



THE AMERICAN INSTITUTE OF ARCHITECTS

Academy of Architecture for Health

Healthcare Architecture and the Affordable Care Act

We have all seen the statistics. The US has the most expensive healthcare system among the highly developed nations of the world (more than double the average cost per person / year). And despite committing almost 18% of our GDP annually to healthcare, we are not achieving the comparable results. Our life expectancy is about a year less than the average among our international peers (significantly less than many nations). Our infant mortality rates are significantly higher than comparable nations and our children are becoming increasingly obese.

When you also consider that 35 to 55 million Americans have not had regular access to healthcare, it is not surprising that expanding coverage, reducing costs and improving outcomes would become a focus for a succession of national leaders over the past several decades. Those efforts have led to the passage and current implementation of the Patient Protection and Affordable Care Act, aka ObamaCare.

While the specifics of the Affordable Care Act and certainly the roll-out have been controversial, most of us are supportive of its broader attributes: more inclusiveness, elimination of restrictions on pre-existing conditions, extending coverage to children up to the age of 26, increased accountability, etc. Although this enormous initiative is still in its infancy, it seems appropriate for our profession to ask the obvious question: how can we as a group of design specialists positively contribute to the cause of creating a more affordable, more efficient, higher quality healthcare system.

Since our involvement in the annual \$2.8 trillion healthcare industry is relatively modest – well under \$50 billion in design and construction each year – this may seem like a significant challenge. What is important to note, however, is that unlike much of the healthcare regulatory and policy environment which can be quite transitory, our recommendations and design decisions have a lasting influence on the healthcare facilities we design and on those who utilize them – typically, lasting decades.

So, the question for us is this: How can we design a new generation of hospitals and outpatient facilities that eliminate waste, improve efficiency, promote safety for both patients and staff, streamline operations, reduce distractions that contribute to errors and provide for more adaptability over time?

We occupy a unique position in the healthcare industry that offers exceptional leverage. For example, it has been estimated that a major contributor to the high cost of healthcare in the US is waste; estimated to be as much as 30%. Imagine if our combined design talents can be marshalled to create new models of care that reduce waste by a third. That effort would produce extraordinary results – as much as 10% increased system efficiency.

Another opportunity for healthcare architects is to address the increasing shortage of caregivers (physicians and nurses) and design to increase staff productivity: fewer steps, less redundant operations, reduced lost time due to job related injuries, etc. Since the single highest cost in healthcare over time is people, improvements in staff productivity have great potential for reducing costs and improving quality.

Incentives within the ACA will reward our clients to **improved quality and patient satisfaction**. Current surveys focus primarily on the procedure and the outcome. However there are many points beyond the quality of the actual procedure to consider. The staff and built environment being at the top. We can certainly help our clients with the latter two.

Reduce avoidable readmissions. There are many avoidable readmissions. We have all learned that HAI account for a lot of the readmissions. It may be the human component that typically fails in this area (such as hand washing) but we need to take a critical look at how we design facilities so that we can improve convenience. We need to critically look at the data we have used to make design decisions or to develop regulations. There is a study going on right now that may show that increasing the air changes per hour in an operating room can actually increase the number of surgical site infections.

Identify community partners and conduct community needs assessment. There is going to be a monumental shift on what cases are seen within acute care facilities, this will add pressure on other outpatient entities. There will be hospital systems that will take advantage of this opportunity and develop these services outside the walls of their acute care facilities.

These are just a few of examples, but it seems that our position as problem solvers unburdened by partisan bias are uniquely positioned to generate an almost unlimited list of opportunities where we, in concert with our clients, can advance our shared cause: improving the quality of healthcare in the US while reducing the financial burden associated with that care.

Such an opportunity does not come our way that often. It could easily be our profession's "moon shot" for the 21st century. To make this effort successful means we have to not only challenge our clients and an industry that is resistant to change, but to challenge ourselves as well. We need to explore and embrace alliances and collaborations that we are not accustomed to. We need to reach out to other areas of expertise and disciplines to expand our base of resources and knowledge. In summary, we need to recognize that those we serve are being forced to adapt and we need to be comparably receptive to change.

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