interests, and commitments at an AHC, it cannot be expected or anticipated that unanimity of opinion or support will be achieved. Difficult choices need to be made, priorities set, and accountability recognized. That said, progress is more possible when the institutional planning is adjusted to fit the culture, history, and values of the institution.

• Most AHCs have to make choices about their areas of focus and institutional priorities, because few are large enough to do everything. When there are internal or external constraints, forward planning is essential. Even if the plans are not fully achieved, they provide a foundation for future adaptation and modulation. During the past several years, the school’s strategic plan, Translating Discoveries, has served as an anchor by which to align missions in education, research, and patient care.

• Understanding the inherent strengths and distinguishing features of an institution is also essential to successful planning. When Stanford’s medical school began separating its functions and missions from its parent university, it lost the trust of the university faculty and became perceived as a liability rather than as an asset. Efforts to better integrate the medical school with the missions of the university (through the BioX program, the department of bioengineering, and the Institutes of Medicine) have helped to overcome some of the misperceptions and have led to positive interactions that appeal broadly to university leaders and the community.

• Leadership models at AHCs are highly varied, and none are necessarily sustainable over time. Stanford’s separate leadership of its medical school and two major teaching hospitals provides both strengths and weaknesses. Whereas the overall mission has been served because of the positive interaction of current leaders, this model is not necessarily sustainable, and it could be compromised by resource constraints that pit one mission against another or by changes in individuals that alter the dynamics or trust of the institutional leaders.

• Having the trust and authority of the university president, provost, and board of trustees is essential, especially when major changes are contemplated or being implemented. But, this trust is also subject to change and, thus, must be constantly reinforced by evidence of progress. Objective external evaluation of this project on a regular basis serves to validate the plans and the leadership. But, it must be recognized that such external reviews can also result in changes in institutional direction or leadership as well—and, thus, this also must be anticipated.

• AHCs are likely to be especially challenging in the next decade, ironically because of the destabilization likely to occur from some of the forces that brought them into their current structure and function. For example, with the anticipated changes in Medicare and the reduced support for biomedical research from the NIH, the historically highly leveraged success of AHCs will be increasingly compromised. Likely, new models will need to be developed to sustain core missions in research and education as well as patient care. These external forces make ongoing institutional planning essential; without such efforts, inadvertent damage can easily occur. As mentioned earlier, despite their formidable strengths, AHCs are also fragile, and without planning and leadership, they can lose their focus and, potentially, their preeminence.