

# Meaningful use is more about reimbursement than patient engagement

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Aside from the [tide of healthcare big data](#), the industry's response to the FDA's newly released guidance for cyber security management in medical devices is the other big theme that has emerged this year. This new focus on medical device security did not exist before the explosion of technology adoption in the healthcare industry, and there is no doubt, it presents some challenges.

There are tools currently available such as DeviceHive, that offer a fast and complete way to securely control multiple devices, and the industry is increasingly looking at adopting such solutions to comply with these new standards.

If we follow the current technology trends that are already in motion further into the future it is obvious that it that will bring the life sciences and healthcare industries even closer together. The electronic health record is vitally important not only to the patient and their physician but also to the pharmaceutical companies that are required to perform long term post marketing surveillance studies on their drugs.

Today, much of this information must be entered into two systems. A clinical trial electronic data capture systems (EDC) like Medidata Rave, and the physicians' EHR system like Epic. The data captured in both of these systems is relatively identical and we will see tight integrations develop between EDC and EHR systems. This integration and the improvements in electronic serious adverse event reporting in EHRs will lead to improved visibility into the safety and efficacy of the drugs and devices on the market.

However, to see the real advancements in healthcare we must look beyond 2016 and meaningful use stage 3. The industry mantra is that a meaningful use certified EHR implementation will reduce costs and improve outcomes, but unfortunately physicians do not seem to agree.

While the value of a standard sharable electronic health record is obvious, by itself it only adds so much value, and today records are not easily sharable or standardized between proprietary EHR systems. MU Stage 3 is supposed to be the stage that addresses this and where improved outcomes manifest but the core MU objectives do very little to actually improve healthcare outcomes directly. The reality is that MU sets the stage to allow greater scrutiny on how and when healthcare practices are reimbursed by Medicare, Medicaid, and insurance companies.

It is the increasing financial pressure that will be placed on healthcare practices that will be the catalyst for the technological innovations that are needed to deliver on the vision of lower costs and better outcomes.

After MU stage 3 has been achieved the EHR vendors will be free to innovate the way a free market is meant to, based on the needs of its customers. This is where the real changes will begin to take hold. Revenue cycle management will be counterbalanced with advanced activity based cost management functionality; population management will be enhanced with efficient patient workflow streams that work across the entire ACO to improve the speed at which care can be delivered.

Finally we are expecting to see a greater acceptance and adoption of clinical decision support technology that leverages disease patterns identified through big data analysis to reduce the time it takes a physicians to diagnose their patients. These are the features of EHR systems that will actually deliver on the promise of efficiency and quality of care.

The one technology trend that has the most potential for quickly reducing healthcare costs will unfortunately not likely become a standard for at least another 3-5 years because of the US state laws in place for practicing medicine. Telemedicine has the potential to have the biggest impact on reducing healthcare costs in the USA of all technologies currently available.

In the future the majority of your doctor visits will not be in person but instead over the internet using video chat. With the aid of at home computer connected devices the list of illnesses that can be diagnosed with telemedicine has dramatically increased. Initial visits, check-ups, and follow up visits can all be easily addressed with telemedicine. Physicians will be able to see more patients each day, and patients will not have to take time off work, or leave the house when sick to see their doctor. With the average cost of an in office doctor visit being ~\$200, and ER visits in the \$750 range, telemedicine is a bargain at a cost of usually less than \$75. Telemedicine is also starting to be leveraged across hospital locations to expedite physician consultations when the needed physician is not onsite.

But the low costs and efficiency of telemedicine is not its greatest value. Across America we currently do not have enough primary care physicians to serve our population. There are numerous geographic areas in the USA that are medically underserved today. One estimate is that we would need to add ~63,000 by 2015 to address the current shortage of doctors. Most areas that are medically underserved are the low income areas where doctors tend not to open family practices. When you look at the world in general, you can see that the majority of the world is medically underserved with many areas without a skilled doctor for hundreds of miles. Telemedicine kiosks have the ability to fill these gaps and make healthcare easily accessible to everyone.

The growing demand and adoption of advanced technology will continue to shape the life sciences and healthcare industry for years to come. Big data solutions will play a larger role this year, and a focus on regulatory and financial pressure will force companies to examine their solutions in a new light. As more companies recognize the importance of outsourcing and partnering with companies that understand the software validation process we will see more custom build technology solutions, the industry will enter a stage where the creation of new solutions is accelerated greatly improving the way we research, diagnosis and treat multiple illnesses.