

**Statement of Tom Yosick, Epic**  
**Panel 4: Electronic Health Record Vendor Perspectives of**  
**Necessary Components of Quality Improvement**  
**June 7, 2012**

Thank you for the opportunity to share our experience and insights here today. My name is Tom Yosick and I am a software developer at Epic. We develop software for medical groups and health systems. Our software is certified for Meaningful Use and used by hundreds of hospitals and thousands of physicians pursuing meaningful use. These healthcare organizations use, and have used, our software to measure and enable quality improvement initiatives for many years.

At Epic, I've worked on both tools that assist with identifying areas for quality improvement initiatives and monitoring the success of such programs as well as on clinical decision support tools that are used at the point of care in quality improvement efforts.

**1. You asked first about what factors limit the ability of health IT to support quality measurement and improvement and how health IT can better support quality measurement and improvement.**

We've seen healthcare organizations have tremendous success with using HIT to further their quality initiatives. As one of many examples, Kaiser presented recently on how electronic data helped them halve their death rate due to sepsis.<sup>1</sup>

In developing tools for healthcare organizations that pursue these initiatives, we have observed certain patterns of success. One thing that an EHR does is collect a large quantity of data that is then available for analysis. We've observed that when programs focus on the data that they are already collecting during treatment and are judicious about imposing additional documentation requirements as part of their initiative, they will tend to have more accurate data and better participation.

The greatest challenge our users face with using the EHR for quality measurement and quality improvement is in trying to measure and assess information that was never captured in the EHR in the first place. This problem is especially acute because we are currently in a period of transition, where measures that have been used to assess quality in the past were written with a chart abstraction or claims reporting mindset, envisioning that a trained abstractor might look for data or a pattern of certain information within a chart.

Abstractors can also work with data that is not always discretely available for EHR reporting, such as the contents of a note or referral letter.

Reporting data directly out of an EHR, without an abstractor, opens new possibilities, but also requires that we consider this measurement mechanism when determining what to measure.

Two examples:

1. An abstractor might be accustomed to reading a clinician's note and recognizing documentation of asthma symptoms or BMI follow up plans. However, for the EHR to report symptoms or a follow up plan, the clinician might need to change charting habits to record symptoms with specific templated tools that capture discrete data.
2. Consider the proposed Stage 2 hospital measure of newborns exclusively breastfed at discharge. The EHR can determine whether there was any documentation of the infant being fed formula, but if there is no such

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<sup>1</sup> [http://www.worldofhealthit.org/2012/wp-content/uploads/2012/presentations/3/PL4\\_PlenarySessionKaiserPermanentesHealthcareITJourney.pdf](http://www.worldofhealthit.org/2012/wp-content/uploads/2012/presentations/3/PL4_PlenarySessionKaiserPermanentesHealthcareITJourney.pdf)

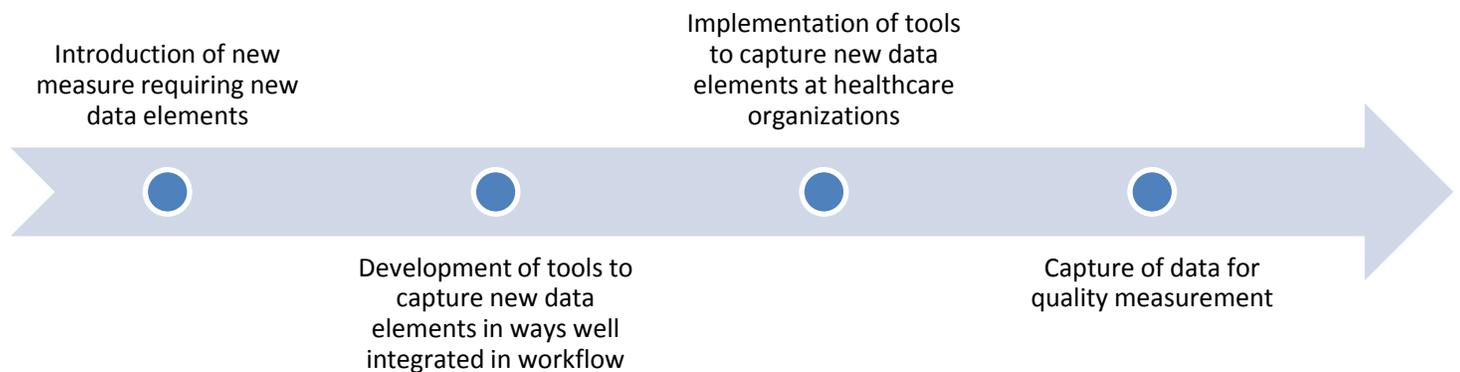
documentation, does that place the patient in the numerator, or is the measure really expecting a clinician to make the determination as an assertion that requires specific documentation?

## 2. How can the quality life cycle be accelerated?

First, we must answer the question posed earlier about whether we intend to continue to write quality measures in a chart abstraction or claims methodology. We assume that this is one area that we can improve, so here are some things that we have learned.

Where necessary, use abstraction or ask providers to answer specific questions, but do this very deliberately and only for a small volume of items to avoid “measure fatigue.” EHRs are powerful analytic resources but they are not magic and can only report on information that has been collected or can be computed based on data collected. Many measures introduced through our current processes introduce new data collection requirements. When a measure does introduce new data requirements, it is necessary to factor appropriate time to develop usable and efficient data entry and management tools for the providers who use the EHR.

Because of this, EHR developers have previously given feedback to the Federal Advisory Committees and to CMS and ONC that when introducing many new quality measures in programs such as Meaningful Use, sufficient time must be allowed for development and implementation of the measures. In the current paradigm, we think that it is important to have published specifications for a quality measure 18 months in advance of when it will be in use.



We understand that the committee and many others in the industry are interested in accelerating the timeline from the initial proposal for a measure to when data is available for widespread comparison across the industry. Some pieces of this process (such as measure development, measure testing, and measure endorsement) are better addressed by others, so I will focus on some suggestions for how to speed the development and implementation of quality measures in electronic health records.

First, I would like to correct a misconception about one solution I have heard proposed for this problem that I do not think will work. There seems to be a perception in the industry that the reason it takes time to develop and implement a new quality measure is because EHR developers ‘hard-code’ quality measures logic into their systems, and that it would be more efficient to export EHR data to another system for calculation. It does seem appropriate that if an EHR vendor chooses to export data to another system, such as a data warehouse, for processing, that submitting quality data from that other system should be permitted through modular certification.

However, moving the calculation of measures from the EHR to another system does not solve the problem of accelerating the timeline to introduce new measures, and it presents other challenges. The time consuming part of adding support to an EHR for a new measure is to integrate new tools for data capture into a clinician’s existing workflow to maximize the accuracy of the data captured and the usability for the clinician. This work must be done

within the EHR regardless of whether the calculation logic is additionally performed within the EHR or is performed elsewhere. Programming the calculation logic is not the time consuming portion, so removing that piece will not speed the overall timeline for introducing a measure with new data capture requirements.

We suggest that there are some types of quality measures and improvement initiatives which can be introduced more quickly to EHR and HIT users, and that identifying and focusing on the measures which are able to be introduced more quickly can accelerate the quality life cycle.

Our suggestion would be to work within the industry to identify a set of data elements that are commonly captured during patient care in EHRs today, both within their technical capabilities and in the common workflows in place. This work could likely align with or be based on the feasibility assessments NQF is working to include in their style guide, though this work has not yet been published for public review or feedback. These “commonly captured” or “feasible” data elements could be included in EHR certification to ensure widespread capabilities in the industry.

Quality measures (whether existing or newly introduced) that use only data elements that have been labeled as “commonly captured” or “feasible” could be introduced more quickly for reporting, because the time consuming work described earlier, of developing new data capture tools that are well integrated into users’ workflows, would not be a dependency for that measure.

Quality measures that have data capture requirements that go beyond the “commonly captured” or “feasible” data elements could be tagged as “advanced” measures, and considered optional for federal reporting programs. Advanced EHR users might still decide to undertake some of these measures, but they would do so knowing that not all EHRs might capture all of the required data elements, and that such a measure might place a greater burden on clinician workflow.

We believe that this would make it possible for a set of “feasible” measures to be introduced each year while “advanced” measures are adopted in smaller numbers by advanced users. Over time, and over future certification criteria, the set of “feasible” data elements could be expanded, and more and more quality measures would fall into that set.

### **3. You asked about the role of clinical decision support in quality improvement.**

The use of clinical decision support tools can play an important role in quality improvement initiatives at a healthcare organization. Retrospective decision support tools such as quality performance indicators can highlight areas for improvement and focus attention on what is being overlooked. Healthcare organizations also often use their EHR to provide clinical decision support at the point of care. If an organization is focusing on a particular quality initiative such as cancer screening, clinical decision support tools are often used to remind clinicians that a particular patient is due for screening while the patient is in the clinic and the test can be ordered or performed. Tools can also be used to prompt outreach to patients due for screening who are not in the clinic.

We see a natural linkage between what is measured and where attention is focused, so it is common for an organization to use clinical decision support tools that related to the key quality measures that they are focused on.

Finally, we see several models of clinical decision support throughout the industry, and think that all are appropriate and that none of them should be inadvertently discouraged by future regulation. First, an EHR provides tools for clinical decision support and the clinical decision support interventions are designed by others (users of the software, clinical decision support content vendors). Second, an EHR might provide tools for clinical decision support as well as content for the clinical decision support interventions. Third, some EHRs might use industry standards to link to separate sources of clinical decision support content. There are market reasons that different types of healthcare providers and situations prefer each of these models, and we think it would be unfortunate if regulation inadvertently favored one, perhaps without realizing the scope of practices in common use.

## Conclusion

To summarize, we have observed many healthcare organizations using clinical decision support and reporting tools in innovative and creative ways to improve the quality of care they provide to patients, and we expect to continue to see such work amongst our users. One key factor in the success of these initiatives is providing timely feedback to providers on their performance on the initiative and on how it is possible to improve performance, so we anticipate that EHRs will continue to calculate quality measures to provide this timely feedback and to incorporate such data into clinical decision support provided at the point of care.

We have given examples of how most quality measures in our current paradigm introduce new data elements that need to be captured, and that the timeline for developing tools to capture these new data elements is not affected by where the logic of the quality measure is calculated. We have shared our concern that large quantities of measures introducing new data elements that need to be captured can introduce “measure fatigue” and that we think many quality initiatives can be done with data that is already captured in care workflows.

We believe that the goals of accelerated quality improvement can be best met by refocusing attention from a set of quality measures not intended for EHRs to a set of quality measures designed specifically for EHR reporting and based on a set of data elements determined to be feasible and commonly captured. This refocusing will address the area of greatest challenge and allow the industry to capitalize on the possibilities of electronic health records in quality measurement and reporting.