

Advancing Health Information Technology



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Synopsis of a Leadership Dialogue

Background

With support from the Agency for Healthcare Research and Quality (AHRQ), in the summer of 2004, the NIHCM Foundation convened a dialogue of private and public sector health care leaders and experts in health information technology (HIT). The purpose of the dialogue, the first in a series, was to clarify and identify specific steps that need to be taken in the short term to:

- Focus the application of HIT on improving the quality and safe delivery of care
- Accelerate the adoption of HIT and electronic health records (EHRs) by physicians
- Begin to prioritize an R&D agenda around HIT and EHRs

The dialogue occurred amid rapidly growing momentum to accelerate private and public HIT development. The appointment in May 2004 of David Brailer as National HIT Coordinator for the Department of Health and Human Services (HHS) enhanced that momentum. In addition, in June 2004 the President's Information Technology Advisory Committee (PITAC) issued useful recommendations in a report, *Revolutionizing Health Care Through Information Technology*. Also in June and July 2004, three important conferences were held: The National Alliance for Health Information Technology (Chicago – June 16); Connecting Communities for Better Health (Washington – June 23-24); and "The Decade of Health Information Technology: Delivering Consumer-centric and Information-rich Health Care" (Washington – July 21-23), sponsored by HHS and convened by HHS Secretary Tommy Thompson and Dr. Brailer.

Then, in late July 2004, Connecting for Health, an initiative of the Markle Foundation and the Robert Wood Johnson Foundation (RWJF), issued an important report, *Achieving Electronic Connectivity in Healthcare: A Preliminary Roadmap from the Nation's Public and Private-Sector Healthcare Leaders*.

The NIHCM Foundation dialogue took place amid this rapid series of events and publications in the summer of 2004, which history may judge as the timeframe when modern HIT got its' official launch.

All the above referenced efforts had similar goals: to deepen understanding of HIT's potential, to better define and/or gauge its evolving value, and to decipher how best to promote its use both nationally and locally – with public and private sector leadership and resources. Consistent strategies and recommendations appear to be emerging.

At the same time, it is clear that health care stakeholders, IT companies, federal agencies and lawmakers continue to grapple with vexing questions, obstacles and technical issues surrounding the uptake of HIT. Nevertheless, the HIT momentum continues. Congress is expected to address the issue in 2005.

Insights and "Takeaways" from the Dialogue

Participants who make financial decisions concerning their institutions' investments in HIT bluntly reminded the group of this salient marketplace fact-of-life. HIT competes with other options for investment and capital development dollars. CEOs and CFOs want to see more and better data on HIT's role and potential return on investment (ROI). Several participants noted that hospital boards were excited about HIT but also quite cautious and not poised to jump in where risk is still perceived.

Implementation can be difficult; providers can learn from others' mistakes. As one executive from an integrated delivery system put it: "I can show you about five to 10 ways not to do it based on our experience."

The fresh experience of the Health Insurance Portability and Accountability Act (HIPAA) also gave pause to many. While HIPAA lays a vital foundation for standardized electronic business transactions in health care, it cost health providers far more than anticipated to implement, and, according to recent surveys of health care administrators, is far from yielding an ROI.

Several public officials and HIT experts said the data on the ROI for HIT in general are becoming stronger, especially as HIT rollouts in health facilities become better coordinated, planned and executed. There was general consensus that the ROI information and data for HIT are currently inadequate in large part because of the difficulty in measuring and quantifying the clinical and quality of care improvements it engenders.

Thus, participants agreed that metrics need to be developed that will better delineate and explain the link between HIT and clinical quality improvement. Work in this area is an absolute priority, participants agreed.

Participants broadly concurred that two issues have emerged as critical in the discussion and evaluation of HIT – productivity and workflow. Both are intrinsic to measurements of the financial ROI and clinical care improvement derived from HIT, and they would appear to go hand in hand. That is, changes in workflow due to HIT should, in the long run, improve the productivity of physicians, nurses and other health care workers. Notably, however, such productivity gains do *not necessarily* guarantee and are *not necessarily* synonymous with enhancements in clinical quality or patient safety. Indeed, there is a natural tension between productivity and quality improvement (QI). Workflow "improvements," with or without HIT, that yield more "productivity" from workers can in fact often produce higher stress among those workers. And that can degrade quality of care in multiple ways.

Participants agreed that attention must be paid to these intertwined and sometimes delicately balanced forces. HIT can and should improve workflow, efficiency and productivity in health care. But in our entrepreneurial health care system, sometimes the goals of clinical quality improvement could become secondary or be subjugated to the goal of productivity gains and cost savings (especially if health care costs continue to escalate).

Rather, changes in physician and hospital workflow made possible by HIT should aim to achieve higher levels of efficiency and productivity (from payer's and provider's point of view) and *simultaneously* yield better patient outcomes.

One participant drew an analogy to the reengineering and QI movement in several industries – consumer electronics, computers, automobiles, and airlines – over the last 15 to 20 years. CEOs in those industries made sure their expensive technology investment was integrated with and served the QI and six-sigma movement. That was the point, after all: better products, better services, happier and eager customers. Sometimes, but notably not always, efficiencies were also gained that saved money and increased profits.

Corporate initiatives such as Leapfrog and Bridges to Excellence (representatives of whom participated in the dialogue) are trying to apply these lessons to health care, and those efforts now include HIT. (The newly formed – in July 2004 – National Alliance for Health Care Information Technology Advancement, which includes payer, health plan and provider groups, is also expected to focus tightly on the HIT-QI link.) Participants concurred that the hype surrounding HIT may lead some physicians and other providers to believe that you can just "drop HIT in [to their offices] and everything will automatically be great." Not necessarily, participants agreed.

Experience and preliminary research shows that HIT designed with specific purposes, workflow *and* care improvement in mind is a more appropriate and responsible course.

In this context, participants agreed that vendors can and do sometimes play a negative role. Their business mission is to sell products. The best among them shun a "technology for its own sake" approach and seek to sell HIT based on its value in improving workflow, billing procedures, efficiency, patient safety and quality. It would be foolish, however, not to anticipate that the HIT marketplace would have its share of companies that are not driven primarily by a quality improvement agenda.

This discussion underscored the importance of content and technical standardization in the HIT field. Providers are likely to be skeptical and even resistant to HIT investment in a market where vendors are selling dozens if not hundreds of different versions of EHRs, for example.

One participant who had implemented several HIT initiatives in a large hospital system emphasized that a core challenge was determining "what data is gathered and how it is structured." The point sounds esoteric and technical, but speaks to the reality of what drives change in organizations. Measurement leads to data and results which, in turn, lead to adjustments, change and reengineering. This participant asserted that gathering useless and garbled data and information, even if you make it flow *much faster* using IT, does not serve the desired end point.

Participants generally concurred that physicians have a high level of interest in HIT and particularly EHRs. There is "pent up demand." The vast majority of physicians (more than 90%) are connected to the internet in their offices. Experts and even vendors may have underestimated doctors' "psychological readiness;" the "tipping point" may be closer at hand than is widely believed. Physician's reluctance and resistance is, at this point, primarily financial. This readiness should be exploited, several participants agreed. "If you build it, they will come," said one. Yes, the group concurred, but don't sell them a "field of dreams" that floods, turns to dust or on which the balls, bats and bases are not designed for the same game (i.e. - systems that are not interoperable.)

One insight that seemed to resonate: Picturing the diffusion of innovations "S" curve, achieving 20% to 25% physician penetration with EHRs may create the social marketing tipping point needed. The marketplace may take off after that, *on its own*. Thus, one very specific short-term strategic goal may be to focus on *moving the next 10 to 15% of physicians into the HIT universe*.

Consensus and other insightful observations emerged as the dialogue progressed. Some mirrored themes that emerged at other recent events in the summer and fall of 2004:

- HIT firms must develop products and services that serve the needs of quite diverse components of the health care industry, from large integrated delivery systems to solo physician practices. Likewise, incentives for adoption must be tailored to segments.
- The military's and VA's experience implementing HIT and EHRs should be studied more closely. Lessons learned in those programs should be more broadly known and understood.
- Like politics, health care is "local." In the context of HIT that means working across boundaries to effect local initiatives with sensitivities to local issues and values. Another way of saying this: There is likely to be no model that applies to all, or any "one size fits all" HIT solution. As one early HIT adopter/leader said, "we had to tweak everything to fit the local philosophy."
- Local and regional initiatives will be HIT proving and testing grounds. They should be given flexibility to move fast to test and develop new HIT functionalities.
- Evidence-based management (using HIT) must go hand in hand with evidence-based medicine.
- E-prescribing may be the wedge that tips thousands of physicians into "EHR land." Short-term strategies should consider this.
- Incrementalism vs. "big bang" – A common policy implementation issue, participants mostly favored a realistic incremental approach. One participant noted that vendors should develop "modules" of HIT products and EHRs that could build on a platform – rather than taking an approach that requires an "all at once" purchase.
- The complexity of contracting between health facilities/doctors' offices and IT companies is a barrier to HIT adoption. Very few small physician offices have the expertise to deal with this. Help from medical groups and the government would be extremely useful in this area.
- Venture capital resources are not as readily available for HIT as may be commonly thought. There is relatively little venture capital money in HIT demonstration projects right now – relative to other areas of IT industry.
- Automation – Just how automated does HIT have to be for physicians? Participants disagreed on this issue, with some arguing that a PC or laptop or PDA "keyboard and mouse-centric" approach was doomed to fail and that physician office automation was the real HIT wave of the future that will produce big payoffs in productivity and QI. Others noted that physicians to date have adapted well to keyboard data entry and they doubted any other approach in the short run. This technical issue needs further exploration with a focus on physician time constraints.
- Existing vendor systems and products – Participants concurred they are getting better everyday, but wide variability still exists making purchase choices complicated. Participants also noted that many vendors were quite small, fledgling companies, attempting to get into this business space. How many will survive is an open question. Product certification is likely to be necessary to help physicians make purchases.
- Data from HIT initiatives – proprietary or public good? Participants leaned heavily towards the public good approach. But several noted that it would likely be impossible to require that every piece of unidentified data extracted from an EHR be in the public domain.
- Consumers have so far been left out of the "HIT conversation." Engaging them in the next year or two will be important to accelerating adoption.
- Keep it simple. The complexity of health care combined with the technical complexity of HIT produce a potent mix. Products must aim to achieve simplicity of concept, content, user interface and operation – especially for physicians and consumers.
- Mandates. A brief discussion took place around the question of whether, at some point, implementation of an EHR should become a condition of participation in Medicare. One large physician group represented at the dialogue indicated it would strongly oppose such a move, no matter what. Another physician group said it would not necessarily be opposed to such a move, depending on the timing, details and conditions.
- Liability issues complicate all of health care – and that will be no less true of HIT. HIT has the potential to improve safety and thus reduce liability exposure. But it also has the potential to increase exposure – for example Dx and Rx via e-mail. This area needs to be clarified and studied.

Participants' Recommendations and Priorities

- Initiate a Hill-Burton-like program, with a means test and other specifications, targeted at physicians, hospitals and health systems, to fund HIT implementation. Congress would have to create this. Oversee with an eye to quality improvement goals.
- Develop a low interest revolving loan program for physicians and group practices, privately run but partially funded and backed and guaranteed by the federal government.

- Create "safe harbors" for HIT initiatives in which physicians, hospitals and marketplace competitors collaborate.
- Priority should be given to research and analysis on privacy protection and the confidentiality of EHRs. It is an understudied area. Analysis should be undertaken right away to evaluate whether HIPAA needs to be amended, and if so, how.
- Explore how the National Quality Forum (NQF) can and should set quality measurements produced directly or indirectly through HIT.
- Create incentives and prioritize demonstration projects that electronically link physician's offices with hospitals on the local and regional level.
- Address the manpower shortage of informatics specialists through new training programs that include physicians, nurses and allied health personnel.
- Integrate HIT tools, training and knowledge into medical education and CME. Create incentives for physicians to acquire HIT CME credits.
- Create a cadre of physicians who have "done it" (primarily, implemented an EHR) and who can train other physicians to work with HIT and EHRs.
- Commit research funds as soon as possible to produce more rigorous case studies of HIT implementation and its link to QI.
- Create a consumer information campaign that builds awareness of EHRs and, over time, a leading edge of early adopter consumers who will demand that their providers have an EHR. Some catch phrases: "Got EHR?" (Mimicking the "Got Milk" ad campaign.) And, as one participant suggested, a more defiant: "Take Back this Clipboard"?
- Conduct focus groups with consumers on HIT, EHRs and QI. (AHRQ has some already planned.)
- Expand AHRQ's HIT technical assistance program.
- Develop private certification programs for HIT and EHRs. These must strike a balance. If they are too broad, they will be meaningless. If they are too specific, they could stifle innovation.
- Consider accelerating the transfer of the VA and DOD's EHR platforms into the private marketplace.
- Consider an R&D agenda that is constructed in tiers. Some quick analysis and evaluation is needed that will help steer the federal HIT effort and guide marketplace initiatives and providers' decision-making. Catch phrase: "Learn as we go."
- AHRQ should set up a new peer review panel to judge HIT proposals and grant applications.
- Consider creating a discretionary pool of funds at AHRQ (on the DARPA model) that could be mobilized to investigate and test novel applications of HIT or achieve "rapid cycle" evaluations and pilot projects.
- Electronic speech recognition technology, while long in reaching fruition, should be explored as one avenue to make HIT easier and time-friendly for physicians.
- EHR data integration and extraction must be studied as EHRs are developed. Providers need to better understand up front what this means and how it is going to happen.
- Gather intelligence from other industries' adoption of IT and IT standards and extract lessons applicable to HIT. This could and should be done fast.

Participants at the NIHCM Foundation dialogue were given a written questionnaire and asked to anonymously rate some 60 policy options and action steps to advance HIT. For a copy of the survey results please visit the NIHCM Foundation website: <http://www.nihcm.org>.

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