

Institute of Medicine

**The Future of Emergency Care Series - Regional Workshop**

Primary Children's Medical Center, Salt Lake City, Utah

Thursday, 7 September 2006, 12:30p - 1:30p

**Leading Change:  
A New Outlook for Humanity**

Brent C. James, M.D., M.Stat.  
Executive Director, Institute for  
Health Care Delivery Research  
Intermountain Healthcare  
Salt Lake City, Utah, USA



# September 16, 1998:

*The Institute of Medicine*

***National Roundtable on Health Care Quality***

***The Urgent Need to Improve Health Care Quality***

***"Serious and widespread quality problems exist throughout American medicine"***

***Overuse, underuse, and misuse***

Chassin MR, Galvin RW, and the National Roundtable on Healthcare Quality. The urgent need to improve health care quality. *JAMA* 1998; 280(11):1000-5 (Sep 16)

**November 30, 1999:**

*The Institute of Medicine*

***Committee on Quality of Health Care in America***

*announces its first report:*

***To Err is Human: Building a Safer Health System***

**March 1, 2001:**

*The Institute of Medicine*

***Committee on Quality of Health Care in America***

*announces its second report:*

***Crossing the Quality Chasm:  
A New Health System for the 21st Century***

***"Between the health care we have and the care we could have lies not just a gap, but a chasm."***

**November 20, 2003:**

*The Institute of Medicine*

***Committee on Patient Safety Data Standards***

*announces a major follow-on report:*

***Patient Safety: Achieving a New Standard for Care***

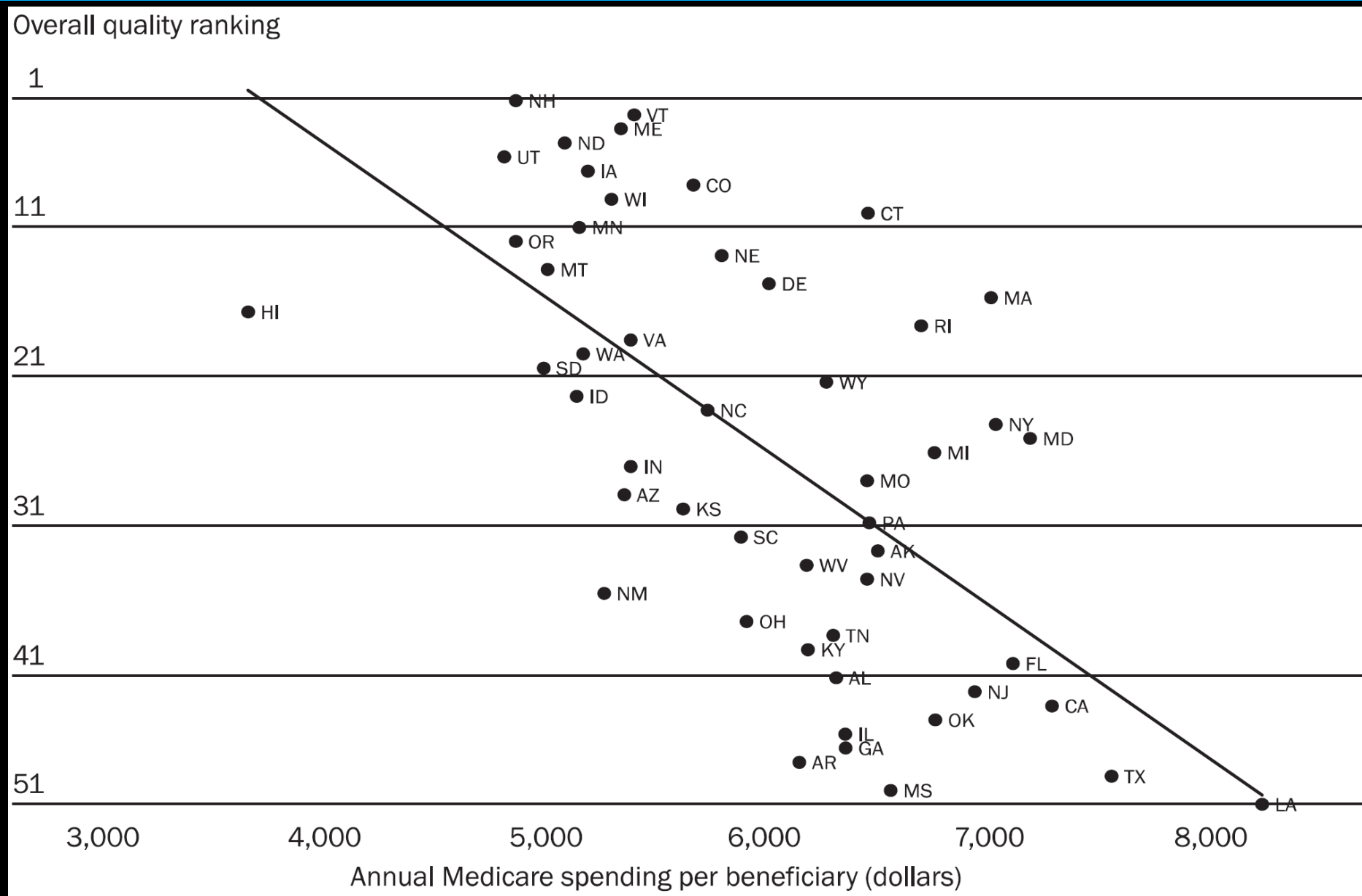
***Injuries of commission***

*versus*

***Injuries of omission***

- ◆ ***Massive variation; inappropriate care common***
- ◆ *Unacceptable rates of preventable patient injury*
- ◆ *A striking inability to "do what we know works"*

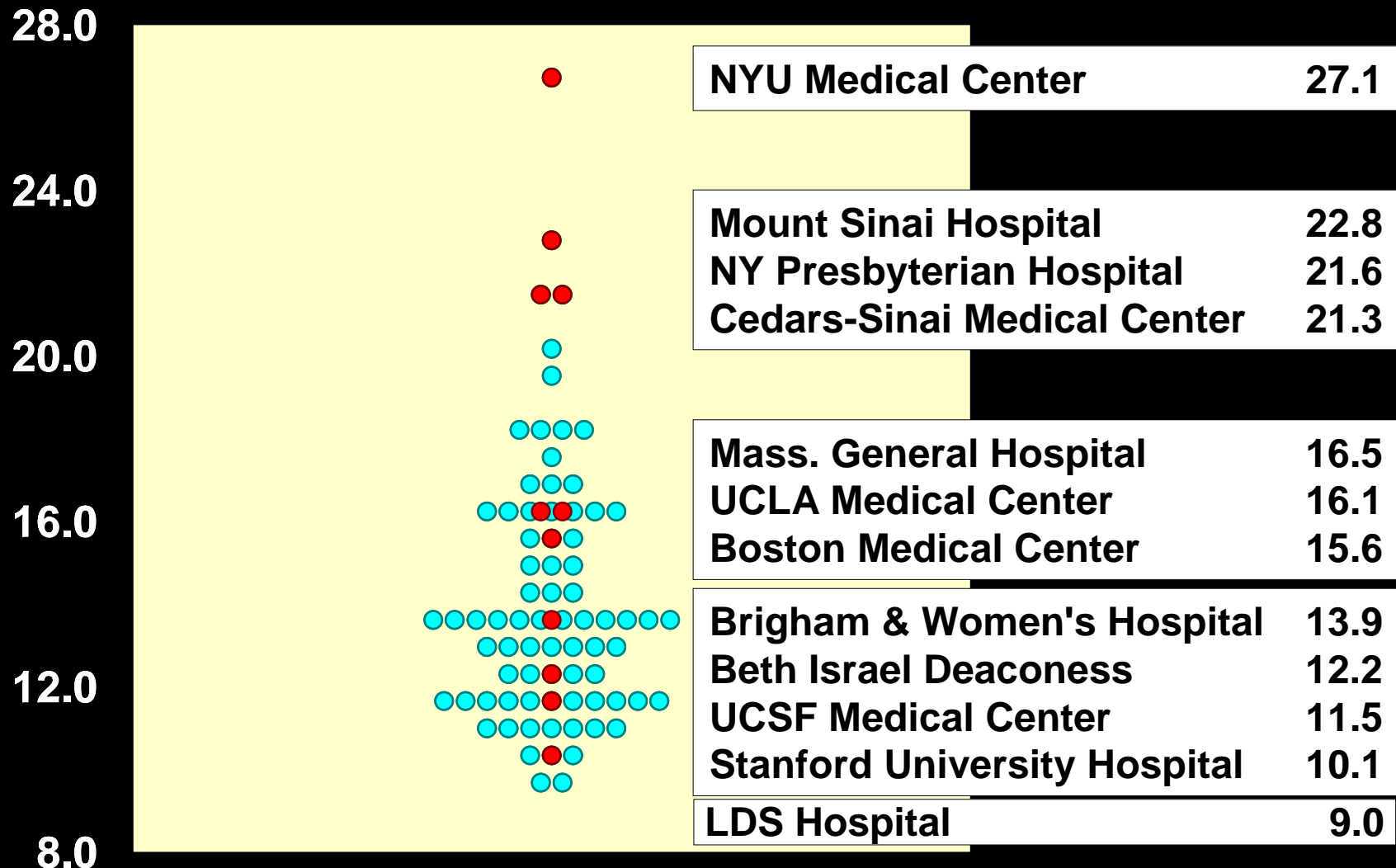
# Medicare cost versus quality



Baicker, K and Chandra, A. Medicare spending, the physician workforce, beneficiaries' quality of care. *Health Affairs Web Exclusive* 7 April 2004; W4-184-97.

# Supply-sensitive care

**Days in hospital per decedant during last 6 months of life among 77 "best" U.S. hospitals** (from US News & World Report annual rankings)



- ◆ *Massive variation; inappropriate care common*
- ◆ ***Unacceptable rates of preventable patient injury***
- ◆ *A striking inability to "do what we know works"*

# Medical injuries

***Account for***

***44,000 - 98,000 deaths per year  
in the United States***

***More people die from medical errors than from  
breast cancer or AIDS or motor vehicle accidents***

Brennan et al. *New Engl J Med* 1991  
Thomas et al. 1999

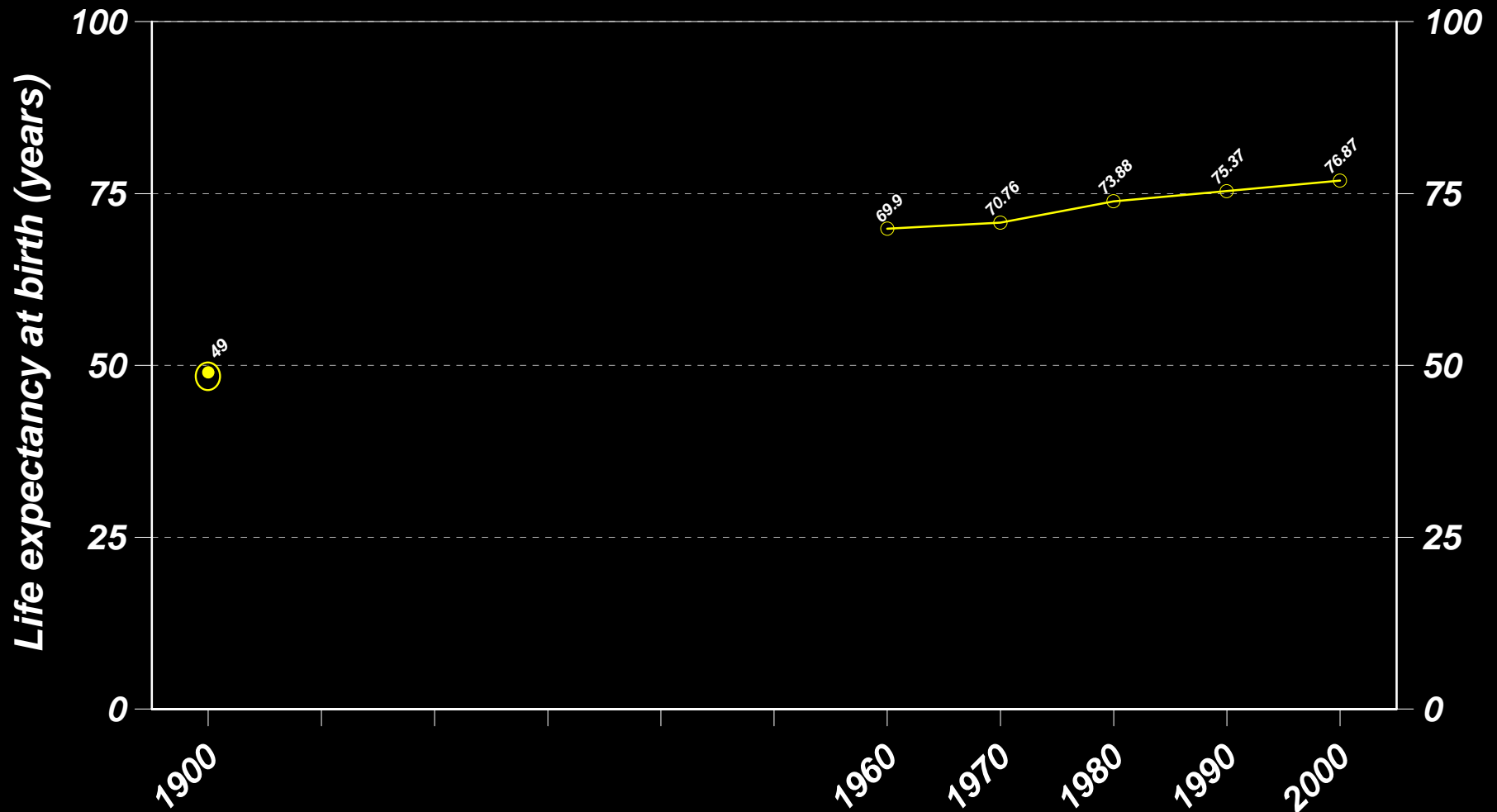
***Direct health care costs totaling  
\$9- 15 billion per year***

Thomas et al. 1999  
Johnson et al. 1992

- ◆ *Massive variation; inappropriate care common*
- ◆ *Unacceptable rates of preventable patient injury*
- ◆ ***A striking inability to "do what we know works"***

***American health care  
"gets it right"  
54.9%  
of the time.***

# "We routinely achieve miracles"



**Since 1960, 6.97 years gained over 4 decades = 1.74 years / decade**

*(from 1900-1960, 20.9 years gained over 6 decades = 3.48 years / decade)*

*Cutler DM, Rosen AB, Vijan S. The value of medical spending in the United States, 1960-2000. New Engl J Med 2006; 355(9):920-7 ( Aug 31).*

# Current health care

*is the best the world has ever seen*

*A few simple examples:*

- ◆ **From 1900 to 2000, average life expectancy at birth increased from only 49 years to almost 80 years.**
- ◆ **Since 1960, age-adjusted mortality from heart disease (#1) has decreased by 56%; and** (from 307.4 to 134.6 deaths / 100,000)
- ◆ **Since 1950, age-adjusted mortality from stroke (#3) has decreased by 70%.** (from 88.8 to 26.5 deaths / 100,000)

*Initial life expectancy gains almost all resulted from public health initiatives -- clean water, safe food, and (especially) widespread control of epidemic infectious disease. But since about 1960, direct disease treatment has made increasingly large contributions.*

Centers for Disease Control. Decline in deaths from heart disease and stroke--United States, 1900-1999. *JAMA* 1999; 282(8):724-6 (Aug 25).

National Center for Health Statistics. *Health, United States, 2000 with Adolescent Health Chartbook*. Hyattsville, MD: U.S. Dept. of Health and Human Services, Center for Disease Control and Prevention, 2000; pg. 7 (DHHS Publication No. (PHS) 2000-1232-1).

U.S. Department of Health and Human Services, Public Health Service. *Healthy People 2000: National Health Promotion and Disease Prevention Objectives*. Washington, DC: U.S. Government Printing Office, 1991 (DHHS Publication No. (PHS) 91-50212).

# The healing professions are changing

## From **craft-based practice**

- ◆ **individual physicians, working alone** (housestaff ::= apprentices)
- ◆ **handcraft a customized solution for each patient**
- ◆ **based on a core ethical commitment to the patient and**
- ◆ **vast personal knowledge gained from training and experience**

## To **profession-based practice (a systems approach)**

- ◆ **groups of peers, treating similar patients in a shared setting**
- ◆ **plan coordinated care delivery processes** (e.g., standing order sets)
- ◆ **which individual clinicians adapt to specific patient needs**
- ◆ **early experience shows**
  - ▶ **less expensive** (facility can staff, train, supply and organize to a single core process)
  - ▶ **less complex** (which means fewer mistakes and dropped handoffs, less conflict)
  - ▶ **better patient outcomes**

# W. Edwards Deming

Organize everything around  
**value-added** *(front line)* **work processes**

*(Quality improvement is the science of process management)*

# Lean production

- ◆ *standardized processes with*
- ◆ *"smart cogs" that*
- ◆ *adapt to individual needs*

*That is, "mass customization:"*

*efficient processes that can  
deal with complexity*

# Shared baselines

***A multidisciplinary team of health professionals -***

- 1. Select a high priority care process***
- 2. Generate an evidence-based "best practice" guideline***
- 3. Blend the guideline into the flow of clinical work***
  - ◆ staffing***
  - ◆ training***
  - ◆ supplies***
  - ◆ physical layout***
  - ◆ educational materials***
  - ◆ measurement / information flow***
- 4. Use the guideline as a shared baseline, with clinicians free to vary based on individual patient needs***
- 5. Measure, learn from, and (over time) eliminate variation arising from professionals; retain variation arising from patients ("mass customization")***

# Why "profession-based" practice?

- 1. It produces better outcomes for our patients***
- 2. It eliminates waste, reduces costs, and increases available resources for patient care***
- 3. It puts the caring professions back in control of care delivery***
- 4. It is the foundation for useful shared electronic data -- an important next step in care delivery improvement***

***"I am sorry for you, young men (and women) of this generation. You will do great things. You will have great victories, and standing on our shoulders, you will see far, but you can never have our sensations. To have lived through a revolution, to have seen a new birth of science, a new dispensation of health, reorganized medical schools, remodeled hospitals, a new outlook for humanity, is not given to every generation."***

***-- Sir William Osler***

*At the opening of the Phipps Clinic in England, near the end of his career. Cited in*

*Reid, Edith Gittings. The Great Physician: A Life of Sir William Osler. New York, NY: Oxford University Press, 1931 (p. 241).*