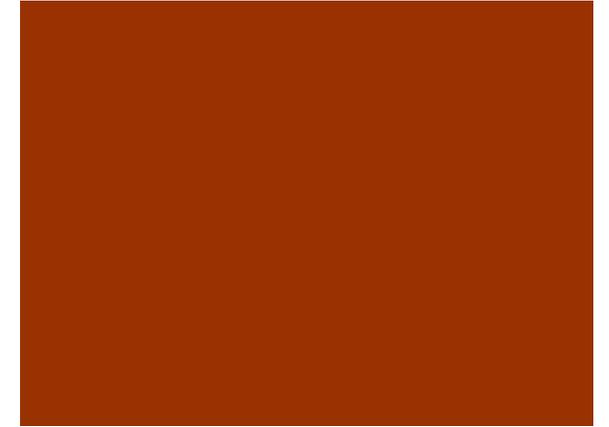


The Thirty-second  
Annual Rosalynn Carter  
Symposium on Mental  
Health Policy



  
THE CARTER CENTER

*WIDENING THE CIRCLE OF  
HEALTH & WELLNESS: THE  
CENTRAL ROLE OF BEHAVIORAL  
HEALTH*

# Plenary I: Managing Population Health & Building Cultures of Wellness

**Moderator: Ray Fabius**

*Co-Founder*

*HealthNEXT*



***32<sup>nd</sup> Rosalynn Carter Symposium on Mental Health Policy  
Atlanta GA***

***November 17<sup>th</sup> & 18<sup>th</sup>***

**Plenary One**

***Managing Population Health &  
Building Cultures of Wellness***



**THE CARTER CENTER**

***Waging Peace. Fighting Disease.  
Building Hope.***

# POPULATION HEALTH

*Manages Care Across the Continuum*

HealthNEXT



Well



At Risk



Acute Illness

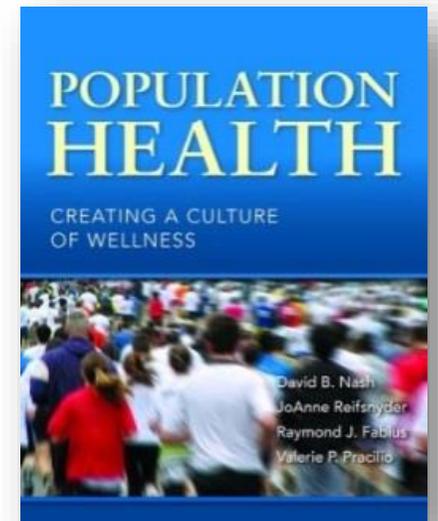
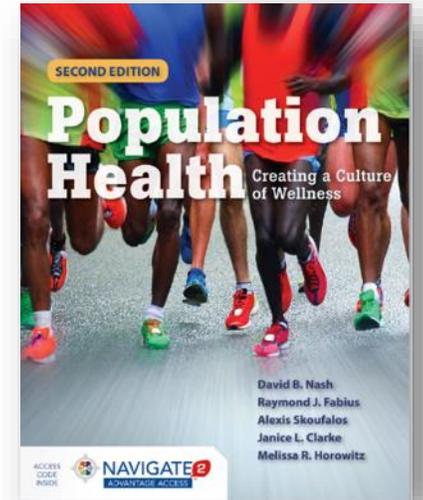


Chronic  
Illness



Catastrophic  
Illness

Moving the Population Toward Wellness



# Population Health is About One Thing

## *Behavior Change*

- Modifying the physical, emotional, habitual and cultural factors that influence health status
- Paired with usual health care
- Relies on an interdisciplinary approach that educates, supports, follows-up, and evaluates efficacy



**There is a science developing to foster more effective behavior change producing greater improvement in lifestyles, guideline compliance and medication adherence**

# WELLNESS

*Not Just the Absence of Illness*

## WHO Definition of Health

Health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity

## Components of Wellness

**S**ocial

**P**hysical

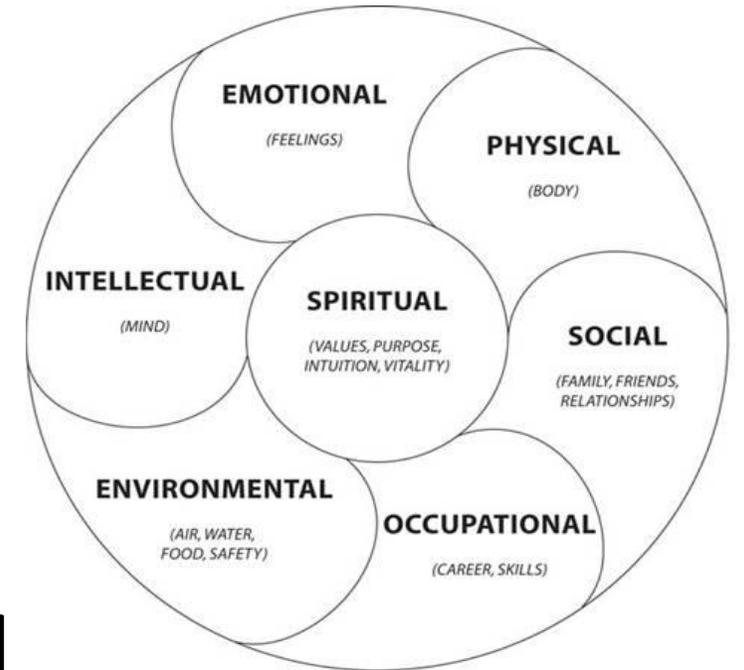
**E**motional

**C**areer

**I**ntellectual

**E**nvironmental

**S**piritual



Source: <http://www.undstudenthealth.com>

Swenson, John A., M.D.

# BUILDING CULTURES OF WELLNESS

## *In Early Adoption Phase*

### 8 STEP PROCESS

1. Embrace a vision for health
2. Senior Leadership Commitment
3. Policies & Environment
4. Measurement, Data, & Analytics
5. Programs & Goals
6. Evidence Based Benefit Design
7. Population Health
8. Model Against Benchmark Companies & Communities

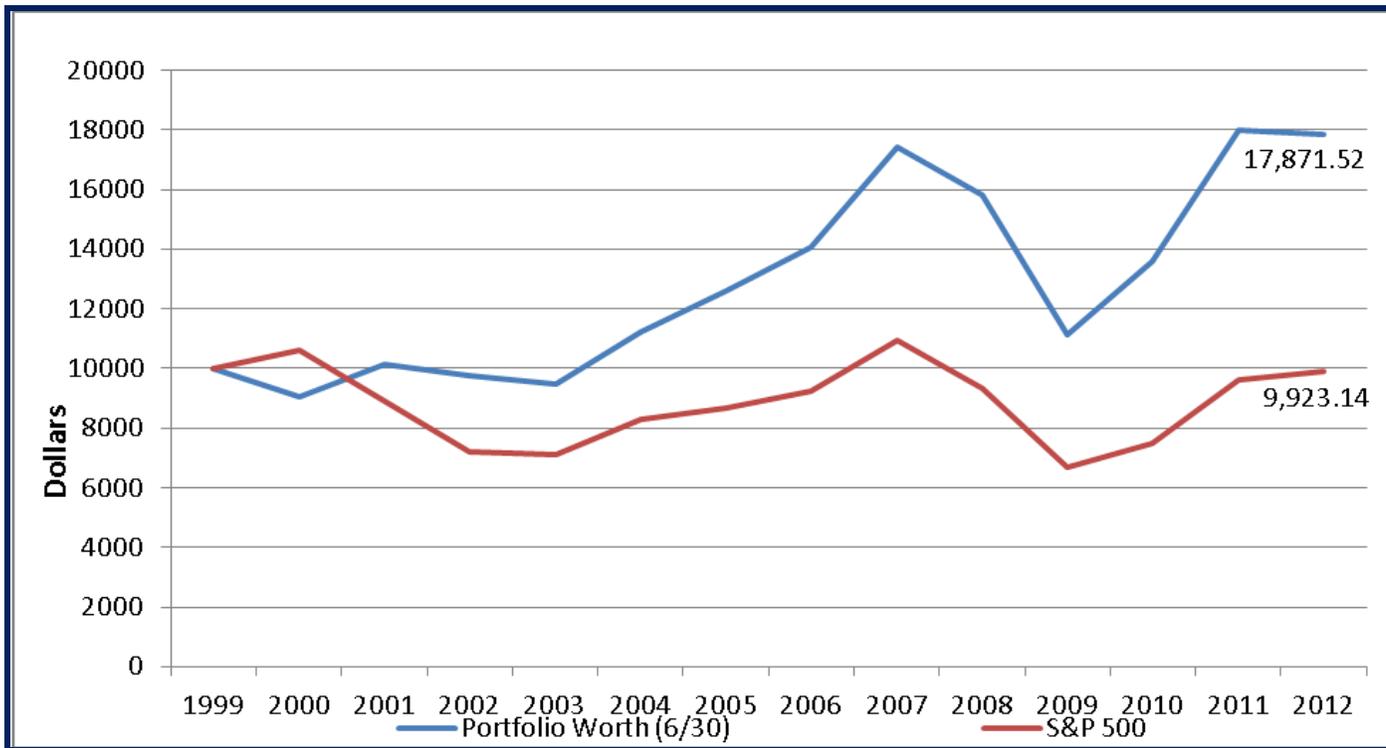


### NBGH View *Value of a Culture of Health*



CREATING HEALTHIER WORKPLACES & COMMUNITIES IMPROVES POPULATION HEALTH

# The Link Between Workforce Health & Safety And the Health of the Bottom Line



## The Link Between Workforce Health and Safety and the Health of the Bottom Line

### Tracking Market Performance of Companies That Nurture a "Culture of Health"

Raymond Fabius, MD, R. Dixon Thayer, BA, Doris L. Konicki, MHS, Charles M. Yarborough, MD, Kent W. Peterson, MD, Fikry Isaac, MD, Ronald R. Loeppke, MD, MPH, Barry S. Eisenberg, MA, and Marianne Dreger, MA

**Objective:** To test the hypothesis that comprehensive efforts to reduce a workforce's health and safety risks can be associated with a company's stock market performance. **Methods:** Stock market performance of Corporate Health Achievement Award winners was tracked under four different scenarios using simulation and past market performance. **Results:** A portfolio of companies recognized as award winning for their approach to the health and safety of their workforce outperformed the market. Evidence seems to support that building cultures of health and safety provides a competitive advantage in the marketplace. This research may have also identified an association between companies that focus on health and safety and companies that manage other aspects of their business equally well. **Conclusions:** Companies that build a culture of health by focusing on the well-being and safety of their workforce yield greater value for their investors.

• Recently, an article by Loeppke and colleagues,<sup>4</sup> reported that for every dollar of medical and pharmaceutical costs spent, an employer lost an additional \$2.30 of health-related productivity costs. Health-related presenteeism (health risks and medical conditions impacting work performance) was shown to have a larger impact on lost productivity than absenteeism, with executives and managers suffering higher losses. Comorbidities demonstrated the largest effects on productivity loss.<sup>4</sup>

These facts led to a hypothesis: Companies that create an environment for their employees and dependents that reinforces both conscious and unconscious safer and healthier lifestyle choices as well as provides more effective accessing of appropriate health care (i.e., surround them with a "culture of health") should be more productive and that productivity should drive business performance and be reflected in the price of their stock.

To more objectively test this hypothesis, we tracked the stock market performance of companies with proven health, safety, and environmental programs under four different scenarios. To find such companies, we turned to the recipients of the American College of Occupational Medicine's (ACOEM's) Corporate Health Achievement Award (CHAA). Using simulation and past market performance, a theoretical initial \$10,000 investment in publicly traded award winners was followed from 1997 to 2012 under one scenario and from 1999 to 2012 in three scenarios.

Because these award-winning companies are recognized for their exemplary efforts in creating a healthy workforce, and a healthy workforce generates less health care costs and improved productivity, we tested the hypothesis that a financial portfolio of these companies would outperform the marketplace.

#### BACKGROUND

The organization known today as the American College of Occupational and Environmental Medicine began in 1916 as the American Association of Industrial Physicians and Surgeons. As the country moved from industrial manufacturing to knowledge-based industries, the American Association of Industrial Physicians and Surgeons adapted itself to meet the changing needs of workers, eventually changing its name to the American College of Occupational and Environmental Medicine to more accurately convey its work. Today, the ACOEM continues to embody the principles set forth in 1916, but with a wider scope and mission that responds to the health and safety needs of the twenty-first century workplace—from industrial medicine to occupational medicine to occupational health and most recently to corporate health (including international operations).<sup>5</sup> Corporate health is defined as the overall integration of safety and health in the workplace, enhancing employee well-being and satisfaction and the company's overall productivity. The quality of the work environment has become increasingly important and is a central factor in the lives of most Americans. In an era of downsizing and increased stress and pressures on employees, America's best companies strive to improve employee health and safety. Having

A growing body of evidence supports the concept that focusing on the health and safety of a workforce is good business. Engaging in a comprehensive effort to promote wellness, reduce the health risks of a workforce, and mitigate the complications of chronic illness within these populations can produce remarkable effects on health care costs, productivity, and performance. The literature is replete with examples demonstrating that the health of employees impacts their performance and productivity. In addition, for the majority of the employers who pay for the cost of health care provided to their employees, there is a direct impact on the bottom line.

Recent statistics have revealed the following:

- More than 22% of working age adults surveyed reported health-related work impairment from chronic illness in the previous 30 days. Those with impairment averaged 6.7 lost days. This is equivalent to 2.5 billion impaired days per year.<sup>1</sup>
- A 2003 study found that illness and disability reduced total work hours by approximately 8.6%. In 1996, with nearly 8.7 million Americans between the ages of 18 and 64 years being unable to work. This represented a loss of approximately \$468 billion to the US economy.<sup>2</sup> In 2006, more than \$2 trillion was spent on health care with three fourths of that amount focused on treating chronic conditions.<sup>3</sup>

From the HealthNEXT LLC (Dr Fabius), Newtown Square, PA; HealthNEXT LLC (Mr Thayer), Unsworthville, PA; KDK Solalson, Ltd (Ms Konicki), Chicago, IL; Health and Wellness Medical Strategies (Dr Yarborough), Lockheed Martin Corporate Medical Director, Bethesda, MD; Occupational Health Strategies, Inc (Dr Peterson), Charlottesville, VA; Health and Wellness (Dr Isaac), Johnson & Johnson, New Brunswick, NJ; Ironwood (Dr Loeppke), Tempe, AZ; American College of Occupational and Environmental Medicine (Mr Eisenberg and Ms Dreger), Elk Grove Village, IL. The authors declare no conflicts of interest. Address correspondence to: Raymond Fabius, MD, HealthNEXT LLC, 6 Ping Hollow Lane, Newtown Square, PA, 19073 (ray.fabius@healthnext.com). Copyright © 2013 by American College of Occupational and Environmental Medicine. DOI: 10.1097/JOM.0b013e3182a68875

# 3 MORE CORRELATION STUDIES PUBLISHED IN 2016

## Marketplace rewards companies who achieve cultures of health

### Health Enhancement Resource Organization High Scoring Companies

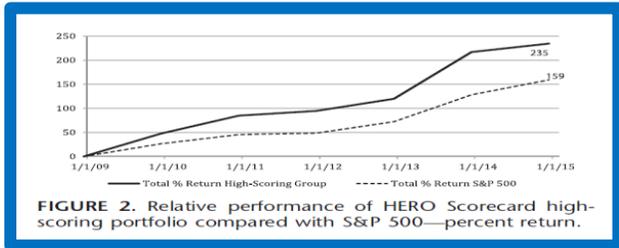
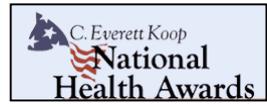
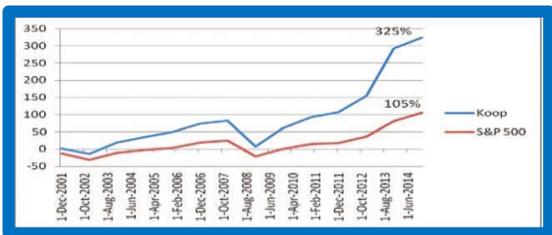


FIGURE 2. Relative performance of HERO Scorecard high-scoring portfolio compared with S&P 500—percent return.



### Health Project Award Winning Companies



### CHAA Award winning companies

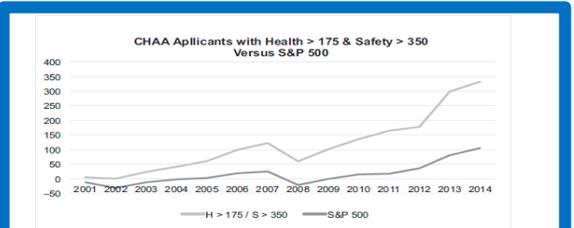


FIGURE 4. Performance of companies with a CHAA health score >175 and safety score >350 versus S&P 500.



**Linking Workplace Health Promotion Best Practices and Organizational Financial Performance**  
Tracking Market Performance of Companies With Highest Scores on the HERO Scorecard

Jessica Grosmeier, PhD, MPH, Ray Fabius, MD, Jennifer P. Flynn, MS, Steven P. Noeldner, PhD, Dan Fabius, MD, Ron Z. Goetzel, PhD, and David R. Anderson, PhD, LP

**Objective:** The aim of the study was to evaluate the stock performance of publicly traded companies that received high scores on the HERO Employee Health Management Best Practices Scorecard based on their implementation of evidence-based practices. Methods: A portfolio of scores in a corporate health and wellness program is compared with the S&P 500 index over a 6-year period. Conclusions: Return on investment appears to be one of many high-performing, well-managed companies.

**The Stock Performance of C. Everett Koop Award Winners Compared With the Standard & Poor's 500 Index**

Ron Z. Goetzel, PhD, Raymond Fabius, MD, Daniel Fabius, DO, Evid C. Roemer, PhD, Nicole Thornton, BA, Rebecca K. Kelly, PhD, RD, and Kenneth R. Pelletier, PhD, MD (hc)

**Objective:** The aim of the study was to explore the link between companies investing in the health and well-being programs of their employees and stock market performance. Methods: Stock performance of C. Everett Koop National Health Award winners (n = 26) was measured over time and compared with the average performance of Standard and Poor's (S&P) 500 Index. In 2014, Koop Award winners' stock value with the market average appreciation rate was 325% compared with the S&P 500 Index. This finding supports prior and ongoing research on an affirmation of business as socially responsible companies that support their workers when compared with their peers.

**Tracking the Market Performance of Companies That Integrate a Culture of Health and Safety**  
An Assessment of Corporate Health Achievement Award Applicants

Raymond Fabius, MD, Ronald R. Loeppke, MD, MPH, Todd Holm, CSF, Dan Fabius, DO, Barry Eisenberg, CAE, Doris L. Konicki, MHS, and Paul Larson, MS

**Objective:** The aim of the study was to assess the hypothesis that stock market performance of companies achieving high scores on either health or safety during the Corporate Health Achievement Award (CHAA) process will be superior to average index performance. Methods: The stock market performance of portfolio of CHAA winners was examined under an efficient market assumption using standard and peer market performance as a baseline. Results: CHAA winners outperformed the S&P 500 Index by 325% over the 13-year period. This finding supports prior and ongoing research on an affirmation of business as socially responsible companies that support their workers when compared with their peers.

**Learning Objectives**

- Discuss previous research linking worker health to the stock market performance of companies, including the previous study tracking the performance of companies receiving the Corporate Health Achievement Award (CHAA).
- Summarize the methods and findings of the new study assessing the performance of portfolio of stock in companies recognized for excellence in health and safety performance.
- Discuss the implications for the use of instruments for measuring the business value of workplace health and safety programs, such as the Integrated Health and Safety Index.

**Background**

In recent decades, U.S. employees have made significant progress in addressing issues of health and safety in the workplace. Since 1970, workplace fatalities have been reduced by more than 65% and injury and illness rates have declined by 47%, according to

# HOW DO YOU MEASURE A CULTURE OF HEALTH

## HealthNEXT Research

### *10 Weighted Assessment Categories*

- People & management
- Marketing & communications
- Data warehousing
- Health & wellness plan design
- Environment
- On-site health activities
- Health & wellness activities
- Incentives and benefits design
- Engagement & navigation
- Vendor integration

The table displays a grid of assessment results. The columns are organized into several sections: 'People & Management', 'Marketing & Communications', 'Data Warehousing', 'Health & Wellness Plan Design', 'Environment', 'On-site Health Activities', 'Health & Wellness Activities', 'Incentives and Benefits Design', 'Engagement & Navigation', and 'Vendor Integration'. Each row represents a specific element within these categories. The cells are color-coded: green indicates high completion, yellow indicates moderate completion, and red indicates low completion. A legend at the top left shows a vertical bar with five segments in green, yellow, and red, corresponding to the 'Degrees of completion' mentioned in the text.

- 218 “Elements”
- In 10 “Categories”
- 11 “Thresholds” of implementation
- 5 “Degrees” of completion
- Scored out of 1000 points
- 650 – 700 Benchmark Level

# Plenary I: Managing Population Health & Building Cultures of Wellness

## Panelists:

**Nico Pronk, PhD**, *Vice President for Health Management & Chief Science Officer,  
Health Partners*

**Sue Bergeson**, *Vice President of Consumer and Family Affairs, OptumHealth  
Behavioral Solutions*

**Kyu Rhee, MD**, *Chief Health Officer, Watson/IBM*





# From Treating Illness to Creating Wellbeing

*32nd Annual Rosalynn Carter Symposium on Behavioral Health Policy  
Atlanta, GA  
November 17 & 18, 2016*

Nico Pronk, Ph.D.  
VP and Chief Science Officer



# The 1974 Canadian Bombshell

## Marc Lalonde

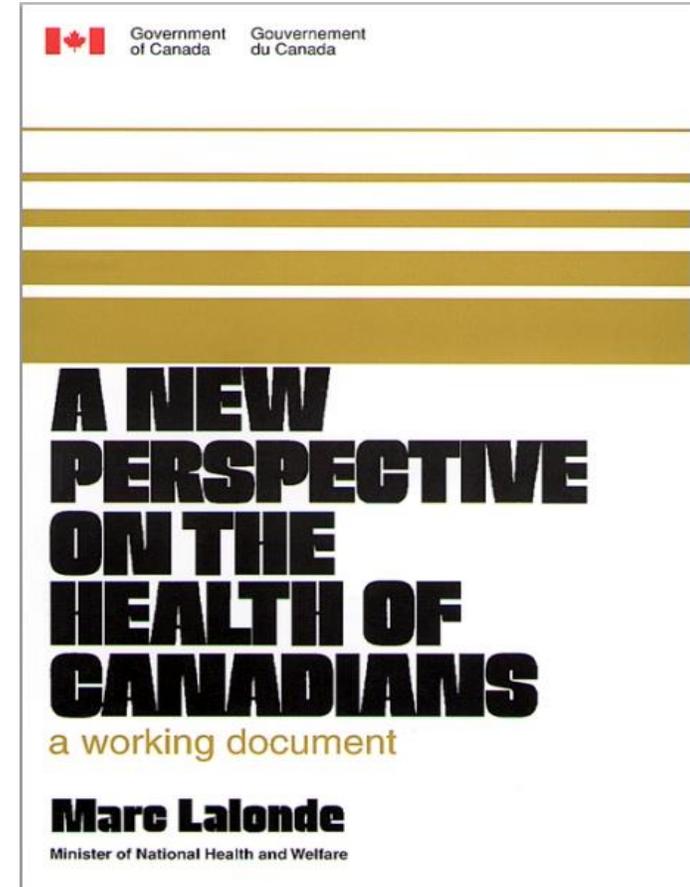
Canadian Politician

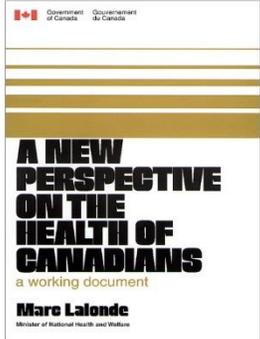
Marc Lalonde, PC OC QC is a retired Canadian politician and Cabinet minister. [Wikipedia](#)

**Born:** July 26, 1929 (age 85), Île Perrot, Canada

**Party:** Liberal Party of Canada

**Education:** Université de Montréal, University of Oxford, University of Ottawa





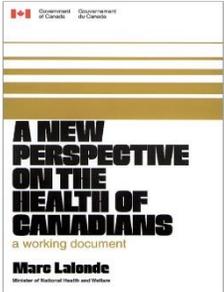
# The 1974 Canadian Bombshell

At the same time as improvements have been made in health care, in the general standard of living, in public health protection and in medical science, ominous counter-forces have been at work to undo progress in raising the health status of Canadians. These counter-forces constitute the dark side of economic progress. They include environmental pollution, city living, habits of indolence, the abuse of alcohol, tobacco and drugs, and eating patterns which put the pleasing of the senses above the needs of the human body.

For these environmental and behavioural threats to health, the organized health care system can do little more than serve as a catchment net for the victims. Physicians, surgeons, nurses and hospitals together spend much of their

A New Perspective on the Health of Canadians,  
Ottawa, 1974





# Introduces the Health Field Concept

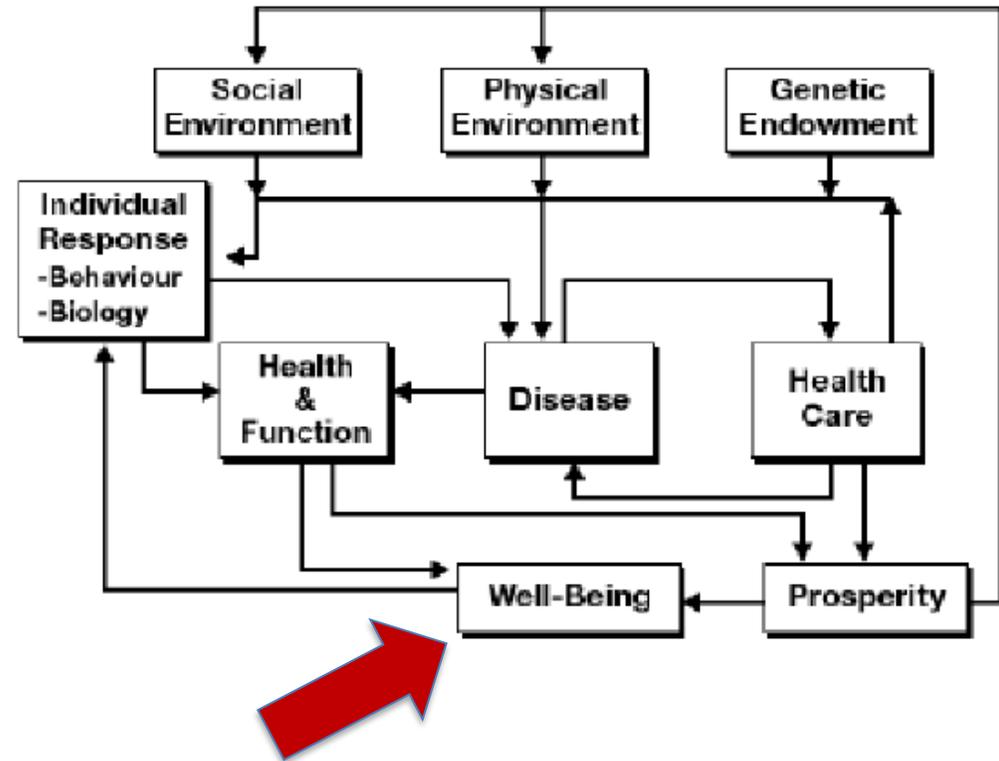
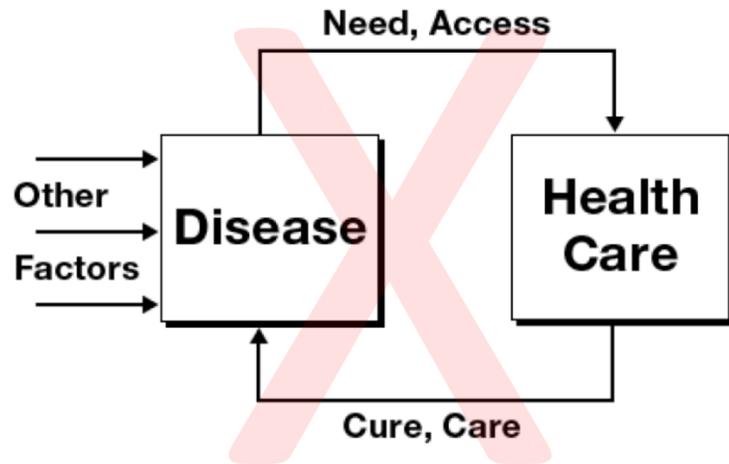
Such a Health Field Concept<sup>6</sup> was developed during the preparation of this paper and it envisages that the health field can be broken up into four broad elements: HUMAN BIOLOGY, ENVIRONMENT, LIFESTYLE and HEALTH CARE ORGANIZATION. These four elements were identified

Until now most of society's efforts to improve health, and the bulk of direct health expenditures, have been focused on the HEALTH CARE ORGANIZATION. Yet, when we identify the present main causes of sickness and death in Canada, we find that they are rooted in the other three elements of the Concept: HUMAN BIOLOGY, ENVIRONMENT and LIFESTYLE. It is apparent, therefore, that vast sums are being spent treating diseases that could have been prevented in the first place. Greater attention to the first three conceptual elements is needed if we are to continue to reduce disability and early death.

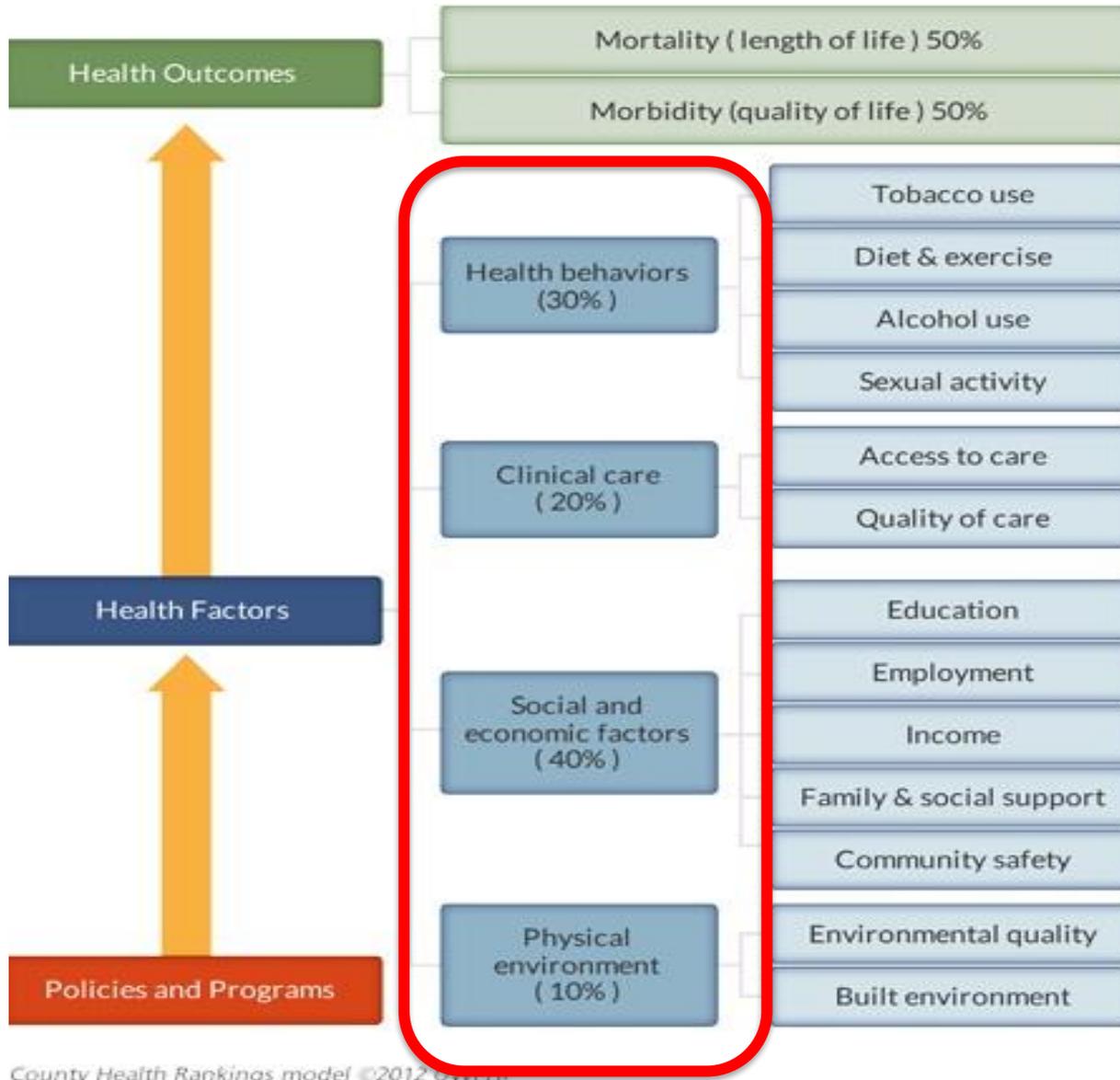
A New Perspective on the Health of Canadians,  
Ottawa, 1974



# Evans and Stoddart - 1990



The County Health Rankings model descended from this framework

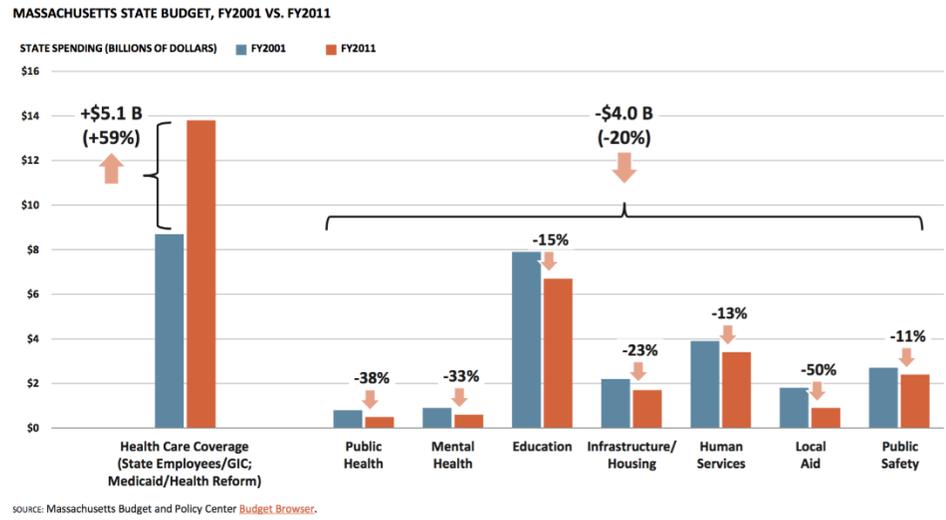


# But the US still has not heeded Lalonde's message.

As support of essential services suffers...

US life expectancy falls behind comparable countries...

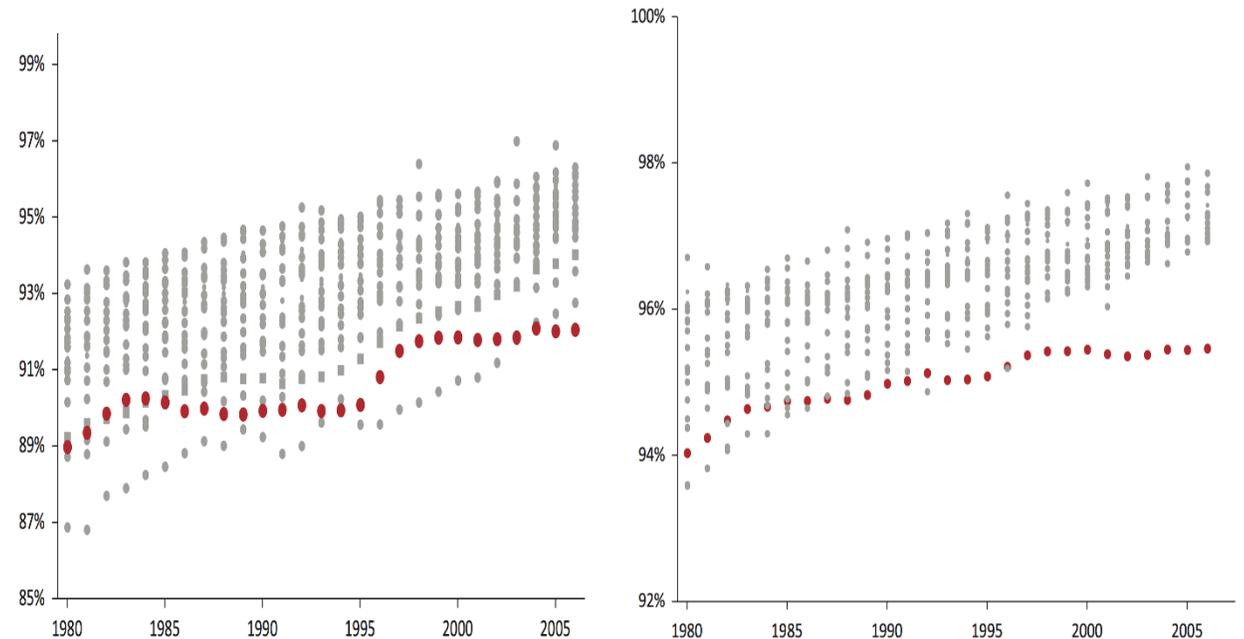
## The Increasing Costs of Health Care Squeeze Out Other Public Spending Priorities



MARCH 2012

BLUE CROSS BLUE SHIELD OF MASSACHUSETTS FOUNDATION 15

<http://bluecrossmafoundation.org/sites/default/files/Cost%20Deck%20March%20report.pdf>

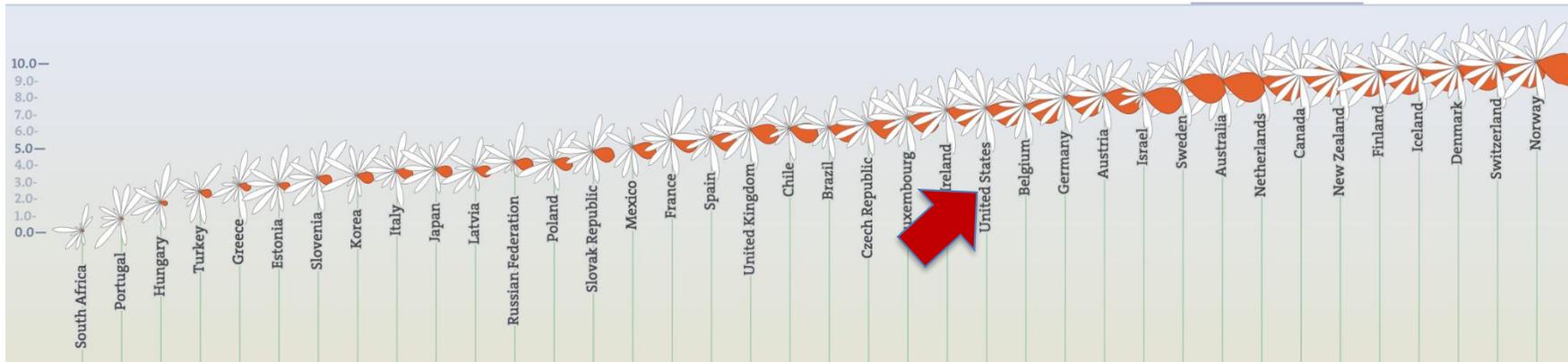


National Research Council and Institute of Medicine. (2013). *U.S. Health in International Perspective: Shorter Lives, Poorer Health*.

Probability of survival to age 50 in 21 high-income countries: 1980-2006



# ...and life satisfaction lags



In response, HealthPartners has made a proposal

# PREVENTING CHRONIC DISEASE

PUBLIC HEALTH RESEARCH, PRACTICE, AND POLICY

Volume 13, E52

APRIL 2016

EDITOR'S CHOICE

## “Well-Being in All Policies”: Promoting Cross-Sectoral Collaboration to Improve People’s Lives

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Thomas E. Kottke, MD, MSPH; Matt Stiefel, MPA, MS; Nicolaas P. Pronk, PhD

*Suggested citation for this article:* Kottke TE, Stiefel M, Pronk NP. “Well-Being in All Policies”: Promoting Cross-Sectoral Collaboration to Improve People’s Lives. *Prev Chronic Dis* 2016;13:160155. DOI: <http://dx.doi.org/10.5888/pcd13.160155>.

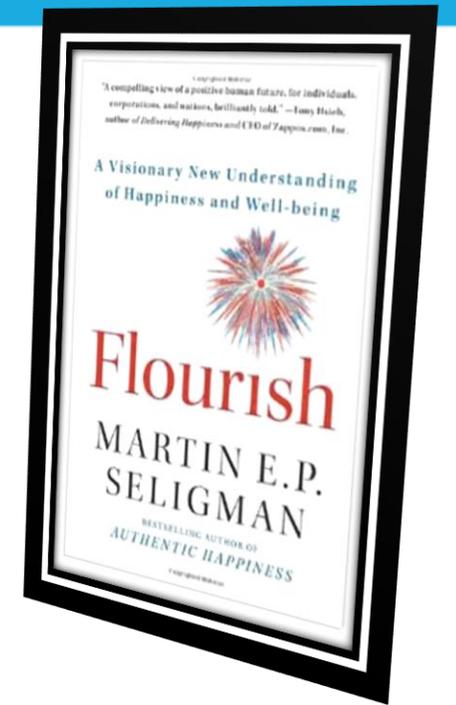
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# What is “well-being”?

- A healthy physical environment
  - high quality air & water
  - safe housing & transit
- Social and economic opportunity
  - good education
  - stable employment
  - livable income
  - family and social support
  - community safety
- PERMA

A satisfying life



# Why not keep “health” the goal?

- The association of the word “health” with “health care” is so strong that it creates a conflation of “health care policy” with “health policy” that is nearly impossible to break.
- Well-being is a positive concept. While health may be more than the absence of disease, current metrics are framed as the extent to which disease burdens the individual or the population.
- Shifting the focus towards well-being would appropriately place “health” among the determinants of well-being, as opposed to being the ultimate aim.
- Policy makers in health care, particularly those in health plans and care delivery organizations, may not recognize the full range of opportunities that they have at hand to improve well-being while staying true to their missions.



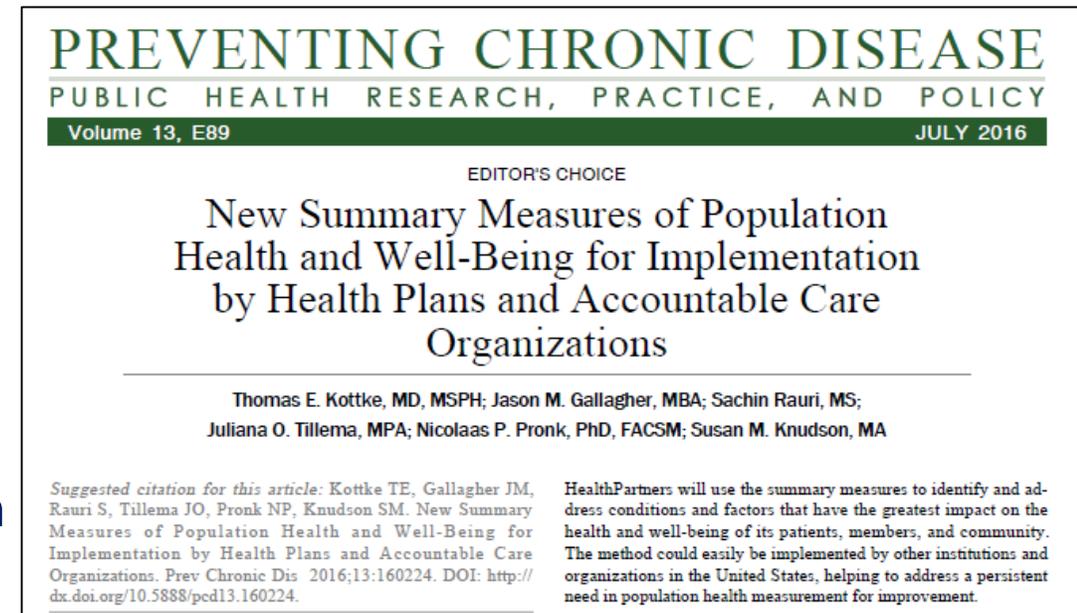
# System Focus on Well-Being

Where should we start?

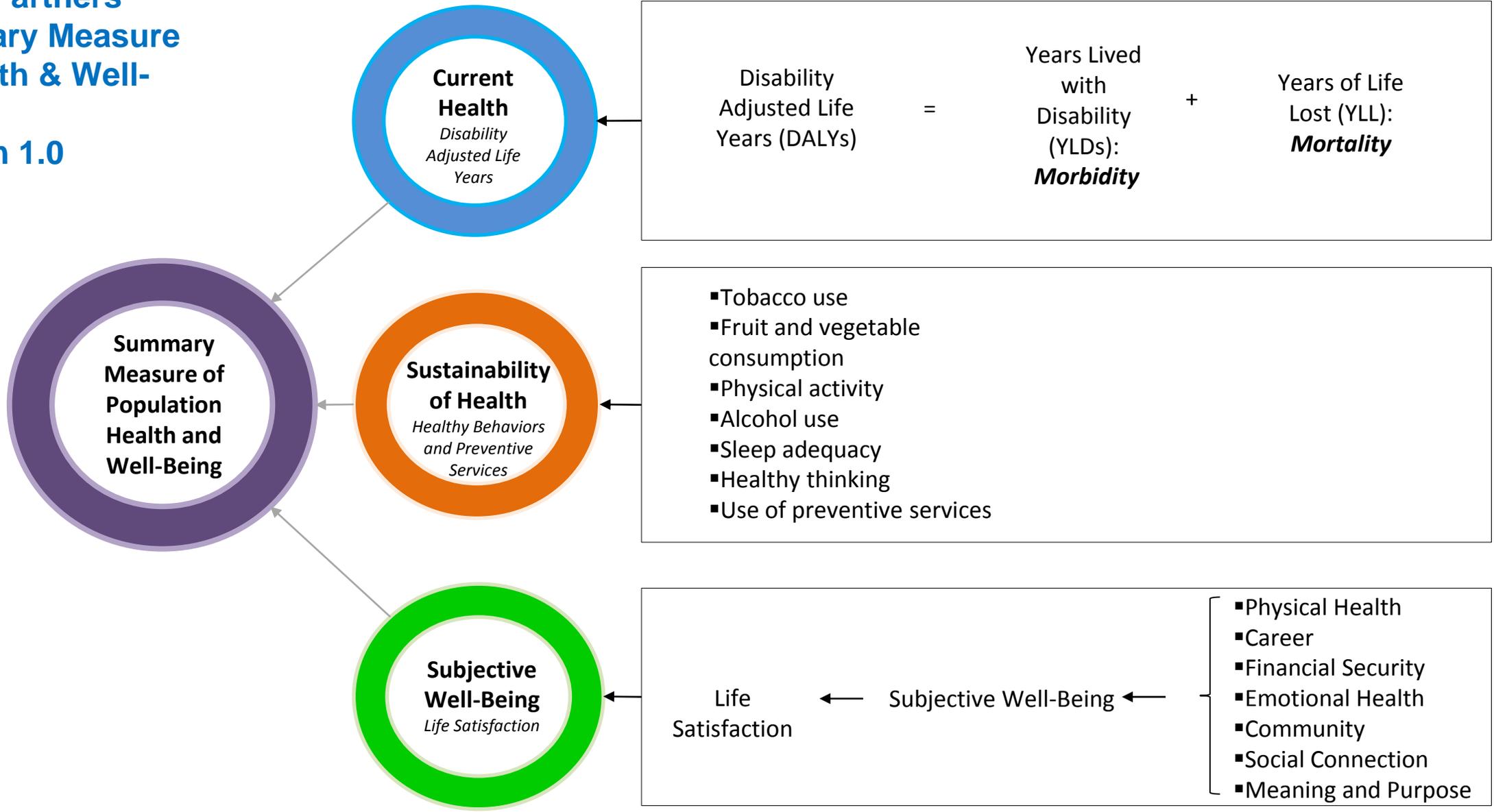
“What gets measured gets done!” ...so, let’s measure...

HealthPartners has created a version 1.0  
“*Summary Measure of Health and Well-Being*”  
so as to **measure progress towards mission achievement**

HealthPartners mission: “Improve health and well-being in partnership with our members, patients, and community”



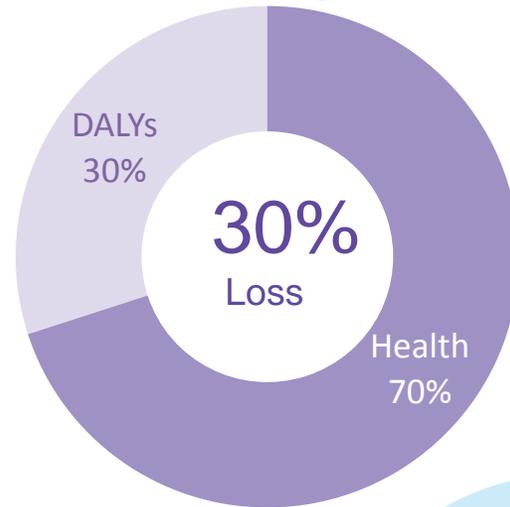
**HealthPartners  
Summary Measure  
of Health & Well-  
being  
Version 1.0**



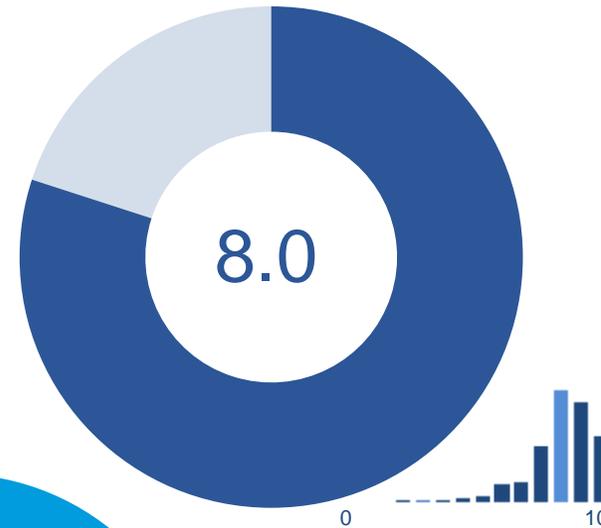
# 2015-16 HealthPartners Summary Measure of Health & Well-being

**179,825**  
Population Years Lost

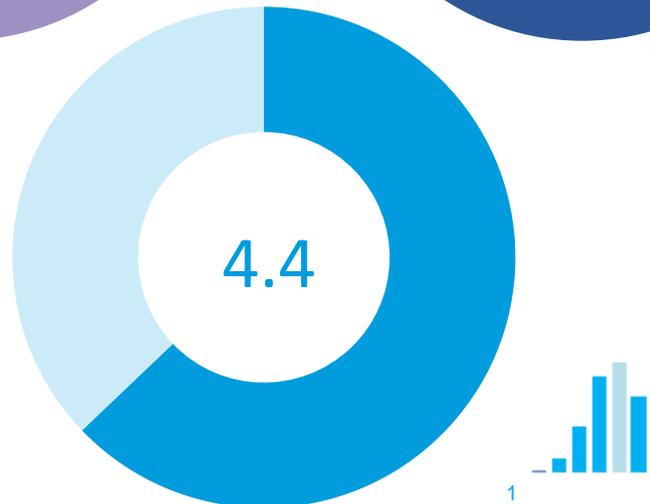
## Disability Adjusted Life Years (DALYs)



## Life Satisfaction (Out of 10)



## Sustainability (Out of 7)



**VERSION 1.0  
DRAFT  
RESULTS AND PREVIEW**

Survey Responders (July 2015 – February 2016)  
N=3,500  
HealthPlan Members (July 2015) N= 609,547



# Thank You!



Igazu Falls, Brazil. Photo courtesy of Dr. Ray Fabius





# Recovery & Resiliency in Population Health

***Sue Bergeson,***  
Vice President of Consumer  
and Family Affairs  
OptumHealth Behavioral  
Solutions

# Cancer, Mental Health and Me

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28



“People fear getting cancer more than losing their job, developing Alzheimer's disease or having a heart attack, ...losing a home, debt, and being in a car crash” <http://www.dailymail.co.uk/health/article-1337096/Cancer-greatest-fear-poll-reveals-scarier-old-age-losing-homes.html>

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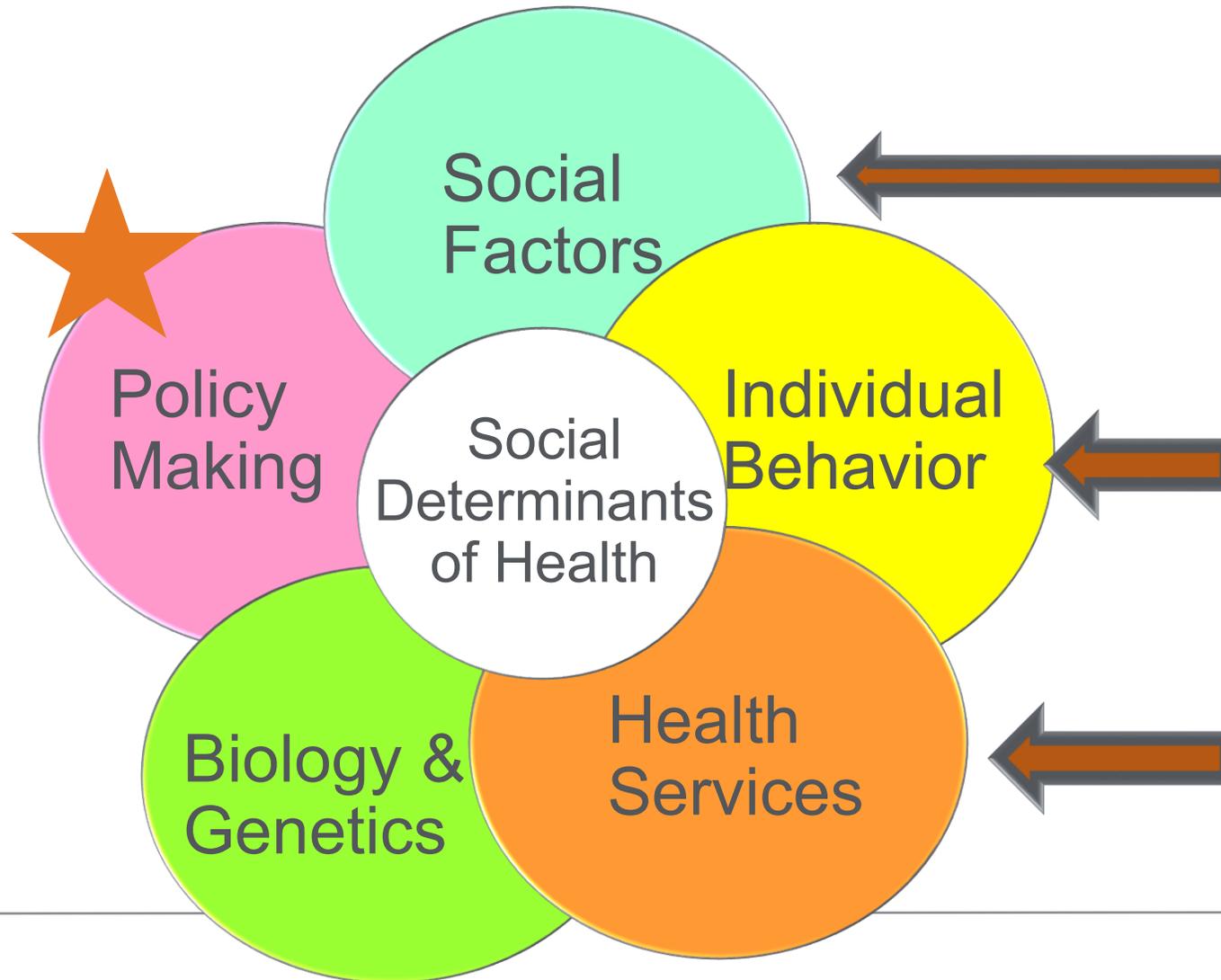
# Recovery and Resiliency Definitions

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- “A process of change through which individuals improve their health and wellness, live a self-directed life, and strive to reach their full potential”
- “...the process of adapting well in the face of adversity, trauma, tragedy, threats or significant sources of stress ... It means "bouncing back" from difficult experiences... Resilience is not a trait that people either have or do not have. It involves behaviors, thoughts and actions that can be learned and developed in anyone.”



Achieving the aim of Population Health is to reduce health inequities or disparities among different population groups due to the Social Determinates of Health



Four major domains that support recovery:

**Health** : overcoming or managing one's disease(s) as well as living in a physically and emotionally healthy way;

**Home**: a stable and safe place to live;

**Purpose**: meaningful daily activities, such as a job, school, volunteerism, family caretaking, or creative endeavors, and the independence, income and resources to participate in society; and

**Community** : relationships and social networks that provide support, friendship, love, and hope

On the other hand, you can not look just at recovery/resiliency without viewing the bigger population health issue

## Disparities within Communities (At a County Level)

	Riskier, Difficult to Engage Populations		Less Risky, more easy to engage populations		Total MA
	Suffolk	Bristol	Hampshire	Middlesex	
Median HH Income	\$54,300	\$57,700	\$57,700	\$84,000	\$69,200
Unemployment	5.4%	7.3%	5.0%	4.6%	5.8%
Children in Poverty	32%	17%	13%	10%	15%
Violent Crime	910	556	245	257	434
Adult Smoking	15%	19%	15%	12%	15%
Adult Obesity	21%	28%	21%	23%	24%
Poor Physical Health Days	3.5	4.0	3.3	3.0	3.5
Poor Mental Health Days	3.8	4.6	3.9	3.4	3.9
Primary Care Physicians	640:1	1,900:1	690:1	820:1	940:1
Food Insecurity	16%	13%	11%	9%	11%

# Recovery, Resiliency and **Activation?**

## SAMHSA's Principles of Recovery

- **Recovery emerges from hope**
- **Recovery is person-driven**
- **Recovery occurs via many pathways:**
- **Recovery is holistic:**
- **Recovery is supported by peers & allies**
- **Recovery is supported through relationship and social networks**
- **Recovery is culturally-based & influenced**
- **Recovery is supported by addressing trauma**
- **Recovery involves individual, family, and community strengths and responsibility**
- **Recovery is based on respect**

## APA's Ten Aspects of Resiliency

- **Make connections**
- **Avoid seeing crises as insurmountable problems.**
- **Accept that change is a part of living.**
- **Move toward your goals.**
- **Take decisive actions.**
- **Look for opportunities for self-discovery.**
- **Nurture a positive view of yourself.**
- **Keep things in perspective.**
- **Maintain a hopeful outlook.**
- **Take care of yourself.**

# Engagement and Activation

---

## Engagement

- Engagement and activation are often used synonymously, but they are two different aspects of a continuum of health, wellbeing, care, and management.
- Engagement is the process by which an and health care systems are able to establish the bond that links health, illness, and wellbeing to a system of care.
- This will include prenatal care for pregnant mothers well baby and ongoing pediatric care for children; primary and specialty care across the adult years; and, palliative care later in life.
- An individual can be engaged and not activated

## Activation

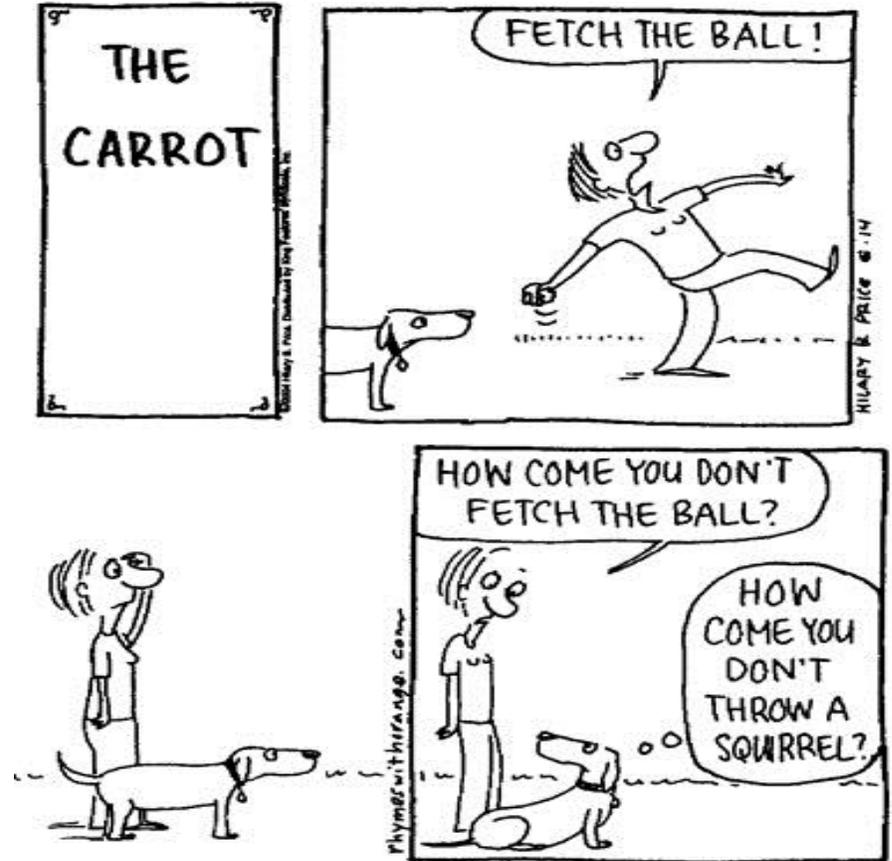
Six core elements of activation have been identified by Hibbard (2004) and include

- 1) Symptom self-management;
- 2) Engagement in actions that support health and functioning maintenance;
- 3) Involvement in treatment decision making;
- 4) Collaboration with health care providers;
- 5) Critical, performance-based selection of providers; and
- 6) Navigation of the provider system.

*Fundamental to ...these elements ...also include a patient's beliefs, knowledge, skills, and securing emotional support.*

# The Art of Activation/Self Care

- 34
- Built on trust
  - Starts with the consumer's strengths
  - Based on *Stage of Recovery/Change*
  - In synch with consumer's own recovery goals and personal preferences
  - Exploration of the best self care/activation tools is done by the consumer themselves often in partnership with a trusted other (especially in the early stages of recovery)



# Peers Are Not Just for Behavioral Health

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- *Cancer Reach To Recovery program*  
<http://www.healthcare-informatics.com/news-item/monitoring-app-copd-patients-integrates-virtual-coaching>
  - Chronic Disease Self-Management Program (CDSMP), Arthritis, Diabetes, Chronic Pain, Cancer, HIV/Aids, Mental Health  
<http://patienteducation.stanford.edu/programs/cdsmp.html>
  - COPD Peers <http://www.copd-support.com/index.htm>
  - Diabetes Peer Coaches  
<http://spectrum.diabetesjournals.org/content/20/4/214>
  - Mended Hearts <http://mendedhearts.org/>
  - Stroke <http://peersforprogress.org/learn-about-peer-support/science-behind-peer-support/#CD>
- And
- Community Health Workers
- 



# Peers and Community Health Workers?

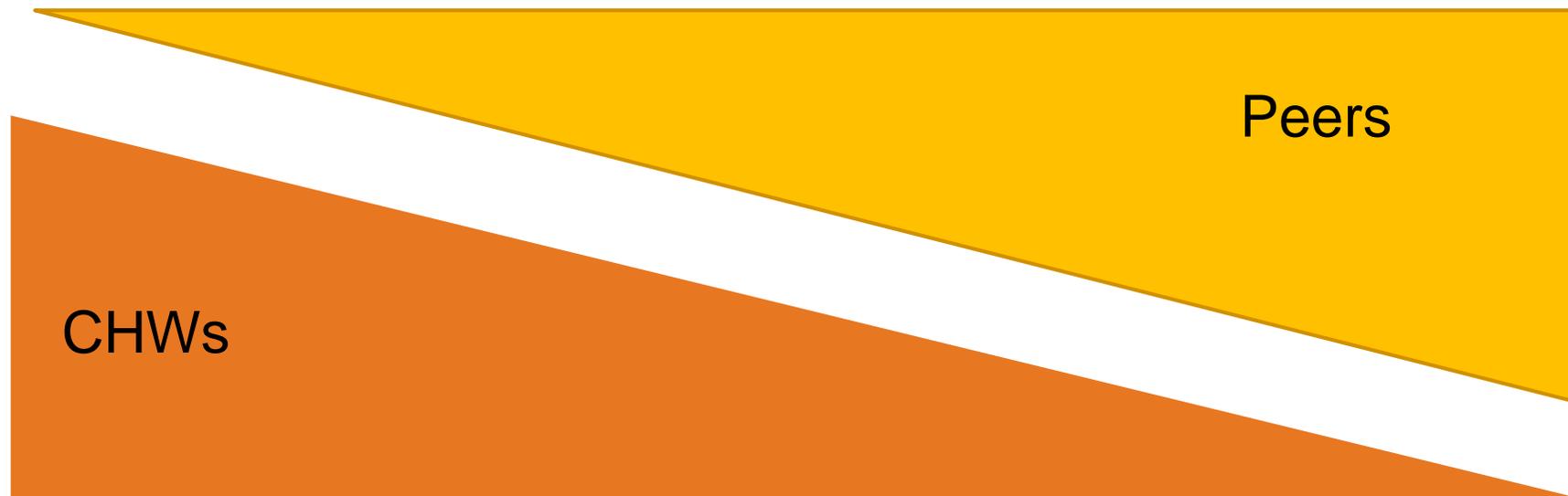
## Community Health Workers

- Engagement
- Cultural Peers (Steve Scoggin)

## Peers

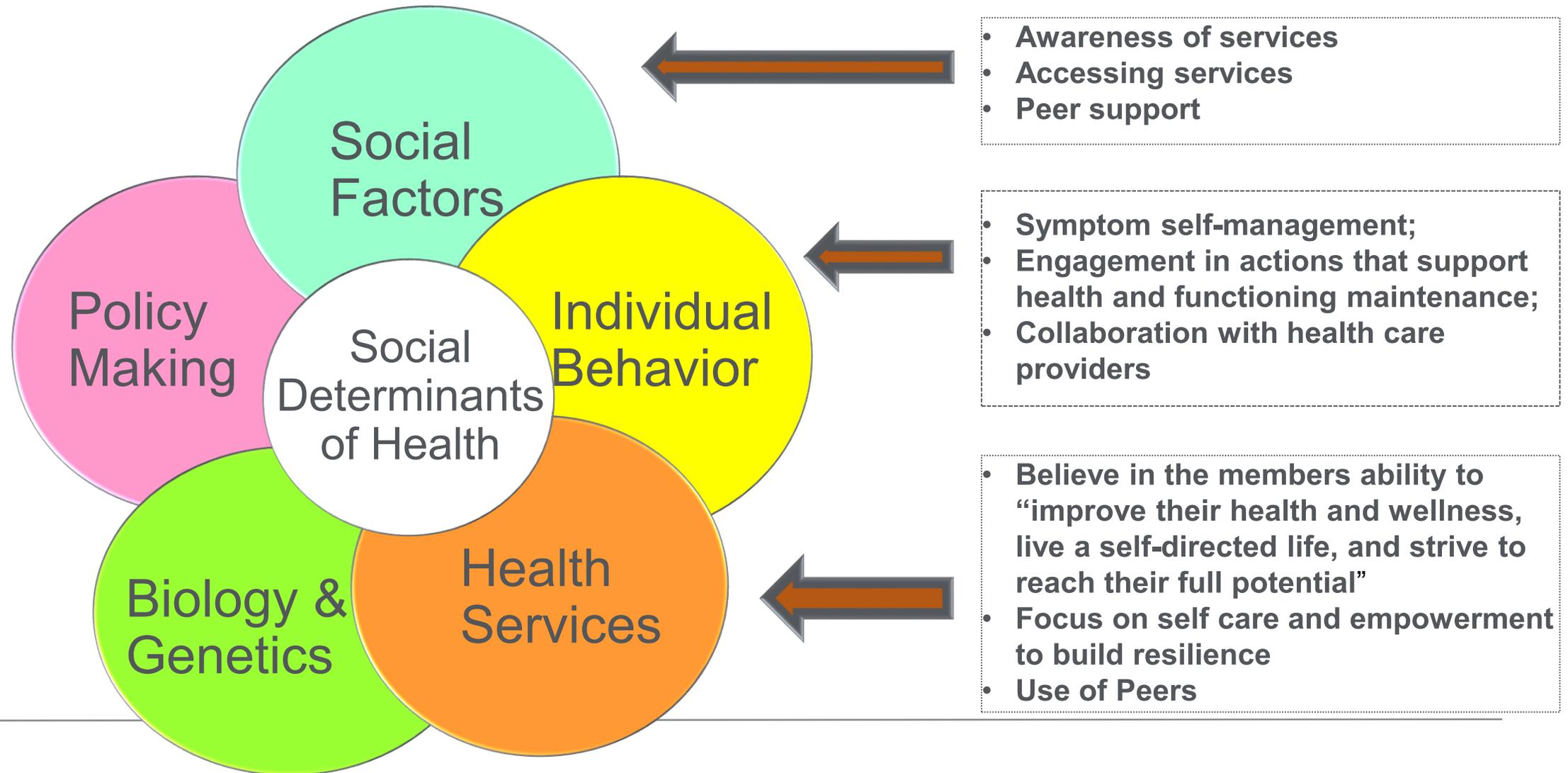
- Activation
- Illness/Wellness Peers

Engagement ← ————— → Activation



Allen Daniels,  
Keris Myrick

# Activation and Engagement are Central to Recovery and Resiliency and Key to Any Successful Population Health Approach



# Cancer, Mental Health and Me

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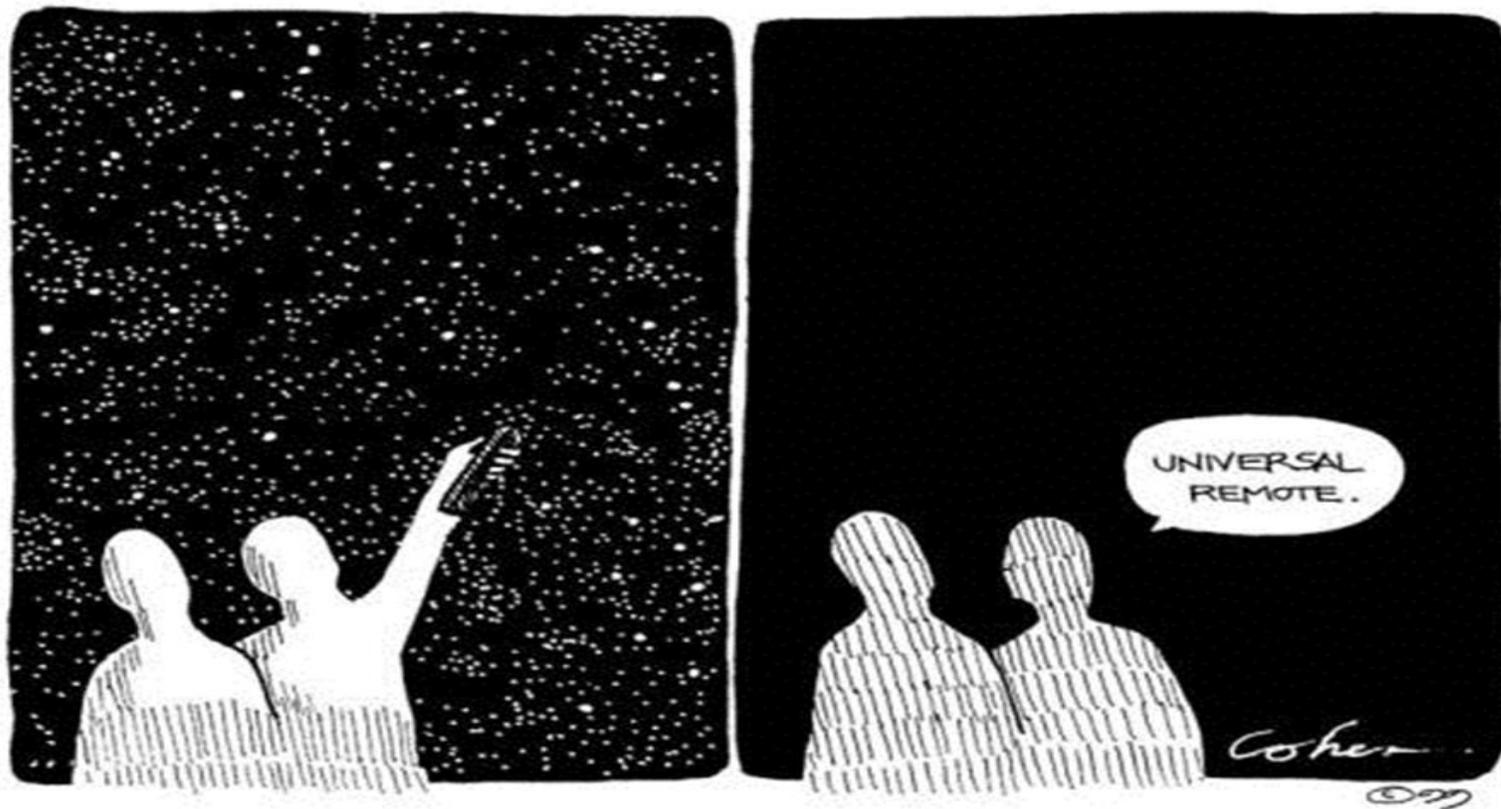
## <sup>38</sup> My First Two Chemo Appointments

- First Contact
- First Nurse
- Second Appointment
  
- Same system, very different experiences based on
  - Belief in my ability to recovery
  - Commitment to empowerment/self care, connection to community (resiliency)
  - Level of peer-ness



Thank You

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phone: (216) 371-8600 / e-mail: ft@funnytimes.com

# Behavioral Health Transformation in the Cognitive Era

*Kyu Rhee, MD, MPP  
Vice President and Chief Health Officer  
IBM Watson Health*

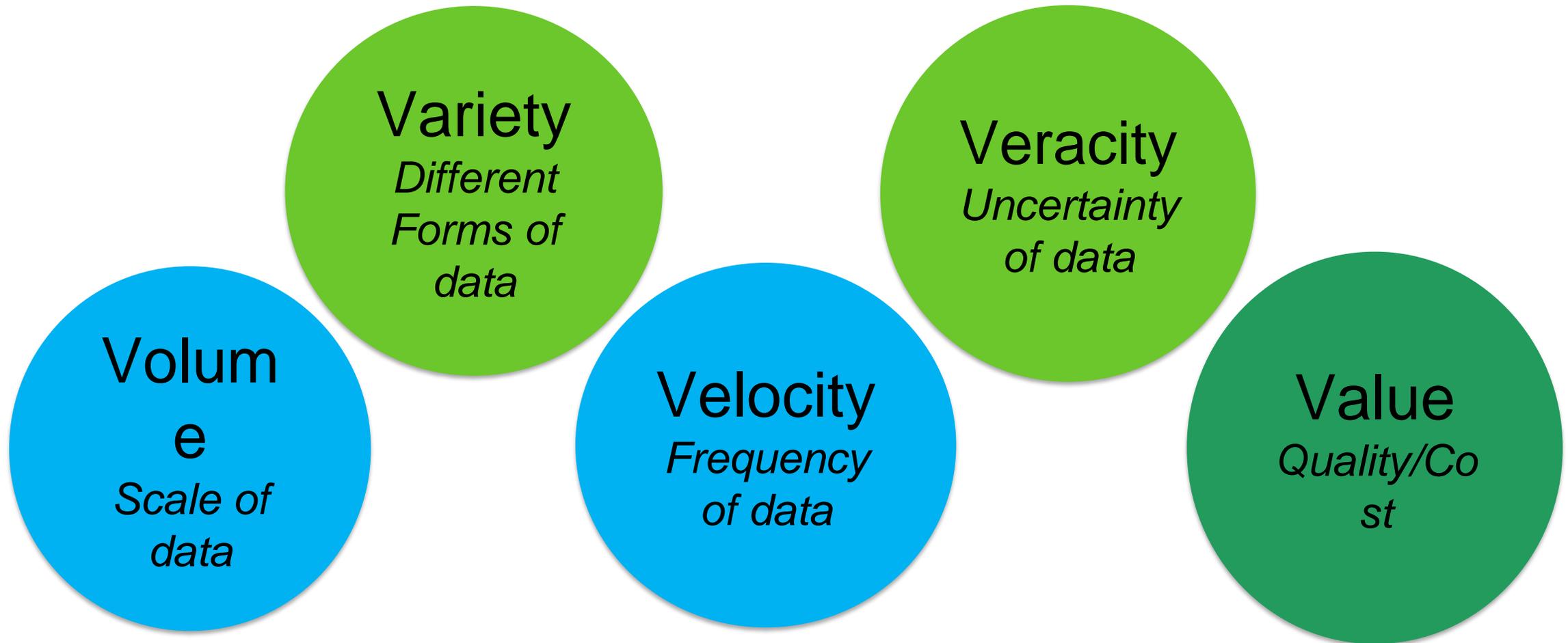
*32<sup>nd</sup> Annual Rosalynn Carter Symposium on Mental Health Policy  
Atlanta, Georgia  
November 17, 2016*



# IBM's Commitment to Culture of Health



# Opportunity to convert the Vs of Big Data into Value





**10%**



**20%**

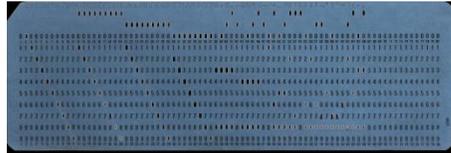


**30%**



**40%**

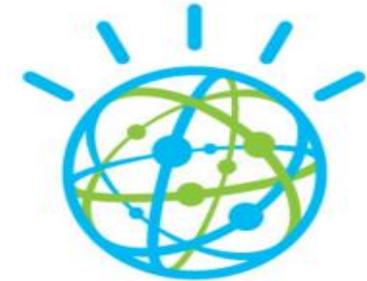
# We are at a **historic shift** in technology



1900  
Tabulating



1950  
Programmable

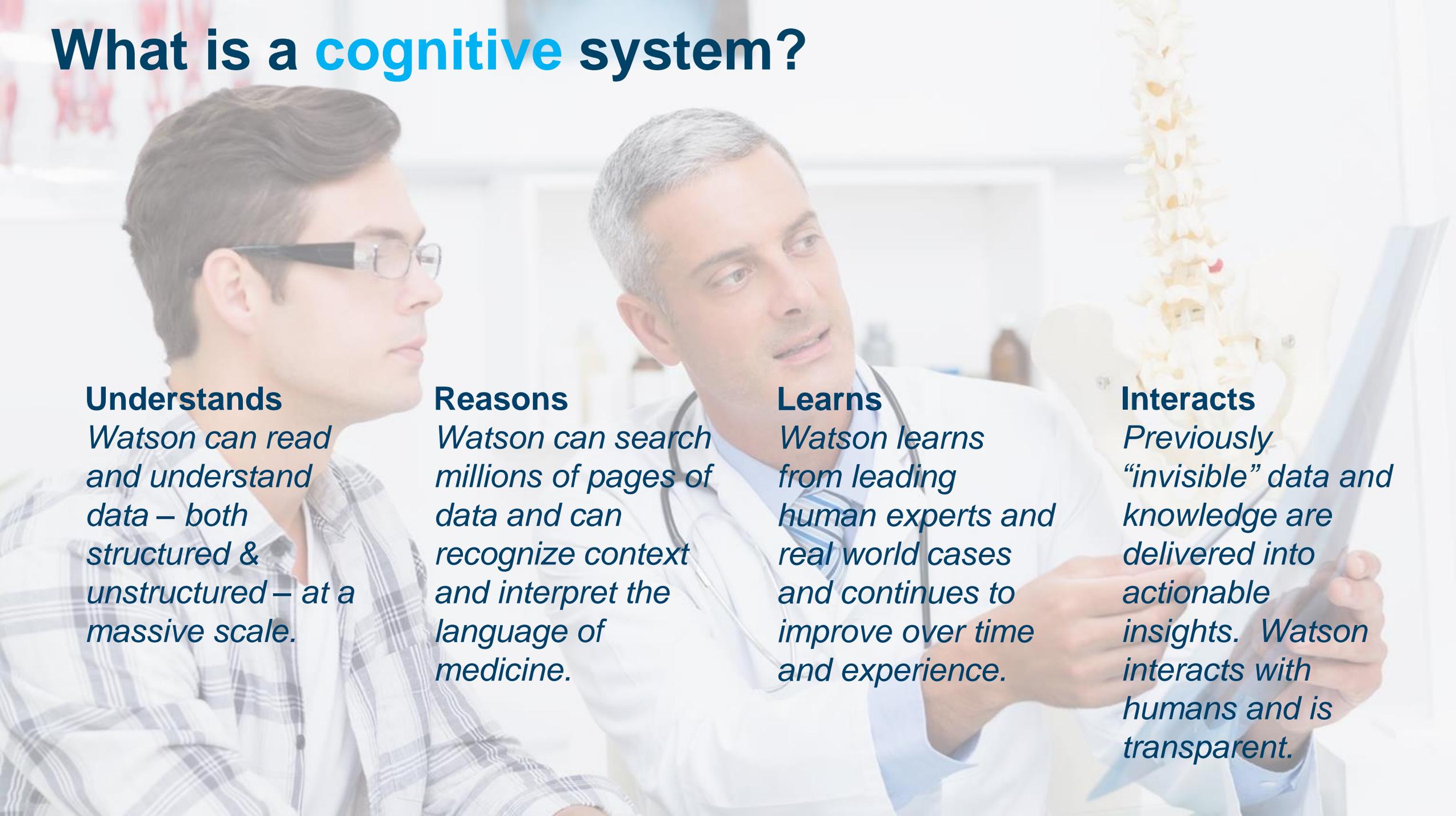


2011  
Cognitive



Cleveland Clinic +  
IBM Watson

# What is a **cognitive** system?

A photograph of a doctor in a white lab coat and stethoscope, and a younger man with glasses, both looking at a tablet held by the doctor. In the background, there is a model of a human spine and some medical charts on a wall.

## **Understands**

*Watson can read and understand data – both structured & unstructured – at a massive scale.*

## **Reasons**

*Watson can search millions of pages of data and can recognize context and interpret the language of medicine.*

## **Learns**

*Watson learns from leading human experts and real world cases and continues to improve over time and experience.*

## **Interacts**

*Previously “invisible” data and knowledge are delivered into actionable insights. Watson interacts with humans and is transparent.*

# A Dream Team to transform health/healthcare globally

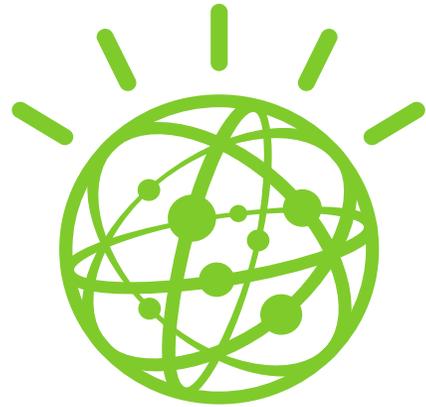




Watson is creating a new partnership between  
**humans and technology** to  
help improve **relationships** by  
enhancing, scaling, and accelerating  
**knowledge.**

*“AI” = “Augmented Intelligence” and  
“Actionable Insights”*

# Let's Work Together



@KyuRheeMD

@IBMWatsonHealth



Kyu Rhee-LinkedIn

[www.ibm.com/watson/health/](http://www.ibm.com/watson/health/)