

American Health Information Community
Workgroup on Electronic Health Records
Summary of the Web Conference Held Tuesday, August 15, 2006
(8th Web Conference of This Workgroup)

PURPOSE OF MEETING

The Electronic Health Record Workgroup's (EHR WG) broad charge is: *Make recommendations to the Community on ways to achieve widespread adoption of certified EHRs, minimizing gaps in adoption among providers.* The August 15, 2006, meeting of the EHR WG, chaired by Lillie Gelinias, had the following major objectives:

1. Hear formal testimony pertaining to the EHR WG's broad charge:
 - Testimony regarding the functionality and value of EHR systems for physicians
 - Testimony regarding structural, cultural, and legal barriers to widespread adoption of EHRs by physicians.
2. Discuss priorities and critical issues related to the EHR WG's broad charge:
 - Priorities for creating value to physicians in EHR systems
 - Critical issues with respect to the legal considerations that are barriers to physicians' adoption of EHR systems.

Judy Sparrow, the newly appointed executive director of the American Health Information Community (the Community) in the Office of the National Coordinator for Health Information Technology (ONC), reviewed a 3-page summary of Federal Advisory Committee Act guidelines.

KEY TOPICS

1. Testimony Regarding the Functionality and Value of EHR Systems for Physicians

A. Fred Ralston – Valued EHR Functionalities/Components

Dr. Ralston identified himself as a general internist who works in an eight-person practice (three internists, four family physicians, a pediatrician, and a nurse practitioner) in Maine that has used an EHR for about 2 years. Dr. Ralston's group asked professional societies and personal contacts to get ideas on selecting an EHR product. The group had excellent professional information technology support locally, which was crucial. Involving the physicians and top office staff members in the EHR selection process enabled them to pick a product – the A4 (now Allscripts) Healthmatics EHR – that would work both clinically and administratively. The function of the EHR system that physicians in the group practice appreciate the most is that all of the information about a patient is where it should be (no lost charts, reports in disarray, scheduling is linked to the record). The integration of the office lab information with a patient's record is another valued feature. Other valued functionalities of the EHR system include: (a) the ability for nurses and physicians in the office to engage in asynchronous communication, (b) Internet access, (c) the ability to order and document a patient's prescription refills, and (d) the ability to

order outside tests (e.g., mammograms). Desired improvements include: (a) improved interfaces with other entities (e.g., ensure that lab tests ordered by physicians interfaced with their EHR as real data and all lab tests ordered by others are available for download to the physician practice as real data), (b) reports via e-mail rather than reports by fax or mail that have to be scanned in, (c) improvements in electronic prescribing and refill requirements (e.g., pediatric data currently do not fit in text fields), and (d) a Palm-type synchronization process for different office and hospital EHR systems.

Dr. Ralston said that the best business case for EHRs that can be made to physicians is that EHRs can help doctors who are trying to do the right thing for their patients and are looking for the best ways to keep up and improve the quality of care that they give. Dr. Ralston and his colleagues have made sacrifices to move to EHRs, but said that they would never go back to paper records. Dr. Ralston noted that making a business case for EHRs when physicians pay the costs but benefits are shared by others is more difficult than it would be if every party were paying for a share of the costs of the EHR. Dr. Ralston pointed out that if every party were paying proportional costs, the business case for physicians would be a “slam dunk.”

Questions and Comments. Howard Isenstein reported that the U.S. Department of Health and Human Services had recently issued regulations giving hospitals and others Stark law exceptions and Anti-Kickback Statute safe harbors to give health information technology to physicians. He asked Dr. Ralston whether his practice would have been interested in getting help with their EHR from the hospitals they work with. Dr. Ralston said that cookie-cutter EHR systems do not work in certain specialties and that he doubted that any hospital would be able to offer an EHR product that would be well-suited for the multitude of different specialty practices. He added that specialty medical societies could have an important role to play in helping physicians select EHR products. In response to a question from Ken Waldbillig, Dr. Ralston said he would love to have decision support embedded in an EHR. Internet access allows the use of decision support tools, but ideally, the EHR and decision support tools would be integrated.

B. Marc Williams – Adding Family History as a Component of EHRs

Dr. Williams, a medical geneticist at Intermountain Healthcare in Utah, distributed a three-page paper entitled “Family History and the Electronic Health Record” signed by several geneticists and organizations. Dr. Williams asked the EHR WG to consider adding family history to the roadmap for development of EHR standards in the United States.

Family history is a standard part of medical history, and Dr. Williams explained that it is very useful for identifying individuals at risk for certain disorders as it indirectly measures genetic factors, shared culture, and environmental factors that may contribute to diseases. Dr. Williams explained that in Utah, they have had experience using family history information to do risk stratification and interventions via a project called the Utah Health Family Tree. Dr. Williams pointed out that there is evidence that Utah’s approach was effective in changing health behavior to slow or prevent onset of cardiovascular disease.

Currently, physicians enter family history information into a patient’s medical record as free text. To take advantage of all that is known about the potential use of family history, it will be necessary to standardize input and coding information. Several groups, including Intermountain Healthcare, are working independently on ways to code the information, to enable patients to

enter information in a database. The data then can be used to do risk stratification for diseases (e.g., asthma, depression, cardiovascular disease, and certain types of cancer) and develop messages to providers that would modify care to patients. Each of these groups has used slightly different field names and coding. Dr. Williams suggested that coordinating and consolidating different efforts could potentially improve efficiency and facilitate the implementation and dissemination of standards.

Questions and Comments. Mr. Isenstein asked whether current EHRs have algorithms on family history. Dr. Williams said he knew of no EHR system that does generalized risk assessment on the basis of family history, but he believed that the Centers for Disease Control and Prevention had four pilots with clinics to examine how a more general system could work; he explained that Intermountain is also doing related work. In response to a question from Ms. Gelinas, Dr. Williams said none of the family history work of which he knows has been done in the context of EHRs for emergency first responders, although he could envision situations in which first responders could benefit from the availability of family history information (e.g., to identify fatty oxidation disorders in newborns). John Houston suggested that some thought be given to trying to use EHRs from family members to validate the family history given by an individual patient or to populate a patient's family history without getting the information directly from the individual patient.

C. Lieutenant Colonel Bart Harmon – EHR Data Elements Needed for Clinicians to Exchange Information

Colonel Harmon presented a list that a group of clinicians who are working on interoperability for the U.S. Department of Defense (DoD) and U.S. Department of Veterans Affairs have identified the most important data elements that would enable clinicians to share information: (a) information that identifies the patient, (b) a medication list and medication allergies, (c) lab results, (d) a problem list, (e) clinical encounters and clinical notes, (f) anatomic pathology results, (g) vital signs, (h) radiology reports (text only), and (i) family history and health factors. DoD's starting point was a commercial version of many of the Intermountain Health tools. They then added third-party commercial tools to help with areas such as family history and clinical notes. The list was based on the clinicians' judgment alone. No particular schema was applied to the ranking.

2. Testimony Regarding Structural, Cultural, and Legal Barriers to Widespread Adoption of EHRs by Physicians

A. Peter Basch – Structural/Cultural/Legal Barriers to the Adoption and Use of EHRs

Dr. Basch practices in a general internal medicine practice in Washington, DC, that adopted health information technology about 10 years ago. He also serves as the Medical Director of eHealth at MedStar Health, a large nonprofit health care system in the area. Dr. Basch stated that EHRs provide clear potential benefits for both doctors and patients. In 1995, his four-person internal medicine practice, with offices in two locations and 12 support staff members, was drowning in paperwork and struggling to survive; at that point they began using EHRs. Although the transition to EHRs was very difficult, Dr. Basch said they never would go back to paper. As of 2006, efficiency in the practice had greatly improved, although productivity had not. The practice had grown to eight physicians without any increase in the number of support staff members. Each patient's chart is now securely available anywhere for calls or visits, so patients

are always evaluated in context. The EHR system includes decision support. The patient's medication list is always available and all new prescriptions and refills trigger interaction alerts. Dr. Basch pointed out that instead of drowning in paper; the practice is now "drowning in information."

Given the potential benefits of EHRs to doctors and patients, the question arises as to why EHRs are not regularly used and why EHR adoption is so low and slow. According to Dr. Basch, the major problems with health care delivery in the United States – many of which were identified in the Institute of Medicine's report *Crossing the Quality Chasm* – are caused not by a lack of health information technology (HIT) or interoperability but rather by (a) fragmentation in the health care system that causes waste, redundancy, and inefficiency and (b) outdated/out-of-sync reimbursement policies that reward procedural medicine more than visit-based medicine and do not reimburse for information management at all. Currently, the more HIT is optimally used, the worse the financial return-on-investment for physicians and hospitals.

Dr. Basch pointed out that HIT/health information exchange (HIE) could serve as the enabling infrastructure for addressing the two major problems of health care fragmentation and outdated reimbursement policies, and implementing broader system changes. Incentives need to be provided to optimize care (e.g., improve reactive medical care, add proactive/population-based care, add self-care and e-care, add team-based care, and include a care model based on interconnectedness).

Dr. Basch noted that if a sustainable business case for information management and quality were successfully developed by reducing fragmentation and reforming reimbursement, several barriers to the optimal use of HIT/HIE would remain. These barriers, however, are not insurmountable: (a) *workforce barriers* (reactive medical model, need to train/retrain physicians to provide proactive/population-based care), (b) *software immaturity* (lack of many EHRs with embedded granular/actionable clinical decision support; robust tools for determining, aggregating, and reporting performance measures; forms/structure for following episodes of care over time; forms for care coordination; interoperability sufficient to share information with colleagues, patients, payers, and quality improvement organizations; dashboards for monitoring preventive/chronic care adherence), (c) *lack of clinical protocols for interconnectedness* (lack of a model for point-to-point data transmission that includes context, responsibility, and handoffs), (d) *unresolved medico-legal questions related to the use of an EHR and HIE* (Does access to an EHR elevate the standard of care? Will information accessible via an HIE be considered part of a medico-legal record or just a source of information?), (e) *application of an outdated documentation schema to 21st-century medicine* (need to work on a new clinical progress documentation schema based on enhancing quality, longitudinal care, called for by Sec. 941 of the Medicare Modernization Act of 2003), and (f) *anticipating new errors cause by HIT/HIE-enabled medical care* (e.g., new errors from EHRs due to faithful propagation of errors, dropdown list errors; a narrow focus on outcomes; measure-centric rather than patient-centric care).

B. Chuck Parker – Massachusetts Doctor's Office Quality – Information Technology (DOQ-IT)

Mr. Parker is the chief information technology officer for MassPRO, one of four State quality improvement organizations selected by the Federal Centers for Medicare and Medicaid Services (CMS) to introduce DOQ-IT into practices with fewer than 10 physicians that serve Medicare

beneficiaries. The mission of DOQ-IT, a 3-year national initiative begun in 2004, is to promote the adoption by such physician practices of EHR systems to improve quality and safety for Medicare beneficiaries.

MassPRO provides Massachusetts physicians participating in the DOQ-IT project with free assistance to select, implement, and optimize HIT systems such as EHRs. The DOQ-IT services provided by MassPRO include (a) *education* (introduction to DOQ-IT, developing a successful project, operational redesign, selecting appropriate technology to support a vision; and improving health care), (b) *consultation* (developing a DOQ-IT roadmap for a practice, which includes plans for assessing where the practice is; planning cultural change, vendor selection, and organizational redesign; implementation; and evaluating/improving efforts procedures and care management), and (c) *pay-for-quality programs* (e.g., CMS programs, Bridges to Excellence, and the new Medicare Care Management Performance program to be administered by DOQ-IT). These DOQ-IT services go far beyond what vendors typically offer, especially in the realms of planning and evaluation.

So far, MassPRO has enrolled more than 1,400 Massachusetts physicians, representing more than 300 practices, in DOQ-IT. Fifty-six practices to date have adopted HIT. To gain leverage, MassPRO currently is working with 33 independent practice associations/physician-hospital organizations. MassPRO has heard from small-to-medium-sized physician offices in the field that the cost of purchasing EHRs and staffing issues remain a challenge, that negative reports on EHR adoption slow adoption, that a lack of technical knowledge permits bad EHR selection practices, that workflow redesign is key to improvement, and that culture change is key to adoption. Physicians also report concerns about various legal issues (e.g., issues related to who updates a community record, concerns about what legal implications the availability of additional data via HIEs or patient-centered aggregation of information may have for physicians' decision making, concerns that too much information may create data blindness). Finally, there are issues related to local/regional health information organization stratification (e.g., the need for greater concentration of data transfer within a local community or practice than at a regional health information organization, exchanging information between physicians who have EHRs and physicians who do not have them, the need for other data streams to move to pay for performance).

Questions and Comments. Ms. Gelinas suggested that it might be useful to get presentations to the EHR WG from the DOQ-IT pilots in California, Utah, and Arkansas to supplement the presentation from the Massachusetts DOQ-IT. Mr. Morreale recommended getting testimony from hospitals, noting that hospitals considering whether to adopt HIT are facing many of the same issues related to fragmented systems and reimbursement as physician offices. Pam Pure agreed that getting testimony from hospitals about barriers to the adoption of HIT would be useful.

John Tooker noted that CCHIT had recently completed the first phase of its work on ambulatory EHRs and now was moving to specify functionalities for hospital EHRs, specifically computerized physician order entry and clinical decision support. He recommended that the EHR WG be very cautious about making recommendations for adoption of certain functionalities that are not aligned with what the Certification Commission for Health Information Technology (CCHIT) is doing.

Ms. Pure suggested that the EHR WG hear testimony from large health systems about what the pending changes to Stark regulations mean in terms of their need to provide HIT to physicians in the community. Noting that, when hospitals provided resources to practices in the era of physician-hospital organizations, there was often a quid pro quo, Dr. Tooker recommended that the EHR WG encourage bona fide, well-structured pilots to see what happens when hospitals are able to make HIT resources more readily available to physicians. Chantal Worzala, who called in during the public comment period, noted that the new Stark rules are giving hospitals flexibility, rather than telling hospitals that they *must* work with physicians. She added that there are uncertainties about how to interpret those rules at this point and that it would take time to address those uncertainties before determining the impact of physician adoption.

Staff Action Item #1: Line up additional presentations from physicians, hospitals, or entities such as the CCHIT that would be helpful to the EHR WG forming its recommendations and advice regarding its broad charge.

3. Discussion of Priorities and Critical Issues Related to the EHR WG's Broad Charge

The EHR WG will discuss priorities for creating value in EHR systems or to identify critical issues with respect to the legal considerations that are barriers to adoption of EHR systems at its September 19, 2006, meeting.

Staff Action Item #2: Include as agenda items for the EHR WG's September 19, 2006, meeting (a) priorities for creating value in EHR systems and (b) the identification of critical issues with respect to the legal considerations that are barriers to adoption of EHR systems.

SUMMARY OF ACTION ITEMS

Staff Action Item #1: Line up additional presentations from physicians, hospitals, the CCHIT, or other entities that would be helpful to the EHR WG forming its recommendation and advice regarding its broad charge.

Staff Action Item #2: Include as agenda items for the EHR WG's September 19, 2006, meeting (a) priorities for creating value in EHR systems and (b) the identification of critical issues with respect to the legal considerations that are barriers to adoption of EHR systems.

Workgroup on Electronic Health Records
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