

# Creating the Capacity For Evidence-Based Care

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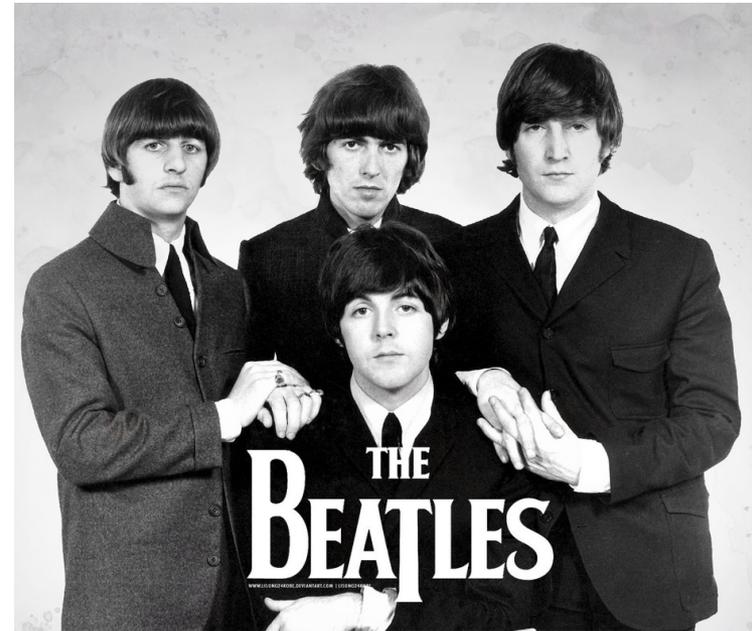
**Professor**

**University of California San Francisco**

**July 5, 2018**

# Yesterday

- Researchers need to adapt methods to get their evidence used more by end users
- End users can be policymakers or could be practitioners
- Co-creating is the way to go -  
**at least sometimes**



# Also Something About Football



# Co-Creation



# Co-Creation



Health Services  
Researchers

# Moving Evidence to the Frontlines



- Gap from medical evidence generation to practice implementation
  - Estimated at 17 years
  - Delays health benefits
  - Contributes to disparities

# Growing Knowledge Back Up





Nobody goes there anymore. It's too crowded.

(Yogi Berra)

izquotes.com

# Evidence Dissemination Channel



- Highly reliant upon specialty societies
- Specialty societies have competing self-interests
- Conflicting guidance within the same institution

# Burning Platform



- What will it take for change?
- Different opportunities for promoting evidence-based practice rather than evidence-based policy?

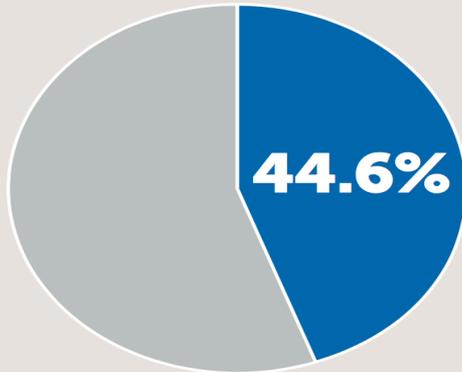
# Evidence-Based Practice: Why Now?

- Health care practice is rapidly consolidating
  - Large systems replacing small practices
  - Potential to pool resources
- Emergence of EHRs
  - Growing in availability and power to support effort



# Physicians in Health Systems

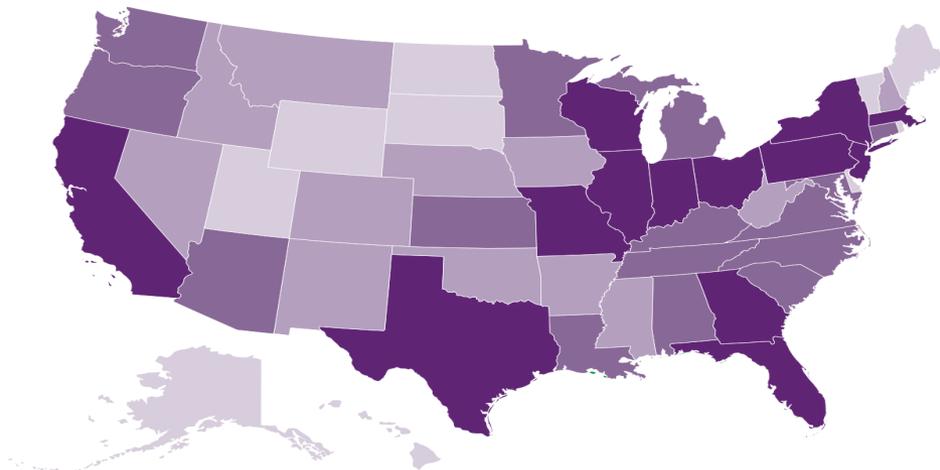
Percentage of U.S. physicians in health systems



**42.7%** of U.S. primary care physicians are in health systems

**By the end of 2016, there were 626 health systems\* in the United States.**

Number of health systems with hospitals located in each State



- 4 to 7 systems
- 9 to 15 systems
- 16 to 22 systems
- 25 to 53 systems

The average number of health systems with hospitals located in each State is 19. The number ranges from 4 (SD) to 53 (CA).

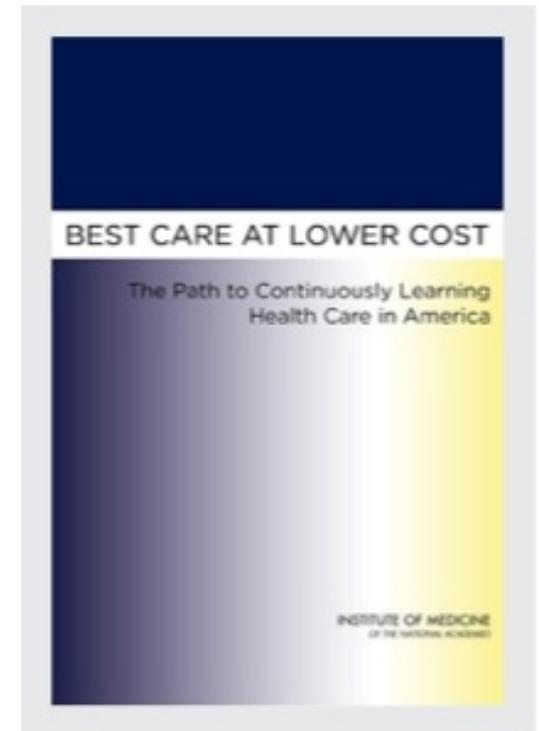
# Accelerating Data to Knowledge



- Digitized data can support faster, better, and less costly research
  - Speed bumps related to unformatted, non standardized entry
- Lower barriers to studying own pts
  - Strategic decisions about sharing data and benchmarking performance

# Learning Health Care System

“A learning healthcare system is [one that] is designed to **generate** and **apply** the **best evidence** for the collaborative healthcare choices of each patient and provider; to drive the process of discovery as a natural outgrowth of patient care; and to ensure innovation, quality, safety, and value in health care.”



Institute of Medicine/National Academy of Medicine. *The Learning Healthcare System: Workshop Summary*. Olsen L, Aisner D, McGinnis JM, eds. Washington, DC: National Academies Press; 2007

Better Health = D2K + K2P

**D2K:**  
Data to  
Knowledge

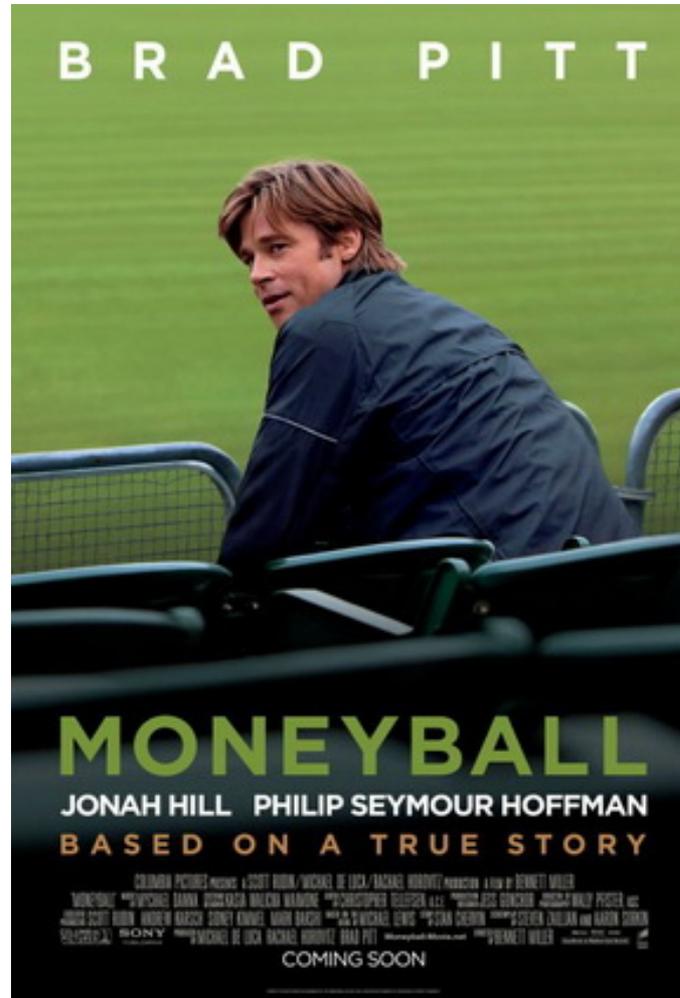
D2K

K2P

**K2P:**  
Knowledge to  
Practice



# Learning from Sports



# Moneyball Ingredients



- Data and Analytics
- Leadership
- Budget
- Business need to create value

# Paying For Value



- Alternative Payment Models
  - ACOs, PCMH
- Providers responsible for population cost and quality
- Potential for financial rewards and some risk
- Voluntary for physicians but incentivized through higher payment rate

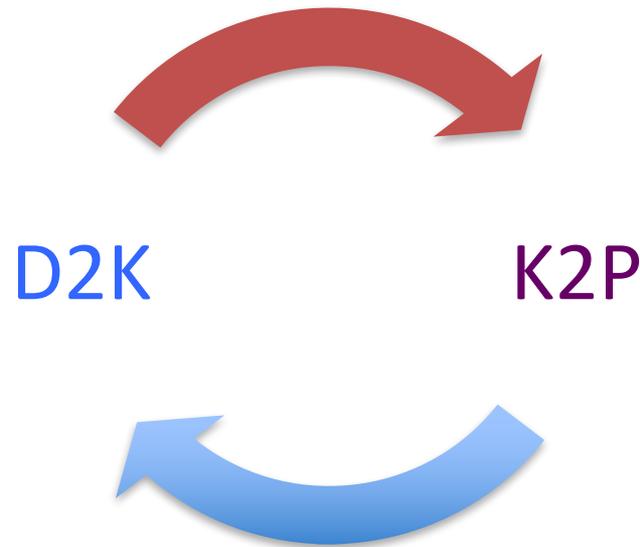
# Changing Role of the Organization



- Evidence Generator
- Evidence Curator
- Evidence Adopter
- Evidence Disseminator
- Evidence Manager

# Health Systems' Emerging Capacity

- Integrating clinical data
- Enriching data with “-omics”, patient-derived information
- Analyzing practice variation
- Clinical governance for evidence



# Leading Edge Health Systems



- Common IT platform across all levels of care
- Using evidence for system (not specialty) guidelines
- Paying doctors to address their own practice variation
- Using evidence to support value-based purchasing
- Active surveillance for new evidence in literature

# Research Funds to Accelerate K2P

Changes in how care is reimbursed has stimulated an interest in evidence but research funding still oriented more towards D2K than K2P



# Public Investment in Implementation

- To extract value from public investment in new knowledge
- Ensure that everyone benefits from public investment in research
- Re-directing focus towards organizational capacities



# Health Systems Needs

- Integrating clinical data
- Enriching data with “-omics”, patient-derived information
- Analyzing practice variation
- Clinical governance for evidence

D2K

K2P



Information  
brokers:  
researchers who  
understand  
management

Tools to  
incorporate  
knowledge into the  
workflow

Metrics of  
achievement

# Training A New Type of Health Services Researcher

- AHRQ Initiative: To construct a set of core competencies to guide the development of training programs for learning health systems researchers
- Proposal: To embed trainees at the interface of research, informatics and clinical operations within learning health systems

# Embedded Researcher

Participatory  
Methods

- Insider perspective
- Immersion within a 'host' organisation
- 'Co-production' with practice community
- Knowledge created 'on the ground'
- Simultaneous generation and uptake of evidence
- Enhance research capacity of the host organisation

# New Funding Model

- Investing in investigator teams working in collaboration with health systems
- Rapid rigorous testing rather than large bet on a pre-specified approach
- Leveraging health system investment in K2P
- Public dissemination of results

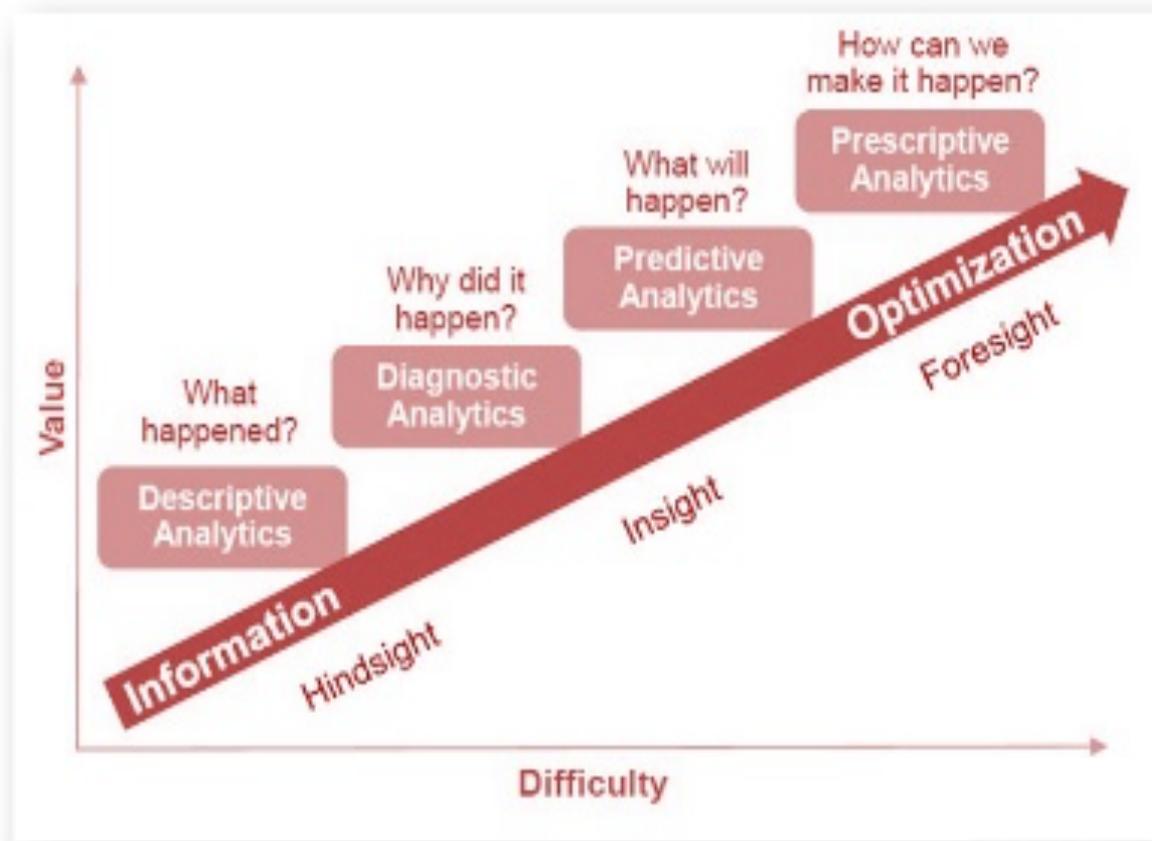


# Knowledge to Practice Tools



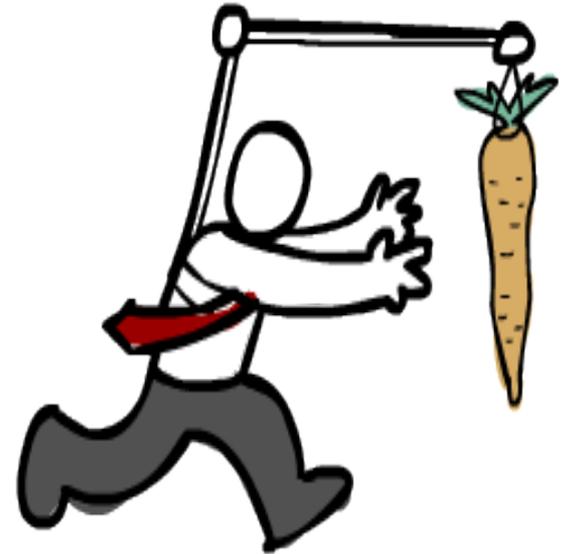
# Knowledge to Practice Tools

Analytic Maturity + Big Data Explosion + Tools



# Implementation Metrics of Achievement

- Learning collaborative of learning health care systems
- Organizational Level
  - Progress toward becoming a learning healthcare system



A black and white illustration of a thought bubble. The bubble has a thick black outline and a smaller, similar bubble at the bottom, suggesting a trail of thought. Inside the main bubble, the text "Why am I doing this?" is written in a simple, handwritten-style font.

*Why am I  
doing this?*

SCIENCE VS.  
EVERYTHING  
ELSE



PHOT. BY UNIVERSAL UCLICK

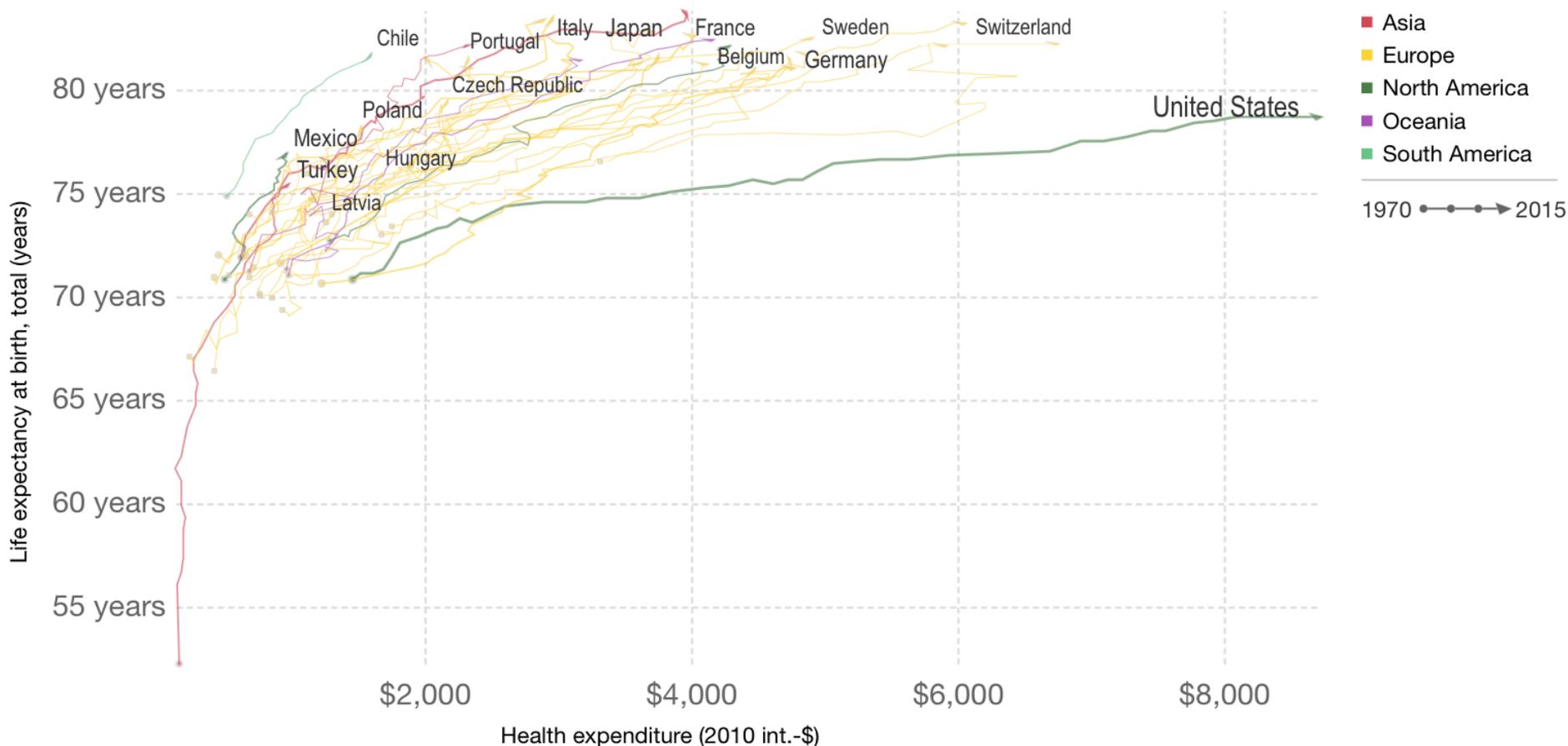
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# Life expectancy vs. health expenditure, 1970 to 2015

Health financing is reported as the annual per capita health expenditure and is adjusted for inflation and price level differences between countries (measured in 2010 international dollars).



Source: World Bank – WDI, Health Expenditure and Financing - OECDstat (2017)

# Knowledge Transfer

- Less about providing end users with a product
- More about helping end users to grow their skills so they can improve and sustain their efforts



# The Clinical and Research Divide



**Thank you!**

**Your  
questions?**

