An early look at a CDC project digitizing infectious disease guidelines to work in EHRs

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How an interdisciplinary kaizen group within CDC is charting a roadmap for future metrics to improve population health and provider satisfaction.

Addressing global infectious diseases has been an ongoing challenge. To tackle the issue, in 2018 the U.S. Department of Health and Human Services' Centers for Disease Control and Prevention put together a Kaizen group consisting of an interdisciplinary collection of healthcare and IT professionals.

The group worked collaboratively to develop a roadmap and metrics for the future of clinical guidelines as they apply to electronic health records and infectious diseases.

Such an approach has several advantages — and a handful of drawbacks. That's what attracted the attention of Steph Hoelscher, chief clinical analyst for the Office of Clinical Transformation at Texas Tech University Health Sciences Center’s School of Medicine in Lubbock, Texas.

Digitalizing these guidelines and algorithms would consist of creating them in a way that an EHR could accept them quickly from an outside source with minimum modification needed to the system.

"The goal of this would be to decrease guideline adoption time as well as improve both provider and informaticist satisfaction, not to mention improve overall population health," said Hoelscher. "The process is still in its early stages and hopefully will move to larger scale testing within the next year.”

For the project, Hoelscher and her team looked to align their facilities with the CDC’s initiative, the Quadruple Aim, as well as the 21st Century Cures Act, in regards to clinician documentation burden.

She'll discuss the implementation in more depth at the upcoming HIMSS19 annual conference in Orlando, Florida -- focusing on preparing an EHR for the future of clinical decision support, and bridging the gap until they get there.

"The process can be as complicated or simple as your development team allows for,” said Hoelscher. “Proper CDS development takes time, patience, evidence, subject matter experts committed to the project, and executive support.”

Facilities often lack the time and resources to properly develop a new process -- one that involves testing, reevaluation and maintenance. But for it to truly succeed, it has to be designed to stand the test of time, said Hoelscher.

That takes commitment, and with the constant changes of both medicine and technology, having CDS design that’s evidence-based, usable and safe can be a challenge.

"If you push hard for a strong CDS foundation, maintenance later on can be made much simpler,” said Hoelscher.

There are, of course, both pros and cons of clinical support in EHRs. First, the cons.

The limits of current technology and education are a big one. As fast as technology often moves, sometimes it’s just not fast enough; EHRs are often just not ready for the changes an organization may want to make today, and there have to be temporary bridges built in order to make it across the chasm.

And then there’s making a complex concept understandable to multiple levels of healthcare professionals.

"As with any maintenance cycle of a CDS project, quality education and often re-education needs to be a top priority,” said Hoelscher. “Staff and providers that do not ‘understand’ changes or new workflows, often succumb to frustration, and that’s what we are trying to avoid.”

Yet there are some pros as well. Hoelscher’s organization has integrated the potential for local disease detection into its EHR. With diseases like measles popping with some frequency as of late, it’s not enough to simply concentrate on Ebola and Zika.

"With that being said, an improved CDS process can possibly help you recognize the next Virus ‘X’ as well,” she said. “We are at the point where it’s not a matter of if, but when. If our systems can be enhanced enough to accept digitized algorithms from agencies such as the CDC in the future, the improvement in quicker detection and treatment of impacted patients could be profound, even life-saving.”

Hoelscher will share these thoughts and more at HIMSS19 annual conference in Orlando in a session entitled “Clinician Satisfaction: Digitalizing ID Clinical Guidelines,” at 3 p.m. on Tuesday, Feb. 12 in room W311E.