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Academic Health Focus

Designing the Academic Health System of the Future: Facility Planning Considerations

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The challenges academic health systems (AHSs) face—from margin erosion to increased consumer expectations around access, convenience, and the patient experience—are daunting, but they also present tremendous opportunity. How can AHS leaders strategically position their organization not only to survive in a transformative environment, but also thrive? One critical place to begin: designing the AHS facility and network of the future.

The factors that have contributed to AHS success in the past—such as their affiliation with a medical school and university, strong research capabilities, and the ability to provide high-end clinical care—could also be hindering operational performance. Research shows AHSs trail non-AHSs across cost and quality measures, with costs per case that are 5.8 percent higher.[1] Meanwhile, operating margin pressures are forcing AHSs to explore new revenue streams to ensure survival.[2]

These are just some of the reasons why facility and network planning is a strategic exercise AHS boards and leaders must embrace to determine their path forward. It's a process that enables leaders to determine how to allocate scarce capital resources to meet the changing expectations of consumers and adapt to the shift toward lower-cost settings for care. Facility planning also offers the opportunity to forecast the community's healthcare needs, gain an honest assessment of the organization's ability to compete in its marketplace, and evaluate the steps needed for future success.

Key Board Takeaways: A Future-Proof Approach to AHS Facility Design

Questions AHS boards should consider as they design the AHS of the future include:

- Which specialty areas should be our primary focus in a value-based environment?
- How can we more effectively compete on access and the patient experience?
- How does our facility planning link to our ambulatory strategy?
- Should smaller footprint facilities be included in our strategy?
- How should we rethink distribution of services as care delivery models evolve?
- How will our facility's needs change over time—and what steps should we be taking now to prepare?

Key Considerations

Three key considerations will guide decision making for board members and senior leaders.

1. Where Will You Need Inpatient Beds, How Many, and What Kind?

AHSs have an average of 477 beds per facility,[3] and they account for $562 billion in healthcare spending[4] or about 3.1 percent of the U.S.

1 Navigant, "Study: Despite Improvements, Academic Medical Centers Trail Non-Academics on Cost and Quality Metrics," August 6, 2018.

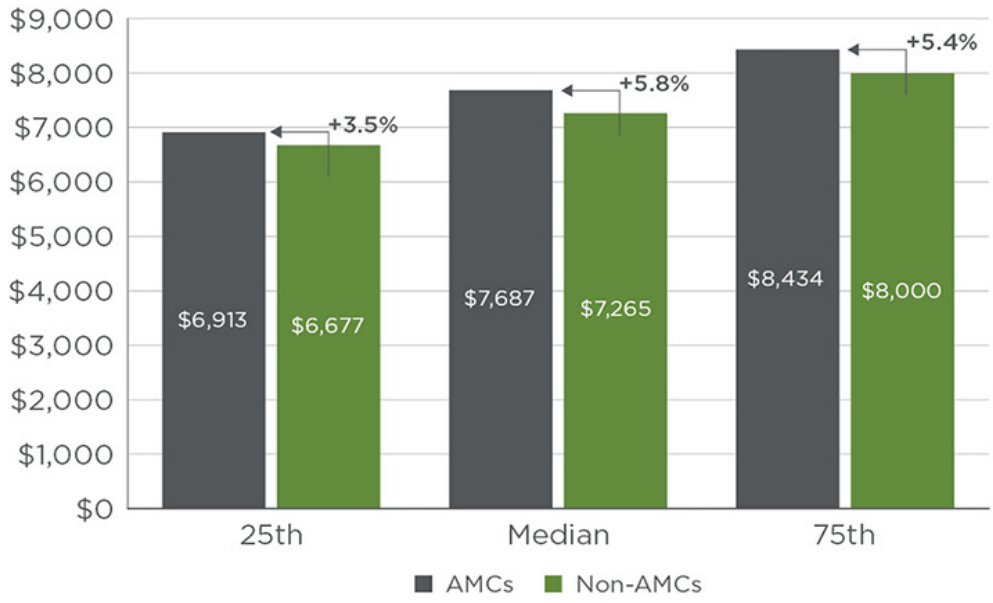
2 Jeff Lagasse, "Health Systems Increase Operating Margins Through Diversification Strategies," *Healthcare Finance*, April 11, 2019.

3 *Ibid.*

4 AAMC, *Economic Impact of AAMC Medical Schools and Teaching Hospitals*, March 2018.

Exhibit 1: AMC Costs Higher than Non-AMCs

Wage- and CMI-adjusted Cost per Care, AMCs vs. non-AMCs*



**Wage- and CMI-adjusted cost per case calculated using MedPAR FY2017 reported charges and cost-to-charge ratios. Cost calculation excludes non-prospective payment system, expired, and cost outlier cases.*

gross domestic product. But in an era of value, as consumers seek lower-cost options for care, their attitudes toward paying a premium for care are changing. Meanwhile, as non-academic systems continue to consolidate, larger systems could rival AHSs not just on cost, but also their ability to provide advanced care and deliver optimal health outcomes.

The impact: While demand for inpatient care in AHSs will continue to outpace that of other hospitals due to their strong reputations for cutting-edge, specialty care, AHSs of the future must adapt their business model to:

- Focus on their top specialty care strengths while increasing convenience and tailoring the patient experience to the individual.
- Broaden their focus to include population health management and wrap-around services, such as prevention and wellness programs.
- Diversify their revenue streams, with increased focus on outpatient services, retail, and convenience-based and employer-based care.

Fewer beds will be needed in the AHS of the future. It's one reason why Jefferson Health of Philadelphia plans to eliminate more than 400 hospital beds, a decrease of about 16 percent, in its 14-hospital system by 2022.[5]

How can AHS leaders determine how many inpatient beds will be needed in the AHS of the future? It's important that AHSs forecast their community's healthcare needs over the next five to 10 years, determine where gaps exist by demographic analysis, and assess their ability to compete on value for inpatient and outpatient services. A redeployment of beds across the market should also be considered, as many systems strive to transfer their main campus, off-loading lower-acuity patients to alternative campuses or sites. They must also

5 Alia Paavola, "Jefferson Health to Eliminate 400 Hospital Beds by 2022," *Becker's Hospital Review*, April 11, 2018.

conduct a cost and quality analysis to understand where they stand in the market and pinpoint the service lines where improved performance could help capture and retain market share in the future. As consumers are increasingly using value-based program indicators to decide where to seek care, poor performance on cost and quality metrics could impact patient volumes—specifically commercially insured patients.

2. How Will Your Facility Be Linked to an Ambulatory Strategy?

The AHS of the future must build tight provider network relationships across the continuum of care, with common standards for access, quality, and cost. It must also let go of the traditional model of care that positions hospitals as the center of the care universe and explore opportunities to extend its ambulatory footprint, whether on its own or in partnership with community health systems or new entrants/disruptors.

As more care transitions to outpatient settings, the focus for AHSs will be on smaller, less capitally intensive facilities. In some markets, micro-hospitals—hospitals as small as eight to 15 beds that emphasize outpatient care, wellness, and the patient experience—will be an integral component of the AHS's access strategy. For example, Froedtert Health and the Medical College of Wisconsin are planning two "neighborhood hospitals" as part of an ambulatory access strategy.[6]

Some systems are building expansive ambulatory centers with extended services to serve the full spectrum of patients. At Michigan Medicine, construction of a 297,000-square-foot facility with more than 40 specialty care services, cancer treatment, operating rooms, and a short-stay unit positions the AHS to help patients who are not acutely ill receive overnight treatment in an outpatient care setting.[7]

Meanwhile, some outpatient care initiatives will take facilities out of the equation altogether. Mount Sinai Health System in New York created a "hospital at home" initiative that deploys mobile medical teams to provide hospital-level care for certain conditions in the patient's home for up to 30 days. The results of a three-year study show this type of program reduces costs of care by 19 percent to 38 percent, with lower emergency department admissions and fewer transfers to skilled nursing facilities.[8]

In designing an AHS's ambulatory linkage strategy, leaders must consider the following:

- How will our facilities compete on the patient experience?
- How can we effectively partner with community hospital, physician networks, and non-traditional entrants/disruptors in providing these services?
- How can we leverage smaller footprint facilities (micro-hospitals)?
- What technologies are needed to provide high-touch, high-tech, highly coordinated care that boosts value?

3. Will Services Be Distributed or Centralized?

As traditional models of care delivery are redefined, the AHS of the future must determine whether inpatient specialty care services should be centrally located in one facility or whether to pursue a center of excellence or specialty institute approach. Specialty institutes could be located in communities where the need for specialty services is more acute or where access to specialty care could be enhanced by an off-campus location. They could also be positioned in separate facilities on the hospital campus.

Brick-and-mortar facilities aren't the only option for specialty care. For example, modular buildings could easily be attached to existing medical office buildings or hospitals to provide centers of excellence-type services, such as cardiology care or orthopedics.

We're also seeing AHSs explore the concept of flexible space planning, wherein offices and patient-intensive care settings can be easily reconfigured when patient volumes increase or when the number of clinicians required for complex cases is particularly high. Characteristics of flexible spaces include movable walls, multiuse workstations, and surgery suites with adjustable environmental features that can accommodate any type of surgery.

Questions AHS leaders should consider include:

- How should we rethink distribution of services as care delivery models evolve?
- How will our facility's needs change over time—and what steps should we be taking now to prepare for the AHS of the future?
- How can facility planning most effectively support team-based care?

6 Guy Boulton, "Froedtert Health Plans So-Called Neighborhood Hospital in Oak Creek," *Milwaukee Journal Sentinel*, September 10, 2018.

7 Laura Landro, "What the Hospitals of the Future Look Like," *The Wall Street Journal*, February 25, 2011.

8 Mandy Roth, "Hospital at Home Initiatives Look Increasingly Viable for Health Systems," *Health Leaders*, July 2, 2018.

Preparing for the Next Model of Care Delivery

In a changing landscape, AHSs must look critically at their business model moving forward, with intense focus on diversifying revenue streams; enhancing convenience, access, and the patient experience; and exploring lower-cost settings and approaches to care. Taking steps now to design the facility of the future is critical to thoughtfully shaping an AHS's response.

The Governance Institute thanks Daniel DeBehnke, M.D., M.B.A., Managing Director for Navigant's healthcare practice, and Lindsley Withey, FACHE, a Director for Navigant's healthcare practice, for contributing this article. They can be reached at dan.debehnke@navigant.com and lindsley.withey@navigant.com.