Healthcare IT News

4 best health IT innovations within the past year

October 24, 2011 | Michelle McNickle, Web Content Producer

New health IT was anywhere and everywhere in 2011, promising ways to streamline data and increase patient care. Now, with even more technology on the cusp of the mainstream market, it's only natural to wonder what's the best.

That's why we asked Ahmed Ghouri, MD, co-founder and CMO of Anvita Health, what he believes were the most influential new technologies within the past year and what will be game changers in the years to come. "If you look at the stages of healthcare we're going through, the first is structural, which includes CPOE, EMRs, and health information exchanges," said Ghouri. "So data management in storage, and data exchange. I think once we solve the structural problems, it will be like creating a Web browser; dramatic value is created once everyone is on the Internet. It's not just getting online, but also doing things with the data online."

Ghouri believes we're making progress in the structural aspects of healthcare, and the most innovative health IT isn't in the area of data gathering but rather data interpretation. "I would say they're the most important things in terms of their long-term significance," he said. "But we're still early in their widespread adoption."

Check out Ghouri's round up of the best health IT innovations within the past year:

1. Noise reduction of patient data. Ghouri said noise reduction of patient data is the foundation for clinical decision-making and is also essential in understanding what's real and what's not. "Especially in mixed-mode environments," he added. "Imagine you have patient data coming in through multiple sources. There can be different sets of medical conditions, diagnoses, etc., which can result in conflicting things. There may be things about [the patient] that may not be true today. So being able to create an active problem list of high veracity data on a patient is a significant innovation." Ghouri also cited medication reconciliation as a problem. "And I would extend that to problem list reconciliation," he said. "If you combine the two, we refer to that internally as a smart problem list for that patient. Having data coming from so many sources, it's hard to tell what's real and what's not. So, it's essentially EMR information reconciliation."

2. Real time analytics. According to Ghouri, real time analytics, as opposed to batch mode analytics, allow decisions to be made immediately. "This is important because physicians and caregivers, for the most part, don't have the time for interpretation of patient data," he said. "They need to make a decision within minutes. So being able to analyze patient information in real time is important." Ghouri added that a lot of the data exchange that's occurring through the use of EMRs and CPOE may be assembled just in time, meaning there's no existing database of a comprehensive view of the patient. "If someone wants to interpret data assembled 20 seconds ago, for example, you have to have real time analytics."

3. Variable benefit design. Looking ahead, Ghouri noted there will be differential payments for clinical outcomes, rather than just volume of care. This includes payment based on quality and for keeping patients out of the hospitals. “And there are penalties for hospital readmissions,” he said. “So variable benefits design allows for payments for clinical outcomes rather than the volumes of procedures that were done on patients.” Variable benefit design requires technological capabilities, said Ghouri, and it can’t be done with just policy. “You need to be able to adjust copays or payments based on clinical outcomes.” Ghouri said his company recently received a patent on variable copays of medication using patient data, which he believes will be significant in the years to come. “Imagine a doctor is about to prescribe a therapy in an EMR, and let’s suppose that medication was potentially lethal to the patient,” he said. “You can dynamically adjust the price to preclude its use. It’s context-specific pricing. We’re very early in terms of its widespread adoption, but putting a milestone marker in the road, I would say that’s the most significant of the year.”

4. Comparative efficacy of treatments. Ghouri cited comparative efficacy of treatments as a significant innovation not only within the past year, but also in the years to come -- specifically, mining electronic patient data to understand treatment options. “For example, with the 200 different treatment protocols for breast cancer, it can be difficult to decide which one enables patients to live the longest and which ones aren’t successful,” he said. “Using actual data helps because there isn’t time to do clinical trials on every option. But, if you have huge data sets, you can use empirical trials or pragmatic clinical trials to compare treatments head to head, virtually on a continuous basis, once you have data organized.”