Organizational Responses to Managed Care: Issues for Academic Health Centers and Implications for Pediatric Programs

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ABSTRACT. The health care market dynamics that supported and directed the growth and development of Academic Health Centers (AHCs) have changed dramatically in the last 10 years. AHCs are struggling to adapt to new reimbursement mechanisms and to compete effectively for limited dollars, but are constrained by administrative and governance structures that are slow to evolve. Their multiple missions, including education, research, and care for complex patients and underserved populations, are at risk. Although most recognize the need for substantive reorganization, available resources and market specifics vary dramatically from one AHC to another. The current approaches to adaptation by four AHCs are described, along with some of the unique challenges confronted by academic pediatric programs. Pediatrics 1998;101:805–812; managed care, academic health centers, pediatrics.

ABBREVIATIONS. AHC, academic health center; MCO, managed care organization; MCW, the Medical College of Wisconsin; AMI, American Medical International; IHC, Intermountain Health Care; PSS, Pediatric Subspecialty Services; CHOP, Children’s Hospital of Philadelphia.

Over the past several decades, academic health centers (AHCs) in the United States have been outstandingly successful, driven by traditional American values of autonomy, individuality, self-determination, and diversity. Consistent with these values, clinical services, as well as medical education, were organized primarily around medical and surgical specialties and their associated diseases. Until recently, reimbursement mechanisms and governmental funding had supported increasing specialization, mushrooming technology, and the provision of more, and increasingly expensive, care. The phenomenal success and growth of AHCs was led primarily at the departmental level, often by individual faculty, entrenching a distributed and traditional academic power structure in their organizations. The infrastructure of facilities and services likewise grew, generally under separate governance. The resulting institutions tended to be large, loosely integrated, and resistant to change.

Perhaps because the dollars that fueled this success were generated primarily from clinical services to individuals, the educational and community service missions of many AHCs suffered from insufficient attention. Growth seemed a goal in itself, superseding the missions of training an appropriately-sized and balanced work force, studying the process and outcomes of health care delivery, and ensuring the delivery and quality of care to a population, rather than just to those with disease.

Over the past 10 to 15 years, the same profit margins that enabled the growth of AHCs have attracted numerous for-profit health care organizations. These new and formidable competitors are driven by a different set of values: integration, efficiency, customer satisfaction, and value itself, defined as the blend of high quality and low cost that attracts the most purchasers. Their management structure tends to be lean and flexible and their style aggressive, enabling their organizations to adapt rapidly to changing market forces.

The responsiveness of these new market players to the demands of employers and government, reeling from the skyrocketing costs of health care, makes them very attractive. They are thriving under evolving reimbursement mechanisms that trade promises of increased volume, in the form of covered lives, for price discounts (discounted fee for service) or transfer risk (diagnosis-related groups, per diem, capitation) in exchange for predictable cash flow for physicians and provider organizations. These health care delivery systems emphasize primary care over specialty care, prevention over technology, and population-based medicine over prolonged end-of-life care.

Collectively, these new reimbursement mechanisms and the cost management strategies of delivery systems adapting to them have come to be known, euphemistically, as managed care. This term and the approach are not exclusive to for-profit organizations, although the media have given them the most attention. Many not-for-profit organizations are using similar tactics, some as industry leaders, to compete in increasingly tight markets. Despite the evident risks to their missions and their survival, AHCs have been slow to react to this changing environment.

MANAGED CARE AND THE MISSIONS OF ACADEMIC MEDICAL CENTERS

Although the missions of education and service to communities and the underserved may have suffered from lack of emphasis during the ascendancy of the AHC, those missions are even more threatened in the era of managed care. The profits from clinical service that supported these missions are being
eroded by reductions in payment for services, shifts in acuity and severity (the result of aggressive underwriting and channeling of healthier, paying patients to lower cost providers by managed care organizations [MCOs]), and the need to develop costly infrastructure and expanded access points to compete.\(^a\) Diminishing willingness of insurers (including Medicaid and Medicare MCOs) to pay a premium to academic centers, increasing regulatory requirements from the Health Care Financing Administration, and demands for medical education reform mean additional reductions in available dollars and greater overhead costs for AHCs.

Despite recent evidence that more medical students are matching to primary care residency programs, a large oversupply of specialist physicians still is predicted.\(^b\) Rural and inner city communities are begging for committed physicians, particularly in primary care specialties. Training programs and their graduates usually have reflected the interests and expertise of the faculty, not necessarily the needs of the community.\(^c\,d\) This has contributed to the work force imbalance and to the inadequacy of education in primary care, preventive care, and public health. In response, recent legislative efforts have attempted to mandate additional change in the specialty mix of providers graduating from US training programs.\(^e\)

In addition, managed care leaders are demanding physicians who are better prepared to serve as gatekeepers, practice cost-effective medicine, and contribute to continuous quality improvement efforts within their organizations. However, with a few notable exceptions (such as Harvard Pilgrim Health Care, Kaiser Permanente, Group Health of Puget Sound, and Henry Ford Health System), MCOs have demonstrated no commitment to funding or advancing medical education.

Customer service, with emphasis on cost, access, and quality, is key to competition in the current health care market. With more ready access to capital and a more singular focus on these aspects of service, MCOs have a distinct advantage. The missions of AHCs include serving the most complex and severely ill patients (for whom reimbursement often is inadequate to cover costs fully) as well as serving as a safety net for the most needy (for whom reimbursement often is entirely lacking).\(^f\) These demands, and those of serving numerous trainees, do not excuse the lack of attention by AHCs to customer service, but they often are in conflict with and complicate such efforts.

Although the core mission of AHCs, the development and dissemination of new knowledge, had enjoyed considerable support, the competition for limited governmental research funding has become fierce while research subsidies from clinical margins are vanishing. Here, too, AHCs have been criticized for not meeting the greater needs of society in advancing the science and practice of population-based and evidence-based medicine and in studying primary and preventive care and the outcomes of medical interventions.\(^g\) Few MCOs have committed any resources to support such research, despite their desire for the improvements in cost and outcomes that would result from such investment.

**ORGANIZATIONAL STRUCTURES OF AHC**

If they are to continue to thrive, or even to survive, AHCs need to compete in quality, price, and access with other providers in their market that offer comparable services, while continuing to be a referral resource to those organizations for more specialized services. Joint venturing, or collaborating, with an MCO is an alternative but one that, alone, will not guarantee access to enough patients to keep a specialty faculty and their trainees clinically busy. The potential permutations in the response of AHCs to managed care are innumerable, but all will require substantive changes in focus, strategy, decision-making, and resource allocation to compete effectively with MCOs. To fulfill their missions, AHCs must learn, then teach, how to manage care so that it is cost-effective, of high quality, and with ever-improving outcomes, and to provide that care with optimal patient and community satisfaction.

To meet these challenges and accomplish the changes, most AHCs see the need for significant restructuring of their organizations. In the remainder of this paper, we will describe briefly 1) common organizational structures of traditional AHCs, 2) four current approaches to adapting to managed care, and 3) the unique challenges of this restructuring for pediatric health care delivery and training.

AHCs in the United States generally consist of multiple institutions sharing the missions of education, research, and patient care. The organizational structure has usually been one of loose affiliation, with each entity enjoying considerable autonomy. Although diverse in their makeup, most centers comprise: 1) health professional schools, including medicine, nursing, pharmacy, dentistry, allied health, and/or public health; 2) hospitals and clinics that the center owns, operates, or affiliates with; and 3) research centers/laboratories. These often have evolved independently and are separately responsible for portions of the academic mission. The schools are concerned primarily with education, the hospitals and clinics with patient care, and the research institutions with the advancement of knowledge. The faculty, with their commitment to all components of the academic mission, provide the links between the various components.

Other entities, such as community hospitals, private practices, health maintenance organizations, and research foundations, may share in the missions of education and research. The relationships of these to the academic center range from complete independence to mutual interdependence, and until recently there has been little need for additional integration. Children’s hospitals around the country offer examples of this range of relationships and most find themselves expanding and redefining their associations.

Medical schools and their faculty, usually the home of most of the leaders in the AHC, rarely have had organizational structures or cultures that allowed for strong, centralized leadership or plan-
A recent organizational trend has been to divide further the faculty, with departments based on subspecialties such as orthopedic surgery, dermatology, cardiology, and, in pediatrics, independent departments of neonatology. This has been particularly problematic for training programs that emphasize generalism. Generalist faculty, housed within their specialty departments, encounter considerable barriers to collaboration with generalists in other specialties. Rigid departmental structures and separation of the health professions by school have made central strategic planning and interdisciplinary training, difficult, if not impossible, to achieve.

**REORGANIZATION OF ACADEMIC CENTERS**

Institutional reorganization in response to managed care pressures generally are taking one of four approaches: 1) internal reorganization; 2) alignment of the academic institution with a managed care entity; 3) development of contracting entities that can align faculty and hospitals; and 4) buying or building an academically based full-service network. The primary motive for change is to remain competitive in a cost-conscious health care environment. Although each approach has downstream consequences for medical education and training, these often are considered belatedly. We offer case studies as examples, followed by a discussion of advantages and disadvantages of each approach and the potential for increasing institutions’ competitive positions in terms of cost, quality, and access.

**Internal Reorganization: Medical College of Wisconsin**

The Medical College of Wisconsin (MCW) is a private, free-standing academic center located in Milwaukee. It is one of two AHCs in a state with ~5 million people. Half of its financial support has come from professional fees and the remainder from varied sources such as tuition, contracts, grants, overhead allocations, gifts, and a small state appropriation. Faculty and staff salaries account for the majority of expenditures. MCW does not own its clinical facilities, but is closely affiliated with four hospitals, including a children’s hospital. The medical school enrolls 200 students per year, and there are ~750 residents in affiliated graduate medical education programs. Growth of managed care within the area has eroded the referral base of the affiliated institutions. One of those hospitals is reportedly the highest priced in the state and MCW’s faculty primarily delivers expensive, specialty care in the outpatient setting as well.

Key elements of MCW’s response to their changing market are 1) increasing the cost effectiveness of its faculty and affiliated institutions; 2) developing primary care capacity; and 3) downsizing its faculty and residency programs. To accomplish these tasks, MCW plans to develop a full range of health services accessible in a variety of settings, enhance further their faculty’s unified clinical practice, develop advanced information systems, move care from inpatient to outpatient settings, and decrease their residency positions to ~600 over the next 2 years.

As in most AHCs, MCW’s greatest strength is the expertise of its faculty in specialty and subspecialty medicine. The challenge is to leverage this solid base to build a broader range of services, particularly primary care entry point services. Success in developing such a spectrum of health care services should promise adequate access to clinical educational opportunities for their students and residents.

Three major obstacles that confront any academic institution taking this approach include 1) the need for considerable capital to fund such initiatives, 2) the need for a new, more centralized organizational structure to allow efficient and effective planning and decision-making, and 3) the need for expertise and experience in population-based medicine. Such AHCs also are likely to encounter significant resistance as they attempt to incorporate community practitioners into their previously closed hospital staffs. Attention should be given to changing faculty attitudes toward community physicians and primary care to enhance mutual respect and to acknowledging the critical importance of the community clinicians and their role in the educational process.

A successful strategy must result in improvements in cost, quality, and access. As in MCW’s approach, efficiencies can be gained for the practice organization with strong central leadership and a streamlined organization. Opportunities to take advantage of cost savings on facility utilization would require financial integration with one or more hospitals. Although downsizing the faculty and training programs may be necessary, care must be given not to erode the center’s primary strength in the quality of its specialty and subspecialty faculty.

Expanding to provide a full range of health care services of the same quality as their tertiary services will be difficult. Absent resources and market capacity to build primary care practices, affiliation with existing practices is necessary. Effective mechanisms of guaranteeing quality of practice and education in that setting have not been demonstrated. The internal reorganization approach alone does not meet the needs for community access points and primary care training sites.

**Alignment of the Academic Center With a Managed Care Entity: Creighton University**

Creighton University, a private, not-for-profit organization, has five health professional schools including medicine, nursing, pharmacy, dentistry, and allied health. It had also owned and operated St Joseph’s Hospital, St Joseph’s Center for Mental Health, Boys Town National Research Hospital, and a large multispecialty clinic. Total enrollment in the health professions schools, including graduate medical education programs, is 2100. Creighton is located in Omaha, NE, a city that is also home to a second medical school, the University of Nebraska.

By the 1980s, St Joseph’s Hospital was plagued with small operating margins and few financial reserves. Leaders also anticipated that the facility would need significant capital investment in maintenance, equipment replacement, and new technology. To meet these financial demands, investors

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*Note: This text is a synthesis of information from various sources, focusing on the reorganization strategies of academic centers and their impacts on educational and health services.*
were sought who could assume these obligations and continue to support the facility’s role in fulfilling Creighton’s teaching mission. In 1984, the hospitals and clinics were sold to American Medical International (AMI). St Joseph’s Hospital was to become the tertiary center for a feeder network of community hospitals within the region.

Over the next 6 years, programs were expanded, capital invested, and the facility’s financial performance improved; yet, the relationship between Creighton and AMI was strained. Issues that led to conflict involved which institution would control the enterprise and the instability of AMI’s corporate management. A series of law suits ensued, which were finally settled in 1995, with resultant changes in the governance structure. Creighton University is now 26% owner in a limited liability corporation that 1) shares risk and gain, 2) has led to a strong commitment to the hospital by the faculty, and 3) created a close working relationship between Creighton leadership and corporate leadership.

Several lessons from this experience can be generalized to other academic institutions that anticipate a merger with, or acquisition by, a managed care organization. First, academic leaders must have a clear vision of the institutional mission, and that vision must be endorsed strongly by the faculty and articulated repeatedly to corporate leadership. In the event verbal understandings and agreements are lost in administrative transitions (common and frequent in MCOs), contracts must reflect explicitly the shared commitment to advancing the academic mission. Financial relationships and strategy for developing the clinical enterprise must reflect that mission. Second, considerable attention must be given to the design and implementation of corporate governance to ensure that academic leaders have sufficient authority and resources to adequately support the academic mission. Third, because markets and corporations change over time, a reasonable buy-back option is essential to permit retrenching if deemed necessary to redirect or redesign the academic enterprise.

The impact of this approach on an academic institution’s ability to address cost, quality, and access is difficult to predict. The major advantages are the infusion of capital and management expertise and the potential for dedication of ongoing profit margins to support academic activities. The disadvantages are loss of financial control and lack of assurance that the system will broaden access significantly or guarantee referral patterns. Merger with or acquisition by a for-profit organization may force efficiencies that will improve costs, but quality may suffer in the process. Access to diverse patient populations depends on success in the market as well as on specific contracting strategies. A strategy to regionalize specialty care may support hospital-based education programs but do little for primary care education, whereas a strategy to avoid adverse selection may leave cash in the bank but few patients to care for and train with. Addressing these issues when the merger is being designed may prevent them from being problems or at least can allow for early detection and remediation.

Development of Contracting Entities: University of Utah

The University of Utah is a public institution, owned and controlled by the state. The University’s AHC consists of schools of medicine, nursing, pharmacy, and health, and multiple university-owned facilities including the University Hospital and Clinics and the University Neuropsychiatric Institute. The medical school enrolls 100 students annually and employs ~510 residents. The center is isolated geographically, with the closest AHC being > 400 miles away.

The medical school and its departments are affiliated with several non-University facilities, including the Veteran’s Administration Medical Center, housing >20% of the residents and numerous medical student clerkships, and the Primary Children’s Medical Center (the only tertiary care children’s facility in a 400-mile radius), where virtually all inpatient pediatric training occurs. LDS Hospital also provides training sites for University house staff. Primary Children’s Medical Center and LDS Hospital are owned and operated by Intermountain Health Care (IHC), a regional, not-for-profit integrated managed care corporation.

The Utah health care market is highly penetrated by managed care, with >85% of the population enrolled in insurance plans that restrict access and services. The region also is known for its healthy population, and Medicare and Medicaid per capita costs are among the lowest in the country. Because the market is already highly consolidated, potential changes in ownership of facilities or organization of physicians have resulted in intense antitrust scrutiny by the Department of Justice.

Under these circumstances, the University has been very cautious in pursuing relationships with community entities as it looks for opportunities to enhance access and strengthen referral relationships. In 1994, the medical school formed the Faculty Practice Organization to provide leadership and manage contractual relationships for the faculty’s clinical activities. Insurers contracting for the services of only some University specialists are not offered terms as favorable as those to insurers who contract for the entire faculty. All faculty contract through the Faculty Practice Organization, the only exception being subspecialty pediatric faculty, who may contract independently with insurers because of an existing consent decree with the Department of Justice.

The pediatric faculty (those in the Department of Pediatrics and other departments such as surgery, pathology, orthopedics, etc) comprise nearly 100% of the region’s practicing physicians in most pediatric subspecialties. The owners of the two facilities in which the pediatric faculty practice, University Hospital and Primary Children’s Medical Center, are major competitors in the adult care market and operate the only adult tertiary care facilities in the region. To enable the faculty and the children’s hospital to collaborate in ways that would allow joint contracting and risk-sharing and to enhance ongoing support for academic activities, the University and
Children’s hospitals confront other dilemmas. Independent children’s hospitals labor under a significant competitive disadvantage, compared with adult facilities and hospitals that offer pediatric care as only a portion of their business. Larger, more diverse institutions can realize significant economies of scale and have more flexibility in supporting important, but underfunded, services. In addition, full-service providers have distinct advantages when seeking contracts from payers with their ability to offer a single contract for a full range of services for all age groups.

Unique Problems Confronted by Pediatric Programs

Pediatric departments generally are organized either as departments within medical schools or as independent departments associated with freestanding children’s hospitals. Both configurations pose challenges as those departments try to fulfill their academic and health care missions in a restructured health care system.

As managed care penetrates the market further, academic centers will, to varying degrees, evolve to caring for, and contracting to care for, populations. The number of covered lives needed to support pediatric education and research and to maintain the expertise of subspecialists is far greater than that for other medical specialties. Because of the relatively low incidence and prevalence of most pediatric diseases and conditions, between 500,000 and 1 million pediatric lives (1.5 to 5 million total covered lives depending on the proportion of children in the population) would be necessary in a capitated system to support some of the subspecialty services required for residency training programs (Figure). This is a much larger population base than other medical school departments require. To ensure an adequate referred population to support its specialty services and training programs, pediatric departments must be free to seek and maintain a greater variety and larger number of relationships with insurers than is needed for the larger, school-wide practice organization.

Children’s hospitals confront other dilemmas. Independent children’s hospitals labor under a significant competitive disadvantage, compared with adult facilities and hospitals that offer pediatric care as only a portion of their business. Larger, more diverse institutions can realize significant economies of scale and have more flexibility in supporting important, but underfunded, services. In addition, full-service providers have distinct advantages when seeking contracts from payers with their ability to offer a single contract for a full range of services for all age groups.
The payer- and case mix of patients at children’s hospitals and AHC in general presents additional challenges to their price competitiveness and fiscal stability. Most academic pediatric departments provide significant amounts of care to indigent or inadequately insured patients, providing a safety net likely to be increasingly used with the advent of welfare reform. In addition, the acuity/severity of their patients’ conditions generally is higher than that in full-service, nonacademic facilities. The consequent relatively high average charge per admission contributes to payers’ perceptions that academic pediatric centers are too expensive. The greater resource utilization by these patients, often without proportionately greater reimbursement, translates into more uncompensated care. Increasing charges for all services to cover these losses adds substance to the apparent price differential between community hospitals and academic pediatric programs. Providing the full range of pediatric care, necessary for pediatric education as well as for maintaining fiscal margins, will be increasingly difficult as MCOs steer paying patients and those with common, less complex conditions to less costly facilities. In the absence of an effective strategic response by pediatric programs and their affiliated facilities, the resulting spiral of increasing costs per patient and decreasing census could be disastrous.

**CONCLUSIONS**

The range of organizational approaches to the challenges of managed care reflect the diversity of academic institutions. Each AHC must assess its strengths, weaknesses, and opportunities, as well as current and potential threats. AHCs’ success will depend on their ability to embrace a more inclusive value system, adding some of the service-related values of MCOs, while remaining constant to their several missions. Additional key factors for success in pediatric education will be strong leadership, firm commitment to the health and well-being of children, the ability to envision and develop organizations that can support the mission, and the courage to endure the hardships of change.

AHCs should not bear the entire burden of adapting to the market and ensuring the continuance of outstanding medical education and research and access to high-quality care for all segments of the population. As AHCs work with MCOs, legislatures, and communities, they should help them understand
their visions of the future and the importance of the missions they serve. By supporting and collaborating with AHCs, communities and MCOs can help ensure the availability of high-quality health professionals and medical care for this and subsequent generations.

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COMMENTARY

Organizational Responses to Managed Care: Issues for Academic Health Centers and Implications for Pediatric Programs, by Norlin and Osborn

The article by Norlin and Osborn provides a nice overview of the problems academic health centers face today as they try to respond to the sea change towards managed care. The missions of academic medical centers to teach and provide service to the underserved are very clearly threatened by managed care. Norlin and Osborn provide us with examples of how four different academic health centers have met the challenge of managed care with varying degrees of success.

I was disturbed, however, by what the article left unsaid. The authors focus mostly on how faculty practice plans can maintain solvency and preserve faculty and salaries. Details about how medical education, particularly pediatric primary care education, can not only survive but can thrive in a managed care environment are few. How can we convince community physicians to accept continuity clinic residents into their practices when these physicians are now part of a for-profit megacorporation? How do we maintain a substantial enough volume of patients in the traditional university teaching sites to satisfy the educational needs of our students and residents? How do we integrate the at times divergent needs of private children’s hospitals and the university departments of pediatrics in which they are housed?

Within the confines of MCOs, we also must confront the increasing pressures on us to practice medicine according to guidelines that often are dictated by others and rarely based on evidence. We have, of course, done this to ourselves by allowing the Columbia/HCAAs of American medicine to decide what is quality and what is cost-effective care. We have abrogated our scientific base by not practicing evidence-based medicine and telling the corporations, insurance companies, and hospitals what is effective care. Academic health centers must awaken and regain the leadership in defining what kind of care physicians should practice.

The authors also have chosen not to discuss the other leg of the academic stool—the generation of new knowledge through research. In the very beginning of their article, Norlin and Osborn state that the success of academic health centers has been fueled primarily from clinical dollars. Yet, the majority of our academic health centers have built their empires to a very large degree on National Institutes of Health grants and other federal and private research funds. A few MCOs, such as Group Health Cooperative of Puget Sound, Harvard Pilgrim Health Care, and Kaiser Permanente, have considered research to be a critical part of their mission and have been leaders in health care

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research. These organizations stand out by the fact that so few of the new additions to the managed care field consider research to be an activity worthy of support. The well-known mantra heard in medical school halls that the faculty have less time for research because they are attending in satellite clinics all over the region is true and has important implications for the future of academic health centers and medicine in the United States.

In the end, we must be careful that the solutions we find for academic health centers help them survive, but not at the expense of threatening their commitment to their *raison d’etre*: care of patients, particularly the poor, education of health care providers, and the generation of new knowledge. As said in the Bible, “What does it profit a man to gain the whole world, but lose his soul?”

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