

Governing the University of California Health System

An Analysis of Issues and Options

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Summary

An academic medical center (AMC) is defined as a school of medicine or other relevant professional school, coupled with one or more hospitals or other patient-care entities. AMCs provide vital clinical care, conduct cutting-edge research, and educate the nation's future health care workforce. The financial viability of the AMC model is under increasing pressure from multiple sources. Leadership of the University of California's (UC's) AMCs, to which we refer collectively as UC Health, has initiated efforts to increase efficiency and reduce costs. However, further efficiencies and coordination among the UC AMCs will likely require greater nimbleness and improved capacity to function as a health system. This, in turn, is likely to require changes to the current governance structure of UC Health.

The purpose of this study was to assess and recommend improvements to the governance system of UC's five AMCs, which are located at the Davis, Irvine, Los Angeles, San Diego, and San Francisco campuses. In this report, we provide an independent assessment of the case for change in UC Health's governance structure and suggests viable options for improving the future governance of UC Health.

We conducted a literature review, including review of documents provided by the UC Office of the President (UCOP) and review of evidence from the peer-reviewed and non-peer-reviewed literature. We also conducted interviews with key leaders of UC and UC Health and with leadership of other AMCs around the nation that have addressed similar governance challenges in a variety of ways. From these data, we developed evaluation criteria with which to assess the performance of alternative governance structures and identified four governance structure options: (1) status quo, (2) an advisory board without delegated authority, (3) an oversight board with delegated authority, and (4) separation or spin-off of UC Health from the rest of the university.

Our analysis indicates that the establishment of an oversight board with delegated decisionmaking authority is most likely to lead to high levels of system performance on the evaluation criteria we identified. We also caution that governance structure alone is not sufficient to improve system performance. The function of the system and the relationships between key players in the system are also vital.

Chapter One. Introduction

The purpose of this study is to assess and recommend improvements for the governance system of the five academic medical centers (AMCs) of the University of California (UC). The core mission of UC's AMCs is to pursue a "triple mission" of patient care, research, and medical education. As a result, each AMC consists of hospitals and related patient-care entities, a school of medicine, and other affiliated professional schools. The five UC AMCs are located at the Davis, Irvine, Los Angeles, San Diego, and San Francisco campuses. A sixth medical school has recently been created at UC Riverside; given its newness and unique structure, we did not include it in our analysis.

By combining the elements of their missions, AMCs at UC and other universities are uniquely positioned to develop and deliver innovative treatments for complex conditions. In addition to providing clinical care, conducting research, and educating students, many AMCs also contribute to the financial viability of their universities and, in fact, typically account for a large share of university revenues. Revenue from patient care has allowed many AMCs to cross-subsidize medical education and research, as well as other university endeavors. With 159,000 inpatient and 4.2 million outpatient visits per year, UC Health brings in \$8.6 billion annually (UC, 2013b), making up more than one-third of UC's total revenue (UC, 2015a) and contributing nearly one-quarter of UC's operating budget (UC, 2013a). At some universities, the share of budget contributions from AMCs is even higher (Korn, 2015).

Despite this history, the financial viability of the AMC model is under increasing pressure because of cost-control measures brought about by the Patient Protection and Affordable Care Act (ACA) (Pub. L. 111-148, 2010), reductions in state and federal support for medical education, and stagnant levels of research funding (Berman and Jones, 2015; PwC Health Research Institute, 2012; Hourihan, 2014). Some estimates suggest that, in the next decade, as much as 10 percent of traditional AMC revenue could disappear because of these and other pressures (PwC Health Research Institute, 2012). An even more conservative forecast of a 4- to 5-percent reduction in revenue would still eliminate the existing margins (approximately 3 to 5 percent) at which most AMCs operate (Garg, Pérez, and Ramchandran, undated). Given the cross-subsidies, the financial pressures on AMCs could affect the financial well-being of entire universities.

Although UC Health currently has overall positive financial margins, projections presented by the executive vice president of UC Health estimate that, if recent trends continue, costs could exceed revenues as soon as 2017 (UC, 2015a; Regents of UC, 2014). Like other AMCs across the nation, UC's AMCs have sought to broaden their business model beyond the traditional focus on specialty care through mergers, acquisitions, and strategic alignments with primary- and secondary-care clinics.

UC Health leaders are concerned, however, that additional efforts might be needed to further improve efficiency and expand UC Health's business model. In particular, there is concern that the current governance structure of UC Health could limit system leaders' ability to make the kinds of decisions that are needed to address current and anticipated challenges and do so in a timely manner. For example, the existing governance structure might not allow for the quick decisionmaking that can be necessary to facilitate mergers and partnerships vital to remaining competitive. There is further concern that the governance system does not provide sufficient opportunity for the five AMCs to act collectively to leverage economies of scale.

In response to these concerns, UC Health leaders have taken steps to increase coordination and otherwise improve joint decisionmaking among the five AMCs. The UC Office of the President (UCOP) and the five AMC hospital chief executive officers (CEOs) now communicate and coordinate informally through weekly telephone calls. UC Health also established a shared services management council (made up of the five AMC hospital CEOs, three medical school deans, two chancellors, one regent, three external experts and UCOP's executive vice president for UC Health), which now meets quarterly. Other initiatives, such as the UC Center for Health Quality and Innovation (UC, undated [a]) and Leveraging Scale for Value (UC, 2014a) have helped to align multiple campus actions related to health care quality (e.g., by sharing best practices and coordinating responses to hospital-acquired infections) and efficiency (e.g., by combining and streamlining procurement, purchasing, and human resource management) (Rosenberg, 2014). The benefits of coordination not only have accrued to the clinical enterprise but have also improved research and education, such as through collaborative approaches to genomic sequencing capacity across UC campuses (UC, 2014b). The regents are also currently discussing the possibility of (1) streamlining decisionmaking related to UC Health by defining clear dollar thresholds for transactions below which regent approval would not be required and (2) obtaining regent preapproval for executive compensation packages that meet specified standards.

Despite these efforts, UCOP and other stakeholders believe that significant governance challenges remain. Thus, in March 2015, the UC Board of Regents contracted with RAND Health, a division of the RAND Corporation, to examine the UC Health governance structure and make recommendations for potential changes to ensure the continued growth and sustainability of UC Health. RAND's specific charge was to focus on how the governance structure can be made *more nimble* in order to respond to the rapidly changing health care environment and more *capable of acting collectively as a system* in order to capitalize on UC Health's scale.

In this report, we provide an independent assessment of the case for change in UC Health's governance structure and suggest viable options for improving governance of UC Health. We base our analysis on review of documents that UCOP provided and others accessed through public sources; review of the peer-reviewed and non-peer-reviewed literature on AMC governance, operations, and finances; interviews with key leaders of UC and UC Health; and

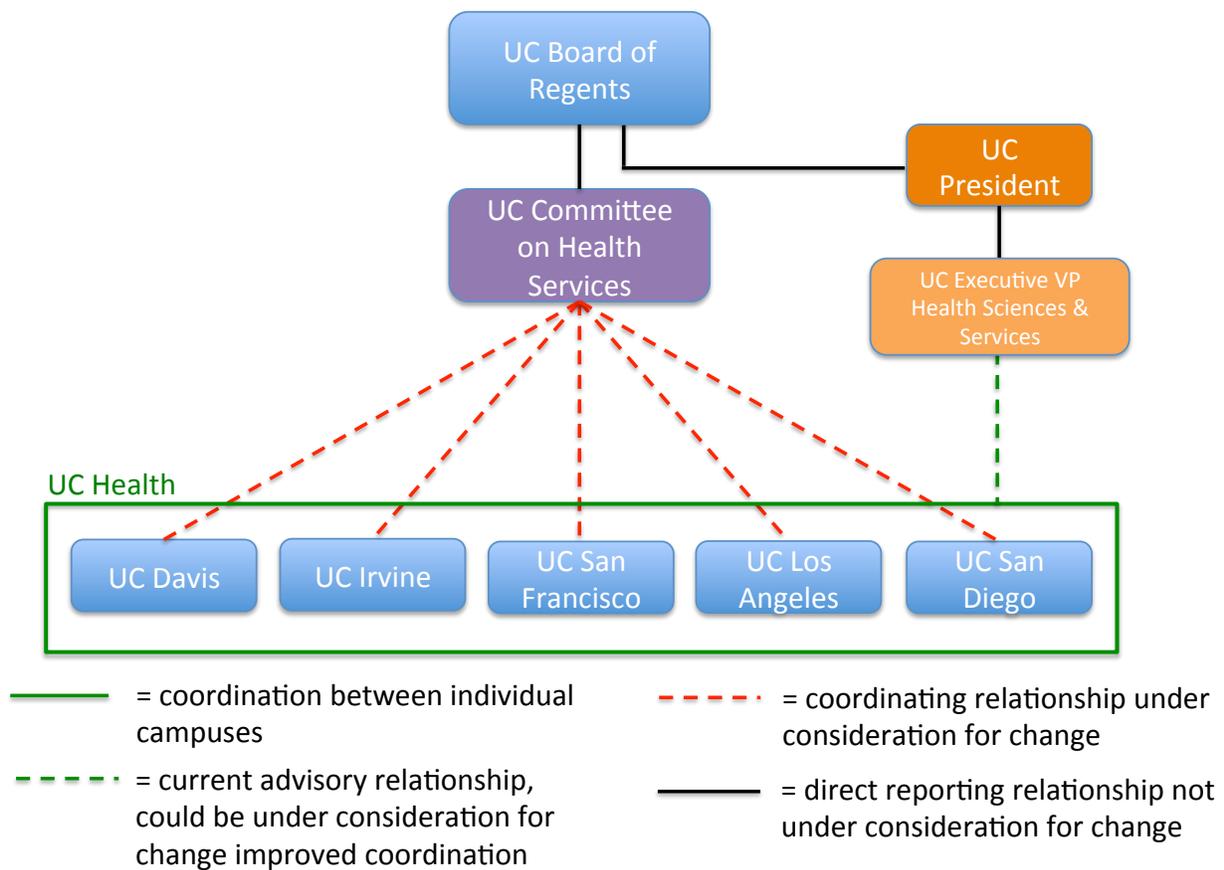
interviews with leadership of other AMCs around the United States that have recently addressed similar governance challenges in several different ways. We collected and analyzed data in April and May 2015. Given the short timeline of the effort, a detailed analysis of the AMCs' finances and operations was beyond the scope of this project. Additional information on data and methods is provided in Appendixes A and B.

We have organized this report as follows: We begin with a brief overview of UC Health's current governance system and discuss the assessment criteria used in this research. Then we assess the key gaps and strengths in the current governance system, identify and analyze options for addressing the gaps and sustaining the strengths, and provide recommendations for action.

Chapter Two. Overview of the Current Governance System of UC Health

Figure 2.1 provides a visual representation of the current UC Health governance structure. The system incorporates reporting and advisory relationships among leaders at each campus, UCOP, and the regents, as well as coordination activities and communication across campuses.

Figure 2.1: Structure of the Current UC Health Governance System



Reporting and Advisory Relationships Between the Board of Regents and UC Health

There are two distinct levels of reporting and advisory relationships in the current UC Health governance structure. One level consists of campus-level governance. Each AMC is embedded within the governance structure of its affiliated campus. This includes the medical and other related professional schools, as well as patient-care entities (e.g., the hospitals, as well as clinics

and other patient-care operations). (For ease in exposition, we use the term *hospital* to refer to all patient-care functions related to an AMC.) Some of these patient-care entities are run by CEOs, who report to campus-based chancellors, sometimes through vice chancellors. Other entities might be run by medical school departments or faculty practice plans. In some cases, the vice chancellor is also the dean of the school of medicine. Chancellors are responsible for all activity on their campuses and oversee cross-subsidies between revenue-generating patient-care functions and the medical education and research functions, as well as subsidies that support non-health care activities. Some campuses convene advisory boards for their AMCs and professional schools. However, many of these appear to focus on fundraising, and only some meet regularly (UC, 2015a).

Another level of reporting involves the individual campuses and the UC Board of Regents. All chancellors report to the UC president. The UC president, in turn, reports to the UC Board of Regents, which holds ultimate authority and accountability for all aspects of UC—physical infrastructure, appropriations, interface with the governor and legislature, and graduate and undergraduate education—all in addition to overseeing UC Health. The president is supported by the staff of UCOP, which provides legal, human resource, financial, and many other kinds of services to the UC system. The Board of Regents has a variety of standing committees, including the Committee on Health Services, which oversees the UC clinical enterprise and other health care-related matters (UC, 2013c). The committee is made up of nine regents, the UC president and two additional ex officio members, two advisory members, a faculty representative, and two staff members (UC, 2015b).

Coordination and Communication Activities Among the Five Academic Medical Centers

Although the five AMC campuses operate independently, the AMCs also coordinate certain activities through largely informal mechanisms that UCOP facilitates. As mentioned previously, in recent years, UCOP has sought to help UC Health take advantage of efficiencies of scale and scope, promote coordination in research among the campuses, and provide a venue in which CEOs can share best practices and develop responses to unexpected events. These efforts are largely guided by the executive vice president of UC Health (UC, undated [b]). Because the executive vice president has little formal authority over AMC leadership, cross-AMC coordination remains voluntary, and the power of the executive vice president's office resides in its ability to convene (through phone calls and regular in-person meetings with CEOs and chancellors) and persuade. Thus, for the most part, changes that affect all UC AMC campuses do not happen unless the key decisionmakers at each campus (e.g., chancellors and health-system CEOs) agree to them. In spite of the executive vice president's lack of formal authority, a significant increase in informal coordination among UC's AMCs has occurred in recent years.

Chapter Three. Assessment Criteria

In this chapter, we describe the criteria used to identify gaps and strengths in the current UC Health governance system and to evaluate options for improving it.

The published literature on academic governance, hospital governance, and board governance contains a large number of evaluative criteria that might be used to guide an analysis. Given the project's timeline, an extensive analysis and ranking of these criteria was impractical. Moreover, the literature on AMC governance highlights the importance of context and history in the design of strong governance systems (see, e.g., Wegner, undated; Kezar and Eckel, 2004; Governance Institute, 2005). Therefore, we focused our search for criteria on the two broad goals articulated in the project's statement of work: (1) *nimbleness* of decisionmaking and (2) *capability to act collectively as a system*.

With these goals as a starting point, we reviewed published literature to (1) identify criteria aligned with these broader goals and (2) assess the extent to which strong performance on identified criteria might lead to increases in market share, quality, and other indicators of performance. We also dedicated time during our interviews with key stakeholders to elicit their views of strengths and gaps in the current governance system and to obtain feedback on draft lists of evaluative criteria. In some instances, interviewees suggested criteria that were not on our draft lists or offered helpful perspectives on proposed criteria. However, there was considerable overlap between the criteria that our interviewees identified and the criteria that we identified in the literature review. In sum, we identified seven criteria using this process:

- *timeliness and efficiency of decisionmaking*: Streamlining the process of arriving at decisions can improve the health system's ability to respond to rapidly changing conditions. Although we did not identify empirical studies relating timeliness of decisionmaking to clinical performance, this was a strong theme in the interviews. It also comports generally with the directive to employ clear decisionmaking processes that do not require excessive time and effort.
- *expertise*: Timely and efficient decisionmaking processes can be of limited value if decisionmakers lack the expertise—or access to it—needed to make well-informed decisions. The presence of certain types of individuals (e.g., nurses and physicians) on hospital boards has been linked to variations in clinical quality ratings (Szekendi et al., 2014), and board-member expertise frequently appears in lists of desirable attributes of hospital board governance (Totten, 2015). Interviews, however, suggest that, in addition to health care-specific expertise, more-generalized expertise, such as knowledge of running a large, complex business enterprise, is also vital. Thus, we defined expertise broadly for the purposes of our analysis.
- *ability to provide strategic guidance*: The literature on board governance often stresses the importance of focusing oversight boards' attention on providing strategic, system-level, and forward-looking guidance while limiting the amount of time and attention paid

to specific day-to-day management and operational decisions (Prybil et al., 2012; Ginter, Swayne, and Duncan, 2002). One study finds a statistically significant relationship between a hospital's quality ranking and the degree to which the hospital's board focuses on strategic issues (Szekendi et al., 2014), while another finds that focus on strategic activity (and other characteristics typically associated with corporate versus nonprofit boards) is related to higher patient admissions and market share (Alexander and Lee, 2006).

- *ability to take advantage of system-level efficiencies*: This criterion assesses the extent to which the system can identify and leverage economies of scale (e.g., joint purchasing) and scope (e.g., specialization across campuses) to achieve greater efficiencies (Becker, Formisano, and Getto, 2010; Karpf and Lofgren, 2012). Given UC Health's multicampus structure, this involves coordination among decisionmakers at the five campuses. There are few other multicampus AMCs in the United States and therefore fewer empirical research studies to support this criterion (Governance Institute, 2005).
- *ability to maintain alignment across the "triple mission" (patient care, research, and education)*: This criterion assesses the extent to which the governance structure facilitates and encourages alignment across all AMC missions. Both the literature and our interviews suggest that having leadership in each of the affected areas (patient care, teaching, and research) that shares in the overall vision of the AMC can help reduce conflict while enhancing sound decisionmaking (Reece, Chrencik, and Miller, 2012; Borden et al., 2015; Kirch et al., 2005).
- *responsiveness to local campus conditions*: This criterion assesses the extent to which the system is responsive to the market conditions and community context at each of the medical campuses in the UC system. This issue is relevant to most large, multisite medical systems (Prybil et al., 2012) but is of particular relevance to UC Health with its five large AMCs. Our interviewees emphasized that understanding these local factors is crucial to remaining competitive.
- *feasibility*: This criterion addresses the costs (e.g., time and effort) of making a transition from the current system to any proposed new system, which is a standard criterion in policy analysis (Bardach, 2012; Weimer and Vining, 2012). In the case of UC Health governance, this might include revisions to laws or bylaws or negotiating memoranda of understanding. Feasibility also incorporates the perceived risk that the new governance system creates more problems than it solves. We made no systematic attempt to assess political feasibility.

The first criterion (timeliness and efficiency of decisionmaking) clearly relates to the broader goal of *nimbleness*, while several others (strategic guidance, system-level efficiencies, alignment across the triple mission, and responsiveness to local campus conditions) clearly relate to the goal of *acting collectively as a system*. The expertise criterion, by contrast, supports both goals. Finally, the feasibility criterion seeks to focus attention on both the potential benefits *and* costs of changing the governance system.

We note that, given the diversity of AMC governance structures in the United States, there is no universal "gold standard" or optimum structure that would work across all institutions (Wegner, undated). A set of case studies on university governance has found, for instance, that structure can improve efficiency (e.g., timeliness) but that effectiveness (i.e., ability to produce

decisions that improve performance) depends mostly on how individuals work within those structures (e.g., leadership, relationships, and trust) (Kezar, 2004). Other studies have drawn a distinction between structural and functional integration, in which *structure* refers to formal institutions and *function* refers to the relationships among and activities of those working within those formal structures. Structurally integrated institutions are organized under a single leadership model for both the hospital and medical school. In functionally integrated institutions, the relationships between the leaders at the hospital and medical school are highly collaborative regardless of governance structure. AMC performance has been found to be more strongly associated with functional than with structural integration. However, one study also finds that structural integration increases the likelihood of functional integration (Keroack et al., 2011). Thus, two AMCs with similar governance structures might perform very differently under the evaluation criteria described above as a result of differences in the strength of leadership, interactions, and working relationships among key players. In sum, it appears that formal governance structure can help facilitate, but not guarantee, functional integration.

Thus, our assessment goes beyond a focus on governance structures to include best practices that enhance the ability of any governance structure to work more effectively (Szekendi et al., 2014). These best practices, described in more detail in upcoming chapters, include continual board-member education and development (Jha and Epstein, 2010); the use of performance measures as a means of ensuring accountability (Wietecha, Lipstein, and Rabkin, 2009); and regular self-assessment of governance structures and processes to allow for course corrections and improvement (Health Research and Educational Trust, 2007). In addition, where relevant, our assessment notes situations in which implementation of a proposed governance structure might succeed or fail depending on the degree to which UC entities operate in a functionally integrated manner.

Chapter Four. An Assessment of the Current UC Health Governance System

We used the criteria just described to identify gaps and strengths in the current UC Health governance system. Using information from the interviews with UC stakeholders and the document and literature review, we summarize some of the key gaps and improvement opportunities in the current UC Health governance system.

Reporting and Advisory Relationships Between the Board of Regents and UC Health

We begin by discussing regent oversight. Here, the findings relate mostly to the criteria of timeliness and efficiency of decisionmaking, expertise, and the ability to provide strategic guidance.

There Are Many Perceived Barriers to Timeliness of Decisionmaking

Several respondents noted that decisions are made too slowly, given the speed at which things change in the health care market. Thus, for many, the current system performs poorly on the criterion of timeliness in decisionmaking. For example, several respondents noted that the requirement for potential agenda items to appear on the Committee on Health Services meeting agenda two months in advance of the actual meeting could cause them to lose out on potential opportunities when other organizations could move more quickly. For instance, one respondent said that the need to get a proposed merger on the agenda two months before a committee meeting caused the campus to lose out on an acquisition opportunity when another buyer was able to move more quickly. However, there was not universal agreement about the degree to which timeliness is a problem and about where any bottlenecks might lie—i.e., with the regents or with UCOP and campus-level processes that occur before issues reach the regents. Several interviewees noted that making timely decisions about fast-moving business issues can be difficult because of the volume and scope of issues for which regents are responsible.

Interviewees Were Concerned About Whether Regents Have Access to Sufficient Expertise

Many respondents expressed concerns about whether the regents possess the expertise needed to provide effective oversight of what are essentially five large and complex business enterprises. This includes knowledge of current trends in the health care market, the impact of recent policy developments (e.g., the Affordable Care Act), and the ways in which revenues from UC Health cross-subsidize other critical university functions. Some interviewees stated that there

have been notable improvements in regent awareness of these issues but that they believed that the regents still lack the depth of understanding needed to help UC Health respond strategically to current and future developments. However, regents are selected to represent the broader public, not for health care expertise. Unlike corporate boards, whose members are typically selected because of their expertise in a particular business or type of venture, the California Constitution states that regents should be selected to reflect “able persons broadly reflective of the economic, cultural, and social diversity of the State” (California Constitution, Art. 9, § 9[d]), thus ensuring a link between the university and the views of the broader citizenry in the state. This, in combination with the broad set of demands on regents’ time, could make it difficult for regents to develop in-depth knowledge of the health care industry. Thus, the current system performs poorly with respect to its ability to include health care expertise in decisionmaking.

Some Feel That the Regents’ Agenda Selection Process Leaves Too Little Time for Strategic Discussions

Another commonly expressed concern was the regents’ perceived tendency to focus on specific operational issues at the expense of “proactive” policy discussions and strategic guidance to UC Health. Current bylaws for the Committee on Health Services require committee members to engage not only on general strategy issues (e.g., strategic plans, budgets, future legislation, and AMC annual reports) but also on operational and management issues (e.g., specific partnerships and mergers and acquisitions) (UC, 2013c). Although some responsibilities may be delegated to the president, others may not. For instance, Standing Order 100.4(dd)(5) (UC, 2011), dating from 1975, excludes from delegation to the president the ability to approve affiliations with other entities, regardless of the financial value of the transaction. The regents’ broad range of responsibilities, along with lack of expertise in health care, contributes to the perception that regents focus on “minor” issues at the expense of providing high-level strategic oversight.

A related theme was concern about whether Committee on Health Services meetings are good venues for discussion and decisionmaking on complex business matters. First, the committee’s meetings are typically held on the same days as full regent meetings, and full agendas often leave little time for in-depth discussion of complex issues related to running a health system. Second, sometimes, issues before the committee involve competition-sensitive information (e.g., business strategies), and there are concerns about revealing information in public venues that might be used by UC Health’s competitors (California Attorney General’s Office, undated).

Coordination and Communication Activities Among the Five Academic Medical Centers

The remaining findings relate to the criteria on system-level efficiencies, the triple mission, and responsiveness to local campus conditions. Through the interviews, we identified both the benefits of the current system, which emphasizes campus-level “sovereignty” under the leadership of chancellors (rather than centralization at the system level), and opportunities for improvement. Findings related to the coordination and communication activities among the five AMCs are closely tied to the assessment criteria of the ability to take advantage of system-level efficiencies, the ability to maintain alignment across the triple mission, and responsiveness to local campus conditions. The following themes came up frequently during the interviews.

Coordination Allows Academic Medical Centers to Leverage Economies of Scale Within UC Health

Many respondents pointed to recent instances in which having all five campuses negotiate as a unified block had resulted in cost savings (i.e., under the Leveraging Scale for Value initiative mentioned earlier). These included joint purchasing agreements, standardizing billing and collection processes across UC medical centers, and coordinating to sending clinical lab tests to UC medical centers instead of external labs. Many believed that additional coordination could provide even more savings. Overall, additional coordination activities on purchasing and negotiating would improve UC Health’s ability to take advantage of additional opportunities to leverage economies of scale.

Coordination Among the Academic Medical Centers Can Prevent Poor Financial Performance and Provide System-Level Efficiencies

UC issues bonds to fund projects at individual medical centers that are secured by gross revenues of all five AMCs. These bonds are also rated together, and the credit rating is influenced by UC’s high financial exposure to the health care sector as percentage of revenue (Moody’s, 2010). As one CEO noted, each of the AMCs has struggled financially at some time:

What has changed in the last five years is that, as state dollars are reduced, the hospitals and clinical enterprise have backfilled those dollars. If a hospital gets into financial trouble, it’s not just the hospitals—it’s the entire academic enterprise.

Our review of other universities’ AMCs indicates that poor financial decisions at one AMC within a system have the potential for negative impacts throughout the entire system. Thus, coordination among the AMCs that prevents poor financial performance could result in lower costs of capital, a system-level efficiency that might not be possible without more-formal centralization.

Another system-level efficiency might be some of the high-complexity medical procedures that are currently replicated at multiple AMCs. Some interviewees felt that the UC Health system as a whole could likely improve quality and reduce costs by “rationalizing” care services across sites. Concentrating these kinds of care at fewer sites could reduce costs of care and improve quality (Sternberg and Dougherty, 2015). Recent studies have indicated that a low volume of care in a particular area, for even routine surgeries, is associated with poor outcomes (Ley, 2014; Sternberg and Dougherty, 2015; Worley et al., 2012). Centralization efforts around care quality could both reduce system-level inefficiencies and increase alignment of the triple mission (patient care, education, and research). Other interviewees, however, doubted whether patients would travel to other (often-distant) AMCs for any but the most-specialized care (e.g., organ transplants, rare cancers, and severe burns).

A Central Mechanism Is Needed for Adjudicating Conflicts in Shared Markets

Given the considerable distances between most of the medical campuses, few of them compete in the same primary health care markets. However, as the AMCs expand their reach, Southern California has become an area where the markets of UC Irvine, UC Los Angeles, UC San Diego, and even the community-based clinical enterprise of UC Riverside can overlap. Several respondents noted the need for a “referee” of sorts when “territorial claims,” such as partnerships and acquisitions, need to be resolved. Without such coordination, one UC AMC would treat another as it would any other potential competitor, by promoting its own capabilities and experience at the expense of the other. Another respondent noted that competition between the AMCs might be “healthy” in some respects but might not serve the UC Health system well overall. Acting as a system could reduce the inefficiencies associated with market competition among UC’s AMCs.

The Current Decentralized Structure of UC Health Is Well-Positioned to Respond to Local Needs

Some respondents were concerned that greater centralization could reduce the authority of campus-level leaders, who have local expertise and understand local markets and contexts, and diminish the ability of AMC leadership to respond to local environmental changes. One respondent noted that, if care were to be rationalized at the system level, it might make sense to eliminate all but a few programs in certain highly specialized areas, such as organ transplantation and burn units. However, because the UC AMCs are all sites for training medical students, medical residents, and researchers, eliminating such programs would also eliminate vital educational and training opportunities.

The Current Decentralized Structure of UC Health Relies on Local Branding

Respondents at many UC campuses, as well as non-UC respondents, maintained that, from the patient’s point of view, the health-system “brand” is local. They maintained that people think

of their health care as being provided by a specific UC campus (i.e., UC Irvine or UC Los Angeles), not by “UC Health” as a whole. Some respondents also noted that patients do not consider the UC AMCs as interchangeable and might have limited tolerance for traveling to other UC campuses—often hundreds of miles away—to seek care. Thus, a more centralized UC Health might change the value of the brand, for better or for worse.

The Current Decentralized Structure of UC Health Ensures That Chancellors’ Responsibility for the Activities on Their Campuses Matches Their Authority

Some respondents noted that each chancellor will ultimately be held responsible for what goes on at his or her campus, even if the AMC became a separate entity. The AMCs and university campuses are inextricably linked; thus, vesting more power within the centralized system would leave the chancellors with the same level of responsibility but less authority. This decentralized structure is more responsive to local campus conditions but less able to take advantage of system-level efficiencies. High involvement of the chancellors also ensures alignment of the triple mission (patient care, education, and research).

Summary

In sum, based on interviews and document analysis, it appears that there is wide acknowledgment that the functioning of the current governance system with respect to the reporting and advisory relationships between the regents and UC Health could be improved. However, the case for additional centralization appears to be mixed. Although it seems clear that some activities could benefit from more-centralized decisionmaking at the UC Health system level, some decisions also appear to benefit from the ability to tailor decisions to unique conditions at the campus and community levels.

Chapter Five. Descriptions of Options for Addressing Governance Challenges

Informed by the literature review, interviews, and our own analysis, we identified four governance options for consideration. We selected options that address one or more of the gaps and improvement opportunities described above. We also sought options for which there is a precedent in similar university system; thus, we focused on options used by public universities. We sought to emphasize options for which there is some documented evidence of success and a plausible chain of argument connecting the option to improved outcomes. Given the paucity of empirical evidence on AMC governance, however, this was often not possible. Finally, we sought to ensure that the set of options included at least some that could be implemented in the near term.

The selected options include an advisory committee without delegated authority, a governing board with delegated authority, and spinning UC Health off as separate entity. We also included the status quo, which most policy-analysis texts recommend as part of any sound analysis (Bardach, 2012). For each option, there might be multiple variations on structural and procedural elements, and these variations will influence how the option ultimately functions. However, the four options described in this chapter present a useful typology of governance models relevant for addressing UC's governance challenges. Note that, for purposes of our analysis, we assumed that the Committee on Health Services would remain in place.

We note that, for each option (excluding option 1), we also present a description of AMCs that have instituted the proposed governance option. Because of the paucity of documented evidence and difficulties in directly linking governance structure to AMC performance, the selected AMCs are meant to serve only as illustrations of how these different options might look in a real-world setting, not necessarily as aspirational benchmarks.

Option 1: Status Quo with Implementation of Best Practices

Under this option, the existing governance structure would be maintained. However, we include in this option implementation of a few best practices from the literature. As noted above, we identified three best practices that seem likely to address some of the specific gaps and improvement opportunities described above:

- *Provide onboarding and ongoing training for board members.* Training should be provided when a board member is initially appointed to the Committee on Health Service and on an ongoing basis during his or her tenure. The training might include an introduction to the health care system and recent policy changes, as well as roles and responsibilities of the regents vis-à-vis chancellors, CEOs, and deans.

- *Identify and use a standard set of performance metrics.* Identifying and using a standard set of performance metrics can support the regents' and committee's need to hold UC Health accountable. By providing a clear line of sight into the health system, this practice could also make committee members comfortable in affording AMC CEOs and other health-system leaders more autonomy over ongoing operational decisions about the system. In order to ensure buy-in, specific metrics should be selected in consultation with major stakeholders and might include financial performance, patient volume, quality, cost per unit, access, and patient-payer mix.
- *Have periodic evaluations of the governance system.* Given the uniqueness of the UC system, any revision to an AMC's governance system will involve moving into uncharted territory. Decisionmakers should regularly evaluate the extent to which the governance system can meet key criteria, e.g., timeliness of decisionmaking and access to expertise.

We include implementation of these three best practices in *each* of the remaining options described below.

Option 2: UC Health System Advisory Board Without Delegated Authority

Description of Option

In this option, the Board of Regents would authorize the creation of an advisory board to the Committee on Health Services. This is *in addition to* implementing the best practices described under option 1 (training, performance measures, and evaluation). Membership of the advisory board is designed to reflect some of the issues discussed earlier in the report: (1) the need to improve regent and committee access to expertise and (2) the need to strike a balance between the benefits of centralized coordination of AMCs under UCOP's leadership and the benefits of campus-level sovereignty under the leadership of the chancellors. The advisory board would have 18 members:

- chair and vice chair of the committee
- UC Health executive vice president
- CEOs of the five medical campuses
- chancellors or their designees (e.g., vice chancellors for health) of each of the five medical campuses
- five external experts in health care and related fields, appointed by members of the committee.

In the interest of limiting the size of the advisory board, we do not include deans of schools of medicine. We assume that chancellors or vice chancellors (the latter of whom are often also deans) could represent their perspectives. If this proves insufficient, it might be necessary to incorporate at least some deans on the board. This option (and option 3 below) would build on the current practice of holding regular meetings with chancellors, CEOs, and others (see discussion above) but would formalize them and provide mechanisms to ensure that these discussions are linked to discussions of the Committee on Health Services.

The full advisory board would meet periodically (e.g., quarterly) and be tasked with providing recommendations to the regents and the committee. However, the regents and the committee would retain formal decisionmaking authority. The board's responsibility would include routine performance monitoring, as well as consideration of time-sensitive matters, such as fast-moving business opportunities and recruitment and retention decisions. The board would also engage on issues of strategy for UC Health, assess future trends in the health care marketplace, and provide advice on how best to leverage UC Health assets to pursue the triple mission (patient care, education, and research) and how best to balance system- and campus-level considerations.

The advisory board would operate according to an explicit process for arriving at recommendations, including, but not limited to, majority voting. Super majorities could be required in order to encourage broader consensus but could also increase decision costs and create a bias in favor of the status quo. In addition to recommendations, the advisory board would also provide periodic (e.g., quarterly) performance reports to the regents and the committee to track the status of key indicators and highlight significant issues for consideration by the regents and the committee. Such issues might include areas of strength or weakness, future threats or opportunities, and issues with significant bearing on concerns to the UC system as a whole (e.g., facilities, undergraduate curriculum, and labor contracts).

An executive committee would serve as a standing committee of the advisory board and would be made up of the following members of the larger advisory board: the chair of the Committee on Health Services, the UC Health executive vice president, one CEO, the chancellor of one of the five campuses, and one external expert. The CEO, chancellor, and external expert on the executive committee would rotate on a regular basis (e.g., every two years). The executive committee would determine the agenda for the advisory board meetings and develop recommendations for the regents and Committee on Health Services based on input from the meetings. The executive committee would meet more frequently than the advisory board (e.g., monthly or biweekly), as needed, and would have the power to transact routine business in between regular advisory board sessions.

Variation on Option 2

Instead of creating a separate advisory board that meets separately from the Committee on Health Services, external experts on the advisory board could also attend Committee on Health Services meetings, thereby bolstering the level of expertise available to the regents. The UC regents have used similar approach for the Regents Committee on Investments, in which two members of the Investment Advisory Committee attend Regents Committee on Investments meetings as nonvoting advisers (referred to as regents-designate) (UC, 2012). However, this practice could reduce the amount of time allocated to in-depth discussions of health care issues. Also, unlike investment decisions that can be made at the system level, running UC Health requires participation of campus-level stakeholders. Thus, including health experts and key UC

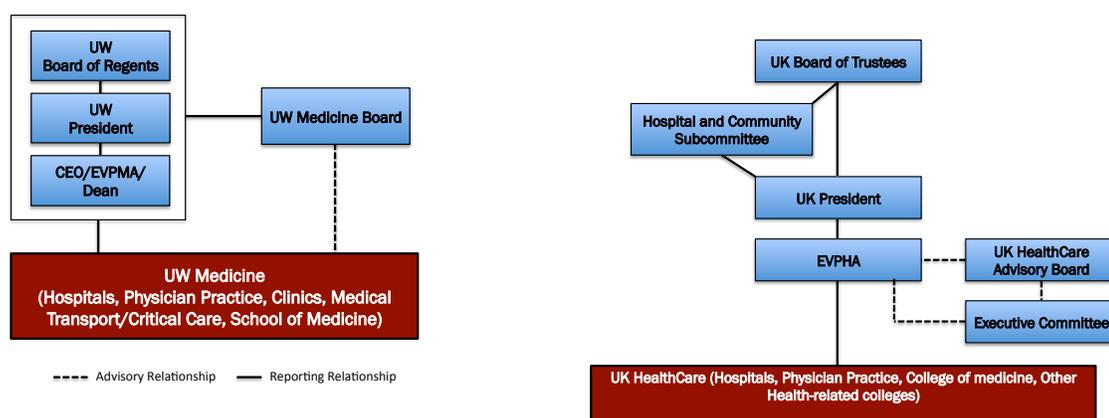
Health decisionmakers might result in Committee on Health Services meetings with more than two dozen participants and might become unwieldy. The remainder of this report assumes that option 2 involves a separate advisory board.

Examples from Case Studies

A precedent for this sort of advisory board can be found in the University of Washington (UW) Medicine Board and the University of Kentucky (UK) Healthcare Advisory Board. Both are technically advisory boards, which provide advice and guidance to others with decisionmaking authority. In the UW system, the decisionmaking body involves the regents, the president, and the CEO, executive vice president, or dean. At UK, decisionmaking authority rests with the executive vice president for health affairs, who has the authority and responsibility for most day-to-day decisions. Oversight is provided by the Board of Trustees for UK and the University Health Care Committee. At both UW and UK, these advisory boards include a combination of internal decisionmakers (e.g., stakeholders from the university and school of medicine, the larger governing board, and local community members with expertise in health care or in running large, complex business enterprises [or both]). Each board has about 17 members, which is within the range of most governing boards we examined. Each board also has an executive committee, which is responsible for making faster decisions.

At both UW and UK, certain types of decisions, such as major capital expenditures and new construction, are presented to the overall Board of Trustees or Board of Regents. However, the Advisory Board and the Executive Committee still discuss these issues extensively and make recommendations to the ultimate deciding authority (see Figure 5.1).

Figure 5.1: University of Washington and University of Kentucky Governance Structures



Our analysis suggests that two factors enhance the UW advisory board's ability to operate in a timely and efficient manner. First, the UW board includes three standing committees: finance and audit, compliance, and patient safety and quality. The committee structure gives emphasis to these topics and related business decisions. Second, other decisionmakers are committed to taking the advice of its advisory board seriously. This is partially due to both boards' ability to recruit top-caliber individuals whose backgrounds suggest that they can be trusted with high-level decisions.

If UC chooses to create an advisory board of this sort, it might follow the UW model by creating subcommittees. In this variant, the executive committee, in addition to providing rapid feedback through more-frequent meetings, would also take responsibility for coordinating the activities of the internal and external subcommittees through shared membership, agenda-setting, and information-sharing. Joint meetings every year or two could provide opportunities for members of the internal and external subcommittees to work with one another.

Option 3. UC Health Oversight Board with Delegated Authority

Description of Option

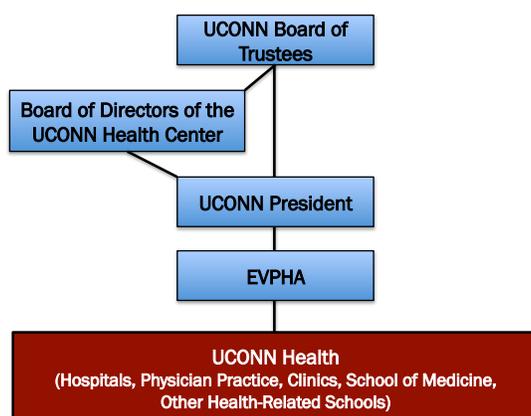
The third option adopts all the features of the proposed UC Health System Advisory Board (option 2) but also formally delegates some decisionmaking authority to the newly created board. Thus, option 3 establishes something called the UC Health Oversight Board, indicating that its responsibilities would go beyond providing advice to making binding decisions. This is *in addition to* implementing the best practices described under option 1 (training, performance measures, and evaluation).

We stress that, as in option 2, under option 3, the regents and Committee on Health Services would retain ultimate authority over UC Health. However, in this option, the regents and committee would empower the oversight board to make certain decisions *on its behalf* and under its guidance. If this option is selected, the primary question to answer would be how broad the delegation should be—that is, over what range of decisions should the oversight board have delegated authority? The regents and committee might choose to develop decision thresholds for different kinds of topics to determine what decisions can best be delegated. For instance, thresholds could be drawn over economic impacts (e.g., decisions that fall below a certain dollar threshold) or population impacts (e.g., decisions that affect the entire campus or multiple campuses versus a specific group). In addition, the regents and committee could consider delegating authority based on certain topics, such as promotion and compensation plans. In the end, delegated authorities should be appropriate to the context and needs of the UC system and will require evaluation over time.

Examples from Case Studies

An example for this option is the Board of Directors of the University of Connecticut (UConn) Health Center. The board was established in 2002, replacing the Health Affairs Committee, which was a subcommittee of the UConn Board of Trustees (analogous to the Board of Regents). The state legislature approved the board, which includes subcommittees on academic affairs, clinical affairs, and finance. The board is made up of 18 members and includes a combination of internal decisionmakers (e.g., trustees and the university president), representatives from Connecticut state government (e.g., commissioner of the Department of Public Health and the executive financial officer in the Office of Policy and Management), and external experts and leaders in health care and business (see Figure 5.2) (UConn, 2015).

Figure 5.2: University of Connecticut Governance Structure



Delegated responsibilities at UCONN include *oversight and decisionmaking authority* for grants and contracts, compensation plans and labor contracts, faculty promotions and tenure, medical staff appointments, adjudication of issues related to faculty grievances over promotion and pay, staffing levels, business contracts, general operating policies, space allocation, strategic planning, academic programming, and changes in bylaws of the UConn School of Medicine and UConn School of Dental Medicine. In addition, the board acts in an *advisory capacity* to the trustees for issues, such as annual operating and capital budgets, changes in mission, fundraising, and closure of academic departments.

We note that UK also has an oversight board, the University Health Care Committee, which is separate from the Board of Trustees and charged with governance for the clinical enterprise. In practice, however, the University Health Care Committee tends to defer to the judgment of the UK Healthcare Advisory Board. In option 3, we propose a separate oversight board akin to that at UConn, which takes on the responsibilities of reviewing activities, making judgments, and issuing decisions.

We also note that the State University of New York (SUNY), which is a four-AMC system, is currently in the process of changing its governance structure to create a separate oversight board similar to that at UConn for the health care enterprise. Pending legislative approval, the new oversight board would report to the Board of Trustees but would have delegated responsibilities and decisionmaking authority for all four AMCs. The board would include a combination of external experts and internal decisionmakers (e.g., the four campus presidents).

Option 4: Spin Off UC Health as a Separate Entity

Description of Option

In option 4, at least some AMCs would become legally separate from the rest of the university, with separate governance structures. This is *in addition to* implementing the best practices described under option 1 (training, performance measures, and evaluation).

Given the presence of five AMCs in the UC system, spinning off UC Health might take one of two forms:

- *spin-off option 1*: Each of the five AMC campuses spins off its hospitals, or each AMC campus is allowed to make its own decision about whether to spin off.
- *spin-off option 2*: All the hospitals and health care facilities across the five campuses spin off together as a statewide, integrated organizational entity.

We did not find any examples of multiple-AMC systems with multiple campuses in which the hospitals had been spun off, so this would be new territory for UC.¹ However, spinning the AMCs off individually would probably not afford new opportunities for UC Health to exploit the system's scale, and we therefore do not discuss it further. We base the following assessment on spin off option 2.

Examples from Case Studies

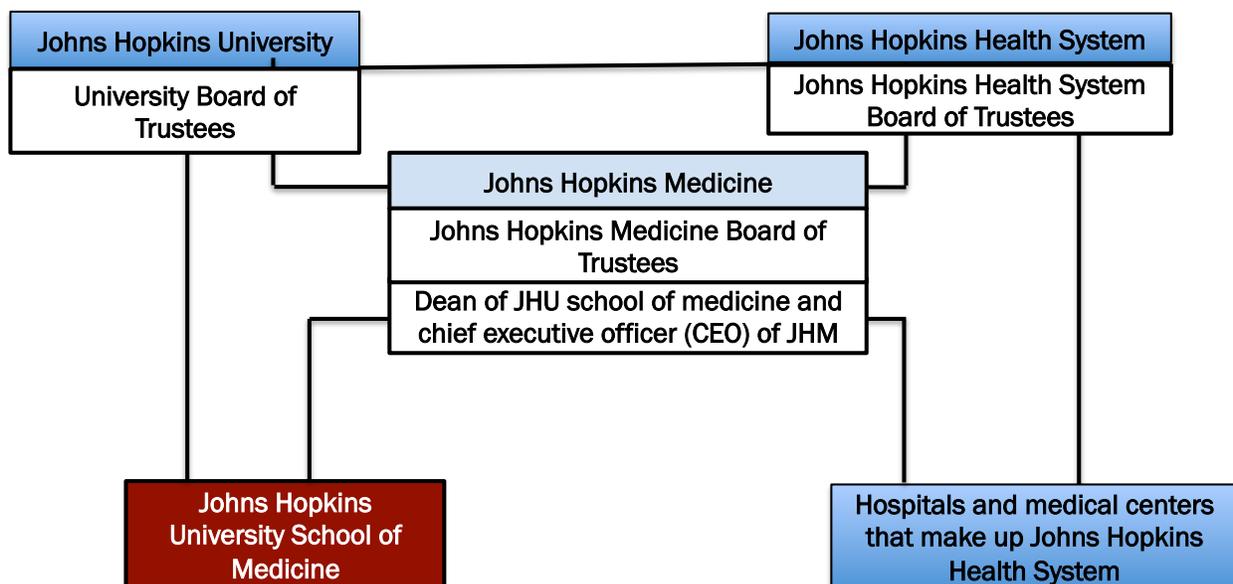
In 1991, the University of Colorado spun off its hospital, and state legislation established the University of Colorado Hospital Authority (University of Colorado, 2013). Colorado has established formal contractual agreements between the hospital and university systems, such as having the chancellor and dean of the University of Colorado School of Medicine serve on the hospital and health care system boards. There are also informal arrangements made by agreement by all parties, such as having an executive council of the chancellor, dean, and hospital CEOs meet regularly and solve disputes, as needed. In Colorado, one reason to spin off was to get out from under the state procurement and personnel rules, which inhibited efficient decisionmaking.

¹ One potential exception is the University of Arizona, where the hospitals associated with their AMCs were recently spun off to become part of Banner Health. In this case, however, the hospitals were not spun off as independent entities but acquired by another, privately held health system. See Arizona Health Sciences Center, 2014.

Although we cannot say with certainty that spinning off has directly resulted in the health care system flourishing, University of Colorado Health has exceeded growth targets for the past 15 years and transformed from a struggling entity to a profitable one (Larson, 2012; Moody's, 2015).

At Johns Hopkins University, the hospital and the university were never integrated within a single body, but this system provides another example of how organizationally distinct hospitals and universities can work together to pursue the triple mission. The two entities had relied on a variety of fairly informal relationships and collaborations to function together as an AMC. However, by 1997, it was clear that the lack of a *formal* integrating body was resulting in poor coordination and organizational conflict (Kastor, 2004). The current structure, known as Johns Hopkins Medicine (JHM), is a formal link between Johns Hopkins University (representing the university) and the Johns Hopkins Hospital (representing the hospital) (see Figure 5.3). The boards of both the university and the hospital system created JHM to streamline decisionmaking and integrate and align university and hospital activities. The president of JHM serves as both the dean of the Johns Hopkins University School of Medicine and the CEO of the hospital system. JHM does not have legally binding authority over the two entities but serves as an integrating and facilitating body. The JHM board includes not only representatives from the hospital and the university but also community members with specific expertise, including leaders in the financial, pharmaceutical, and medical fields. The new governance structure resulted in a strengthened and profitable physician practice plan, expansion of clinical services, and alignment of fundraising efforts so the School of Medicine and health system were no longer in competition (Reece, Chrencik, and Miller, 2012).

Figure 5.3: Johns Hopkins Governance Structure



Chapter Six. Analysis of Options

In this chapter, we apply the criteria described above to each of the four options we identified. The evaluation team iteratively assigned stoplight (i.e., red, yellow, or green) ratings to each of the options. Given the absence of agreed-upon objective benchmarks, the ratings were relative. That is, a red rating indicates poor performance relative to other options, yellow moderate performance, and green strong performance. We assumed that each of the criteria should be weighted more or less equally. We evaluated options under the assumption that UC Health would want to implement actions in the short term; thus, we gave slightly more weight to feasibility.

After each iteration, the team identified and discussed differences in ratings. We repeated the process until we achieved consensus. We show relevant criteria in italics. We note that there is an irreducible degree of judgment in the ratings, but we leave it to the reader to determine the soundness of this judgment. We summarize our ratings in Table 7.1 in Chapter Seven, which enables readers to see the consequences of different ratings. We remind readers that we conducted our analyses under the explicit assumption that, no matter which option UC Health might select, the best practices outlined earlier in the report would be implemented (e.g., training, performance measures, and evaluation).

Option 1: Maintain the Status Quo

As noted above, in this option, the governance structure of UC Health would remain as it is today but assumes that the system would implement the best practices described above.

Potential Advantages

This option builds on the strengths of the current system, including strong existing alignment among the three parts of UC Health's *triple mission*—patient care, education, and research—as well as responsiveness to local market and campus conditions. The implementation of best practices, as well as other reforms (e.g., executive compensation and delegated authority), has the potential to improve the *timeliness and efficiency* of decisionmaking. Depending on the level of change brought on by these best practices, the level and quality of *strategic guidance* offered to UC Health might improve. There are also opportunities for improvements in *system-level efficiencies*, mostly through initiatives that are already under way, such as Leveraging Scale for Value. Implementing a standard performance-measurement system could involve significant time and effort but could draw on data sources that appear to be already in use. Training for board members could likely draw on existing materials. Similarly, although ongoing external evaluation might be ideal (and perhaps costly), informal and internal evaluation might be

sufficient. Thus, option 1 appears to be relatively *feasible* because it involves low transition costs. Because the option does not require major changes, it also poses a low risk of failure.

Evidence of the Impact on Performance

As noted above, there is limited empirical evidence that use of these and similar best practices is associated with higher hospital quality rankings and some financial indicators (Szekendi et al., 2014).

Potential Disadvantages

The key disadvantage of this option is that it does not incorporate any additional outside *expertise* into the current governance structure. Thus, it is unclear whether this option would address the need for stronger *strategic guidance* or would improve the system's ability to capture *system-level efficiencies*. Moreover, the costs of implementing the best practices, although not extensive, are nontrivial.

Summary

This option presents few major changes but would require the implementation of best practices, which is likely to require some investment and ongoing effort. Although the option would address some of the issues identified in the relationships between the UC Board of Regents and UC Health, it would not necessarily address the issues related to coordination among UC AMCs.

Option 2: UC Health System Advisory Board Without Delegated Authority

As noted above, in this option, the Board of Regents would authorize the creation of an advisory board to the Committee on Health Services.

Potential Advantages

Discussions with UCOP staff suggest that an advisory committee without formal delegation of authority could be established without regent actions. Thus, it appears that this option could be implemented relatively quickly, based on a recommendation to the regents from UCOP. An advisory board would increase the amount of relevant *expertise* available both to the Committee on Health Services and the Regents Committee of the Whole. The inclusion of chancellors and CEOs on the advisory board would provide an opportunity to weigh *system-level efficiencies* against *responsiveness to campus conditions* and how to address the *triple mission* of patient care, education, and research. This, along with the presence of additional experts, might improve the quality of *strategic guidance* provided to UC Health.

The advisory board would also create a regular venue in which key stakeholders could get to know each other's perspectives and build trust. In this regard—and through the direct

involvement of the Committee on Health Services chair, as well as regular reports to the committee—the advisory board might help forge closer and more-routine linkages between the committee and UCOP and UC Health leadership. Currently, UCOP facilitates regular, monthly meetings among chancellors; weekly and monthly meetings among medical-system CEOs; and health-focused retreats every two years that include both groups. These meetings often involve presentations from and discussions with external experts.

Evidence of the Impact on Performance

The evidence of this option’s impact on system performance can be drawn from UK HealthCare. We caution that, although the governance structure is associated with changes in system performance, the system was considering and implementing other changes (e.g., during the period when governance changes were being considered and implemented, the state legislature had urged UK to become a top 20 research institution). Thus, it is not clear what (if any) independent impact implementation of the governance structure had on system performance. That said, current data do indicate that, between fiscal year (FY) 2004 and FY 2008, UK HealthCare “cardiology inpatient market share grew from 12.4 percent to 22.4 percent, digestive diseases from 28.3 percent to 43.5 percent, and oncology from 37.4 [percent] to 59.5 percent” (Means et al., 2010).

Potential Disadvantages

The number of people on the proposed advisory board could limit the *timeliness and efficiency* of decisionmaking by creating an additional layer of bureaucracy. However, with 17 members, the proposed advisory board would be similar in size and scope to both the UW Medicine Board and the UK HealthCare advisory board. Moreover, implementation of a smaller executive committee that meets more frequently could limit losses in timeliness.

Based on our review of other systems, it seems likely that realizing the benefits of an advisory board would depend on the degree of deference it is afforded by the ultimate decisionmakers (i.e., the regents and Committee on Health Services). If the committee or the regents routinely question and reconsider the board’s recommendations, the increased decision costs associated with adding another venue could outweigh the benefits of the additional expertise, strategic guidance, and potentially improved timeliness.

Summary

This option could provide the outside expertise that we identified as lacking. However, the lack of delegated authority could limit the advisory board’s ultimate impact, particularly in relation to the criteria of timeliness and efficiency.

Option 3: UC Health Oversight Board with Delegated Authority

As noted above, the third option adopts all the features of the proposed UC Health System Advisory Board (option 2) but also formally delegates some decisionmaking authority to the advisory board.

Potential Advantages

This option would have the same advantages as option 2 while decreasing the odds of creating an advisory board whose recommendations would have to be reconsidered at a higher level of authority. Thus, it would likely perform better on the *timeliness and efficiency* criterion.

Evidence of the Impact on Performance

We could not locate any information to assess whether performance on the *timeliness and efficiency* criterion has, indeed, been better in systems that have tried this option.

Potential Disadvantages

However, this option would be somewhat more challenging to implement than option 2 because it would likely require more effort to formally delegate authority to another entity. However, should formal delegation prove too difficult, or if system performance is poor under this system, delegated authority could be revoked and the system could easily revert to option 2.

Summary

This option seems likely to provide the greatest chance of positive outcomes on the criteria of interest. However, the need to formally delegate authority could limit its feasibility.

Option 4: Spin Off UC Health as a Separate Entity

As noted above, in option 4, all five campus-level AMCs would jointly separate from the rest of the university, with a separate governance structure.

Evidence of the Impact on Performance

Given the previously mentioned difficulties in assessing the causal impact of governance changes, University of Colorado Health has exceeded growth targets for the past 15 years and transformed from a struggling entity to a profitable one (Larson, 2012; Moody's, 2015). However, it is also important to note that the ability of a spun-off AMC to successfully function when the university and hospital are divided rests almost entirely on the relationships between the leadership of the entities. At Johns Hopkins Medicine, an article analyzing the change in governance structure noted,

Most agree that the new system has worked better than expected partly because of the character of [Edward D.] Miller [first dean and CEO of JHM] and [Ronald Peterson [hospital president] who cooperate constructively with each other and are not inherently confrontational. Whether this will continue to apply when it becomes time to select their successors remains to be seen. (Kastor, 2003, p. 776)

Potential Advantages

The potential benefit of this option for UC would be that spinning off the hospitals from the university system might allow each university to optimize its own performance to its own unique environment—i.e., higher education and the health care marketplace—and to create separate oversight boards and structures for each of those environments. Further, separation of the two entities reduces the financial risk to the one entity if the other encounters financial difficulties. There are reports that spin-off has allowed hospitals to compete more successfully and to thrive in a business sense (e.g., Florida [Barrett, 2008], Colorado [Larson, 2012], and the University of Pittsburgh Medical Center [UPMC] [Levine et al., 2008]).

In principle, creation of an oversight board that is focused solely on overseeing UC Health (or a single AMC) would allow the board to draw on high-caliber *experts* in health care and relative fields, make key decisions more rapidly than UC regents (who must focus on a much broader array of issues), and provide opportunities to identify and implement strategies designed to capitalized on the *system-level efficiencies* (e.g., through joint purchasing) and scope (e.g., by creating campus-based centers of excellence to promote high value and quality in specific procedures). Moreover, separating AMC governance would likely increase *timeliness and efficiency*.

Potential Disadvantages

Retaining the benefits of alignment between the components of the *triple mission* (patient care, teaching, and research) would likely require considerable time and effort under this option and might depend heavily on the personalities, goals, and personal visions of the leaders who are hired. Past experience suggests that, even when a hospital and university function separately on paper, there must be a high degree of integration and coordination between them, including cross-nominations for board members, funding and resource flow (e.g., staffing) transfers, creation of oversight positions or boards that serve both entities, and common mission or vision statements. If integration and coordination do not occur, entities can drift apart over time and fail to take advantage of the synergies between patient care, medical education, and research (Barrett, 2008).

Summary

This option would require a significant amount of negotiation. It is highly unlikely, at least at this time, that the context and environment at UC Health are appropriate, or the problems sufficiently large, to warrant this solution.

Chapter Seven. Conclusion and Recommendations

Table 7.1 summarizes the analysis from Chapter Six, with each row describing how we evaluated an option with respect to the criteria shown in each column. As noted above, red indicates that we would expect the option to perform poorly with respect to that criterion; yellow indicates middling performance; and green indicates that we would expect the option to perform well.

Table 7.1: Summary of Options

Option	Benefits					Costs	
	Timeliness and Efficiency	Expertise	Strategic Guidance	System-Level Efficiency	Alignment of the Triple Mission	Responsiveness to Local Campus Conditions	Transition Costs, Risks
Status quo governance structure, with best practices	Will improve with use of best practices, or if current reform efforts (e.g., executive compensation and delegated authority) are implemented	Does not incorporate outside experts into governance structure	Some, but not all, might improve with onboarding best practices	Most improvement through current initiatives (e.g., Leveraging Scale for Value)	Patient care, education, and research all well-aligned	High responsiveness at the campus level	Low transition costs and low risk of failure
Advisory board	Could see improvements in timeliness or efficiency over status quo or might only create more bureaucracy	Employs outside experts into governance structure	Creates venues to elicit on strategic guidance	Creates venues for coordination among AMCs by consensus	Employs shared-governance principles and includes a campus perspective	Chancellor involvement should reflect campus considerations	Medium transition costs and low risk of failure
Oversight board with delegated authority	Many decisions could be made at lower levels, improving timeliness and efficiency in decisionmaking	Incorporates outside experts into governance structure	Creates venues to elicit and act on strategic guidance	Creates venues for coordination among AMCs on all issues not reserved by the regents	Incorporates shared-governance principles and includes a campus perspective	Chancellor involvement helps reflect campus considerations	Medium transition costs and medium risk of failure
Spin off AMCs	Improved by fewer layers of bureaucracy but requires shared governance	Decisionmakers would have a narrower focus on each AMC and easily incorporate outside experts	Could fail if shared governance and alignment do not succeed	High (if spun off as UC Health) because a separate, integrated system is created	Could be reduced if the clinical enterprise dominates over research and teaching	Greater systemness could come at the expense of local responsiveness, but the option could be as responsive as the status quo	High transition costs and high risk of failure

Any of the proposed options would likely result in improved system performance over the status quo through the additional expertise provided by outside experts and increased focus on strategic guidance. Thus, although adopting only best practices (training, performance measures, and evaluation) would likely lead to some improvements in system performance, improvements would likely be modest. As is often the case, of the remaining options, the more-dramatic governance changes that might provide greater benefit (e.g., timeliness and system-level efficiency) also bear highest transition costs and risks. For instance, although the spin-off option might promote considerable agility for UC Health, it would require negotiation of extension agreements between hospitals and the university to maintain synergies among research, teaching, and patient care. Thus, this option might be “too much solution” when compared with the costs and risks involved—at least in the near term. But, should other options fail to achieve results or if conditions in the health care marketplace change dramatically, this option might deserve consideration in the future.

Given our analysis, two options appear to be favored over the others, and one of these options is more likely to achieve high levels of system performance. The most preferred option is option 3, an oversight board with delegated authority, because it provides agility, expertise, and affords a balance between cross-campus “system” issues while taking account of the need to align with campus activities and respond to local market conditions. Adoption of a standard set of performance metrics is critical to the success of this option because it can help increase Committee on Health Services and regent visibility into UC Health operations, thus ensuring that delegating authority does not come with a loss of accountability to the regents. Ongoing evaluation could examine the extent to which regents retain visibility into the health system, and adjustments could be made in the future, as needed.

If this option cannot be achieved, however, option 2, the advisory board, is the next-best option because it provides some of the same benefits as the version with delegation, though with less certainty because of questions about how much autonomy it would have in practical terms. Option 2 would be relatively easy to implement, but its ability to improve agility would depend on the amount of deference that the Committee on Health Services and other regents afford it. Once again, use of a standard set of performance metrics and ongoing evaluation could help ensure committee and regent visibility in UC Health and provide opportunities for midcourse corrections. However, the risk of increasing decision costs (i.e., if the committee and regents frequently reconsidered advisory-board decisions) would reduce agility and makes this option less desirable than option 3. That said, if getting agreement in option 3 were to prove too difficult, this option might be a viable starting point and (in the best case) might be wholly sufficient. As noted above, UW’s advisory board lacks formally delegated authority but functions as though it had such authority, given understandings among key individuals. Once again, however, it would be important to evaluate performance of the system periodically and make adjustments as needed.

Appendix A: Methodological Details

Document and Literature Review

We used PubMed and Google to assess the peer-reviewed and non-peer-reviewed (e.g., white papers and technical reports) literature to identify articles and books on AMC governance. We did not limit by date. Because PubMed contains only peer-reviewed literature, we used search terms that were intentionally broad and that would capture articles focusing on topics other than governance. For practical considerations, we conducted more-targeted searches in Google to identify only relevant reports and documents. For PubMed, we used the following search terms: *academic medical center*, *academic health center*, and *academic health sciences*. For Google, we used *academic medical center and governance*; *academic health center and governance*; and *academic health sciences and governance*. Overall, we found 47 relevant articles in PubMed and 35 reports from Google. We used these documents to identify AMC models and glean insight on important governance structure elements and their impacts on AMCs. We also reviewed several hundred pages of documents provided by UCOP that describe the history of governance-related discussions among UC Health, the regents, and other decisions. We also reviewed laws, bylaws, and minutes and videos recording recent meetings of the Committee on Health Services.

Interviews with and Document Review of Other Academic Medical Centers

We sought to cover a range of AMC organizational characteristics, including public and private institutions, single- and multicampus systems, and integrated and separated governing structures for patient care and education. Through literature reviews and UCOP input, we developed a list of AMCs for initial consideration, including UW, the University of Colorado, SUNY, the University of Florida, Vanderbilt University, the University of Michigan, the University of Texas, Banner Health, the University of Iowa, JHM, Ascension Health, UK, UConn, the University of Arizona, Cleveland Clinic, Mayo Clinic, the University of Pennsylvania, and UPMC. From this larger list, we selected five systems for more in-depth examination, including telephone interviews with key leaders. We selected these six based on (1) the degree to which the AMC literature referred to the system as an exemplar for governance and (2) the extent to which the system had been previously discussed as a possible model for UC. We also ensured that the five models chosen represented different characteristics. Some of the AMCs whose representatives we interviewed might serve as models that UC might emulate, although we included one system to help foster a deeper understanding of the range of approaches and the factors that have led AMCs to choose different approaches. These systems were UW, UK, University of Colorado, JHM, SUNY, and Ascension Health. Three of the AMCs

whose representatives we interviewed (UW, UK, and SUNY) were on the integrated-governance model side of the spectrum, and two (University of Colorado and JHM) were on the separated end of the spectrum. These were semistructured interviews, and Appendix B provides the interview protocol.

Interviews with UC Stakeholders

For each of the five campuses in UC Health, we contacted the chancellor, the health-system CEO, and the dean of the medical school. We were able to schedule interviews with four chancellors, five CEOs, and four medical-school deans. We also interviewed four regents and held periodic discussions with senior members of UCOP to ask factual questions about the UC system and to help facilitate contact with interviewees. We promised interviewees anonymity, except as required by law, and we did not record the interviews. We analyzed notes from the interviews for themes, which focused on barriers and challenges to good governance, factors that lead to successful governance, effects of governance on AMC success, and AMC governance model structures. The RAND Human Subjects Protection Committee reviewed and approved data collection. The interviews were semistructured, and Appendix B provides the interview protocols (one version for UCOP staff and regents, a second for UC campus-level actors, and another for non-UC system informants).

Appendix B: Interview Protocols

The following is the text of the interview protocols used for each population.

Introduction

The RAND Corporation has been engaged by the University of California Board of Regents to analyze proposed changes and make recommendations about the future governance model of the University of California's health system. We are conducting a series of expert interviews to inform our understanding of the current system and possible alternatives. By *governance model*, we are referring to the authority and reporting relationships between campus chancellors, medical-center CEOs, and deans, and the following "UC-level" actors:

- regents
- Committee on Health Services
- executive vice president of UC Health.

Before we begin, we need to read you a human-subjects protection statement, which has been approved by RAND's Human Subjects Protection Committee:

We will be taking notes at this meeting. Your responses will not be shared with anyone else outside the project except as required by law. You will not be quoted or referenced by name and we will make every effort to assure that you cannot be identified through inference. Your participation in this meeting is entirely voluntary. You do not have to participate, and if you choose to participate, you should feel free to decline to discuss any topic that we raise. We believe the risks to participation are minimal and this could be a beneficial opportunity for you to bring up your concerns about governance of UC Health.

Do you have any questions or concerns? Do you wish to proceed?

Questions for Regents and Staff of the UC Office of the President

Before . . . talking directly about governance, we want to take a moment to understand a little bit about your campus and how it relates to the other UC Health campuses.

1. *system-level challenges*. What are some of the key challenges facing the UC Health system in the next several years?
2. *how decisions at individual campuses affect the system*. What types of campus-level decisions affect the entire UC Health system?
3. *strengths*. What are some of the most-important strengths of the current UC Health governance systems?
4. *weaknesses*. What are some of the most-important weaknesses of the current UC Health governance systems?

5. *goals for new system.* What are the most-important attributes that an improved governance system should have? [Share draft list of criteria.]
6. *proposed revisions.* Are you aware of the proposal to create an advisory board to the UC Regents Healthcare Systems and Services Committee [sic]? What is your opinion of it?
 - a. Does it meet the goals you discussed above?
 - b. Does it have any weaknesses?
 - c. Do you have suggestions for strengthening it? Explain.
7. *models in other states.* Are you aware of models of university health–system governance in other states that you believe have useful lessons for UC Health? Explain.
8. *other topics.* Are there are relevant topics you would like to discuss? Do you have any questions about RAND or about this study?

Questions for Chancellors, Chief Executive Officers, and Deans

1. *campus-level challenges.* What are some of the key challenges facing your campus in the next several years? We are particularly interested in any that are unique to your campus or that manifest themselves in unique ways at your campus.
2. *impact of governance structure on campuses.* Can you provide some examples or illustrations of decisions at your campus that have prompted a lot of involvement from the UC Health governance structure?
 - a. To what extent might those decisions have affected other campuses in the UC Health system?
 - b. To what extent was your campuses’ decision affected by the actions of other campuses in the UC Health system?
3. *strengths.* What are some of the most-important strengths of the current UC Health governance systems?
4. *weaknesses.* What are some of the most-important weaknesses of the current UC Health governance systems?
5. *goals for new system.* What are the most-important attributes that an improved governance system should have? [Share draft list of criteria.]
6. *proposed revisions.* Are you aware of the proposal to create an advisory board to the UC Regents Healthcare Systems and Services Committee [sic]? What is your opinion of it?
 - a. Does it meet the goals you discussed above?
 - b. Do you have suggestions for strengthening it? Explain.
7. *models in other states.* Are you aware of models of university health–system governance in other states that you believe have useful lessons for UC Health? Explain.
8. *other topics.* Are there are relevant topics you would like to discuss? Do you have any questions about RAND or about this study?

Questions for Representatives of Non-UC Academic Medical Centers

1. What factors caused leadership in your health system to believe that a new governance model was needed?

2. What specific goals or requirements were you trying to achieve in selecting or designing a new model of governance?
3. What models or university health systems did leadership view as exemplary when you were investigating new governance options?
4. Can you please describe the governance model you have now?
5. In your view, is the model achieving the goals it was set out to achieve?
6. To what aspects of your governance model do you attribute its failure or success and why?
7. Would you make the same choice again and why?
8. Do you have any familiarity with the University of California's health centers or governance system?
9. Do you have any recommendations for academic health systems that are considering a change in governance system?
10. Are there other relevant issues or topics you would like to discuss?

References

- Alexander, Jeffrey A., and Shoou-Yih D. Lee, “Does Governance Matter? Board Configuration and Performance in Not-for-Profit Hospitals,” *Milbank Quarterly*, Vol. 84, No. 4, 2006, pp. 733–758.
- Arizona Health Sciences Center, “The University of Arizona Health Network and Banner Health Launch Effort to Create State-Wide Organization to Transform, Advance Health Care in Arizona,” June 26, 2014. As of June 26, 2015:
<http://ahsc.arizona.edu/news/university-arizona-health-network-and-banner-health-launch-effort-create-state-wide>
- Bardach, Eugene, *A Practical Guide for Policy Analysis: The Eightfold Path to More Effective Problem Solving*, 4th ed., Thousand Oaks, Calif.: Sage, 2012.
- Barrett, Douglas J., “The Evolving Organizational Structure of Academic Health Centers: The Case of the University of Florida,” *Academic Medicine*, Vol. 83, No. 9, September 2008, pp. 804–808.
- Becker, Bryan N., Roger A. Formisano, and Carl J. Getto, “Commentary: Dinosaurs Fated for Extinction? Health Care Delivery at Academic Health Centers,” *Academic Medicine*, Vol. 85, No. 5, May 2010, pp. 759–762.
- Berman, Michael A., and Jeff Jones, “Leading the Change: A Crucial Role for Academic Medical Centers in Shaping the Future of Healthcare,” Chicago, Ill.: Huron Healthcare, 2015. As of June 22, 2015:
http://www.huronconsultinggroup.com/Insights/Whitepapers/Healthcare/~/_media/D6FF93BE1542412D8C6BC06972F449DA.ashx
- Borden, William B., Alvin I. Mushlin, Jonathan E. Gordon, Joan M. Leiman, and Herbert Pardes, “A New Conceptual Framework for Academic Health Centers,” *Academic Medicine*, Vol. 90, No. 5, May 2015, pp. 567–573.
- California Attorney General’s Office, *A Handy Guide to the Bagley-Keene Open Meeting Act 2004*, undated. As of June 22, 2015:
http://ag.ca.gov/publications/bagleykeene2004_ada.pdf
- California Constitution, Article 9, Education. As of June 27, 2015:
http://www.leginfo.ca.gov/.const/.article_9
- Garg, Raj, Lucy Pérez, and Adesh Ramchandran, “Academic Medical Centers: Transformational Imperatives to Succeed in the New Era,” undated. As of June 22, 2015:
http://healthcare.mckinsey.com/sites/default/files/793549_Academic_Medical_Centers.pdf

- Ginter, Peter M., Linda E. Swayne, and W. Jack Duncan, *Strategic Management of Health Care Organizations*, 4th ed., Oxford, UK: Blackwell Pub., 2002.
- Governance Institute, *Pursuing Systemness: The Evolution of Large Health Systems*, San Diego, Calif., 2005.
- Health Research and Educational Trust, *Building an Exceptional Board: Effective Practices for Health Care Governance—Report of the Blue Ribbon Panel on Health Care Governance*, Chicago, Ill.: Center for Healthcare Governance, February 2007. As of June 27, 2015: <http://www.americangovernance.com/resources/reports/brp/2007/>
- Hourihan, Matt, “The President’s R&D Budget for FY 2015: A Summary and Charts,” American Association for the Advancement of Science, March 19, 2014. As of June 22, 2015: <http://www.aaas.org/news/presidents-rd-budget-fy-2015-summary-and-charts>
- Jha, Ashish, and Arnold Epstein, “Hospital Governance and the Quality of Care,” *Health Affairs*, Vol. 29, No. 1, January 2010, pp. 182–187.
- Karpf, Michael, and Richard Lofgren, “Commentary: Institutes Versus Traditional Administrative Academic Health Center Structures,” *Academic Medicine*, Vol. 87, No. 5, May 2012, pp. 555–556.
- Kastor, John A., “Governance of Teaching Hospitals: Turmoil at the University of Pennsylvania and the Johns Hopkins University,” *American Journal of Medicine*, Vol. 114, No. 9, June 15, 2003, pp. 774–776.
- , *Governance of Teaching Hospitals: Turmoil at Penn and Hopkins*, Baltimore, Md.: Johns Hopkins University Press, 2004.
- Keroack, Mark A., Nathan R. McConkie, Erika K. Johnson, Gladys J. Epting, Irene M. Thompson, and Fred Sanfilippo, “Functional Alignment, Not Structural Integration, of Medical Schools and Teaching Hospitals Is Associated with High Performance in Academic Health Centers,” *American Journal of Surgery*, Vol. 202, No. 2, August 2011, pp. 119–126.
- Kezar, Adrianna, “What Is More Important to Effective Governance: Relationships, Trust, and Leadership, or Structures and Formal Processes?” *New Directions for Higher Education*, Vol. 2004, No. 127, Autumn 2004, pp. 35–46.
- Kezar, Adrianna, and Peter D. Eckel, “Meeting Today’s Governance Challenges: A Synthesis of the Literature and Examination of a Future Agenda for Scholarship,” *Journal of Higher Education*, Vol. 75, No. 4, July–August 2004, pp. 371–399.
- Kirch, Darrell G., R. Kevin Grigsby, Wayne W. Zolko, Jay Moskowitz, David S. Hefner, Wiley W. Souba, Josephine M. Carubia, and Steven D. Baron, “Reinventing the Academic Health Center,” *Academic Medicine*, Vol. 80, No. 11, November 2005, pp. 980–989.

- Korn, Melissa, "Once Cash Cows, University Hospitals Now Source of Worry for Schools," *Wall Street Journal*, April 22, 2015.
- Larson, Toni, "University of Colorado Hospital Brief History and Privatization," March 2012. As of June 22, 2015:
<http://www.lwvcolorado.org/docs/privatization-hospital.pdf>
- Levine, Arthur S., Thomas P. Detre, Margaret C. McDonald, Loren H. Roth, George A. Huber, Mary Germann Brignano, Sandra N. Danoff, David M. Farner, Jeffrey L. Masnick, and Jeffrey A. Romoff, "The Relationship Between the University of Pittsburgh School of Medicine and the University of Pittsburgh Medical Center: A Profile in Synergy," *Academic Medicine*, Vol. 83, No. 9, September 2008, pp. 816–826.
- Ley, Olivia, "What's the Relationship Between Surgical Volumes, Costs, and Quality in CV?" Advisory Board Company, February 10, 2014. As of June 22, 2015:
<http://www.advisory.com/research/cardiovascular-roundtable/cardiovascular-rounds/2014/02/relationship-between-volumes-cost-and-quality>
- Means, R. T., Jr., D. J. Moliterno, G. R. Allison, J. A. Perman, R. P. Lofgren, M. Karpf, and F. C. Debeer, "The Evolution of a Department of Internal Medicine Under an Integrated Clinical Enterprise Model: The University of Kentucky Experience," *Academic Medicine*, Vol. 85, No. 3, March 2010, pp. 531–537.
- Moody's, "Moody's Assigns Aa2 Rating to University of California's Medical Center Pooled Revenue Bonds 2010 Series G, H and I; University's Other Ratings Affirmed with Stable Outlook," October 26, 2010. As of June 22, 2015:
https://www.moody.com/research/MOODY-ASSIGNS-Aa2-RATING-TO-UNIVERSITY-OF-CALIFORNIA-MEDICAL-CENTER-New-Issue--NIR_16697184
- , "Moody's Upgrades University of Colorado Health Authority to Aa3: Aa3/P-1 Assigned to \$266M Series 2015; Outlook Stable," January 23, 2015. As of June 22, 2015:
https://www.moody.com/research/Moodys-upgrades-University-of-Colorado-Health-Authority-to-Aa3-Aa3P--PR_317110
- Prybil, Lawrence, Samuel Levey, Rex Killian, David Fardo, Richard Chait, David Bardach, and William Roach, *Governance in Large Nonprofit Health Systems: Current Profile and Emerging Patterns*, Lexington, Ky.: Commonwealth Center for Governance Studies, 2012.
- Public Law 111-148, Patient Protection and Affordable Care Act, March 23, 2010. As of June 27, 2015:
<http://www.gpo.gov/fdsys/granule/PLAW-111publ148/PLAW-111publ148/content-detail.html>
- PwC Health Research Institute, *The Future of the Academic Medical Center: Strategies to Avoid a Margin Meltdown*, 2012.

Reece, E. A., R. A. Chrencik, and E. D. Miller, “Fully Aligned Academic Health Centers: A Model for 21st-Century Job Creation and Sustainable Economic Growth,” *Academic Medicine*, Vol. 87, No. 7, July 2012, pp. 982–987.

Regents of UC—*See* Regents of the University of California.

Regents of the University of California, Committee on Health Services, meeting minutes, March 20, 2014. As of June 22, 2015:

<http://regents.universityofcalifornia.edu/minutes/2014/hs3.pdf>

Rosenberg, Alec, “The Future of UC Health,” University of California, May 20, 2014. As of June 22, 2015:

<http://www.universityofcalifornia.edu/news/future-uc-health>

Sternberg, Steve, and Geoff Dougherty, “Risks Are High at Low-Volume Hospitals,” *U.S. News*, May 18, 2015. As of June 22, 2015:

<http://www.usnews.com/news/articles/2015/05/18/risks-are-high-at-low-volume-hospitals>

Szekendi, Marilyn, Lawrence Prybil, Daniel L. Cohen, Beth Godsey, David W. Fardo, and Julie Cerese, “Governance Practices and Performance in US Academic Medical Centers,” *American Journal of Medical Quality*, August 19, 2014, pp. 1–6.

Totten, Mary K., “Survey Results Show Health Care Governance in Transition,” *Great Boards*, No. 1, Spring 2015, pp. 1–3. As of June 27, 2015:

<http://www.greatboards.org/newsletter/2015/greatboards-newsletter-spring-2015.pdf>

UC—*See* University of California.

UConn—*See* University of Connecticut.

University of California, UC Health, “Innovation Center,” undated (a). As of June 22, 2015:

<http://health.universityofcalifornia.edu/innovation-center/>

———, Office of the President, “John D. Stobo, M.D.,” undated (b). As of June 27, 2015:

<http://www.ucop.edu/uc-health/staff/Bios/john-stobo.html>

———, Board of Regents, “Standing Order 100: Officers of the University—100.4: Duties of the President of the University,” March 2011. As of June 27, 2015:

<http://regents.universityofcalifornia.edu/governance/standing-orders/so1004.html>

———, Board of Regents, “Regents Policy 6103: Policy Establishing the Investment Advisory Group,” adopted November 19, 1999; last amended March 29, 2012. As of June 22, 2015:

<http://regents.universityofcalifornia.edu/governance/policies/6103.html>

———, Office of the President, Budget and Capital Resources, *Budget for Current Operations: Summary and Detail, 2014–15*, Oakland, Calif., October 2013a. As of June 22, 2015:

<http://regents.universityofcalifornia.edu/regmeet/nov13/f6attach.pdf>

- , UC Health, “UC Health: At a Glance,” October 29, 2013b. As of June 27, 2015:
http://live-health-ucal.pantheon.io/wp-content/uploads/2013/10/uc_health_ataglance_factsheet_10.29.13.pdf
- , Board of Regents, “Bylaw 12. Responsibilities of Standing Committees,” November 2013c. As of June 22, 2015:
<http://regents.universityofcalifornia.edu/governance/bylaws/bl12.html>
- , UC Health, “UC Medical Centers Team Up to Reduce Costs,” March 20, 2014a. As of June 22, 2015:
<http://health.universityofcalifornia.edu/2014/03/20/uc-medical-centers-team-up-to-reduce-costs/>
- , “A Collaborative Approach to UC Sequencing,” *Working Smarter*, June 2014b. As of June 22, 2015:
<http://workingsmarter.universityofcalifornia.edu/2014/06/a-collaborative-approach-to-uc-sequencing/>
- , Board of Regents, video of Board of Regents meeting, March 17, 2015a. As of June 22, 2015:
<http://lecture.ucsf.edu/ets/Play/c71f39819d684cb49c04a1a6b090d4a41d?catalog=333992fe-1405-4d6b-ae39-512a30188f34>
- , Board of Regents, “Standing Committees,” updated April 2, 2015b. As of June 22, 2015:
<http://regents.universityofcalifornia.edu/about/committees.html>
- University of Colorado, Office of University Controller, *2013 Annual Report*, 2013. As of June 22, 2015:
<http://content.cu.edu/controller/annualreport/ereport/index.html>
- University of Connecticut, “By-Laws of the University of Connecticut,” effective April 29, 2015. As of June 22, 2015:
<http://policy.uconn.edu/2011/05/17/by-laws-of-the-university-of-connecticut/>
- Wegner, Gregory R., “Academic Health Center Governance and the Responsibilities of University Boards and Chief Executives (Report of a Symposium),” Washington, D.C.: Association of Governing Boards of Universities and Colleges, Occasional Paper 50, undated. As of June 27, 2015:
<http://agb.org/sites/default/files/legacy/AGBOccasionalPaperNO50.pdf>
- Weimer, David Leo, and Aidan R. Vining, *Policy Analysis: Concepts and Practice*, 4th ed., Upper Saddle River, N.J.: Pearson Prentice Hall, 2005.

Wietecha, Mark, Steven H. Lipstein, and Mitchell T. Rabkin, "Governance of the Academic Health Center: Striking the Balance Between Service and Scholarship," *Academic Medicine*, Vol. 84, No. 2, February 2009, pp. 170–176.

Worley, Michael J., Jr., Carlos Anwandter, Charlotte C. Sun, Ricardo dos Reis, Alpa M. Nick, Michael Frumovitz, Pamela T. Soliman, Kathleen M. Schmeler, Charles F. Levenback, Mark F. Munsell, and Pedro T. Ramirez, "Impact of Surgeon Volume on Patient Safety in Laparoscopic Gynecologic Surgery," *Gynecologic Oncology*, Vol. 125, No. 1, April 2012, pp. 241–244. As of June 22, 2015:
<http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3935611/>