NHIN RFI Questions and Comments

Ed Cherlin
Simputer Evangelist
http://cherlin.blogspot.com

These questions are quite repetitive, and so, therefore, are my answers. I have given my core answer for each question, but not the supporting evidence and reasoning. When I have more time, I can provide the missing details.

General

1. The primary impetus for considering a NHIN (National Health Information Network) is to achieve interoperability of health information technologies used in the mainstream delivery of health care in America. Please provide your working definition of a NHIN as completely as possible, particularly as it pertains to the information contained in or used by electronic health records. Please include key barriers to this interoperability that exist or are envisioned, and key enablers that exist or are envisioned. This description will allow reviewers of your submission to better interpret your responses to subsequent questions in this RFI regarding interoperability.

- Must be global in scope to meet needs of overseas Americans and to detect threats brought in by immigrants and travelers.
- Definition: WorldVistA, http://www.worldvista.org/, http://sourceforge.net/projects/worldvista/, and links from those sites.
- Barriers: Proprietary software with proprietary data formats. Turf wars. Politics.
- Enablers: Free/Open Source software; improvements in care at lower cost; the MUMPS programming language and the WorldVistA system implemented in it, designed for development of applications by people with expertise in the intended application, rather than by full-time professional programmers.

2. What type of model could be needed to have a NHIN that: Allows widely available access to information as it is produced and used across the health care continuum; enables interoperability and clinical health information exchange broadly across most/all HIT solutions; protects patients' individually identifiable health information; and allows vendors and other technology partners to be able to use the NHIN in the pursuit of their business objectives? Please include considerations such as roles of various private- and public-sector entities in your response.

- Public development, primarily by health care providers and students, of a public standard; public implementation of public software.
- Implementors should include teaching hospitals and health-oriented NGOs.
- Vendors can make money on consulting, customization, and support.

- Work on a world standard would receive international funding

3. What aspects of a NHIN could be national in scope (i.e., centralized commonality or controlled at the national level), versus those that are local or regional in scope (i.e., decentralized commonality or controlled at the regional level)? Please describe the roles of entities at those levels. (Note: "national" and "regional" are not meant to imply Federal or local governments in this context.)

- The definition of the HIN should be global in scope, that is, it should be a World Health Information Network.
- The standards must also be global, e. g. ISO standards, but with a more open process for creation, such as a set of Internet Engineering Task Force RFPs.
- Actual design and implementation, however, should be as decentralized as possible, using Free/Open Source development techniques. The community should be able to choose its own project managers (or rather, allow them to emerge) to control the submission and integration processes, as is generally the case with Free Software projects.

Organizational and Business Framework

4. What type of framework could be needed to develop, set policies and standards for, operate, and adopt a NHIN? Please describe the kinds of entities and stakeholders that could compose the framework and address the following components:

a. How could a NHIN be developed? What could be key considerations in constructing a NHIN? What could be a feasible model for accomplishing its construction?

- Public development, based on existing OpenVistA
- Global interoperability
- Joint IETF/ISO standards process.

b. How could policies and standards be set for the development, use and operation of a NHIN?

- Policies will have to be set by discussion within and between the user community (health providers of all kinds, private, non-profit, and public; insurance companies; medical research institutions; public health institutions; and so on), government at all levels, and the public, whose health we are discussing.

c. How could the adoption and use of the NHIN be accelerated for the mainstream delivery of care?

- Require interoperability with the existing VA and DOD hospital systems, from which OpenVista was developed.

- Get development done at teaching hospitals, so that graduates take the ideas with them wherever they go.
- Offer the software for free.

d. How could the NHIN be operated? What are key considerations in operating a NHIN?

- Providing a repository for medical records of those who do not now have any primary care should be publicly funded.
- SmartCard systems can make essential records portable with fairly good security. (Better than current practice, certainly, although there is no such thing as perfect security.)

5. What kind of financial model could be required to build a NHIN? Please describe potential sources of initial funding, relative levels of contribution among sources and the implications of various funding models.

- Free/Open Source development is the least expensive method for creating software of high quality.
- Funding should be at deliberately low levels, sufficient to attract those who want to get the work done but not those who would mainly want to make money from the project.

6. What kind of financial model could be required to operate and sustain a functioning NHIN? Please describe the implications of various financing models.

- NHIN would save a great deal of money compared with existing systems. As with much of the Internet, it will simply be in the interest of most organizations to maintain their own portions. The exception is setting up a system for those who are not in any health plan and have no primary care provider.
- User organizations should set up a consortium to fund development based on expectations of savings and improved outcomes (leading to further savings).

7. What privacy and security considerations, including compliance with relevant rules of the Health Insurance Portability and Accountability Act of 1996 (HIPAA), are implicated by the NHIN, and how could they be addressed?

- Most of the issues are identical with an NHIN and with current large, multiple-site hospital systems and other large health institutions or insurance companies.
- International privacy and security rules also must be addressed. Many countries have rules stricter than those in the US, which would apply to US nationals within their territories.

8. How could the framework for a NHIN address public policy objectives for broad participation, responsiveness, open and non-proprietary interoperable infrastructure?

- Once the policy is set to go with Free/Open Source Software development, the community will be able to resolve the rest of these issues publicly.

Management and Operational Considerations

9. How could private sector competition be appropriately addressed and/or encouraged in the construction and implementation of a NHIN?

- Private sector competition exists. It needs no encouragement in order to continue.
- Private vendors will continue to be needed for installation, customization, database conversions, and service.

10. How could the NHIN be established to maintain a health information infrastructure that:

a. Evolves appropriately from private investment;

- Consortium of providers and insurers

b. Is non-proprietary and available in the public domain;

- Not in the public domain; under a Free Software license that guarantees public access to improvements.

c. Achieves country-wide interoperability; and

- Require interoperability with VA and DoD for Federal funding

d. Fosters market innovation.

- Base development at teaching and research hospitals

11. How could a NHIN be established so that it will be utilized in the delivery of care by healthcare providers, regardless of their size and location, and also achieve enough national coverage to ensure that lower income rural and urban areas could be sufficiently served?

- Require interoperability with VA and DoD for Federal funding

12. How could community and regional health information exchange projects be affected by the development and implementation of a NHIN?

What issues might arise and how could they be addressed?

- A national system would in general be beneficial to local efforts
- State laws must be considered and if possible harmonized

13. What effect could the implementation and broad adoption of a NHIN have on the health information technology market at large? Could the ensuing market opportunities be significant enough to merit the investment in a NHIN by the industry? To what entities could the benefits of these market opportunities accrue, and what implication (if any) does that have for the level of investment and/or role required from those beneficiaries in the establishment and perpetuation of a NHIN?

- The industry is already investing in systems based on the VA hospital software that is the basis of WorldVistA.

Standards and Policies To Achieve Interoperability

(Question 4b above asks how standards and policy setting for a NHIN could be considered and achieved. The questions below focus more specifically on standards and policy requirements.)

14. What kinds of entity or entities could be needed to develop and diffuse interoperability standards and policies? What could be the characteristics of these entities? Do they exist today?

- ISO and IETF have appropriate experience in developing standards.
- ISO membership is open to countries.
- IETF has no formal membership. Anyone who wants to work on an IETF RFP joins the appropriate mailing list, and undertakes to achieve “rough consensus”, not just a majority vote, on any technical proposal.
- Failure to use interoperable systems will no doubt be considered malpractice whenever avoidable errors result.

15. How should the development and diffusion of technically sound, fully informed interoperability standards and policies be established and managed for a NHIN, initially and on an ongoing basis, that effectively address privacy and security issues and fully comply with HIPAA? How can these standards be protected from proprietary bias so that no vendors or organizations have undue influence or advantage? Examples of such standards and policies include: secure connectivity, mobile authentication, patient identification management and information exchange.

- The IETF has created standards in each of these areas except HIPAA. If current standards do not meet the requirements of the new system, the IETF is capable of creating new ones that do.
- Medical Associations and trade groups should take up some of the responsibility for creating and enforcing Best Practices around these standards.

16. How could the efforts to develop and diffuse interoperability standards and policy relate to existing Standards Development Organizations (SDOs) to ensure maximum coordination and participation?

- As above

17. What type of management and business rules could be required to promote and produce widespread adoption of interoperability standards and the diffusion of such standards into practice?

- As above

18. What roles and relationships should the federal government take in relation to how interoperability standards and policies are developed, and what roles and relationships should it refrain from taking?

- Authorize the work, keep funding levels down, mandate use of the resulting system for Federally funded health programs.

Financial and/or Regulatory Incentives and Legal Considerations

19. Are financial incentives required to drive the development of a marketplace for interoperable health information, so that relevant private industry companies will participate in the development of a broadly available, open and interoperable NHIN?

- No. What is required is a large enough group of initial adopters, starting with those connecting to the existing VA and DoD systems, so that it is in the interest of everybody else to become compatible. Compare the effects of the requirement by General Motors for standard Electronic Data Interchange with all of its suppliers, or Walmart's requirement for standard bar codes on all incoming shipments from manufacturers.

If so, what types of incentives could gain the maximum benefit for the least investment? What restrictions or limitation should these incentives carry to ensure that the public interest is advanced?

- Participation in Federally funded health programs could require interoperability with VA and DoD systems.

20. What kind of incentives should be available to regional stakeholders (e.g., health care providers, physicians, employers that purchase health insurance, payers) to use a health information exchange architecture based on a NHIN?

- Faster payment and reduced costs are usually sufficient in most markets.

21. Are there statutory or regulatory requirements or prohibitions that might be perceived as barriers to the formation and operation of a NHIN, or to support it with critical functions?

- Not my department; I don't know

22. How could proposed organizational mechanisms or approaches address statutory and regulatory requirements (e.g., data privacy and security, antitrust constraints and tax issues)?

- Don't know

Other

- Don't know

23. Describe the major design principles/elements of a potential technical architecture for a NHIN. This description should be suitable for public discussion.

- WorldVistA

24. How could success be measured in achieving an interoperable health information infrastructure for the public sector, private sector and health care community or region?

- Rates of adoption by number of centers and by number of patients covered
- Improvements in outcomes through better availability of information
- Improvements in detection of disease outbreaks
- Reductions in costs