

# 10 Critical Building Issues Facing America's Largest Healthcare Systems

By Joe M. Powell

**A**merican healthcare systems are currently facing daunting uncertainty in almost every segment of their operations. This creates unusual strains and adds complexity to their required infrastructures. There are times when systemic, incremental improvement is desirable. This is not one of those times.

To learn more, the Academy for Healthcare Infrastructure, a program of the National Institute of Building Sciences, surveyed 30 professionals involved with the nation's largest healthcare systems (see "Survey Respondents" listing, opposite page, bottom). The question asked of these leading healthcare providers: "What building issues will you face in the next three years that seem most pressing today?" The answers to the 2014 research study were particularly insightful. A summary of the responses follow:

## Issue Number 1

### Repurposing a potentially obsolete healthcare infrastructure

Though some buildings may be obsolete, the future promises more repurposing projects than new construction. In almost all American healthcare systems, every element of the care delivery model is under review. While revising human processes and procedures can be difficult, it can be more intimidating to change the steel, concrete and glass that make up our buildings.

## Issue Number 2

### Owner involvement in successful project outcomes

By far, the owner is the most important stakeholder in the process of shaping healthcare infrastructure. And yet, most owners don't effectively exert the project controls available to them. How owners organize their internal decision and

accountability structure is, perhaps, the single, most critical element in producing successful project outcomes.

## Issue Number 3

### Developing a flexible healthcare infrastructure

As American healthcare systems experience unprecedented uncertainty, infrastructure must effectively respond. Currently, two distinct strategies are evident. First, some systems are actively investing in more robust building systems than are necessary at initial occupancy. This usually takes the form of extra structure, power distribution, information technology (IT) capabilities or flexible space assignments. In contrast, the second approach surmises that care-delivery models are under such uncertainty that it is a waste of time to attempt to forecast how people will be healed in 10 years. Therefore, it makes more sense to build the most inexpensive buildings possible and be prepared to start over when they no longer support a healthcare system's needs.

## Issue Number 4

### Speed to market strategies

Current design, construction and commissioning processes take too long, but successful acceleration strategies can be found hiding in a variety of places. Survey respondents were most interested in looking at: 1) increased integration of the project delivery team; 2) faster, more-effective owner decision making; and 3) systematic prefabrication strategies.

## Issue Number 5

### Reducing initial capital costs

One challenge that every healthcare system has in common is healing more patients with fewer resources. This requires finding new efficiencies in every segment of operations,

## Research Mission of the Academy for Healthcare Infrastructure

The challenge of the Academy for Healthcare Infrastructure is to materially improve the processes used to create and maintain the incredibly complex built environment required to effectively support America's healthcare mission.

meaning buildings must do more and cost less. In order to reduce initial costs, healthcare systems are most interested in: 1) speeding up an owner's decision processes, while reducing changes; 2) incentivizing a project delivery team by sharing savings; and 3) better integrating a project delivery team with the manufacturers of building systems.

### Issue Number 6

#### More intelligent healthcare buildings

One inexorable trend in healthcare is the increased use of IT. This clearly puts new demands on buildings. Unfortunately, few segments of the world are harder to forecast than advancements in the value of IT—but it must be done. This requires integrating the world view of 1) care providers; 2) C-suite executives; 3) IT consultants and service providers; 4) IT system manufacturers; 5) insurance companies; and 6) the architecture/engineering/construction (A/E/C) team. Although this level of complexity is extremely challenging, the industry must search for and learn through examples of projects that have achieved some modicum of effectiveness.

### Issue Number 7

#### Capital investment decision making

Every healthcare system has a collection of facility demands that exceeds its financial capacities. What should be built now, and what should be planned for the future? Some of the most advanced capital decision models are being used by at least two of the survey respondents: the U.S. Department of Defense (DoD) Defense Health Agency (DHA) and U.S. Department of Veterans Affairs (VA). While the private sector now strives to improve, organizational power structures and politics still play a powerful role.

### Issue Number 8

#### Healthcare real estate portfolio management

Most healthcare systems manage a diverse portfolio of real estate holdings. Some buildings are working effectively; some need repurposing; and some need to be torn down and replaced. This demands a complex set of management decisions. Over the last 15 years, an industry of professional real

estate consultants has arisen to help analyze these conditions. Today, most major healthcare systems utilize these professionals.

### Issue Number 9

#### Managing leadership change on long-term projects

Most major projects endure substantial changes in care providers and system executives during the lengthy process of conceptualization, design, construction and occupancy. (For instance, one of the projects studied had a 100-percent turnover in both system board members and C-suite executives during the four-year development process.) If an owner's project-delivery team is fully aware of this phenomenon, processes can be put in place to minimize its impact.

### Issue Number 10

#### Defining the next generation's focus

The first nine issues represent concerns currently deemed critical to the healthcare industry's performance. However, the temptation to repeatedly

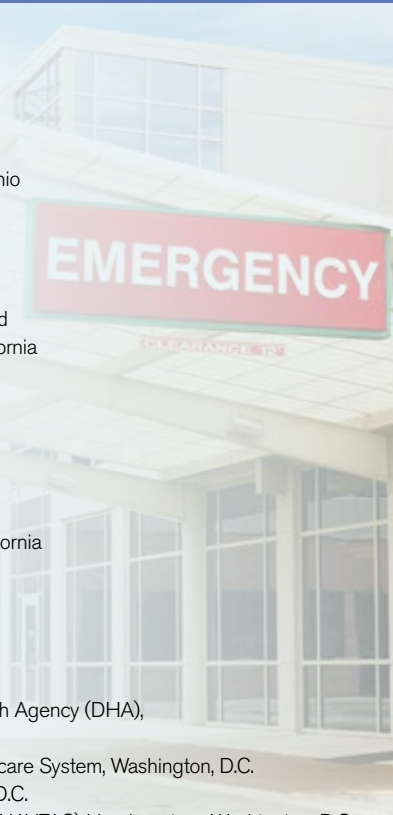
address the same conundrums must be avoided. What questions should the next generation be asking? It is critical, from time to time, that industry leaders be asked to focus on the future. Sometimes, focusing on distant goals brings current, near-term problems into better focus.

### In Conclusion

The 10 issues determined by the survey show an overwhelming presence of uncertainty. As Mark Twain inferred, we are very good at forecasting everything except the future, and that certainly is true here. The industry should spend less time creating detailed projections and more time building agile organizations. Functional project groups must be created that emphasize the capacity to learn and adjust—quickly. The future will not belong to those who are able to guess what is going to happen, but to those who can quickly learn, test and adapt, when appropriate. [JNIBS](#)

**ABOUT THE AUTHOR:** Joe M. Powell is executive director of the Institute's Academy for Healthcare Infrastructure.

## Survey Respondents—Participating Organizations



Advocate Health Care, Downers Grove, Illinois  
Ascension Health, St. Louis, Missouri  
Banner Health, Phoenix, Arizona  
BJC Healthcare, St. Louis, Missouri  
Catholic Health Initiatives, Denver, Colorado  
Cincinnati Children's Medical Center, Cincinnati, Ohio  
Cleveland Clinic Foundation, Cleveland, Ohio  
Dignity Health, San Francisco, California  
Indiana University Health, Indianapolis, Indiana  
INOVA Health System, Falls Church, Virginia  
Johns Hopkins Health System, Baltimore, Maryland  
Kaiser Foundation Health Plan, Inc., Oakland, California  
Main Line Health System, Radnor, Pennsylvania  
MD Anderson Cancer Center, Houston, Texas  
MedStar Health, Columbia, Maryland  
Mercy, St. Louis, Missouri  
Methodist Health System, Dallas, Texas  
Parkland Health & Hospital System, Dallas, Texas  
Stanford University Medical Center, Palo Alto, California  
Sutter Health, Sacramento, California  
Texas Children's Hospital, Houston, Texas  
Texas Health Resources, Dallas, Texas  
U.S. Air Force, Washington, D.C.  
U.S. Army Corps of Engineers, Alexandria, Virginia  
U.S. Department of Defense (DoD) Defense Health Agency (DHA), Washington, D.C., and Falls Church, Virginia  
U.S. Department of Defense (DoD) Military Healthcare System, Washington, D.C.  
U.S. Department of Veterans Affairs, Washington, D.C.  
U.S. Navy Naval Facilities Engineering Command (NAVFAC) Headquarters, Washington, D.C.