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# **Academic Medical Centers and the Culture of Local Markets**

*by*  
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# Introduction

Academic medical centers have had a special role in the American medical system as centers for medical research and as the institutions that serve as the primary training ground for physicians. But like virtually all health care institutions, academic medical centers (AMCs) are operating in a changed environment characterized by intense competition. They find themselves in a struggle with other hospitals for resources and for patients, especially in their role as providers of highly-specialized tertiary- and quaternary-care services. Given their special role in research and the training of medical professionals, it is important to understand what these institutions are doing to compete and to assess how successful they are. *The first purpose of our research was to investigate how AMCs are coping with the competitive marketplace and to determine how other participants in the market (purchasers, providers, plans, regulators, etc.) perceive the AMCs as providers and competitors.*

AMCs play another important function in the medical system—as safety net providers. Since the establishment of the first hospitals in this country that served the poor exclusively and also trained physicians, academic medical centers have provided large amounts of free care and have been an important source of access to highly specialized services without regard to ability to pay. AMCs have the largest pool of physician labor available to care for the poor—namely physicians-in-training—and are often located in inner cities along with some of America’s most vulnerable populations in need of medical care. *The second purpose of our research was to examine how, in today’s increasingly “bottom-line” oriented hospital industry, these institutions still make that commitment to serving the poor.*

We defined AMCs as hospitals or hospital systems that are part of private or public universities, or independent hospitals or hospital systems affiliated with and serving as the major teaching institution for a medical school. In this project we chose to focus on four markets around the country and on one AMC in each market:

- Baltimore, MD—the University of Maryland Medical System (UMMS), and specifically the University of Maryland Medical Center (UMMC);
- Boston, MA—Boston Medical Center (BMC), the teaching hospital for Boston University School of Medicine;
- San Francisco, CA—UCSF Stanford Health Care (UCSF Stanford), the hospital system that includes teaching hospitals for both Stan-

ford University and the University of California at San Francisco; and

- Seattle, WA—the University of Washington academic medical center (UW AMC), and specifically the University of Washington Medical Center (UWMC).

The Economic and Social Research Institute (ESRI), with assistance from the Center for the Assessment and Management of Change in Academic Medicine (CAMCAM) of the Association of American Medical Colleges, and with funding from the W. K. Kellogg Foundation, collected background information on selected health care markets and held semi-structured interviews, some by telephone but most face-to-face, with key informants at each site on issues affecting academic medical centers (AMCs).

In addition, CAMCAM analyzed market share data from the publicly available hospital discharge database in each state. We combined the information from all these sources into four site reports. Relevant examples from these site reports are included in this overview document.

The following section of this report presents background about the changing health care marketplace and the particular pressures on AMCs. We then present issues that cut across the sites concerning competition, perception by other players, and the AMC safety net role. At the end of this paper, a brief annotated bibliography presents publications related to AMCs and the current competitive marketplace. (An additional publication, available from ESRI, deals exclusively with safety net issues.)

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## **A Changing Market: Cuts in Funding for AMCs**

A significant current concern for AMCs is how to deal with federal cuts in (1) Medicare reimbursement for services provided to Medicare patients, (2) indirect and direct payments to hospitals for graduate medical education (GME) costs, and (3) Disproportionate Hospital Share (DSH) payments.

Because of AMCs' large teaching and research costs, indigent care loads, and the need to manage the cost differential between AMCs and competing hospitals, federal funding has been even more important for AMCs than for most hospitals. These cuts in federal support were, therefore, a crucial background for the competitive and safety net issues we investigated.

The Balanced Budget Act (BBA) of 1997 reduced all of the above revenue streams, reshaping the current environment for AMCs. Adding controversy to this situation are different interpretations of how well AMCs are faring financially and how threatened they are by the BBA. Differing perspectives on this issue are illustrated by two recent publications: the 1999 Commonwealth Fund Task Force on Academic Health Centers report authored by David Blumenthal, and a recent article in *Health Affairs* by Gerald Anderson (see bibliography).

The Commonwealth Fund report describes the effect of a changing health care system on AMCs: “The health care system is forcing academic health centers to undertake dramatic reforms to sustain and promote their social missions.” The report describes the financial pressure AMCs face today due to increasing numbers of managed care enrollees, decreasing ability to cross-subsidize research, reduction of Medicare payments to AMCs, competition from nonacademic research organizations, and the federal government’s reliance on AMCs to share the direct and indirect costs of performing research. In the same report, the Task Force states that “it is widely agreed that competitive markets fail to allocate resources to research and development activities in an optimal manner” and calls upon the federal government to cross-subsidize these activities. It recommends increased funding from the National Institutes of Health to support research and to increase federal support for biomedical and health-related research.

Gerald Anderson presents another perspective. He suggests that despite concerns about financial viability, AMCs have fared well in the competitive marketplace when measured against standard indices of financial performance. According to federal MedPAC data, operating “margins for AMCs in 1995 were the highest in ten years, and the percentage of AMCs with negative margins fell from 1989 to 1995.” Other indicators are mixed for the period from 1993 to 1997: AMCs had more cash on hand, lower return on equity, more long-term debt to equity, lower asset-turnover ratios, higher net assets per bed, and good access to capital. However, because most of the cross-subsidies for research and teaching in AMCs comes from Medicare, lower payments due to Medicare managed care may jeopardize this source of support. In fact, more than one-half of the funding for the cost differential of research activity comes from federal sources: Medicare, the Department of Veteran’s Affairs, and the Bureau of Health Professions. Anderson notes that in the long run, society may have to further define what services it wants AMCs to provide and how it will hold them fiscally responsible for them. According to Anderson, AMCs need to become more competitive in the marketplace by “reduc[ing] costs, becom[ing] more responsive to patients, payers and managed care plans, and perhaps alter[ing] their mix of training programs.”

Nationally, AMCs are pursuing two strategies to preserve their financial viability. The first strategy addresses patient care revenues and market share by trying to “beat local competitors at their own game.” In pursuing this strategy, however, most AMCs (and their faculty) with whom we spoke are willing and able to go only so far in *changing the modus operandi* of a large, complicated organization with multiple missions. The second strategy, which is oriented toward *preserving the status quo*, is a campaign to influence federal funding in areas such as Medicare reimbursement. Some respondents (primarily purchasers and payers) saw these two strategies as conflicting since the first strategy demands that

AMCs recognize that they are not very different from local hospitals with which they compete for patients. The theme of the second strategy, however, is that AMCs *are* unique and require special treatment in terms of funding policy. AMC leadership, though, would argue that these strategies are in fact complementary since AMCs are looking for ways to “level the playing field” through federal funding. Once the unique teaching and research costs of AMCs are covered, they contend, AMCs would be able to compete and develop strategies along the lines of their local competitors.

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## Findings

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### Competitive Market Issues

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*In their pursuit of market share and patient revenues, the most important characteristics of AMCs are not those they have in common with their peer institutions across the country, but instead those that determine their ability to compete in their local markets.*

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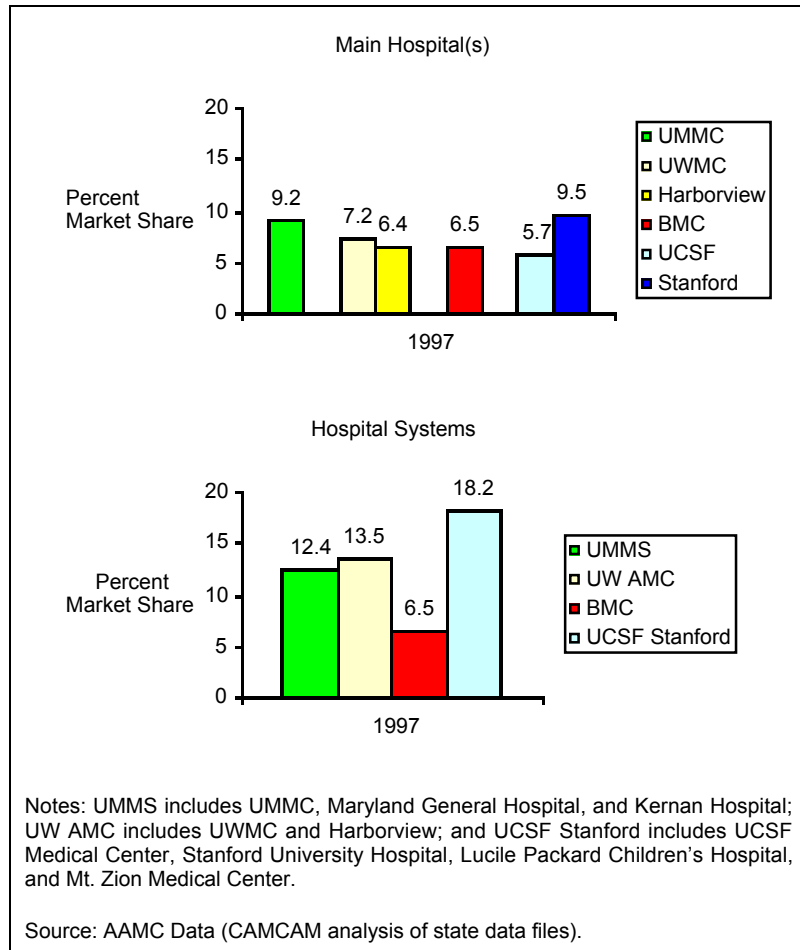
In markets across the country, AMCs are competing primarily with community tertiary care hospitals, as opposed to other local or regional AMCs. The traditional AMC roles in physician training and biomedical research are less important than price and neighborhood presence for winning managed care contracts and attracting patients—elements critical today for any hospital’s (including an AMC’s) survival.

Our discussions with respondents in the four cities reinforced the maxim that “all health care is local.” Johns Hopkins Hospital, with as many as 15 percent of patients coming from outside Maryland, is the exception rather than the rule, even for AMCs that consider themselves to be referral centers with large geographic markets.

As a result, cost structures at successful urban AMCs are now dictated by local competing hospitals more than by the teaching and research missions of their affiliated medical schools. With the exception of faculty and head nurses, the quality of personnel in clinical departments and on inpatient units in an AMC might not differ significantly from those at competing large, sophisticated community hospitals. Further, 80 to 90 percent of what is done in an AMC can be done in local community hospitals, raising questions among purchasers and health plans about the relative advantage of using a higher-cost institution.

Reflecting different market conditions, histories, and cultures, the four AMCs studied varied in their market share of all hospitalizations, ranging from 18.2 percent by UCSF Stanford Health Care to 6.5 percent by Boston Medical Center. Figure 1 displays this variation.

**Figure 1: Market Share of all Hospitalizations by AMCs and Main Hospital(s)**



*Strategies pursued by AMCs in one market may not be appropriate in another market, even though the AMCs' objectives may be the same.*

Buyers and sellers in the local market, the local culture of medical practice, and the state regulatory and reimbursement environments dictate how AMCs must operate in the current environment. While overall objectives were shared by all AMCs (e.g., expand market share by winning managed care contracts, build primary care networks to increase hospital referrals), the major strategies used to attain these goals often varied across sites. For example, UW AMC has focused on developing its own primary care network, whereas UCSF Stanford has focused exclusively on specialized services. UMMS and BMC both have developed Medicaid managed plans to capture the Medicaid population.

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## **Competitive Strategies by Individual AMCs**

The lists below outline the revenue-generating and cost-cutting competitive strategies by the four individual AMCs in more detail. They are based on the interviews, background material, and articles about the local markets. These strategies will be discussed more fully in the following sections.

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### **Baltimore, Maryland – University of Maryland Medical System (UMMS)**

- In anticipation of the trend toward larger and fewer hospital systems, “create a system around itself” in Baltimore;
- Vertically integrate by assembling the various components from primary care and home health to transplantation services; i-
- Establish primary care practices to capture the local (West Baltimore) market;
- Build “Centers of Excellence” for specialty care that are cost-effective and right for the managed care market;
- Develop an at-risk managed care plan to compete for the Medicaid managed care population;
- Create multi-disciplinary teams to compete with “easy-to-use” community hospitals for referrals from local physicians; m-
- Consolidate services and reduce capacity;
- Build new research facilities to attract faculty in niche areas.

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### **Seattle, Washington – University of Washington Academic Medical Center (UW AMC)**

- Develop a primary care network to:
  - Increase referrals to provide additional patient volume for tertiary and quaternary care; i-
  - Better compete for managed care contracts;
  - Focus on mission of training primary care doctors;
  - Methods:
    - Build network of clinics within 15-minute drive for 75 percent of Seattle-King County residents;
    - Build network from the ground up (versus acquisition) to have better control over selection of providers, sites, information systems, operating procedures, and clinic appearance;
- Form Cancer Care Alliance to capture increased market share while improving continuity and efficiency of care;
- Become “managed care ready” by curbing costs and re-engineering care, including:
  - Implementing patient care protocols (“CareMaps”);
  - Streamlining administrative structure.

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**Boston, Massachusetts – Boston Medical Center (BMC)**

- Build relationships with community physicians through joint ventures to encourage referrals;
- Build on *existing* primary care base of affiliations with 12 community health centers to expand referrals;
- Send specialists to visit and work with community health centers to deliver both primary and specialty care;
- Develop a Medicaid managed care plan (HealthNet) to retain Medicaid patients and compete in increasingly competitive Medicaid managed care market; i-n-
- Develop a “managed care attitude” including:
  - Bringing in department chairs with more managed care experience; i-
  - Developing a managed care financial office;
  - Renovating large parts of the physical plant to be more attractive to patients; c-
  - Implementing a clinical care management program in which particular physicians devote 20 percent of their time to the patients of particular payers; a-
- Follow up the merger with consolidation of services and administration to cut costs; a-
- Build patient capacity and upgrade physical plant through new inpatient center, research tower, and an ambulatory care center. a-

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**San Francisco, California – University of California at San Francisco Stanford Health Care (UCSF Stanford)**

- Use recent merger to provide enough educational material for the two medical schools and to contract jointly (avoid being “played off” against each other);
- Enhance referrals and re-gain access to the entire managed care market through arrangement with an independent physician network (Brown and Toland, a 2,000-physician IPA responsible for 260,000 managed care covered lives through several plans);
- Integrate physician groups and increase physician/hospital integration; a-
- Strive to become less “hospital-centered” and more “service-focused” to compete for “bread and butter” care;
- “Explore” Centers of Excellence programs for highly specialized procedures (e.g., transplants) to distinguish itself from community hospitals; o-s-
- Focus on patient safety and benchmark its efforts visibly;
- Measure clinical quality/outcomes and set quality standards (e.g., clinical pathways) to attract purchasers interested in such activities; ities;
- Emphasize quality differences, acknowledging that UCSF Stanford will almost never win on cost;
- Respond to current financial crisis by cutting jobs and considering discontinuation of inpatient services at one of the four system hospitals (Mt. Zion Medical Center); i-

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*The AMCs shared an objective of creating a primary care “front door” to the university hospital; how this was accomplished, however, varied according to local institutions, values, and circumstances.*

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By building a primary care presence in their communities, the AMCs hoped to expand referrals from primary care physicians for tertiary and quaternary care services. Methods included building primary care clinics throughout the community, aligning with existing community health centers (CHCs), and incorporating an AMC’s faculty practice plans into a large, established IPA.

- In Seattle, the University of Washington (UW) spent \$40 million to build and staff a system of primary care practices around its market, after watching one of its competitors fail in an attempt to establish a primary care network by purchasing existing practices (an effort so unsuccessful that the physicians involved unionized). This approach generated some local controversy (“the state is unfairly competing with local private physicians”), but the clinics are now in place and seeing patients. UW’s objective is to have one of its clinics within 15 minutes of 75 percent of King County residents.
- In Baltimore, UMMC defined its local market as the west side of Baltimore, and established clinics staffed with attending physicians (not medical residents) to serve that market. Even though West Baltimore is a relatively poor community, Medicaid managed care contracting and the inclusion of reimbursement for uncompensated care in Maryland’s regulated system of hospital payment make this a viable strategy.
- In Boston, the AMCs aligned with community health centers (CHCs), which are powerful players in that market. This is particularly important with Medicaid managed care contracting, which pays well in Massachusetts, and because Massachusetts reimburses hospitals for uncompensated care through a pool mechanism. The pool means hospitals receive funding for large numbers of previously unsponsored patients referred by the CHCs.
- In San Francisco, UCSF Stanford’s strategy was to have its faculty practice plans become part of the largest (2,000 physicians) IPA in the market, with multiple managed care contracts. Physician organizations of this size exist in few markets, so this alternative is available to very few AMCs.

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*The characteristics of the managed care marketplace vary from community to community, molding the AMC’s strategy.*

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AMCs need to respond to local preferences for different kinds of managed care arrangements, and they are very much affected by the degree to which health plans contract selectively and expect discounts. The

managed care market characteristics in our four communities are presented in Table 1.

**Table 1: Characteristics of the Study Sites' Managed Care Markets**

Metropolitan Statistical Area <sup>1</sup>	Estimated HMO Penetration <sup>2</sup>	Market Characteristics
Baltimore, Maryland	37.3%	<ul style="list-style-type: none"> <li>• POS plans most popular</li> <li>• All-inclusive provider networks</li> <li>• Minimal directing of patients by plans</li> <li>• "Lite" managed care</li> </ul>
Boston, Massachusetts (includes parts of New Hampshire)	47.3%	<ul style="list-style-type: none"> <li>• Majority in HMOs with broad networks</li> <li>• "Lite" managed care</li> </ul>
San Francisco, California	58.7%	<ul style="list-style-type: none"> <li>• Aggressive managed care market</li> </ul>
Seattle-Bellevue-Everett, Washington	25.9%	<ul style="list-style-type: none"> <li>• Primarily a PPO market</li> <li>• One major "home grown" HMO</li> </ul>

<sup>1</sup>Area or areas with a population greater than 50,000 as defined by the Office of Management and Budget. In the InterStudy *Competitive Edge 9.1, Part III: Regional Market Analysis* (Bloomington, Minnesota, 1999).

<sup>2</sup>Pure (traditional) and open-ended (POS) enrollment for the MSA, in covered lives, calculated from the percentages of enrollees served in defined MSAs, as indicated by HMOs. In the InterStudy *Competitive Edge 9.1, Part III: Regional Market Analysis* (Bloomington, Minnesota, 1999).

- Baltimore is a managed care market where point-of-service plans are the most popular option, with all-inclusive provider networks, little directing of patients to particular providers by health plans, and "lite" care management by plans. Managed care is mandatory for Medicaid enrollees. Since almost all volume discounts are precluded by the state's regulatory system for hospital payment, health plans with larger market shares get no particular advantage in hospital contracting, and purchasers would not benefit from direct contracting. Health plans must understand the importance of ethno-centric neighborhood primary care sub-markets. Within the city, patients strongly identify with local providers in ethnic neighborhoods, and seldom leave those neighborhoods to get primary care. The growth of one managed care plan (Kaiser Permanente) was seriously curtailed by this phenomenon.
- Boston's managed care penetration is fairly high, but HMOs have very broad networks and are generally characterized by "lite" care management, as in Baltimore. Managed care has not been successful in driving utilization rates down. Health plans must walk a thin line to keep consumers happy: everyone wants choice and access to

the most expensive providers, but at managed care prices. Our informants estimated that about 60 percent of people in managed care plans are in HMOs, (and this comprises almost 50 percent of the health insurance market—see Table 1 above). Thirty percent of all managed care enrollees are in POS plans (where people can opt out of the network, although there is a small financial disincentive to doing that), and 10 percent are in PPO products.

- Seattle is still very much a PPO market and there is very little commercial HMO activity; there is one major “home-grown” HMO (Group Health Cooperative of Puget Sound), but it is more expensive than PPO and indemnity plans, and only recently have national companies such as Aetna and United Health Care come into the Seattle market. One respondent estimated that, including PPO plans, Seattle has approximately 60-70 percent managed care penetration. Since the economy is good and people want choice, HMOs cannot compete with the PPO products. Regence Blue Shield recently introduced a POS product called Selections, which uses some selective contracting and beats other HMOs pricing.
- San Francisco has one of the most aggressive managed care markets in the country. The locus of medical and cost management is with large (upwards of 1,000 members) physician organizations, not health plans. Health plans are still marketed because the sprawling geographic marketplace makes direct contracting infeasible for most purchasers. Capitation payments can be as low as half of what they are in East Coast markets (but hospital use can be half also). Commercial capitation has been driven low by aggressive purchasers such as the California Public Employees Retirement System (which purchases health care coverage for a million people) and the Pacific Business Group on Health (PBGH), and by Kaiser Permanente pricing itself very low earlier in the 1990s to retain/regain market share. Also, in the mid 1980s Medi-Cal, the state’s Medicaid program, began selective contracting, significantly cutting back on hospitals’ cost-based reimbursement. As a result, “getting out from under capitation,” rather than trying to achieve a particular payer mix, is the preferred strategy for hospitals. Hospitals also have tried to migrate toward more specialized services, which are less frequently capitated. The aggressiveness of purchasers has driven consolidation among providers so that “the forces are equal on both sides of the bargaining table.” The 1997 merger that produced UCSF Stanford was seen as an effort to strengthen the AMCs’ negotiating clout with health plans.

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*Two factors have helped AMCs continue to be a force in their markets. First, the expected increase in selective contracting due to managed care and health reform never really had the anticipated negative impact on AMCs. Second, the consumer backlash against strict management of care, including restricting access to the most specialized services that consumers associate with AMCs, has worked in AMCs' favor.*

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In the early 1990s there was a sense that managed care and health care reform were going to have a greater impact on hospitals than they actually had. It was thought that health plans would strongly limit the number of physicians on their panels, and would selectively contract with hospitals, resulting in smaller, more exclusive provider networks. In anticipation of this, some AMCs thought they would have to develop integrated delivery systems (IDSs) to compete for managed care contracts. IDSs have persisted in many markets even though the networks have not necessarily become more “exclusive.”

- In Washington State, the Health Services Act passed in 1993 included provisions for both universal coverage and health insurance reform. Although by 1996 most parts of the Act had been repealed, the delivery system had already been altered by providers who formed integrated delivery systems to compete under the market conditions envisioned in the 1993 legislation.
- In Boston, a series of hospital mergers, agreements for exclusive faculty/attending physician affiliations and contracts with community health centers created integrated delivery systems around AMCs. The Boston market, however, is not a selective contracting market, so each IDS is in every health plan.
- The Bay Area in Northern California is a selective contracting market. However, UCSF Stanford took advantage of the existence of large multi-specialty IPAs in California to avoid having to build its own IDS.
- The Maryland regulatory environment has sheltered UMMS and other providers from some of the competitive pressures that spurred the development of IDSs in other markets, although UMMC has taken some steps toward establishing a system around itself in West Baltimore.

As mentioned above, in reality, health plans in many markets today include most physicians and hospitals, due in part to the consumer backlash against managed care. “Horror stories” involving patients who wanted to use AMCs but were denied access have moderated the drive to exclude higher-cost AMC services. Choice has become a selling point for plans, and even where exclusive networks exist, POS options that allow patients to go outside the network (for an extra charge) are very popular.

- In Washington, PPO plans are the most popular type of plan and with the exception of the “home-grown” HMO, Group Health Co-

operative of Puget Sound, HMOs have not made many in-roads in this market.

- In Boston, selective contracting has been actively discouraged. When one health plan tried to exclude a hospital system from its network, advocates for the hospital went to the legislature and legislation was almost passed mandating the inclusion of hospitals in networks. (The health plan worked out an arrangement with the health system to include the hospital in its network so that the legislation was dropped.)

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*Three of the AMCs studied have converted from public to private entities, reflecting their reactions to changing pressures in the market.*

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Around the country a number of publicly-owned AMCs have converted to private ownership or management, driven by the demands of increasingly competitive markets and the need to act quickly and decisively in strategic as well as operational affairs. By privatizing, these institutions hope to gain:

- Better access to capital;
- Freedom from the cumbersome aspects of public-sector bureaucracies—purchasing, personnel management, etc.;
- Ability to independently develop partnerships and joint ventures; and
- Freedom from the lengthy public-sector decision-making processes—for example, legislative approval of capital expenditures.<sup>1</sup>

Three of the four institutions we selected are former public facilities that have converted to private ownership or management. Two of the three (Boston City Hospital, now a part of BMC, and UCSF) converted by merging with private AMCs; the third (UMMC) by forming a new not-for-profit corporation. The fourth hospital (UWMC) is still a public facility, and private-sector competitors in that market often raised the “level playing field” issue of having to compete with an institution that has public revenues at its disposal.

- The University of Maryland Medical Center (UMMC) became a private corporation in the mid-1980s, although the medical school remains part of the public University of Maryland.
- Boston Medical Center (BMC) is the result of a merger between Boston University Medical School’s teaching hospital (a private, non-profit institution) and the City of Boston’s municipal hospital (Boston City Hospital).
- UCSF Medical Center merged with Stanford University Medical Center to form a private corporation, UCSF Stanford Health Care (UCSF Stanford). The merged organization includes the faculty

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<sup>1</sup> Mark Legnini et al., *Privatization of Public Hospitals*, Economic and Social Research Institute January, 1999.

practice plans from both the private Stanford University Medical School and the public UCSF Medical School.

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*In the final analysis, the key to an AMC's success is how well it addresses the cost differential issue in its local market; AMCs rely on reputation, regulatory environment, and service differentiation to do this.*

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Only AMCs which have sufficiently differentiated themselves from community hospitals, or which control such a large part of the market that they cannot be excluded from networks, can maintain a price differential relative to competing community hospitals. In some extreme examples, AMCs can maintain a 20 percent to 30 percent price differential if health plans cannot or will not do without them. But AMCs that cannot differentiate themselves based on reputation, unique services, or higher quality/better outcomes must compete on price.

The most dramatic example of this among our participating AMCs is UCSF Stanford, which engaged in an historic merger in the hope of avoiding the price competition and cost-cutting that would have been necessary if UCSF and Stanford had continued to compete with one another, and if each had also continued to compete alone in its respective local setting. Although the merger seemed to be a short-term success at the end of 1998 when we conducted our site visit, in 1999 the organization is encountering heavy financial losses, a decline in inpatient utilization, and scrutiny in the press and the state legislature over its sudden reversal of fortune. The *San Francisco Chronicle* reported that May 1999's losses of \$10.3 million might prompt UCSF Stanford to discontinue acute-care inpatient services at one of its hospitals in San Francisco (Mt. Zion Medical Center). In addition, just prior to the publication of this report, the President and Executive Vice President of UCSF Stanford both resigned. The hospitals are currently being managed by a "turn-around" firm with a reputation for cost-cutting, and large lay-offs are expected. The press has reported that both universities are re-assessing the merger and that some faculty are calling for its dissolution.

Baltimore presents an unusual case wherein rate regulation plays an important role in the AMC managing its price differential. Maryland has an all-payer system of hospital payment rates in which hospital reimbursement is based on actual costs, including teaching and research functions. (Charity care is reimbursed by the rate system as well as through an uncompensated care pool.) Hospitals, including UMMC, whose costs rise above a particular level are put on "spend-down" plans by the state rate-setting commission to bring their costs back into line. The rate regulation mechanism means that all payers reimburse a particular hospital the same amount per unit of service, and hospitals do not have to "peddle discounts" (as one executive put it) in order to compete for managed care contracts.

Interestingly, the Baltimore market does not differentiate between Johns Hopkins Hospital (JHH) and UMMC based on the substantial difference in their reputations *outside* Maryland. This allows UMMC to be as expensive (and currently more expensive) than JHH and still not lose business. While this can be a short-term benefit for UMMC, it points out the trade-off between equity and efficiency inherent in the Maryland regulatory system. The state has decided it will sacrifice some degree of management innovation and price competition, and accept the inevitable inefficiencies that go along with that, in order to manage the state's overall level of expenditure for hospital care, maintain the current stock of inpatient facilities, and ensure uninsured patients access to the services of private hospitals.

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## Perception by Other Market Players

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*The four AMCs studied are well established, and have had decades to develop substantial reputations and significant market shares in their communities.*

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The four AMCs studied, and many others across the country, are relatively old institutions and an ingrained part of their local medical culture. They provide highly specialized care, and many offer services that are unique within their communities (e.g., trauma care, and transplants) that have earned them prestige that helps them justify their higher costs. *This picture would have been quite different had we looked at less-established AMCs, however. Newer, smaller or less prestigious AMCs might not be able to convince the market to accept their price differential.* For example:

- No Maryland health plan would exclude either UMMC or Johns Hopkins Hospital from its provider network in today's market. This is a function of Maryland's regulated system for hospital reimbursement (in which selective networks are less attractive), and unique features of the two AMCs. UMMC has the loyalty of most of the local primary care physicians, the bulk of whom it trained, and also has the advantage of certain unique programs such as the Shock Trauma Center, the apex of the state's EMS system. Hopkins, on the other hand, has its international reputation as one of the world's best medical centers.
- UCSF and Stanford both have substantial reputations, but health plans in the San Francisco Bay Area were able to "play them off" against one another prior to their merger, even though they are 40 miles apart. Now contracting as one entity, UCSF Stanford is such a presence in the high-end tertiary and quaternary care markets that health plans in the Bay Area may have difficulty putting together provider networks without it.
- In Seattle, UW AMC has a unique market niche as the only medical school in a five-state area, so health plans generally want to include UW AMC in their networks. UW AMC has a regional monopoly on burn and trauma care, and a developing market niche in cancer care. The culture of purchaser/provider relations is less contentious

in Seattle than elsewhere on the West Coast (for example, the Northern and Southern California markets). This is related to the state's progressive health care politics and its low hospital bed/population ratio.

- Boston is served by some of the country's most prestigious hospitals, a set of teaching institutions unrivaled in any other city of comparable size. These academic medical centers are major employers, and set the health care agenda (and the public's expectations) for the market—even the first two HMOs in the market were started by local medical schools. As opposed to other markets where we compared one or two AMCs to competing hospitals in the area, in Boston almost the entire hospital market is made up of AMCs.

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*Some policy-makers and members of the general public accept that a price differential is warranted by the "social good" brought by AMCs, but others are not eager to bear the cost.*

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We often encountered the perception (most frequently among policy-makers and members of the general public, but even among a few payers) that a certain price differential is warranted to pay for the social goods—teaching and research as they translate into better practice—that the AMCs create.

But many purchasers, health plans, and competing hospitals are *not* eager to bear the cost of research and teaching at AMCs. Research, especially when its results can quickly be translated into better patient care, was more sympathetically viewed than teaching. Arguments for supporting teaching costs were blunted by the over-supply of physicians (particularly specialists) in the markets we visited. As long as the nation's physician training infrastructure continues to produce many more physicians annually than the number retiring, it will be difficult to make a good argument for increasing the subsidy for teaching costs.

Even in Seattle, where there is only one medical school and strong support for UW AMC's teaching and research functions, interviewees outside UW were quick to point out that while some price differential is warranted, the current funding structure may not be the most effective way of allocating resources. Interviewees in Seattle (and some in San Francisco) said that there should be a "level playing field" for clinical services, and teaching and research should be funded separately and directly with public funds, rather than through an indirect subsidy in the form of an across-the-board price differential.

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*AMCs often hold a “special place” in the minds of state legislators, due in part to AMCs’ political influence, and in part to personal experiences.*

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AMCs have influence in the political arena, as they try to enhance legislators’ appreciation for AMCs’ roles in teaching, research, and charity care (discussed below) and convert that goodwill into higher public reimbursement/subsidies. But there are also personal reasons that AMCs gain public support. In both Seattle and Baltimore, for example, personal experiences with the AMCs’ trauma centers play a key role in garnering political advantage with policy makers.

- A former Maryland governor insisted that a personal friend (the clerk of the state’s House of Representatives) who had been critically injured in an auto crash be transferred to UMMC’s Shock Trauma Center, where surgeons saved his life. This incident created a special relationship between both the executive and legislative branches and Shock Trauma, which enjoys a privileged place within the state’s EMS system.
- Many Seattle interviewees outside UWMC felt that the UWMC-affiliated Harborview Medical Center (and to some extent UWMC) has a “privileged” position *vis a vis* the state legislature. As one respondent put it, “every legislator has a story about a constituent whose life was saved at the Harborview trauma unit,” and, “no policy maker wants his/her thumbprint on any legislation that would hurt Harborview.”

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## **Safety Net Issues**

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*There are many reasons why it is good social policy to have AMCs heavily involved in caring for the poor.*

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It was acknowledged by respondents both inside and outside AMCs that these institutions have an important role as “safety net” providers:

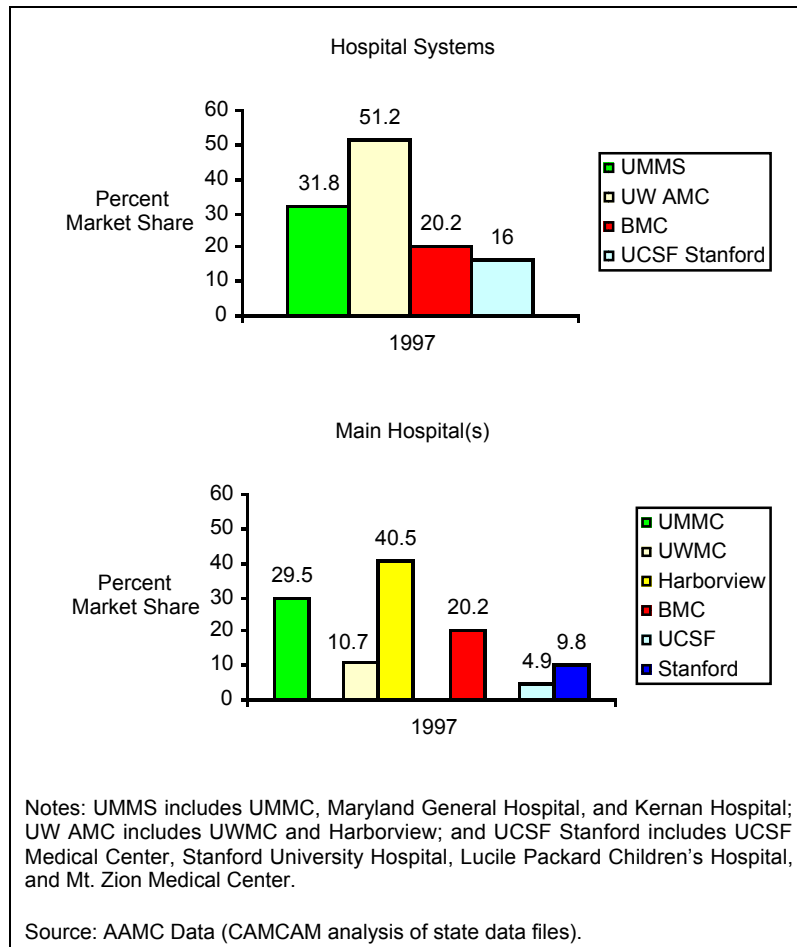
- AMCs have the largest pool of low-cost labor (physicians-in-training) available to serve the poor;
- The participation of and supervision by medical school faculty in the care provided to low-income patients are an important assurance that these patients will receive high-quality care;
- Patients using AMCs have access to a greater range of clinical services than at most hospitals;
- AMCs have access to direct and indirect sources of funds (GME payments, legislative subsidies, etc.) to help subsidize the cost of indigent care;
- AMCs are often located in low-income urban areas and provide easy geographic access for safety net patients; it is appropriate for the AMC to be involved in their local communities;
- AMCs are less likely to be considered exclusively “poor people’s hospitals” so there is less stigma attached to care there; and

- AMCs' involvement in indigent care encourages a life-long commitment to serving the poor among some proportion of young physicians exposed to this kind of service during their training. The resulting cadre of physicians who maintain that commitment during their careers are essential to the well being of low-income populations.

*How AMCs are involved in safety net care depends on how financial pressures interact with the history of local institutions, community values relating to indigent care, and other local factors.*

Whereas charity care was traditionally a key part of most AMCs' missions, changing market conditions (e.g., funding cuts resulting in less ability to cross-subsidize charity care) combined with local market factors have led to significant variation in how AMCs exercise their roles as safety net providers. Figure 2 illustrates the market share of charity care provided by each AMC.

**Figure 2: Market Share of all Uninsured Patient Hospitalizations by AMCs and Main Hospital(s)**



In two of our four communities, the AMC has merged and integrated with a safety net hospital:

- In Seattle, the University of Washington’s AMC has complete responsibility for staffing and operating Harborview Medical Center (the city’s primary safety net provider). Integration with UW’s own hospital is complete to the point that Harborview serves as the sole site for some medical school departments. In this respect, Harborview is not considered “the poor person’s hospital” in the same way that San Francisco General Hospital might be. Any patient needing complicated orthopedics, neurosurgery or trauma care, for example, regardless of their insurance coverage, is treated at Harborview.
- Boston Medical Center is the result of a merger between the former city hospital (and the largest individual hospital provider of charity care) and Boston University’s teaching hospital. Although there are still some issues from the merger that need to be addressed, BMC is trying to integrate services to the greatest degree possible. For example, it now has a single head for each clinical department (although there may be two services in separate buildings). The hope is eventually to have one hospital, although this is particularly difficult given that there are two distinct patient populations, the primarily suburban population with commercial insurance and the inner city population with Medicaid or no coverage.

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*The relationship between an AMC and a public hospital is affected by the different missions of the two organizations and the degree to which the relationship continues to be mutually beneficial.*

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In markets where there is a separate public hospital, however, AMCs often do not play a safety net role much different than community hospitals. In San Francisco, for example, UCSF does not operate San Francisco General Hospital (the public “safety net” hospital), but it does provide medical school faculty and residents.

The relationship between UCSF and SFGH appears to be changing, however. Over the last decade, UCSF has developed or acquired more sites for service, research and teaching programs, and is developing a new research campus to which it will move at least one of the research institutes now housed at SFGH. There is concern that if the city does not continue to fund a critical mass of resources at SFGH, UCSF will pull further programs out. For example, if the city does not continue its funding commitment to the SFGH trauma center, UCSF could move its training and research programs now located there. Also, given the merger with Stanford University Hospital, it has been rumored that pediatrics (including what is now at SFGH) might be consolidated at UCSF Stanford’s Lucile S. Packard Children’s Hospital.

Since UCSF (and now UCSF Stanford) neither owns nor oversees SFGH (nor provides any non-physician staff), its degree of control over the institution is much more limited than, for example, UWMC's is at Harborview. Given that situation, UCSF Stanford will always put resources where it can best control their use, and that is increasingly becoming places other than at SFGH.

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*State regulatory policies can have a significant impact on an AMC's role as a safety net provider.*

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Both Massachusetts and Maryland have state programs to reimburse hospitals for caring for uninsured patients, but the results differ in the two communities. California also has a system that subsidizes hospitals providing "disproportionate" amounts of uncompensated care. Washington differs by focusing on expanding insurance coverage to low-income people (through its Medicaid program and the Washington Basic Health Plan), so there is less "charity" care needed.

- In Maryland, the incorporation of charity care in the rate-setting process combined with an uncompensated care pool reduces the financial penalty for hospitals that have traditionally taken care of uninsured and underinsured patients. This has allowed the public sector in Maryland to get out of the business of running hospitals, and also has resulted in spreading the burden of charity care across more (private) hospitals. Whereas one large hospital dominates charity care in each of the other cities we visited (Harborview in Seattle; SFGH in San Francisco; Boston City Hospital, now part of Boston Medical Center, in Boston), during the last half of 1997 *nine of the 15* Baltimore area hospitals whose admissions we analyzed individually had 20 percent or more of their admissions from uninsured patients; *six of the 15 hospitals* had at least 1/3 of their admissions from the uninsured.
- The Massachusetts uncompensated care pool also was intended to compensate hospitals that serve the uninsured so they would not be penalized by that mission. But unlike Baltimore, uncompensated care is not spread evenly across Boston hospitals. At the former Boston City Hospital (now part of BMC) indigent patients constituted 62 percent of all hospitalizations in 1997. For that same year, about a quarter of all hospitalizations at both Children's Hospital and New England Medical Center were indigent patients. No other Boston hospital had even 20 percent of their hospitalizations from indigent patients.
- In one respect, the California Medical Assistance Commission (CMAC), which administers the state's Medi-Cal selective contracting program for hospitals, functions like the uncompensated care pool in Massachusetts and the regulated reimbursement system in Maryland (although on a much larger scale in California).

CMAC now administers disproportionate share hospital (DSH) funds for California hospitals, and other “DSH-like” programs to reimburse hospitals for maintaining emergency rooms or graduate medical education programs. With these additional funding streams, CMAC’s purpose has evolved from one of being a hard-nosed bargainer for the Medi-Cal program to maintaining the financial viability of safety net hospitals.

- Washington State’s approach to providing service for the uninsured addresses the problem not by subsidizing providers but instead by insuring more low-income people. Expanded Medicaid coverage is provided for children whose family’s income is up to 200 percent of the Federal poverty level, and the Basic Health Plan covers uninsured, working adults up to 200 percent of the Federal poverty level. In order to keep costs down, purchasing for these programs and for all state government employees is done by one agency, the Washington Health Care Authority. Purchasing for a total of 900,000 covered lives, these programs have “gained considerable market clout by consolidating their purchasing activities, and this provides them with added leverage in seeking to negotiate discounts with plans.”

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*The changing health care market and improved funding for low-income patients have dramatically altered the traditional relationship between AMCs and Community Health Centers (CHCs).*

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When CHCs were first established under the auspices of the Office of Economic Opportunity in the 1960s, each was affiliated with a medical school or teaching hospital to ensure high-quality care, enhance ability to recruit both physicians and administrators, and provide administrative support. The original CHCs relieved the burden on AMCs of having uninsured, low-income patients in their ERs and clinics, and also reduced hospital admissions for this population.

But in the 1990s, with AMCs actively competing for patients, and Medicaid (and in some states an uncompensated care pool) paying “real money” relative to commercial payers, what was relief from a burden in the 1960s is now a competitive threat. There is evidence that CHCs nationwide have become more market-oriented in order to survive within the changing health care system. In particular, CHCs have become actively involved in competing within the Medicaid market. CHCs have started either to negotiate contracts with existing managed care plans and integrated health systems or to develop their own HMOs and compete with other private managed care plans for Medicaid managed care patients. This is particularly acute in places where AMCs have developed their own primary care sites. In Boston where health centers are strong and AMCs are vying for affiliations with the health centers to serve as primary care feeder systems for their hospitals, AMCs and CHCs have a more collaborative relationship.

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# SUMMARY

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## Competitive Markets

Academic medical centers (AMCs) share with their related medical schools a tripartite mission of teaching, research and patient care. Of all the institutions involved in a university's health sciences endeavors, these university-owned or affiliated hospitals are most directly affected by the rapidly-changing, highly-competitive and increasingly-commercialized health care and hospital industries. In contrast to the provision of patient care, medical school teaching and research activities continue to be funded, organized and conducted in a fashion somewhat insulated from market forces that control other sectors of the economy and the current hospital industry.

In the mid-1980s, DRG-based payment began to replace cost reimbursement for hospitals, signaling the demise of cross-subsidization between patient care and teaching/research activities. In addition, the rise of managed care plans meant that referrals to AMCs for tertiary and quaternary care were arranged through health insurance contracts, and no longer determined by physician or patient preferences. These changes, plus increased competition within an over-built hospital industry for a declining number of patient admissions and days, plunged AMCs into a world market more familiar to other industries than to higher education. The response of AMCs has been both to attempt to compete under the new rules of the marketplace, but also to appeal for public policy changes that would shield AMCs from the market forces imposed on other hospitals. Some observers detect an ironic conflict in these two approaches. The first approach assumes that AMCs do not differ very much from their competitors and so cannot simply wait for patients to come to them. The second approach assumes that AMCs are unique institutions that should receive special treatment because of their singular nature.

Although AMCs often aspire to be "world-class" hospitals, almost all serve a "world" that is confined to their local markets, and they compete with local community hospitals for patients in those markets. With respect to competition in these local markets, their "peer" institutions are large, sophisticated community hospitals that have the facilities and expertise to treat 80-90 percent of the patients who use an AMC. These local competitors and the local market environment, including state regulations, managed care plans, and the "culture" of medical practice in the community, together constitute the conditions under which AMCs must compete. These local market conditions, and not the teaching and research needs of the university, also dictate the strategy for managing the AMCs' cost structures. Since AMCs have higher costs than competing community hospitals, they must either justify their cost differentials to contracting payers, reduce them, or somehow subsidize

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## The Safety Net

them. How AMCs fare in the current competitive market for specialized inpatient services will be determined by how well they manage the cost differential between themselves and competing hospitals, which in turn will determine how well they can compete for patients in urban markets already over-supplied with tertiary- and quaternary-care hospital beds and specialists.

AMCs vary significantly in the degree to which they take on the role of provider of last resort and how that role is structured. Important partners in that role are public hospitals and community health centers. The relationships between these traditional safety net providers and AMCs are determined by local history, politics and the current market pressures on AMCs.

An AMC's role as a safety net provider in the current competitive environment hinges on several factors:

- **Geography:** Many urban AMCs, especially older institutions in Eastern and Midwestern inner cities, are in neighborhoods that have undergone enormous socio-demographic and economic changes during the last half of this century. These AMCs are located in what are now poor neighborhoods, and simply serving the local patient population can make them a significant safety net provider. This is certainly the case for both the University of Maryland Medical Center and the Johns Hopkins University Hospital in Baltimore.
- **State policy toward the uninsured and other vulnerable populations:** In the few states where there are programs to reimburse hospitals for charity care costs, the financial burden of providing otherwise uncompensated care is often shared by community hospitals as well as public hospitals and inner-city AMCs. The degree to which state Medicaid reimbursement compares favorably to other payers is also a factor in determining how much competition there is among hospitals to care for the Medicaid enrollee.
- **Mutually-beneficial relationships with other safety net providers:** Market pressures cause AMCs now more than ever to re-assess the degree to which their relationships with safety net providers such as public hospitals or community health centers continue to be mutually beneficial. Such relationships must provide cost-effective teaching and research sites, help (or at least not hinder) the AMC in its contracting process with health plans, and in general not detract from the AMC's financial viability.

Additional information on safety net related issues from this project can be found in a 1999 ESRI publication by Meyer et al., *Current Policy Issues Affecting Safety Net Providers*.

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# **Brief Annotated Bibliography**

## ***AMCs and the Current Competitive Marketplace***

Anderson, Gerard F., et al. "Academic Health Centers: Exploring a Financial Paradox." *Health Affairs*, March/April 1999.

Although there is worry about the survival of academic medical centers, this paper finds that academic medical centers have fared very well against standard measures of financial performance in the competitive marketplace. Lower payments through Medicare managed care may threaten academic medical center's teaching and research capacity. In that case, academic medical centers need to learn how to be more market savvy and competitive, not relying upon the federal government for support.

Blumenthal, David. *From Bench to Bedside: Preserving the Research Mission of Academic Health Centers*. The Commonwealth Fund Task Force on Academic Health Centers, April 1999.

Describes the effect a changing health care system is having on academic medical center's teaching and research functions. Suggests utilizing increased funding from the National Institutes of Health and support from the federal government. Describes the position of academic medical centers in the market today and why their survival is so crucial.

Campbell, Eric G., et al. "Relationship Between Market Competition and the Activities and Attitudes of Medical School Faculty." *JAMA abstracts*, July 16, 1997.

A survey of medical school faculty found that the competitive atmosphere of the health care market is reducing academic health centers' ability to perform clinical research and encourage the careers of young clinical faculty.

Culbertson, Richard A. "Academic Faculty Practices: Issues for Viability in Competitive Managed Care Markets." *Journal of Health Politics and Law*, December 1997.

As traditional sources of funding for medical education are reduced, medical centers depend more and more on clinical revenues as a major source of funding for education and research. Academic medical centers must find ways to integrate with managed care plans to continue to promote clinical enterprise.

Griner, PF, and D. Blumenthal. "New bottles for vintage wines: the changing management of the medical school faculty." *Academic Medicine*, June 1998.

Medical schools are attempting to manage faculty in such a way that will better meet the demands of a competitive marketplace. These include annual performance review, tying salary to performance, lengthening of the pre-tenure probation period, post-tenure review, and redefinition of salary guarantees for tenured faculty.

Langabeer, J. "Competitive Strategy in Turbulent Healthcare Markets: An Analysis of Financially Effective Teaching Hospitals." *Journal of Healthcare Management*, Nov.-Dec. 1998.

A study examining the financial and operating data for 100 major U.S. teaching hospitals to determine relationships among competitive strategy, market environment, and financial return on invested capital. This was done in an effort to help teaching hospitals with strategic planning.

Mowll, CA. "Assessing the Effect of Increased Managed Care on Hospitals." *Journal of Healthcare Management*, Jan.-Feb. 1998.

A study using a relative risk methodology shows that hospitals in high-penetration managed care states have a better cash position and higher profitability than hospitals in low-penetration managed care states. However, hospitals in high-penetration managed care states are more heavily indebted in relation to equity and do not have as much debt service coverage capacity. The general conclusion of the article is that despite some negative financial indicators, overall, hospitals are doing better financially in high-penetration managed care markets than in low-penetration markets.

O'Neil, E. "The transformation of academic health in the United States." *Western Journal of Medicine*, May 1998.

Examines the nation's academic health centers and their need for fundamental changes in structure and opportunity. Examines the trends in five major areas: research, higher education, specialization, finance and organization.

Reuter, James, and Darrell Gaskin. "Academic Health Centers in Competitive Markets." *Health Affairs*, July / August 1997.

Examines how academic health center hospitals and other teaching hospitals are handling market change. The study found that academic health centers are not as good at attracting managed care patients. Increasing enrollment in managed care and changes in Medicaid/ care policies could effect academic health center's financial viability.

Rosenthal, Gary E., et al. "Severity-Adjusted Mortality and Length of Stay in Teaching and Non-teaching Hospitals." *The Journal of the American Medical Association*, August 13, 1997.

Risk-adjusted mortality and LOS were lower for patients in major teaching hospitals than for patients in minor teaching and non-teaching hospitals. This may provide evidence that hospital performance is better in major teaching hospitals.