

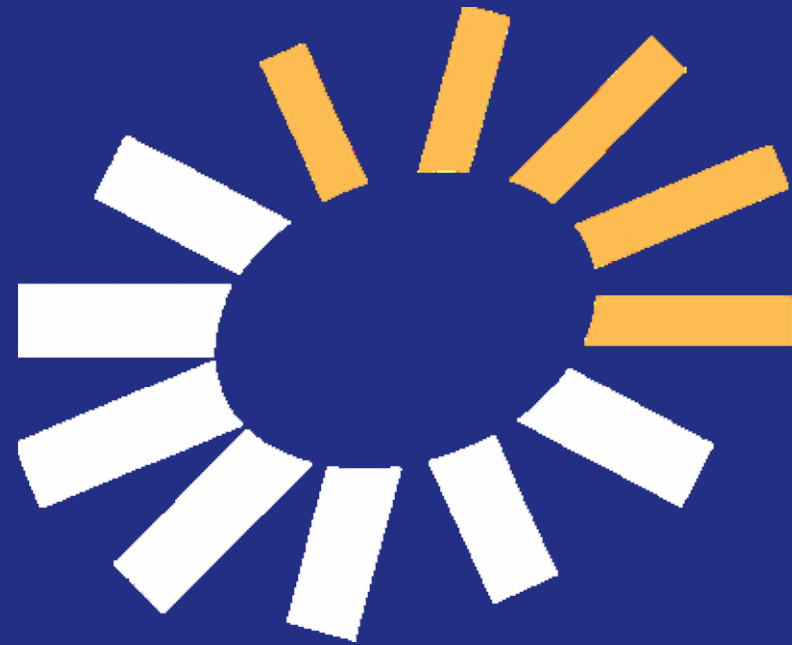


**Rockville Institute**

*Research for the Advancement of Social Science*

# The Health IT Landscape

Sid J. Schneider, Ph.D.



# What is Health IT?

Products that facilitate “comprehensive management of medical information and its secure exchange between healthcare consumers and providers.”

— Department of Health and Human Services



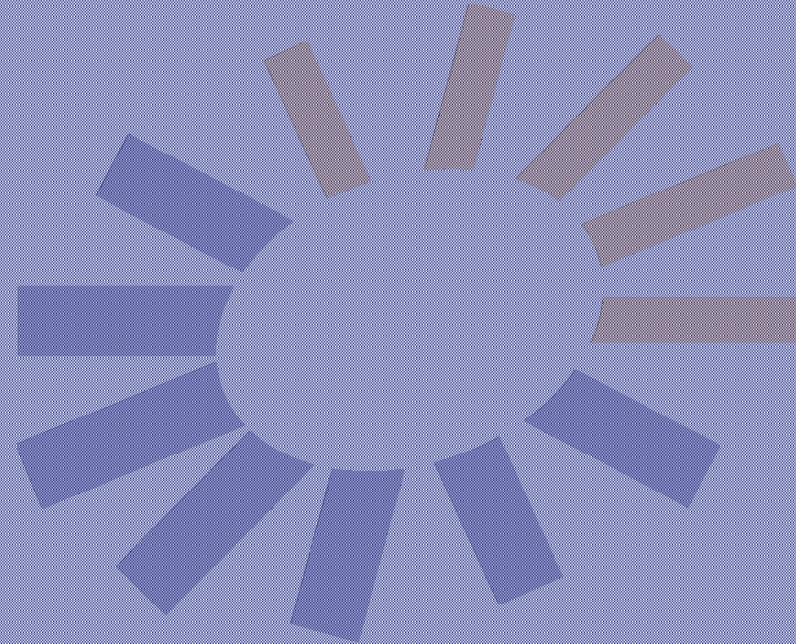
# Why is Health IT important?

- US healthcare among the most costly among industrialized nations
- US healthcare lags on many measures
- Virtually every other industry is computerized
- Health IT is required to transform healthcare
- Former President George W. Bush set 2014 goal
- President Obama allocated \$20 B to Health IT



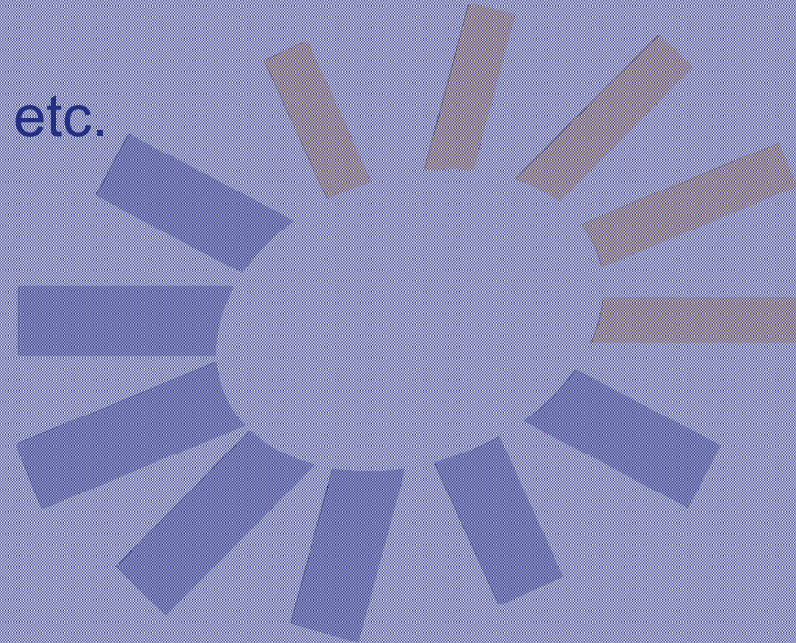
# What can Health IT do?

- The Institute of Medicine (2003): 8 functions
  - Health information and data
  - Result management
  - Order management
  - Decision support
  - Electronic communication
  - Consumer support
  - Administrative processes
  - Reporting



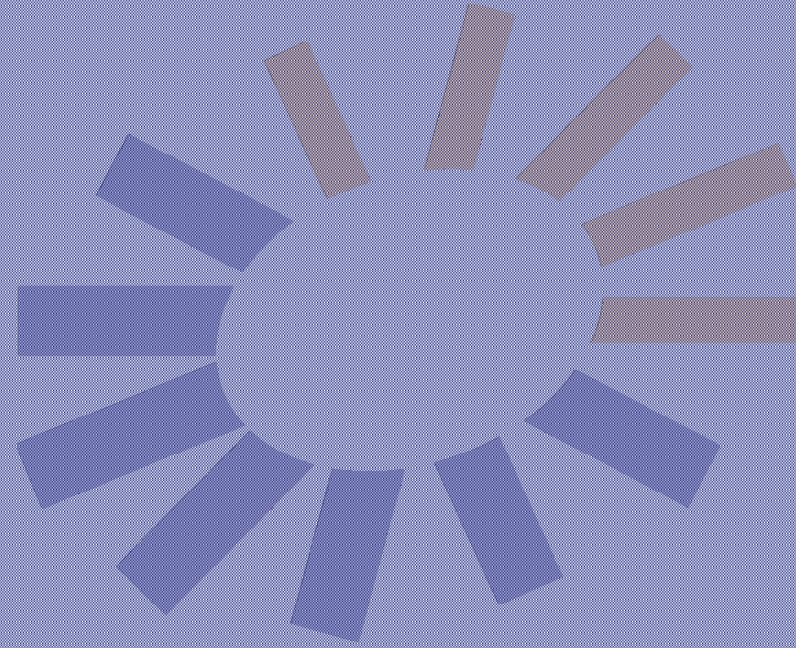
# 1. Health Information and Data

- Electronic Health Record – EHR
  - Demographic background
  - Medical history
  - Diagnoses, allergies
  - Prescriptions, hospitalizations, etc.



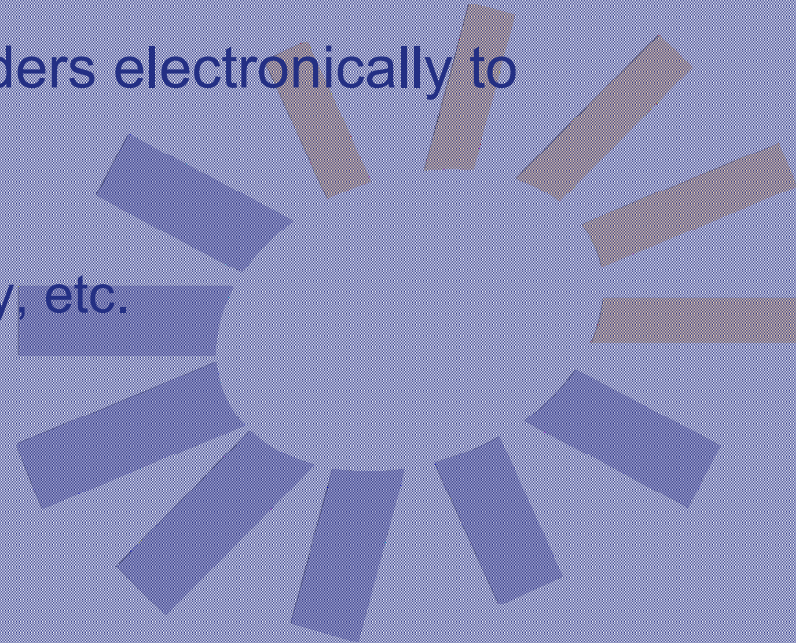
## 2. Results management

- Provides access to new and past test results
  - Laboratory
  - Radiology
  - Audiology, etc.



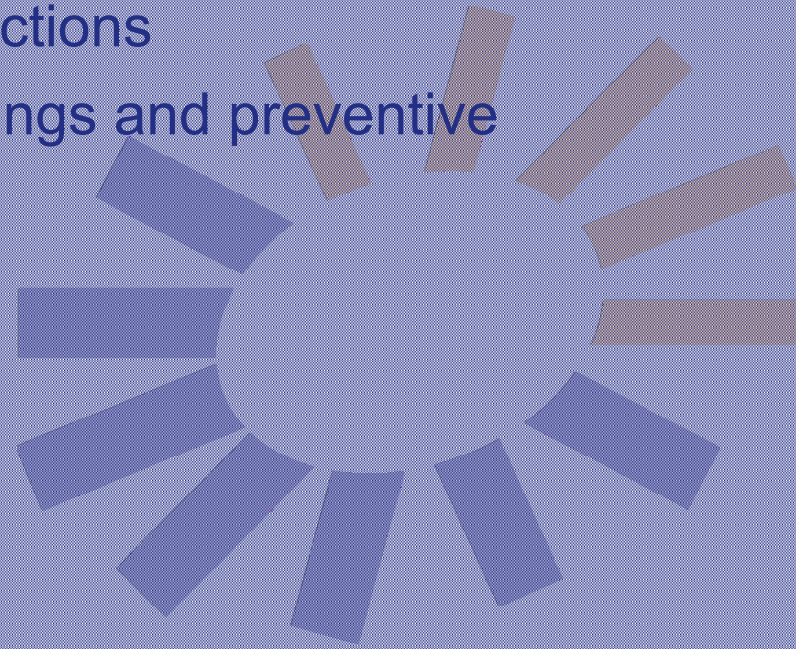
# 3. Order management

- e-Prescribing
  - Providers send Rx electronically to pharmacy
- Computerized Provider Order Entry – CPOE
  - In hospital, providers send orders electronically to the appropriate staff
    - Pharmacy
    - Nursing, radiology, laboratory, etc.



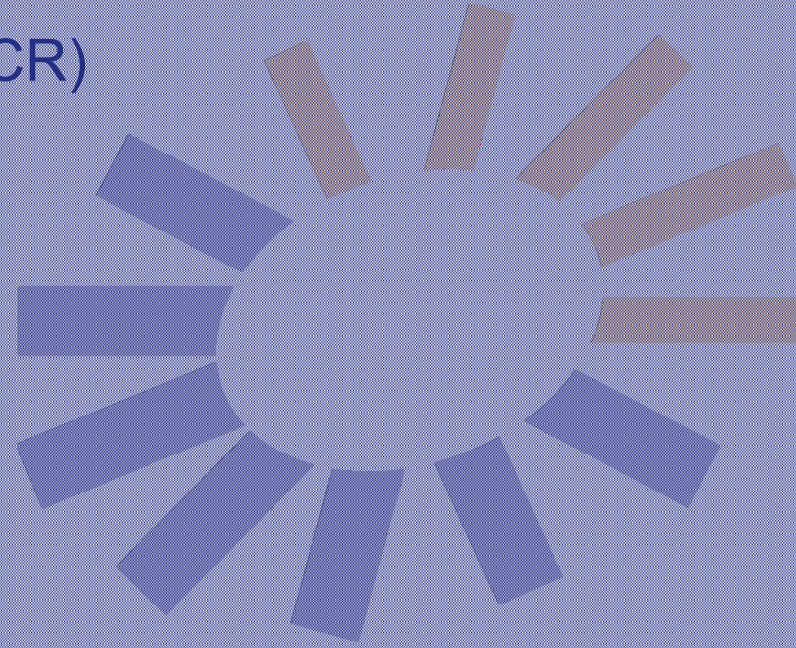
## 4. Decision support

- Enhances providers' vigilance and knowledge
  - Alerts to improve compliance with best clinical practices or evidence-based guidelines
  - Alerts for potential drug interactions
  - Reminders for regular screenings and preventive practices



## 5. Electronic communication

- Facilitates exchange of information among providers, between providers and patients
  - Specialized email systems
  - Continuity of Care Record (CCR)



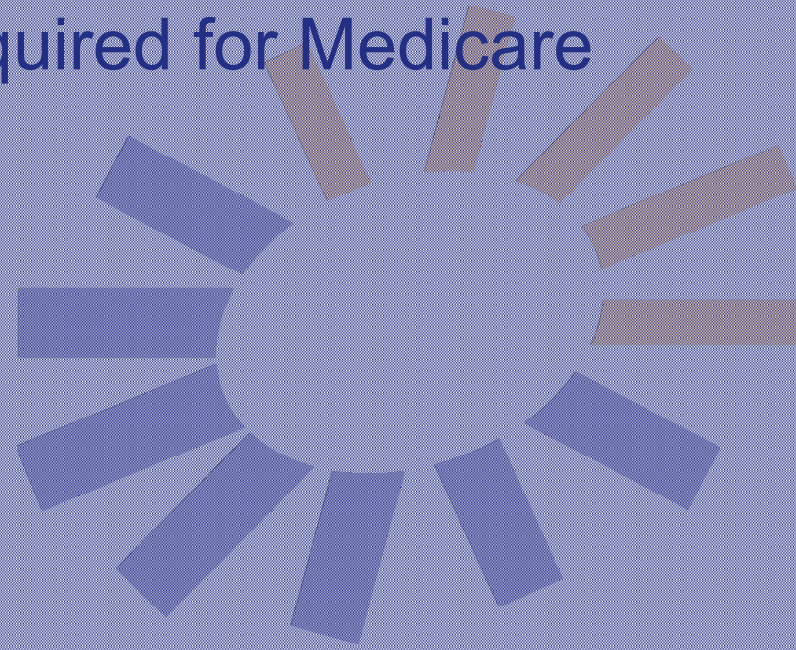
## 6. Patient support

- Provides the Personal Health Record (PHR)
  - Features still very variable
  - Access to health information in EHR
  - Health education
  - Interactive health promotion
  - Home monitoring – results available to providers
  - Pharmacy history and re-orders
  - Advanced functions, such as interfaces with pollen reports



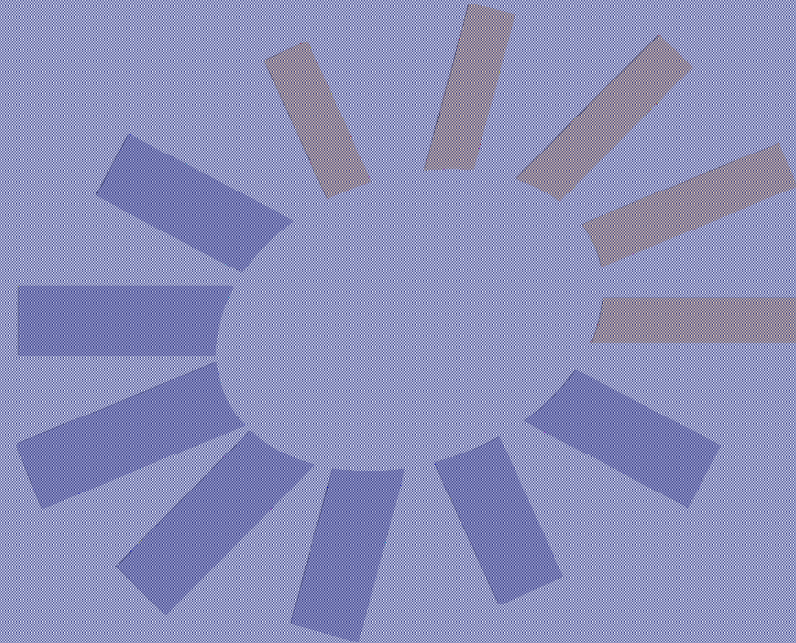
# 7. Administrative processes

- Scheduling, billing systems
  - Online appointments for patients
  - Electronic billing for payers
- Electronic billing already required for Medicare



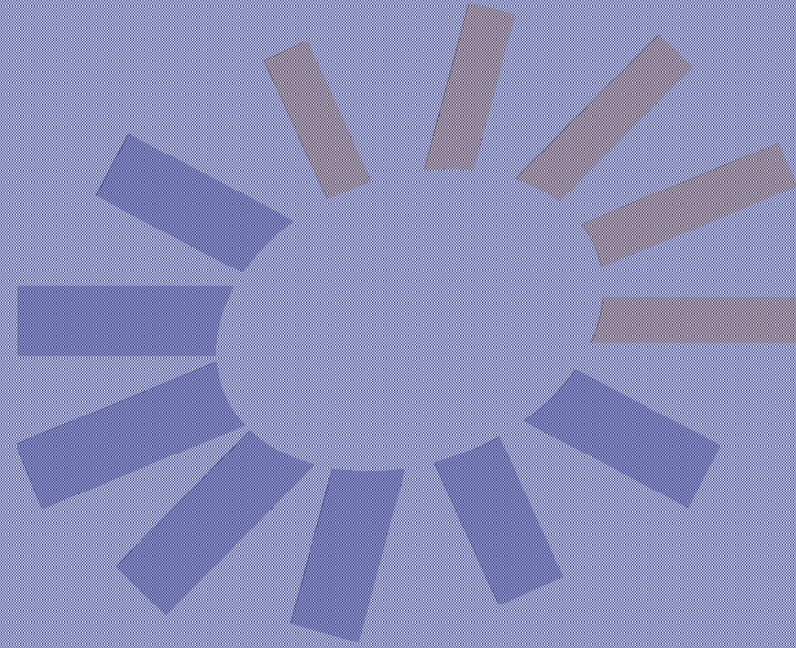
# 8. Reporting

- Public health functions
  - Disease surveillance, reporting requirements
  - Research, such as post-marketing research



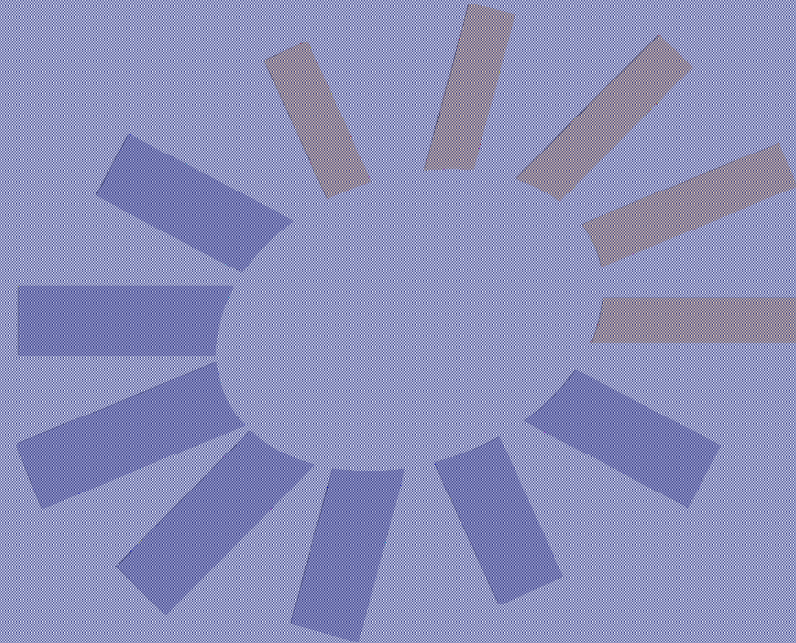
# Regional Health Information Organizations

- Stakeholders in a geographic area agree to exchange medical information
  - Physicians, laboratories, hospitals, pharmacies, insurers, large employers



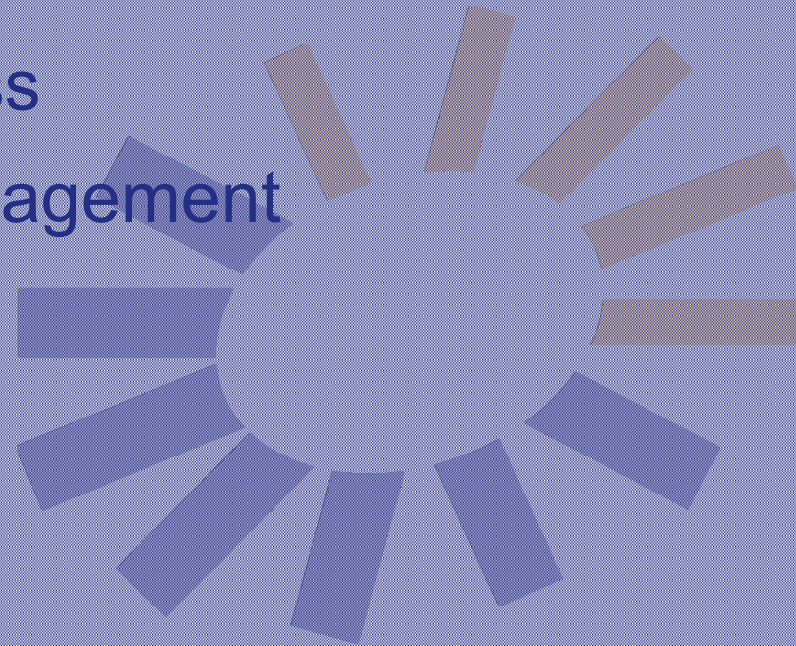
# Nationwide Health Information Network

- Network of networks
- All RHIOs can exchange data with each other



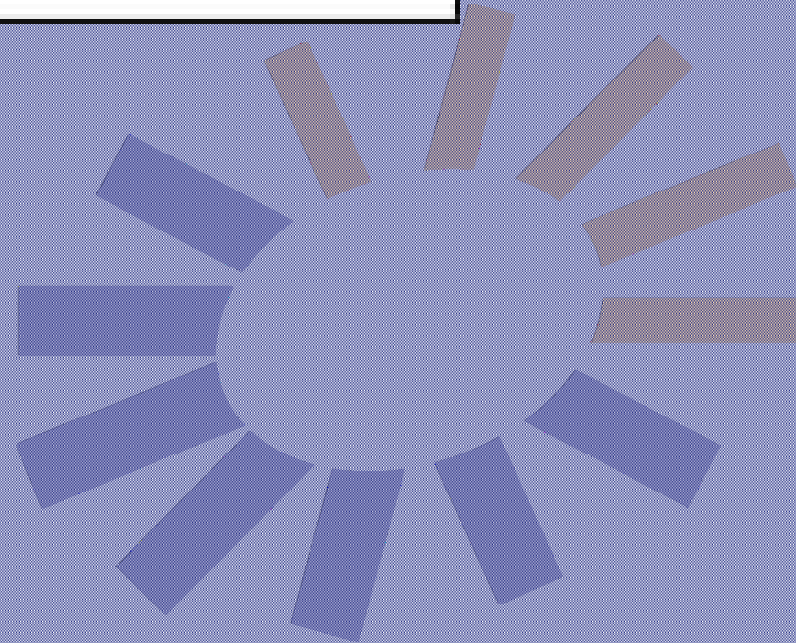
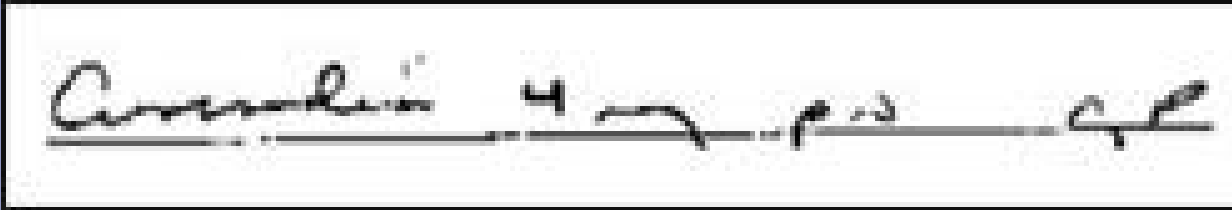
# What is the promise of Health IT?

- No lost papers
- Better availability of data anywhere, any time
- Reduced duplication of services
- Better monitoring of progress
- Better inventory, billing management



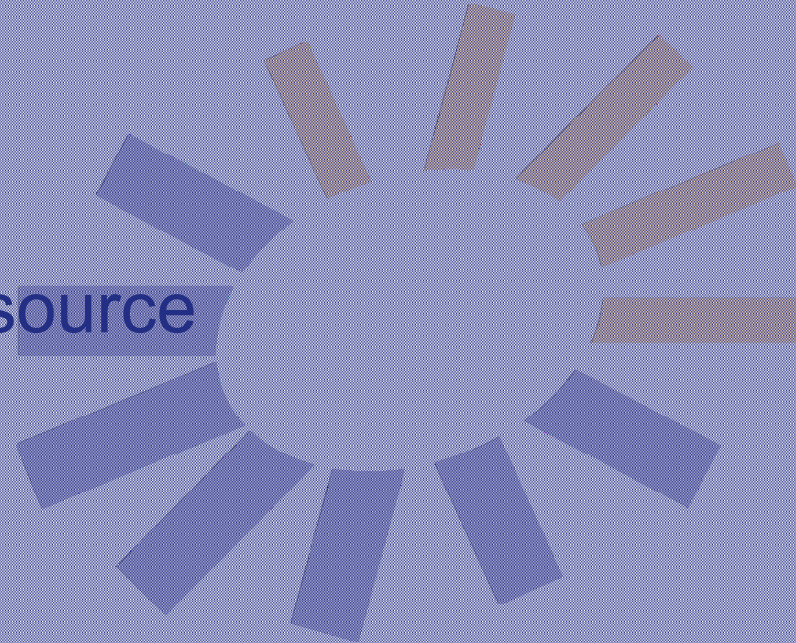
# What is the promise of Health IT?

- No handwriting errors: Avandia? Coumadin?



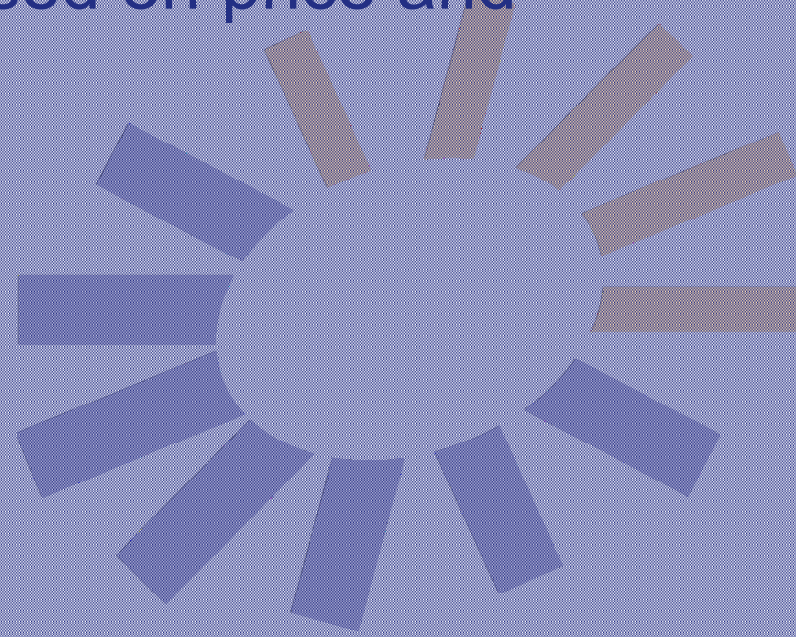
# What is the promise of Health IT?

- Improved ability of patients to follow care plans
- Better rapport between providers, patients
- More focus on health promotion
- Better informed patients
- Reduced disparities
- Potentially vast research resource



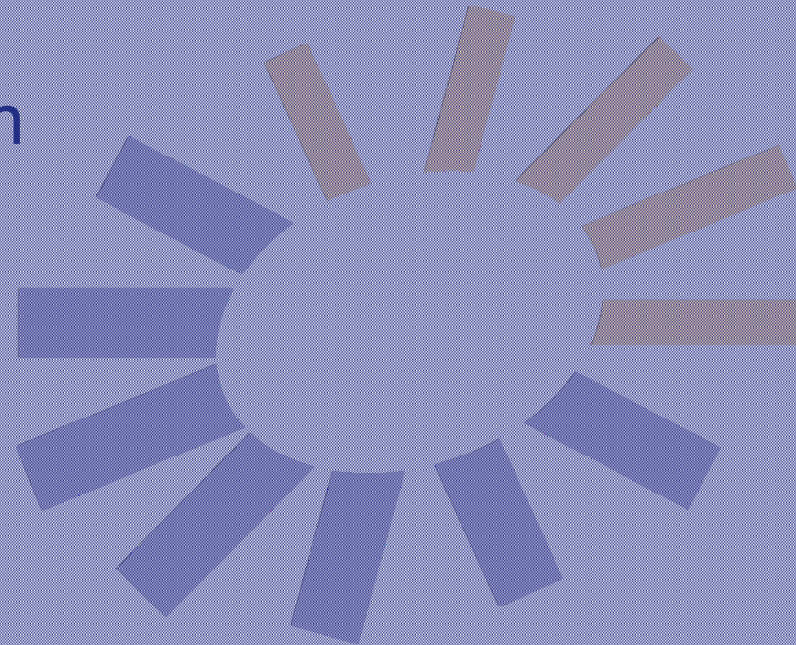
# What is the promise of Health IT?

- Early detection of infectious disease outbreaks
- Improved chronic disease management
- Evaluation of healthcare based on price and quality information



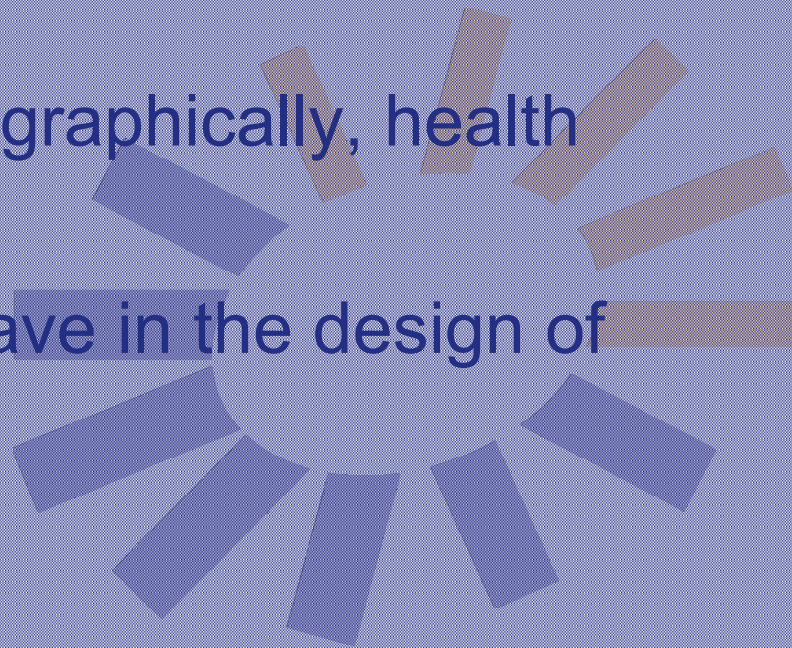
# Why isn't Health IT everywhere?

- Cost
- Uncertain financial returns
- Misaligned benefit
- Potential workflow disruption
- Gaps in standardization
- Privacy and security issues



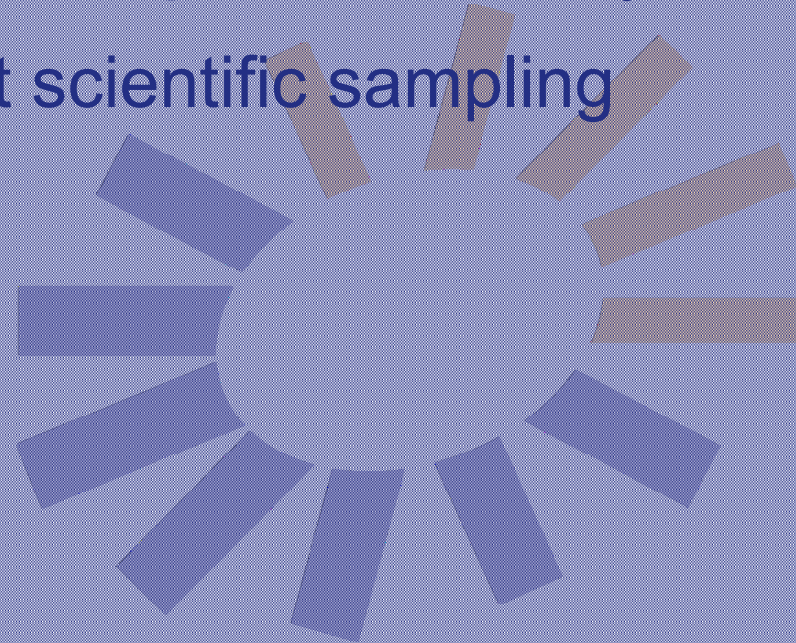
# Consumer Engagement in Developing Electronic Health Information Systems

- 20 focus groups
- English and Spanish
- 5 locations, across US
- Diverse participants – demographically, health status
- What role should patients have in the design of Health IT?



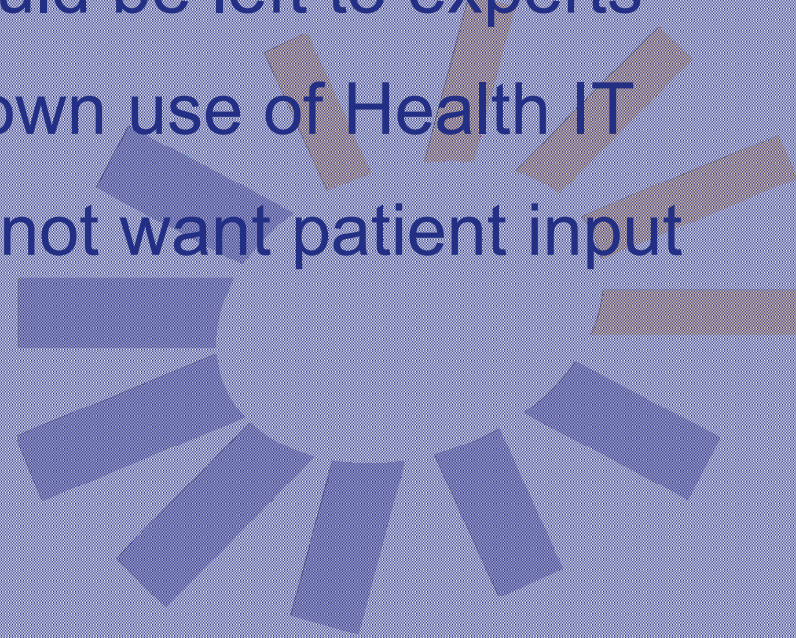
# Why focus groups rather than surveys?

- FGs permit moderator to explore responses in depth
- FGs use a moderators guide but permit flexibility
- However, FGs do not permit scientific sampling



# Findings

- Most assumed providers used computers
- Most thought Health IT improves quality
- Many thought Health IT should be left to experts
- Most did not perceive their own use of Health IT
- Many thought providers did not want patient input



# Findings

- Privacy was main concern
- Healthcare quality was the second concern
- Privacy was a matter of principle
- Participants did not cite a particular outcome
  - Potential employers, lenders
- Most felt Health IT was less secure than paper
- Most unsure how to safeguard privacy



# Implications for the design of Health IT

- Patient education is necessary
- Benefits must be clear to patients
  - Better quality
  - Collaboration with physicians
- Digital divide must be eliminated



# Implications for the design of Health IT

- Consent forms must be carefully written
  - Time frame
  - Particularly sensitive information
  - Recipients
- Patients tend to sign forms
- Health IT must earn the trust of patients



# Acknowledgement and Disclaimer

- This work was funded under contract 233-02-0087 from the Agency for Healthcare Research and Quality, U.S. Department of Health and Human Services.
- The authors of this presentation are responsible for its content. Statements in the article should not be construed as endorsement by the Agency for Healthcare Research and Quality or the U.S. Department of Health and Human Services.

