

TESTIMONY
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HIT Standards Committee
Implementation Workgroup
Panel 4A: Early Adopters of Meaningful Use Seeking Attestation –
Eligible Providers’ Experience, Part 1
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Thank you for giving me the opportunity to participate in today’s discussion.

1. Identify your challenges, barriers, and successes as an early adopter of meaningful use seeking attestation.

On the whole, I am a strong proponent of electronic health records (EHRs), which have the possibility of transforming American healthcare and having a major positive impact on efficiency and quality of care delivery. With the goal of rapid but high quality adoption in mind, “meaningful use” (MU) is a positive step which will likely promote EHRs in the United States and improve patient care. I think the HIT Policy Committee and the ONC did a thoughtful job of constructing the program and designing the stage 1 measures. But I want the Standards Committee to understand the pressures that the rapid timeframe is placing on providers, vendors and the healthcare system, as well as some unintended consequences of the MU measures and the rush to meet them.

Hunterdon Medical Center (HMC) is a 140-bed community hospital in rural New Jersey with a history of early adoption of HIT, being named one of the “100 Most Wired” hospitals in the U.S. nine times. Hunterdon Healthcare Partners is a multi-specialty Integrated Delivery System consisting of over 200 independent and HMC-employed physicians and the Hunterdon Healthcare System, the parent of HMC. In April 2006, Hunterdon Healthcare Partners purchased NextGen Ambulatory EHR, planning a single-enterprise multi-practice implementation. There were 25 practices included in the original contract, and more have joined since.

In 2006-2007, the implementation team brought 26 practices live on NextGen’s practice management system from a variety of other previous systems. The team began EHR rollout in December 2007. We currently have 121 providers (physicians, residents, nurse practitioners, and physician assistants) in 23 practices live on EHR in 9 specialties. An additional 8 practices and 53 providers will go live in 2011; about half of these are already e-prescribing and using bidirectional lab interfaces. Our team started at 3 members and has ballooned to 12 as the implementation proceeded.

The physicians in our enterprise will attest individually for MU in 2011, likely beginning in May. We had a robust and fully functional EHR implementation, including e-prescribing, reporting on clinical quality measures, bidirectional lab interfaces, a health information exchange (HIE) system, and uploading of data to the NJ state immunization registry all before MU was announced. I anticipate all physicians currently live on EHR in our enterprise will likely both attest to and attain MU in 2011. This will be a mixture of physicians that were part of the original cohort and those who joined later, and will include practices that go live on EHR in 2011.

Nonetheless, I anticipate some practices will be challenged to change workflow or operations to meet the following measures:

- Core #7. Practices have not routinely recorded race, ethnicity, and preferred language prior to MU, but can do so at the time of patient check-in.
- Core #8. Some practices will have to change workflow to routinely measure heights.
- Core #9. Smoking status on teenagers was not routinely obtained before MU.
- Core #13. This is the most difficult measure, interestingly. Few practices routinely generate clinical summaries of office visits intended for patients. Doing so will require a major change to workflow. NextGen produces a good document which summarizes the assessment, plan, orders, and medications for the visit, but ensuring that the assessment and plan are in patient-friendly form and that all orders are entered in a timely fashion will be a challenge. However, this paradigm shift will provide a major improvement in patient care, helping to reduce the confusion about “what the doctor said,” what was done at the visit, and what needs to happen next. If an invoice from a mechanic or plumber can contain a clear record of what was done and why, surely patients can leave physician’s offices with the same information about themselves.
- Menu #6. If all menu measures become required for stage 2 MU, our enterprise will need to purchase a patient education resource solution.

Meeting MU with NextGen necessitated 2 upgrades to enable recording and reporting of the specific data points in the measures, one of the application itself and one of the clinical content. We finished one upgrade in October 2010 and the second is planned for February 2011. These upgrades had to happen within a very narrow window due to our ongoing go live schedule, and it has severely strained our team’s resources and ability to provide training, support, and ongoing clinical quality improvement programs. Put another way, *meaningful use has slowed down our implementation schedule, perversely having the opposite of the intend effect of rapidly rolling out robust EHR technology in our enterprise.*

The final version of the Stage 1 criteria were not released until August 2010, leaving many EHR vendors struggling, to say the least, to ensure certification. The result was a near total devotion of vendor resources towards meeting MU requirements, with delays in other long term development projects. EHRs are massively complex pieces of software which require a very high level of flawless functionality due to the importance and detailed nature of medical care. Suddenly inserting a new set of design specifications, no matter how well intentioned and thought out, creates challenges.

Furthermore, the Committee needs to understand and keep in mind the time scale of healthcare IT projects. Typical ambulatory or inpatient EHR upgrades take 4-6 months to thoroughly test in organizations of any significant size, allowing time to redesign workflows, incorporate and maximize new functionality, test interfaces with other systems (which also may be upgrading on different schedules), update user training, and roll out to the practices or hospitals. This is *not* like upgrading a web browser or word processor where one waits 10 minutes and learns about new features on the fly; it is more like upgrading the engines on an airplane *while it is flying.*

Despite the negatives of the aggressive MU timeline, it has certainly motivated practices in our area to join our enterprise and to adopt EHR sooner than they would have otherwise. I was able to deflect some of the negative feedback that practices experienced due to the last upgrade by reminding them that it was required to obtain MU incentive payments. It is forcing practices to adopt features that may be inconvenient to implement. Practices outside our enterprise are choosing to upgrade software that is several years old and view their implementations in a new

light. When adopted in the right spirit, MU can produce some of the clinical benefits of EHRs that providers lose sight of in the course of the painful transition away from paper.

It is worth noting that our pediatric practice continues to be pushed to the end of our go live schedule, in part because they will not see any MU dollars. Their Medicaid population is too small to qualify for the incentives and they see no Medicare patients. If an HIT Committee goal is cradle-to-grave EHR, why leave many pediatric practices with no incentive to adopt? Similarly, nurse practitioners and physician assistants provide high quality care at several practices in our enterprise, but what incentive do they have to adopt and meaningfully use EHRs?

To augment this testimony, I requested feedback on MU from other large enterprises who are NextGen users, and I will provide their responses verbatim:

Enterprise #1: We are almost 300 providers and anticipate participating in 2011. Being an early adopter for MU has been challenging due to the unreasonable timeline placed on vendors to make their software ready for MU. As the final rules were not released until well into 2010, this left vendors scrambling to incorporate all the required fields, reports, etc. We are seeing this on both ambulatory and inpatient software packages. Once vendors code, test, and release this software, healthcare organizations (who often had a pre-scheduled, pre-budgeted upgrade cycle) have to rearrange organizational priorities to do these additional unbudgeted upgrades and ensure that users are trained, etc. This is putting a tremendous strain on our resources, which need to be focused on training providers to adopt EHR to further patient care goals rather than to make sure a series of "checkboxes" are met for MU. We had a very robust EHR implementation process in place which has allowed nearly 200 of these providers to be fully implemented over the past four years, and now we have to switch gears away from desired functionality that would directly benefit patient care and towards administrative functionality.

In our highly successful implementation of NextGen, we use a phased approach and change management tools as well as Lean/Sigma tools to not only deploy software but to re-engineer the office practice and workflow. This prevents automation of bad paper processes and allows caregivers to focus on features that directly benefit patients in a real way. We had our practices live much earlier than competitors in our region and have had a Health Information Exchange live for over two years. However, we feel this focus is being diverted to meet MU.

Enterprise #2: By way of background, we have had an EMR since 1/1/98, have been paperless since December 2004, use CPOE for all lab and radiology orders, and will send 430,000 electronic prescriptions in 2010. All of our immunizations are entered electronically, and all childhood immunizations are uploaded automatically to our state web site. Even our chemotherapy infusion orders are entered via ePrescribing.

We can graph lab results against prescriptions and vital signs against prescriptions to show the effect of statins on LDL or anti-hypertensives on BP. Every single note by every physician on every patient is in our EMR for the last 13 years and every single lab test ordered for the last 9 years is there. We have 241 physicians who are 100% electronic with a filmless radiology department for over 5 years. All images are live and immediately accessible.

One gets the feeling with meaningful use criteria that the government is setting standards that are difficult to meet in the hope that it will not have to pay

out the money. The standards are so detailed and intricate that they discourage implementation rather than encourage it.

2. Outline the implementation approaches and methodologies you used that worked and didn't work. Include any real-world user stories, illustrations, or examples.

Although I am very pleased with our progress, our choice of vendor, and the financial and clinical rewards of our implementation, it must be said that the transition to an EHR is extremely difficult. It is disruptive to the offices and forces the physicians to change the way they practice medicine. Many, if not all EHRs, especially those suited for complex multispecialty settings, have work to do to refine their systems to be faster, more flexible and more seamlessly integrated into the wide variety of tasks that occur in overbooked, understaffed physician practices.

One of the most important factors to our successful implementation has been having clinical informaticists (our project manager, an RN, and me, a practicing family physician using the system) on the implementation team. EHR implementations fail when they become "IT" projects, as opposed to clinical projects involving technology. Many of our providers have expressed appreciation to have someone in my role, able to speak the medical language of physicians, understand their time pressure, perfectionism, and medicolegal stresses, but also able to understand information technology, prioritize development and implementation resources, and construct the amalgam of workflow and software changes that is acceptably efficient in practice. If the U.S. wants widespread meaningful use of EHRs, more physician and clinical informaticists are needed to implement—and for that matter—design, develop, test, certify and regulate them.

I also argue for a strong clinical informaticist presence in the Regional Extension Centers for the same reason – clinicians who both practice medicine and understand EHRs are essential to offices transitioning from paper. Similarly, promotion of vendor specific user groups should be a function of this committee and the RECs – no one can answer EHR questions or help to guide an implementation better than someone who already uses the EHR and is ahead in the process. Our relationships with the NextGen Large Client User Group and other NextGen clients have been invaluable.

Central to our implementation strategy at each practice is a detailed workflow analysis that charts out the pre-EHR workflow for the most common and important office tasks (e.g., who takes calls for refills, how/when do messages reach providers, how do they respond, etc.), then works with practices to map out how to use EHR to achieve the same goals. Though time consuming, this analysis ensures efficient adoption of EHR features and also creates a sense of ownership within the practice of the EHR. Rather than it forced on them, they can adapt it to their needs.

For our practices, we recommend a 50% patient load reduction for the first 2 weeks of go live and a 25% reduction for the next week or so. Off-site user training helps avoid distractions at the practices. We designate a core group at each practice consisting of the practice manager and representative "champions" from the front desk, nursing or clinical staff, and physicians. Weekly meetings with these champions begin a few months before go live and continue for several months afterwards. Challenges to adoption, such as staff lacking computer skills, personality conflicts, or existing office managerial or workflow dysfunction are identified and mitigated when possible. In fact, EHR implementation is just part of a larger process of office redesign, and change management and leadership skills, both from the practice and our project team, are required for success. Using this methodology, we feel capable of bringing a practice live on our EHR in 10 weeks.

NextGen is a very flexible EHR, enabling us to design our own screens and software workflows. We use this capability to customize the software to provide or change functionality the practices feel is critical to clinical operations, because no EHR is one-size-fits-all. I feel this flexibility has been essential to our project's success.

An ongoing challenge is communication with busy physicians using and adopting our EHR. Gathering feedback from physicians and staff, continuous training on best practices, announcements of new features, and reporting to the practices requires a great deal of time and attention. We use every tool we can think of in this constant two way information exchange – a “help desk” phone line monitored 24x7, a Hunterdon NextGen website, e-mail, phone calls, faxes, monthly physician forums, regular practice manager meetings, and more.

3. Discuss your outcomes/results. Include any surprises or unexpected outcomes and how you addressed them.

I am pleased with our EHR implementation so far and look forward to a more comprehensive rollout of our HIE system and patient portal in 2011. We had 225,000 patient visits recorded in EHR in 2010. Early in 2010, using NextGen's Health Quality Measure reporting tool, we reported on PQRI data on 35,000 patients using 650,000 data points.

When asked, our users report the following features of EHRs as the most positive: availability and legibility of the chart from anywhere at anytime, more consistent organization of information in the record, intra-office messaging and tasking allowing efficient workflows, ease of documenting incoming/outgoing calls and patient correspondence, and e-prescribing which gives patients the convenience of picking up prescriptions at the pharmacy more quickly.

Our providers remain divided on their overall opinions of EHR. Many strongly endorse it, feel it improves patient care, and would never go back to paper; others maintain it slows them down, continues to disrupt their thinking and encounters with patients, and feel they are doing more data entry than medical practice. With continued effort by our implementation team, the latter group shrinks over time, but they remain a vocal minority in our system.

4. Describe your experience using the ONC and CMS communications regarding the meaningful use criteria, standards specifications, and measurement.

ONC and CMS communication of the MU measures has been frustrating, in general. I spent a few hours on several occasions trying in vain to obtain enough information to plan our attestation, in particular on core measure #13. However, things have improved with the latest (November 7) release of the specifications. My feelings are echoed by the large enterprise #1 above:

Communications from ONC and CMS are often confusing and lack the full information needed for organizations to make good implementation plans. There is disagreement among major consulting firms and advisory groups (AMA, Deloitte, Cumberland) about the specific interpretation of the measures and how they should best be gathered. This is extremely frustrating to providers who are left to make sense of this.

Many specialists are frustrated and confused by the measures. The latest release has cleared things up a bit, but there is an overall sense that the measures were designed with primary care (but not pediatrics) in mind.

I am also concerned about the certification process. There are a large number of stage 1 certified products, but some will likely be unable to meet stage 2 or 3. What happens if a physician chooses one of those products in a rush to claim MU incentives? Furthermore, I hope the stage 2 and 3 certification process includes more real world testing of usability and features promoting entry of accurate, portable, structured data reflecting the patient's history and clinical encounters. This functionality cannot just *exist* in the product, but must be incorporated into the design and promote good medicine and good data practices. As stated above, essential to this refinement is involvement of practicing clinicians at every phase.

We had several practices in our enterprise move from another EHR to NextGen, and this was difficult. Without common standards in data and documentation structure, the old EHR's records had to be painstakingly converted into the new EHR's format and data mapping. I strongly recommend the stage 2 or 3 MU requirements address the challenge of easing the transition from one EHR to another.

Furthermore, there is no perfect EHR – products are tradeoffs in cost, flexibility, usability, connectivity, depth and specificity of clinical content. I feel the marketplace is the most powerful tool to innovate and continue to improve EHR functionality, but for the marketplace to work efficiently, it needs to be easier to switch EHRs to reward this innovation. I am also against a push for a single nationwide EHR since the technology continues to evolve rapidly with feedback from academic and clinical medicine. Moreover, making the functional *components* of EHRs more modular and interchangeable would allow, for instance, physicians to use the prescribing functionality from one vendor and the clinical documentation from another. Because it is not in the vendors' interests to design systems that facilitate migration or incorporation of other products, regulation is needed, and I hope the HIT Policy Committee uses the certification process to achieve this goal.

Easier and more robust communication *between* EHR systems will greatly expand their usefulness in patient care. The development of standards and their enforcement through certification for the widest possible array of clinical information is required as soon as possible. Functionality needs to include not just full patient record export and import, but flexibility to allow HIE systems to synthesize a complete medical record by assembling output from various systems, and to allow EHR users to selectively review and incorporate discrete portions of patient's electronic medical history in structured format. Finally, enabling secure nationwide MD-to-MD communication between EHR systems, particularly with attached structured clinical data and notes which can be incorporated into the recipient's EHR, will facilitate the information exchange between physicians that is crucial to high quality, lower cost care.

In conclusion, I applaud the HIT Policy and Standards committees' efforts to improve healthcare in the United States through Meaningful Use. I look forward to attesting Hunterdon Healthcare's Stage 1 MU in 2011 and hopefully stages 2 and 3 as they are announced. Thank you for the opportunity to express my thoughts in this forum.

A handwritten signature in black ink, reading "Robert L. Murry". The signature is written in a cursive, flowing style.

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