Q&A with Lee Marley

Lee Marley, associate CIO at Stanford Hospitals and Clinics, participated in a panel discussion on business intelligence March 22 at the Institute for Health Technology Transformation's Health IT Summit in San Francisco. Frank Irving, a writer for iHT^2, caught up with Ms. Marley for a Q&A session after the presentation.

FI: How did you get into this line of work?

LM: By accident, basically. I was finishing up a masters degree in health administration at University of Alabama Birmingham and had career ambitions to become a healthcare administrator. As fate would have it, I ended up working for a healthcare software company and began installing computer systems in hospitals across the United States.

Back in those days you did everything: You trained people, you configured systems, you made sure the terminals were connected properly on the back of the CPU. You even carried the tapes to download at the client's location. Can you imagine carrying boxes of magnetic tapes with you on an airplane? That's what we did when there was no Internet. I learned a tremendous amount about how hospitals really operate doing that kind of work. And we had a really great product in its day. My role was to interact with people at the client hospitals to implement applications, so that's how I fell into healthcare IT. It's been a great ride ever since.

FI: How did you end up at Stanford?

LM:I spent nine years at Sutter Health as CIO at one of the affiliate hospitals, Mills-Peninsula Health Services, the first hospital to go live on Epic within Sutter. We went big bang, every application going live at once. It was amazing how it all came together and was very successful.

Sutter is a great organization and that hospital was a great place to work. After we implemented the system -- I was there through the go-live process -- the IT organization was consolidated. The regional structure did not afford the kind of opportunity I was looking for, so I went to work at Stanford as associate CIO about a year and a half ago.

Stanford is a world-class organization and thus very dynamic and innovative. Stanford is also very challenging and very rewarding. I love the work we're doing there.

FI: How would you characterize the use of technology at Stanford?

LM: It's definitely advanced. It's one of a handful of hospitals designated at HIMSS Analytics Stage 7 for EHR adoption.

In terms of what we're doing with applications that directly support patient-facing activities -- starting with scheduling and going all the way through care delivery through to billing and payment functions -- we have the most sophisticated tools available. And we use them extremely well.

We're just standing up our business intelligence (BI) initiative. We've been giving that a lot of consideration over the past year or so, and now we're rolling out our BI plan.

FI: During the panel discussion you said "these truths are self-evident" about the use of BI at Stanford. What did you mean by that?

LM: At Stanford, we believe certain investment decisions are highly strategic and are made on that basis rather than traditional rate-of-return analysis. We are making a significant investment in BI so we have the kind of data our organization needs to make better decisions and build upon. BI spans a very broad cross-section with the hospital, the clinics and the school of medicine as you can imagine. We're working with those groups to make sure we understand their needs, what is meaningful, and what is going to provide value. Incidentally, the reporting related to Meaningful Use is very much a BI function as we see it. Suffice it to say, it takes time to design and build an effective BI architecture.

Let me be sure I have answered your question. When I say we hold these truths to be self-evident, I'm saying that we did not build a business case that states what the return on investment is going to be in the case of BI. This is very innovative work and it doesn't lend itself to precise calculations stating cost reductions, or what it will do in terms of supporting growth, or what it will do in terms of operational performance and throughput outcomes.

At Stanford, we've are a world-class academic medical center, and we have the wherewithal to do this…so that's what we're going to do.

FI: Overall how would you assess the state of health care IT in this country?

LM: Perhaps for the first time in my career, I believe we have legislation that's truly driving positive change --- things that don't just relate to billing or administrative issues, These changes are going to make a difference for patients. And the incentives that are being put out there are all the right ones to drive us to do the right thing, which is very exciting. Generally, we don't think of regulatory requirements

as doing that. It's very exciting to see legislation that is incenting people to invest in technology for all the right reasons.

Other industries have made these investments all along. And healthcare now is catching up. It's going to be a profound transformation. Some of our biggest hurdles will be privacy issues and how to maintain security and patient information availability.. And, fortunately, technologies will help us with that because they're getting better and better. Still, there are significant challenges on that front.

FI: Part of the new environment is that you have to think about security on new devices such as the iPad.

LM: I totally agree; you can't afford to have unsecure data on an iPad. But just because you can display something on a device, that doesn't mean you're storing anything on it. We won't store anything on an iPad. What you see will be through a connection to server actually storing the information.

FI: Can you tell me more about the BI technology architecture?

LM: Sure. Epic is a native system, which means it is the primary data store. It's the system we use to collect information in the first place.

From Epic we send data to a secondary data store. Other systems also send data to this secondary database as well, so we can correlate data and do the analysis needed to support the decisions So out of that primary, native system we pull data into a secondary data store, which is our BI database. That allows us to pull correlating data and present data in ways that conveys information quickly.

FI: Like an old executive information system from the late eighties?

LM: Yes, only it's a lot more sophisticated. It has the ability to store objects. So once you define something like length of stay (LOS), you put that "on the shelf," and then you have that object to pull down and re-use. By the way, defining LOS) is not as easy as it sounds, thus data governance is an important element of BI. But back to you question, the BI architecture expedites the coding, replicating new scenarios for users by having these off-the-shelf items that you can re-use. Basically, it gives us the ability to expedite the development of new and more meaningful views of information for clinicians and executives. And that's a beautiful thing.