

The Changing Relationships Between Academic Health Centers and Their Universities: A Look at the University of Pennsylvania

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Abstract

After a period of financial losses in the University of Pennsylvania Health System stemming from a combination of internal decision making and negative external market forces, the university set out to make substantial changes in the governance and administrative organization overseeing its health system and medical school. The changes were designed to assure the university and its trustees that financial controls were strengthened and that the missions of research, education, and patient care were balanced. The governance changes

included creating a structure whereby a single administrative leader was responsible for all three missions—education, research, and clinical care—and reported directly to the president of the university. Further, existing governing boards responsible for various entities within the school of medicine and health system were disbanded, and a new single board was created to oversee PENN Medicine, the overarching organization established in 2001 and now responsible for oversight of the University of Pennsylvania School of Medicine and the University of Pennsylvania Health System.

The realignment initiated by these major changes spawned additional refinements in leadership responsibilities and process controls that, together with the new governance model, are credited with financial recovery and stronger performance in all aspects of the enterprise. These structural changes led to greater emphasis on integrating and coordinating programs to take advantage of PENN Medicine's home in a leading university.

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More than 250 years after its founding, the University of Pennsylvania (Penn), home to the nation's first medical school, continues to embrace tradition as a springboard for developing new approaches for facing current challenges and for preparing for those yet to come. We suspect that Penn is no different from other large universities in that having a strong medical school and a large health system engenders a mixture of significant pride, some angst, and everything in between. The pride obviously is generated by the tremendous potential to improve the human condition, spanning basic science through translational research and new treatments for patients; the angst arises over how to best manage such a complex, high-reward, high-risk organization.

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This angst was intensified when, in the 1990s, the University of Pennsylvania Health System faced severe financial difficulties.¹ This turmoil was the result of an organizational structure and culture that, despite an operationally integrated system in which the patient care, research, and education activities were overseen by a single leader, had allowed the clinical enterprise to assume a more dominant and relatively independent position compared with that of its research and education programs. The Penn health system had grown very rapidly, moving aggressively to buy community hospitals and primary care physician practices with which to create a referral system for tertiary care services. The Penn health system had also opened additional sites and expanded into new areas such as disease management and home care in anticipation of the potential for capitated health plans. Several other academic health centers (AHCs), which, for the purpose of this article, are defined as the overarching organizations encompassing a medical school and its affiliated teaching hospital and clinical sites, pursued similar strategies during that period. In the case of Penn health system, the sharp decreases in Medicare reimbursement, together with the costs of

integrating the hospital acquisitions and a full risk managed care contracting strategy, led to sizeable operating losses. In FY '99, the Penn health system's net operating loss totaled \$200 million. This operating deficit, combined with large capital expenditures including the construction of a major new research building, led to substantial declines in the health system's liquidity. The impact of these losses, coupled with debt of nearly \$800 million, became a rather stunning rebuke of a previously well-thought-of growth strategy. As a sign of the rebuke, Moody's Investor's Service lowered the debt rating of the health system from A3 to A1 with a negative outlook, through three successive downgrades. Needless to say, the aftermath was very challenging, requiring significant retrenchment to erase the deficit and repair the balance sheet at the expense of support for education and research programs.

The Penn health system's operating losses in the late 1990s caused a vigorous debate about the optimal relationship between the health system and the university. In most cases, organizational change happens in an evolutionary fashion over time, but, after a relatively short period (1999–2001) of rigorous examination of

the issues, Penn embarked on a mission to rehabilitate its health system's performance.

Pursuing True Integration: PENN Medicine

Weighing the options

One of the more dramatic options to ensure financial recovery and stability discussed during this review was to change the ownership of Penn's flagship teaching hospital, the Hospital of the University of Pennsylvania (HUP), through either a sale of a joint venture with a for-profit company. After an outcry from the faculty, who passionately believed that a for-profit hospital corporation would not be compatible with their values, including one of the best-attended faculty meetings in the history of the university, this idea was rejected.

Another structural option considered by the university was to create a separate 501(c)(3) sole-member corporation controlled by the university for the various entities of the Penn health system. This option followed a similar recommendation made by a trustee led review in the late 1990's as well. This model was also rejected, primarily because it would have prevented a fully integrated structure and would have created a situation in which business decisions would be made without the insight of the university, thereby sacrificing the presence of a "true guardian of the academic mission."^{2,3}

The university review ultimately concluded that the integrated model would remain the best structure for the relationship between the medical school and the Penn health system, because it provided the best opportunity for balancing its three missions. However, knowing that it had not worked perfectly in the past, the university's trustees and administration decided to deepen the university's role with respect to the management of the medical school and the health care enterprise, entities that had previously operated relatively independently from the university. In addition to strengthening the governance system that integrated the management of Penn's medical school and its health system, a newly defined trustee organization (detailed below), with well-articulated responsibilities to the

university board of trustees, was created as well.

Administrative realignment to promote true integration

Recognizing the need for a different approach to an integrated structure also clarified that the most senior administrative leadership position should be at the officer level in the university, reporting directly to the university president as the executive vice president (EVP) of the University of Pennsylvania for the Health System. Thus, in 2001, PENN Medicine was officially created as a virtual holding company for the two interrelated organizations (medical school and health system). With the creation of this unifying entity and the revision of the university's administrative organization to directly include the individual responsible for both entities, Penn initiated an era of much closer integration and coordination between its health system, the school of medicine, and the university. Figure 1 shows the organizational structure before 2001, and Figure 2 shows the organization that replaced it. An important aspect of the new organizational model is that the EVP of the University of Pennsylvania for the Health System is also dean of the school of medicine, and the CEO of the health system reports directly to the EVP/dean, thus ensuring strong coordination administratively across the university,

school of medicine, and health system. It should be noted that the EVP/dean reports to the provost for all academic matters. (More recently, this "single-leader model" has been implemented at several major AHCs across the country.) It is of interest that the Clinical Practices of the University of Pennsylvania (CPUP) are administratively and financially included within the Penn health system organization,⁴ but its physician leader reports to both the CEO of the health system as well as to the EVP/dean and holds two corresponding titles (vice dean for professional services in the medical school and senior vice president in the Penn health system). In this model, the EVP/dean and the CEO must work closely to ensure the coordinated success of this large enterprise across the three major missions of education, research, and clinical care. This close working relationship does provide tremendous flexibility in terms of financial management, patient care, integration of basic and clinical research, and retention and recruitment of PENN Medicine's leadership and faculty.⁵

A new model of governance

In addition to the administrative alignment described above (Figure 2), the PENN Medicine trustee governance is also very much integrated into that of the University of Pennsylvania Board of Trustees. All PENN Medicine trustees are

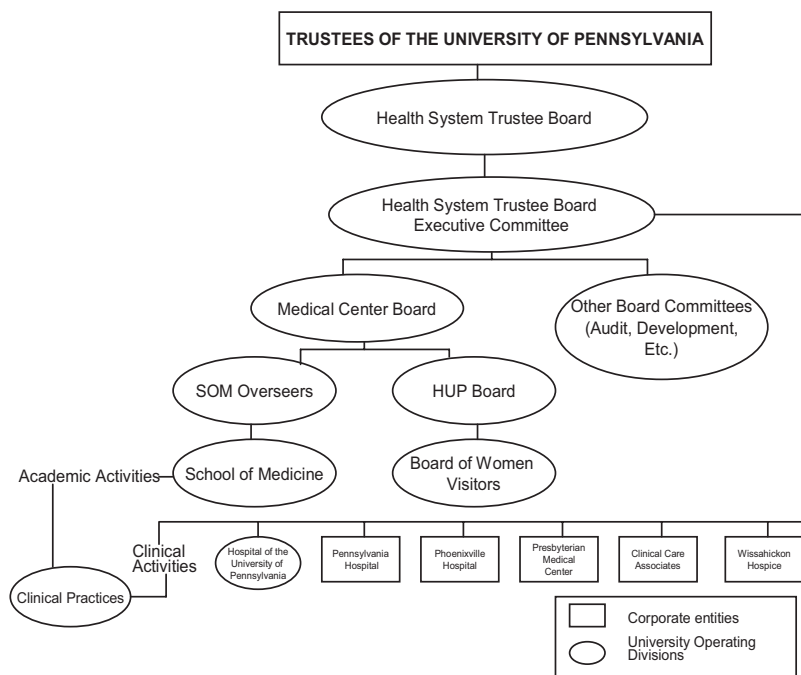


Figure 1 Organizational structure of PENN Medicine, Philadelphia, Pennsylvania, before 2001.

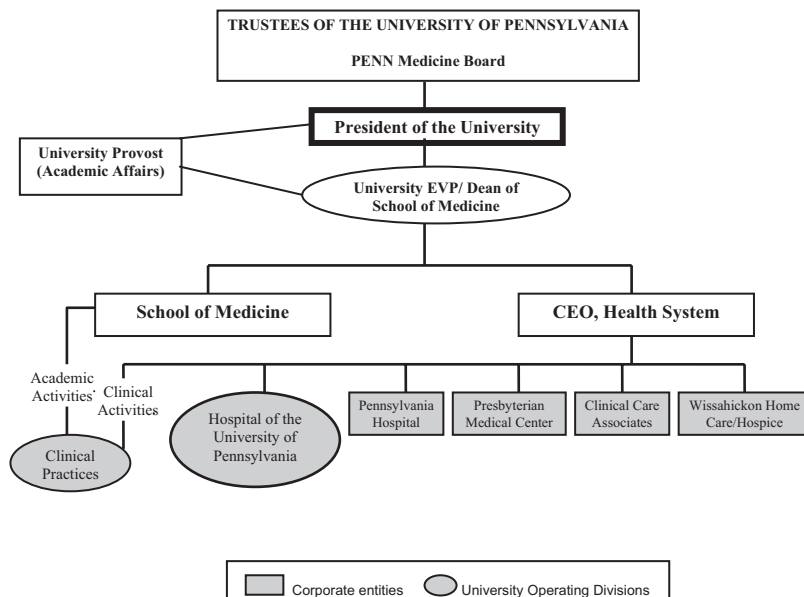


Figure 2 Organizational structure of PENN Medicine, Philadelphia, Pennsylvania, after 2001.

appointed solely by the University of Pennsylvania Board of Trustees. Further, the PENN Medicine bylaws stipulate that the majority of the 15-member Executive Committee also be members of the University Board and that a university trustee chair both the Executive and Finance Committees of PENN Medicine. Additional committees of the board of PENN Medicine—Audit, Research, Education and Patient Care and Development—are chaired by non-university trustees but include university representation among the members. All PENN Medicine budgets and capital expenditures above \$5 million also must be approved by the university's board of trustees. This close involvement and oversight of PENN Medicine by the university's board of trustees was a direct consequence of the financial crisis and was broadly accepted by the faculty and its leadership as a necessary requirement in light of the university's financial support of PENN Medicine at a critical time. Although the university has greater control in the new model, decision making is far more streamlined, and, with fewer governing entities, we have much enhanced communication on strategic issues.

Strategic planning

After the creation of PENN Medicine in 2001, its new trustee board charged the leadership with developing an integrated Strategic Plan for PENN Medicine. This directive came at a time when the

university was completing a planning cycle, and not only was there a critical need to integrate planning campus-wide, but a dedicated and focused approach to renewing the powerful potential of related missions was vitally important to the success of the new PENN Medicine organization.

Finalized in 2003 with broad participation at all levels of Penn's school of medicine and health system, the Strategic Plan for PENN Medicine is a road map to excellence across all our missions. The plan articulated six main goals for the organization: (1) become a more collegial, intellectually exciting, and supportive institution in which to work, (2) develop world-leading programs in selected areas of research, (3) build superb clinical programs that distinguish PENN Medicine in the marketplace, (4) establish undisputed leadership in patient-care quality, (5) provide the highest-quality educational programs and attract the most competitive students and trainees; and binding these five goals together is a major overarching goal: (6) implement a new leadership, operational, and financial model for the organization.

Although each of the strategies around these goals contains a university component, the ultimate campus-wide planning approach also served to remind everyone of the tremendous potential for greater collaboration in teaching and research across the university. Further, the successful implementation of the

Strategic Plan for PENN Medicine, now in its fifth year, demonstrated that PENN Medicine could reach an even higher level of accomplishment while embracing a closer relationship with the university at all levels.

PENN Medicine today

Today, PENN Medicine is a \$3.5 billion enterprise dedicated to the interrelated missions of medical education, biomedical research, patient care, and community service. As depicted in Figure 2, the organization comprises the University of Pennsylvania School of Medicine and the University of Pennsylvania Health System, including CPUP. Penn's health system includes three wholly owned hospitals—HUP, Pennsylvania Hospital, and Penn Presbyterian Medical Center. Most recently, Penn's health system has created a joint venture with the Good Shepherd Rehabilitation organization to offer extensive acute long- and short-term rehabilitation services and has purchased a hospital complex, formerly known as Graduate Hospital, to relocate and expand these programs. Through the Penn health system, nearly 80,000 patient admissions and nearly 2 million outpatient visits are accommodated annually. Penn's health system also includes Clinical Care Associates, a primary care network; three multispecialty satellite facilities; a nursing home; and home health care and hospice services.

During the last decade, Penn's school of medicine has consistently been ranked among the best medical schools in the nation (including recently being in the top five schools by *U.S. News & World Report*, and represented in the top five research universities reviewed by the Lombardi Report). Its innovative, nationally recognized curriculum (Curriculum 2000) provides students with an education that prepares them extremely well for future diverse careers, with an emphasis on leadership.

In addition, for the last five years, the school has ranked second in the nation in total funds for research, training, and other activities from the National Institutes of Health (\$379 million in FY06, excluding contracts), an important barometer of the institution's research strength. As they have throughout its history, the school's researchers have been responsible for numerous important scientific advances, many of

which have potential applications to patient care and the improvement of health. PENN Medicine has more than 13,000 employees, 1,678 full-time faculty, 720 medical students, 1,000 interns/residents/fellows, and 611 postdoctoral fellows/researchers.

Integration in Action

In the following sections, we illustrate how the integration between the university and PENN Medicine has deepened across several specific areas. We believe increased integration has resulted in an enhanced relationship and institutional success.

Development

Philanthropic dollars are vital for the support of many programs in private universities. Donors today are frequently interested in a broad range of programs that may cross department boundaries or even different schools in the university. If left unaddressed, this potential competition for the same donor can lead to significant missed opportunities for collaboration and can cause stressful relationships between AHCs and their universities.

Since the creation of PENN Medicine, there has been significantly greater integration between the medical school and health system and the university across important development initiatives, such as strategic planning, prospect research and stewardship, programming, and communications. For example, the potential contributions which the school of medicine's alumni bring to the larger university community have been increasingly recognized during the last several years. Although the office responsible for university alumni relations once focused almost exclusively on Penn's undergraduate alumni constituents, in recent years joint events involving PENN Medicine alumni and alumni from the college have been held. Further, under Penn's new development management system, a team from across the university—representing all areas of interest—is assigned to a potential donor and is brought together to determine the best overall short- and long-term fundraising strategy, which may frequently focus on interdisciplinary projects. Positioning donor requests in the context of their potential impact on research, education, and patient care

together has contributed to an increase in PENN Medicine fundraising from \$108M in FY03 to \$143M in FY07.

This year, PENN Medicine will be a major partner of the university in the largest fundraising campaign in Penn's history, with an integrated, overall goal of \$3.5 billion, of which PENN Medicine will be responsible for raising \$1 billion.

Financial relationship between PENN Medicine and the university

The integrated PENN Medicine structure provides the appropriate forum to discuss the balanced investment of funds generated by the faculty—primarily from clinical income through CPUP and Penn's health system, but also from indirect cost recoveries from grants, through the integrated PENN Medicine structure—in research, educational, and clinical programs. Support for central university services is handled through “allocated costs” in the Responsibility Centered Management System that operates at Penn. Allocated costs are broken down into facilities maintenance, general administrative costs, library services, and central development office support, all of which, of course, are used by PENN Medicine. In FY07, Penn's school of medicine paid the university nearly \$88 million in allocated costs. In addition to allocated costs, an additional 19% of all grant indirect cost recoveries (\$26 million in FY07) and 20% of tuition (\$8 million last year) is returned to the university. These funds are managed centrally by the Provost, and a portion is reinvested directly in the school of medicine to support priority initiatives. An additional portion of these funds is also invested in research infrastructure, which benefits the school as well. Needless to say, these payments are a significant expense for PENN Medicine and an important contribution to the university's overall budget each year.

To maximize the return on our investments, PENN Medicine's endowment and various other funds in the Penn health system (e.g., cash reserves, funds allocated but not yet expended for capital projects) are invested together with the university's endowment and managed by the university's Investment Committee. Our endowment has grown by 58% during the last five years, demonstrating the value of this strategic decision.

Research

There are obvious advantages to being part of a prestigious university in terms of enhancing collaborative research programs, but it has not always been easy to carry out interdisciplinary research across different units of the university. The difficulties have stemmed from different traditions and expectations related to salary recovery on grants, allocation of indirect cost revenues, teaching commitments, and other school-specific requirements. A very positive example of how stronger integration supports cross-school research in the last few years is a new Penn program, Penn Integrates Knowledge (PIK). Led by university President Amy Gutmann and Provost Ron Daniels, the PIK program is directed towards recruiting distinguished senior-level faculty whose research is of the caliber to warrant joint professorial appointments in two schools. This new program has not only been attractive to exceptional scholars across the country; it has also taken advantage of support from new endowment funds raised for these special professorships by the president. The income from this endowment partially funds the salary and start-up cost of the PIK scholar, with the remainder of the required funds being derived from each of the two involved schools. Importantly, PIK professorships have fostered a healthy dialog among university academic leaders as to where to optimally target new interdisciplinary research efforts. Further, the greater emphasis on collaborative programs initiated by the closer relationship of the school of medicine and the university has enabled Penn to mount creative programs in genomics, regenerative medicine, neuroscience, and public health, which otherwise might not have succeeded.

Modern research requires significant regulatory and compliance oversight. Under our new model at Penn, this is a fully integrated effort between the medical school (and other schools) and the central university administration. An Office of Human Subjects Research (OHR) was established in the school of medicine to audit and monitor all human subject research being performed throughout PENN Medicine, with the goal of enhancing the performance of our clinical investigators studying patients on any research protocol. In addition, OHR serves as a resource for other schools in

the university in their compliance and educational responsibilities. This structure and mission of OHR enables the office to capitalize on the important expertise based there for training frontline staff and faculty across the university. The role of OHR is particularly important in terms of clinical trials, which involve a large number of faculty whose experience and knowledge of all the regulations for carrying out these trials safely and responsibly can vary considerably.

We have also developed a close partnership with institutional review boards, the Conflict of Interest Committee, and the University Laboratory Animal Research Committee, which are administered at the university level and have similar oversight functions for both human and animal research.

Corporate relationships

The University of Pennsylvania School of Medicine was previously considered a difficult partner by the private sector. There were several reasons for this reputation, but it was clear that changes had to be made if Penn were to be in a position to take advantage of these important partnerships. With the university's endorsement, PENN Medicine established an Office for Corporate Alliances (OCA) in 2003 to address the most repeated complaints: too many layers of approval, a lack of accountability, and no single point of administrative contact. This organizational change has been highly successful in terms of negotiating new contracts with pharmaceutical, device, and biotechnology companies and interacting with them continuously during the project period to ensure timely reporting, appropriate use of funds, and adherence to the conditions of the original contract. When this effort began, corporate alliance revenue amounted to \$18M to 20M per year, and it now has reached \$50M.

OCA is not responsible for the commercialization of intellectual property, which is handled at the university level by the Center for Technology Transfer; however, OCA works closely with this office.

Education

The University of Pennsylvania School of Medicine attracts many of the most

competitive students in the United States. This past year, we had more than 6,300 applications for 153 places in the entering class. Increasingly, we find that our students are attracted to our joint degree programs, some of which are made possible through our close ties with other schools in the university. In addition to having the largest MD/PhD program in the nation, we now offer joint degrees in law, bioethics, business, public health, clinical epidemiology, health policy and translational research, and others. Approximately a third of each graduating medical school class now leaves Penn with a joint degree. Doctoral students in the biomedical sciences (PhD), whose total numbers have grown from 423 in 2000 to, most recently, 712, are organized in a Biomedical Graduate Student consortium that involves the schools of engineering, nursing, veterinary medicine, dentistry, and arts and sciences, as well as related institutions, including Children's Hospital, the Wistar Institute, and the Fox Chase Cancer Center. Approximately 80% of the students in this program enroll through Penn's school of medicine, which also carries the administrative responsibility for this program. Widely known for its many interdisciplinary centers, institutes, and programs, PENN Medicine is ideally situated to take advantage of Penn's extraordinary intellectual resources.

In the last few years, we have also significantly increased the opportunity for medical school faculty to teach undergraduates in the college. This effort has led many previously undecided students to choose careers in medicine and biomedical science, and it also offers faculty the rewarding experience of working with excellent students early in their academic careers.

Faculty affairs

Another important change to highlight in PENN Medicine's now stronger relationship with the university involves the reassessment of various faculty tracks, in particular a review of the role of full-time faculty in patient-care activities. For more than two decades, faculty in Penn's school of medicine have had the opportunity to be appointed in the Clinical Educator track which is included in the standing faculty (with the tenure track). Faculty appointed to this track must meet the requirement of scholarship, in

addition to excellence in patient care and teaching, for promotion.

More recently, the university Faculty Senate and the provost supported our efforts to create an Academic Clinician track in 2005 which enables PENN Medicine to better address growing clinical needs within the academic framework. Faculty in this track are expected to devote nearly all their effort to patient care and teaching, and scholarship is not a requirement for promotion. Within a two-year period, the number of faculty in this track has grown to more than 200. Evaluation of a faculty member's performance in the new track has required increased attention to the objective assessment of clinical and educational achievements during the promotion process. It is of interest that this increased effort to objectively measure patient care and educational excellence has also been applied to the promotion process for other faculty with these responsibilities but who are also judged in terms of their scholarship (Clinical Educator track) and research (Tenure track).

Promotion to the associate or full professor ranks, or appointment of recruited faculty to these ranks, involves a process primarily based in Penn's school of medicine, though its three-tiered process integrates input at the university level as well. The first evaluation is carried out at the department level, and, if successful, the candidate's dossier is presented to the school's Committee on Appointments and Promotions. However, an additional review, advisory to the Provost and the President, is carried out at the university level by a committee that comprises the majority of the deans of the 12 university schools, the provost, and three deputy provosts. Although it is unusual for candidates to be turned down at this level, it does happen to several faculty members each year. Furthermore, the three-level review process ensures a thorough assessment of each faculty member, and the fairness of the process is widely acknowledged, together with an appreciation of the need for the documentation of excellence in each of the roles in which the candidate wishes to be primarily judged (research, teaching, clinical performance).

Lessons Learned

As we noted before, organizational change typically takes place slowly, but when the proverbial wolf is at the door or, at least, is seen down the lane heading your way, difficult decisions can be made with relative ease. In the late 1990s, Penn owned a clinical enterprise that had developed serious operating losses and was nearly overwhelmed by debt. (At the same time, its research and teaching portfolios remained very strong.) Undoubtedly, the potential plan to sell or joint-venture HUP and, thereby, create a very different and potentially academically unattractive medical center with much less commitment to scholarly pursuits inspired leaders to take action to avoid this undesirable outcome, resulting in a climate where significant retrenchment and realignment occurred. Whether the changes that were made could have been instituted without this threat is impossible to document. Certainly, new leadership, from trustees to academic and hospital administrators, was a necessary part of the success of the realignment along with the additional financial and structural oversight, as noted above. Importantly, renewed focus by the faculty and administrators on the central missions (i.e., caring for patients, teaching the next generation, and discovery through research) as opposed to control issues deepened everyone's commitment to Penn at a critical time. Academic medicine is challenging work and requires the highest level of energy, loyalty, and commitment from everyone involved. In hindsight, a crisis was likely good medicine after all.

At the risk of stating the obvious, the success of every organizational model is

highly dependent on those individuals who inhabit its leadership roles. Focused recruiting with high standards and with great emphasis on the value and importance of integration across PENN Medicine and with a great university, coupled with a commitment to equal attention to all our missions, has made our organizational model effective and successful at PENN Medicine. Knowing the expectations at the outset has been vitally important for faculty and administrators in PENN Medicine to be successful.

Lastly, we would submit that the enthusiastic support and endorsement of faculty for any change must be confirmed with data and transparency. The academic world at large was privy to much of Penn's challenges in the late 1990s (real, perceived, or somewhere in mythology) thanks to the strong emotions attached to the situation as well as the capability of the electronic age to forward the latest gossip widely. However, to make the kinds of changes Penn accomplished required a level of internal openness and transparency with faculty that was unusual at most AHCs around the country, Penn included. As information was made available and examined by the faculty and their leaders, making the necessary changes became easier. Certainly, the morale of the faculty and the staff was adversely affected by the repercussions of the health system's financial woes in the late 1990s, but, with very few exceptions, Penn did not lose its faculty leaders in this troubled time, which was a strong and welcome statement of their belief in the future of the institution when fortified with the facts.

The relationship between universities and their AHCs is influenced by internal culture and a variety of external factors, such as reimbursement for clinical services, grant funding levels, and the regulatory/legal environment, which may alone or in combination precipitate a new direction or organizational structure. At Penn, many of those same forces, coupled with a realization of the missed opportunities brought about by a lack of coordination, did, in fact, cause a major change in the organization, culture, and operation of our enterprise. We believe the developments highlighted above have enabled both PENN Medicine and the University of Pennsylvania to respond to external pressures more effectively and to execute a plan for an exciting future for the entire institution as well. We hope our experience demonstrates the value of establishing a system of organization that fully integrates the unique strengths of a university and its AHC to most effectively carry out the missions of education, research, and clinical care.

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