We Can Afford to Innovate: The Role of Big Data

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NASI Conference “Medicare and Medicaid: The Next 50 Years”
Overview:

• The need for multiple, multi-level strategies to promote affordability

• We CAN afford to innovate…(but..and..)

• Big Data can help with the imperatives: Increase the value of care delivered; reduce waste; promote high value innovation; empower the consumer; make the system easier for everyone

• The knowledge gap: Relevant, timely, reliable information to inform care choices

• Innovation in: Knowledge generation, “speed to answer”, “speed to use”

• Opportunities for collaboration
Let’s Level Set: About 30% of All Current Spending is Waste

Source: Institute of Medicine: “The health care Imperative: Lowering Costs and Improving Outcomes - Workshop Series Summary”
How we can afford innovation:

• Start by attacking the 30% waste to free up resources
• Support payment/delivery reforms that align incentives for high value care
• Use Big Data to:
  ▪ Better understand variation and what is high- and low-value care
  ▪ Inform policy and practice around pricing
  ▪ Identify gaps that innovation can close
  ▪ Inform modeling to help optimize how innovations can spread
• Promote Learning Health Systems
• Engage the Patient!
Big Data Can Help Answer Important Questions

• Does it work? How strong is the evidence?
• Is a proposed new treatment safe (relative to other available treatments and the natural history of the disease)?
• What specific populations would benefit? What specific populations would not?
• How does the procedure, service, drug or device improve health outcomes?
• What are the advantages, harms and alternatives to the proposed treatment?
• What is the clinical evidence of effectiveness and safety of the proposed treatment?
• How does it work in the “real world”? 
Optum, Mayo Clinic Partner to Launch Optum Labs: An Open, Collaborative Research and Innovation Facility Focused on Better Care for Patients

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- Other participants from health care, science and academia expected to share insights and pursue solutions that improve health outcomes for people.
- Optum and Mayo Clinic to combine extensive, de-identified clinical and claims data to help care providers create the most effective approaches to care.

CAMBRIDGE, Mass., and ROCHESTER, Minn., Jan. 15, 2013 — Optum and Mayo Clinic today jointly launched Optum Labs, an open, collaborative research and development facility with a singular goal: improving patient care. Based in Cambridge, Mass., Optum Labs provides an environment where the health care industry can come together to...
Optum Labs:
Five key assets to help solve many problems

1. Linked medical claims/EHR data
2. Forums to convene collaboration
3. Translation partners
4. Experts on staff, within partners and alongside Optum
5. Data visualization “power tools”
“Constellations”: National initiatives addressing big problems

In development:

- Heart failure
- Performance measurement incubator
- Alzheimer’s disease
- Complex co-morbidity
- Cancer prevention
- Diabetes
Promoting “Learning Health Systems”

Creating the Future by Inventing It:

Need greater “speed to answer” and “speed to use”

Speed to answer:

• Understand the right questions earlier
• Create a “learning health system” where information is gathered, analyzed, disseminated as care is being delivered
• Capitalize on the opportunities created by “Big Data” – sophisticated analysis of observational data
• Increase use of modeling/simulation approaches

We need to work together to promote high-value innovation!
Creating the Future by Inventing It: (continued)

Speed to use:

• Better dissemination; clinical decision support
• Specialty society guidance, performance assessment and feedback
• Benefit design and incentives e.g. Value-Based Benefits
• Need for new (and large) data sets: phenotypes, functional status, patient-reported outcomes
• Continue to need prospective trials that are “faster, better, cheaper”

We need to work together to promote high-value innovation!