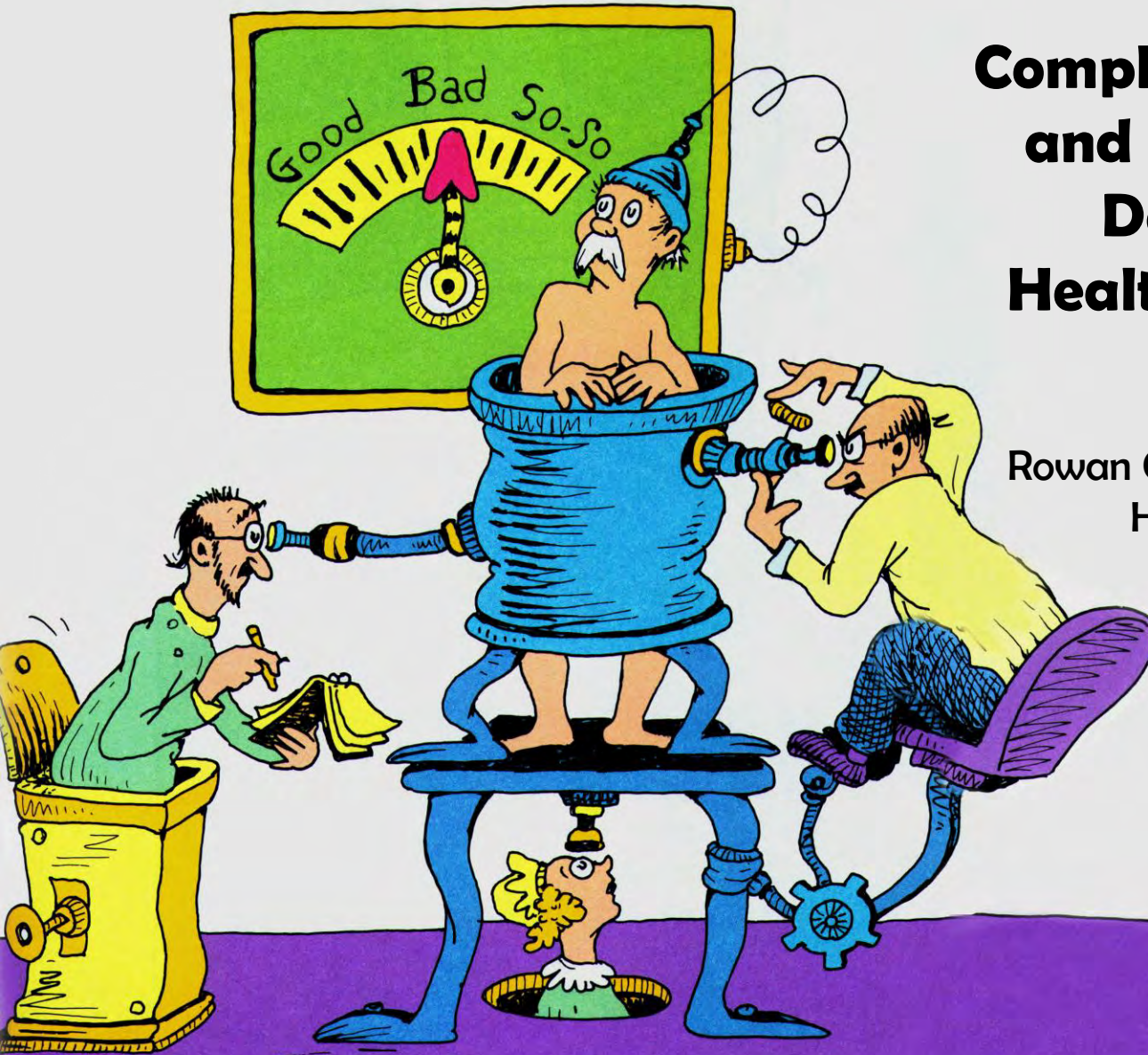


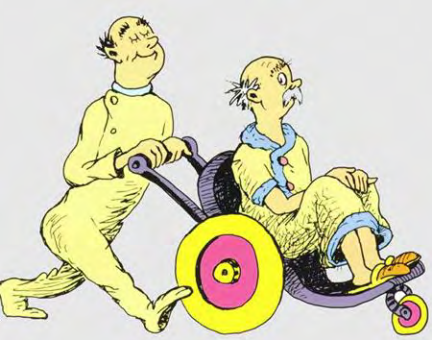
# Complexity: Challenges and Opportunities in Developing the Healthcare Workforce

Rowan Cabarrus Community College  
Healthcare Symposium

Michael Ruhlen, MD,  
MHCM, FAAP, FACHE

June 30, 2016





# Objectives

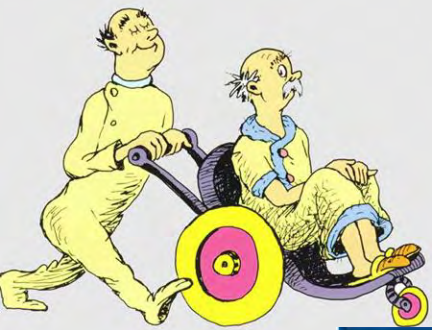
At the conclusion of this activity, participants will be able to describe how the many forces impacting healthcare have changed and will continue to change :

- Healthcare work itself
- Scopes of practice
- Disciplines in the workplace
- New learning modalities and assessment of competency
- Deployment of the healthcare workforce

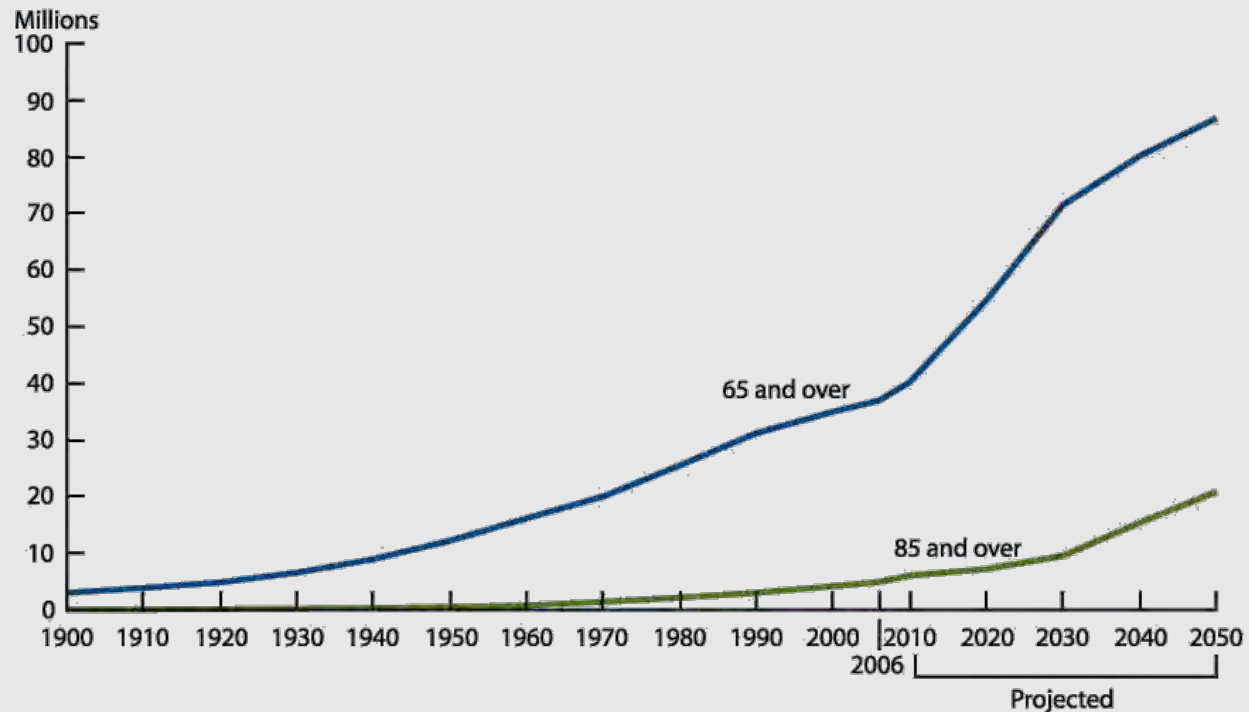




# Demographic Changes



Number of people age 65 and over, by age group, selected years 1900–2006 and projected 2010–2050

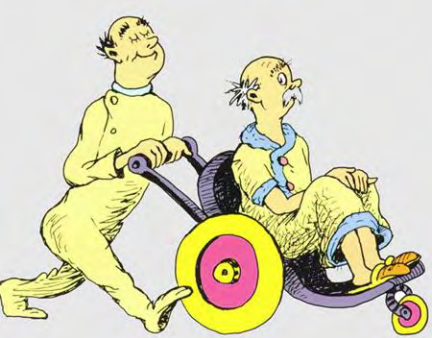


Note: Data for 2010–2050 are projections of the population.

Reference population: These data refer to the resident population.

Source: U.S. Census Bureau, Decennial Census, Population Estimates and Projections.

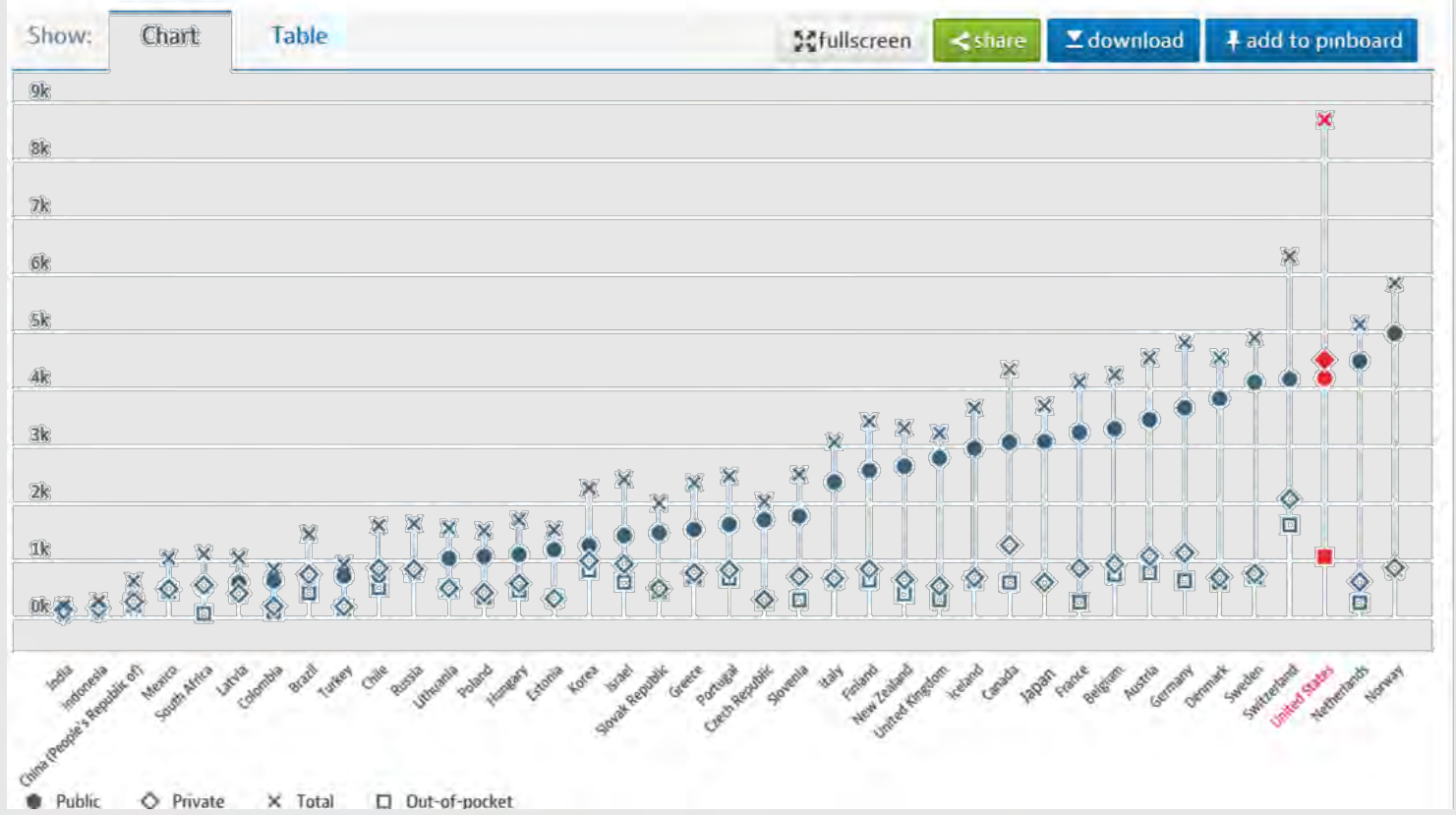




# Cost

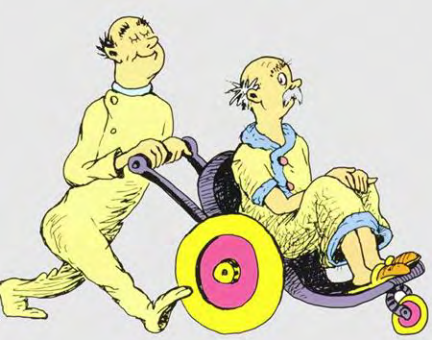
## Health spending Public / Private / Total / Out-of-pocket, US dollars/capita, 2013

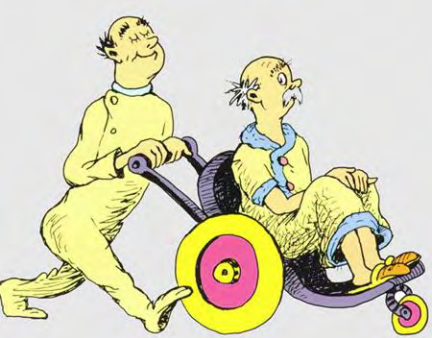
Source: Health expenditure and financing: Health expenditure indicators





# Historical Lack of Transparency

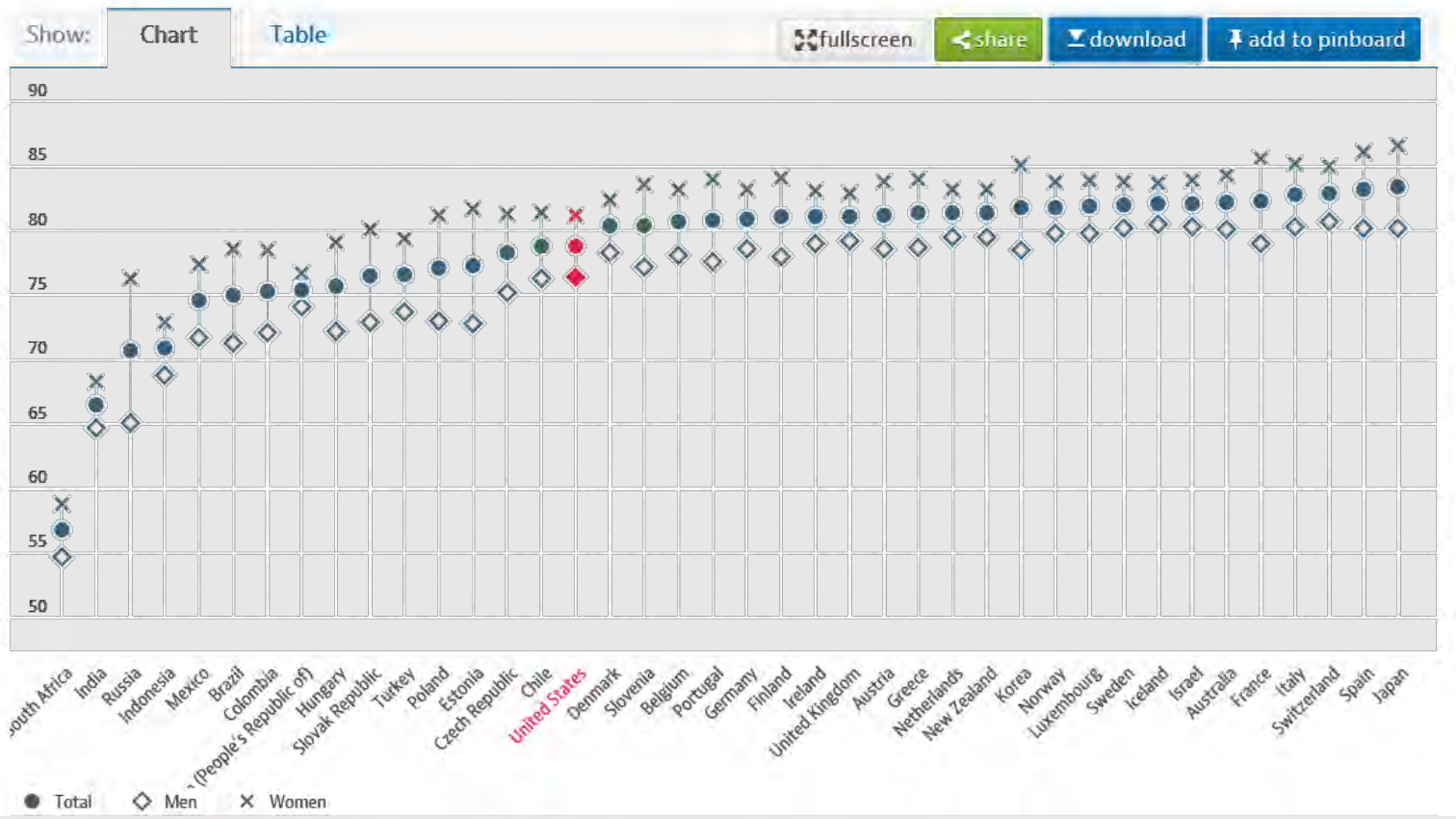




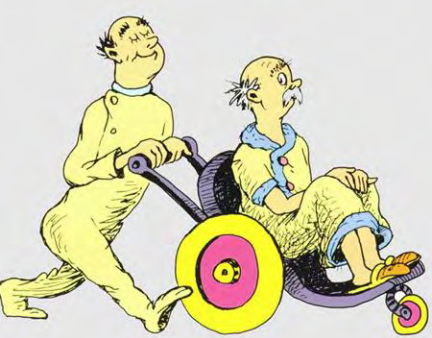
# Safety

Life expectancy at birth Total / Men / Women, Years, 2013

Source: Health status



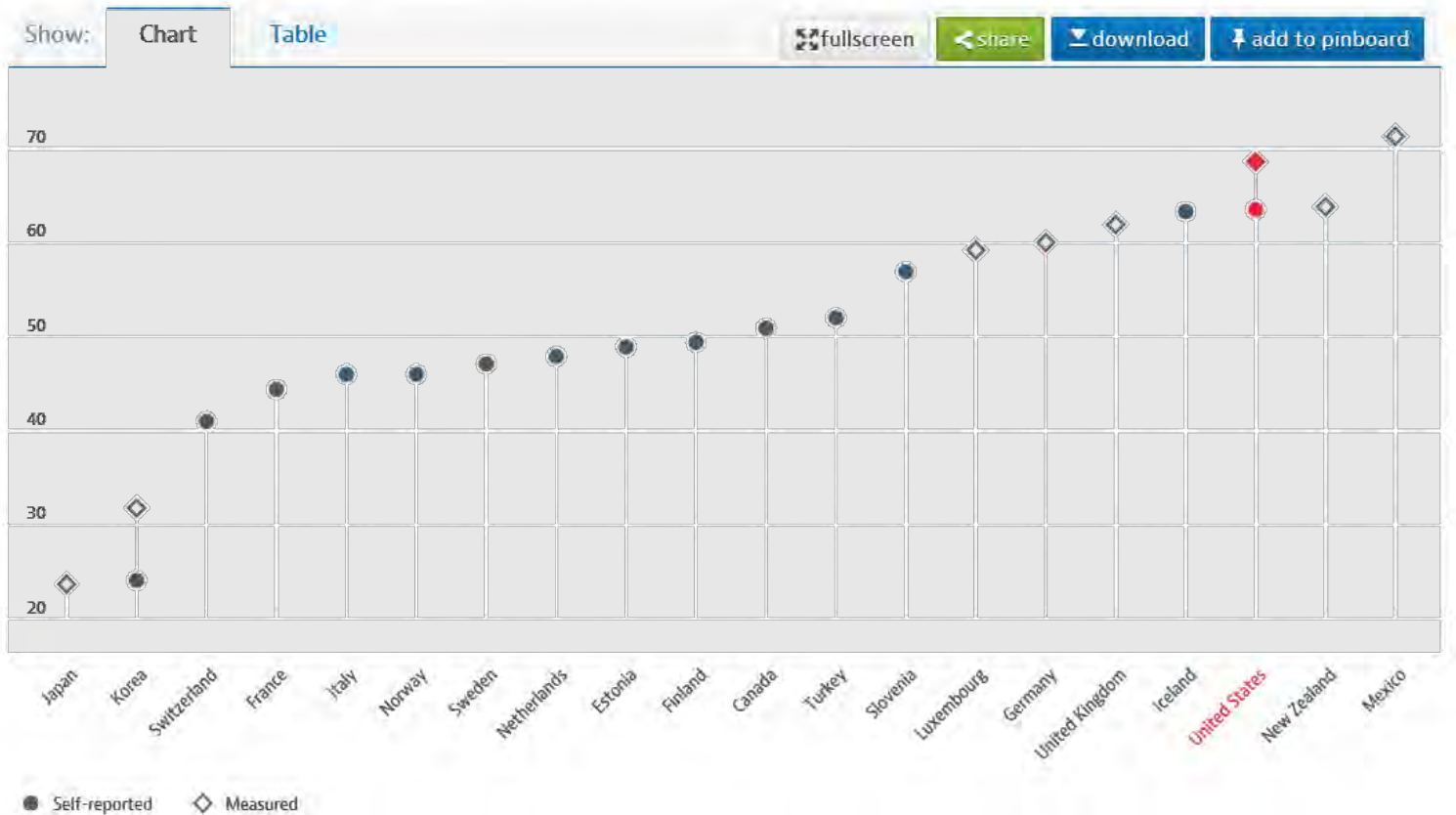


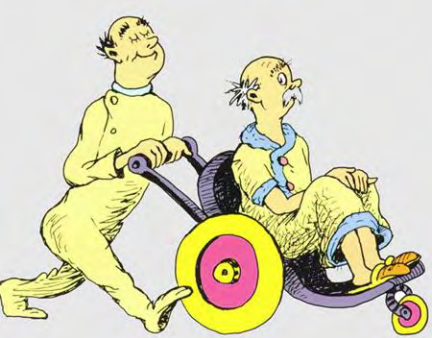


# Preventive Care

Overweight or obese population Self-reported / Measured, % of population aged 15+, 2012

Source: Non-medical determinants of health





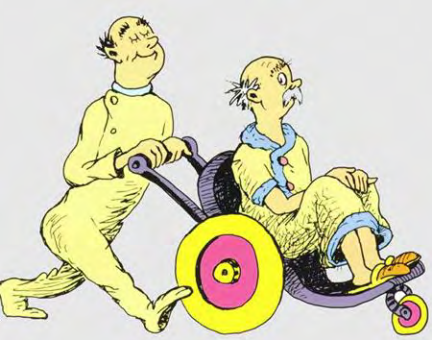
# Healthcare Reform

- Make me better
- Don't hurt me
- Don't bankrupt me







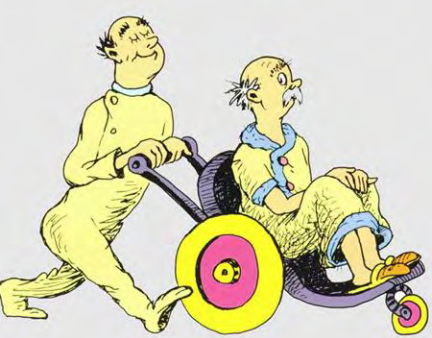


# Healthcare Reform

- Make me better
- Don't hurt me
- Don't bankrupt me
- Be nice to me







# Healthcare Reform<sup>2</sup>

Healthcare cost is an increasing burden for employers

Employers are shifting a greater portion of the cost to employees - driving cost and quality transparency along with access demands

Employers are offering more HDHPs and employees are choosing these plans more frequently - increasingly the only option available

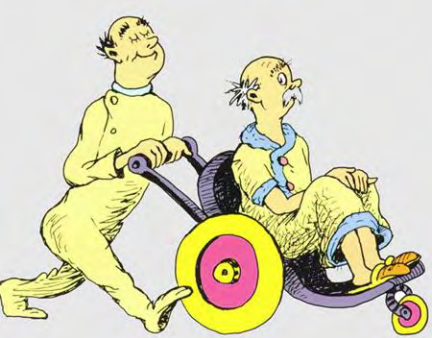
The number of employers offering coverage has decreased - primarily small employers, more employers are moving to self funding

Increase in employers contracting directly with providers - employers are frustrated with TPAs and Insurance providers

Public and private exchanges will continue to grow – narrow networks

ACOs, Narrow Networks, Bundled Payments, Reference Based Pricing, Transparency Tools, Mobile Apps, Value Based Referrals → CONSUMERISM



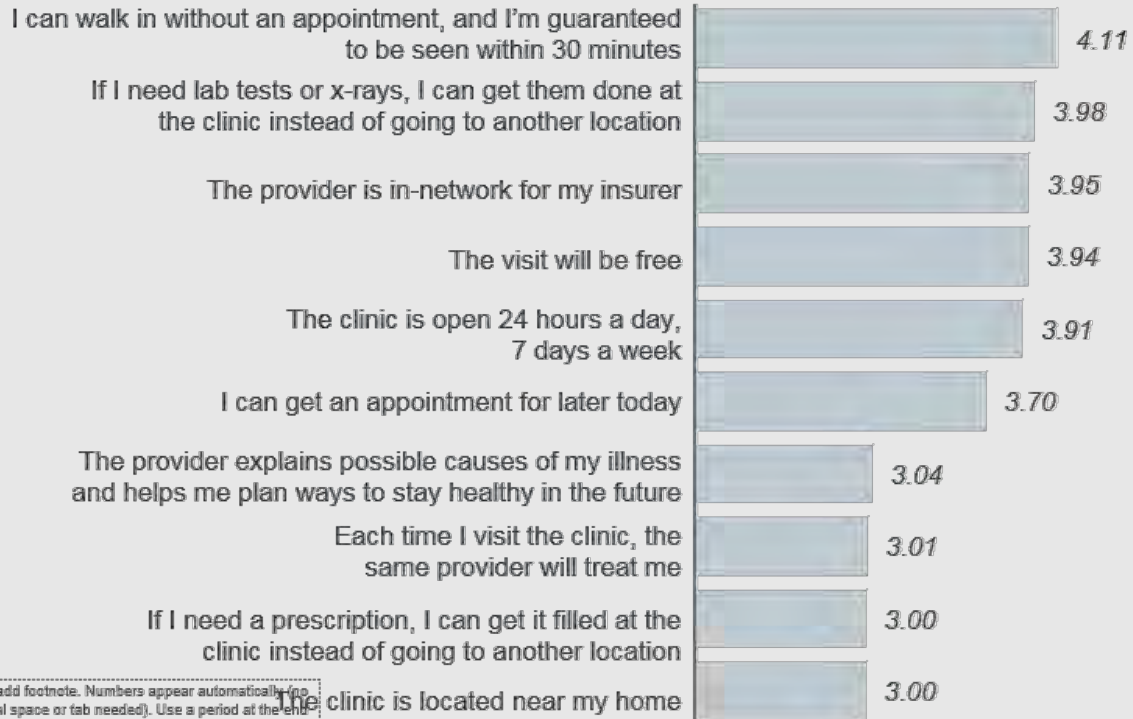


# Consumer Preferences

## Prioritizing Convenience and Affordability

### Average Utilities for Top Ten Preferred Primary Care Clinic Attributes

n=3,873

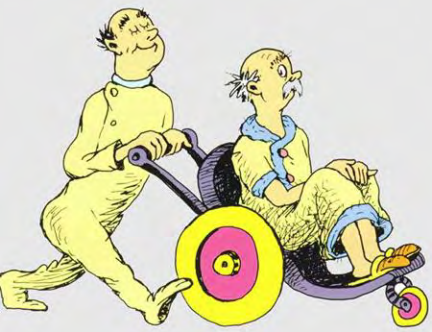


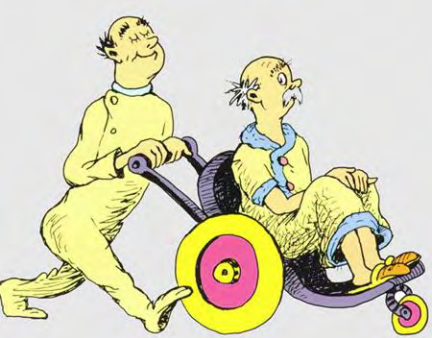
1) Click to add footnote. Numbers appear automatically (no additional space or tab needed). Use a period at the end of each footnote. Stretch the box to the right as needed.





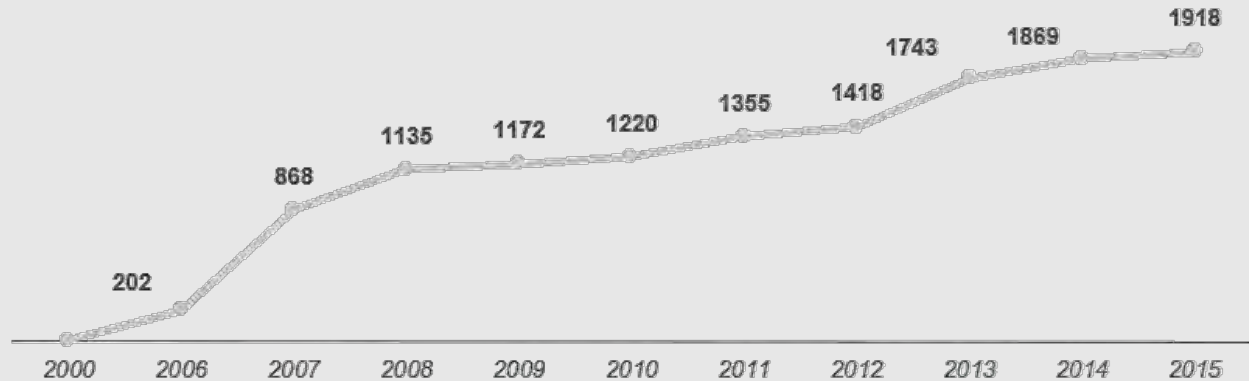
# Fragmentation of the Field





# Retail Clinics Expected to Continue to Grow

Estimated Total Number of Retail Clinics in the US  
2000-2015<sup>1</sup>



Retailer



Operational Retail Clinics<sup>2</sup>

979

412

162

83

17<sup>3</sup>

<sup>1</sup> As of Nov. 2015

<sup>2</sup> As of July 2015

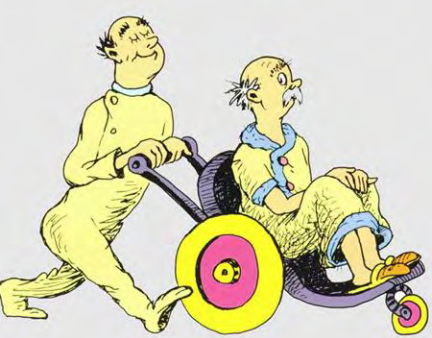
<sup>3</sup> Clinics owned by Walmart; Walmart also leases retail space to providers in dozens of stores.

2016 The Advisory Board Company • advisory.com

Source: Accenture, "Number of US Retail Health Clinics Will Surpass 2000 by 2017, Accenture Forecasts," 2015; Merchant Medicine, "The ConUrgentCare Report," Vol. 8, No. 7, July 2015; Market Innovation Center interviews and analysis.





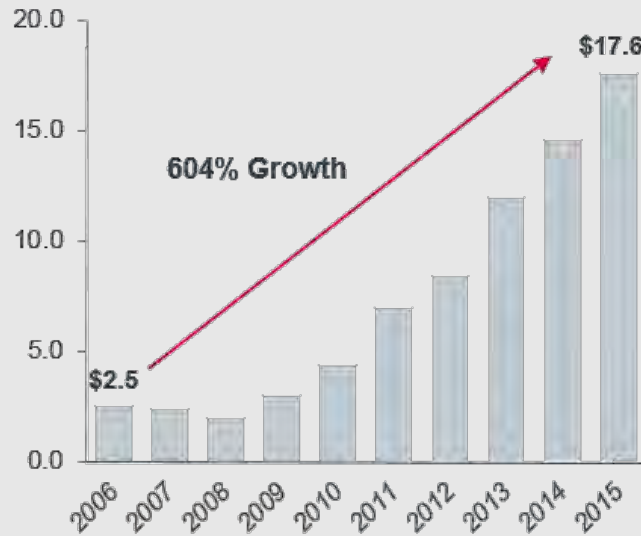


# Telehealth Projected to Continue Growth

Projections Agree on Growth, But How Aggressive?

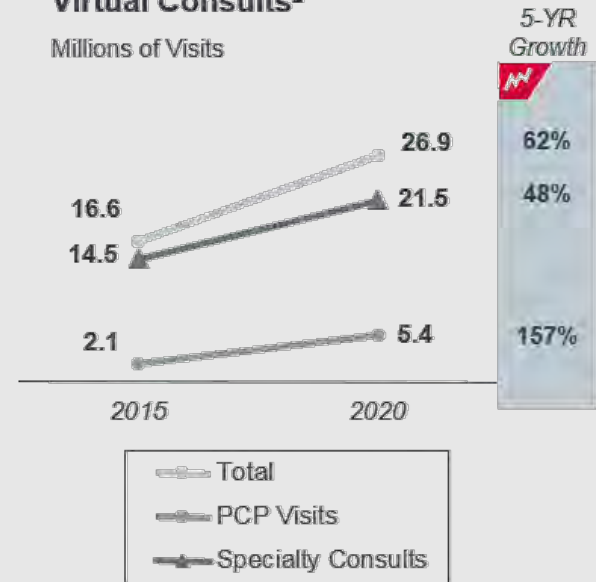
## Year-Over-Year Medicare Reimbursement for Telehealth Services<sup>1</sup>

In millions of dollars



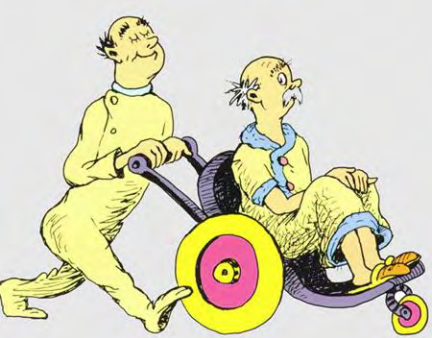
## Estimated U.S. Growth in Virtual Consults<sup>2</sup>

Millions of Visits



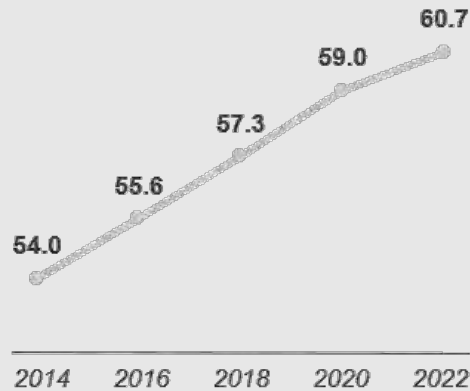
1) CMS data.  
2) 2015 HIS Analytics report.

Sources: Herman B, "Virtual reality: More insurers are embracing telehealth," *Modern Healthcare*, February 2016, available at: <http://www.modernhealthcare.com/article/20160220/MAGAZINE/302209980>; "Global Telemedicine Market - Growth, Trends and Forecasts (2015-2020)," *Mordor Intelligence*, <http://www.mordorintelligence.com/industry-reports/global-telemedicine-market-industry>, December 2016; Japsen, Bruce, "Doctors' Virtual Consults with Patients to Double by 2020," *Forbes*, <http://www.forbes.com/sites/brucejapsen/2016/03/02/as-telehealth-booms-doctor-virtual-consults-to-double-by-2020/#2d4da3675d85>, August 2016; Market Innovation Center research and analysis.

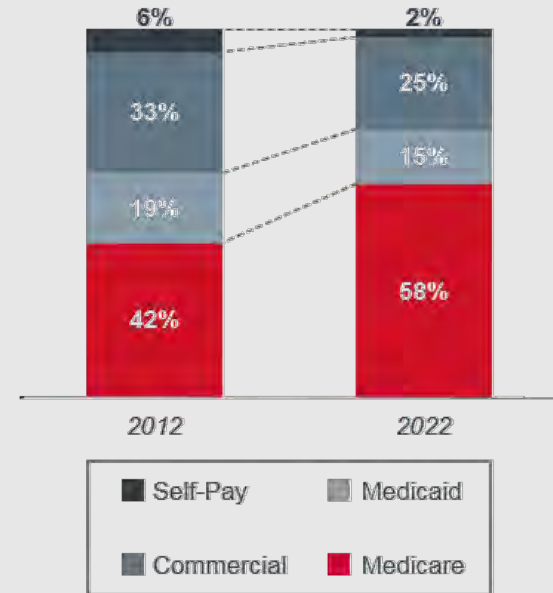


# Medicare to Become Majority of Patient Mix by 2022

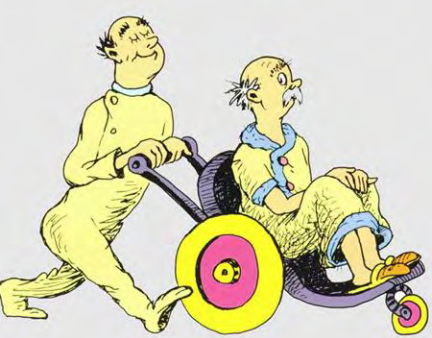
**Projected Number of Medicare Beneficiaries**  
Millions of Beneficiaries



**Average Inpatient Case Mix By Volume**  
n = 785 Hospitals





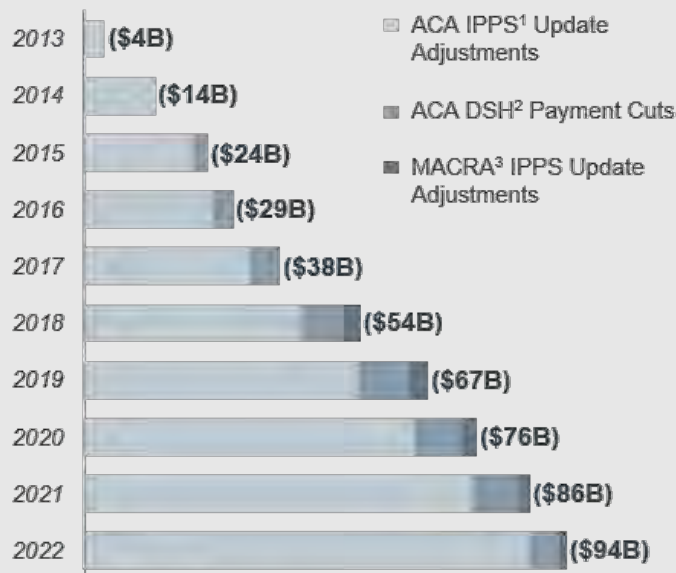


# Inpatient Reimbursement to Continue to Decline

## Price Cuts Continue Unabated

**Hospitals Bearing the Brunt of Payment Cuts**  
*Reductions to Medicare Fee-for-Service Payments*

**New Proposals Continue to Emerge**  
*President's FY2016 Budget Proposal Includes Significant Cuts to Providers*



1) Inpatient Prospective Payment System.  
 2) Disproportionate Share Hospital.  
 3) Medicare Access and CHIP Reauthorization Act of 2015.



**\$30.8B**

Reduction in Medicare bad debt payments



**\$29.5B**

Savings from moving to site-neutral payments



**\$14.6B**

Cuts to teaching hospitals and GME payments

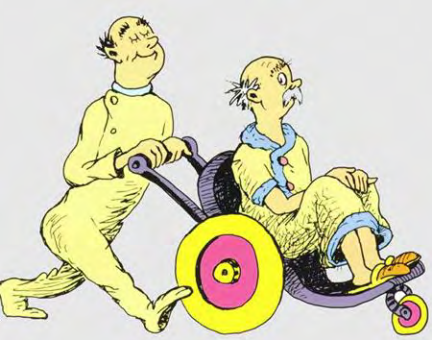


**\$720M**

Cuts to critical access hospitals

Source: CBO, "Letter to the Honorable John Boehner Providing an Estimate for H.R. 6070, The Repeal of Obamacare Act," July 24, 2012; CBO, "Cost Estimate and Supplemental Analyses for H.R. 2, the Medicare Access and CHIP Reauthorization Act of 2015; Budget of the United States Government (Proposed) FY 2016; Health Care Advisory Board interviews and analysis.



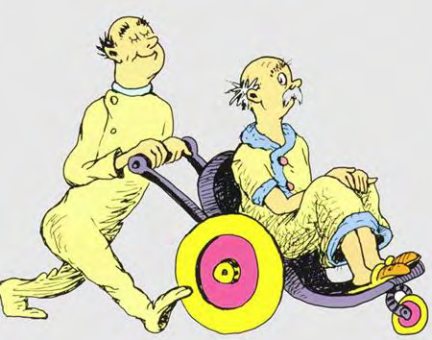


# Workplace Redesign

1. Attention to numbers of all FTEs
2. Staffing “up” not “down”
3. Redesign of access points and hours
4. Redesign of scope of practice
5. Practice at “top of license”
6. Telemedicine services
7. New categories of healthcare providers

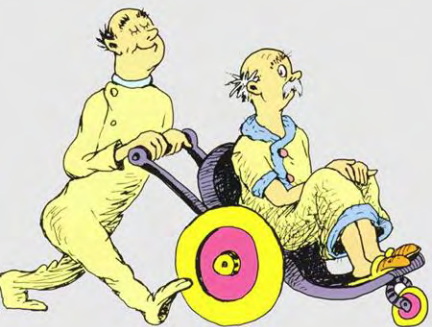


# New Professional Disciplines

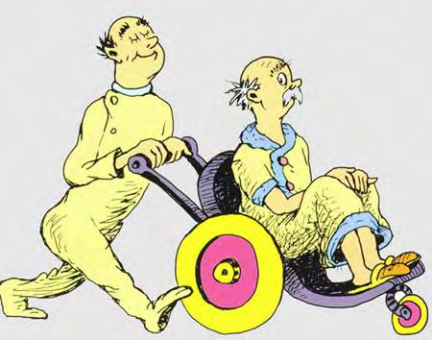




# New Professional Disciplines

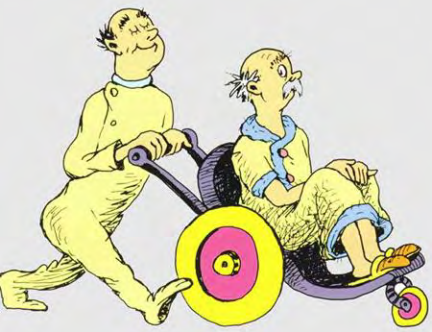


# New Professional Disciplines



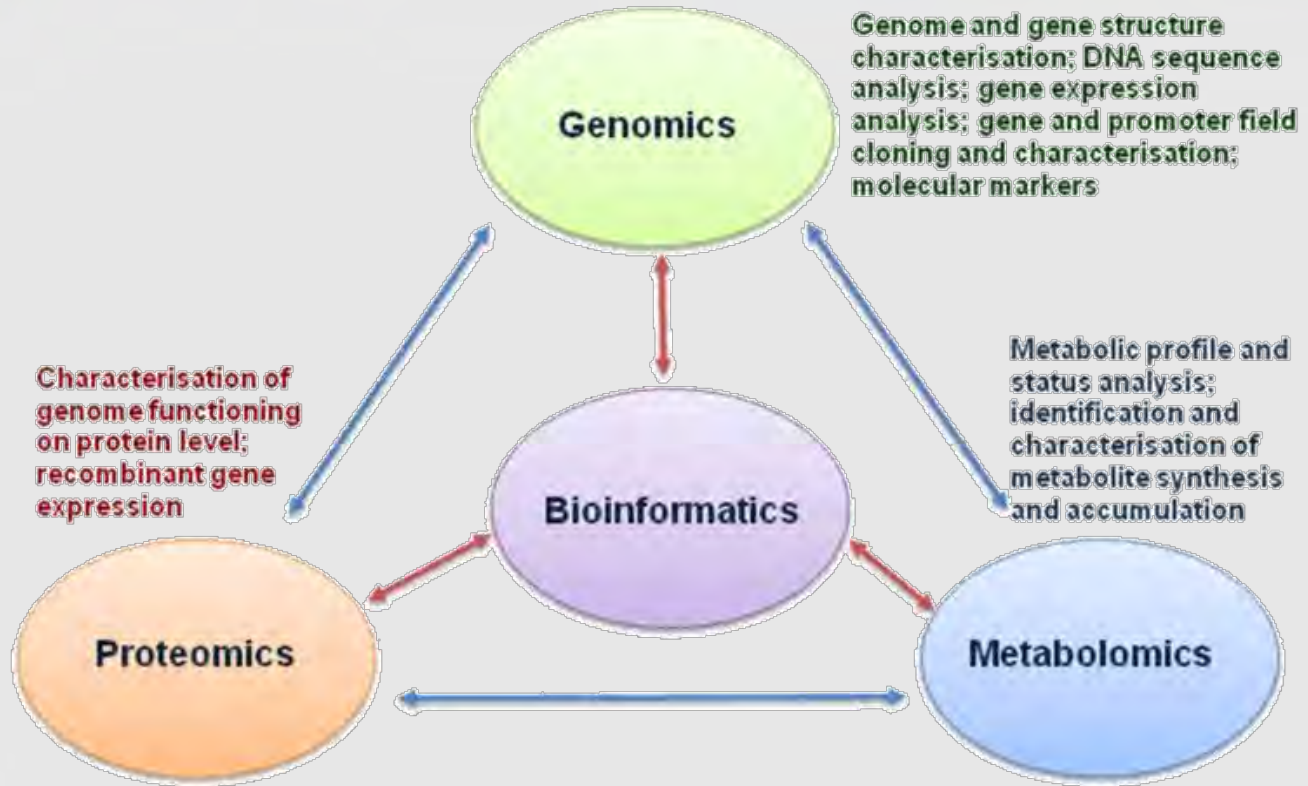
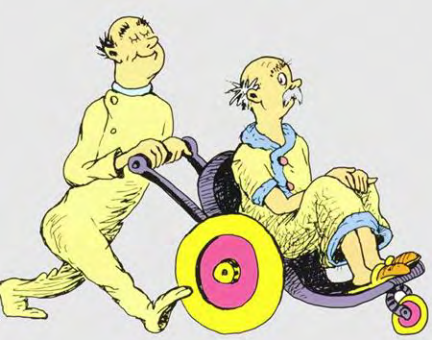


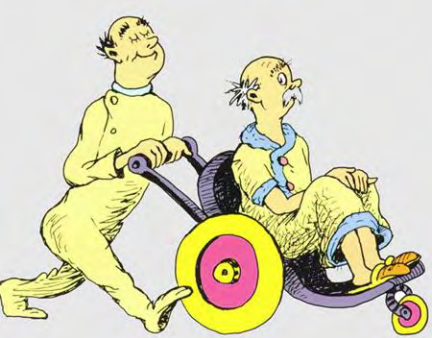
# New Professional Disciplines





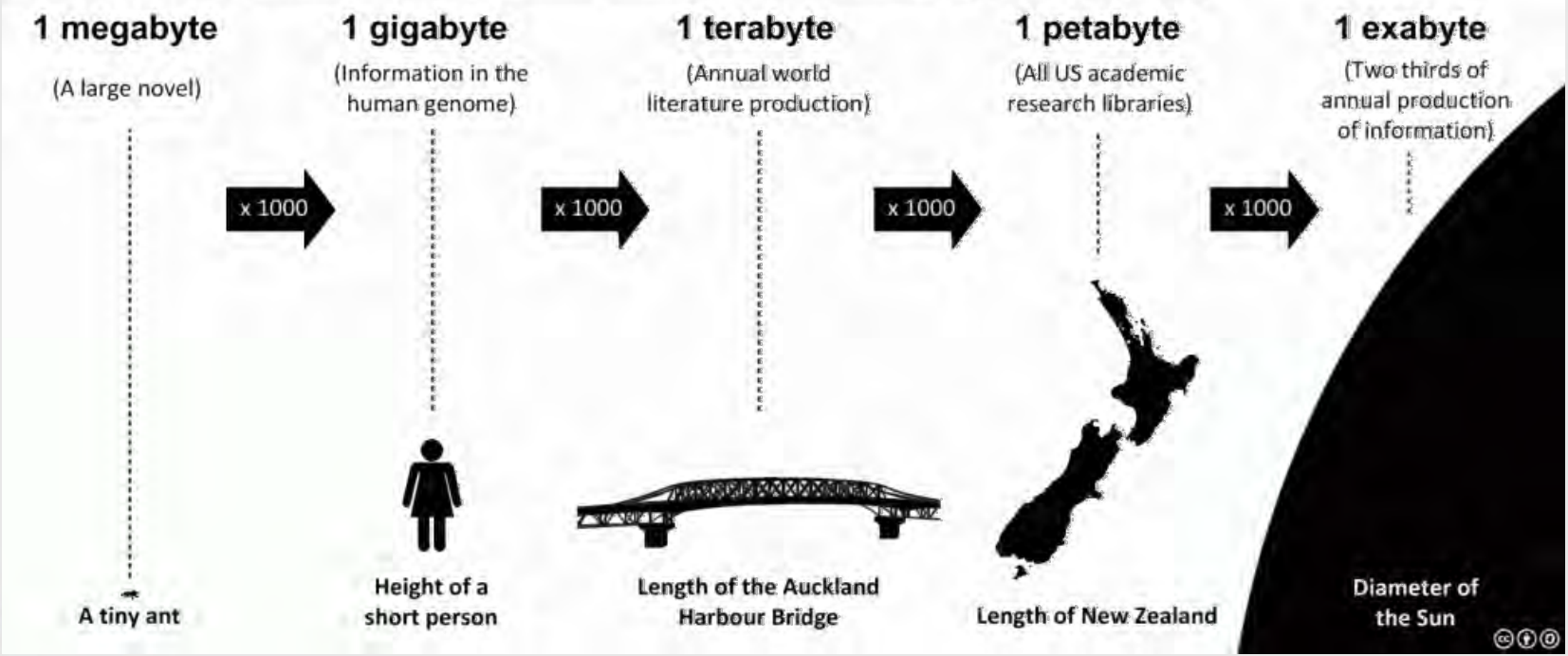
# New Professional Disciplines



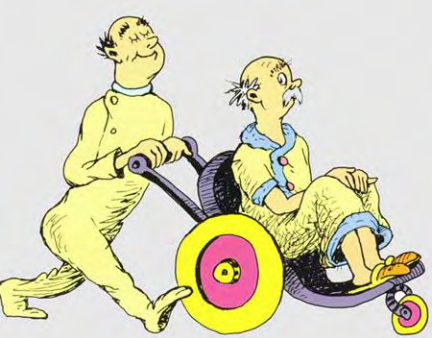


# “Keeping Up”

## understanding the data deluge: comparison of scale with physical objects



David Russell Schilling, “Knowledge Doubling Every 12 Months, Soon to be Every 12 Hours” April 19, 2013  
<http://www.industrytap.com/knowledge-doubling-every-12-months-soon-to-be-every-12-hours>



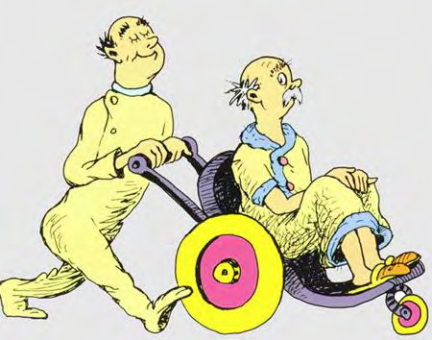
# “Keeping Up”

- Rapid obsolescence of core knowledge and techniques
- Rapid emergence of new knowledge and methods
- Disappearance of existing careers
- Rapid emergence of new careers
- An ongoing need for continuous knowledge replenishment
- The migration of knowledge generation further away from academia (i.e. community colleges, high end manufacturing skills) because of the need for faster new knowledge deployment



Modified from Jim Carroll, Accessed at [www.jimcarroll.com/2011/10/trend-the-future-of-knowledge](http://www.jimcarroll.com/2011/10/trend-the-future-of-knowledge)





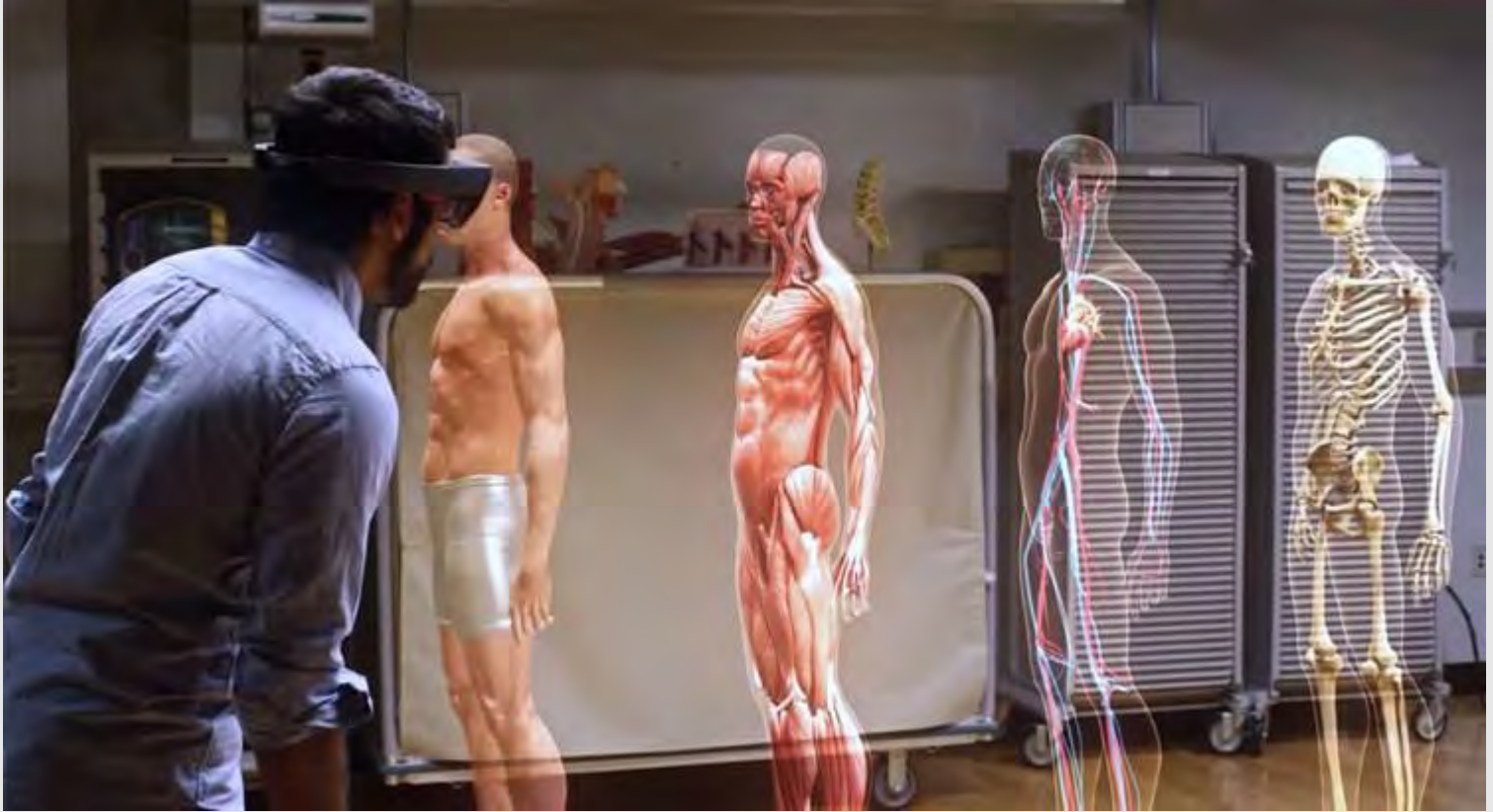
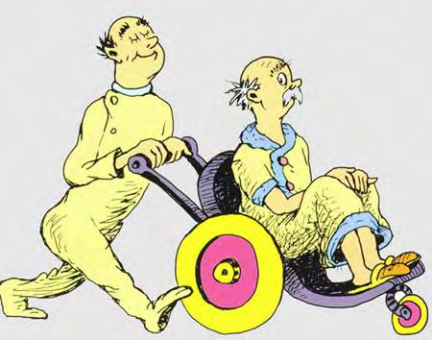
# “Keeping Up”

- A massively increased challenge from overseas knowledge generation
- The fast emergence of new micro-careers because of specialized knowledge
- An economy that succeeds through knowledge deployment
- A fundamental transformation in knowledge delivery

Modified from Jim Carroll, Accessed at [www.jimcarroll.com/2011/10/trend-the-future-of-knowledge](http://www.jimcarroll.com/2011/10/trend-the-future-of-knowledge)



# “Keeping Up”





# “Keeping Up”

