



Journey Toward Innovation in Healthcare Design, Construction through Lean, Evidence-Based Design

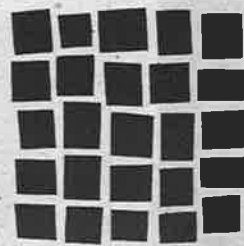
Over the last several years there has been a great deal of speculation as to how the Affordable Care Act will affect healthcare facilities. Simply put, we still really don't know how all this will play out. What we do know for certain is that our clients will continue to request projects that are **"faster, better and more cost effective."** In such a competitive industry, it doesn't seem like an opportune time to question this, but rather, a time to say, "Absolutely, you bet we can!"

We need to look toward corporations like Toyota, Steelcase and the many others that have pioneered and incorporated the innovative practices of Lean and Evidence-Based Design. We need to be asking ourselves questions like: How can we eliminate waste from the process? How can we continuously improve the quality of the product? How can we make sure we are doing things right the first time so we don't have to go back for damage control? As we work towards answering these questions, we must have the client's vision at the core of

every step forward after that. There is one thing we know for sure: this is the time for innovation.

Clients are increasingly expecting proof that their healthcare facilities are performing, not only the building is performing but the staff are able to deliver high quality and personal care to patients. We need to document and thoroughly evaluate these aspects of high performing designs that are part of the client's vision – a vision for how it functions, feels, and enhances human experience. This is an opportunity to collaboratively identify inherent challenges and together build measurable social, economic, environmental and aesthetic goals. However, we don't need to reinvent the wheel to achieve these goals. Lean and Evidence-Based Design give us strategic tools to build a Collaborative Project Delivery team and deliver our project **"faster, better and more cost effective."**

The Lean movement, most notably started by Toyota, is based in removing waste from the production line. Toyota observed their current



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processes and collected data to brainstorm, identify and discuss opportunities for improvement in order to eliminate waste. Lean thinking can be adopted to improve the design process and our healthcare facilities. Design firms such as Davis Partnership Architects are capitalizing on Lean thinking tools such as Rapid Prototyping. Life-sized, cardboard mock-ups of healthcare environments such as exam rooms help end users to collaboratively test their everyday processes in an environment where they are free to adjust and improve through easily flexible wall

partitions, furniture and equipment. Lean thinking, applied at the beginning of the design process, provides the project team with valuable insight into design considerations based on feedback and experiences.


A resource to consider throughout this process is The Center for Health Design's Knowledge Repository (www.healthdesign.org/search/articles), which houses healthcare design key point summaries of research-papers, articles and references on the built environment's impact on the human experience. The Knowledge Repository provides valid research studies that can inform design decisions and address client concerns and goals – such as improving patient safety. This approach, known as Evidence-Based Design, is the process of basing decisions about the built environment on credible research to achieve the best possible outcomes.

We can't achieve **"faster, better and more cost effective"** projects alone; we have to capitalize on one another's strengths forming a Collaborative Project Delivery

team including all design disciplines, contractors and owner's representatives. This sort of collaborative approach allows improved decision-making early in the project where the most value can be created – saving time and money throughout the project's lifespan.

Our clients will continue to challenge us to design and build better buildings, to do it faster and for less money. We believe the design and construction industry is capable of tackling these challenges. To do so however, we have to incorporate innovative practices such as Lean and Evidenced Based Design in a Collaborative Project Delivery process eliminating waste, continually improving value and pursuing innovation toward better design.

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