



Standards Insight

An Analysis of Health Information Standards Development Initiatives

April 2005

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A Perspective from HIMSS 2005

The Annual HIMSS Conference and Exhibition has always been a good vantage point to assess the state of the healthcare information technology (HCIT) industry. 2004 was a very good year for the HCIT industry on many fronts and 2005 looks even better. We have all witnessed efforts in Washington to achieve national consensus around transforming healthcare, providing universal electronic health records (EHRs) and building a national health information network. Investment in HCIT is at record levels as many healthcare organizations are implementing advanced clinical systems. HIMSS 2005 attendance, keynote addresses, educational sessions and exhibits mirrored the industry's success, progress and challenges. Yet there is also a palpable anxiety that we will be able to meet expectations to significantly reduce costs, improve quality and save lives. As in all best of times...worst of times scenarios, some perspective may be useful.

Washington is the managing partner in the public-private partnership

At the highest national policy levels, there is recognition of a healthcare system that does not systematically deliver appropriate care and is fraught with errors, waste and needless death and injury. Healthcare costs are breaking state Medicaid budgets and are having a significant negative impact on jobs and U.S. global competitiveness. If the system is unchanged and costs are allowed to grow at projected rates, there will be a future Medicare crisis much larger than that anticipated for Social Security. The administration is using multiple strategies including informed consumer-driven initiatives and realignment of financial incentives, i.e., pay-for-performance, to transform the system.

HCIT is seen as the critical enabler and a means of controlling rising medical costs by improving quality and reducing errors.

Central to the administration's HCIT focus is the National Coordinator, Dr. David Brailer and the Office of the National Coordinator for Health Information Technology (ONCHIT). Dr. Brailer has done a masterful job, in the absence of Congressional mandate or visible funding, of setting out a strategic HCIT framework and beginning to recruit parties to a public-private partnership. He has envisioned a market-based solution of interoperable, networked EHR systems, fueled by aligned financial incentives and guided by public-private collaboration. Thus much of ONCHIT's presence at HIMSS 2005 was directed at further elaboration and consensus building. But, as in all things Washington, a true partnership of equals is hard to achieve, and we can begin to discern the market-guiding hand of Washington regulators.

Interoperability Mythology

First to the obvious: if HCIT is the enabler, then interoperability is the key to unlocking its potential. The term has become so ubiquitous as to have lost its meaning and float to the level of mythology. What do we want to interoperate?¹ The EHR is much too facile an answer. There is after all no model for the longitudinal, patient centric, cross-provider medical record in our current paper-based world. There were dozens of vendors demonstrating document "interoperability" in the Integrating the Healthcare Enterprise (IHE) showcase, but no one would suggest this was THE "Interoperability." Health Level Seven (HL7) demonstrated interoperability between HL7 medication messages and NCPDP SCRIPT messages for e-prescribing but no one would call this THE "Interoperability."

Dr. Brailer alluded to the need to standardize systems in order to be able to interoperate between systems. He noted the need to incorporate interoperability into a product's code, not add it as a layer on top. This is a worthy and inevitable long term goal but not a very useful three to five year strategy. We have already invested too much in diverse EHR systems (estimated at over 20 percent of physician practices and 65 percent of health systems) and the overriding business processes that use them, to make interoperability between diverse systems dependent on standardizing the systems themselves. Standards for minimum data and function sets should be the transition step toward true interoperability. Note that both standards are necessary in order to both insure systems can process data (semantics) and also know when and what data to send and receive (business rules).

The National Health Information Network is intended to address interoperability standards, not directly, but through new "market agents" and authorities. Dr. Brailer

¹ This basic question – what is interoperability – erupted as a major topic on the HL7 EHR Technical Committee List Serve last month. We do not want to add more to the discussion than here presented (and as discussed in the Standards Insight of August 2002) but interoperability is multi-dimensional and, however processed through computers, meant to improve human communication, performance and care processes. Avoiding the definition of interoperability, as proposed by CCHIT, seems a good way to miss the mark.

maintained that his office was too early in their evaluation of the 500 plus responses to the ONCHIT RFI to begin to evaluate the path forward. Almost with Alan Greenspan like circumspection, he did indicate that regional networks with nationwide connectivity based on national standards and policies were frequent recommendations. As to the key issue of how decentralized the system and networking should be, he used the term “virtual,” which we could interpret as leaving the data in place and creating a virtual EHR through directory services rather than a “spine” like series of repositories. But this is may be reading (hoping) too much into what he said.

Deciphering ONCHIT’s Positions

At HIMSS 2005 we saw more of the evolution of thinking. Both Dr. Brailer and Lori Evans, ONCHIT Senior Advisor, provided key insights. Among these was how ONCHIT was identifying the “pressure points” to make things happen. While all acknowledge that incentives and provider business cases are key to accelerating adoption of interoperable EHR systems, ONCHIT is looking at using the Regional Health Information Organizations (RHIOs) and the Certification Commission for Healthcare Information Technology (CCHIT) as the tools to insure minimal functionality, interoperability and incentive eligibility. Financing and incentives remain murky, perhaps to finesse any commitments until all the other pieces are in place and players signed up.

The Regional Health Information Organization Role

Regional Health Information Organizations (RHIOs) are seen as the source of business policy, trust building and governance within a viable market area, i.e., population base of a million or more. Two RHIO patterns are emerging. Smaller states (geographically or in population) appear to be forming statewide RHIOs while larger states are forming multiple RHIOs based on distinct market areas. However, in some large states, such as California and Florida, the state is organizing a super RHIO. This consolidation as a state-wide body makes sense given the need to navigate state laws and regulations.

To insure that RHIOs perform a set of minimum requirements, e.g., support for small practices, they may be “qualified” by the Federal government and thus granted certain benefits, privileges and exemptions for themselves and their members. These federally endowed benefits might include funding, expanded Stark and anti-kickback exemptions, other new legal protections and member incentives based on participation. One note of caution - as one who has been in healthcare long enough to remember Certificate of Need and state planning agencies, one hopes for a lighter touch with less politics and bureaucracy.

The Certification Commission for Healthcare Information Technology Role

The Certification Commission for Healthcare Information Technology (CCHIT), is another of the market agents to whom Dr. Brailer is looking for help. CCHIT, a private consortium, intends to set up certification standards and processes for ambulatory EHR systems by this summer. It was created based on the analysis that physician practices,

particularly small practices, could not effectively evaluate EHR system functions and interoperability, that such systems lacked such standards and thus could not be targeted for incentives by payers. As a result vendors were slow to develop “standard” products for the market. At HIMSS 2005, CCHIT leadership suggested that it will define interoperability as a series of use cases laid out in a multi-year roadmap. But use cases are an artifact of IT modelers and do not of themselves address a value proposition. What is the clinical and economic rationale for the use case and its prioritization in a timeline?

As we have noted on other occasions, there is only soft data on the benefits of IT. Estimates of \$87 billion in annual savings through automated data exchange are at best an extrapolation of “expert” opinion without an empirical basis. Even the analyses of reducing medication errors are built on very dated or very narrow experience bases. The rationale that was to have been part of the HL7 EHR System Functional model was never developed because the evidence was difficult to find. That said, we all expect and believe that HCIT will enable healthcare transformation as it has other industries. But in choosing the path forward towards interoperability, CCHIT should offer transparent justification for its roadmap and not simply reflect the wares of the industry. As an aside, we have long preached the need for e-prescribing, which is well on its way to implementation under the prodding of the Centers for Medicare and Medicaid Services (CMS) and the Medicare Modernization Act, and EHR systems to converge. This would be one early milestone we would look for in a use case roadmap.

Incentives and Alignment

Dr. Brailer did not directly address funding either the infrastructure or EHR systems. He acknowledged the problem and proposed some solutions. But in the end, he acknowledged that there was a lot of other work to do before we could get CMS and Congress to the table.

In a separate HIMSS 2005 session, the National Group for Advancement of HIT, yet another consortium to accelerate the adoption of HCIT, summed up mainstream thinking on incentives:

- Reward use of EHR systems not just acquisition
- Incentives for interoperability
- Meaningful amounts (\$10K per physician)
- Avoid free riders (>50% of market has to play)
- Budget neutral
- Tie to RHIOs and public performance reporting.

Conclusion

Dr. Brailer, in his keynote address, spoke of his sense of urgency. He wants to get certification standards and processes in place to avoid more investing in “silos” on the one hand or delaying the EHR market on the other. He seemed to imply that if our voluntary efforts failed, the government would mandate a solution, a highly unrealistic

threat but one useful to keep our attention. One cannot fault ONCHIT's analysis of the problems and its initial steps for moving forward. By any measure, Dr. Brailer and his staff and colleagues have done very well in coordinating multiple interest groups to come this far this fast.

And so the overall HIT market is robust but worried about new market dynamics and future deliverables. Fully interoperable systems offering standard functions certainly change the competitive dynamics for both providers and vendors. The quid pro quo for investing in systems and infrastructure for universal EHRs is "saving" one hundred thousand lives and over one hundred billion dollars a year. There is a big step between technology investment and process improvement, a key point made by John Chambers, CEO of CISCO, in his keynote address. Technology that precedes organizational and process change is not likely to result in savings or other desired improvements.

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