



Connecting for Health

A Roadmap for Achieving
Electronic Connectivity in
Healthcare

October 22, 2004

CONNECTING FOR HEALTHSM
MARKLE FOUNDATION *A Public-Private Collaborative*

Speakers

- Carol Diamond, Markle Foundation
- John R. Lumpkin, Robert Wood Johnson Foundation; NCVHS
- John Glaser, Partners HealthCare System
- John Halamka, CareGroup Healthcare System; Harvard Medical School
- Daniel T. Garrett, Computer Sciences Corporation

Carol Diamond, MD, MPH

Managing Director
Health Program
The Markle Foundation

Chair, Connecting for Health

Presentation Overview

- About Connecting for Health
- Introduction to the *Roadmap*
- Key Recommendations:
 - Funding and Incentives
 - Involving consumers and patients
 - Technical Framework
 - Reference Implementation

John R. Lumpkin, MD, MPH

Senior Vice President

The Robert Wood Johnson Foundation
Chair, National Committee on Vital and Health
Statistics

Vice Chair, Connecting for Health

What is Connecting for Health?

- Broad-based, public-private coalition
- More than 100 collaborators
 - Providers
 - Patients
 - Payers
 - Accreditors
 - Government agencies
 - Researchers
 - IT systems manufacturers
- Founded and supported by **Markle Foundation**, with additional support from **Robert Wood Johnson Foundation**

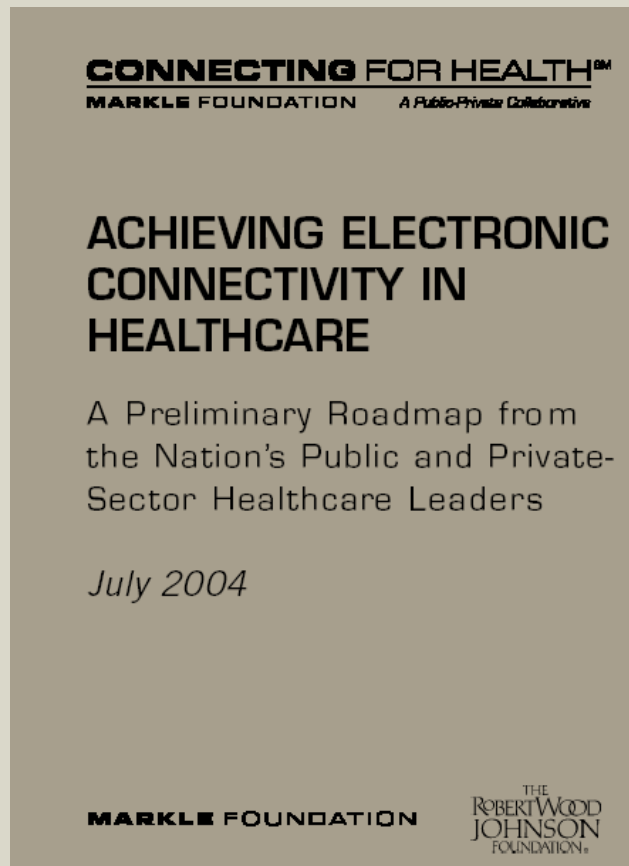
Purpose of Connecting for Health

Catalyze changes on a national basis to create an interconnected, electronic health information infrastructure to support better health and healthcare

The Assumptions

- A future of better, more efficient care can be accomplished through “dynamic connectivity” that allows information to move
 - Where it’s needed
 - When it’s needed
 - In a private and secure manner
- Achieving this goal will require public and private sector collaboration
- A “Roadmap” is needed to chart the course

What is the *Roadmap*?



- Shared vision of what to do next—developed and agreed to by all major stakeholders
- A set of practical actions and achievable goals in a 1-3 year time frame
- Provides necessary cohesion for multiple stakeholder efforts
- Building on where we are, not overhauling everything at once

Eight key areas of *Roadmap* recommendations

1. Funding and Incentives
2. Clinical Applications
3. Legal Safe Harbors
4. Engaging the American Public
5. The Infrastructure—technical architecture and approach
6. Designing for Privacy and Security
7. Accurate Linking of Patient Information
8. Data Standards

John Glaser, PhD

Vice President

Chief Information Officer
Partners HealthCare System
Boston, MA

Chair, Connecting for Health Working Group
on Financial, Organizational, and Legal Sustainability

Release of Working Group report:

Financial, Legal and Organizational Approaches to Achieving Electronic Connectivity in Healthcare

- Elaborates on *Roadmap* recommendations
- Available online:
www.connectingforhealth.org

Working Group Members

- David J. Brailer, MD, PhD (Chair until May 04)*, DHHS
- Peter Basch, MD, MedStar Health; Physicians EHR Coalition
- David Bates, MD, MSC, Brigham and Women's Hospital; Partners HealthCare System
- Lawrence Casalino, MD, PhD, University of Chicago
- Rich Grossi, MBA, Johns Hopkins Medicine
- Nancy Lorenzi, PhD, Vanderbilt University Medical Center
- Robert Miller, PhD, Institute for Health & Aging; Institute for Health Policy Studies
- Peter Swire, JD, Moritz College of Law, Ohio State University
- Lori Evans, MPH, MPP, (Ex Officio member), DHHS

Staff

- Julie Vaughan Murchinson, MBA, Project Director
- Robin Omata, JD, PhD, Legal Staff

Expert Review Panel

- William Bernstein, MA, JD, Esq., Manatt, Phelps & Phillips LLP
- Francois de Brantes, MBA, General Electric
- Charles Cutler, MD, MS, Aetna, Inc.
- Bruce Fried, JD, Esq., Sonnenschein Nath & Rosenthal LLP
- Mark Frisse, MD, MBA, Vanderbilt University
- Katie Magill, MBA, Health Net, Inc.
- David Masuda, MD, MS, University of Washington
- Dan Mendelson, MPP, Health Strategies Consultancy LLC

Expert Review Panel (cont.)

- Sheera Rosenfeld, MHS, Health Strategies Consultancy LLC
- Joe Scherger, MD, MPH, University of California, San Diego
- Alan Sokolow, MD, Empire Blue Cross Blue Shield
- William Stead, MD, Vanderbilt University Medical Center
- Thomas Sullivan, MD, Massachusetts Medical Society, Women's Health Center Cardiology
- Carl Volpe, PhD, WellPoint Health Networks Inc.
- Andrew M. Wiesenthal, MD, SM, The Permanente Federation
- John Zimmerman, Siemens Health Services

Main Objectives and Approach

- Examine financial incentives and support mechanisms necessary to significantly increase EHR adoption by small and medium-sized physician practices
- Evaluate legal and organizational barriers that need to be addressed to further regional and national interconnectivity

- Literature review
- Working Group expertise
 - Research
 - Framework development
- Qualitative Financial Analysis
 - Alternative Futures
 - Use Case Scenarios
- Expert Panel review

Recommendations and Key Findings - Financial Incentives

- 1. Financial incentives will be necessary to encourage health care providers to adopt IT that allows for interconnectivity to improve quality of care**
 - The business case for IT adoption is not sufficient
 - The provider bears the cost while most value accrues to others
 - Incentives should be structured to encourage IT adoption that supports interconnectivity among data sources
 - The Federal government can play a significant role with private sector collaboration
- 2. Financial incentives for small and medium-sized practices will need to cover most of the costs of the EHR**
 - \$12,000 - \$24,000 total per full-time physician per year;
 - For a PCP, \$3 to \$6 per patient visit or \$0.50 to \$1.00 PMPM
 - Incentives cannot work without broad adoption by payers
 - Initial incentives will transition over time to performance-based incentives
- 3. Qualitative analysis supports a business case that is better for some “incremental applications” than others**
 - Incremental applications can be implemented as steps toward full implementation of an EHR
 - eRX and on-line tools for chronic disease management may be good starting points

Recommendations and Key Findings - Organizational Barriers

- 1. Communities should assess their readiness for local and regional data sharing. Conduct a rigorous review of:**
 - Technical, clinical, and organizational capacity and capabilities
 - Commitment of local leadership to spearhead the effort
- 2. Communities will require a source of activation to catalyze or enforce organizations to participate in a health information exchange infrastructure**
 - The “convener” should be a neutral facilitator that could be played by a government entity or a coalition of industry members
 - The federal government could take steps to encourage convening within communities
 - Large providers have a natural adoption advantage and may be better positioned to drive the market toward health information exchange
- 3. While small and medium-sized practices have greater potential to benefit from interoperability, they need to receive greater attention and support if they are to adopt clinical IT applications and participate in health information exchange.**
 - These practices have few resources available for implementation of IT systems
 - Financial and other support should be provided to local and regional EHR and information-sharing collaboratives and/or other community focused organizations

Recommendations and Key Findings - Legal Barriers

- 1. Most management and legal issues related to the establishment of a secure, confidential health information infrastructure can be addressed in the context of existing law and through use of contracts**
 - Purchasers and implementers will need to implement several contractual measures in order to address management and legal issues related to information sharing
 - There is a need to guide regional efforts by providing access to examples of legal agreements and to the experiences of others
- 2. Changes to current policy and market-based actions can provide greater protections and opportunities for individuals and health care organizations that engage in information sharing**
 - Federal rules recently published under Stark II, Phase II, may have partially addressed concerns regarding third-party financing of IT
 - Guidance should address who may qualify under the exception (i.e., definition of “community” and information that may be shared that does not violate Federal Anti-kickback Act
- 3. As implementation of systems that allow for health information exchange matures, policy and regulatory changes may be necessary to ensure that adoption is sustainable, including:**
 - Security and privacy
 - Medical malpractice
 - Practice transformation

Carol Diamond, MD, MPH

Managing Director
Health Program
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Chair, Connecting for Health

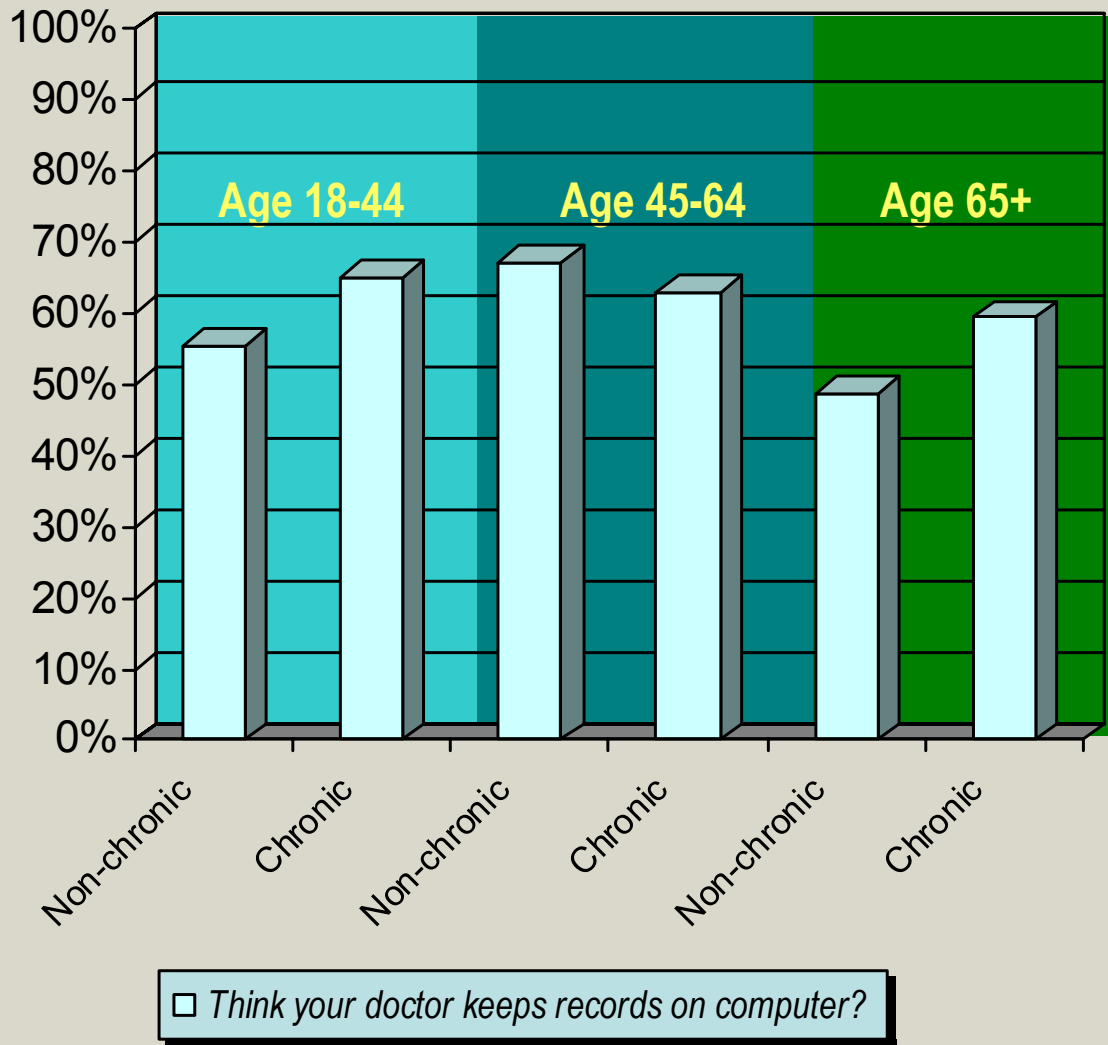
Engaging the American public, through ...

- Increased public understanding of the value of connectivity in healthcare
- Specific design principles and policies to assure the security and privacy of the data
- Expanded availability of Personal Health Records

Develop and employ a core set of messages

- CFH research has found low awareness of health IT issues ...
 - 50% to 75% of Americans have not thought about a more connected healthcare system
- But a high receptiveness toward specific services that health IT could offer
 - 75% want to email their doctor
 - 69% want to track immunizations and check the accuracy of their clinical chart

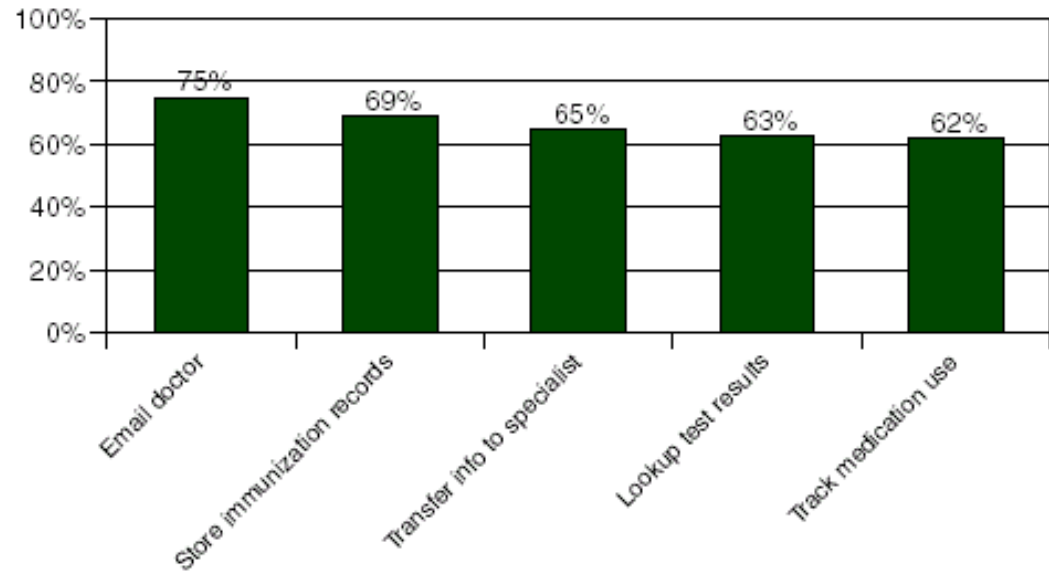
People overestimate the use of EHR



Would people use a personal health management system?

Over two-thirds would use PHR features if available

Based on responses to the question, "If you could keep your medical records online, which of the following would you do?"



Source: *Connecting for Health and FACCT, Survey of 1,246 on-line adults, May 2003*

What is the consumer mindset now?

- Modest use of paper health records (40%)
- Extremely low use of electronic personal health records (2-5%)
- High percentage think they “should” (84%)
- Significant concern about privacy and security
 - Harris survey: 66-68%
 - FACCT survey: 91% “very concerned”
 - Strong desire to “control” who sees health information

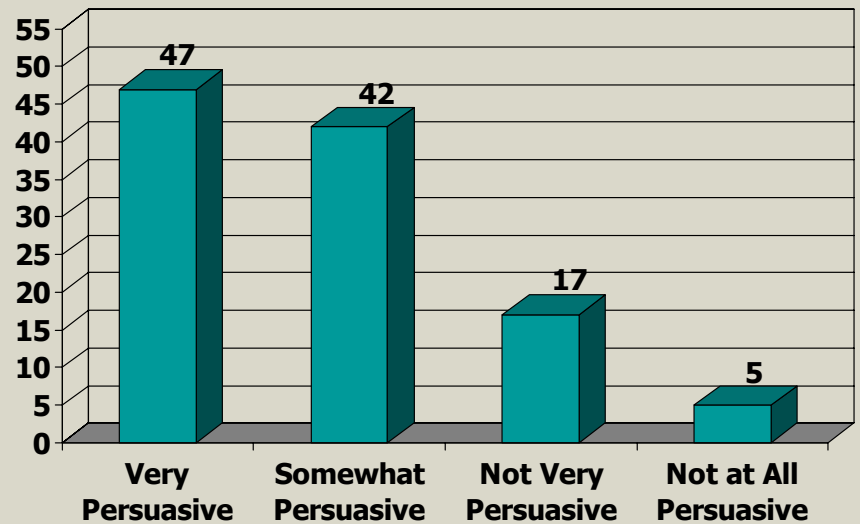
Messaging Conclusions

- Messages must be consistent and carefully constructed
- Messages must be mindful of privacy, while emphasizing convenience and utility
- Most receptive target populations are likely to be:
 - People with chronic conditions, taking multiple medications and people with more than 5 doctor visits a year
 - Patients and families younger than 45 who are more comfortable with computers
 - Those caring for an ill parent or spouse



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.

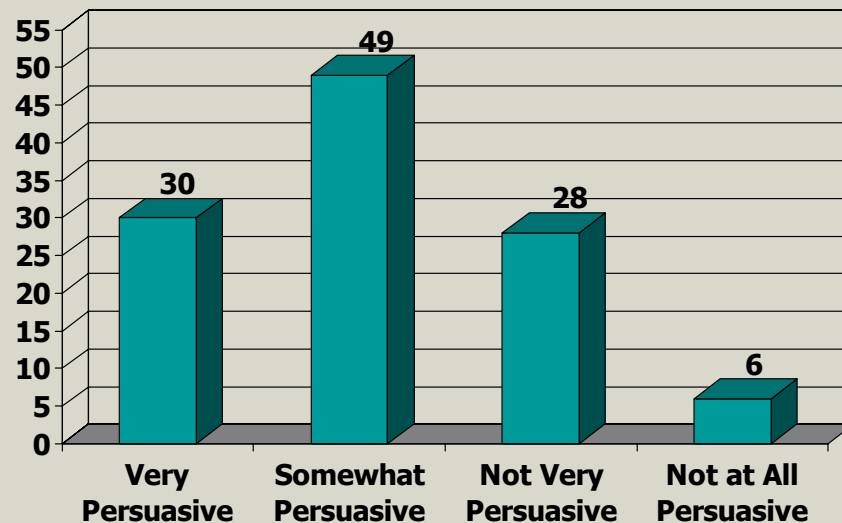


“Anybody can make a mistake. I’d like to double-check what’s in my medical records.”



George Paxton
San Diego, CA

My medical information used to be scattered among many different doctors’ offices, clinics and hospitals. It’s so much better to have everything together in one place, where it’s accessible to me. That’s why online medical records are such a great idea. I really like that I can go online and check that the medical information in my file is accurate and up to date.



Development of Personal Health Records

- Identify techniques, standards and policies to be employed by all developers of PHRs
 - Ensure that information can be exchanged between PHRs and other data sources for the patient's benefit
- Support demonstration projects that use common practices to determine the value for patients of having access to their health information
- Full PHR report available here and at www.connectingforhealth.org

John Halamka, MD

Chief Information Officer
CareGroup Healthcare System
Chief Information Officer
Harvard Medical School

Member, Connecting for Health Working Group
on Accurately Linking Health Information

Basic Principles

- Support the accurate, timely, and secure handling and transmission of patient records.
- Increase the quality of care, while preserving or improving the economic sustainability of the healthcare system and the privacy of patient data.
- Create value for all participants, from private, non-profit, and government institutions to the individual health care professionals and patients.

Goals

- Protect patient privacy
- Increase availability of information
- Maintain local control of records

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

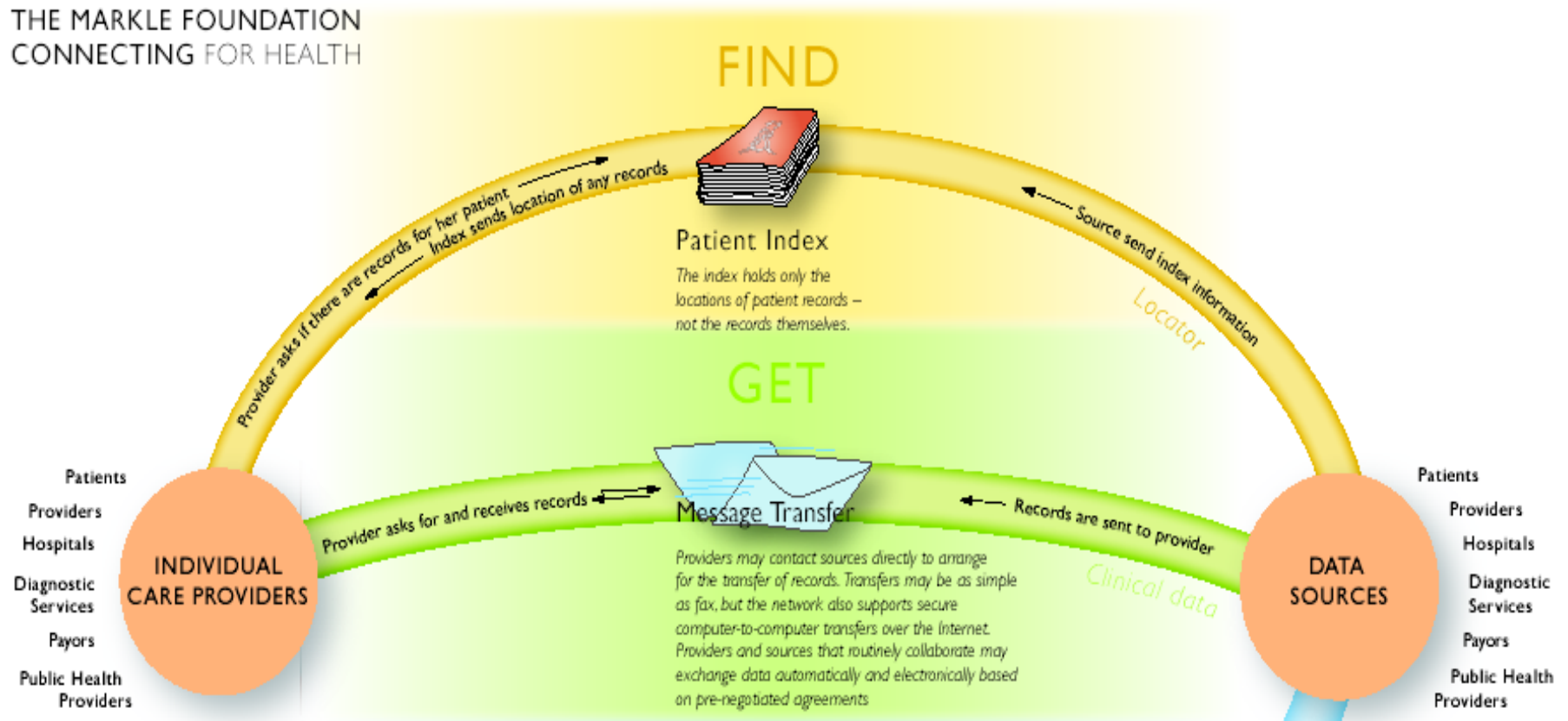
- Locating remotely held records
- Automating transfer of records from one institution to another
- Interpretation of those records on arrival

Practice

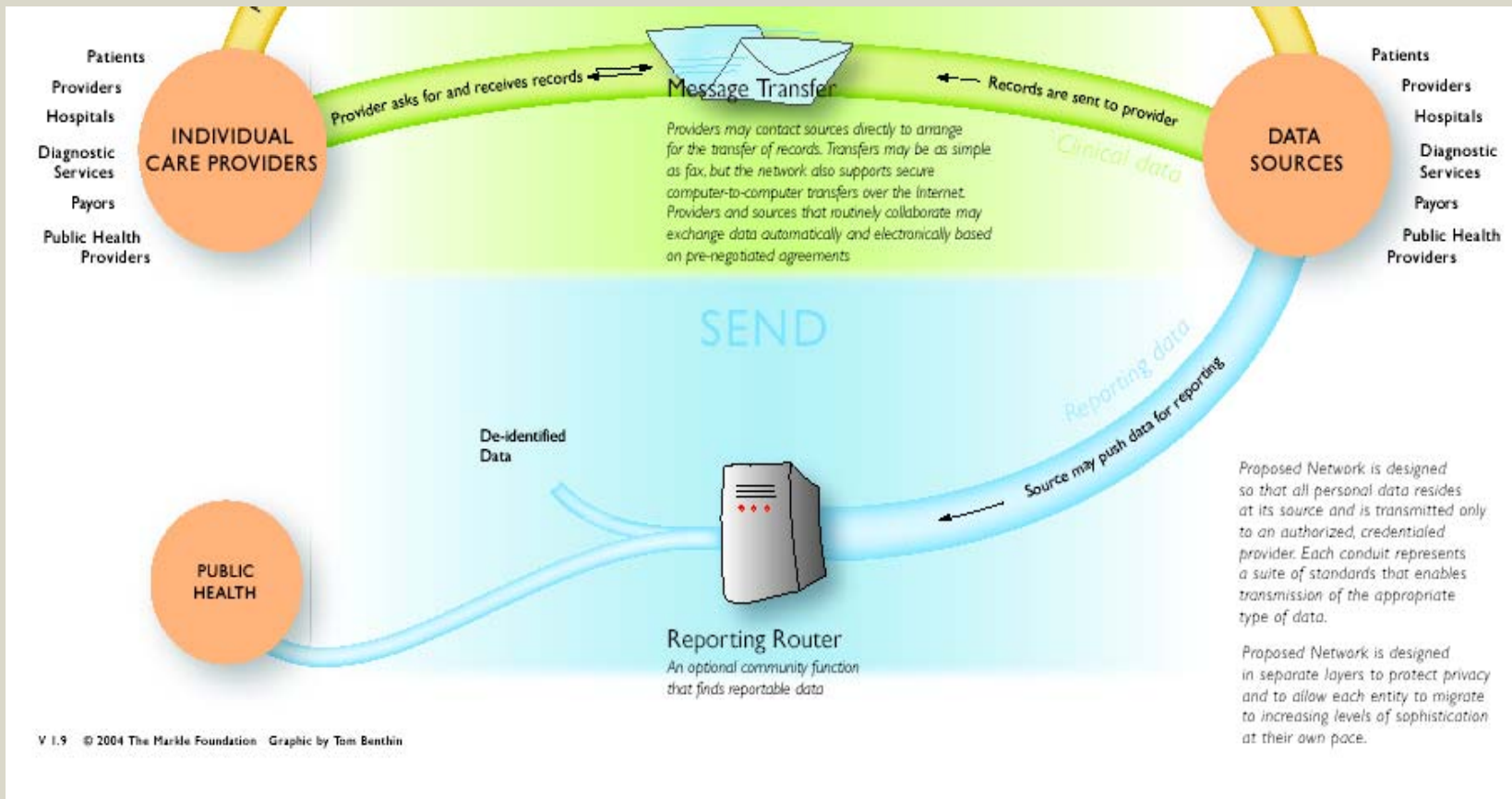
- Creation and maintenance of a Record Index
- Definition of system standards, including formats for the secure transfer of clinical records.
- Design and certification of a format of an Electronic Health Record (EHR.)

Proposed Architecture is Federated and Decentralized: Once records are located, the health information flows peer-to-peer – with patient's authorization

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The architecture supports point of care information sharing and population-based reporting



John R. Lumpkin, MD, MPH

Senior Vice President

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Recap of Roadmap Recommendations

- Create a “Common Framework” for Connectivity
 - Minimum necessary common technical requirements for making a locally driven strategy work
 - Non-proprietary, decentralized, federated architecture
 - “Network of Networks” built on the Internet
 - Based on uniform agreements, standards, policies and methodologies for reliable, secure information exchange and common identification of patients and providers

Recap Roadmap Recommendations

- “Groundrules” for the Common Framework
 - Built without national patient ID or centralized database of records
 - Voluntary approach to information sharing, based on a premise of patient control and authorization
 - Leverage existing infrastructure....no “rip and replace”
 - Ground its development by creating it in the “field”
 - Engage the public and private sectors in its development
- Don’t slow things down....

Reference Implementation (RI)

- *Roadmap* calls for public-private sector collaboration to finance and implement the RI within 12 months
- Grounded in the *Roadmap*, the RI will provide a concrete, functional demonstration of the critical common standards-based components of an **interoperable, community-based infrastructure**

Daniel T. Garrett

Vice President and Managing Partner of Global
Health Solutions
Computer Sciences Corporation
Berwyn, PA

Vice Chair, Connecting for Health
Steering Group

RI strategic objectives

- Create a body of work – the Common Framework – in a “live” laboratory
- Show that the Common Framework can be achieved across diverse settings and technologies
- Bring together multiple, competing institutions
- Disseminate findings
- Demonstrate ease of management and implementation

What will the RI do?

- The RI will establish, demonstrate and disseminate a minimal technical Common Framework for:
 - Data standards
 - Methodology for validating interoperable interfaces and applications
 - Standard patient and provider identification methods
 - Exchange of clinical information across networks
 - Policies for information sharing
- It is comprised of network standards, common policies, documents and methodologies that will be shared in the public domain

Additional Information

- Full reports include:
 - Roadmap
 - PHR report
 - Funding and Incentives report
 - Linking report (soon)
- All are available at www.connectingforhealth.org

Questions?