PODCAST 149:
BRINGING KAIZEN TO THE CLOUD

By Mark Graban

> *KaiNexus, a cloud-based improvement software company that enables people around the world to spread Lean throughout their organizations by accelerating adoption, increasing engagement, and driving a greater impact.*

Greg Jacobson, MD
Co-founder and CEO of
KaiNexus
www.kainexus.com

My guest for episode 149 of the Lean Blog Podcast was Greg Jacobson, MD, a co-founder and CEO of KaiNexus, a cloud-based improvement software company that enables people around the world to spread Lean throughout their organizations by accelerating adoption, increasing engagement, and driving a greater impact. In the interest of transparency, please note that I have been on the management team at KaiNexus since 2011 and I am a part owner of the company. I invited Greg to the podcast not to talk so much about KaiNexus but about his early experiences with Kaizen in emergency medical settings.

Greg graduated from Washington University in 1997 with a BS in Biology before attending Baylor College of Medicine from 1997 to 2001. Then, from 2001 to 2004, he completed a residency in Emergency Medicine at Vanderbilt University Medical Center where he then stayed on as faculty until moving on to found KaiNexus.

Greg was introduced to Lean when he finished his residency and started in a faculty position at Vanderbilt. It was then that the Department Chair of Emergency Medicine, Corey Slovis, MD, handed Greg a copy of *KAIZEN: The key to Japan's competitive success* by Masaaki Imai.

"I was always the resident that was questioning really process type things," Greg said. "I was always looking for little ways to improve, and [Slovis] really felt that Kaizen was a great underlying principle and architecture for taking this on in a very formalistic way. We were looking for ways to train our residents to take formalized improvement methodologies into their future practices, so he handed me the book and I took it from there."

Though the book *KAIZEN* is not geared toward healthcare, Greg, who describes himself as a conceptual thinker in general, couldn't help but see the many underlying similarities between the complex healthcare and manufacturing systems. Greg distilled Imai's teachings into 12 or 13 principles, which he then used to train and teach residents to apply Kaizen in healthcare.

> **"When you initially start thinking about Kaizen and someone describes it to you, you do think of the traditional suggestion box"**

Greg soon realized the fundamental pillars of the Kaizen program were that people need to be educated on the principles, and that an actionable suggestion-based system is needed. When considering Kaizen for Vanderbilt, Greg also realized the barriers to communication both in and between the two emergency departments – adult and pediatric – were substantial.

"We really had a pretty large department, very fragmented in terms of [being] an emergency department 24 hours, seven days a week, and the space is also pretty large," Greg said. "So, my first thought was where would I even put a physical suggestion box, or put the forms in?"

At the same time, around 2001, Vanderbilt was investing in computer technology. By 2004, the emergency department was almost completely computerized, so looking at the computer as a solution to these problems made sense, Greg explained.

The system evolved over several years, starting as an electronic suggestion box system where staff members would enter a Kaizen and it would get sent via email. Ultimately, it was clear that managing Kaizen with email wasn't working well.

"So, we started to develop a workflow, and we developed that workflow because we needed to make sure we responded to every single suggestion that was put in, every single Kaizen, and we did it in timely manner," Greg said. "As soon as you start causing long delays in answering things, you lose people's motivation and it starts becoming more like the traditional suggestion boxes that people have found to not work very well."

Greg said that it honestly didn't even cross his mind to deploy Kaizen methods any other way than electronically.

Greg only worked at nights, Greg explained, so he "would go many, many shifts without seeing the administrators and the leaders" and he "also tended to get frustrated with emails because it's really hard to organize and to be accountable in an email system." Greg added, "So, I realized it needed to be a transparent system, it needed to have one-hundred per cent accountability," something that would have been harder with a physical system.

While setting up the system, Greg also talked to a couple of other departments in Vanderbilt who had done some improvement work using paper-based systems, who said they had, in some cases, 800 Kaizens on paper and couldn't begin to organize them.

"It's an immediate solution when you start thinking about how you scale something like this. If you

have 50 people, paper seems to be great. But, if you have 500 people, all in different places, and then you want to do this over many years where you can start searching and looking for trends and seeing if people have had this problem in the past, doing it electronically just makes sense."

In addition to using electronic means to manage suggestions, Greg also recommends at least a minimal amount of staff training for organizations looking to utilize Kaizen.

"I think it's important when you roll out your Kaizen program that there needs to be some training involved. A classic suggestion system is going to foster really big, innovative, large-in-scope ideas, so when you give people just some basic training, you start getting some great examples."

Transparency is also important for engagement. Inherently, people want to make things more efficient, they want to have a stress-free workplace, they want to provide great patient care to people, and if you bring them to the table amazing things can happen, Greg explained.

Nurses and non-physician leaders often ask me about how to engage physicians in Kaizen, so I asked Greg about how he went about doing that.

"I started with doctors in doing this and so, obviously, the system I created ultimately had some of those elements, because I thought about how would I want to interact with this [system]. For example, I think if you have a form that takes 10 or 15 minutes to fill out, the doctors aren't going to be interested in doing that. So, make it simple, make it quick, so it takes them a minute or two to fill something out. Requiring a lot of

meetings that are in the middle of the day is also going to detract from doctors" participation, Greg said. He added that it's also important to show them how "a small, little investment of this time will actually make you more efficient and make you less frustrated going through your workday."

Another interesting thing Greg found was that many Kaizens are easily solved immediately, but when one comes along that is complex and takes a lot of time to put into place, the work can create more engagement. If Kaizen is put in place using a system that is transparent and engages the staff members that initiate the Kaizen, those employees start to realize that leadership is working hard to make things easier, more efficient, and give better patient care.

"That was actually an unintended consequence of making a very transparent system that included everybody, that people realized how hard some things can be and

the other amazing this is just how easy other things are," Greg said.

"I think the key is that if you give everyone a stake in the game, inherently people want to make things more efficient"

Once some traction and momentum was gained with the system at Vanderbilt with residents, it was spread to other groups and areas of the hospital.

"It became obvious that Kaizen has a role in improving healthcare and the idea and the methodology that we came upon was bigger than just the Vanderbilt emergency department," Greg said. "We realized that really the best way to impact healthcare here would be to provide a [software system] that any hospital could use, and not just one department in that hospital, but one that could model and adapt to any medical center. So, it became obvious that we needed

to start a start-up, and to build it and see if we could provide this and solve the difficulty of implementing these types of programs by providing this software. And so, we've been successful in building something that's adaptable to any hospital and it really, it makes improvement easier."

And, over time, that platform has been adopted by organizations in many industries outside of healthcare, as KaiNexus has grown and matured.

To hear more from Greg, you can listen to my interview with him and Daniel Sullivan, President and General Manager of The Sergeant Thomas Joseph Sullivan Center, in episode 134 of the Lean Blog Podcast. In that episode, I spoke to Greg and Daniel about the broader issues of healthcare quality and our United States military.

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