

Connecting for Health... *A Public-Private Collaborative*

The Preliminary Roadmap

NCVHS

**NHII 04: Cornerstones for
Electronic Healthcare**

July 23, 2004

The Preliminary Incremental Roadmap

Carol Diamond



The recommendations in this *Preliminary Roadmap* encompass areas of agreement, as well as areas in which consensus for near-term actions did not exist, identified as “Forks in the Road”.

Overarching Themes

1. Clear, understandable messages to make the American public partners in this agenda
 - Case Studies
2. The needs of patients and consumers and their changing roles
3. Designing for privacy and security



The "Forks in the Road"

4. Stepwise (Incremental) Infrastructure
5. Data Standards
6. Clinical Applications
7. Accurate Linking
8. Funding
9. Legal Safe Harbors

Technical Expert Panel

- J. Marc Overhage
- Wes Rishel
- Mark Leavitt
- Clay Shirky
- Paul Tang
- Jared Adair
- William Braithwaite
- George Eisenberger
- W. Ed Hammond
- Donald Mon
- William Rollow
- William Yasnoff

Stepwise Infrastructure

J. Marc Overhage, MD, PhD

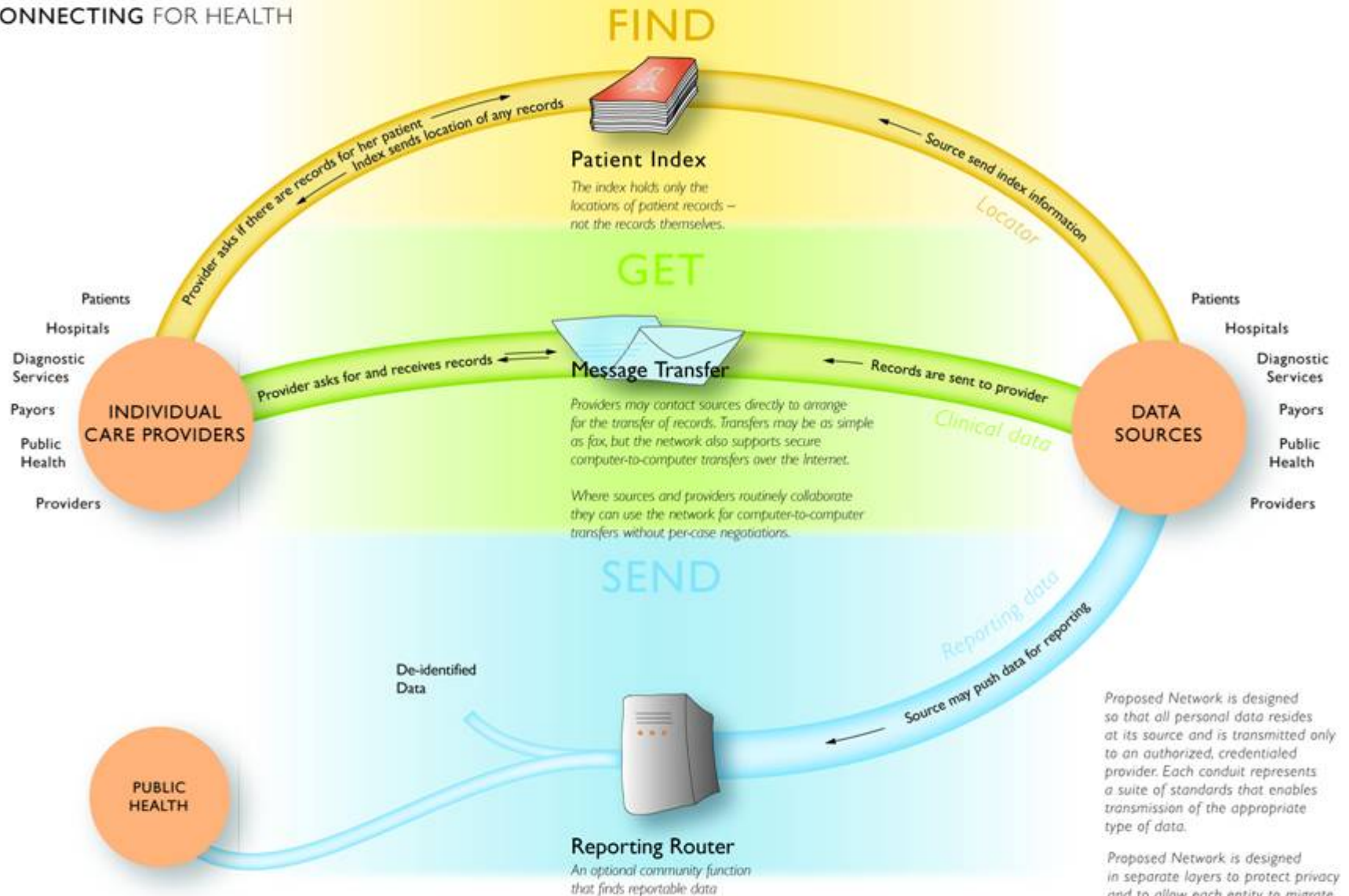


Recommendations (Infrastructure)

1. The Health information infrastructure is a “network of networks” built on the Internet.
 - safeguards privacy,
 - leverages both bottom up and top down strategies,
 - is incremental in nature and
 - based on a decentralized and federated model.
2. We need a “ Common Framework” comprised of network software, common policies, documents and methodologies that can be shared in the public domain
 - secure transport over the Internet
 - reliable authentication, and
 - a minimum suite of standards for information exchange.
3. Public-private collaboration should fund and complete a Reference Implementation within 12 months.

PROPOSED NETWORK

THE MARKLE FOUNDATION
CONNECTING FOR HEALTH



Proposed Network is designed so that all personal data resides at its source and is transmitted only to an authorized, credentialed provider. Each conduit represents a suite of standards that enables transmission of the appropriate type of data.

Proposed Network is designed in separate layers to protect privacy and to allow each entity to migrate to increasing levels of sophistication at their own pace.

Applications and Standards

Wes Rishel



Applications: Draft First Principles

- Full spectrum of applications: comprehensive EHR and incremental solutions must coexist
- Accommodate diverse levels of IT readiness: from “baby steppers” to sprinters
- Special need to accelerate EHR adoption among care providers in ambulatory settings
- Value-based prioritization of use cases/transactions
- Avoid dead-ends: incremental steps must...
 - Make adoption of full, interoperable EHRs more likely
 - Provide a clear migration path without lost investment
 - Contribute to building of the “common framework”

Recommendations (Applications)

1. Funding and reimbursement incentives can encourage a wide range of applications from comprehensive EHRs and incremental applications to simple data exchanges, provided these applications do not represent “dead ends”.
2. Certification for EHR applications should be considered to assure that incentives result in the use of systems that meet a minimum set of functional capabilities using the HL-7 EHR functional standard and incorporate a minimum level of interoperability.
3. The governance of the certifying organization should represent all stakeholders, and the certification process chosen must place minimal compliance burdens on care delivery organizations.

Standards: Draft First Principles

1. Harness the growing demand by leveraging existing standards
2. Standards should be employed to facilitate the exchange and use of both a “human decision” and “computer decision” use cases in a consistent evolutionary manner (i.e., without continually changing the standard)
3. The existing standards have to work together
4. Leveraging and coordinating existing standards requires a means for certifying standards compliance consistent with specific use cases
5. New standards development should be driven by use cases and end user demand (prioritization)

Recommendations (Standards)

1. Focus on the “ready set” of standards that are mature and proven. Many of these standards have already been identified by the Consolidated Health Informatics initiative and Connecting for Health.
2. There is an immediate need for certifying interface conformance. The certification methodology should be developed in conjunction with the Reference Implementation.
3. Establish a certifying authority and appropriate, affordable and scalable interface conformance methods based on combinations of standards for specific information exchange needs that support differing levels of sophistication.
4. Provide a test-bed for these interface standards. (demonstration projects and reference implementation)
5. Publicize and share the approaches to secure Internet transport in the Reference Implementation.

Working Group on Accurately Linking Information for Healthcare Quality and Safety

John Halamka
Peter Swire



Design Principles

- Decentralized
- Federated
- No “Health ID”
- Bottom up *and* top down
- Decoupled Development
- Scalable and Evolvable
- No ‘rip and replace’
- Auditable

Health ID: No Magic bullet

- Just Another Piece of Data
- Long and Expensive Process
 - Hard to implement
 - Hard to drive adoption in existing IT systems
 - Few benefits from partial implementation
- Political culture of the US not amenable to national identifiers
- Threat of privacy spills significantly worsened with universal identifier

Theory

- Finding places where a patient might have records
- Transferring those records from one institution to another
- Interpretation of those records on arrival

Practice

- Creation and maintenance of an index
- Definition of system standards, including formats for the secure transfer of clinical records.
- Design and certification of a format of an Electronic Health Record (EHR)

Legal, Financial and Organizational Issues

Robert Miller



Financial Recommendations

- Realign financial incentives to promote quality care improvement via IT adoption and connectivity and information exchange among all providers
- Financial incentives of approximately \$3 to \$6 per patient visit or \$0.50 to \$1.00 per member per month should be sufficient to encourage and sustain wide-spread adoption of basic EHR technologies by small, ambulatory primary care practices. Additional incentives will be necessary to encourage more extensive use of EHR technologies.
- The qualitative analysis supports a business case that is better for some “incremental applications” than others. These incremental applications can be implemented as steps toward the full implementation of an EHR.
- Small and medium-sized practices have greater potential to benefit from information exchange, but will require greater attention and support in order to achieve sustainability.

Working Group on Working Group on Policies
for Electronic Information Sharing Between
Doctors and Patients

David Lansky PhD



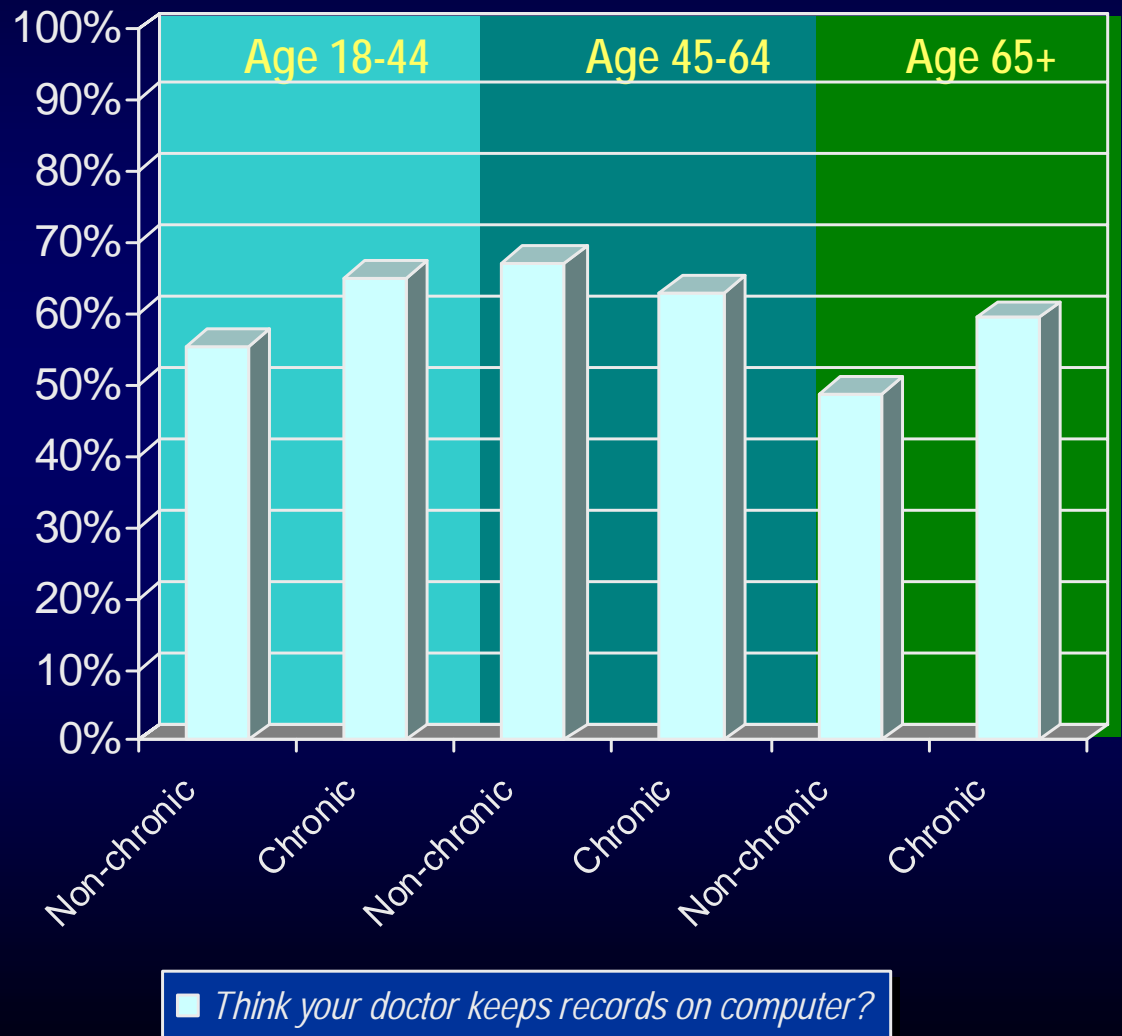
Roadmap Recommendations

1. Develop and employ a core set of messages, both general and tailored to specific audiences (e.g., chronically ill, caregivers), to be used by health IT proponents in their internal and public communications.
2. Design for privacy and security
3. Identify techniques, standards, and policies to be employed by all developers of personal health records in order to ensure that information can be exchanged for the patient's benefit
4. Support demonstration projects that implement these common practices to determine the net value for consumers and patients.

1. Messages for the Public - Findings

- ✚ Most people have not thought about using health record
- ✚ Most people do want the benefits possible through connected health records
- ✚ Specific groups (segments) are more likely to be early adopters
- ✚ Graphic ads work well to increase awareness
- ✚ Possible campaign?

People Overestimate the Use of EHR



What Do Patients Say They Want?

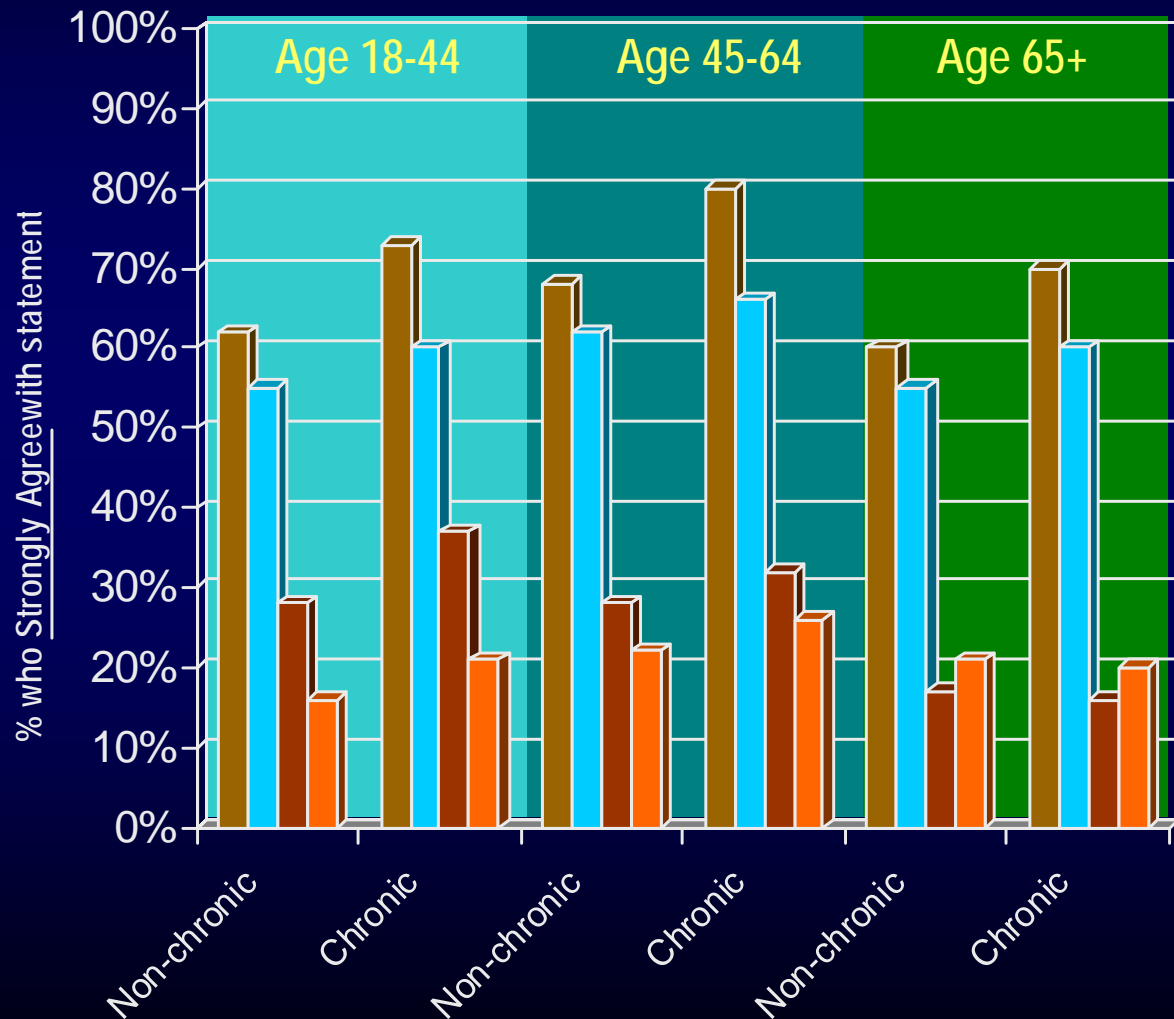
Over 70 percent of on-line respondents (2003) would use one or more features of the PHR:

Email my doctor	75 percent
Track immunizations	69 percent
Note mistakes in my record	69 percent
Transfer information to new doctors	65 percent
Get and track my test results	63 percent

Almost two-thirds (65 percent) of people with chronic illness say they would use at least one of the PHR features today, compared with 58 percent of those without chronic illness.

Some messages work better than others ...

- *In an emergency, getting my medical records quickly could mean the difference between life and death.*
- *It's my health information. I should have access to it anywhere, any time.*
- *I'm tired of playing 'telephone tag' with doctors and filling out the same forms. Why can't I do some of this stuff online?*
- *I've often felt the health care system has all the power. Having my own online health record seems to even it out a little bit*

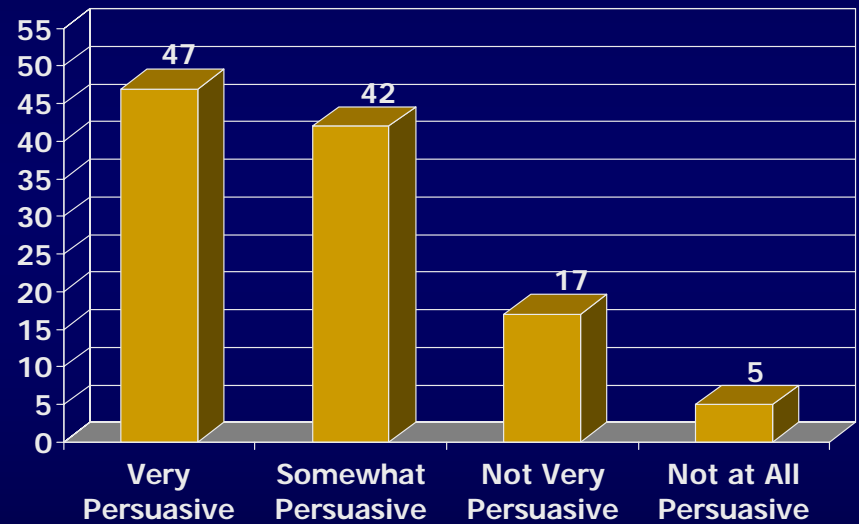


Responses to Mock Ads



You have three seconds to remember every doctor you've ever seen, every procedure you've ever undergone and every medicine you've ever taken.

You could do just that if your medical history was all together, safe and sound and in one place. That's why online medical records are such a great idea. They mean you can get to your medical information instantly. That could be a real life saver in the event of an accident or sudden illness.



2. Roadmap Recommendations

- ✦ Identify techniques, standards, and policies to be employed by all developers of personal health records in order to ensure that information can be exchanged for the patient's benefit, including:
 - Common means for correctly identifying each person and ensuring privacy protections
 - A set of common data fields
 - A secure protocol for electronic information exchange
 - Common clinical vocabularies
 - Common values and policies that place each person at the center of controlling his or her own information

3. Considering PHR demonstrations

Some criteria:

- Addresses significant, common problem
- Builds on existing connected, EHR infrastructure (including governance, standards, clinical data availability)
- Depends upon patient-supplied information to improve health or health care
- Demonstrates interoperability via patient authorized information transfer
- Fielded within 18 months
- Lends itself to rigorous evaluation

3. Considering PHR demonstrations

- ✦ Projects to coordinate care for people with chronic illness
- ✦ A personal medication record to consolidate all medications and apply medication management tools to support effective and safe patient use
- ✦ Projects to track and manage a patient's healthcare expenditures