

Testimony of Reid W Coleman, MD FACP, MIO at Lifespan

General: Lifespan is a four hospital system in Rhode Island. It services roughly half the population of the state. It consists of four hospitals:

Rhode Island Hospital is a 727 bed hospital that is the major teaching hospital for the Warren Alpert Medical School, Brown University. It includes the state's pediatric hospital (Hasbro Children's Hospital), an adult psychiatric hospital, is the Level One Trauma Center for the state, and provides tertiary services for the state.

Miriam Hospital is a 247 be adult med-surg hospital that is also a teaching hospital for the Warren Alpert Medical School.

Newport Hospital is a 120 bed community hospital that is not a teaching hospital. It provides obstetrics (no other hospital in the system has an ob service) and pediatrics as well as adult med-surg.

Bradley Hospital is a 60 bed children's psychiatric hospital with a major program in autism and developmental disabilities and provides a school, a day hospital, and several group homes.

The Rhode Island and Newport Hospitals are certified by HIMSS Analytics as level 6 hospitals, the Miriam has been approved for certification but the certification call is pending.

1) Challenges, barriers, and successes relating to an HIE.

The Rhode Island Quality Institute received an AHRQ contract in 2004 to develop an HIE. Lifespan has supported the effort and provided significant in-kind contributions to the project. To date, this project has not received, stored, or exchanged any health information. As a result, Lifespan is now implementing a "private" HIE which is currently operational with a small number of users and is expected to expand greatly in the next two months. We are using a commercial product (eHX from eClinicalWorks), eCW is the EMR with the largest presence in this market. Currently we can only exchange information with users of the eCW EMR but we can provide view access to a much wider group of clinicians. There are approximately 3000 practicing physicians in the state; 1700 of them are affiliated with our system.

In our work with the RIQI we identified several challenges and barriers:

- a. Lack of a unique patient identifier. I would be remiss if I did not mention this, although I am aware that there is little chance of a national patient identifier being implemented. Lifespan has dealt with this by loading the master patient index for its private HIE with our own Master Patient Index (MPI) and sharing this identifier with our affiliated practices.
- b. Consent model. RIQI developed an opt-in consent model that is both restrictive and technically very difficult to implement. It allows patients to consent to information to be

stored in the HIE and to specify which physicians have access to the information according to three different scenarios. Given that RI law allows exchange of information for coordination of care without consent, we have adopted a community opt-in consent model that allows information to be viewed (and downloaded) by any clinician caring for the patient once that patient has consented to have information in the exchange. To date, over 90% of patients offered participation have consented immediately.

- c. Business model. The sustainability of the RIQI model to date has depended on federal grants and voluntary funding from members of the Institute. Future sustainability is dependent on state government to place an assessment on insurance premiums; this has not yet been approved or implemented by the state. Our private HIE is funded by our hospital system and is designed to be sustained by the system: it provides a strengthened alliance between physicians in the community and our hospitals, improves the quality of patient care across the continuum of care, and would be essential to the development of an ACO. One of our major insurers has stated it will provide additional reimbursement if hospital data, especially discharge instructions, are shared with community physicians electronically.
- d. Technical. In preparation to participate in the RIQI HIE we coded all of our laboratory and radiology results in LOINC. We have coded about one half our formulary in RxNorm. We have implemented a SNOMED coded problem list, and have created a discharge process that allows a summary of care to be included with the discharge instructions and have provided voice recognition technology to our entire attending staff to ease the entry of this summary into the discharge instructions. We met the following technical barriers:
 - i. The CCD suggests but does not require some of the coding we have done, and as a result vendors of EMRs are not uniformly prepared to receive information sent in a CCD
 - ii. LOINC was incomplete in its ability to code all of our results, and especially in providing order codes for tests we perform. We are implementing a bi-directional aspect to our HIE that will allow physicians to electronically transmit orders to our labs, and this coding is essential. Dr. MacDonald, and Regenstrief, have been tremendously helpful in working through these issues.
 - iii. SNOMED is clearly a better problem system than ICD-9, but is not yet as clinician friendly as would be desired. The "Core Set" provided by the National Library of Medicine (NLM) is a very good step, but there is a huge need for a standardized ICD-9 to SNOMED crosswalk that is based on clinical relevance rather than billing support.
 - iv. RxNorm is not fully developed. We cannot yet code our inpatient formulary in RxNorm
 - v. None of the vendors we deal with are eager to adopt the use of standards that are not required. Vagueness in Meaningful Criteria, including allowing different coding methods, is detrimental to our efforts. We have strong opinions as to what coding systems should be used for results, meds, allergies, problems, etc

but have a stronger desire to adopt a standard that our vendors will uniformly support. Lack of specificity in standards is a problem, lack of a standard is a disaster.

2) Implementation Support and Methodologies:

RIQI attempted to create an enrollment program for its HIE that included marketing, on-line sign up, use of lay personnel in waiting rooms and nursing homes, as well as physician offices to encourage patients to participate. The only real success came from physician offices and this is the only approach we have used. As noted, more than 90% of patients approached consent immediately when the approach is from their physician or the physician's office staff.

We began our implementation by sending CCD's from our affiliated practices to a repository and providing a way for other physicians to download this information into their record. We also provided a view only link from the repository into our hospital system clinical information system. We provided a way for a physician's office to search our MPI and link patients to this MPI so that we have a defacto unique identifier across our affiliated physicians.

We have used the relaxation of Stark and Anti-Kickback Statutes to provide financial assistance to implementing EMRs and the HIE to practices that fulfill certain criteria (support of our mission evidenced by participation in hospital committees and workgroups, provision of free care, and obtaining and using academic appointments at the medical school.)

3) Outcomes/results. Successful demonstration of the ability to download information from the repository directly into an EMR has led to clamoring by affiliated physician groups to join the HIE. Our careful, incremental deployment is seen as frustrating by some practices.

4) ONC and CMS Communications. As I have described above, lack of clarity about standards and listing multiple standards for a function are significant problems. The great news about Meaningful Use is that it is forcing vendors to provide functionality that might well have been much slower to be developed. The bad news is that many vendors, even those who have been good partners, are slow to work on functionality that is not "required." Specific examples include coding of problem lists, allergies, the fields used to identify episodes of care, and what is meant by a phrase like "summary of care."