Personalized Health Care and Health Information Technology Policy: An Exploratory Analysis

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Introduction

- Personalized health care (PHC) promises:
  - Tailoring for the individual patient
    - More effective treatment choices
    - Improved diagnostic decisions
    - More targeted screening

- New genomic and molecular data
  - Falling costs; new research; new methods of aggregation and analysis

- Greater health IT adoption
  - More data; increasing interoperability; improved decision support including risk stratification
Focus of this presentation

How are advances in PHC anticipated to impact health IT?
Methods – Exploratory Qualitative Study

- Focused environmental scan
- Phone interviews with 15 experts (multiple domains)
- Analysis & reporting
- Project sponsorship
  - 2012 project funded by the ONC (US Office of the National Coordinator for Health IT)
  - Views are those of the authors, not of the ONC
PHC description we used

- 2008 PCAST report
  - “the tailoring of medical treatment to the specific characteristics of each patient… [fostering] the ability to classify individuals into subpopulations that are uniquely or disproportionately susceptible to a particular disease or responsive to a specific treatment”

- Center for Personalized Health Care (CPHC)
  - “incorporating knowledge of the patient’s environment, health-related behaviors, culture and values.”
  - “Predictive, preventive, personalized and participatory”
PHC impact on current practice

- Genetic testing
- Family history
- Shared decisionmaking
- Overall, modest and variable impact, so far...
Anticipated impact on health IT

- ↑ demand for data sourced from health IT
- ↑ demand for health IT capabilities
  - EHR data
  - Clinical decision support (CDS)
  - Data export & import; and aggregation
  - Documenting the basis for decisionmaking
- High volume data
Demands on clinician time are growing
- More complex clinical problems
- More prevention, chronic care, documentation, and administrative responsibilities for each encounter
- More information per patient
- More CDS to absorb
- EHR use demands time
- Communication with patients and caregivers
Health IT policy areas

- Use of remote data and application services
- Liability resulting from remote computing
- Transparency in CDS recommendations
- Standards to improve data access, retrieval, interpretation, and scientific meaning
- Alerting mechanisms for providers and patients, especially as interpretation (not the patient data itself) changes
Patient engagement opportunities

- Providing and consuming information about themselves
- Collaborating in decisions
- Documenting Online tools
- Responding to family genetic information
- Educating themselves, and engaging others
Health IT challenges

People

Technology & Data

Tasks
Policy areas for further focus...

- Interoperable framework for CDS
- Standardized recording of patient values and preferences
- Patient engagement
- Data transparency and context
- Consistent, clear privacy, security, and consent policies
Bidirectional impact

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Thank you!

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