



The Current EHR Landscape and Its Implications for Preservation

Charles P. Friedman, PhD

Chief Scientific Officer

ONC

April 5, 2010



Menu

- A short bit about the HITECH programs
- The current state of EHR adoption
- The projected future of EHR adoption
- Implications for the volume of digital data to be preserved

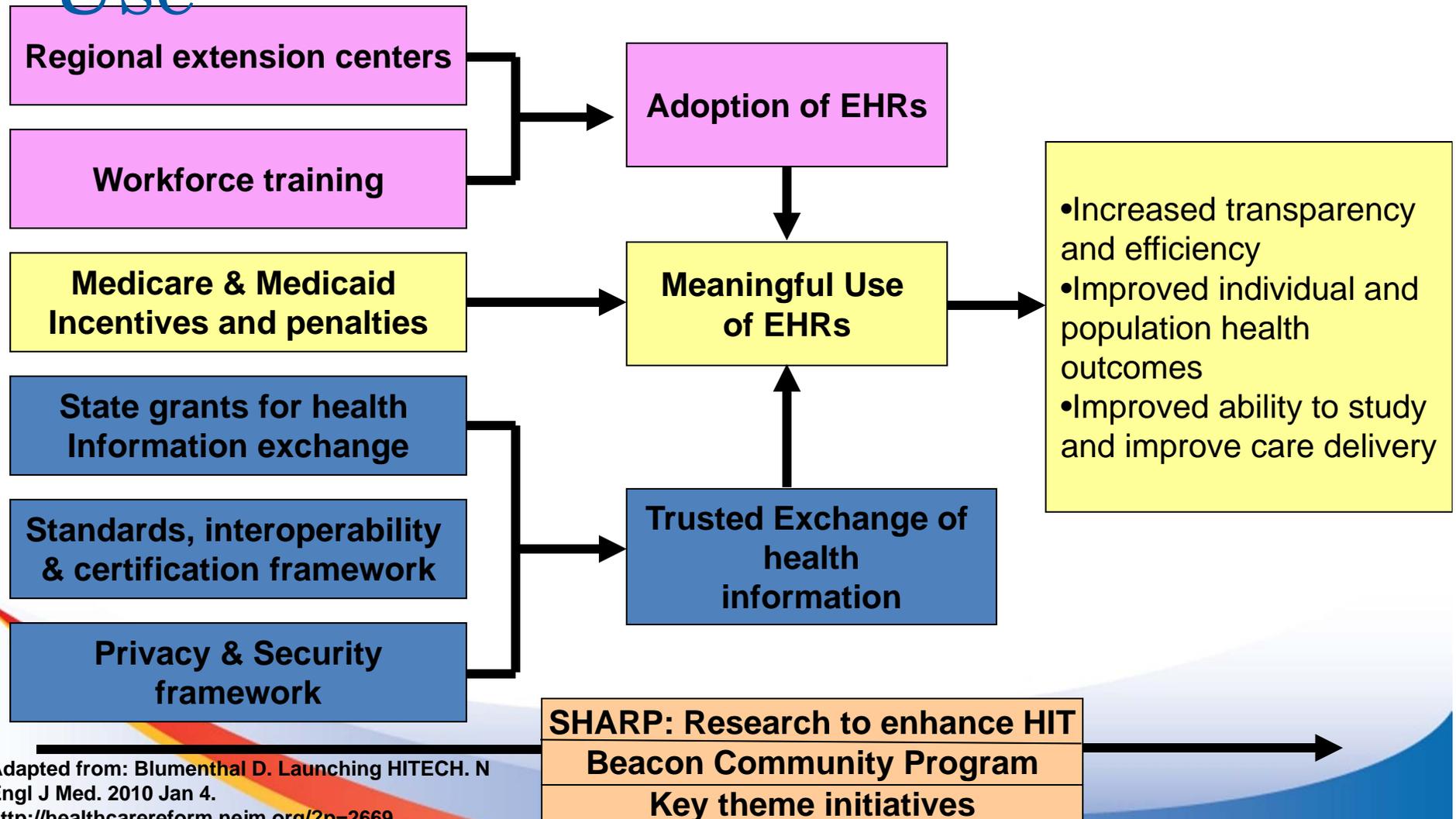




The HITECH Act in One Slide

1. Mechanisms for national coordination
 - Two federal advisory committees; authority to adopt standards
2. Payment incentives to providers and hospitals who achieve *meaningful use* of certified EHRs
 - MU Stage 1 Rule released July, 2010
3. Supportive programs (grants and contracts)
 - Three mandatory grant programs; others discretionary
4. Enhanced privacy, security, and access provisions
 - Breach reporting, individual's right to their data in electronic form

The Program to Achieve Meaningful Use



Adapted from: Blumenthal D. Launching HITECH. N Engl J Med. 2010 Jan 4.
<http://healthcarereform.nejm.org/?p=2669>



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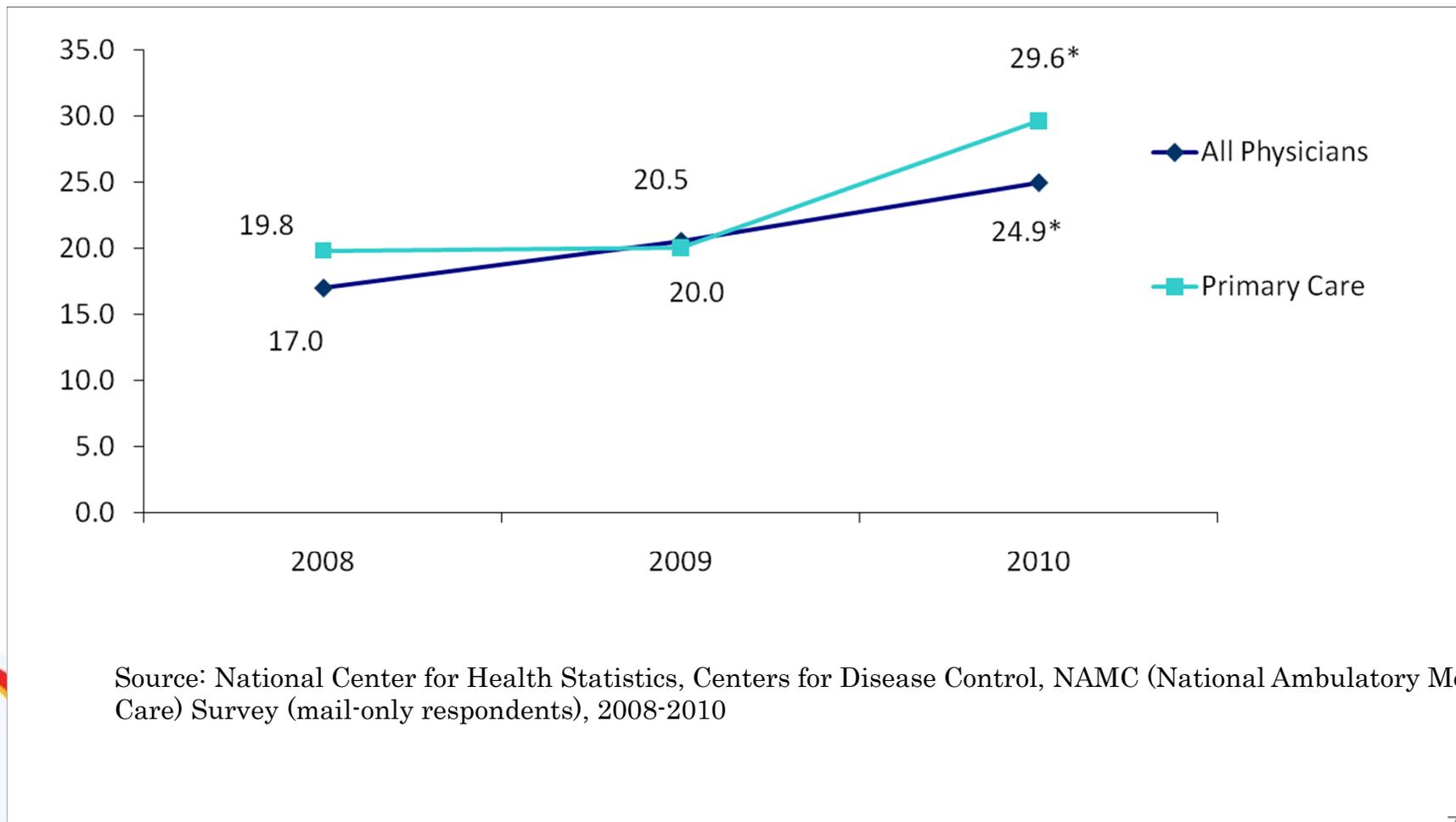




Levels of Adoption

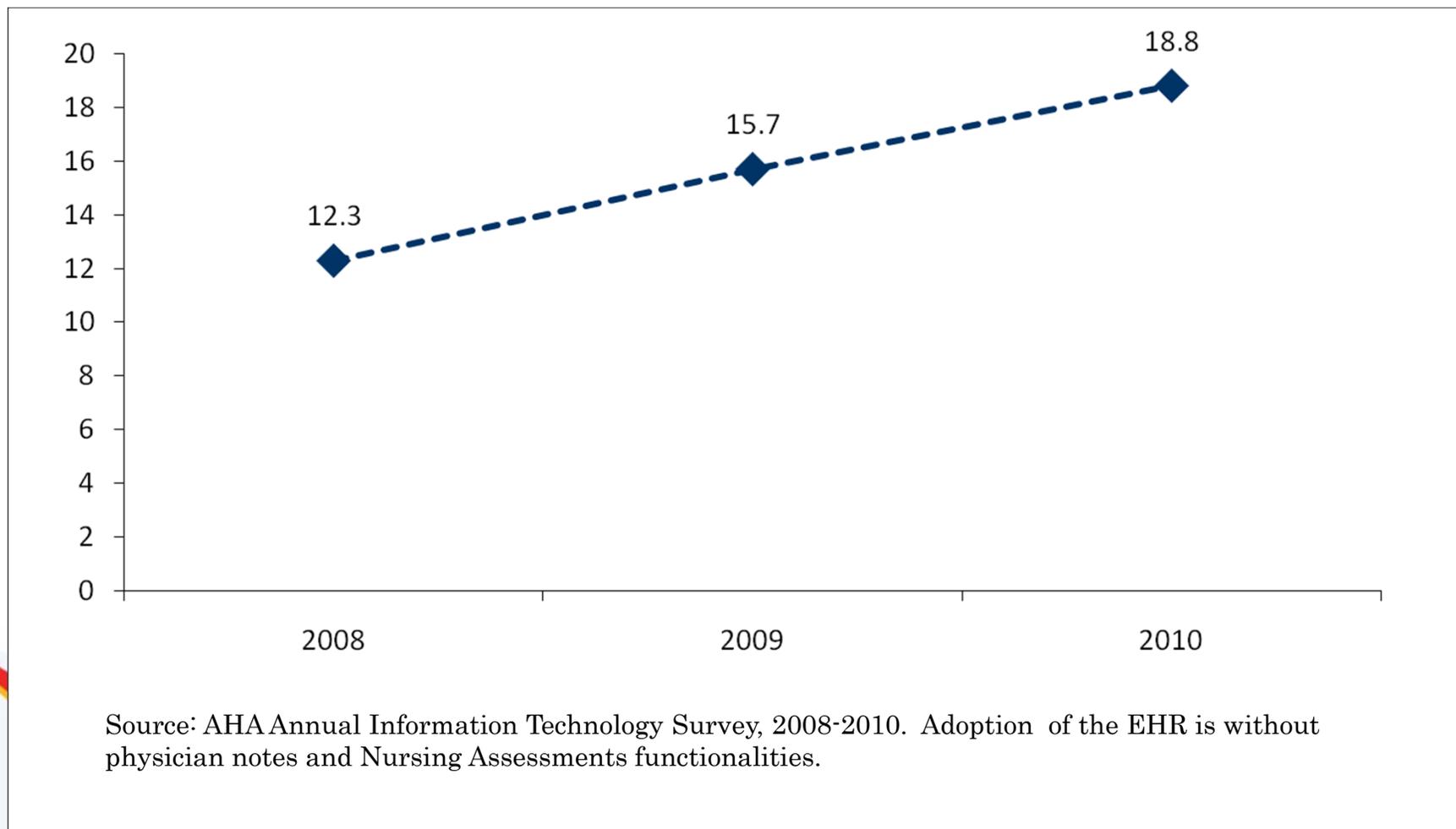
- Office Practices
 - Basic system (7 functions)
 - Fully functional system (16 functions)
 - Meaningful Use (achieved 20 objectives)
- Hospitals
 - Basic system (8 functions deployed on at least one unit)
 - Fully functional system (24 functions deployed on all units)
 - Meaningful Use (achieved 20 objectives)

Adoption of “Basic” Electronic Health Records Among Office-based Physicians





Deployment of “Basic” EHRs in Non-Federal Acute Care Hospitals



Another Perspective on Hospital Adoption



- 86% of hospitals record key demographics
- 66% maintain active medication lists
- 84% incorporate lab results as structured EHR data

- 53% of hospitals report achievement of 5 MU core objectives
- 37% report achieving 6

Jha et al. A Progress Report On Electronic Health Records In U.S. Hospitals, Health Affairs 29, 1951-1957: 2010.



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Adoption Momentum

- 41% of office-based physicians intend to apply for MU incentives
 - 79% of these in 2011 or 2012
- 81% of hospitals intend to apply
 - 80% of these in 2011 or 2012
- > 500 certified EHR products (<http://onc-chpl.force.com/ehrcert/chplhome>)
- > 50,000 small practice primary providers registered with regional extension centers



Adoption Projections for 2019

Estimates of high-function adoption:

- CBO: 90% of practices and 70% of hospitals (fully functional system)
- ONC Delphi Study: 70% for small practices and 82% for large practices (Stage 1 meaningful use)



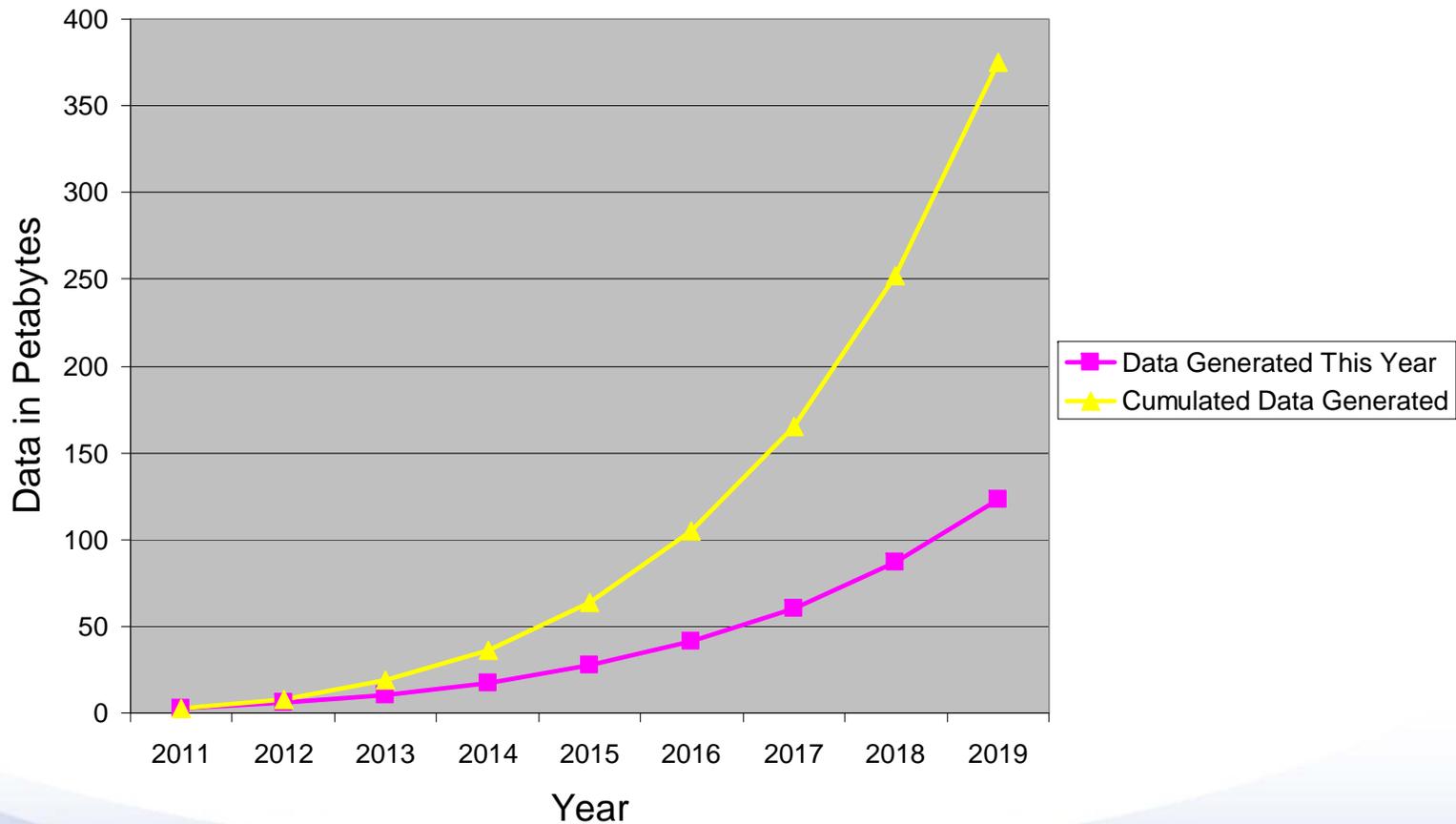
Estimating the Size of the “Phenome”



Product of:

- U.S. population (census data)
- Fraction of population receiving care in health system (assumed 100%)
- High-functioning EHR adoption by year (linearized from 10% in 2011 to 80% by 2019)
- Digital data produced per person per year (Halamka’s 80 Mb per person-yr with 25% annual escalation factor)
 - Note: ~90% is image data

Estimated Total Data Generation*



*For alphanumeric data estimate, multiply by 0.1



Data Retention Requirements

- Governed by state law
- Vary by office vs. hospital setting and (in some states) minor-adult status
- See Appendix A7 of Report on State Medical Record Access Laws
<http://healthit.hhs.gov/portal/server.pt?open=512&mode=2&cached=true&objID=1240>
- Retention periods as low as 2 years and as high as 30: 5-10 years is typical



Conclusions about the Landscape

- *Currently*
 - EHR adoption is low in office practice, by any standard
 - EHR *penetration* in hospitals is high but functionality is highly variable
- There are indices of growing adoption momentum
- CBO and experts anticipate ~80% high functioning adoption by 2019
- By preliminary estimation model, more than 350 petabytes of data will be generated by 2019
 - About 10% alphanumeric
 - Most states will require this data to be retained 5-10 years



Thanks and Write to Me

charles.friedman@hhs.gov

For more information:
healthit.gov

