Moving Beyond Incremental Improvement - Creating Infrastructure and Incentives for Innovation

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Interesting Conflicts...

• Evidence Based Medicine: Essential but Insufficient?

• Is Patient-centered Care personalized? Is Personalized Medicine Patient-centered?

• How should we manage something that we can’t measure well (yet... )?

• *Whether* {P4P} works? , vs. *How* to make {P4P} work better?
N of 1
(or N of a few...)

Expert Based Medicine
N of Many
(Efficacy...)

Evidence Based Medicine

Expert Based Medicine

... 50’s 60’s 70’s 80’s 90’s 00’s 10’s 20’s ...

Medical Knowledge
Evidence Based Medicine

Evidence Based Practice

Expert Based Medicine

... 50’s  60’s  70’s  80’s  90’s  00’s  10’s  20’s  ...

Medical Knowledge
Evidence Based Practice

• Coverage policies linked to Technology Assessment and Clinical Guidelines
• “Best Practices”
  – Care Management
  – Care Coordination
  – Generic Drugs
• Incentives and Rewards (e.g. Pay for Performance)
• Insurance Plan Network Designs
• Value Based Benefit Designs
Evidence Based Practice

• Key Strategic Challenges...
  – Sustainability of practice change
  – Building the needed infrastructure for ongoing improvement
  – Successful spread beyond the early adopters
  – Achieving broad acceptance by patients and clinicians
  – Affordability
... 50’s 60’s 70’s 80’s 90’s 00’s 10’s 20’s ...

Expert Based Medicine

Evidence Based Medicine

Evidence Based Practice

Medical Knowledge
Heterogeneity

![Graph showing the proportion of subjects with different net treatment benefits. The population distribution is shown with a shaded area indicating a significant proportion of subjects. Three samples are indicated: Sample 1, Sample 2, and Sample 3, each with different distributions relative to the population.](image-url)
• Effectiveness trials (Pragmatic, Large/Simple,...)
• Comparative Effectiveness Research (CER)
• Cancer genomics (plus other ‘-omics’)
A Really Bright Bulb: Cancer Genomics

FIGURE 3-2 Challenges to delivery of individualized clinical care are data explosion and cognitive overload, exceeding human cognitive capacity.
Patient centered or personalized?
Patient Centered Outcomes Research (PCOR) helps people make informed health care decisions and allows their voice to be heard in assessing the value of health care options.

This research answers patient-focused questions:
• “Given my personal characteristics, conditions and preferences, what should I expect will happen to me?”
• “What are my options and what are the benefits and harms of those options?”
• “What can I do to improve the outcomes that are most important to me?”
• “How can the health care system improve my chances of achieving the outcomes I prefer?”
Between the Lampposts...

- Personal Preference
- Complex Co-morbidity... especially involving mental illness
- Recurrent Cancer
- Palliative Care and the End of Life
- ... and most other areas where we are vexed...
Many (N’s of 1)

N of 1
(or N of a few...)

Expert Based Medicine

Evidence Based Medicine

Evidence Based Practice

CER/PCOR

Personalized Care

... 50’s 60’s 70’s 80’s 90’s 00’s 10’s 20’s ...
Personalization Framework

• What the Health Care System *does for/to patients* (e.g. cancer screening, cancer treatment options)

• What the Health Care System *does with patients and their families* (e.g. care management, shared decision making)

• What patients best *do by themselves*, with support of the health care system and care givers (e.g. behavior change)
Personalized Care Practice

• Key Strategic Challenges...
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2020: Possible Measures of Personalization...

- Practice Quality Reporting
- Utilization rates
- Composite care measures
- Accountable and Meaningful Use

• Overall Decision Quality (Practice, ACO, IHCS...)
  - Patient understanding of options
  - Was the care received the preferred option?

• PCP ‘triple aim’ management of personal specialty network

• Proportion of practice receiving the 5 most appropriate interventions in the last year

• Access to system capabilities
• Contribution to system knowledge
Needed Infrastructure

Big Data:

- Integrated longitudinal personal data (N’s of 1)
  - Multi-payer claims data
  - Clinical data
  - Patient Generated Outcomes
  - Extended demographics

- Methods
  - Risk determination
  - Modeling
  - ...

The Bigger Challenges:

- Data use
  - Transparency
  - Privacy protection
  - Human subjects protection

- Data users
  - Analysts/Researchers/“Improvers”

- Oversight and Trusted Parties
The Right Care, at the Right Time, for the Right Person