Building a Transcontinental Affiliation: A New Model for Academic Health Centers

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Abstract

The recent affiliation of The Methodist Hospital (TMH) with Weill Medical College (WMC) of Cornell University and NewYork-Presbyterian Hospital is the first transcontinental primary affiliation between major, not-for-profit academic health centers (AHCs) in the United States. The authors describe the process followed, the issues involved, the initial accomplishments, and the opportunities envisioned.

The key enablers of this affiliation were a rapid process, mutual trust based on existing professional relationships, and commitment to the project by Board leadership. Because of their geographic separation, the parties were not competitors in providing clinical care to their regional populations.

The affiliation is nonexclusive, but is reciprocally primary in New York and Texas. Members of the TMH medical staff are eligible for faculty appointments at WMC. The principal areas of collaboration will be education, research, quality improvement, information technology, and international program development. The principal challenge has been the physical distance between the parties. Although extensive use of videoconferencing has been successful, personal contact is essential in establishing relationships. External processes impose a slower sequence and tempo of events than some might wish.

This new model for AHCs creates exciting possibilities for the tripartite mission of research, education, and patient care. Realizing the potential of these opportunities will require unconstrained ideas and substantial investment of time and other critical resources. Since many consider that AHCs are in economic and cultural crisis, successful development of such possibilities could have importance beyond the collective interests of these three institutions.

On June 24, 2004, The Methodist Hospital (TMH), the Weill Medical College (WMC) of Cornell University, and NewYork-Presbyterian Hospital (NYPH) announced a tripartite affiliation that, to our knowledge, is the most ambitious transcontinental affiliation between major not-for-profit academic health centers (AHCs) in the United States. In this article, we describe the initial history of this affiliation—the process that was followed, the issues involved, the initial accomplishments—and the opportunities that the three institutions envision. We believe that the experience in creating this arrangement is a useful case study in academic medicine.

The organization of AHCs is evolving rapidly. While AHCs usually are defined as an integrated and co-located medical school and teaching hospital, perhaps with additional health professions schools, geographic proximity is only an implied descriptor and AHCs also may be viewed as a group of functions integrating clinical care, teaching, and research.[1] Although other academic affiliations between school and hospital located at a distance do exist (see Appendix), our case is unique in size, scope, and geographic separation. Each constituent of this new affiliation has a strong international reputation and a longstanding history of commitment to the tripartite academic mission of research, education, and patient care (See Box p. 63). After DeBakey first designed the Dacron arterial graft there in 1952, TMH has been the site of such milestones as the first coronary artery bypass, the first genetic therapy for prostate cancer, and the first successful cardiac autotransplant. TMH has made significant investments in the academic mission, most recently with its establishment and endowment of a new Research Institute that will focus on translational and clinical research.

Accordingly, TMH leadership sought a primary relationship with a leading academic affiliate after its academic affiliation with Baylor College of Medicine (BCM) ended in April 2004. WMC's dean, Antonio M. Gotto, Jr., a former chair of medicine at BCM and chief of the internal medicine service at TMH, had maintained longstanding relationships with CEO Ron Girotto and other leaders at TMH, and this bond brought the two organizations into close contact. Through Dean Gotto's introductions, senior leadership at WMC and TMH previously had become acquainted personally. These personal connections facilitated informal discussions between WMC and TMH that led rapidly to formal negotiations about a substantive academic affiliation among TMH, WMC, and NYPH. Dr. Herbert Pardes, president and CEO of NYPH, concurred with Dean Gotto that there were significant opportunities in an affiliation with TMH.

Weill Medical College has numerous academic affiliations with health care organizations in the New York City metropolitan area, as well as several international academic affiliations,[2] but it did not have any affiliations with health care organizations in the United States outside of the New York City area. NYPH is a private, nonprofit hospital formed in 1997 by a merger of The New York Hospital and The Presbyterian Hospital.[3] Most of WMC's affiliations are held in common with NYPH, with whom WMC has a primary affiliation that succeeded a

historical primary affiliation between WMC and The New York Hospital. NYPH has primary academic affiliations with WMC and Columbia College of Physicians and Surgeons and is affiliated with numerous other health care organizations in the greater New York City area and internationally, but had no national affiliations. TMH has several international affiliations but no regional or national hospital affiliations, except for specific educational agreements of restricted scope.

Affiliation Process and Issues

The rationale for the affiliation was clear to those involved in the discussions. WMC, TMH, and NYPH shared a common mission of progress in clinical care, education, and research, and they explicitly fostered compatible cultures. Because of their geographic separation, they were not competitors in their core businesses of providing clinical care to their regional populations. Although academic competition (e.g., in grants) and potential competition for international referrals did exist, it was judged that these potential areas of competition could be transformed into opportunities for collaboration more easily than could local clinical care. Most intriguingly, the parties shared the view that this situation offered an unusual opportunity to explore new models for AHCs. Since many consider that AHCs are in a state of economic and cultural crisis, it seemed that such an exploration could have importance beyond the collective interests of the three institutions.

Discussions about the purpose and terms of the affiliation involved senior board leadership immediately. It was obvious to all that such a novel situation would create multiple opportunities for mistrust, misunderstanding, and failure to agree. The key enablers of a mutually endorsed agreement were respect and trust between the individuals involved, the support of senior Board leadership of all three institutions, and recognition of the need for rapid progress and prompt conclusion of the negotiations. Finally, a spirit of adventure animated the discussions.

The salient terms of the affiliation agreement can be summarized as follows. The purpose is to collaborate in patient care, teaching, research, and hospital operational performance. The affiliation is in general nonexclusive, but is primary and reciprocally exclusive in New York and Texas (e.g., TMH is WMC's only affiliate in Texas and WMC is both TMH's primary academic affiliate and its only affiliate in New York, but both may have other affiliates). Members of the TMH medical staff are eligible for faculty appointments at WMC, but such appointments are neither automatic nor required. Mutual efforts to improve clinical care are envisioned to include coordination between the clinical chiefs, and sharing best practices, quality methods, and clinical databases. Search committees for TMH department chairs will have representatives from all three institutions and the primary academic appointment for chairs will be at WMC. The affiliates are meant to collaborate extensively in the areas of education, including graduate medical education (GME), medical student education, and research training at the graduate and postgraduate levels. The affiliates will collaborate purposefully in clinical and translational research and will foster investigator-initiated basic research collaborations. Senior administrative staff will work closely together to explore all opportunities for sharing processes to achieve progress in operational performance.

Implementing the Affiliation

Research

As mentioned, TMH is the site of active research programs ranging from basic laboratory investigations to clinical trials. The emphasis is on translational research and clinical interventions, including initial development and clinical evaluation. Substantial financial and space commitments have been made throughout its history, most recently with the establishment of The Methodist Hospital Research Institute.

Previously, BCM provided contracting, accounting, compliance, and other research management infrastructure, which had to be recreated under the new affiliation. Assistance with research design, data management, and statistical analysis had been provided through other entities and was in some cases no longer available. In addition, TMH investigators had not been completely satisfied with the support they were receiving. These confluent factors meant that substantial infrastructure had to be created promptly, but also that new opportunities were available to promote excellence.

The Methodist Hospital established new offices for research accounting, grants management, and research compliance with assistance and consultation from the corresponding groups at WMC. In addition, TMH contracted with a Clinical Research Organization to assist with clinical trials. More recently, TMH and WMC have begun joint planning to develop compatible clinical trial infrastructure, including trials management software, electronic data exchange, institutional review board (IRB) reciprocity, and clinical trial agreement master templates. Two TMH faculty are members of the steering committee of the Weill Cornell Institute for Clinical Research, and two TMH faculty and two TMH staff have been appointed to the WMC IRB. When this process is completed (projected for one year), a seamless clinical research management infrastructure will be in place.

However, TMH investigators still require assistance with research design, informatics, and biostatistics. Accordingly, an early interaction took place between TMH leadership and the chair of the WMC/NYPH Department of Public Health. At WMC, this department pursues its own research agenda, develops educational programs, and serves as a resource to the faculty at the AHC and to the hospitals of the NYP Health care System. The opportunity for collaboration between the WMC/NYPH department and TMH in developing a common clinical research infrastructure was obvious, and discussions about creating a new Department of Public Health at TMH rapidly concluded with an agreement to proceed. A search is in progress for a chief for the TMH unit.

The faculty will be full-time staff members at TMH. They will relate administratively to TMH and The Methodist Hospital Research Institute administration and the chairs at TMH and WMC, and academically to both TMH investigators and the pertinent division chiefs and faculty at WMC. This

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Description of the Parties in the Transcontinental Affiliation of The Methodist Hospital, the Weill Medical College of Cornell University, and the NewYork-Presbyterian Hospital

Weill Medical College of Cornell University

Weill Medical College (WMC) was established in 1898. A Board of Overseers that governs the medical college has broad independent authority but ultimately is responsible to the Cornell University Board of Trustees. There are 957 employed, full-time faculty, including 660 clinical faculty and 297 nonclinical and research faculty. In addition, WMC has a large complement of active voluntary clinical faculty. The educational programs encompass 404 medical students, 138 graduate students in the Graduate School of Medical Sciences (which is operated jointly with the Sloan Kettering Institute), and more than 600 postdoctoral fellows. The full-time clinical faculty conducts its clinical practice as a Physician Organization, with more than 750,000 patient visits per year, resulting in clinical practice revenues of US $340 million in 2004. In 2004, WMC faculty received US $203 million in grants and contracts (US $127 million from U.S. government agencies and US $76 million from private sources).

Weill Medical College has numerous academic affiliations with health care organizations in the New York City metropolitan area, as well as several international academic affiliations. In addition, WMC has established a branch campus in Qatar, in partnership with the Qatar Foundation,[2] where a two-year, premedical and four-year medical curriculum is offered. The first premedical class enrolled in 2002 and the first medical class in 2004. Both WMC and NewYork-Presbyterian Hospital recently executed an affiliation with Qatar's national health system hospitals, and programs to collaborate on teaching, research, and operational issues are under discussion.

NewYork-Presbyterian Hospital

NewYork-Presbyterian Hospital (NYPH) is a private, nonprofit hospital formed in 1997 by a merger of The New York Hospital and The Presbyterian Hospital. The two hospitals had a long and distinguished history in New York City. The Presbyterian Hospital was founded in 1868 and The New York Hospital, the second oldest hospital in the United States, was founded in 1771. The merger brought two preeminent institutions together under a single leadership and a single bottom line.

NewYork-Presbyterian Hospital has more than 2,000 beds, with more than 100,000 inpatient discharges each year. With almost 5,000 physicians on staff, 900,000 patients are seen in the ambulatory facilities. The hospital delivers general and specialty care in a wide range of services organized under departmental and service lines.

NewYork-Presbyterian Hospital has primary academic affiliations with WMC and Columbia College of Physicians and Surgeons. The physician staff members hold faculty appointments at one or both medical schools. NYPH has more than 110 graduate medical education (GME) training programs affiliated with these schools, and thousands of graduate and undergraduate trainees receive all or part of their education at NYPH.

The active International Services Division at NYPH manages more than 4,000 patients from more than 82 countries as they travel to New York City for their medical treatment and provides on-call medical services to select governments during the General Assembly of the United Nations. With affiliations in Asia, the Middle East, and in Europe, NYPH fosters active clinical and academic exchanges.

NewYork-Presbyterian Hospital is the centerpiece of The NewYork-Presbyterian Healthcare System. The System is the largest, nonsectarian, not-for-profit health care system in the United States, and overall is the fifth largest system in the country. The system is a federation of hospitals, specialty institutes, and continuing care centers throughout New York, New Jersey, and Connecticut. The members partner on a wide range of quality initiatives and programmatic development.

The Methodist Hospital

The Methodist Hospital (TMH) is a private, nonprofit 935-bed hospital, serving more than 360,000 inpatients and outpatients annually. TMH has 59 operating rooms, 1,700 physicians on
its medical staff, and almost 5,500 employees. The scope of clinical services is broad, offering adult patients virtually all medical disciplines from more than 30 service lines. The hospital, the largest adult care hospital in Houston, Texas, focuses on five centers of excellence: heart, cancer, orthopedics, transplant, and neurology.

The scope for research at TMH has expanded with the creation of The Methodist Hospital Research Institute. The Research Institute currently has 100,000 square feet of lab space, located on five floors of one building within the hospital. Half of that space is slated for renovation within the year. Available research space is expected to triple to 300,000 square feet by 2006 with much of it in or adjacent to the hospital. The Research Institute also will encompass several state-of-the-art support facilities, including imaging, biostatistics and informatics, flow cytometry, animal laboratories, and a tissue bank.

The Methodist Hospital has over 200 residents training in the hospital at any given time. TMH has a director of GME and an office of GME and continuing medical education to direct educational services at the hospital. TMH is developing its own residency programs, in affiliation with WMC. TMH hosts several medical conferences that are broadcast internationally, including LINC, a biannual neuroradiology conference, and MIS, a conference focusing on minimally invasive orthopedic procedures.

The Methodist Hospital System is made up of The Methodist Hospital, located in the Texas Medical Center, and three community hospitals throughout the Houston area. TMH has international affiliations that are focused on patient referrals, but extend into the clinical arena. TMH has established affiliations and collaborations with a number of hospitals internationally. Florence Nightingale Hospital in Istanbul, Turkey; San Jose Hospital in Monterrey, Mexico; ABC Hospital in Mexico City; and UNICAR in Guatemala City are the most recent and active affiliations. Affiliations include clinical activities, joint conferences, and patient referrals. TMH is establishing a teleradiology program with clinics in Mexico and Guatemala and is currently in discussions with Chinese medical schools to develop exchange programs.

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model was judged to be most cost-effective and supportive of rapid implementation and development, but in the future it might evolve further.

We will establish five focus areas or divisions within the TMH Department of Public Health and recruit faculty for each. Because of the opportunities afforded by TMH's research activities and its international presence, these divisions will be biostatistics, outcomes and quality, medical informatics, bioethics, and international health.

In order to assist TMH's Department of Public Health to achieve its goals of developing a state-of-art research agenda, the highest-quality educational programs, and a full range of research consultation services, the leadership of the Department of Public Health at WMC/NYPH will serve in an advisory and collaborative capacity. The department at TMH will benefit from the resources of the WMC/NYPH department, while the WMC/NYPH department will broaden its capacity and opportunity for new research, educational, and consultative endeavors. Both departments will explore options for establishing relationships and collaborations with other public health entities in Houston. The WMC/NYPH department will not have fiscal authority, but will participate in faculty recruitments and approve all faculty appointments. The WMC/NYPH departmental leadership and faculty will work with and advise the faculty and staff at TMH.

Other joint research activities have included a research symposium held in Houston in early March 2005, in which approximately 60 investigators participated; a joint symposium to be held in New York City in December 2005; and a pilot grant program to encourage cross-campus collaborative research (with the first grants awarded in July 2005 and a second request for applications planned to follow the December symposium).

Graduate medical education

The Methodist Hospital has been a teaching hospital for more than 50 years. It receives Indirect Medical Education and Direct Medical Education funding for residency positions and formerly sponsored its own accredited training programs. TMH also serves as a training site for medical students from BCM, the University of Texas Health Science Center at Houston, and a number of other U.S. and international medical schools. More recently, TMH has not sponsored residency programs; most of the trainees at TMH have been in BCM-sponsored programs and some have been in programs at the University of Texas Health Science Center at Houston. Before the affiliation with WMC and NYPH, TMH had begun to assess the ongoing role of GME. This assessment identified the education of students and graduate trainees as critical to the mission of TMH and essential in retaining and attracting leading academic physicians. Because of the change in medical school affiliation and uncertainty about the continued presence of graduate trainees from BCM, TMH decided to seek institutional sponsorship through the Accreditation Council for Graduate Medical Education (ACGME). NYPH, as a hospital accredited to sponsor training programs, was able to provide essential advice and support to TMH in this complex process. NYPH participates in GME as an ACGME-accredited institutional sponsor. In collaboration with WMC and its other primary medical school affiliate, Columbia College of Physicians and Surgeons, NYPH has primary responsibility for over 1,400 trainees in more than 115 accredited programs. WMC and NYP Hospital and System train medical students from WMC and other U.S. and international medical schools.

Specialty and subspecialty training programs were evaluated by TMH and NYPH leadership on a case-by-case basis to determine which programs TMH would seek to develop. TMH remains committed to training residents and fellows from other programs, but also will pursue sponsorship of several ACGME-accredited programs. Internal medicine and surgery programs are central to the institution and, therefore, will be among the early programs developed. Because of the strength of clinical programs and physicians, other specialties may be developed first. In some cases, TMH will not develop its own programs for some time, usually because it expects to continue to rotate residents from other institutions or because the services are not strategic priorities.

Residents and fellows understandably were confused and concerned about the changes in TMH's academic affiliation. Organizational changes can have both real and perceived effects on trainees[4] and both must be addressed. Communications and town hall meetings were designed to answer questions and assure trainees that everything possible was being done to retain the quality of their training programs and to minimize disruptions. Regular orientation sessions led by senior TMH and NYPH leadership were also started in the beginning of 2004–05. One of the concerns initially expressed was that WMC and NYPH would attempt to direct and control training programs from New York City. This model was not entertained—all those involved agreed that such a model would go against critical educational principles of on-site supervision and responsibility. However, collaborative opportunities are being explored in all programs, including the possibility of electives, rotations, and project mentoring.

The Methodist Hospital had to contend with the lack of GME infrastructure, having long depended on its medical school affiliate for these services. With the assistance of leadership from NYPH, TMH identified personnel, space, equipment, and financial resources as immediately necessary components of a comprehensive GME program. With counsel from NYPH, a director with a strong educational background and specific GME management experience was recruited to manage the GME Office and prepare for ACGME review and certification. The ACGME approved institutional accreditation status for TMH in 2005. TMH residency programs in pathology and neurological surgery (including pediatric neurosurgery rotations in New York City for TMH residents) were approved in mid-2005. Other programs are anticipated to be added in 2006.

Faculty appointments

The full-time faculty at TMH is organized as a physician organization, a separate corporation as required by Texas law. Members of the physician organization are eligible for regular-track faculty appointments at WMC, while medical

staff members in private practice are eligible for voluntary-track appointments. An office of WMC faculty affairs was established in a prominent location at TMH in October 2004. The standards expected and the process followed for appointment and promotion are those already in existence at WMC. Appointment of department chairs is considered by the WMC faculty committee of review (COR) on recommendation of the dean of WMC and the CEO of TMH, analogous to the existing process used by WMC and NYPH. However, in order to maintain reasonable turnaround times for processing all TMH faculty appointments, WMC added clerical staff and established a second appointment and promotion COR, composed of current and former members of the COR and chaired by the current chair of the COR. Thus far, 45 appointments have been completed, including 16 at the professor level. Approximately 100 others are in progress. The average time for the entire process from receipt by WMC of an application for faculty appointment to final approval by the dean has been 75 days.

Weill Medical College and NYPH also have supported TMH's recruitment activities for department chairs. WMC faculty, vice deans and the dean have served on search committees, identified candidates, interviewed candidates in both New York City and Houston, and aided in TMH's completing recruitment of three chair candidates, with three other searches in progress.

Quality improvement

The first of a series of planned collaborative leadership forums regarding clinical quality improvement was held in Houston at the end of February 2005. Several specific areas for collaboration were identified including standardization of metrics in collection, electronic medical record data mining and reporting capabilities, participation by TMH in NYPH's ongoing Patient Safety Rounds and quality data warehouse development, standardization of patient satisfaction tools, exchanging specific quality protocols (e.g., hand hygiene), sharing definitions of TSI, an extensive business intelligence software package, and establishing cross-institutional teams for ongoing collaborations. The immediate results of this meeting were the establishment of a weekly quality steering group conference call, adding TMH quality leadership to the NYPH/WMC quality leadership team, and establishing a group to work on data definitions and data warehouse specifications. The NYP System has also begun to assist TMH and its System in their quality and performance improvement efforts. The quality steering group identified data sets, metrics, and benchmarking groups to use for incorporating TMH System-specific data into the quality data warehouse. "Member Performance Reports" for the TMH System comparable to those used by the NYP System were completed in July 2005 and follow-up discussions are scheduled to further refine metrics and benchmarking participants. A meeting at TMH in July 2005 will be followed by collaboration between TMH staff and NYP Master Black Belts on implementation of Six Sigma projects at TMH. TMH participation in NYPH patient safety rounds has also begun.

The TMH System also is receiving NYP System assistance with development of physician demographic benchmarking and will use it to guide clinical program strategy. The database programming and format has been completed and are awaiting medical staff office submissions from TMH System hospitals.

Personal contacts

The leadership of TMH, WMC, and NYPH share a common vision for the potential of the affiliation. They also recognize that in order to realize the potential of the affiliation, it is critical that collaboration occur at every level of the institutions. Most notably, in order to advance our shared academic vision, physicians and scientists at the institutions must work together closely.

A number of physician leaders at WMC and NYPH travel to Houston on a regular basis since the affiliation to meet with TMH physicians individually and in groups. The concept of locating a senior WMC/NYPH administrator at TMH to facilitate collaboration is being considered. Search committees for new chairs at TMH are well underway, with physicians at WMC and NYPH actively involved with TMH colleagues in defining the positions, identifying and reviewing potential candidates, and interviewing candidates.

Ultimately, the most fruitful interactions probably will occur, not through senior leadership's specific interventions, but rather through individual, often informal conversations and subsequent projects between faculty members. Accordingly, the institutions have purposefully facilitated personal interactions. In September 2004, a delegation of approximately 30 board members, executives, and faculty from WMC and NYPH spent time at TMH and met with approximately 100 TMH board members, executives, and faculty. A similar trip from Houston to New York City by about 50 physicians and administrators took place in early December 2004. Joint research retreats and quality forums have been mentioned above. In addition, an ongoing program of interdepartmental and discipline-specific personal meetings will be conducted to foster familiarization and collaboration.

Finally, it rapidly became clear that, given the continuing demands of normal operations and the additional demands of implementation details, the opportunity to chart a novel overall direction for the affiliation partnership could become obscured by ad hoc planning and decision making. Accordingly, a strategic management group has been established, comprised of senior management of the three organizations. This group meets biweekly by videoconference and periodically in person. The goals are to maintain regularly scheduled communication, and to focus on long term planning.

Information technology

From the onset of the new affiliation, senior leadership realized the immense opportunity for exploring many dimensions of information technology (IT). The possibilities include sharing IT intellectual capital; implementation experience and expertise; standardization of products, rules, and terminology; common data-collection practices; and IT strategic planning. TMH, WMC, and NYPH have several IT vendors and processes in common. Similar existing relationships with the Eclipsys Corporation and General Electric offered the most obvious and immediate opportunities. Effective collaboration in this area particularly could help improve patient care and hospital operations and

advance the academic mission elements in research and education.

The Methodist Hospital and NYPH both are active participants in the Eclipsys user-group. Currently, NYPH is about a year ahead of TMH in its implementation of the Eclipsys system, but each has contributed to improvements in the software's ability to meet the objectives of physicians and the needs of patients for electronic documentation and clinical computing. In addition to the importance of the electronic medical record for maximizing hospital operational performance, standardized data dictionaries and mutually accessible data repositories are essential foundations for data sharing on quality improvement and outcomes measurement, as well as facilitating data warehouse functions for clinical research. The capability of tracking larger groups of patients in diverse geographic locations should be attractive to extramural funding agencies, since they would be able to leverage their sponsored research through standardization across studies and more efficient contracts.

A shared commitment to secure leading-edge technology, a shared academic and performance improvement perspective, and a previously established collegial rapport among the respective administrators can make possible not only rapid collaboration in planning for mutually beneficial IT activities, but also in helping to shape national health care IT policy and practice, an area in which NYPH leadership has been particularly active.

An IT forum that brought together leaders from TMH, NYPH and WMC to set an agenda for clinical, operational, and research IT collaboration took place in May 2005. A specific agenda for collaboration was developed at this meeting. NYPH is assisting TMH in further development of its electronic medical record. TMH and NYPH IT staff will share tools developed at NYPH to make implementation most efficient, which will enable TMH to do the implementation more quickly and with less disruption. TMH and NYPH physicians and IT staff will share maintenance of applications including clinical systems, decision support, and business intelligence efforts, enabling both organizations to keep applications up to date with less personnel resource investment. TMH, WMC and NYPH will jointly develop a clinical data warehouse – a long-term project that will support clinical research, health services research, and quality improvement and patient safety programs. TMH physicians and IT staff have been appointed as members of the NYPH Quality IT committee. WMC and NYPH are also assisting TMH in development of an IT infrastructure for clinical research.

Weill Medical College and TMH are developing a shared database of WMC and TMH physicians that will serve as a registry of research interests (and coincidentally could facilitate clinical referrals in Houston and New York City). TMH, WMC, and NYPH are putting into place a Web-based "registry" of clinical trials that will provide efficient and convenient access to clinical trials for researchers in New York City and Houston.

Opportunities and Challenges

In the short term, the principal opportunities have been for WMC and NYPH to assist TMH in amending lost functions and programs that had been furnished to TMH by BCM, such as GME and faculty appointments. In the long term, the three institutions view the main opportunities as being in education, research, quality improvement, and international program development.

One clear opportunity is to develop clinical trials, investigator-initiated patient-oriented research, and heath services research on a national scale. Large-scale and diverse patient populations are becoming essential in all types of clinical research, as emphasized recently in the National Institutes of Health Roadmap.[5] The integrated faculty, common information systems and shared Department of Public Health should help the three affiliates to develop this area rapidly. Provision of resources to foster initial collaborative research interactions is considered an essential enabler. Potentially, developing other affiliations could build on the momentum and capabilities already under development,[6] provided that they fulfill similar standards to those mentioned above.

The relationship of WMC, NYPH, and TMH represents a new kind of collaboration that itself is a step forward in the globalization of health care. A simplifying factor in this affiliation is that the three parties do not compete for a single geographic patient base. However, all are active in international outreach, including international referrals and international educational, and clinical and research development projects. Potential competition always has existed for international ventures of all these types, but the affiliation opens the opportunity for shared involvement in any project and for developing a joint presence in the international market. Developing further affiliations could enhance this model with the aim of developing a unique nonprofit global health care enterprise.

Educational opportunities include medical students, GME, CME, and scientific training (graduate students and postdoctoral trainees). Practical considerations of cost–benefit make it unlikely that physical exchange of entry-level trainees will be a major feature of educational programs, but upper-level trainees could benefit significantly from direct exposure to the broadest range of faculty and patients. Distance learning and electronic media are increasingly used in medical education.[7,8] The Qatar branch campus has given WMC considerable experience with distance learning and the three affiliates have greatly accelerated their investments in this infrastructure with the goal of fostering its creative use in education.

The potential future role of shared or joint clinical programs, apart from international projects, is unclear. Quality improvement efforts are high priorities clinically, operationally, and academically[9] in both New York City and Houston; benchmarking, best-practice sharing, and integrated quality research are already underway. Although collaboration and familiarity enable appropriate referrals, clinical medicine remains in most instances a personal and geographically localized service. Thus, the development of joint clinical programs at the local level is not a high priority at this time, although sensible initiatives will be encouraged.[10] Likewise, virtual reality consultations and robotic telesurgery do not seem likely in the foreseeable future although they are clearly within the realm of possibility.[11] It is clear that an opportunity exists for quality

improvement, benchmarking, and sharing best practices, and we anticipate that shared quality activities rapidly will become major efforts.

The principal challenge thus far has been the physical distance between the parties. Although extensive use of videoconferencing has been essential and successful, more sophisticated technologies such as videostreamed seminars and Web-based educational archives or shared Internet workspaces have not been adopted yet. The effectiveness of electronic meetings increases with an individual's familiarity with the medium, and they are particularly useful and successful for individuals who already have established a personal relationship. However, there is no substitute for personal contact in the process of establishing relationships initially. Accordingly, the time and financial concomitants of moving large numbers of people across country has been an impediment. An additional impediment has been some uncertainties related to the pace and sequence of the ongoing disengagement between TMH and BCM. Transitions that occur at different rates in different clinical services have at times made rational planning more complex than it might otherwise have been. Finally, external regulatory processes (e.g., in the area of GME) have created some discontinuities or anomalies (e.g., in residency programs) for which it has been necessary to devise compensatory measures.

Conclusion

Academic medicine and AHCs face significant challenges in the 21st century.[12] Many AHCs have responded to these challenges through mergers of various types.[13] We report the initial history of a unique transcontinental affiliation of three AHCs. The key enablers of this affiliation were a rapid process, mutual trust based on personal relationships of executive management teams, and commitment to the project by board leadership. In any novel venture that involves complex academic entities, there are many potential obstacles; in this instance, most were avoided or overcome in the early phases of the project.

All those involved recognize that challenges will continue to evolve. One ongoing challenge will be to maintain and enhance functional integration at a distance. It is worth remembering that this challenge is novel only in health care; numerous corporations with geographically dispersed units have overcome it successfully.[14] In addition, the prior experiences of all those involved with international projects, multicenter biomedical science, and networks of affiliations are major advantages in dealing with this issue. The challenges are matched by great opportunities in designing models for education, research, and clinical collaborations. Realizing the potential of these opportunities will require unconstrained ideas[15] and substantial investment of time and other critical resources.

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Appendix

Examples of Other Noncontiguous Academic Health Relationships in the United States

For illustrative purposes, the broad outlines of the scope of a few other relationships between academic health entities are indicated below.

The University of Massachusetts Amherst and the Baystate Medical Center have created a collaborative medical research program, with the most notable achievement thus far being the Pioneer Valley Life Sciences Institute ⟨http://baystatehealth.com⟩. The University of Massachusetts medical school is not featured in publicly available material as being involved in this venture. Clinical activities are not involved and it is not stated that faculty appointments are in common.

Lehigh Valley Hospital and Health Network ⟨http://www.lvh.org/cwo⟩ is a major clinical campus of The Pennsylvania State (Penn State) University School of Medicine. Numerous staff members hold faculty positions at Penn State. Lehigh is a component of the Penn State Cancer Institute ⟨http://www.hmc.psu.edu/cancer⟩, along with several other clinical sites in Pennsylvania.

Maine Medical Center and the University of Vermont have an academic affiliation that enables rotation of Vermont medical students to Maine and opens the possibility of collaborative research ⟨http:www.uvm.edu/research⟩. No clinical or faculty appointment relationships are clearly stated to exist.

As is evident from the above, the affiliation of The Methodist Hospital, Weill Medical College of Cornell University, and NewYork-Presbyterian Hospital is more ambitious in size, scope, and geographic separation, when compared to other geographically separated affiliations.