

Future Directions for Academic Practice Plans: Thoughts on Organization and Management from Johns Hopkins University and the University of Pennsylvania

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ABSTRACT

Academic practice plans have been challenged in recent years by increasing pressures for productivity and financial performance. Most practice plans began as relatively loose affiliations among the clinical departments associated with their respective medical schools, and such approaches were adequate in an earlier era. However, this model is not well suited to deal with the current and future challenges that face the practice plans, hospitals, and medical schools that comprise our academic medical centers. The current clinical, financial, and regulatory environment requires highly effective business management, a shared commitment to common goals, and meticulous attention to regulatory compliance. In turn, the organizational structures, daily management, and overall governance of academic practice plans must be revised to address these new expectations. The business, clinical, and academic performance of the individual practices must be aligned to meet the diverse, and

sometimes conflicting, needs of the academic health center. Both Johns Hopkins Medicine and the University of Pennsylvania (Penn Medicine) have been addressing these issues independently, but their approaches share many common principles. Among others, these principles include (a) organizational alignment, (b) strong practice plan business management, (c) shared resources and strategies, (d) accountability for performance in each practice based on credible data generated by the practice plan, (e) uniform audit and compliance standards, and (f) application of market strategy principles to assure the right mix of primary and specialist physicians, and appropriate incentive-based compensation for physicians. The application of these approaches at two academic health centers, and the rationale for these approaches, are discussed in detail.

Acad Med. 2003;78:1130–1143.

The financial and business challenges that confront academic health systems and academic practice plans have increased dramatically in recent years. When the generous increases in physician earnings came to an end in the 1990s, academic practice plans

struggled to maintain their dual commitments to competitive compensation for faculty and continued support for high-quality medical education and research. Between 1997 and 1998, average faculty compensation increased approximately 12–14%, but more recently growth in faculty compensation has slowed dramatically. Since 1999, faculty compensation has increased on average only 2–4% percent per year,^{1–3} a clear indication of the financial difficulties many practice plans are now facing. The erosion of retained earnings in the practices has affected their parent organizations as well because clinical funds provide a large component of the support required to operate their associated medical schools.

In much of the 1990s, providers focused on growing market share, often through mergers and acquisitions, in preparation for a full-risk managed care strategy, while payors and employers focused on expense reductions. The resultant pressures left many practice plans with a legacy of unfavor-

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able payor contracts; costly commitments to faculty recruitment, retention, and clinical program development; increased numbers of clinical-track faculty; decreased hospital, school, or university support; unwieldy billing organizations; and inadequate information systems. Unfortunately, the financial pressures have continued to intensify in the new millennium. Notable examples include:

- The economic recession of the early 2000s has eroded the financial health of all components of the academic medical center (AMC)—universities, medical schools, teaching hospitals, and faculty practice plans.
- The federal government continues to restrict Medicare payments to both teaching hospitals and physicians and further cuts in its physician fee schedules are anticipated. These decreases affect both Medicare and non-Medicare payments because the Medicare fee schedule is often considered the benchmark for negotiating physician fee schedules with other third-party payors.
- Employers and the insurance industry are again decrying the high cost of health care, citing the return of double-digit health care inflation as justification for constraints in payment rates and coverages.
- Malpractice costs have continued to escalate, with alarming increases in the past three years.
- Compliance costs have increased sharply. Federal and other regulations have become markedly more complex and voluminous in recent years, leading to increased operating costs in several spheres. Compliance with regulations for privacy, faculty supervision of residents, and the conduct of research involving human subjects has become paramount in the wake of several recent, highly publicized events at AMCs.
- Other costs, such as those for scarce personnel (e.g., midlevel practitioners), have continued to escalate at rates that exceed inflation.
- Some AMCs are experiencing difficulty attracting faculty in certain specialties because of the growing disparity between academic compensation and that which can be earned in private practice.

In addition, other health care expenses have risen. New clinical technology, information technology (IT) (e.g., electronic medical records), pharmaceuticals and biologicals, and patient safety requirements continue to improve health care, but at a cost. The advances, combined with the other factors described above, have strained the ability of practice plans to meet patient, faculty, institutional, and governmental demands.

Clearly, there is no shortage of issues confronting faculty practice plans. Creative and effective strategic, operating, and financial decisions are required to address these chal-

lenges. This article shares the recent experiences of two large, complex academic practice plan organizations that endeavored to address these issues and enumerates several key strategies that appear to be guiding principles for the future success of academic practice plans. We hope others will benefit from the lessons learned at Johns Hopkins University and the University of Pennsylvania and perhaps glean useful ideas for their own organizations. Although both Johns Hopkins Medicine and Penn Medicine are large, urban, research oriented academic medical centers, the principles of practice management should be applicable to other AMCs as well. (The scale may vary due to size or focus, but the issues are common among both research intensive and clinically focused AMCs.)

First, we present a brief historical overview of faculty practice plans and suggest how market factors have shaped these organizations. Then, we describe a series of key principles for future effective practice plan design and management. These principles have been developed jointly by faculty practice plan physician leaders and administrators from the Clinical Practice Association (CPA) at Johns Hopkins University and the Clinical Practices of the University of Pennsylvania (CPUP) based on recent experiences within their organizations.

HISTORICAL OVERVIEW OF FACULTY PRACTICE PLANS

Historically, many medical schools formed loose affiliations with clinical faculty to meet the educational needs of both students and trainees, often through the provision of unreimbursed care to the poor and elderly in their associated hospitals. Until the mid-1960s, the faculty's patient care services for these populations went unreimbursed. However, in 1965, when Medicare and Medicaid were established, the clinical earnings of academic faculty grew significantly. Specifically, the 1965 legislation that established the Medicare and Medicaid programs provided the opportunity for faculty to bill federal and state governments for their professional services to the elderly and the poor. In response, faculty practice plans were developed to provide billing and collections services to manage this new stream of revenue.^{4,5} Soon, schools of medicine and individual clinical departments expanded their clinical services to insured patients, and over time came to rely heavily on clinical earnings to subsidize their teaching and research missions. Concurrently, as clinical activity grew in teaching hospitals, they depended more heavily on clinical faculty. Academic physicians became highly sought after (and better compensated) for their specialized skills in treating the sickest patients.

In the early 1990s, managed care in its various forms began to dominate many health care markets. In reaction to the

anticipated transition to “full-risk” managed care, as fueled by the Clinton administration’s health care reform initiatives, new philosophies emerged regarding the mix of specialists and primary care physicians needed to transform AMCs into integrated delivery systems⁶ to maintain market share and assure continued access to clinical revenues and patients for teaching purposes. The full-risk model anticipated that a limited number of full-service provider organizations would dominate each market and that employers and governmental agencies would contract with these providers for health care. In this model, primary care physicians would be both care coordinators and gatekeepers controlling the flow of patients to specialists. They were viewed as critical to building market share and providing a referral network for the specialist-dominated AMC’s faculty.

The “integrated delivery system,” which would provide the full range of patient care services, became a widely accepted organizational model of choice. In response, many AMCs embarked upon aggressive strategies to build primary care capacity by acquiring community-based primary care practices or establishing cadres of primary care–focused faculty. In addition, in order to provide the inpatient capacity for the expected increase in patients flowing to the AMC from these strategies, many AMCs also acquired community hospitals. The objectives were to capture market share and enhance managed care negotiating positions. However, the expected dominance of full-risk managed care plans (and hence, of the AMC-led integrated delivery system) was never fully realized. During the past five years, the substantial costs of building and operating these complex integrated delivery systems, significant constraints on hospital and physician reimbursement, and escalating costs, among other factors, have created substantial financial pressures at AMCs. In response, many faculty practice plan organizations have re-examined their strategies, organizational designs, and management approaches.

TWO FACULTY PRACTICE PLAN ORGANIZATIONS RESPOND TO DIFFICULT REALITIES

Selected organizational, operational, and financial information for the faculty practice plans of Baltimore’s Johns Hopkins University (CPA) and Philadelphia’s University of Pennsylvania (CPUP) is presented in Table 1. Organizational charts for governance and management, respectively, are presented in Figures 1 and 2. In recent years, both CPA and CPUP have reorganized in response to changes within their internal and external environments and have undergone significant changes in their governance, administrative structures, and organizational philosophies and principles. Whereas the underlying reasons for these changes were

influenced by local and national factors, the principles that have emerged regarding effective practice plan organization and management are strikingly similar. For example, although the titles of various governance groups and management positions differ (see Figures 1 and 2), the structural and functional approaches of the two practice plans have much in common.

The following sections describe some of the institutional, organizational, and market-specific issues that have confronted CPA and CPUP over the past several years and the actions each has taken in the face of these challenges.

The Clinical Practice Association of Johns Hopkins University

Until 1996, CPA was mainly a billing and collections organization for the Johns Hopkins University School of Medicine (JHUSOM) and was not performing this role effectively in the view of the faculty. Moreover, they felt the CPA was not facilitating the development and implementation of new market strategies, providing practice management tools and information, or creating sound models for faculty compensation and clinical service delivery. In the mid-1990s, a group of faculty leaders initiated planning for a new practice plan organization that would include a small governing board and an executive management group, comprising experienced business managers who would have meaningful authority and responsibility for supporting and developing faculty clinical activities. In July 1997, new bylaws were adopted for CPA that define the practice plan’s organization as it is today. Included in the bylaws were 15 key objectives to guide the operations of CPA (see List 1). In its new form, CPA remains a component of JHUSOM and is not a separate legal entity.

CPA’s new management successfully restructured the billing and collections processes and achieved excellent results (e.g., days in accounts receivable were reduced from 107 to a current low of 52). These accomplishments gained the confidence of the faculty physicians and allowed the management team to focus on other key issues such as implementation of more effective contracting, presentation of reliable financial information, increased attention to regulatory compliance, refinement of a strategic plan, and development of a sophisticated budgeting methodology.

Concurrently, the trustees of Johns Hopkins University, the parent of JHUSOM, and the trustees of the Johns Hopkins Health System (JHHS), a separate legal entity, sought to resolve the long-standing tensions between their respective organizations that had resulted in a lack of management coordination. The solution was the development of Johns Hopkins Medicine (JHM) to provide a framework for facilitating stronger organizational and operational collabora-

Table 1

Characteristic	Plan	
	Johns Hopkins University Clinical Practice Association (CPA)	Clinical Practices of the University of Pennsylvania (CPUP)
No. of faculty	~1,500	~1,300
No. of clinical departments	18	18
Major practice sites	Johns Hopkins Hospital Johns Hopkins Outpatient Center Bayview Medical Center Physician satellite offices White Marsh Green Spring Station	Hospital of the University of Pennsylvania Presbyterian Hospital Pennsylvania Hospital Radnor Multispecialty Clinic Physician offices (satellites, clinical care associates)
Annual clinical net revenue*	\$268 million	\$277 million
Adjusted collection percentage†	89.1%	87.1%
Annual clinical net revenue growth rate	5–7%	4–5%
Payor mix		
Commercial	4%	4%
Medicare	27%	21%
Medicaid	11%	4%
Managed care	33%	43%‡
Self-pay	9%	4%
Blue Shield	16%	24%
Total	100%	100%

*Net collections plus clinical contract revenue.
 †Percentage of clinical net revenue collected after accounting for bad debts and unresolved payor denials.
 ‡Less than 5% is risk based; of this, 2% are Medicare/Medicaid risk contracts.

ration. JHM is not a separate legal entity but rather an administrative body that consists of a joint university/health system governing board and a single leader. This single leader, the dean of JHU school of medicine and chief executive officer (CEO) of JHM, has overall administrative responsibility for both the medical school and CPA and for the health system as a whole. Thus, JHM is an umbrella organization that enables its components to function like a single-entity AMC without actually revising the organizational and legal structure of its components. The current dean of JHUSOM/CEO of JHM attributes much of the success of CPA to this organizational model because it has facilitated the alignment of the objectives of JHUSOM-CPA, JHHS, the clinical departments, and individual physicians. Another key to CPA's recent success has been its organizational philosophy. CPA provides effective governance and managerial coordination but also fosters and accommodates independence and entrepreneurship on the part of the JHUSOM faculty, where appropriate. The prac-

tice plan creates significant control and accountability at the departmental level, yet it provides a high degree of administrative discipline, support, financial management, and strategic direction. Specifically, the Board of Governors determines the overall goals of the practice, promulgates policy, establishes performance and budgetary targets, and holds the departments accountable, but the practices retain flexibility for implementing the internal changes necessary to achieve the expected results.

In 1998, as part of its strategy to increase market share and improve patient access, JHHS purchased Howard County Hospital, a 187-bed community hospital located between Baltimore and Washington, D.C. Recently, the Johns Hopkins Bayview Physicians, a separate 501(c)(3) multispecialty group practice, merged with CPA. Prior to this merger, the Bayview physician organization was experiencing financial distress. However, as a result of administrative and operational improvements led by the CPA management team, a major financial turnaround was achieved in less than 18

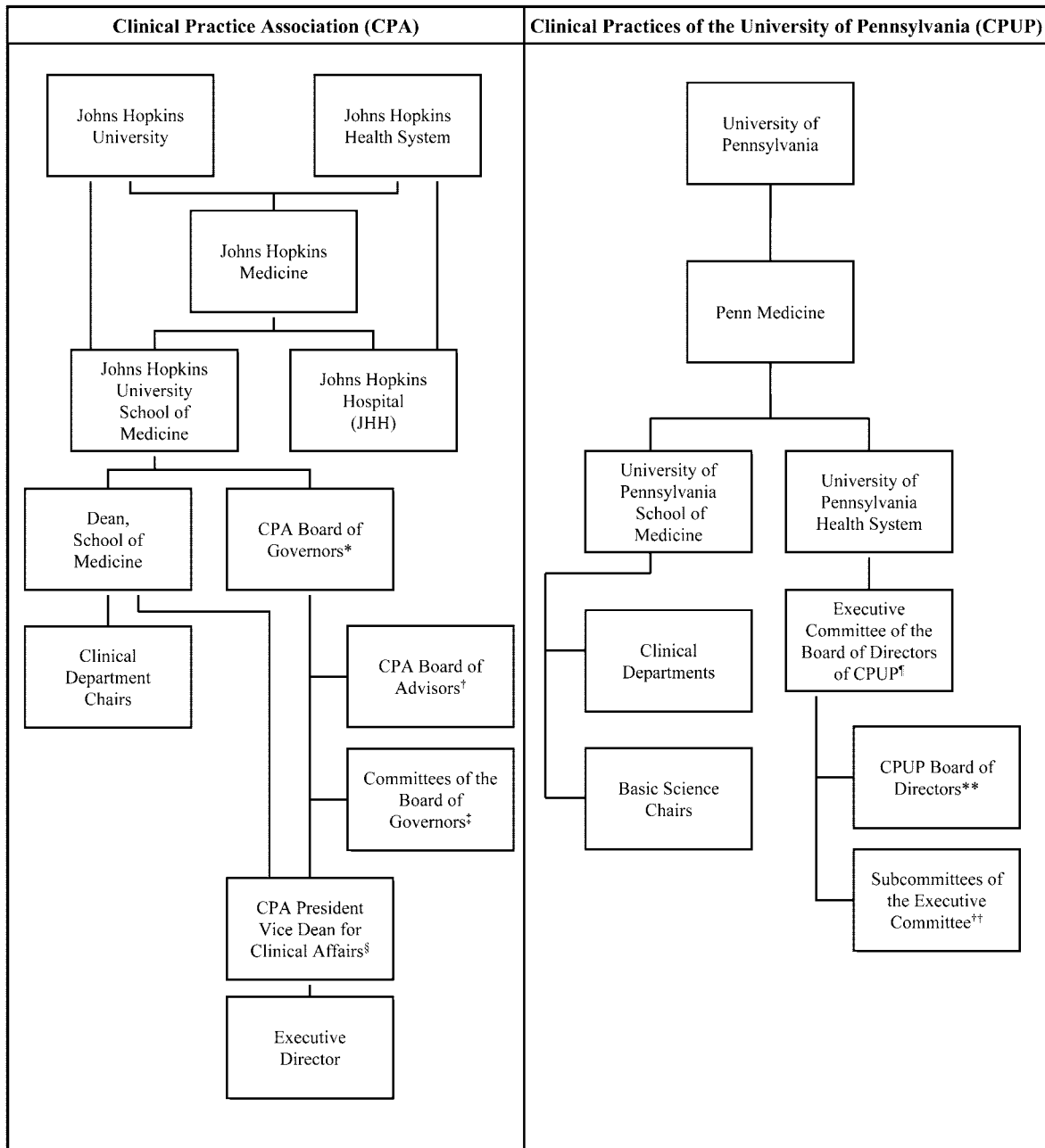


Figure 1. Organizational chart for governance of Johns Hopkins University Clinical Practice Association (CPA) and Clinical Practices of the University of Pennsylvania (CPUP). *Membership includes the dean of JHUSOM (chair), vice dean for Clinical Affairs (also president of CPA), president of Johns Hopkins Bayview Physicians, six governors selected from among the directors of the departments, three CPA members who are not department directors (elected from and by the faculty), one director from the Basic Science Department of JHUSOM, and the executive director of CPA (without voting rights). †Membership includes the dean of JHUSOM (chair), vice dean for Clinical Affairs, president and CEO of JHHS, dean of the School of Nursing, dean of the School of Public Health and Hygiene, director of each clinical department in JHUSOM, chair of Johns Hopkins Health Care, and president of Johns Hopkins Medical Services Corporation. ‡Budget/Finance/Planning, Contracting, Operational Oversight, and Government Affairs and Compliance Committees. (Note: Compensation is managed by the clinical chairs.) §Acts as vice chair of the Board of Governors. Appointed by the dean; approved by the Board of Governors. ¶Membership includes vice dean, Professional Services (chair), eight clinical chairs on 2-year revolving appointments, and CPUP executive director. **Membership includes vice dean, Professional Services (chair), all clinical department chairs, two division chiefs, and CPUP executive director. ††Finance, Compensation, Clinical Effectiveness and Quality Improvement, Strategic Planning, Clinical Research and Education, Professional Liability, Contracting, Billing Oversight, and Multispecialty Clinic Oversight Committees. (Note: Compliance is managed at the SOM, UPHS, and university levels.)

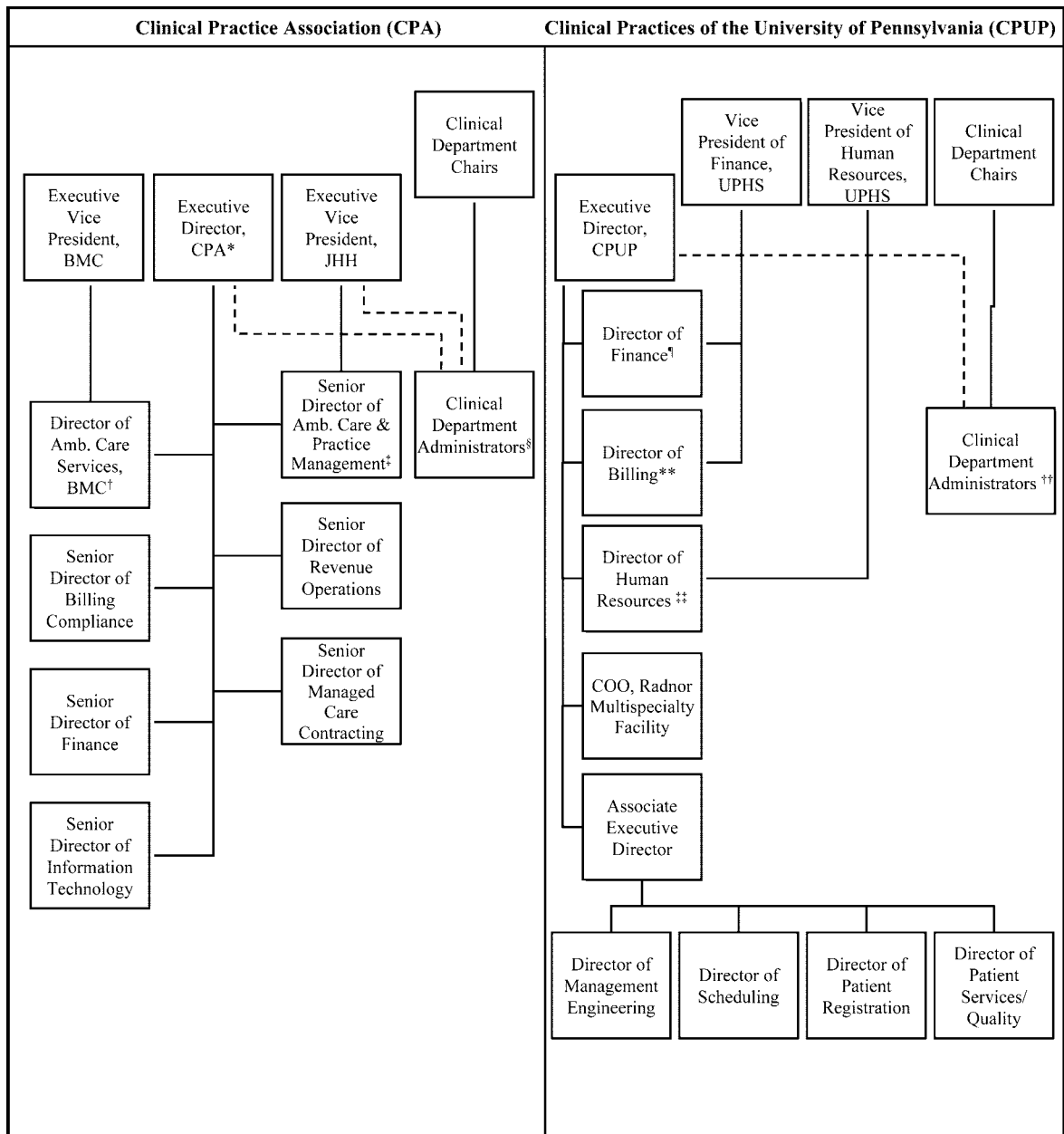


Figure 2. Organizational chart for management of Johns Hopkins University Clinical Practice Association (CPA) and Clinical Practices of the University of Pennsylvania (CPUP). *The Clinical Department Administrators are accountable to the Executive Director for clinical practice activity. [†]Dual report to executive vice president of JHH. [‡]Dual report to executive vice president, BMC. [§]Indirect report to executive director of CPA for clinical practice activity and CFO of Johns Hopkins Medicine; direct report to clinical department chairs for all activities. [†]Dual report to vice president of Finance, UPHS. ^{**}Billing and collections functions are managed by the UPHS. Dual report to vice president of Finance, UPHS. ^{††}Indirect report to executive director of CPUP for clinical practice activity; direct report to clinical department chairs for all activities. ^{‡‡}Dual report to vice president of Human Resources, UPHS.

months, resulting in a \$5.3 million improvement in the practice's financial performance. The addition of the Bayview Medical Center (BMC) campus, and the merger of its

physicians with CPA, significantly expanded the market reach of JHM and CPA by providing a major new clinical setting for faculty practices.

List 1

Fifteen Key Objectives to Guide Operations of Johns Hopkins University Clinical Practice Association from the 1997 Bylaws

1. Attract the patient base necessary to sustain clinical and academic programs by providing high-quality, innovative patient care in a patient-sensitive and service-oriented environment.
2. Improve organizational effectiveness and foster medically appropriate referrals within the clinical practices.
3. Enhance relationships with community physicians in order to ensure referrals, and also foster referrals at the regional, national, and international levels.
4. Foster strong financial performance of the school's clinical practice and of departments within the School of Medicine (the "departments"), which will:
 - a. Ensure the competitive compensation for clinical efforts necessary for recruitment and retention of high-quality faculty, fellows, residents, students, and staff.
 - b. Ensure the availability of funds to support the educational and research missions of the School of Medicine (SOM).
 - c. Provide capital resources to finance the clinical practice growth and new clinical initiatives of the SOM, all in conjunction with Johns Hopkins Medicine (JHM).
5. Recommend to the dean the allocation of managed care contracts, and manage and allocate the financial risks associated with managed care contracts and the changing health care marketplace, all in conjunction with Johns Hopkins HealthCare LLC (JHHC).
6. Align within JHM, individual, department, clinical practice, and institutional objectives to foster academic contribution, clinical productivity, and financial performance.
7. Develop and recommend to the dean compensation arrangements that recognize and reward clinical, academic, and organizational contributions.
8. Serve as the clinical voice for the faculty within JHM and in dealing with others, including effective coordination of patient care activities within JHM and with JHHC as part of developing an integrated delivery system.
9. Encourage physicians who trained at the SOM to maintain clinical affiliations with JHM and establish relationships with JHM for patient care.
10. Fully integrate the clinical practices within the SOM in order to function as a multispecialty group practice.
11. Protect and expand the CPA's market share by developing innovative, market-sensitive, interdisciplinary practice units that are responsive to the needs of patients and referring physicians.
12. Continue the historic mission of the SOM and The Johns Hopkins Hospital (JHH) to improve the health of the local community and provide access to high-quality health care for members of that community.
13. Maintain the SOM and JHH as a regional, national, and international resource for high-quality, innovative, and valuable patient care.
14. In coordination with the strategic vision of JHM, which the CPA will help shape, foster departmental and schoolwide entrepreneurial initiatives that may influence the future direction of the SOM's clinical practice.
15. In coordination with JHM and its affiliated entities, integrate JHM physicians, physicians associated with Johns Hopkins Bayview Physicians, P.A., and all other Hopkins physicians (other than part-time faculty) together with related clinical services into a coordinated practice that recognizes the need for:
 - a. Contracting
 - b. Information systems
 - c. Management infrastructures
 - d. Sophisticated management

The Clinical Practices of the University of Pennsylvania

CPUP is the faculty practice plan for the clinical departments of the University of Pennsylvania School of Medicine. Like JHM, the University of Pennsylvania Health System (UPHS), school of medicine, and clinical practices are aligned under a single administrative leader, the dean/executive vice president who heads Penn Medicine. Originally an organizational component of the school of medicine, CPUP now resides organizationally within the UPHS, the clinical delivery organization within the University of Pennsylvania. During the 1990s, UPHS pursued a strategy to protect and expand its market share in the face of increasingly aggressive health care competition in the highly competitive Philadelphia marketplace. Two other local AMCs had embarked on aggressive physician practice and hospital acquisition strategies intended to achieve significant consolidation of market share in the Delaware Valley. In response, UPHS took several actions, including:

- Acquiring a significant number of community-based primary care practices (approximately 90 practices and 310 physicians). These practices were established, and continue to be separate from CPUP, under an organizational component of UPHS called Clinical Care Associates.
- Acquiring the Presbyterian Medical Center (a 344-bed urban acute care hospital).
- Acquiring and renovating a suburban office complex to create Penn Medicine at Radnor, a large multispecialty clinic in a key market area staffed by CPUP physicians.
- Acquiring Pennsylvania Hospital (a 534-bed urban acute care hospital).
- Acquiring Phoenixville Hospital (a 127-bed suburban acute care hospital).

These strategies built market share but did not necessarily result in financial success because the expected move to full-risk managed care contracts failed to materialize. For this and other reasons, by the late 1990s, the financial perfor-

List 2

Twenty Key Principles and Objectives for the Reorganization of Clinical Practices of the University of Pennsylvania (CPUP)

1. Benchmark nonfaculty staffing standards throughout CPUP and maintain a position control system to ensure compliance.
2. Benchmark standards for space utilization and cost per unit of activity for all practices.
3. Establish consistent nonfaculty salary and benefits throughout the practices and, if possible, a common payroll.
4. Allow for flexible use of nonfaculty staff among clinics.
5. Facilitate efficient use of physical facilities, a procedure for common space planning, and development of a master space plan.
6. Increase the overall revenue of the clinical practices.
7. Develop a common strategy for information systems, including an electronic medical record.
8. Implement a central accounts payable and chart of accounts for all practices.
9. Develop a coordinated system for funds administration and a central fund balance account, to be governed by the CPUP Executive Committee for the overall good of the practices.
10. Implement budget review, approval, and variance reporting by the CPUP Executive Committee and its executive director.
11. Implement policies and benchmarks that govern the use of clinical resources of CPUP for support of the academic mission, including education, research, clinical research, space, and personnel.
12. Implement benchmarks for the effective performance of medical education.
13. Encourage entrepreneurship of the clinical chairs and the department's clinical practices.
14. Hold the clinical chairs accountable for the productivity of their department's clinical practices.
15. Implement a faculty compensation structure, based on productivity and common compensation principles.
16. Be consistent with UPHS operating principles, including the appropriate financial controls and levels of approval authority.
17. Provide for overall CPUP strategic planning within UPHS and Medical Center planning.
18. Facilitate the eventual development and operation of a central ambulatory practice facility on campus.
19. Foster efficient staffing and operation of off-campus satellite operations.
20. Align specific and overall success of CPUP with specific and overall success of each of the UPHS entities.

mance of UPHS had deteriorated significantly. From CPUP's perspective, the poor financial health of UPHS had several serious implications. For example, funds that were once available from UPHS to support new clinical initiatives by the faculty were severely curtailed. In 1998 and 1999, UPHS underwent two highly publicized reductions in force, and by the end of 2000, the majority of its executive management team had been replaced or downsized. In addition, the University of Pennsylvania gave serious consideration to divesting or reorganizing its health system to shield the university from the financial risk associated with the health care business. Of necessity, CPUP was under tremendous pressure to improve performance by reducing costs and improving the efficiency of the operations of its clinical departments.

In 2000, CPUP accepted a mandate for reorganization that had been developed under the direction of the CEO of UPHS/dean of the school of medicine and the chief operating officer of UPHS, with input from key executives and faculty leaders. Presented in List 2, the mandate consisted of "20 Key Principles and Objectives" that still guide CPUP's management today. To meet this mandate, CPUP significantly strengthened its infrastructure and practice management capabilities and has made substantial progress toward

achieving more effective service delivery and improved financial performance.

KEY PRINCIPLES FOR EFFECTIVE PRACTICE PLAN ORGANIZATION AND MANAGEMENT

CPA and CPUP evolved into much more effective and efficient practice management organizations as a result of substantial market upheaval and severe financial pressures. Both recognized that the former approaches were inadequate to address previous crises or future marketplace challenges. Their respective crises galvanized the thinking of both organizations, and each has emerged stronger as a result of strategic reorganization and effective execution of key initiatives. During their significant organizational and operational changes, and the financial improvement initiatives instituted at CPA and CPUP, a number of key principles for effective practice plan organization and management emerged. Despite the apparent differences in their organizations' structures and recent experiences, the faculty and executive leaders of both practice plans agree that there are common key principles for effective practice plans. These principles are discussed under the categories of organization

and governance, management and operations, and market strategy.

Organization and Governance Principles

Cohesive organizational relationship between the hospital(s) and the practice plan. At the University of Pennsylvania, the hospital/health system and the practice plan are university owned; thus, their purposes are aligned with each other and with the School of Medicine. A single leader serves as the executive vice president of the university and the dean of the medical school, which facilitates the coordination of planning, management, and alignment of CPUP objectives with those of the AMC as a whole. At Johns Hopkins University, planning and management coordination of the JHUSOM-CPA and JHHS occurs under the auspices of JHM, the joint administrative body. A single leader serves as the CEO of JHM and the dean of JHUSOM. Therefore, despite being organized as separate corporate entities, the components of the AMC are aligned to work together effectively.⁷

Clearly defined decision-making responsibilities and timely decisions. Overall, both organizations have moved away from purely departmental or federated models, to the group model⁵ with a single governing board and a central administrative structure for key business and practice functions (e.g., billing, finance, budgeting). Both CPA and CPUP have created governing boards that include all clinical chairs and other key constituents (CPA Board of Advisors and CPUP Board of Directors, respectively). However, given the need to address issues efficiently,⁸ each has also formed a smaller group or “executive committee” (see Figures 1 and 2) with the authority to make key decisions and take action for the practice plan as a whole (CPA’s Board of Governors and CPUP’s Executive Committee of the Board of Directors). The bylaws of each organization clearly define governance (board-level) responsibilities versus management responsibilities. Governance responsibilities include, for example, policy and strategy development, oversight of key aspects of performance, and budget approval. Each practice plan’s executive management team is accountable for executing the directives of the board and managing operations and finances.

Mechanism for timely review of issues by standing committees of the board; effective leadership of committee activities. Both practice plans also rely on standing committees (see Figure 1) consisting of physician leaders, clinical faculty, and administrators to review specific issues and make recommendations to the boards and their executive committees. This committee structure provides for an inclusive approach to practice plan management and enables clinical

faculty to participate in developing and reviewing recommendations to improve practice plan performance and management. Strong practice plan executive leadership that can move decisions through committees efficiently by preventing committee inaction or avoiding prolonged debates is critical to the effectiveness of this mechanism.

Top-down focus on delivery of high-quality, service-oriented, and cost-effective care. AMCs, their clinical departments, and individual physicians depend heavily on clinical earnings to achieve their goals. Yet, many faculty, faculty leaders, and practice plans have been slow to embrace and implement the process changes required to improve efficiencies, reduce costs, and enhance the quality of patient service (and thus patient satisfaction). To accomplish these goals, practice plan leadership must mandate and support the development of practice standards, new technology, and the related process and work flow changes that enhance efficiency, improve access to care, reduce medical errors, or improve patient satisfaction.

Focus on the collective financial success of the practices; shared financial information among physician leaders. Historically, in most practice plan organizations, statements of department performance were treated privately, like individual bank statements rather than components of a larger portfolio. The school of medicine or hospital was counted on to fund underperforming departments. Now, the limitations on available discretionary funds for new programs or support of existing programs require that the practices be governed for their collective success. In short, there simply are not enough school of medicine, hospital, or other discretionary funds to provide ongoing cross-subsidization of underperforming practices. At both CPA and CPUP, practice plan financial information for all departments is now shared among physician leaders and at meetings of their respective boards. In recent years, several departments have operated in deficit, affected in one way or another by the changing health care environment. By employing an approach in which physician leaders are engaged in addressing a shared challenge, rather than limiting their focus to individual department performance only, physician leaders are encouraged to provide support to one another and offer advice to their peers regarding performance improvement strategies and opportunities. Opening the “books” on practice plan finances also eliminates the mystery behind payments for billing and collections services, provision of financial support and subsidies, and so on, thus allowing physician leaders to focus their energies on the underlying financial/performance issues of the departments and the practice plan.

At the University of Pennsylvania, the CPUP’s board reviews the financial performance of each department’s clinical practice at regular intervals so the clinical leadership knows about performance across the practice plan. The

CPUP Executive Committee and its finance subcommittee set budget targets, approve detailed budgets, and oversee departmental budget performance. Practices that are not meeting budget targets are subjected to escalating levels of scrutiny and intervention by CPUP until performance improvements are achieved. Such interventions may include significant limitations on departmental autonomy in areas such as recruiting, faculty compensation, or unfunded research, until the department again meets the budget targets. Peer review by fellow chairs on CPUP's Executive Committee and its Board of Directors is an important cornerstone of this process because it provides an opportunity for sharing the "best practices" of others, and it validates the importance of achieving collective performance targets.

Similarly, at Johns Hopkins University, CPA leadership has taken great pains to ensure that the organization acts on behalf of all its members and departments. The bylaws clearly state that members of the Board of Governors must serve the interests of the entire practice, not just their department. This is subject to annual evaluation by the dean, as chair of the Board of Governors. Further, if department chairs behave parochially, they run the risk of not being reelected to the board by their colleagues.

Like the CPUP's Board of Directors, CPA's Board of Governors also utilizes a peer review system. Early on, the Board of Governors agreed that full disclosure of every department's clinical financial activity should be made, and this is done monthly, with significant departmental variances explored by the board. An active Budget, Finance, and Planning Committee addresses difficult practice-wide financial issues and reviews and approves budgets and financial performance. The board and its committees are also undertaking "best practice" initiatives to explore, and then leverage, the strengths and knowledge of successful approaches throughout the practice.

Management and Operations Principles

Establishment of a strong, professional practice-plan management team. Practice plans are complex, multimillion-dollar businesses (many involve revenues and budgets in the hundreds of millions of dollars) that must employ a highly qualified executive director and supporting management team in order to achieve success. A practice management team, composed of a skilled professional manager working collaboratively with a physician leader, appears to be a key factor in practice plan agility and effectiveness.⁸

During their recent organizational redesign and performance improvement initiatives, both CPA and CPUP developed strong management infrastructures headed by highly experienced and qualified executive directors.

Effective department chair role in practice management.

In the past, faculty often ascended to the role of department chair based on their academic (research, teaching, scholarship) accomplishments, with less consideration given to their clinical and administrative abilities. These appointees sometimes lacked the knowledge, skills, or interest to manage the clinical faculty and the clinical enterprise leading to benign neglect of the clinical practice. This is unacceptable in an era of heavy dependence on clinical earnings and strong interdependence among clinical disciplines for the management of complex medical problems. To be successful, department chairs need a broad set of skills that meet the multiple expectations of the dean, the health system's CEO, and the departmental faculty. These skills include: (a) the personal traits and abilities to lead change; (b) a balanced view towards the missions of research, education, clinical care and financial performance; and (c) a commitment to the overall success of the institution, rather than a department focus only.⁹ At CPA and CPUP, new department chairs are selected for their constellation of academic, administrative, and management skills. Clinical chairs must be supported by experienced business and operations managers (departmental business administrators). Further, the practice plan executive leadership plays a key role in assuring that each department chair is fully engaged in the management of the clinical practice and assisting the chair when changes in care delivery, management, and financial performance are required. The effectiveness of practice plan leadership is enhanced significantly by the chairs' peer review process described in the discussion of governance and by including clinical performance in the dean's performance review process.

Provision of credible information and effective practice management tools/reports to faculty. When data are not available or credible, meetings with faculty chairs and department administration typically degenerate into arguments over the information rather than productive discussions focused on operating and financial performance. Until data issues are resolved to the departments' satisfaction, it is difficult, if not impossible, for the practice plan to effectively address practice performance or implement difficult strategic initiatives aimed at revising the size of the faculty, the deployment of clinical faculty, or enhancing faculty productivity.

At CPA, the development of standard data formats and a regular reporting schedule greatly improved both understanding and confidence in the data. In addition, it resulted in more aggressive management by faculty leaders because they gained confidence in the accuracy of the information presented.

Like CPA, CPUP uses standardized reporting of financial, operating, and service data. Further, it recently adopted the financial system that is used throughout the health system,

thus allowing much better understanding of the costs and revenues associated with an episode of care and providing common databases and decision-support software that assist leadership in clinical and business decision making.

Effective professional fee billing performance. CPUP and CPA have adopted different strategies for enhancing professional fee billing performance, yet their objectives are quite similar. Both recognize that it is difficult to engage clinical departments in meaningful discussions about changing faculty behavior and the need for improving financial performance if the billing function is not resulting in maximum payments for clinical services rendered. In 1995, CPA restructured its billing operations, moving from a wholly decentralized billing model to a partially centralized model. The new model created much discontent among the faculty, however, because lines of accountability were no longer clear and faculty in clinical departments perceived billing personnel to be lacking specialty-specific billing knowledge and skills. CPA management dedicated significant time and energy to resolving the faculty's concerns and, in the process, concluded that a number of billing and collections responsibilities should be returned to the departments under a management model whereby department chairs and administrators were accountable to the practice plan for billing performance. This change has significantly improved the faculty's perception of the billing function.

At UPHS, the billing functions had been largely centralized prior to the reorganization of CPUP. This initiative began in the early 1990s but was accelerated by the Office of the Inspector General, which required that it be completed as part of a Physicians at Teaching Hospitals audit settlement in 1995. Many faculty expressed dissatisfaction with the centralized UPHS billing operations initially because of real or perceived problems that occurred after the centralization. Subsequently, a more hybrid approach was implemented, with many front-end activities and limited accounts receivable follow-up residing in the departments. As in CPA, clear accountabilities and performance targets are defined for each participant and each process in the revenue cycle. Currently, CPUP is implementing new information systems within the clinical departments and the billing office to further improve performance.

Equitable and predictable funds flow: flexible compensation model. Appropriate compensation of faculty for clinical activity is a critical component of the AMC's faculty recruitment and retention strategy, the most sensitive and politically charged issue that practice plans face. However, in some AMCs, compensation is still entirely controlled by department chairs, sometimes with limited linkages to the practice plan's financial performance. Because it amounts to the largest cost within the practice plan by far, the ability to define compensation principles and manage the compensa-

tion process uniformly, in partnership with department chairs and the dean, is essential. A compensation model must be equitable but relatively simple so that faculty can relate to and understand the methodology behind funds distribution and modify their behaviors to achieve greater rewards under the compensation plan. It must also be variable enough to reward faculty performance and avoid ongoing support of underperforming faculty.

At JHUSOM, compensation is handled within the departments but with significant input from the dean, who is intimately involved in reviewing faculty practice financial performance. A particularly interesting aspect of tenured faculty compensation is that there is some downward flexibility in compensation. University policy permits any salary at Johns Hopkins University to be reduced by 20% per year based on performance. This policy gives latitude to the dean and the department chairs to significantly reduce salary expenses attributable to clinically (or academically) unproductive faculty.

Department chairs at the University of Pennsylvania also have significant discretion over compensation, but guidelines for all practices are established by CPUP and annual compensation is set during the annual budgeting process. An initiative is under way (see List 2) to revise the compensation arrangements for CPUP faculty to provide for a more effective, performance-based system that will still be department driven and administered but that will be reviewed and approved by the CPUP Executive Committee for accordance with established guidelines. In addition, the school of medicine and health system's leadership are currently developing performance standards for department chairs to ensure that clinical practice, education, and research receive appropriate priority.

Although the processes of adjusting faculty compensation and faculty size are difficult and painful, they are the essence of the challenge facing many medical schools and their practice plans today. Without the ability to influence its most important cost and revenue drivers, a practice plan is severely constrained and will not be able to tailor its cost structure to match available revenue.

A rigorous and coordinated business planning approach to justify funding new program development and ongoing program support. As turnover occurs among department chairs and key program leaders, both JHM and Penn Medicine seek new physician leaders who tend to be program builders. Although funds for investing in new programs are limited, both institutions recognize that it would be counterproductive to restrict the talents of these new leaders by prohibiting investments in key new programs. Instead, stricter requirements have been imposed for access to institutional funds. A rigorous business planning approach is required to justify institutional investment in any program.

At both organizations, the business planning process is a coordinated effort involving the school of medicine, the hospital(s), and the practice plan, to assure that the academic, clinical, and financial goals each receive adequate consideration in the decision-making process and that new investments are aligned with the broader institutional strategic plan. Overall financial performance, rather than performance in a single area (e.g., practice or hospital), is emphasized in the financial evaluation. Ongoing performance review, with special attention to clinical activity targets and financial performance versus budget, is a prerequisite for continuing support. Together, these processes lead to greater “buy in” from those entities that provide support, and greater focus on performance among those who receive this support.

Focus on compliance. Both CPA and CPUP view a robust, independent compliance office as essential because the regulations are extremely complex and institutions are at significant risk for compliance lapses. Therefore, investing in compliance staff and ensuring that they are well educated and provided with a meaningful oversight role is critical to safeguarding both institutional and practice plan success. Avoiding the emergence of billing compliance issues is a particularly critical goal for the practice plan’s management.

At CPA, the billing compliance function is conducted by the practice plan and is staffed by employees of CPA. In addition, CPA has a compliance committee that reports to the CPA’s Board of Governors. The University of Pennsylvania’s central administration manages the overall compliance function for its AMC, including CPUP. The university employs the compliance staff for the school of medicine and the health system employs the CPUP’s billing compliance staff; these offices work in close coordination with university legal counsel. There are certain advantages to this arrangement for CPUP’s management because compliance issues are daunting in today’s environment and the parent-entity management of this function provides focused attention by those with special expertise in this area. Further, this arrangement separates compliance oversight and the day-to-day management of the practices, and thus decreases the potential for conflicts of interest. The challenge of this arrangement is to ensure that faculty maintain a sense of ownership of, and responsibility for, all aspects of regulatory compliance.

Market Strategy Principles

Appropriate balance of primary care and specialty care services. Over the past decade, many AMCs purchased local or regional primary care practices to expand their referral networks. In many cases, it was difficult to integrate these practices with the existing faculty practice organization.

According to both CPA and CPUP’s management, the expectations for growing the practice plans’ patient bases and market shares were not achieved because only marginal changes occurred in the referral patterns of acquired practices. In addition, the productivity and financial performance of purchased physician practices sometimes deteriorated after the acquisition of these practices. Hence, both organizations believe that a large primary care network is often costly and unnecessary and practice plans should focus on maintaining a balance of primary care and specialty care services and on providing high-value services that distinguish the AMCs from their competitors.

The original imperative for owning large primary care practices has passed because the full-risk managed care model never truly materialized in most markets, including Baltimore and Philadelphia. Recently, CPA, CPUP, and their parent organizations have consciously altered their primary care strategies. Although the primary care practices remain important for support of the teaching mission, both organizations are reducing their subsidies for these practices. The primary care strategy of the future will likely depend on trends in the health insurance market. Health care costs are rising again at double-digit rates, so some are predicting another wave of capitation initiatives. Ultimately, the employers and government agencies that pay for health care services will influence the practice models of the future, and should the full-risk model gain support again, the demand for primary care physicians could increase subsequently. However, prior experience suggests that, in the future, AMCs and their practice plans should react more prudently and cautiously to this particular market development.

Avoidance of risk contracts and other contracts that further reduce reimbursement levels. CPA and CPUP have reconsidered their contracting strategies and both are eliminating risk agreements wherever possible. Both have almost eliminated full-risk contracts and they are avoiding limited-risk contracts with few exceptions (e.g., transplant and oncology services).

Both JHM and UPHS have adopted a unified approach to contract negotiations, using a system-oriented negotiator who represents the combined interests of the hospitals and the practices. This unified approach streamlines the negotiating process for both the payor and the AMC, takes full advantage of the combined strengths of both the hospital(s) and the practices, and avoids the potential for a “divide and conquer” strategy that might otherwise be used if each component were negotiating separately. A potential disadvantage is the concern among some clinical faculty that their interests will not receive appropriate emphasis, but both CPUP and CPA have contracting subcommittees that provide detailed input during the planning and negotiation sequence to assure appropriate participation in the overall

strategy. Working with their hospital counterparts, both CPA and CPUP's management decided not to accept contracts with private insurers that would result in deterioration of reimbursement levels. In fact, CPA and JHM took an aggressive position and renegotiated improved contracts with all of its major payors based on the premise that they provide unique and valuable services to patients.

WHAT DOES THE FUTURE HOLD?

The principles outlined in this article have been important factors in the recent strategies of both CPA and CPUP. Having undergone major crises and subsequent reorganizations, both organizations believe that the key to successful practice plans is the development of a disciplined approach that addresses internal management, cost, and efficiency issues, rather than looking externally to the marketplace for solutions. Although many of the management principles described here are not new, they have not been applied widely or implemented uniformly in faculty practice plans. Too often, academic practices endlessly debate, dilute, or otherwise block implementation of strategies that are painful but essential for success in an era of constrained resources. The goal must be to develop an "institutional will" to implement the full range of principles for effective practice plan organization and management.

These principles address our insights regarding today's requirements for practice plan success, but it is necessary to anticipate the future health care environment as well. Areas that will clearly be critical to future practice plan success include improvements in IT to provide better and more efficient patient care services and management of overall AMC finances, and the effective translation of recent scientific and technological advances into clinical practice.

Information Technology

AMCs, as the leading innovators in the health care industry, often function as beta-test sites for new information systems and software products. AMCs have an unparalleled opportunity to play a key role in the development of IT, not only for the provision of health care, but also for clinical enterprise management. Both CPA and CPUP are proceeding with information system strategies to ensure their practices remain at the forefront of technological changes that will improve the delivery of health care, enhance patient safety, and simplify the ever-increasing administrative requirements for physicians. Both CPA and CPUP are using electronic medical records (EMRs) and handheld devices that interact with the EMR and/or scheduling and billing systems. Currently, neither organization has fully implemented an inte-

grated EMR throughout its organization, but both are making major investments in these programs annually, and both share a common commitment to the value of information systems in health care delivery.

Health, Science, and Technology

AMCs and their practice plans, as key sites for clinical research, are best positioned to provide first access to innovative health care technologies, new treatments, and new approaches to clinical quality and patient safety. Academic practice plans must be prepared to be rapid adopters of these approaches, for these strategies are the key factors that distinguish the AMCs and their practice plans from their competitors in the health care marketplace.

Both clinical research, a school of medicine activity, and clinical care, a practice plan and health system activity, require strong IT systems and major clinical databases to support these functions. The practice plan leadership must be fully involved in these technology initiatives to assure effective and efficient use of resources in the practices and throughout the AMC. Considerable vigilance is required to prevent well intentioned but uncoordinated new IT initiatives by individual practices or by whole entities (e.g., hospital, practice plan, or school). The IT reporting relationships vary somewhat between CPUP and CPA, but the guiding principle is identical: close cooperation and collaboration among and within the various IT components of the AMC is essential to avoid duplication, unnecessary expense, or gaps in clinical information.

CONCLUSIONS

To succeed in today's environment, AMCs must use sophisticated, business-oriented approaches that include effective organization and governance, management and operations, and well-conceived market and contracting strategies. Faculty practice plans play a key role in each of these areas.

The core missions of public service, teaching, and research must remain paramount in AMCs because these distinguishing features separate AMCs from other organizations in health care, and the social imperative demands such commitments. However, the success of these missions depends to a considerable extent on the organizational and financial viability of the clinical enterprise and, therefore, adherence to the principles outlined here.

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Cover Note

EMORY UNIVERSITY SCHOOL OF MEDICINE

Emory University School of Medicine got its start in 1854, with the creation of its forebear institution, Atlanta Medical College. The college's dean, John Westmoreland, set an early example in medical leadership. He helped found the *Atlanta Medical and Surgical Journal* and the city's first medical society, which established a local medical code of ethics. He also pioneered research in yellow fever, maintaining close quarters with stricken patients to prove his theory that the mosquito-borne disease was not spread by human contact.

Westmoreland was one of several strong and sometimes clashing personalities that led the school over its first six decades. During this time, the school split and merged twice before transferring its holdings to Emory University in 1915.

Affiliation with Emory brought immediate rewards, including financial support from Coca-Cola founder Asa Candler and later, from another Coca-Cola magnate and Atlanta civic giant, Robert Woodruff. Woodruff had the resources, connections, and vision to turn a regional university in a sleepy southern town into a great institution for learning and healing. He gave away some \$350 million over his lifetime, including \$230 million to Emory and its growing medical enterprise.

The most important contributions made by Emory School of Medicine faculty have been in heart and eye disease, Parkinson's/movement disorders, sickle cell, stroke, infectious disease, transplantation, diabetes, and bioengineering. Thanks to their work, the School of Medicine is world renowned for developing, refining, and teaching techniques that have made treatments less traumatic and expensive as well as more widely applicable and effective.

Emory medical faculty have made contributions in other areas too, forming medical units in both world wars to care for the wounded and adopting medical innovations from the battlefield (such as recovery rooms) for civilian use.

In 1978, Emory University School of Medicine helped Morehouse School of Medicine inaugurate its first class of freshmen, training these students in their third and fourth clinical years at publicly owned Grady Hospital until the new medical school could establish clinical training of its own. In 1990, Emory University School of Medicine helped spawn a sister school on campus—the Rollins School of Public Health, which evolved from a master's program in medicine.

Areas targeted for major growth in medicine at Emory include biodefense, cancer, genetics, neurosciences, and vaccines, particularly against HIV. With Emory's proximity to the Centers for Disease Control and Prevention and its affiliation with Yerkes National Primate Research Center, investigators today are collaborating to fight a variety of diseases that threaten not only local and regional populations but the world community at large.

Emory University School of Medicine is part of the Woodruff Health Sciences Center, which includes schools of nursing and public health, Yerkes National Primate Research Center, and Emory Healthcare.

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