



# Public Health 3.0: A Vision for the Future

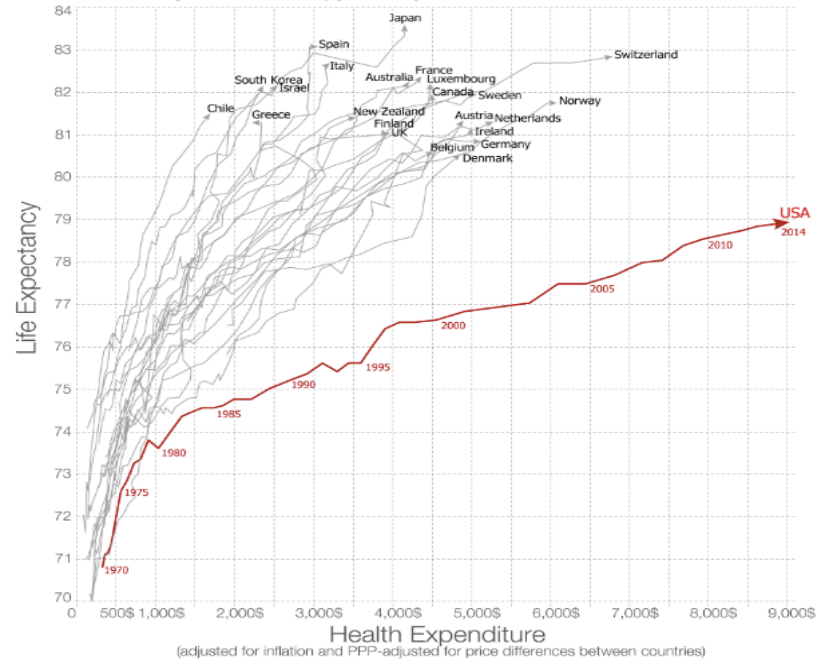
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Karen DeSalvo, MD, MPH, MSc  
Kansas Governor's Public Health Meeting  
April 5, 2018  
@kbdesalvo

# The Challenge

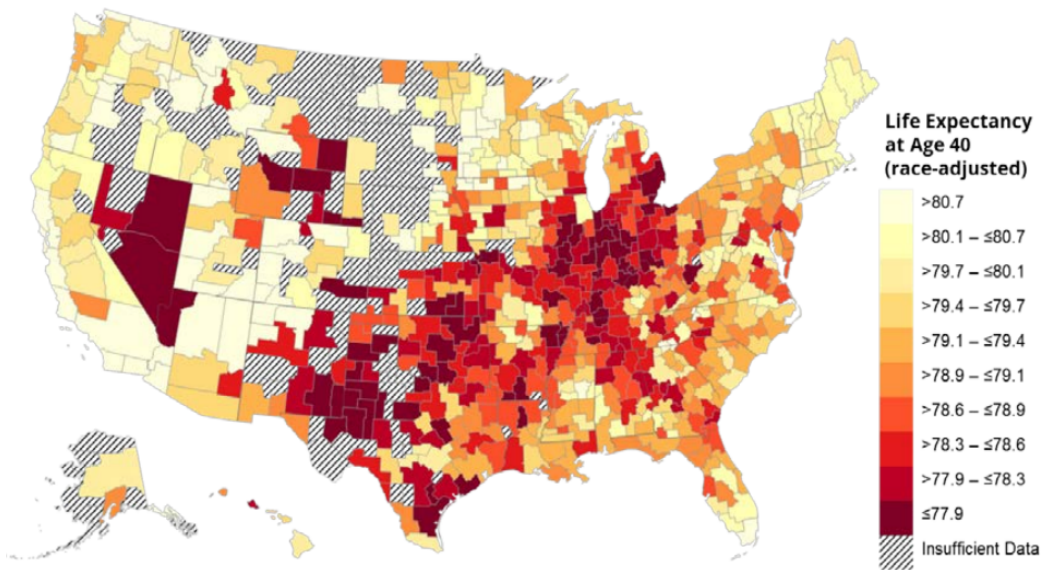
## Life expectancy vs. health expenditure over time (1970-2014) Our World in Data

Health spending measures the consumption of health care goods and services, including personal health care (curative care, rehabilitative care, long-term care, ancillary services and medical goods) and collective services (prevention and public health services as well as health administration), but excluding spending on investments. Shown is total health expenditure (financed by public and private sources).

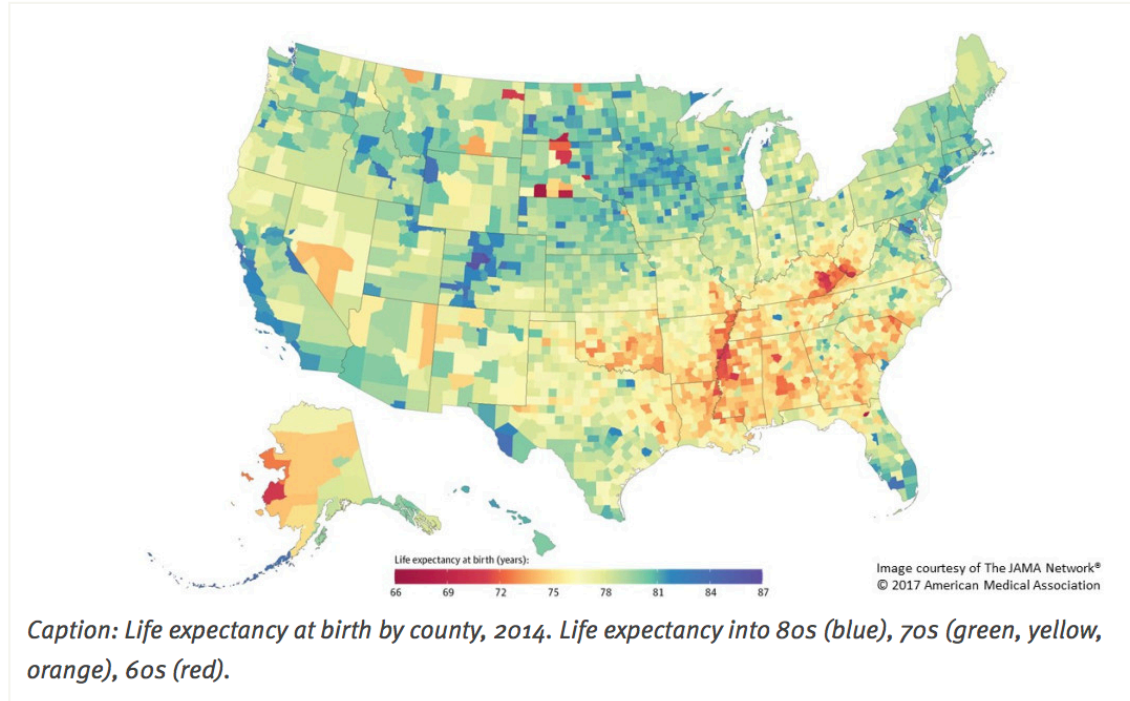


Data source: Health expenditure from the OECD; Life expectancy from the World Bank. Licensed under CC-BY-SA by the author Max Roser. The interactive data visualization is available at [OurWorldinData.org](http://OurWorldinData.org). There you find the raw data and more visualizations on this topic.

# The Challenge



# Dying of Social Causes



# Social Determinants



Economic  
Opportunity



Housing

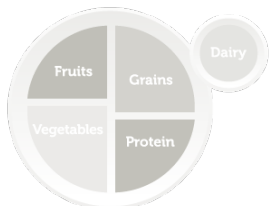


Environment



Education

Health is made where we are born, live, work and age.



Food



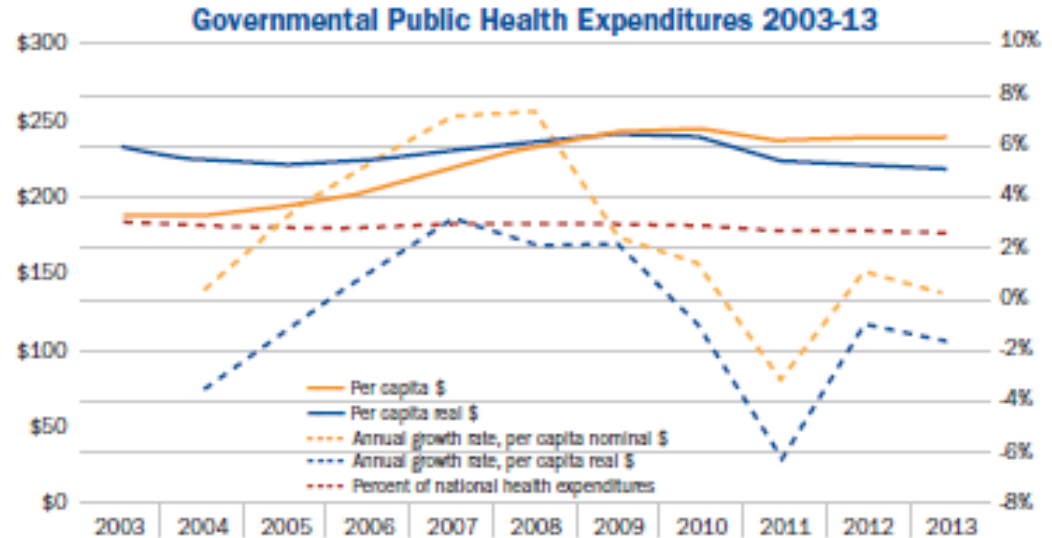
Safe Neighborhoods



Transportation

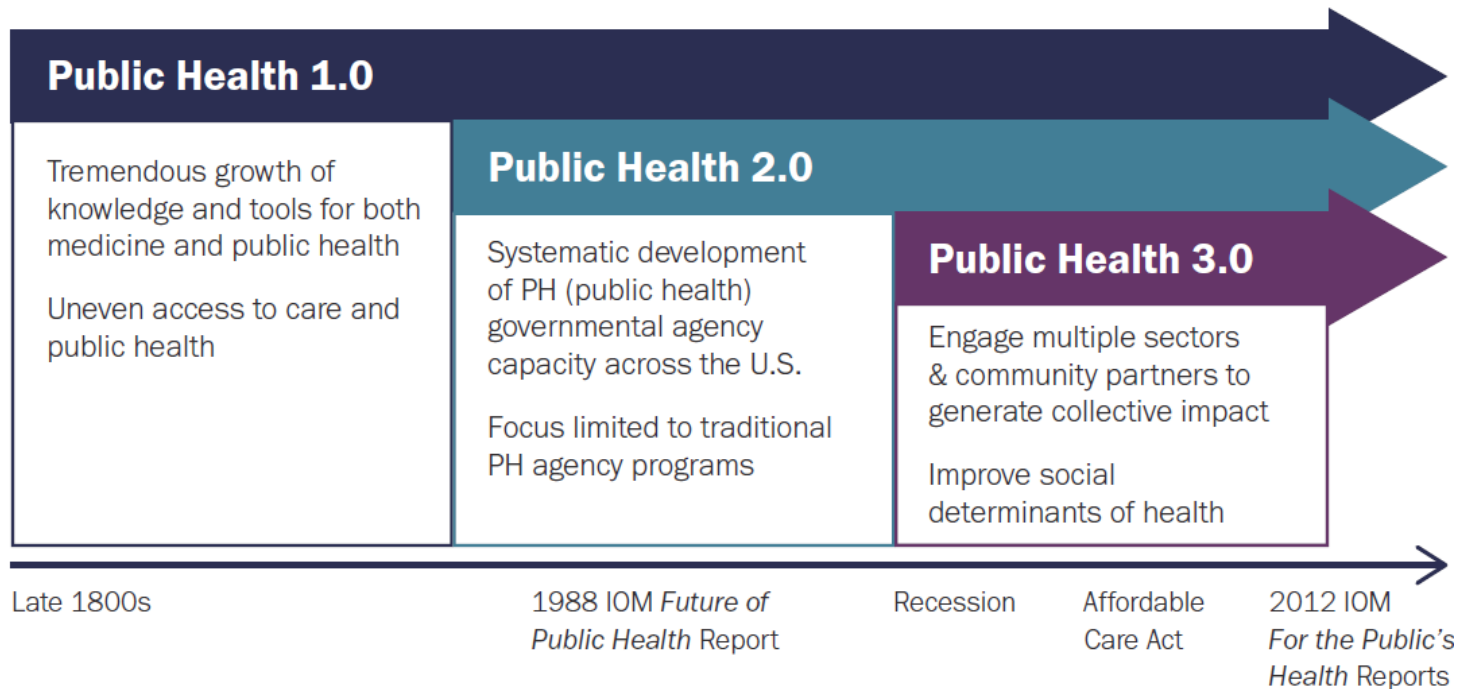
# Many Pressures

- Epidemiology shifts
- Affordable Care Act
- Delivery System Reform
- Data and Technology
- Great Recession



Source: Public Health Economics, 2015

# Evolution of PH



# Public Health 1.0



(late 19<sup>th</sup>/most of 20<sup>th</sup> Century)

Comprehensive public health protection—from primary prevention through treatment—becomes possible for the first time in history.

Development of an astonishing array of health-protecting **tools** and **capacity** with increasingly sophisticated techniques for ensuring sanitation and food safety.



# Public Health 2.0



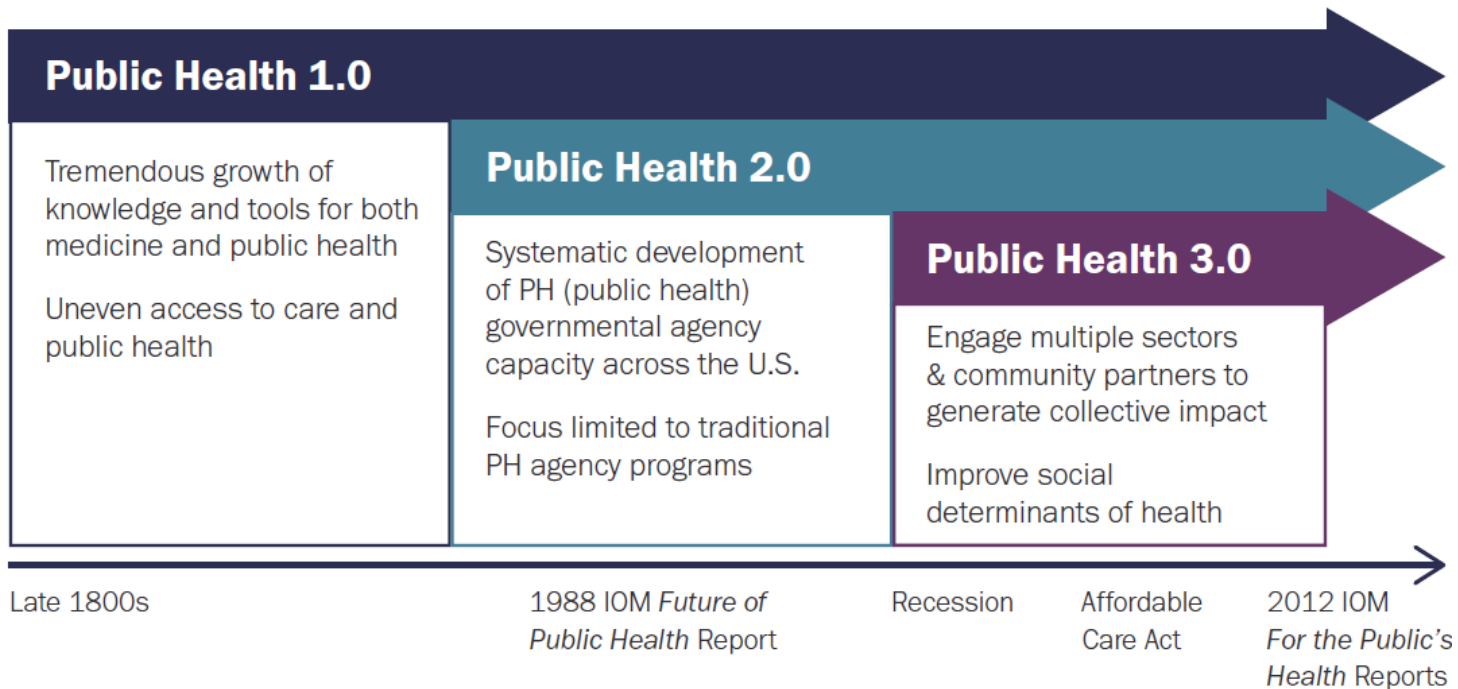
(1980s to Present Day)


By late in the 20<sup>th</sup> century, there was *tremendously uneven* public health capacity at the local levels.

Health Departments strained to address new infectious disease challenges as well as the growing challenge of chronic disease prevention and preparedness.

*Governmental* public health ‘came of age’ – culminating in today’s Health Department accreditation movement.

# Evolution of PH



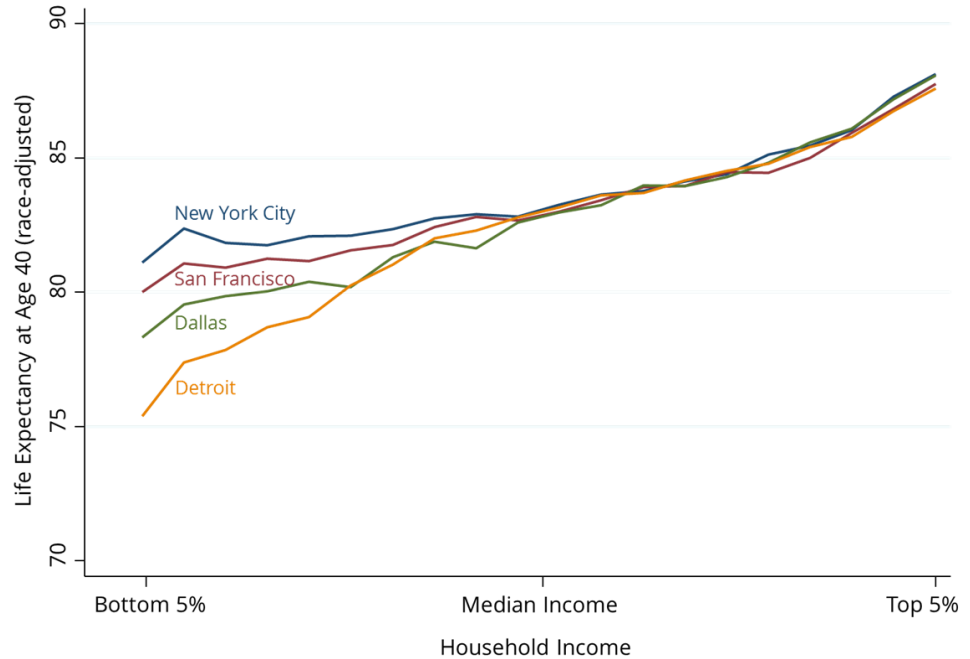


# PUBLIC HEALTH

What we do together as a society to ensure the conditions in which everyone can be healthy.

# Inevitable Destiny?

Overall, the richest American men live 15 years longer than the poorest men, while the richest American women live 10 years longer than the poorest women.



# Learn From Field



Allegheny, PA	April 4, 2016
Santa Rosa, CA	April 12, 2016
Nashville, TN	June 14, 2016
Kansas City, MO	June 21, 2016
Spokane, WA	July 11, 2016

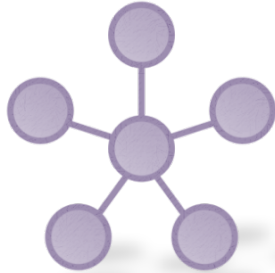
# Public Health 3.0

## KEY COMPONENTS



**LEADERSHIP &  
WORKFORCE**

**ESSENTIAL  
INFRASTRUCTURE**



**STRATEGIC  
PARTNERSHIPS**

**DATA,  
ANALYTICS &  
METRICS**



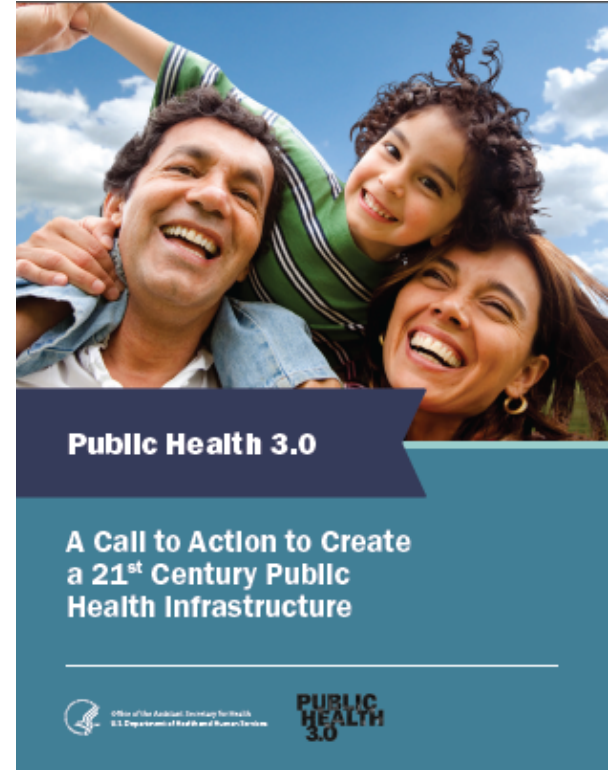
**FLEXIBLE &  
SUSTAINABLE  
FUNDING**

# Public Health 3.0

## RECOMMENDATIONS

Report that reflects what we heard and saw across the country, including input from thought leaders.

We proposed 5 overarching recommendations and 51 actions that define what is most needed to support health departments and the broader public health system as it transforms to PH3.0.



# Recommendations

- 1) Public health leaders should embrace the role of **chief health strategist** for their communities.
- 2) Public health departments should engage with community stakeholders – from both the public and private sectors – to form vibrant, structured, **cross-sector partnerships**.
- 3) **PHAB accreditation** for public health departments should be strengthened to ensure that every person in the United States is served by nationally accredited health departments.
- 4) Timely, reliable, granular, and **actionable data** should be accessible to communities, and clear metrics should be developed to document success in public health practice.
- 5) **Funding** for public health must be enhanced and substantially modified.



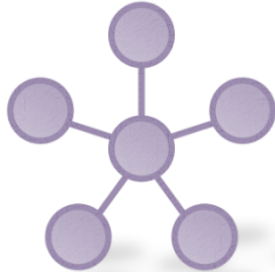
# Public Health 3.0

## KEY COMPONENTS



**LEADERSHIP &  
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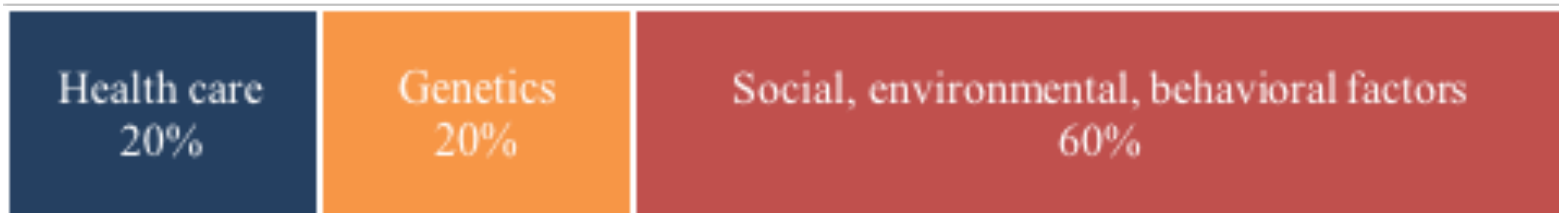
**FLEXIBLE &  
SUSTAINABLE  
FUNDING**

# I. Leadership & Workforce

- Strong role models in the field
- Most of the workforce feels unprepared
- Chief health strategist not always from public health
- New competencies and training models underway
  - Modification of curriculum for new workforce
  - deBeaumont (BEAM)
  - Illinois Public Health Institute
- Need to cross train with other professions/sectors

## 2. Partnership

### Health generators



*Adapted from James Rubin, TAV Health; CMS.gov; [www.healthypeople2020.gov](http://www.healthypeople2020.gov); Leavitt and DeSalvo, Modern Healthcare, 2017*

# 2. Partnership

## Six High-Burden Health Conditions

**SIX WAYS** TO SPEND SMARTER  
FOR **HEALTHIER PEOPLE**



REDUCE  
TOBACCO USE



CONTROL  
BLOOD PRESSURE



PREVENT HEALTHCARE-  
ASSOCIATED INFECTIONS (HAI)



CONTROL ASTHMA



PREVENT UNINTENDED  
PREGNANCY



CONTROL AND  
PREVENT DIABETES

High-  
burden

Costly

Preventable

Scalable

Purchasers  
& Payers

# 2. Partnership



# Systems Change Recognition



## **Paid Sick Leave**

Paid sick leave laws reduce the spread of contagious illnesses, increase employment and income stability, and save cities money in health care costs.



## **High-quality, Universal Pre- Kindergarten**

Children who attend high-quality pre-k are more likely to succeed in school, go on to stable jobs and earn more as adults—all of which are linked to better health and stronger communities.



## **Affordable Housing/Inclusionary Zoning**

As cities grow, it's important that residents of all income levels have access to affordable housing that sets them up for good health.

# 3. Infrastructure

- Accreditation progressing - 68% of US population
- PHAB thinking through how to better recognize 21<sup>st</sup> century (PH3.0) efforts
- Develop appropriate recognition and reward system
- Shared services and reductions in overlapping jurisdictions
- Form of accountability and pathway to transformation
- Evidence building that is linked to better outcomes

# 4. Data, Analytics & Metrics

- Requires comfort with atypical data sources
  - Current data still “stale” and traditional
  - Some places experimenting with non-traditional sources
  - Working to include a broad view of health including the social determinants
- Comfort with new or non-traditional methods
  - Small area estimation
  - Synthetic populations and controls
  - Twitter



## 4. NYC Macroscope

- Partnership between governmental and academic PH
- Leverage data from primary care EHR on nearly 700,000 New Yorkers
- Correlate prevalence with NYC HANES and validated with chart review
- Strong correlation with key indicators

Search...



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[Advisory Council](#)

[Annual Reports](#)

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## *About Us*

### *Academic Health Department*

The Lawrence-Douglas County Health Department and the University of Kansas Work Group on Community Health and Development created a partnership called the Academic Health Department, the first in Kansas and one of only a few in the country.

### *Advisory Council*

The Advisory Council was formed in July 2011 to provide input and feedback about the Lawrence-Douglas County Health Department's programs, services and communication efforts.



The current model of financing  
isn't working.

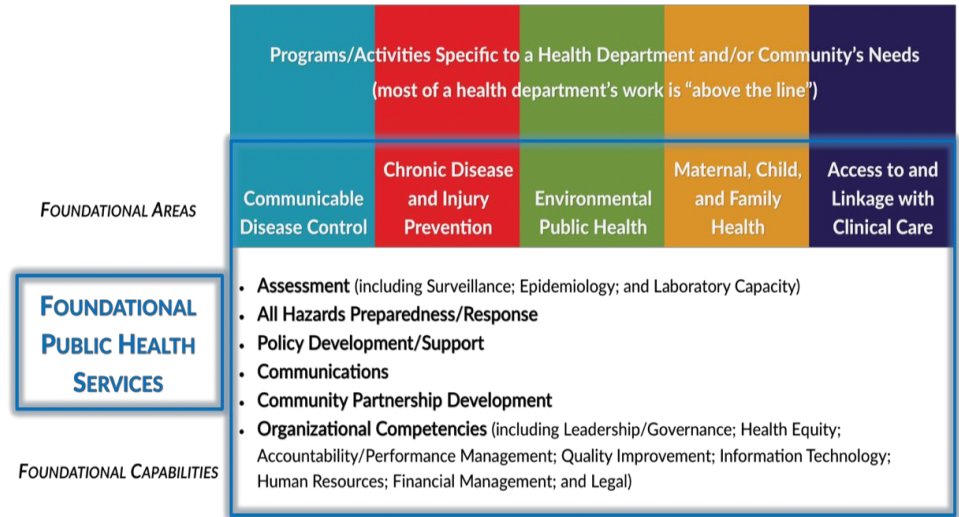
Investment  
Matters

The return for every \$1 invested in  
health improvement programs is \$5.60

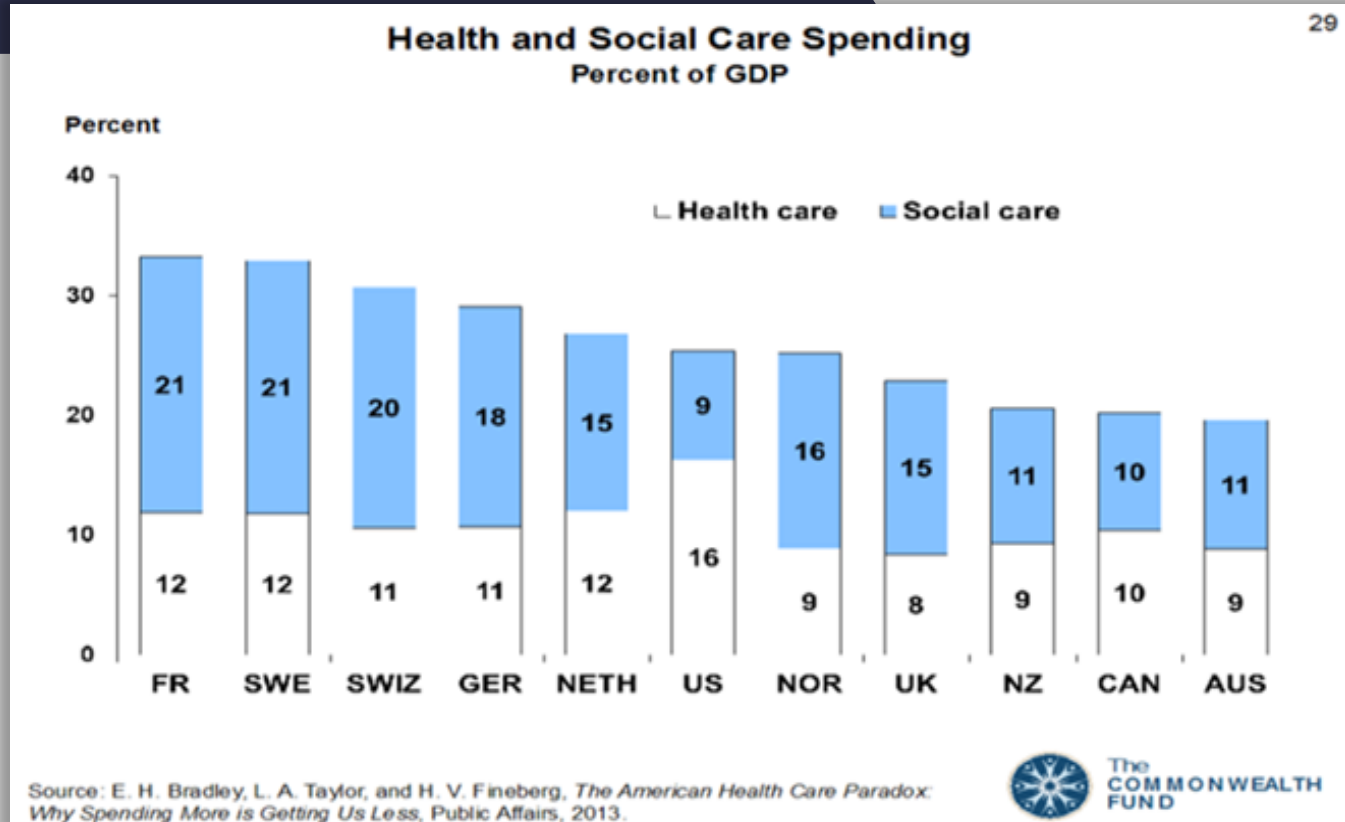


# 5. Funding

- Funding foundational capabilities
  - “The gap”?
- Sustainability and flexibility should be met with accountability
- Services Funding needs innovation



# 5. Funding



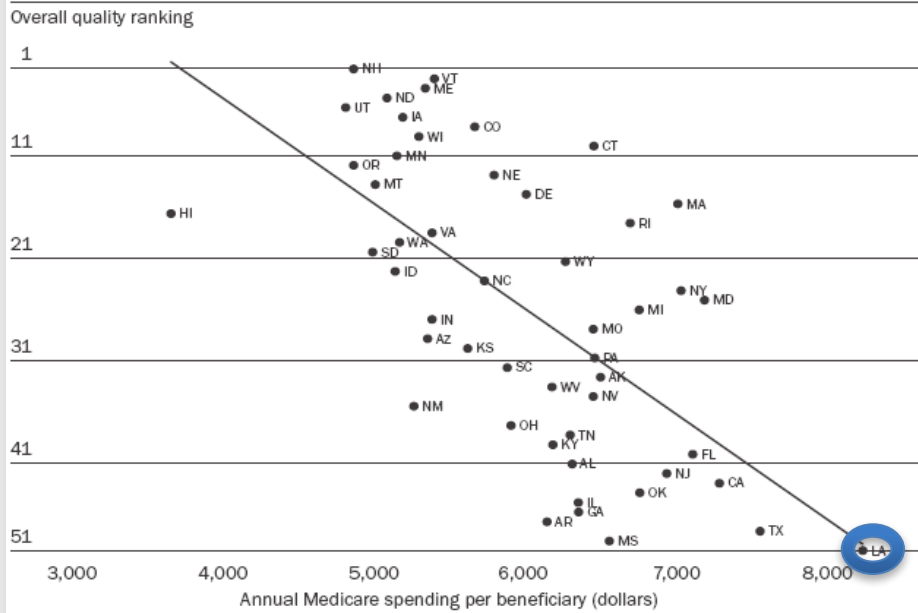
# MY PH 3.0 EXPERIENCE



# “System” Redesign

EXHIBIT 1

Relationship Between Quality And Medicare Spending, As Expressed By Overall Quality Ranking, 2000–2001

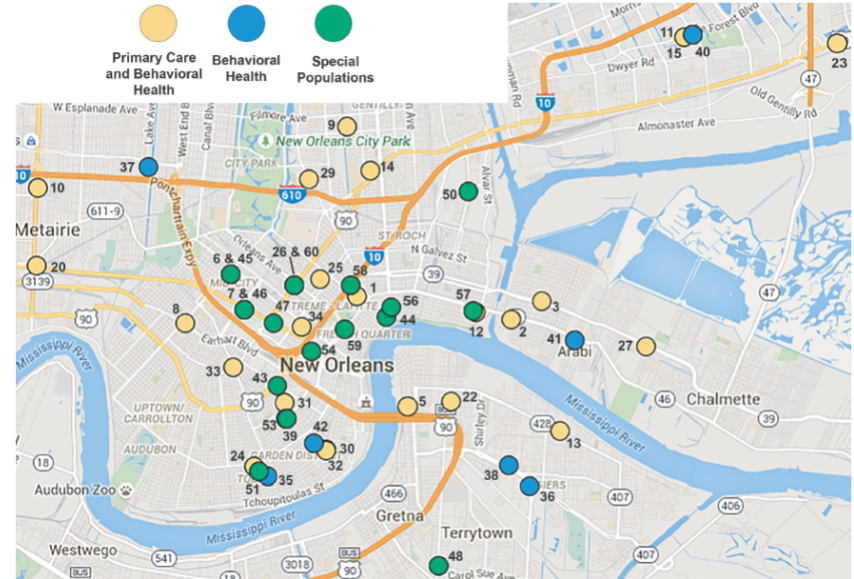


SOURCES: Medicare claims data; and S.F. Jencks et al., “Change in the Quality of Care Delivered to Medicare Beneficiaries, 1998–1999 to 2000–2001,” *Journal of the American Medical Association* 289, no. 3 (2003): 305–312.

NOTE: For quality ranking, smaller values equal higher quality.



# Move Upstream



[www.504healthnet.org](http://www.504healthnet.org); DeSalvo, Johns Hopkins Advanced Studies in Medicine, 2006; DeSalvo. *Ann Int Med.* 2016 .

# Move Further Upstream



200,000 Households flooded. Surrounding social infrastructure of churches...schools...friends...family...libraries.

*The Hurricane Katrina Writing Group, JGIM, 2007; Grumbach, JAMA, 2002; Gelberg, Am J Public Health, 1997; Kim, et al, HSR 2006*



## LEARN MORE ABOUT THE NEW ORLEANS SMOKE-FREE ORDINANCE



- Health Department
- Behavioral Health
- Community Health Improvement
- Data and Publications
- Emergency Preparedness
- Women, Infants, and Children (WIC)
- Bicycle and Pedestrian Safety
- Fit NOLA
- Health Care for the Homeless
- Health Care Access
- Lead
- Smoke-Free Ordinance
- Complaints
- Hotel Smoke Free Guidance

### Smoke-Free Ordinance

New Orleans has joined almost 700 cities nationwide in going smoke-free. In January 2015, the New Orleans City Council unanimously passed and Mayor Landrieu signed into law a new, comprehensive smoke-free ordinance. The City's new ordinance went into effect on April 22, 2015. In addition to smoking restrictions that already exist under state law, there will be new restrictions on smoking and vaping (use of electronic smoking devices) in many locations across the City.

#### Why This Ordinance is Important

This ordinance protects the public's health by reducing exposure to secondhand smoke and encouraging smokers to quit. Tobacco use is the leading preventable cause of death in the United States. It causes cancer, heart disease, stroke, lung diseases (such as emphysema), and diabetes. More than 20 million people in the United States have died from smoking-related diseases since 1964, including 2.5 million nonsmokers as a result of exposure to secondhand smoke.

#### Report a Violation

[Please click here to report a violation of the Smoke-Free Ordinance.](#)

#### Contact Us

For more information, contact the New Orleans Health Department.

**Phone:** 311 or toll-free: (877) 286-6431

**E-mail:** [smokefree@nola.gov](mailto:smokefree@nola.gov)

#### Resources to Quit Smoking

- [Louisiana Tobacco Quitline](#)
- [Smoking Cessation Trust](#)
- [Ochsner Smoking Cessation](#)

# Create a Culture of Health via PH3

# Closing thoughts

- Epidemiology has shifted - death from social causes
- Require systematically & strategically addressing SDOH
- Public health the natural leader
- Requires significant transformation, funding & partners
- **Tremendous opportunity for medicine and public health to realign**
- PH3.0 can be our blueprint for the future
- We should not cede this responsibility but *embrace* it

Thank you!

# PUBLIC HEALTH

What we do together as a society to ensure the conditions in which everyone can be healthy.