Innovation and Transformation in Health Care Delivery

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National Healthcare Macro Trends

- Cost, quality, pop health, shifting risk: **Value**
- Personalized, convenient, digital/mobile: **Consumerism**
What is “Value” in Health Care

Quality

Cost
What is “Value” in Health Care

Value = 
Outcomes, Safety, Experience, Access, Communication, Engagement, ...
Out of Pocket, MLR, Health Benefits, Societal Costs
Value in Health Care?

![Graph showing life expectancy vs. health spending per capita](image)

- Life expectancy in years
- Health spending per capita (USD PPP)

- Countries represented: USA, IND, RUS, TUR, MEX, HUN, SVK, CZE, POL, EST, CHL, SVN, GRC, ISR, KOR, ITA, ESP, NZL, FIN, BEL, BEL, UK, NOR, CHE, DK, CAN, DEU, USA, JPN, SWE, FRA, AUT, NLD

- $R^2 = 0.51$

OECD Health Statistics, 2013
Consumerism

- Imperative to address customer **needs** and **expectations**
- Choice (locations, virtual)
- Access (cost, convenience)
- Transparency (cost, quality)
- “Mass customization”
Value and Consumerism Require Innovation

- Fee For Service
- Basic Quality
- Performance-based Models
- Episode-based Bundles
- Accountable Care Models
- Hospital Shared Savings Model (↑)
- Accountable Care Shared Savings Model (↑ & ↑ / ↓)
- Quality Shared Savings Model (↑ & ↑ / ↓)
- Capitation + Performance Based % of Premium

Risk

Degree Clinical Integration & Accountability
Innovation and Transformation

- Technology: “Machinery, equipment or processes developed from the application of scientific knowledge”
- Innovation: “Translation of an idea or invention into a good or service”
- Transformation: “Thorough or dramatic change in form or appearance”
Q1 2016: 1,091 Venture backed Health Technology companies across 22 categories, with a combined funding amount of $20.3 Billion.
Personalization (Mass Customization)

- Genomics
  - Optimize therapeutic treatment options

- Customer relationship management
  - Enhanced content delivery options

- Predictive analytics/machine learning
  - Intervene to support patient prior to costly complications
Education and Engagement

- Access to and engaging in education and self-management is challenging

Emerging digital and mobile tools with evidence-based protocols and mix of human and automated support
Acute Care Management

- Standardized care pathways
- Team-based care
- Sepsis Early Warning System using machine learning
Population Health Management

- Remote monitoring and predictive analytics with machine learning
- Extended team-based care
Policy Implications

- Shift risk to the level of providers
- Move payment to value and focus on higher quality, lower cost settings of care (ex: telehealth)
  - Don’t forget the “quality” component of value
- Incentivize team-based care
  - Enable top of license practice for entire care team
- Invest in IT and data infrastructure that will sustain the state moving forward
  - Health tech as a core business sector
Instead of risking anything new, let's play it safe by continuing our slow decline into obsolescence.