

Beyond the Medical Neighborhood Collaboration for Healthier Communities

Population Health Colloquium
Philadelphia, Pennsylvania
March 17, 2014



*M-J. Sepúlveda, MD FACP
IBM Fellow & Vice President*

Purpose: discuss why healthy community activism can't wait

Discussion threads

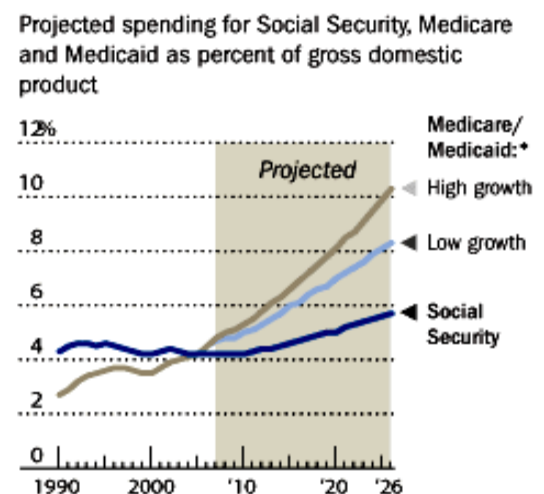
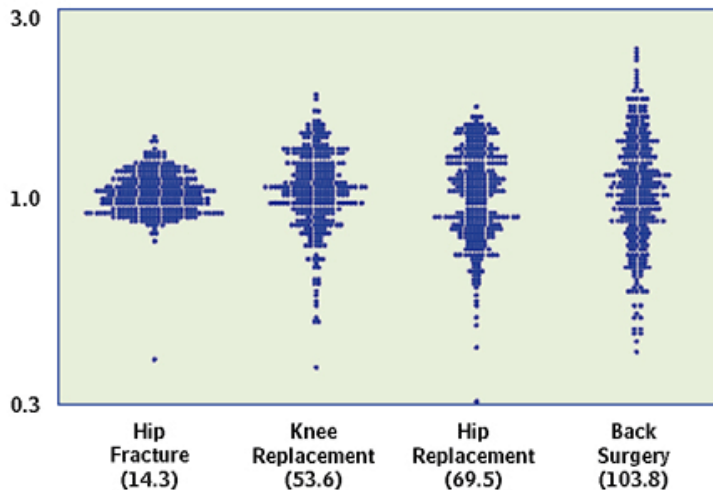
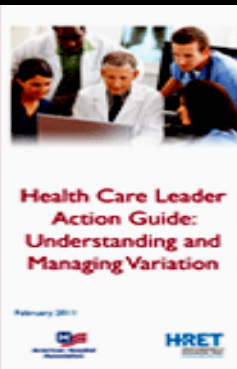
- where are we in war for better population health
- where do we need to go
- who cares



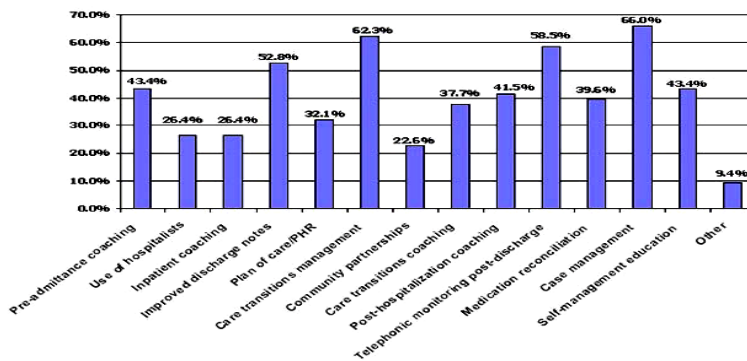
Medical Care Delivery System in Crisis



When you're uninsured, life turns out differently



13 Strategies to Help Prevent Hospital Readmissions



Source: HIN Reducing Readmissions Survey

source: WSJ

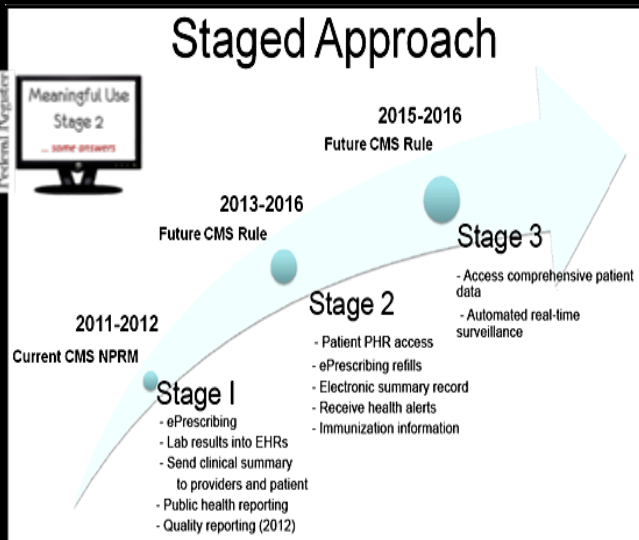


Cancer and CT

Health Care Transformation



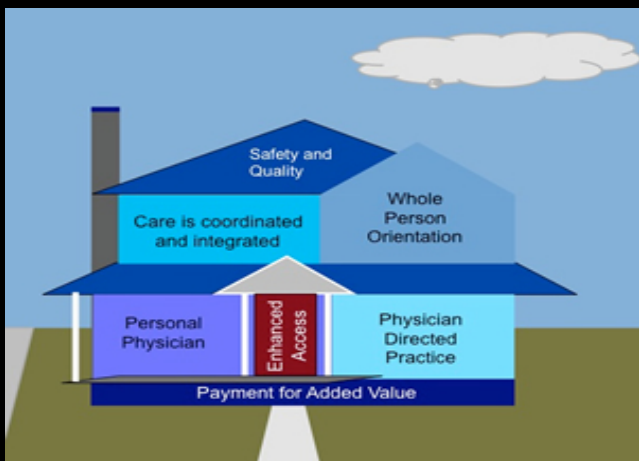
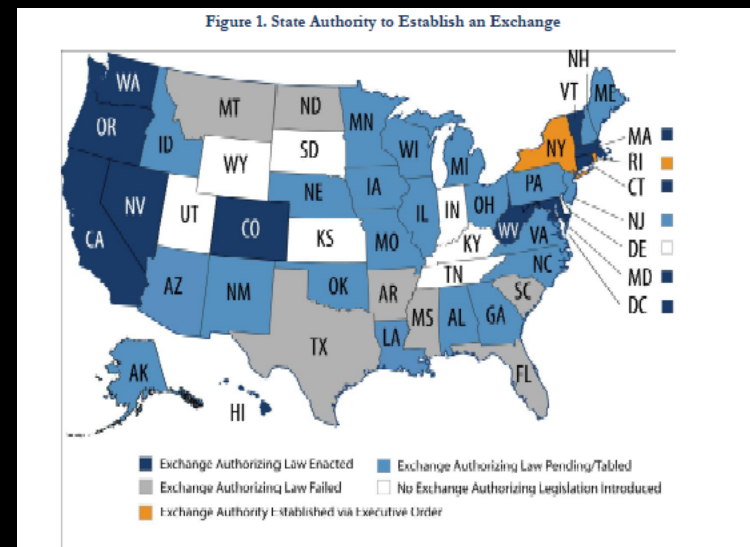
Data & Information



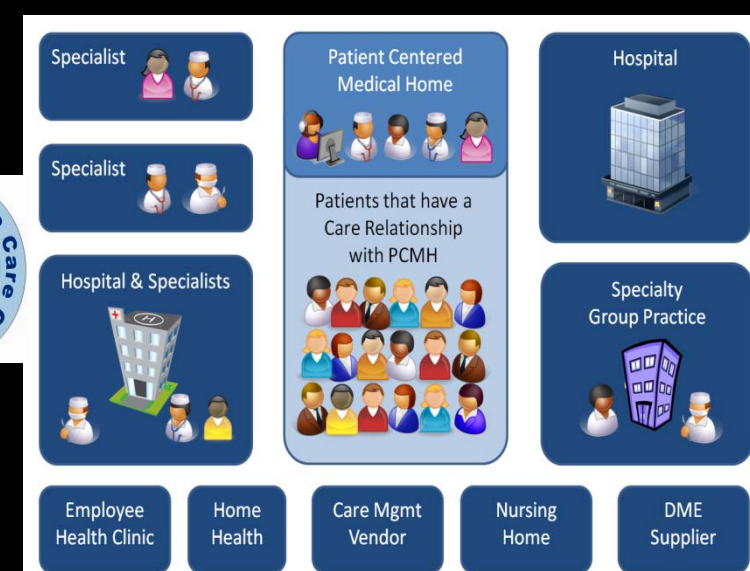
Finances



Health Exchanges



Delivery System



Patient-Centered Medical Home Outcome Indicators

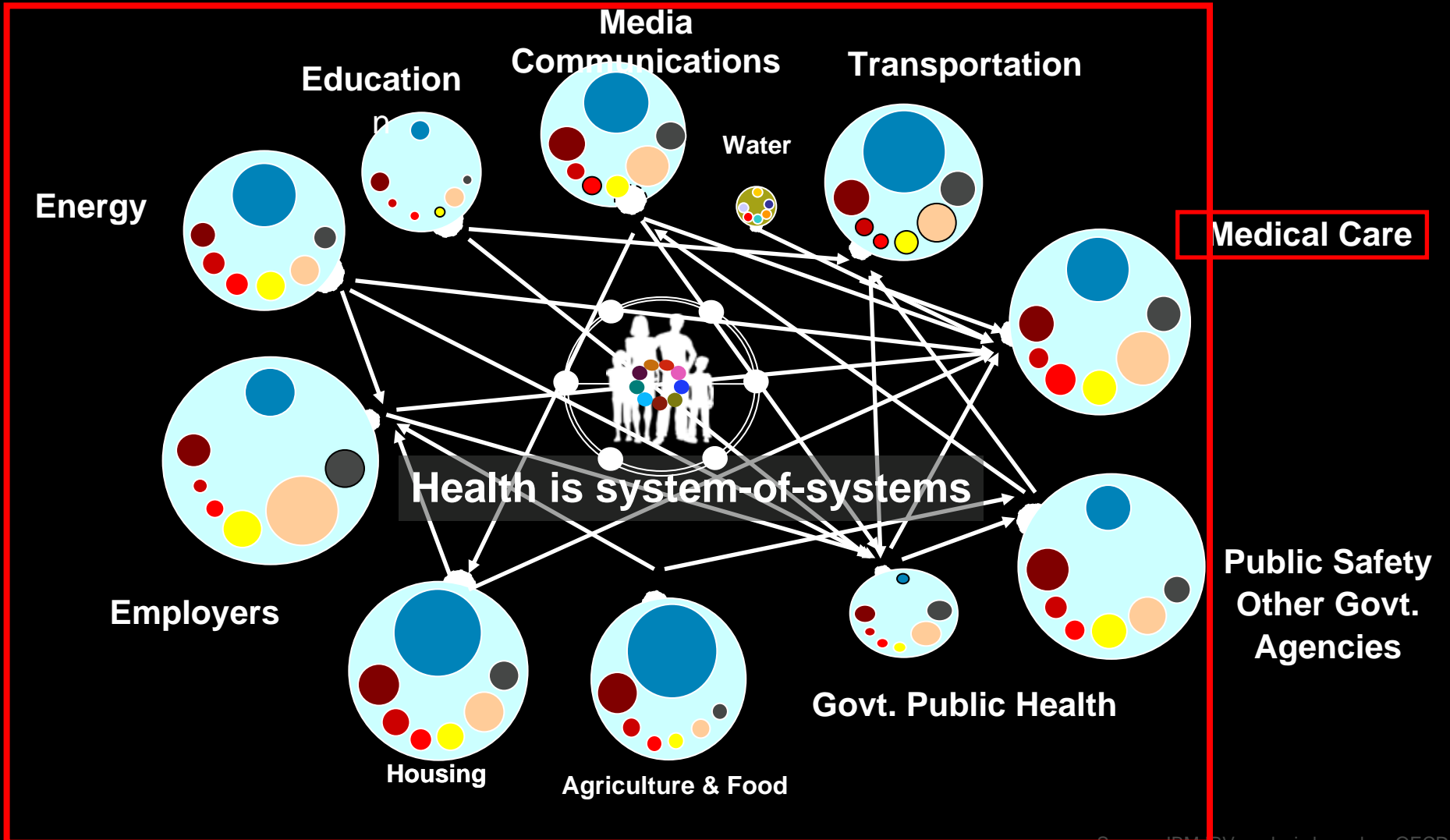
	Total Studies	Cost	Fewer ED Visits	Fewer Inpatient Admits	Fewer Re-Adm.	Better Biometric Indicator	Better Access	More Prev. Service	Better Pt. Sat'n
PEER-REVIEW/ACADEMIA									
Reported outcomes	(n=13)	61% (n=8)	61% (n=8)	31% (n=4)	13% (n=1)	31% (n=4)	31% (n=4)	31% (n=4)	23% (n=3)
INDUSTRY REPORTS									
Reported outcomes	(n=7)	57% (n=4)	57% (n=4)	57% (n=4)	29% (n=2)	29% (n=2)	14% (n=1)	29% (n=2)	14% (n=1)



Concepcion

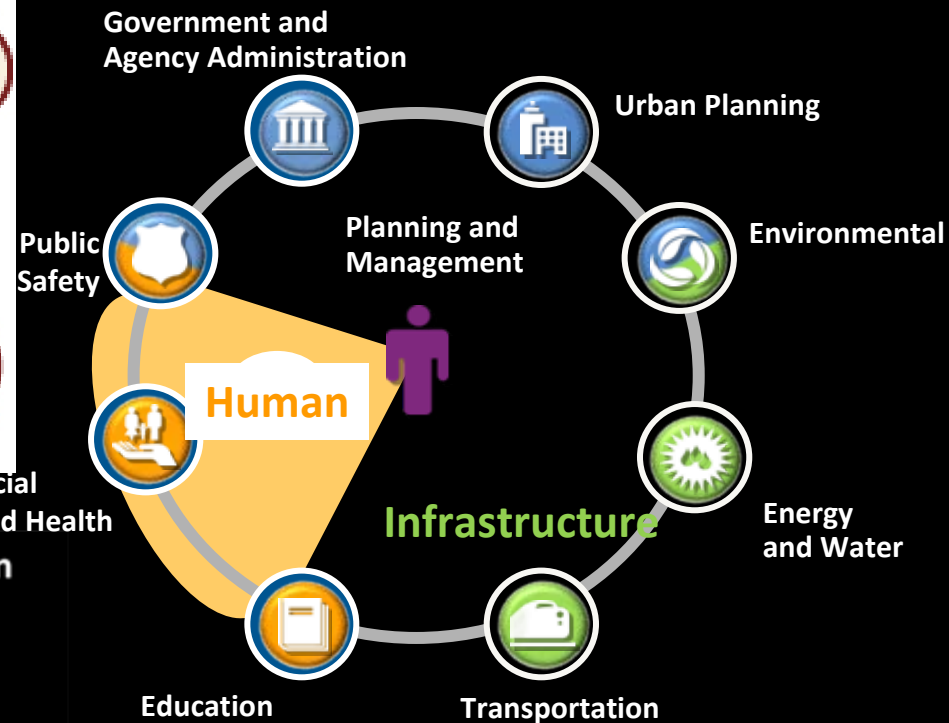
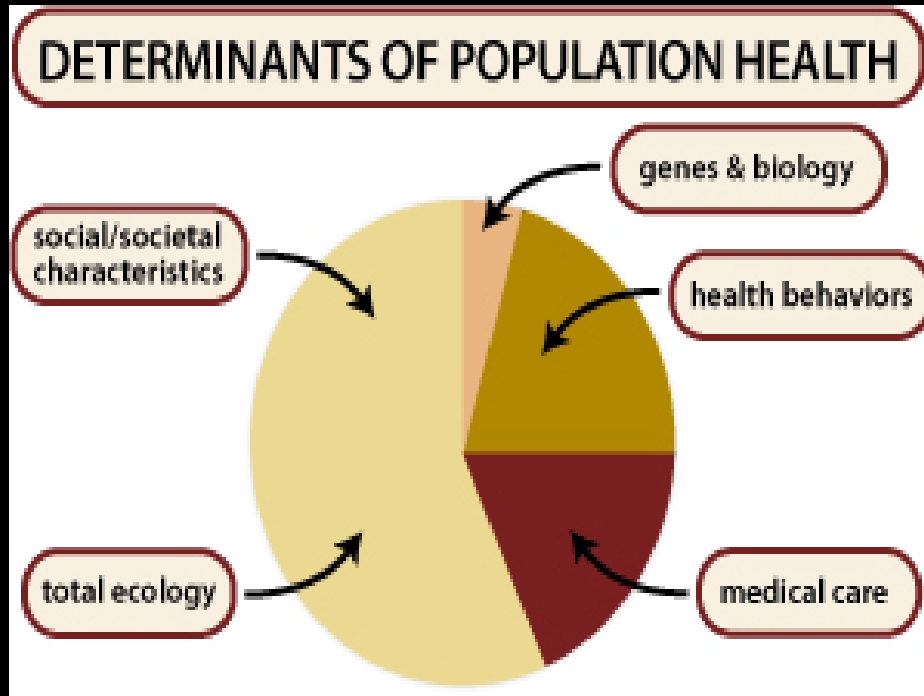
- 16 y.o. Latina, obese
- 1 of 4 children, both parents work, one overweight, other obese
- Recent dx type II diabetes
- Care in world class Primary Care Medical Home
- Received all recommended coaching, counseling, training:
 - e.g. diet, activity, behavioral health support
- Prescribed metformin to lower blood sugar
- Keeps appointments, non adherent, no change

Health is an outcome of nature, mothers, families, communities and behaviors in a complex, dynamic, and highly interrelated system-of-systems



Source: IBM BV analysis based on OECD

>75% of health is largely determined by factors outside of medical care that are social and ecological (environmental)

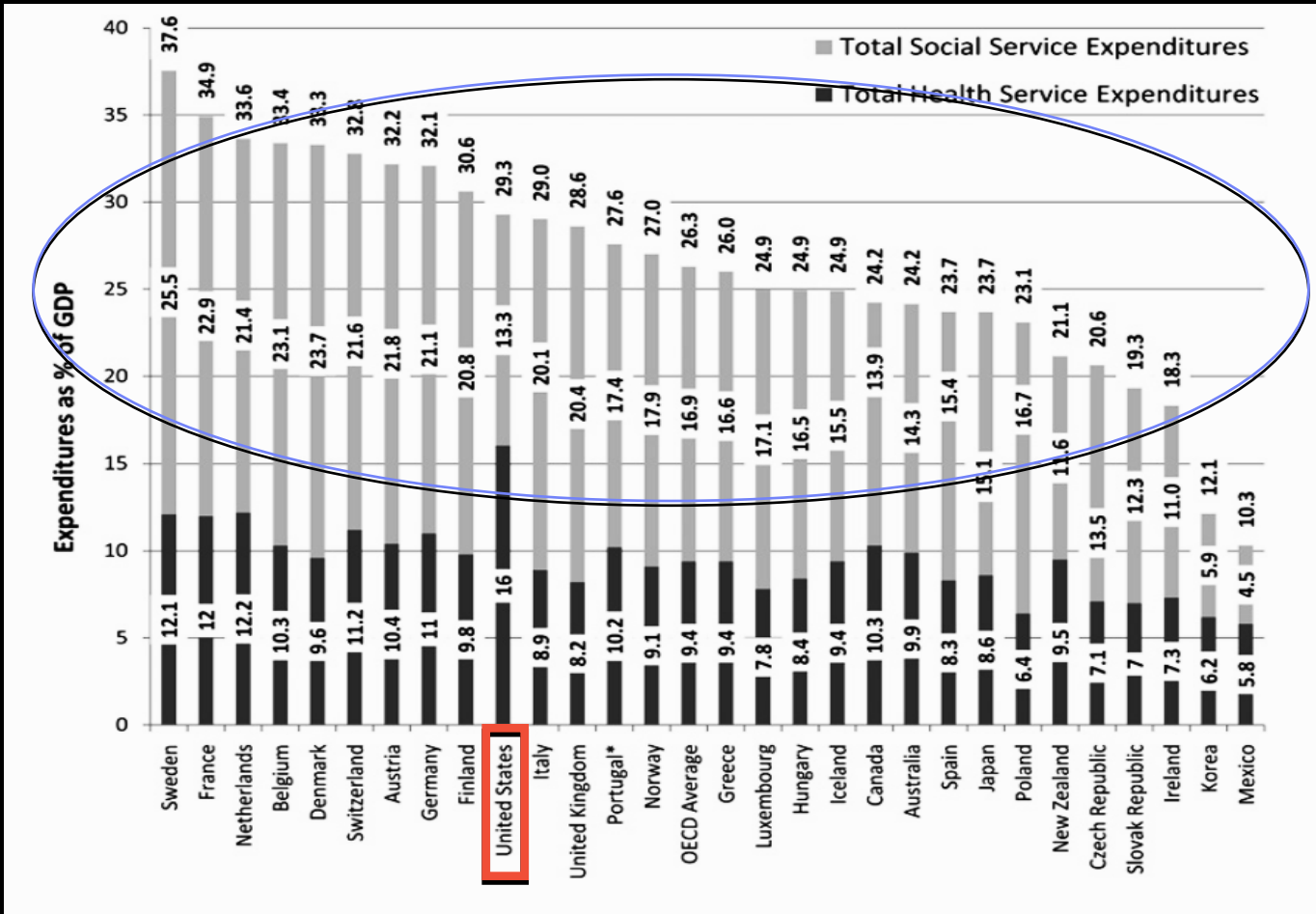


2010 Deaths from social factors* alone = deaths from pathophysiologic + behavioral causes 2010

- Low education 245K v. acute MI 193K
- Racial segregation 176K v. Stroke 168K

Galea S et al. Estimated Deaths Attributable to Social factors in the US. *AJPH*. 2011;101(8):1456-1465.

Health v. Social Services Expenditures: OECD 2005



Bradley E, : Health and social services expenditures: associations with health outcomes. *BMJ Qual Saf* 2011;20:826-831.



Total Population Health Outcomes from Health Care v. Social Services Expenditures OECD 2005



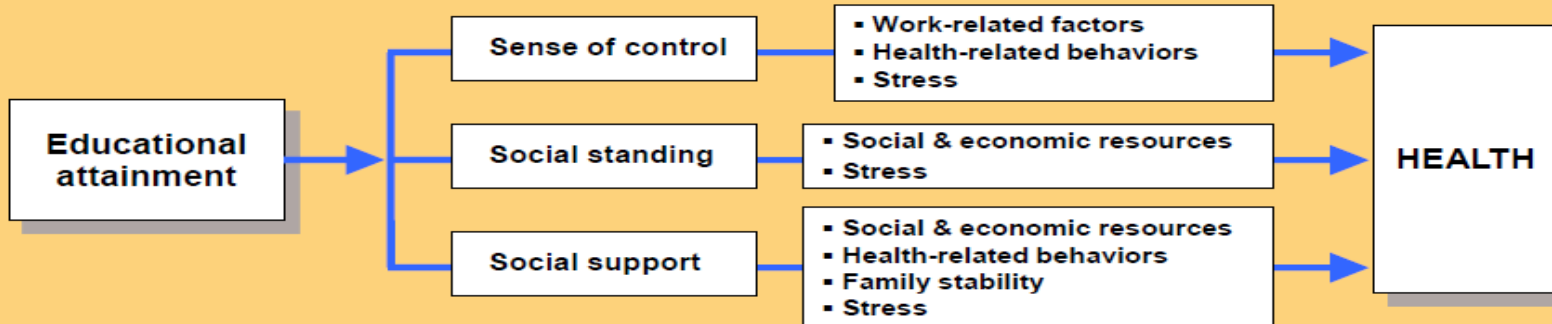
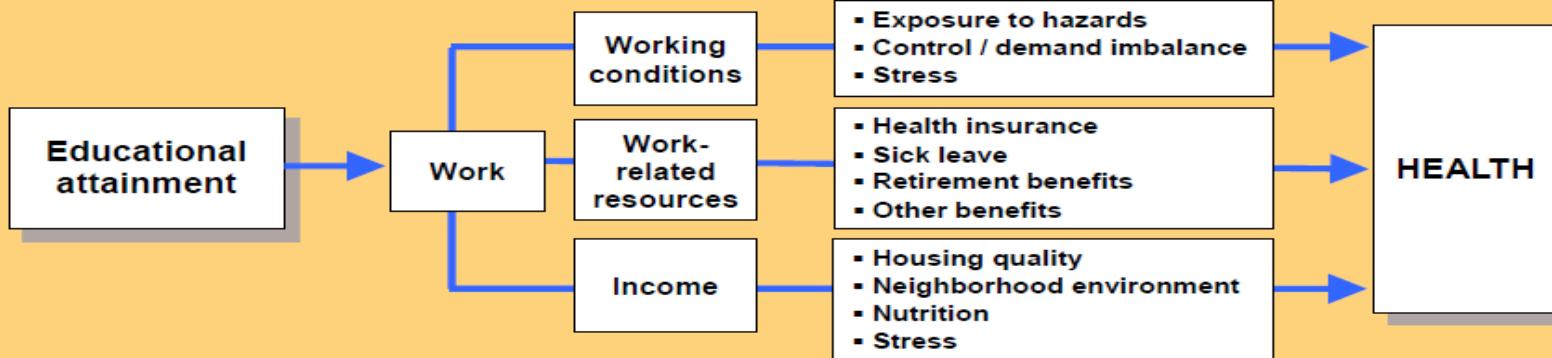
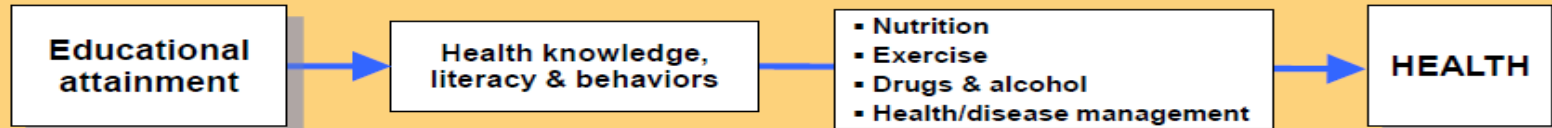
	Life Expectancy	Potential Years Life Lost	Maternal Mortality	Infant Mortality	Low Birth Weight
Health Care Expenditure (%GDP)	★	★			
Social Services Expenditure (%GDP)	★	★		★	★

BMJ Qual Saf 2011;20:826–831.

Bradley E, : Health and social services expenditures: associations with health outcomes. *BMJ Qual Saf 2011;20:826-831.*

Health System: Schools

How could education affect health?



Health System: More Education, Longer Life, Fewer Infant Deaths

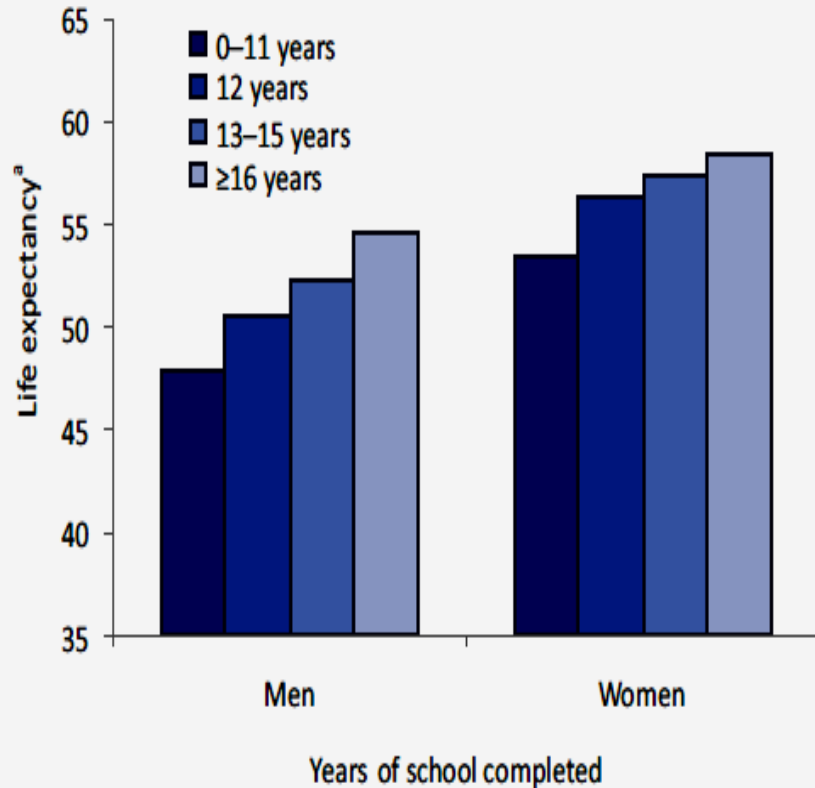


Figure 2. More education, longer life²⁷

^aNumber of additional years of life expected at age 25 years

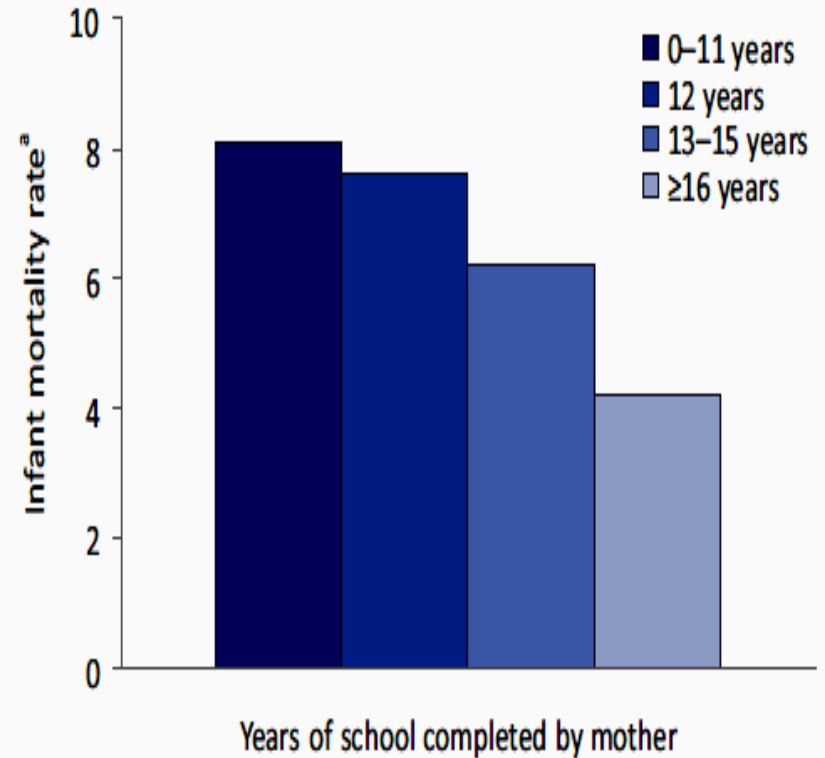


Figure 1. An infant's chances of survival, by mother's education level²⁶

^aPer 1000 live births

Get Healthy Philly Leadership Team

Mayor Michael Nutter
Marian Tasco, Councilwoman, City of Philadelphia
Dr. Dennis Creedon, School District of Philadelphia
Dr. Larry Kaiser, Temple University
David Cohen, Comcast
Daniel Hillferty, Independence Blue Cross
Ronnie Bloom, William Penn Foundation
Jeffrey Cooper, University of Pennsylvania
Ken Trujillo, Trujillo Rodriguez and Richards, LLC
Dr. Marla Gold, Drexel University
Leslie Best, Pennsylvania Department of Health
Dr. Donald Schwarz, Health Commissioner, Deputy Mayor, Health and Opportunity

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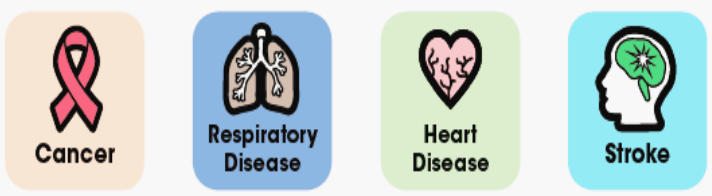
Get Healthy Philly: Chronic Disease Framework



Tobacco-Free Living:

- Promote 100% smoke-free policies for homes, childcare settings, schools, colleges/universities, workplaces, and outdoor spaces
- Decrease availability and marketing of tobacco products
- Increase access to resources to help smokers quit
- Improve knowledge, attitudes, and norms regarding health effects of smoking and secondhand smoke

Chronic Disease Prevention



Tobacco Policy and Control

Actions

- Help smokers quit: social marketing, drug coverage, programs, primary care
- Limit access: educate, permitting, monitor, penalties
- Clean air indoor/outdoor: public places, bars, childcare, workplaces, colleges
- Culture: youth leadership development, community engagement control policies
- Taxation/pricing

Outcomes

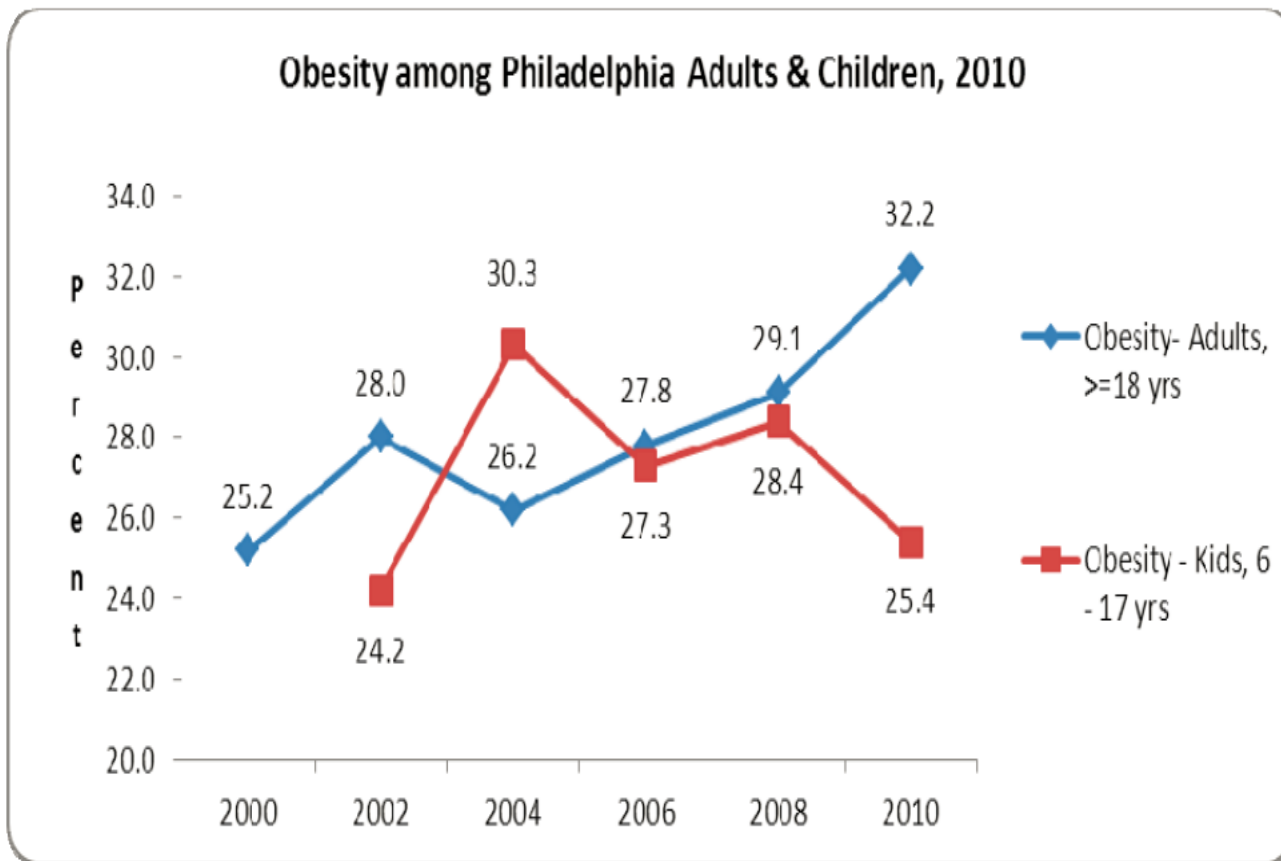
- 25,000 fewer smokers
- 2K intensive program plus free NRT
- 7K workers with new low cost NRT
- 183 new smoke free public spaces, affecting 3.7M park/rec visitors
- 16% reduction Clean IAWPA waivers
- 100K in student smoke/tobacco free symposiums/workshops

Built environment – safer walking and biking

- 2 new north-south bike lanes and an education & enforcement campaign for an area with a day-time population of 250,000
- Over 28,000 2nd and 5th graders provided pedestrian and bicycle safety lessons



Figure 3: Obesity Rates among Philadelphia Adults and Children, 2000 - 2010



P TECH: NYC, IBM

- ***PPP: education innovation, talent generation***
- ***6 year, grades 9-12, AAS degree***
- ***Focus: STEM, finance, manufacturing, health***
- ***Plus: business, leadership, communication, apprentice, job @end***

2011: P TECH Brooklyn NY

- ***PPP NYC, IBM , CUNY***
- ***Focus: STEM***

2012: P TECH 5 schools

- ***PPP Chicago PS, City Colleges***
- ***Business: IBM, Cisco, Microsoft, Motorola, Verizon***

2013: P TECH NY State 10 schools (economic development regions)

- ***PPP regions, local municipalities***
- ***Business: IBM, Cisco, Microsoft, GE Healthcare, Wegman's, Global Foundries, Regeneron, TRC, others***

Community Health Initiatives (CHI) Healthy Eating and Active Living (HEAL)



KAISER PERMANENTE®



Community Health Initiatives: Healthy Eating Active Living (CHI-HEAL)

- **3 Cities, communities served by KP:** Modesto (38,4K, 54% Latino), Richmond (52,9K, 45% Latino, 29% African American), Santa Rosa (37.9K, 41% Latino)
- **Principles:** place-based, multi-sectoral, multi-level, community engagement
- **Examples:**
 - policy: organization (school/worksites: e.g. healthy entrees)
public (urban planning w health impact assessment)
 - environment: more distribution pts. fresh food, lighted walking paths, bike paths around schools
- **Results:**
 - 62 strategies (31 policies, 12 environment, 19 programs)
 - 79% (n=49) successfully implemented
 - 61% (n=38) considered sustainable (30/38 policies or environment)

THINK

A Forum on the Future of Leadership

New York | September 20–21, 2011

Session III: **THINK—Making the World Work Better**

Thomas L. Friedman, Foreign Affairs Columnist, *The New York Times*,
and Author

Pascal Lamy, Director-General, *World Trade Organization*

Andrew N. Liveris, President, Chairman and Chief Executive Officer, *The Dow Chemical Company*

Sunil Bharti Mittal, Chairman and Group Chief Executive Officer, *Bharti Enterprises Limited*

Laura D'Andrea Tyson, S. K. and Angela Chan Professor of Global
Management, Haas School of Business, *University of California,
Berkeley*

Peter Voser, Chief Executive Officer, *Royal Dutch Shell plc*

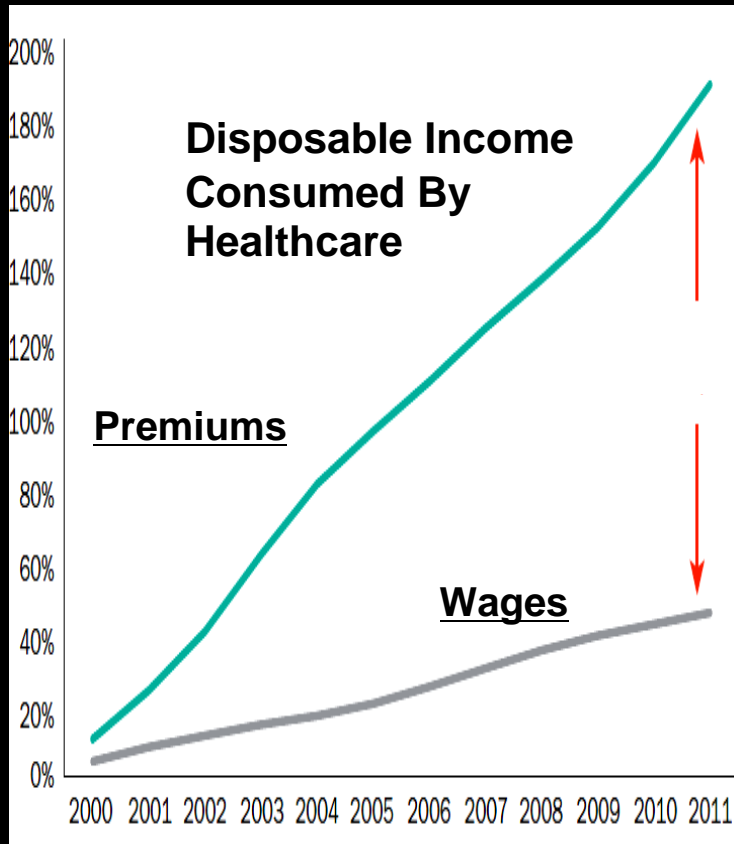
Sustainable Health Systems Visions, Strategies, Critical Uncertainties and Scenarios 2013

Sustainable health systems will depend upon sustained health at home and in communities, well before the healthcare system, as it is currently known, is called upon.

Cultural norms, urban environment, choices in food and drink, how children are parented and educated... must all evolve in a mutually supporting web to create a new age of healthy behaviours.

...poor health depletes disposable income and adversely impacts markets, consumption & global competitiveness

Insurance Premium v. Wages, Cumulative Increase



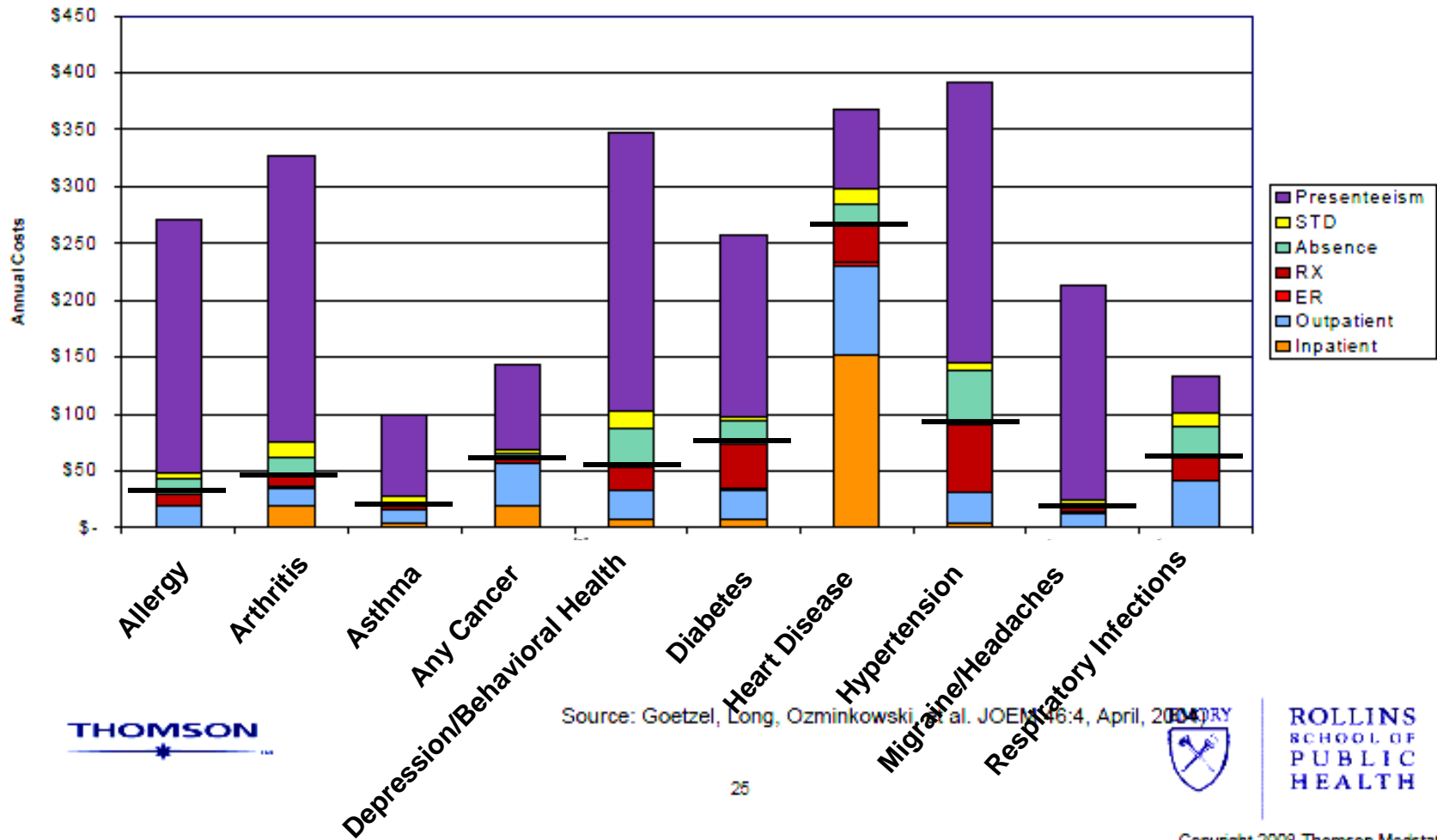
2011 OECD Health Expenditures PPP/Capita, USD

United States	8,608
Switzerland	5,564
Denmark	4,564
Germany	4,371
France	4,085
Sweden	3,870
United Kingdom	3,322
Japan*2010	3,120
Spain	3,041
BRIC, S.Korea, Mexico	<3,000

2011 OECD Health Expenditures
 2011 Towers Watson Healthcare Cost Survey
 Bureau Labor Statistics, US DOL

...poor health constrains talent output: productivity costs are 2-3X the cost of healthcare

Using Average Impairment and Prevalence Rates for Presenteeism
(\$23.15/hour wage estimate)



Source: Goetzel, Long, Ozminkowski et al. JOEM 66:4, April, 2004



ROLLINS
SCHOOL OF
PUBLIC
HEALTH

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...Health is a talent issue

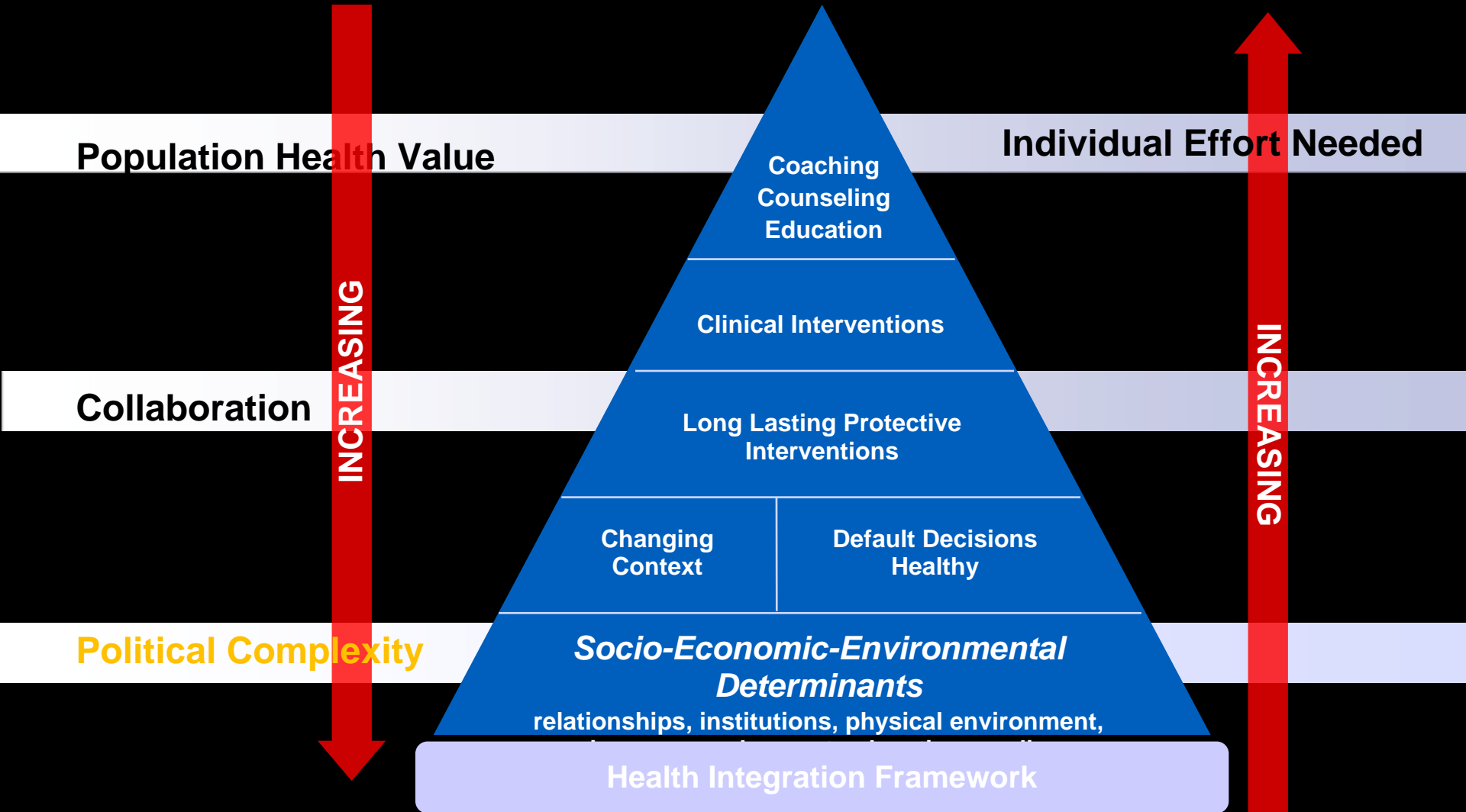
Human Capital remains the top challenge, but CEOs are getting more focused on Customer Relationships and Corporate Brand and Reputation

Global N=1,020	CHALLENGES 2014	Global 2013* N=729	Global 2012 N=776
1	Human capital	1	2
2	Customer relationships	4	7
T3	Innovation	3	1
T3	Operational excellence	2	NA
5	Corporate brand and reputation	8	9



- **Health is an outcome of dynamics played out in cities, towns and communities**
- **We don't lack for systems oriented approaches for change, we need leadership, investment, better information and will**
- **Disrupting these dynamics is a business and national competitiveness issue**

“Health Impact Pyramid”



Appendix

Higher Income, Longer Life & Less Chronic Disease

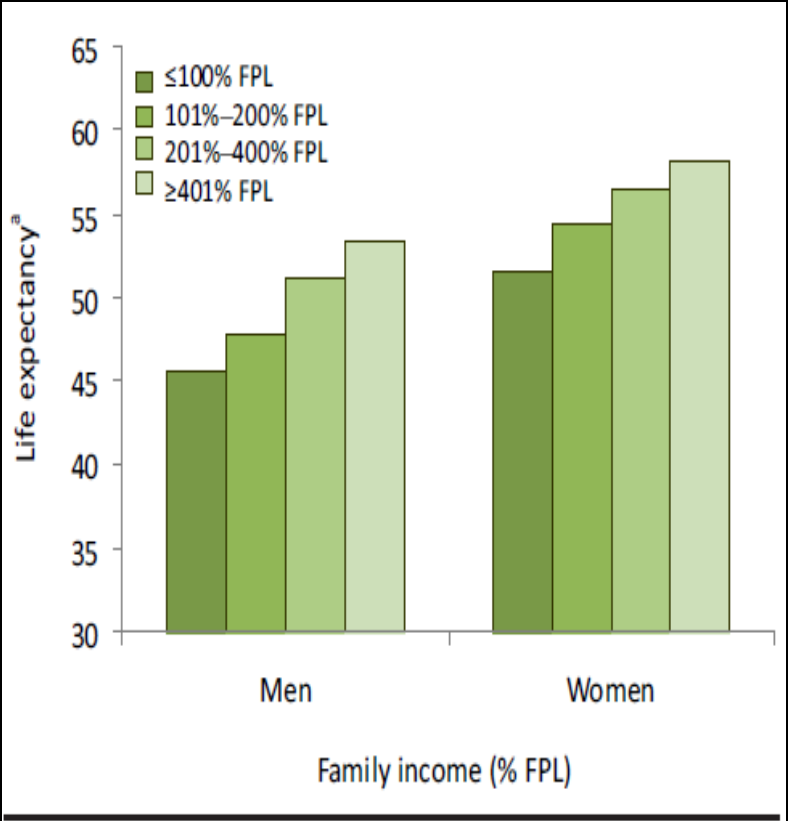


Figure 3. Higher income, longer life²⁷
^aNumber of additional years of life expected at age 25 years
 FPL, federal poverty level

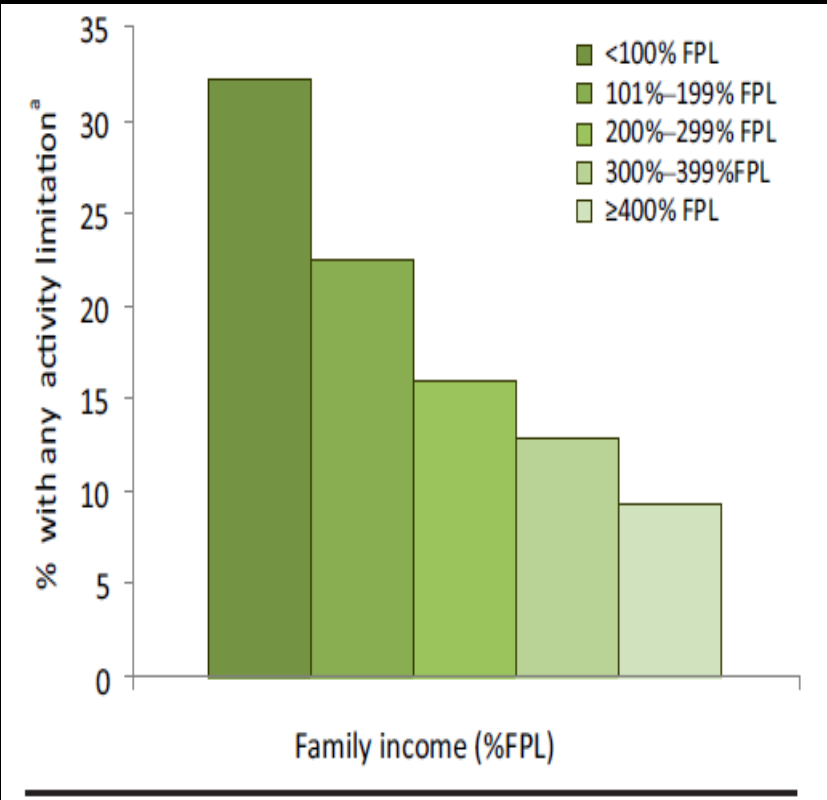


Figure 6. Chronic illness, by income level²⁸
^aAt age ≥25 years; age-adjusted
 FPL, federal poverty level