Informatics and the Future of Healthcare

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Disclosure

- There will be no discussion of off label use or investigational use of any product in this presentation.

- There are no financial relationships to disclose.
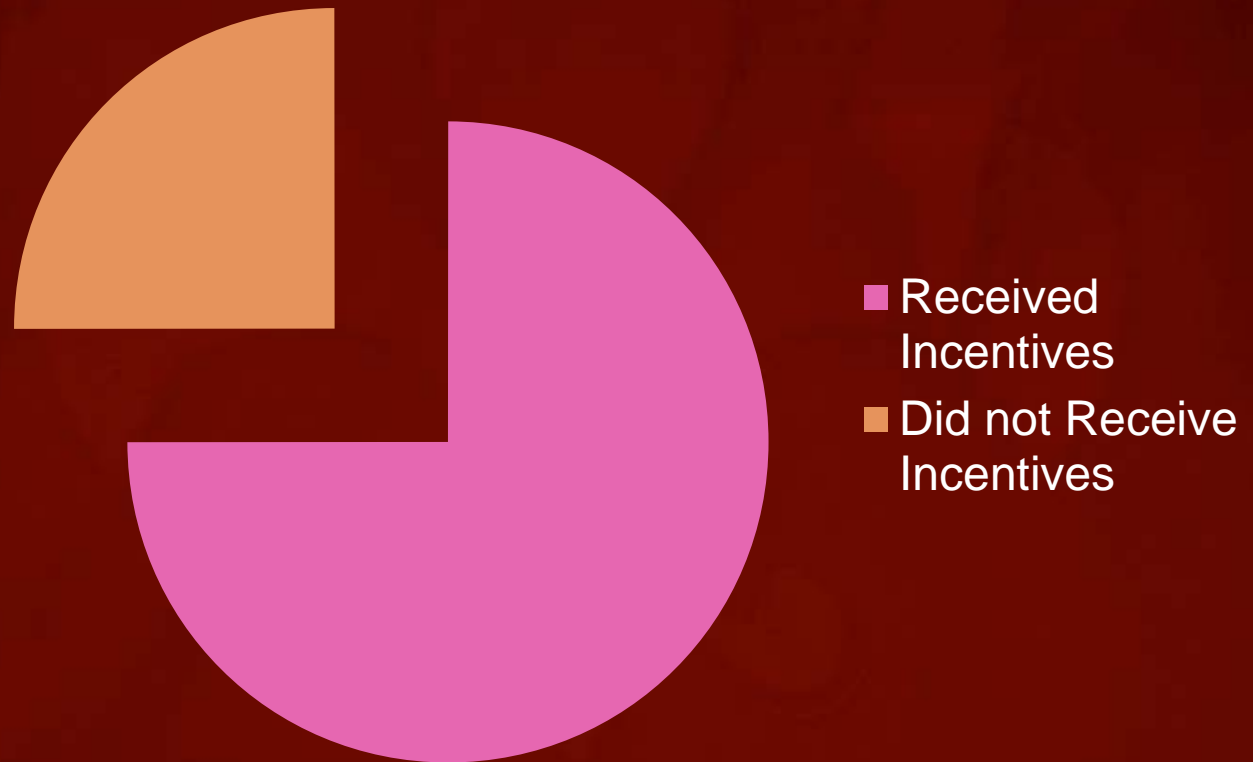
- There are no conflicts of interest to report.

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Background

- Health Information Technology for Ecomonic and Clinical Health (HITECH) Act
- The Office of the National Coordinator for Health Information Technology (ONC)
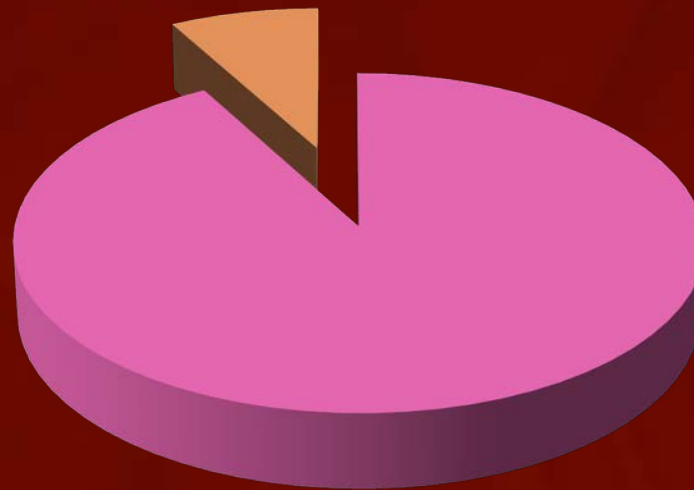- EHR Incentive Programs(2)

Providers - Where are We Now?

Providers June 2014

- Received Incentives
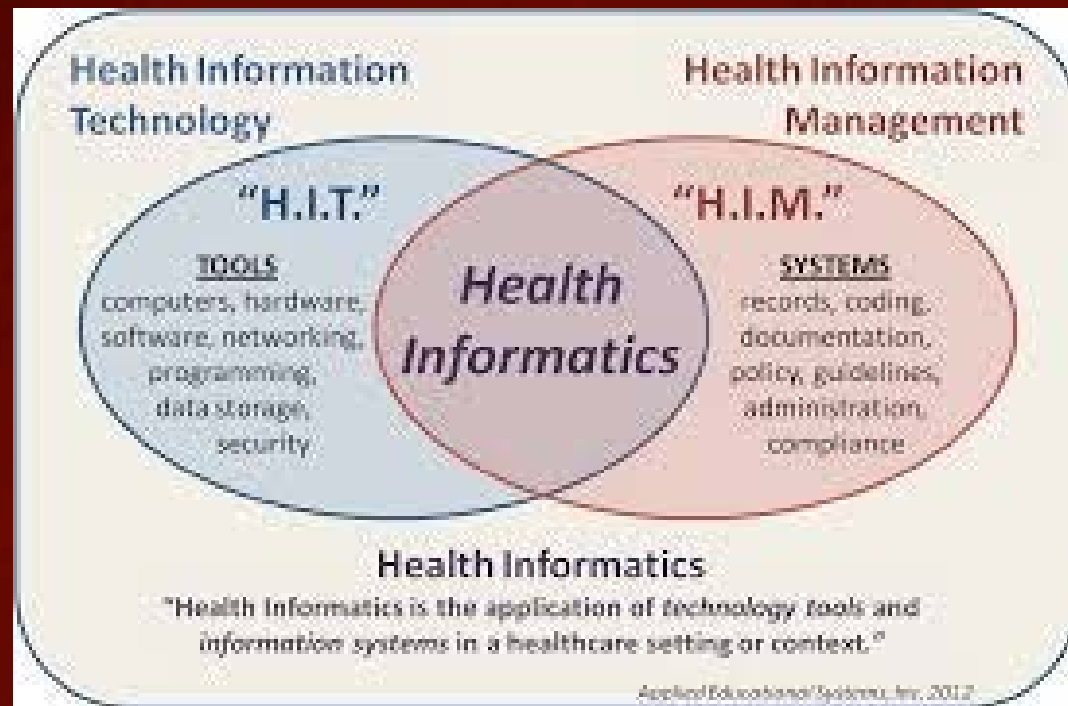- Did not Receive Incentives

Hospitals – Where are We Now?

Hospitals - June 2014

- Received Incentives
- Did not receive Incentives

What is Healthcare Informatics?

Health Information Technology — "H.I.T."
TOOLS: computers, hardware, software, networking, programming, data storage, security

Health Information Management — "H.I.M."
SYSTEMS: records, coding, documentation, policy, guidelines, administration, compliance

Health Informatics

Health Informatics
"Health Informatics is the application of *technology tools* and *information systems* in a healthcare setting or context."

Applied Educational Systems, Inc. 2012

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Benefits of Health Informatics

- Facilitate communication between healthcare providers

- Improve medication safety??

- Enhance tracking and data reporting

- Promote quality of care through optimized access

- Optimize use of evidenced-based care

- Increase adherence to guidelines

- Reduce cost of care

EMRs vs. EHRs

- Electronic Medical Record (EMR)
  - Digital version of patient chart
- Electronic Health Record (EHR)
  - All healthcare providers involved in patient care

- Patient Health Record (PHR)
  - Set-up, accessed, and managed by patients

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Consumer Health Informatics

- Field devoted to informatics from consumer and patient views

- Patient-focused informatics, health literacy and consumer education

- Processes that empower consumers to manage their own health

- Includes internet-based strategies and resources

Health Informatics

Healthcare Provider

- Receipt of government incentive programs
- Ability to store and retrieve data
- Ability to rapidly communicate patient information in a legible format
- Improved medication safety??
- Retrieval of patient information including diagnostic testing

Healthcare Provider

- Insufficient financial resources
- Additional training time
- CPOE – learning curve
- Human error
- Lack of clarity regarding data recorded and used
- Lack of integration of electronic systems into clinical workflow

Healthcare Provider

- Interoperability that allows exchange of pa[...] information
- ICD-10 delays – controversial- doc pay pa[...]
- Patient safety – the jury is still out
- HIPAA data breaches
- Network "glitchs"

The Question of Big Data?

Healthcare Provider

Healthcare Consumers

- Independent actives

- Independent passives

- Doctor-dependent actives

- Doctor-dependent passives

- Predictors of consumer's online health information behaviors

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Healthcare Consumer

- Information Journey
  - Organization helping consumers to obtain relevant e-health information
    - PatientsLikeMe

    https://www.patientslikeme.com/conditions/1008-lumbar-spondylosis/journals

- Empower consumers
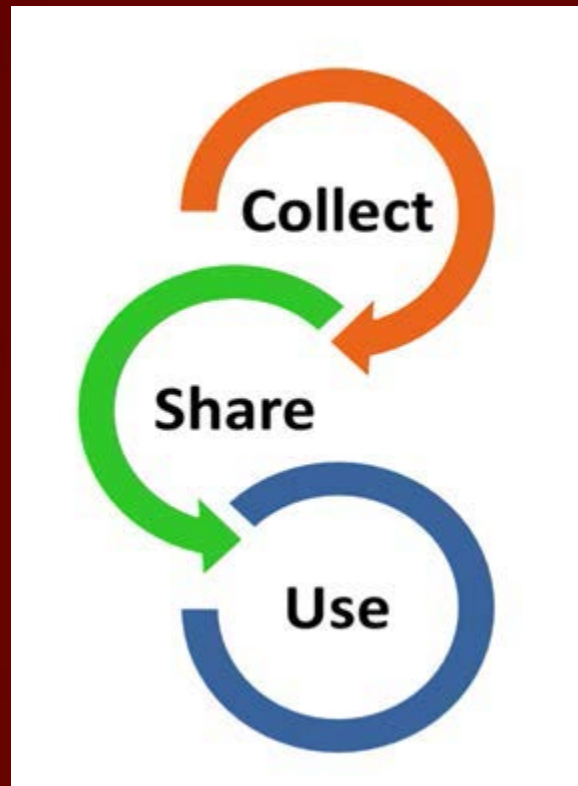- Depersonalization of Care
- Attitudes to EMRs
- Privacy and Security

Healthcare Consumer

THE UGLY

- Information literacy

- Health literacy

- Poorly designed interfaces

- Internet – unregulated information

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Health Informatics Strategic Plan 2015-2020

Plan 2015 - 2020

- Overarching concepts, continue to work toward:
  - Widespread adoption of health information technologies
  - Include new sources of information and ways to disseminate quickly, securely, and efficiently

Plan 2015 - 2020

- Primary goals
    - Increase electronic collection an sharing of health information
    - Protect individual privacy
- Secondary goals
    - Create an environment where interoperable information is used by healthcare providers, researchers, and individuals to improve health, healthcare, and reduce costs
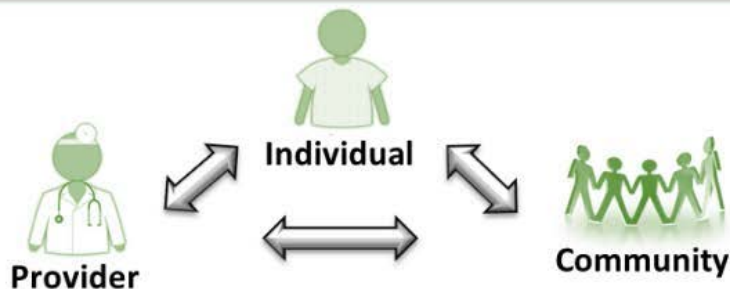
Plan 2015 - 2020

- **Federal agencies will collaborate with one another and with state, local, tribal, and private stakeholders to**:
  - Focus on value
  - Respect individual preferences
  - Build a culture of electronic health information access and use
  - Create an environment of continuous learning and improvement
  - Encourage innovation and competition
  - Be a worth steward of the country's money and trust

Beam me up Scotty…..Healthcare of the Future http://video.pbs.org/video/1050712790/

Thank You for your Attention

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