



Standards Insight

An Analysis of Health Information Standards Development Initiatives

January 2005

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Introduction

Last November, David J. Brailer MD, PhD, the National Coordinator for Health Information Technology, published a request for information for developing a national health information network (NHIN). The request for information (RFI), available on the ONCHIT Web site, is a series of 24 questions. Responses are due January 18.

We anticipate that many lengthy, detailed and insightful responses from solution rich technology and healthcare organizations will pour in to Dr. Brailer's office. Nonetheless we would proffer that there are probably only two questions of overriding importance to our national success or failure in implementing a NHIN. These are questions that address the economics of who pays for what and why. What are the financial models to build and operate the NHIN? To their credit, Dr. Brailer, HHS and the Administration have sought to move HCIT investment forward as a public-private partnership within the context of markets. But markets are essentially economic not technical constructs. Answering the economic questions will quickly align technical, organizational, commercial, and to a great extent, clinical issues.

Some Answers and More Questions

Conceptually it is difficult to propose NHIN-absent decisions about electronic health records (EHR)s and expected EHR system functionality. At the outset, the RFI asks for a

working definition of the NHIN and a description of possible models. We should view the NHIN from the nodes out -- not the network inward -- in order to analyze economic value. Value is created, costs are incurred and transformation occurs at the nodes, i.e., in the physician office, hospital or other caregiver location. The NHIN is by any name an infrastructure, enabling some EHR system functions based on shared data, and thus ranks lower in the value chain. In the absence of EHR systems we would not need an NHIN. Responses based on a NHIN-centric view, definition and model will fail the eventual economic tests.

Computerizing medical records is not the objective; better care more efficiently delivered is. Physicians and other providers deliver care from disparate economic entities. So to create an economically viable market for EHR systems and the NHIN, we really must start at the top of the food chain, not the bottom. To succeed in transforming healthcare we, as individuals, and our intermediaries, albeit the Federal government, states, or employers, must provide proper incentives to providers for using EHRs and incorporating EHR system functionality into care delivery. Incentives must be based on the flow of costs and benefits created by an EHR and EHR systems. Providers with a clear economic case will create the sustainable market and will be the economic engine for EHR systems, and ultimately, the NHIN.

We note that there are secondary users of EHR systems and the NHIN, such as public health and researchers, who must also be included in this calculation. We believe that one of ONCHIT's key contributions to advancing the NHIN may be in coordinating the various Federal healthcare networking initiatives, such as the National Electronic Disease Surveillance System (NEDSS), funneling budget funds to an integrated rather than stove pipe solution. In order to meet schedule demands, Federal investments may for example use the rapidly emerging e-prescribing networks, as the beginnings of the NHIN. Waiting for a comprehensive solution based on Regional Health Information Organization (RHIO) pilots and completed interoperability standards will only slow progress.

We should also note, in discussing the value chain, that the costs of EHR systems and the NHIN, which we estimated at \$3 billion to \$15 billion a year (November 2004 *Standards Insight*) represent only the technology costs, not the operating costs nor the impact of disruptions to current workflow and care processes. We have not attempted to net out and apportion economic savings resulting from EHR systems and interoperable data sharing through the NHIN. This is obviously an important exercise but will quickly evolve to the discovery that unless providers and other NHIN participants have an independent business case for data sharing, the savings side of the NHIN will collapse. As the Center for Information Technology Leadership illustrated in its study positing savings of \$87 billion for automated data exchange, the savings depend on the node investment in (EHR) systems and their benefits, which in turn depend on monetizing the resulting improvements in health care. Over time we would expect this chain of investments to enable improved care and efficiency, becoming a new economic model at equilibrium. In the meantime, infrastructure by its nature is a shared good whose costs are best

apportioned to all or provided by the most overarching enterprise. This points to the Federal government's role in initial funding for the creation of the NHIN.

We do want to call out one major disruption implicit in this transformation that is not explicitly addressed in the RFI. This is the very concept of "coordinating care", a key component of transformation, provided by independent and autonomous physicians. If all physicians have access to all clinical information on patients, who is responsible for overall management of the patient? If one or all physicians are responsible, how is "coordination" operationalized and compensated? Or is it simply mandated? Worse, who is liable for identifying and correcting "errors" of other physicians? How, in the absence of medical tort reform, is liability apportioned between physicians who err and physicians who fail to catch the error present in an EHR?

Finally, as painful as it is to say, the HCIT industry is at the bottom of the value chain. Financial incentives are necessary to drive a market place of health data exchange. Private sector investment requires some competitive, e.g., proprietary, basis of return. Private investment in the NHIN that is non-proprietary, open and supportive of public policy is a non-starter unless such an investment is cross-subsidized by other business intents. The alternative is the public utility model, which ultimately depends on funding by users as taxes or use fees. The HCIT industry will follow the money. The best of us envision and create the demand of the future - and - the rest of us build what is demanded. Our economic well-being is assured by anticipating and meeting the demands of our customers. We will seek proprietary returns on what we invest.

Bottom Line

We have argued in the past that technical standards should not be at the top of the list of barriers to interoperable EHR systems. Similarly the NHIN should not be at the top of the list as well. Like standards, the NHIN must be driven by higher level requirements, most immediately to support EHR system functions requiring shared data, but more by our requirements to improve and transform healthcare in the United States. There will be no economic case for the NHIN from the bottom up. Without the economics, the responses to the RFI cannot be realized and answers to organizational, management and technical questions are only an intellectual exercise.

By avoiding the answers to the two big questions, the financial models for building and for operating the NHIN, the rest of the responses will be convoluted, ultimately depending on some external funding *deus ex machina*. We appreciate that ONCHIT is seeking information about the NHIN and not transforming health care. But it would seem apparent that the Center for Medicare and Medicaid Services (CMS) could do more to accelerate EHRs, EHR systems and the NHIN by requiring/paying for these than technical coordination of investments without economic rationale can. When framed as an economic and not technical series of questions, the NHIN answers quickly move from ONCHIT to a much larger political forum.

Closing Note

We cannot however, close without acknowledging that to those at the top, including Drs. Brailer and McClellan at CMS and others at the Department of Health and Human Services, do fully understand these points. Within the authority and resources that they have available, they are moving forward. We would hope that the funding denied Dr. Brailer by Congress is restored. In a serious effort to transform health care, the \$50 million is nothing compared to the investment that will be necessary by the Federal government. At the least, as an informed buyer of 40 percent of U.S. healthcare, it is on the hook for a significant amount of the HCIT investment. CMS is piloting pay for use and pay for performance programs. It is partnering with other insurers and payers that want to pay only for quality care. ONCHIT is, without funding, coordinating Federal HCIT budgets while orchestrating private commitments and initiatives. This effort and insight cannot be as readily ascribed to the Congress or, ultimately, to all of us as consumers of healthcare. If we, the ultimate economic buyers, want better patient care, we must undertake some heavy political lifting. Elegant plans for unfunded EHRs and the NHIN will not get us there.

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