Academic medical centers: Transformational imperatives to succeed in the new era

Operating margins at AMCs are under severe pressure, placing their tripartite mission at risk. To survive, AMCs need significant structural and cultural changes. Five steps are imperative if they are to navigate the challenges ahead.

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Academic medical centers (AMCs) have, historically, sat atop the provider pyramid. In most communities, AMCs enjoy a distinguished brand that is associated with higher quality, diagnostic and therapeutic innovation, and the management of complex illnesses. AMCs typically attract and retain high-caliber talent so that they can fulfill their tripartite mission: treatment, teaching, and research. They then leverage their distinguished faculty, researchers, and other physicians, as well as their next-generation equipment and other advanced technologies, to become the preferred providers within their communities. AMCs have solidified their premier position by their willingness to share new methodologies and to set practice patterns and standards across communities. In addition, they frequently serve as regional trauma centers, provide much of the indigent care in their communities, and are often affiliated with and staff the local Veterans Administration health centers.

Historically, most AMCs have been able to maintain small operating margins. Their net economics results from their broad array of responsibilities. In part, their profit levels reflect their ability to focus on the high-quality, comprehensive, and very specialized services needed to diagnose and treat patients with high-acuity illnesses and other complex conditions. However, those levels also reflect the cross-subsidization that has long characterized public versus private and paid versus indigent patient care.

Evolution of the healthcare ecosystem, which reform has accelerated, is putting margins and more importantly the tripartite mission at risk. US providers are facing unprecedented margin pressures from a range of forces, including sustained economic uncertainty, changes to healthcare regulations (especially those related to reform), and reductions in government and, most likely, commercial payor reimbursement. However, many of today's AMCs must also cope with cutbacks in research funding and declining educational subsidies. In addition, many AMCs are facing challenges to their market position, relevance to local payors, and reputation.

Furthermore, most AMCs are a part of larger institutions of higher education, and many of those institutions have a long tradition of using operating cash flows from health system operations to fund academic pursuits. Mounting fiscal pressures in higher education (e.g., declining state support, federal sequestration, and disruptive digital innovation) have made the contribution of AMCs ever more important to them. Given the sheer size of health system operations (often comparable in size to the entire university) and the highly uncertain economics AMCs face once reform goes into full effect, many boards of the larger institutions are asking quite fundamental questions about the relationship between their universities and the AMCs—including whether tight affiliations with the AMCs pose an unacceptable fiduciary risk.

A few AMCs have recognized the danger ahead and have launched cost-reduction programs to protect their mission and stabilize margins. Some have even taken more aggressive steps, such as consolidation, optimization of support functions across institutional settings (medical center, schools, and research facilities), and lean transformations of their clinical operations. However, experience has shown that these approaches, although necessary, are not sufficient on their own. The savings they produce address only a small portion of the looming margin gap, and in many cases the savings materialize slowly. For example, one AMC recently undertook a large program to reduce support costs, optimize procurement, and improve revenue cycle management (RCM). It discovered that the results of this program would cover considerably less than half of its projected 4-percent operating margin gap—and those results would require more than three years to reach full impact.

What AMCs need instead is a more radical approach. To bend the cost curve, AMCs must go beyond the traditional service line or department approach and look to make structural changes and address cultural issues that hinder innovation. In addition, they must consider the consolidation of multiple services (not just support functions) and strengthen the management of all resources across institutional settings to improve decision making and implementation speed. AMCs should also alter the cultural norms within their systems so that their physicians understand the increased emphasis on alternate care sites and are more willing to travel to deliver care (e.g., in a secondary location within a system).

In this article, we will outline the scope of the challenge AMCs face and then describe what we believe are the five imperatives for all AMCs today—steps they must take if they are to thrive in the post-reform era.

Scope of the challenge

Our analysis of their financial position shows that AMCs have generally been able to preserve a 3- to 5-percent operating margin and a 15- to 20-percent operating cash flow margin. They then use the profits from their clinical activities to help subsidize their research activities (which are also heavily dependent on philanthropy and grants) and their educational mission. However, AMC operating margins and cash flows are now under significant pressure, not only because of the forces currently buffeting providers as a whole but also because of factors unique to these institutions.

For example, AMCs are more reliant than other providers on government subsidies (including research grants), and those subsidies are declining. In particular, growth in funding from the National Institutes of Health (NIH) has been slow in recent years. Furthermore, ongoing economic malaise has caused philanthropic contributions to many AMCs to decrease. Commercial payors are developing strategies for reducing high-cost reimbursements; in some cases, they are considering forgoing the perceived benefits of AMC care. In several cases, payors have been directing all but the most complex cases to providers that can handle more volume at lower cost. Finally, competition among providers is heating up. Many commercial providers are aggressively expanding to become stronger regional or national players. As a result, AMCs in many markets are experiencing flat-to-declining inpatient volume growth.

However, the increase in provider competition is putting more than just AMC economics at risk. Some commercial providers are now offering a

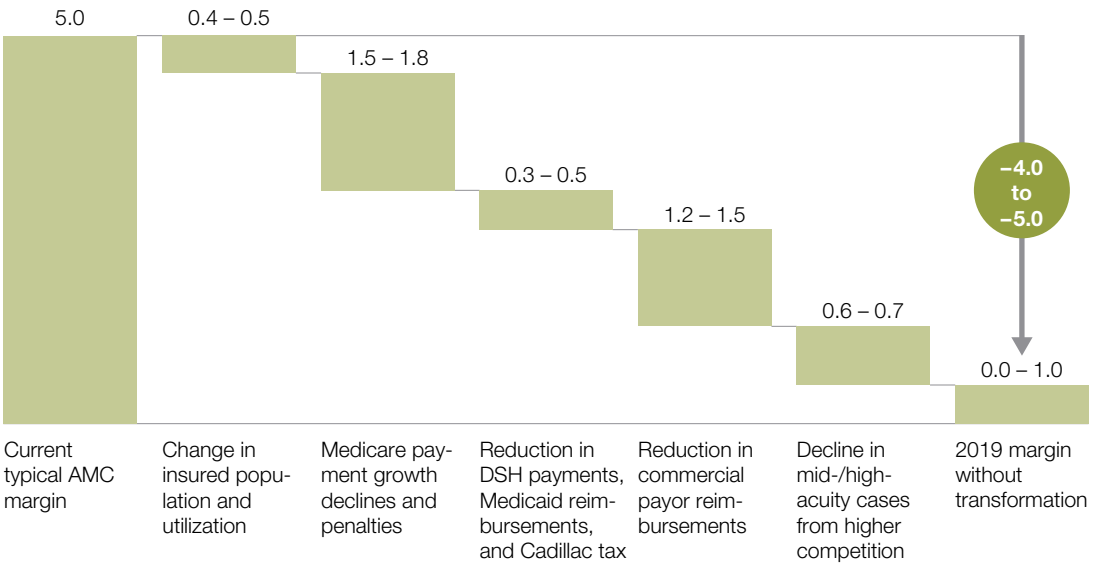
more focused portfolio of care services across the acuity spectrum, using highly efficient delivery models that achieve consistent quality. These models are encroaching on the traditional domain of AMCs—the delivery of specialized high-acuity services. Furthermore, this encroachment is likely to intensify in coming years, because the transition to greater transparency, defined quality metrics, and value-based care may well drive commercial providers to get on an equal footing with AMCs. The combination of higher quality among commercial providers and growing competition for mid- and high-acuity patients could jeopardize the clinical mission of AMCs.

Although the forces just discussed will play out differently in different regions (depending on such factors as the dominance of a regional payor, competitors within each region, and relative number of high-acuity cases), few AMCs are likely to escape what we believe will be a fundamental dislocation of their traditional model. Our calculations suggest that within the next few years, operating margins at most AMCs could be compressed by 4 or 5 percentage points (Exhibit 1). If their profits disappear, AMCs could find their entire tripartite mission in jeopardy.

The time to address this challenge effectively is rapidly running out. Key provisions of the Patient Protection and Affordable Care Act (ACA) go into effect within the next few months, and concerns about government deficits could lead to further cutbacks in reimbursement growth rates. Without a radical transformation, some AMCs may not survive, and in a few cases the demise of an AMC could put the university at risk.

EXHIBIT 1 **AMC operating margins could decrease by 4 to 5 percentage points because of reform, competition, and shifting demographics**

Operating margin as percentage of AMC revenue



AMC, academic medical center; DSH, disproportionate share hospital.

Source: McKinsey Health Reform Team analysis, MPACT tool

Transformational imperatives

To sustain a growth platform, AMCs need to transform themselves. We have identified five imperatives that can enable them to achieve this aim. By developing a program covering all five of these imperatives (Exhibit 2), an AMC should be able to close the looming 4- to 5-percentage point operating margin gap and preserve its ability to fulfill its tripartite mission.

1. Strengthen the value proposition

The first step all AMCs must take is to refine their value proposition; they can then develop a strategy to support it. Only by first refining their value proposition can AMCs determine what other steps will best help them address the looming margin gap in the short time frame available to them Each AMC must have a value proposition that makes it distinctive in its region and that can be sustained long into the future. Having a clear value proposition that is understood by patients, payors, referring physicians, students, and researchers will allow an AMC to focus on the actions required to manage through the next few years, as reform takes hold. While an AMC's value proposition must leverage the institution's strengths (such as its differentiated clinical programs, research expertise, and educational programs), it should also reflect the local market structure. A stronger, sharper value proposition will help the AMC signal its relevance to both payors and other providers in the local market and beyond.

AMCs are currently exploring different value propositions. Some, for example, are positioning themselves as integrated community health systems that operate primarily in their local market. Their distinctiveness lies in their ability to pro-

EXHIBIT 2 **AMCs must pursue five imperatives to counter upcoming margin decline and build for the future**

1. **Strengthen the value proposition** to define a clear vision and strategy to guide the sequence and depth of the other four imperatives

2. **Upgrade the operating model and capabilities** to generate revenue and enable the value proposition

Protect/increase existing revenue	Key enablers
• Service line focus and research priorities	• Capability to operate across care settings
• Active referral flow management	• Technology management
• Physician engagement	• Transparency on quality and performance
	• Governance

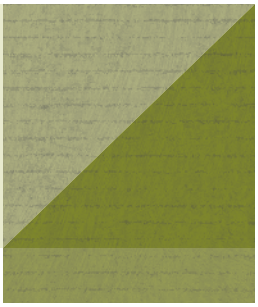
3. **Pursue cost reductions aggressively** to drive 10%+ savings across the cost base

• Improved clinical operations cost effectiveness	• EHR value capture
• Support service optimization	• Research portfolio rationalization
• RCM overhaul	

4. **Increase revenue flows** to enable 2–5% year-on-year growth, even in a post-reform environment, through volume growth (across care settings), pricing and reimbursement strategy, and participation in select risk-sharing arrangements, and (where possible) by leveraging retail options in hospitals

5. **Develop a comprehensive partnership and acquisition approach** (beyond traditional acute-focused M&A programs) as both an opportunity to improve margins and a defensive move

AMC, academic medical center; EHR, electronic health record; RCM, revenue cycle management.



vide the full continuum of healthcare services (either directly themselves or through partnerships) with both flawless ease and uncomplicated information exchange. By successfully managing large groups of patients, these AMCs can negotiate and partner with payors to improve the health of a defined population. In contrast, other AMCs are defining their value proposition as their ability to provide highly specialized niche services, such as advanced, subspecialty care or rapid-cycle medical innovations. Their distinctiveness lies in their proficiency in offering patients access to renowned specialists and delivering cutting-edge health services early in a disease's course.

After defining their value proposition, AMCs need to build a detailed strategy to execute it. For example, an AMC that has defined itself as a provider of highly specialized niche services must ensure that it receives proper compensation for high-complexity cases; at the same time, it must mitigate the risk of being "tiered out" from most insurance plans. Furthermore, if its current catchment area contains only a limited number of patients in need of its specialized services, it should conduct targeted outreach beyond its local market to drive referrals for those services. In parallel with these efforts, the AMC should align its research activities with its clinical expertise to maximize the impact of its investment in specialized services.

The detailed strategy each AMC develops should include all four of the imperatives described below. However, the sequence in which these levers are pulled will depend on the chosen value proposition. All AMCs must carefully estimate the value they can capture with each imperative, as well as the associated execution risks, to determine where and how much to invest.

2. Upgrade operating model and capabilities

AMCs must tailor their operating model to ensure that it supports the chosen value proposition. As the healthcare, research, and educational environments become increasingly competitive, it will be critical for AMCs to become more effective budget administrators and to invest strategically to support long-term growth. To accomplish this, AMCs will have to make difficult choices in a number of critical areas. In addition, they will have to take steps to shore up the infrastructure needed for volume and revenue growth and the other supporting components within their operating model.

Service lines focus and research priorities

An AMC could decide to emphasize a few specific service lines (such as cardiology and oncology) or opt for a multispecialty approach focused on a particular patient segment (e.g., by providing care for the highest-acuity patients and serving as a quaternary referral center). The choice made will determine which services are offered in the future. All AMCs should therefore review the full scope of their current services—both emergent and non-emergent care, and in- and outpatient services—and then decide which ones they will continue to provide (and, in some cases, which ones they need to add or remove). As part of this process, AMCs should reevaluate their investments in diagnostics, including imaging, and determine whether ownership of laboratories and pharmacies still makes sense. Similarly, they should reevaluate their research priorities and establish clear parameters for all projects—not only which subjects they should emphasize in the future but also where on the research spectrum (from basic science to clinical studies) they should focus their investments. The prioritization process should include an assessment of a research area's synergies with

clinical activities, potential to secure external funding, and ability to monetize intellectual property, as well as the likelihood that the AMC could become distinctive in the area (e.g., nationally ranked).

Active referral flow management

An AMC's value proposition and choice of service line focus should influence its referral strategy, including how it should build its affiliated physician network and footprint. Robust referral flows are necessary to ensure appropriate patient volumes, as well as the mix of patients needed for clinical and research programs. However, the approach used to ensure robust referral flows for an integrated community health system will be quite different from the broader, perhaps even national, approach required for a niche provider.

Physician engagement

Staff physicians drive clinical and financial performance at AMCs. Thus, it is crucial that they align around a funds-flow model that is optimized across their institution's tripartite mission. This typically requires that the physicians adopt (if they have not done so already) the mind-set of an owner rather than a business-unit customer.[1] The change in mind-set is necessary if an AMC hopes to lower its costs while delivering the same or better care quality, or if it plans to staff and deliver care from a broader range of facility types in a more diverse health system. The change in mind-set also highlights the need to train the next generation of physicians in the business of medicine, not just clinical care.

Capability to operate across care settings

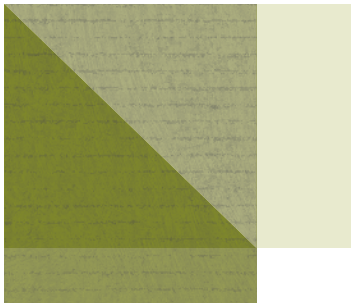
In the future, most AMCs will need to be able to deliver care to lower-acuity patients in lower-cost settings while continuing to treat higher-acuity patients in higher-cost facilities. This approach will enable the AMCs to reduce their overall costs while still providing high-quality care. An AMC could create a lower-cost setting for lower-acuity care through either partnership with or acquisition of a more cost-effective facility. (These options are explored further in the discussion below of the fifth imperative.)

Technology management

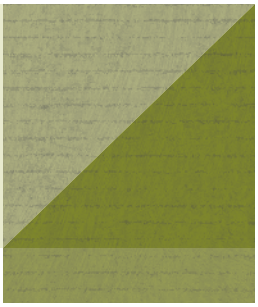
Most AMCs have already rolled out or are in the process of completing their rollout of electronic health records (EHRs). However, many of these institutions must still figure out how to get the most out of their technology investments. To accomplish this goal, AMCs must determine how they can build a successful informatics organization and decide who will manage it—the CIO, CMIO, CMO, or COO. Successful informatics groups can strengthen the quality and efficiency of clinical care delivery (e.g., by identifying high-risk patients and helping to reduce length of stay). They can also improve key operational processes (such as RCM) and support research platforms (such as bioinformatics). Furthermore, AMCs must determine how they can enable participation in health information exchanges and new approaches to payment, such as accountable care organizations (ACOs), which may require them to acquire additional technology capabilities. Thoughtful technology management—the ability to invest in informatics capabilities and newer technologies (such as operating room automation and physician notes digitization) while managing down the total cost of technology operations—will be a critical enabler of AMC margin protection and expansion.

Transparency on quality and performance

AMCs are in a unique position to take the lead in shaping which metrics are necessary to assess care quality and what approaches are best to



1For more information about how to align physicians with an institution's objectives, see "Engaging physicians to transform clinical and operational performance" on p. 5.



evaluate progress on quality and safety improvements. Assuming such a leadership role would reinforce—to patients, payors, and partners alike—that AMCs are experts in the delivery of high-quality care. At a minimum, AMCs should identify which of the performance metrics currently in use are most closely linked to their value proposition and focus on excelling on those metrics. They can then quantitatively demonstrate to their constituents their strong performance on those metrics as a way to reinforce their value proposition. It is critical that AMCs aggressively market their performance directly to constituents, since these metrics will become increasingly important in care decisions.

Governance

All AMCs must identify and reduce the frictional costs they incur to coordinate the activities of multiple boards and legal entities. In addition, once they have chosen their value proposition and the overall strategy to support it, AMCs must ensure that they have sufficient flexibility to make quick decisions and implement changes rapidly. At most AMCs today, organizational complexity delays decision making and slows the speed of change—all too often, AMCs miss critical financial and performance targets as a result.

3. Pursue cost reductions aggressively

As we have discussed, many AMCs have already undertaken programs to manage costs, but those efforts need to be strengthened and accelerated. Stronger cost-reduction programs are vital if AMCs are to create the financial cushion they need to withstand near-term pressures and the economic space they need to bridge thoughtfully to their long-term value proposition. AMCs should consider using the following levers:

Improved clinical operations cost effectiveness

If they have not done so already, all AMCs should launch programs to increase utilization of existing capacity, "lean out" their clinical operations, take all appropriate steps to lower supply chain costs, and carefully reduce the number of full-time-equivalent (FTE) staff per case to acceptable but lower levels.[2] At some AMCs, improved capacity utilization may mean that existing capacity is more fully used, but at others, a reduction in capacity may be needed. This decision will usually depend on an AMC's choice regarding its value proposition.

Support service optimization

AMCs should break down the traditional boundaries between their medical centers, schools, faculty practices, and research facilities, and then consolidate common support functions (e.g., HR, finance, IT, procurement, and facilities management). One AMC recently found that it could lower its support costs by 23 percent through an organizational redesign of each function and consolidation of activities into a shared service.

EHR value capture

AMCs have typically spent between $35,000 and $70,000 per bed on EHR implementation. They must now unlock the potential of EHRs to extract more value—for example, by driving down the amount of work that must be done manually (and hence the labor costs per case), minimizing variations in performance and the number of duplicate tests ordered, and preventing adverse drug reactions and unnecessary readmissions. In addition, EHRs can be combined with other techniques (such as at-home care and telemonitoring) to improve patient compliance with post-discharge care. Our experience suggests that by optimizing their EHR

[2] For more information about what a holistic clinical transformation entails, see "Clinical operations excellence: Unlocking a hospital's true potential" on p. 17.

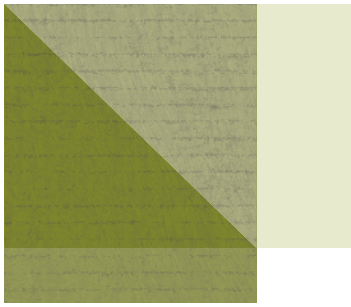
systems, some providers may be able to lower costs by at least 5 percent through improved supply controls, better asset utilization, less clinical variability, and fewer FTEs per case. Mining EHR data also gives AMCs the opportunity to shape and advance their research priorities while supporting their clinical mission because it can provide enhanced insights into the needs and characteristics of the local patient community.

Research portfolio rationalization

As they are establishing clear parameters for the types of research they will prioritize, AMCs must consider the cost of each research project as well as its clinical and economic potential. For all projects, AMCs should determine the level of investment required, the type of return they can expect to receive, the timing of that return, and the appropriate milestones for gauging progress. These variables will differ depending on an institution's value proposition. (For example, the level of investment, as well as the type and timing of return, will be very different for an AMC that chooses to focus on population health than for one making a strategic bet on basic science.) All AMCs should regularly evaluate their research projects to determine which ones are not meeting the minimum thresholds established and have rigorous discipline to terminate projects that do not meet the desired criteria. To further reduce the extent to which they must cross-subsidize research, AMCs should set up processes to ensure that other revenue streams, such as industry partnerships, are cultivated.

RCM overhaul

As quickly as possible, AMCs must upgrade the way they manage revenue cycle operations. Too often, the RCM operations at AMCs are outmoded, inefficient, and hence overly expensive. Furthermore, they fail to capture much of the money that AMCs could otherwise collect. By improving their RCM operations, AMCs can enhance their revenue (our fourth imperative), reduce the cost of collecting that revenue, and prepare themselves for upcoming coding changes, such as the switch from ICD-9 to ICD-10.[3]



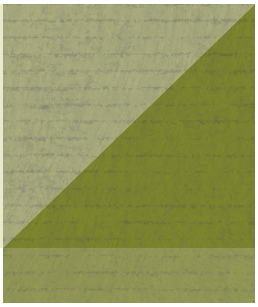
4. Increase revenue flows

On its own, cost-cutting will not alleviate the margin gap AMCs are facing. They also need to adopt a more comprehensive volume growth, pricing, and reimbursement strategy so that they can increase revenues.

AMCs have invested hundreds of millions of dollars in hospitals. If these assets are to be leveraged effectively, AMCs must strengthen their referral flows so that, whenever possible, they can push utilization above 70 percent. AMCs should therefore invest to increase their referral flows, especially for high-acuity cases; among the options they can consider are partnerships with regional providers who lack a subspecialty focus and the creation of free-standing emergency rooms in adjacent catchment areas. It is also crucial for most AMCs (especially those focusing on high-acuity specialized services) to improve their national brand recognition for select service lines (e.g., transplants) to increase their high-acuity market share.

Because AMCs have traditionally focused on higher-acuity and complex cases, they tend to have a higher cost-to-serve than do the other health systems in their regions, which increases the risk that they could be tiered out of some payors' networks. AMCs that deliberately align their reimbursement levels to their value proposition increase their chances of staying in those networks. For example, an AMC could become

[3] Specific advice on how to overhaul RCM operations can be found in "Hospital revenue cycle operations: Opportunities created by the ACA" on p. 48.



part of an ACO or other type of integrated delivery network and use its superior diagnostic capabilities to identify problems in their early stages and then ensure that patients get appropriate treatment, thus reducing the total cost of care. Before they undertake any investment-intensive programs to avoid being tiered out, however, all AMCs should determine their level of risk; among the factors they should consider are their existing government and commercial payor mix, local payor and provider density, and population demographics. Once they have identified their level of risk, AMCs should explore strategies (both offensive and defensive) to manage the risk, such as jointly creating products for the local market with payors, participating in risk-sharing programs (e.g., population management and pay for performance), and partnering with local businesses on care programs.

To increase revenue flows, AMCs should also invest in developing robust internal capabilities in payor management. In addition, they should strengthen their pricing and negotiation skills and (as discussed above) build a more distinctive and diverse set of RCM capabilities.

Finally, AMCs should consider other ways to supplement their revenues. For example, they could convert a hospital pharmacy to a more retail-like outlet, offer a broader selection of food choices in their cafeterias, or add coffee shops. Developing the necessary capabilities will likely require investment.

5. Develop a comprehensive partnership and acquisition approach

Given the rapidly evolving healthcare landscape, AMCs will need to develop new capabilities and scale up existing ones quickly. Most AMCs will also require greater flexibility so that they can respond to a dynamic regulatory environment and other forces. For example, AMCs participating in integrated community health systems will need both flexible capacity and access to diverse care settings so that they can cost effectively manage care across the acuity spectrum. Even AMCs that opt to focus on specialized niche services will need access to diverse care settings to ensure cost-effective delivery.

We believe that AMCs will need to look beyond their traditional approach (build more facilities) if they want to expand capacity and develop new capabilities. Creative partnerships, either through joint ventures, participation in ACOs, or affiliations with other academic organizations, are likely to be a better approach. Such partnerships could enable AMCs to optimize their existing assets, expand their geographic reach, build new capabilities, and/or strengthen their brand quickly—all without burdening the AMCs with additional, costly, and often underutilized infrastructure. For example, one leading AMC that wanted to develop lower-cost care venues decided to lease floors at a commercial provider (which had underutilized capacity) rather than expand its own facilities. The AMC converted the other provider's floors for low-acuity services and staffed the units with its own nurses and physicians.

While mergers and acquisitions (M&A) can be an effective long-term strategy to address capacity or capability gaps, most AMCs have not had great success acquiring or integrating assets into their existing clinical operations. Experience has shown that it takes multiple years for an AMC to integrate new physicians, other faculty and staff, and facilities successfully; tremendous leadership and significant

financial commitment are required to achieve consolidation effectively. Furthermore, the timeline is longer and the success rate lower for mergers involving AMCs than for similar deals involving commercial providers or corporate entities.

Although most AMC executives are aware of the poor track record of AMC M&A, and many understand the cultural factors that have contributed to failed mergers, few know what to do about them.[4] We believe that two sets of actions are crucial if AMC M&A is to succeed. First, mergers involving highly skilled professionals, such as physicians, require a different set of priorities than other types of M&A do. Getting these professionals to support a merger is not a nice-to-have among other priorities, but rather an essential element for success. AMCs need a tailored roadmap and set of tools to obtain physician buy-in.

Second, alignment on a clear vision for the merged organization is critical. Achieving that alignment can be difficult, given the complexity of AMC organization and governance. But lack of alignment will delay realization of value and make executing lower-complexity actions (such as consolidation of support functions) very difficult. In most cases, more complex actions (service-line alignment and the development of new services, for example) are either substantially delayed or abandoned.

Partnerships are also playing an increasingly large role in the research arena. A growing number of NIH grants and other funding sources now require multiple principal investigators. (In the past few years, the number of multicenter grants has increased considerably.) This trend highlights the need for an AMC to be able to establish partnerships within its own facilities, with the broader university, and beyond.

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Given the healthcare industry's evolution (especially the fact that many key ACA provisions soon go into effect), time is of the essence if AMCs want to survive the coming changes. Many institutions are actively exploring one or two of the imperatives outlined above, but very few have undertaken a comprehensive program to address all five of them. At a time when capital is scarce, too many AMCs are still struggling to sequence a limited number of initiatives in a way that maximizes impact and minimizes risk. If they are to survive, AMCs must pull all five levers. They must begin by carefully defining their value proposition and estimating the full value and execution risk of the other four levers. That information will enable the AMCs to decide how to sequence the other imperatives and how much emphasis should be placed on each one. In addition, it will enable them to decide which specific initiatives to undertake, how quickly those initiatives must be implemented, and how great an investment (in terms of money and human resources) should be made in each one. Those AMCs that get all five imperatives right will be poised for success.

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[4] For more information about the challenges involved in health system mergers, see "The smarter scale equation" on p. 61.