



CARDINAL THOUGHTS

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"If West Virginia can do it, so can everyone else."

Joe Manchin III, WV Governor, 2005
[On West Virginia's commitment to a statewide RHIO]

"In attempting to arrive at the truth, I have applied everywhere for information, but in scarcely an instance have I been able to obtain hospital records fit for any purposes of comparison."

Florence Nightingale, 1873



Frank Cavanaugh



Everett Hines



Sam Schultz II Ph.D.



Jean Joslyn

RHIOs: haven't we learned our lesson yet?

By Thomas F. Shubnell, Ph.D, Principal, CCI

In his keynote speech at the 2005 HIMSS conference, Dr. David Brailer restated the Bush Administration's commitment to building a health care IT infrastructure. Brailer, the National Coordinator for Health Information Technology, promoted regional health information organizations (RHIOs) as building blocks to help move the nation towards interoperability. Over \$139 million in federal grant funding has already been awarded for RHIO development around the country.

RHIOs are similar to CHINs

RHIOs are similar to the community health information networks (CHINs) concept popular in the 1990s. The premise of RHIOs and CHINs is that sharing patient information for the greater good of the patient and community is appropriate and cost effective. CHINs failed for many reasons, including financing, governance, standards, technical issues, and the difficulty of persuading competitors to cooperate. The RHIO concept involves establishing a nongovernmental entity to oversee the business and legal issues involved with the exchange of interoperable electronic health information among patients and providers within a defined region.

A key difference between RHIOs and CHINs seems to be the use of the terms *interoperable* (for RHIOs) and *integrated* (for CHINs). *Interoperable* means the ability of systems to share information and/or functions with other systems based on common standards. *Integrated* means the combination of separate systems into a new one functioning as a whole.

At an even more fundamental level, hospitals and physicians are still essentially paper-based. Creating external organizations, whether named CHINs or RHIOs, to facilitate internal change is not practical, efficient, or cost effective.

An estimated 200 RHIOs are currently in development. A survey conducted in May 2005 by eHealth Initiative identified 25 fully operational health information exchanges, and another 65 initiatives in advanced stages of development. In comparison, the number of CHINs peaked at well less than 100.¹

Because RHIOs are still in developmental stages, definitions are subject to change. Despite the administration's keen interest, there is no federal mandate requiring establishment of RHIOs. Likewise, the geographic boundaries of the RHIO regions have not been set by the government.

Federal goals for RHIOs

The Office of the National Coordinator for Health Information Technology (ONCHIT) has identified four goals for RHIOs:

¹ eHI Foundation releases national report on health information exchange (HIE) efforts. *Press Release*, August 29, 2005. Full text free here: http://www.ehealthinitiative.org/news/survey_pressrelease.msp



Richard Dick, Ph.D.



Fred Mills



Bill MacFarlane



Jim Cusick



Gary Johnson



Mike Glickman



Leo van der Reis
M.D.



Rajiv Kapur, Ph.D.

- Inform clinical practice
- Interconnect clinicians
- Personalize care
- Improve population health

Additionally, ONCHIT's *Framework for Strategic Action*² sets out three strategies for RHIOs:

- Incentivize adoption of electronic health records
- Reduce risk of EHR investment
- Promote EHR diffusion in rural and underserved areas

Unfortunately, many current RHIO initiatives have lost track of these basic goals or have stretched them to the point of collapse. They have also ignored the federal strategies or replaced them with others of their own design. CHINs suffered from the same *scope creep* on their journey from idea to implementation and withered from their own idealistic ambitions.

Are we asking the right questions?

The experts seem to think that we can have universal electronic viewing of test results, electronic health records, computerized physician order entry, electronic claims submission and eligibility verification, secure electronic patient communication, and electronic prescribing. While all of these exist today, none are nationally interfaced, integrated, and certainly not interoperable. We might ask whether we need new systems or whether we need to make the ones we already have adhere to interoperability.

Vendors have been particularly loath to adhere to common definitions or standards. Their livelihood has been enriched by their uniqueness. Payers have also been unwilling to share information for fear of loss of revenue streams. The government has been unwilling to set strict standards because of potential political fallout. Things that do seem to work, such as HL7, only define the envelope for sharing data. The many versions of HL7 testify to the fact that even agreed-to standards are not "standard".

A key problem to be solved in order for interoperability to become a reality is the single patient identifier. Although this was also a HIPAA goal, the creation of a unique health identifier for every individual has never been accomplished. Indeed, the issue is being avoided by both the public and private sectors. How can we have a single EHR for a patient if we cannot uniquely identify the patient?

Questions to consider before embarking on another RHIO

- *Can physicians order prescriptions electronically today?* Sure they can. Many choose not to for individual reasons. The federal government will be hard pressed to encourage them to do so by adding to their costs and changing the way they do business for the "greater good." The Center for Information Technology Leadership (CITL) estimates that \$29 billion could be saved if every physician prescribed electronically. These savings come from fewer medication errors and hospitalizations, improved efficiency, and lower drug costs.
- *Do we have standards today?* Sure we do. There are an estimated 1,200+ standards. The problem is not new standards, but the reduction of conflicting standards.
- *Do we have enough governing bodies in health care?* You bet we do. There

² Brailer DJ: *The Decade of Health Information Technology: Delivering Consumer-Centric and Information-Rich Health Care, Framework for Strategic Action*, July 21, 2004. Full text free here: <http://www.hhs.gov/healthit/documents/hitframework.pdf>

³ Markle Foundation: *Attitudes of Americans Regarding Personal Health Records and Nationwide Electronic Health Information Exchange*, October 2005. Full text free here: http://www.markle.org/downloadable_assets/research_release_101105.pdf



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are more governing bodies and organizations in this country than there are hospitals. We need to reduce external governance, not increase it.

- *Do we have enough data?* We're drowning in it. We're overwhelmed by it. What we need is a bit of wisdom. We need a way to methodically and systematically wade through the data we already have, apply our collective practical and medical knowledge, and then use this resulting wisdom to prevent illness.

How about a ***national*** rather than a regional approach?

Nearly three-quarters of Americans would support creation of a secure national health information network or exchange, according to public opinion surveys conducted Fall 2005 for the Markle Foundation.³

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-- What's new in the literature? --

HIMSS launches RHIO Federation

The Healthcare Information and Management Systems Society has announced the creation of the RHIO Federation, a membership organization for RHIOs and other interested HIMSS members. The RHIO Federation will serve as a centralized source of information about RHIO development and best practices as well as undertake advocacy activities with federal and state government.

Source: Healthcare Information and Management Systems Society: The HIMSS RHIO Federation: frequently asked questions. *Press Release*, October 21, 2005. Full text free here: http://www.himss.org/content/files/RHIO_FederationFAQ.doc

CalRHIO: Underserved at the table

Safety net providers and other organizations that care for underserved populations will find it easier to participate in the development of the California Regional Health Information Organization (CalRHIO) thanks to a \$1 million grant from the Blue Shield of California Foundation. CalRHIO is a statewide initiative that has raised just under \$5 million to fund projects such as developing online personal health records, improving administrative functions and medication management, and linking emergency departments.

Source: California Regional Health Information Organization: Blue Shield of California Foundation grant will support underserved communities' participation in CalRHIO efforts to develop statewide medical information network. *Press Release*, September 7, 2005. Full text free here: <http://www.calrhio.org/news/docs/bscagrnt.pdf>

British national HIT infrastructure

The new National Health Service *Connecting for Health* infrastructure is designed as a hierarchy starting with local service providers that are organized into 5 regional clusters joined into a national system. The clusters will integrate the local systems so that information can be interfaced with the national HIT system.

Source: National Health Service: *NHS Connecting for Health Fact Sheet*, [2005?]. Full text free here:

http://www.connectingforhealth.nhs.uk/publications/toolkitjuly05/nhs_cfh_factsheet.doc

Private sector comments on NHIN

Comments were received by the federal government from over 500 private sector



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individuals and organizations on considerations in setting up a nationwide health information network (NHIN). These comments have been compiled as a report available on the Office of the National Coordinator for Health Information Technology (ONCHIT) website. Among the broad ideas that received support were that the NHIN should:

- Have decentralized architecture
- Be Internet based
- Have public and private representation in governance
- Be patient-centered with protection of privacy

Respondents noted the need for the federal government to advance the NHIN concept and that NHIN should evolve incrementally.

Sources: US Department of Health & Human Services: HHS releases report on nationwide health information exchange. *Press Release*, June 3, 2005. Full text free here: <http://www.hhs.gov/news/press/2005pres/20050603.html>; and, US Department of Health and Human Services: *Summary of Nationwide Health Information Network (NHIN) Request for Information (RFI) Responses*. Washington, DC: Office of the National Coordinator for Health Information Technology, June 2005. Full text free here: <http://www.hhs.gov/healthit/rfisummaryreport.pdf>

Defining EMR and EHR concepts

Although the terms EMR and EHR are often used interchangeably, they represent different concepts. Electronic medical records (EMRs) are the legal records of patient encounters in a care delivery organization and are owned by that organization. Electronic health records (EHRs) are a subset, or summary, of the EMR that will ultimately be accessible via the proposed National Health Information Network. These, and related concepts, are defined in this article and white paper.

Sources: Garets D, Davis M: Electronic patient records. *Healthcare Informatics*, October 2005. Full text free here: http://www.healthcare-informatics.com/issues/2005/10_05/garets.htm; and, Garets D, David M: *Electronic Medical Records vs. Electronic Health Records: Yes, There Is a Difference*. Chicago: HIMSS Analytics, August 26, 2005. Full text free here: http://www.himssanalytics.com/docs/WP_EMR_EHR.pdf

EMR vital tool for medical research

The importance of the electronic medical record in advancing medical research by facilitating clinical observations is explored in this white paper. Over the long term, the establishment of EMR systems will result in cost savings through facilitating research that will lead to improved diagnosis and treatment. Examples of providers pioneering the use of EMR systems for research, such as the Mayo Clinic, are described. The challenges of developing a national health information network are discussed.

Source: *Think Research: Using Electronic Medical Records to Bridge Patient Care and Research*. Washington, DC: FasterCures, Fall 2005. Full text free here: http://www.fastercures.org/pdf/emr_whitepaper.pdf

Five-clinic group sees EMR payoff

Columbia Basin Health Association, a rural practice with five clinics, implemented a virtually paperless environment five years ago. The group provided cash incentives to physicians who participated in individualized training. Among the changes since implementation of the system have been an increase in the number of visits per physician (now averaging 25 per day compared to 18 previously) and a decrease in patient wait time by more than 50 percent.

Source: Helgeson L: Electronic medical records improve physician efficiency and patient safety. *Health Data Management*, October 2005. Full text free here: <http://www.healthdatamanagement.com/html/current/CurrentIssueStory.cfm?PostID=20338>

EMR, EHR...what is the PHR?

The personal health record (PHR) is a paper or electronic document that is owned and maintained by the patient. It traces the lifelong care of the patient but does not replace the legal records of providers. How to choose the best format and ensure security of the PHR are covered in this article.

Source: Wolter J, Friedman B: Health records for the people: touting the benefits of the consumer-based personal health record. *Journal of AHIMA*, November/December 2005; 76(10):pp 28-32.

Full text free here:

http://library.ahima.org/xpedio/groups/public/documents/ahima/pub_bok1_028385.html

HIM pros should help RHIO start-ups

HIM professionals should not miss the opportunity to become involved in the start-up of RHIOs and health information exchanges (HIEs). Contributions of HIM professionals are based on operational experience with medical records and the downstream consequences of decisions affecting them. How to become involved with RHIO development is discussed.

Source: Rollins G: Finding RHIOs: HIM professionals seek, fill roles in emerging health data networks. *Journal of AHIMA*, September 2005; 76(8):pp 32-36.

Full text free here:

http://library.ahima.org/xpedio/groups/public/documents/ahima/pub_bok1_027905.html

Five models for HIE development

Health information exchange (HIE) organizational activities are proliferating and must overcome significant hurdles. Five emerging models for state and regional initiatives, with examples, are identified in this article. These models include: conveners, administration transactions, legislative, new entity formation, and incubation model.

Source: Frisse M, et al.: HIE takes shape in the states. *Journal of AHIMA*, September 2005; 76(8):pp 24-30.

Full text free here:

http://library.ahima.org/xpedio/groups/public/documents/ahima/pub_bok1_027904.html

NHIN will cost \$156B initially

Building a national health information network is estimated to cost \$156 billion over 5 years in capital investment and \$48 billion annually in operating costs. This capital expenditure represents 2 percent of total national health expenditures over a 5-year period.

Source: Kaushal R, et al.: The Costs of a National Health Information Network. *Annals of Internal Medicine*, August 2, 2005; 143(3):pp 165-173.

Full text free here: http://www.cmwf.org/publications/publications_show.htm?doc_id=289155 (then follow link to the article)

Abbott Northwestern EMR goes live

Allina Hospitals & Clinics, an 11-hospital system in the Twin Cities, implemented electronic medical records software at Buffalo Hospital (34 beds) prior to making the change at flagship Abbott Northwestern Hospital. Among the lessons learned were that 25 percent of users should be designated as super users and they should receive twice the training as other staff. Managers should be taught not only how to use the system, but how to manage in the new environment. Physician champions should not be limited to technological tasks, but should also be responsible for seeking input from other medical staff members and working towards achieving their buy-in.

Source: Goedert J: Allina learns as it implements electronic records. *Health Data Management*, October 2005. Full text free here:

<http://www.healthdatamanagement.com/html/current/CurrentIssueStory.cfm?PostID=20336>