



University of California  
San Francisco

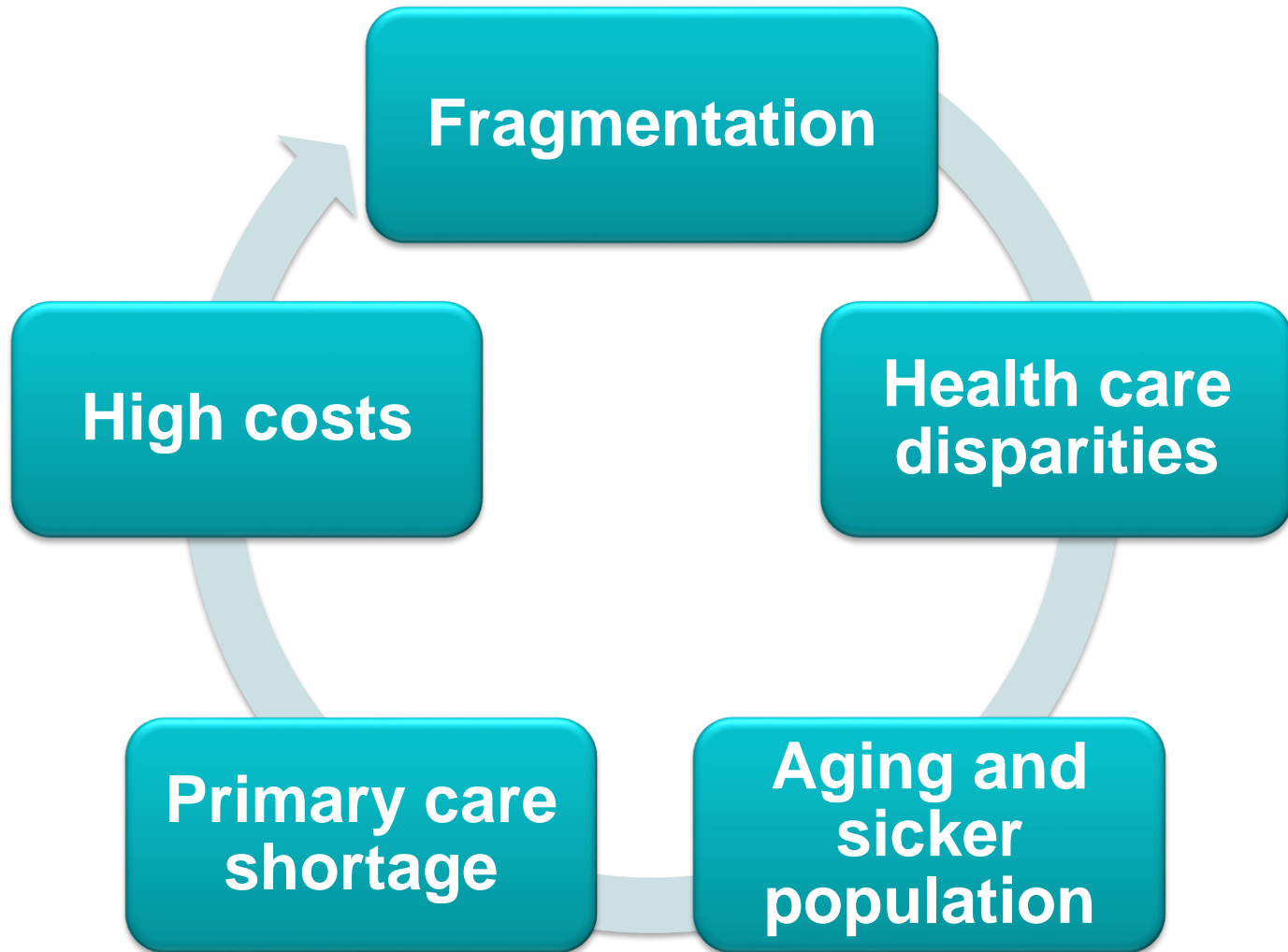
# Into the Future!

## An Economic Perspective of APP Workforce Development

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# Health care system challenges



# Health care system challenges...

## Demographics

### Projected Numbers of People Aged 65+ with Alzheimer's

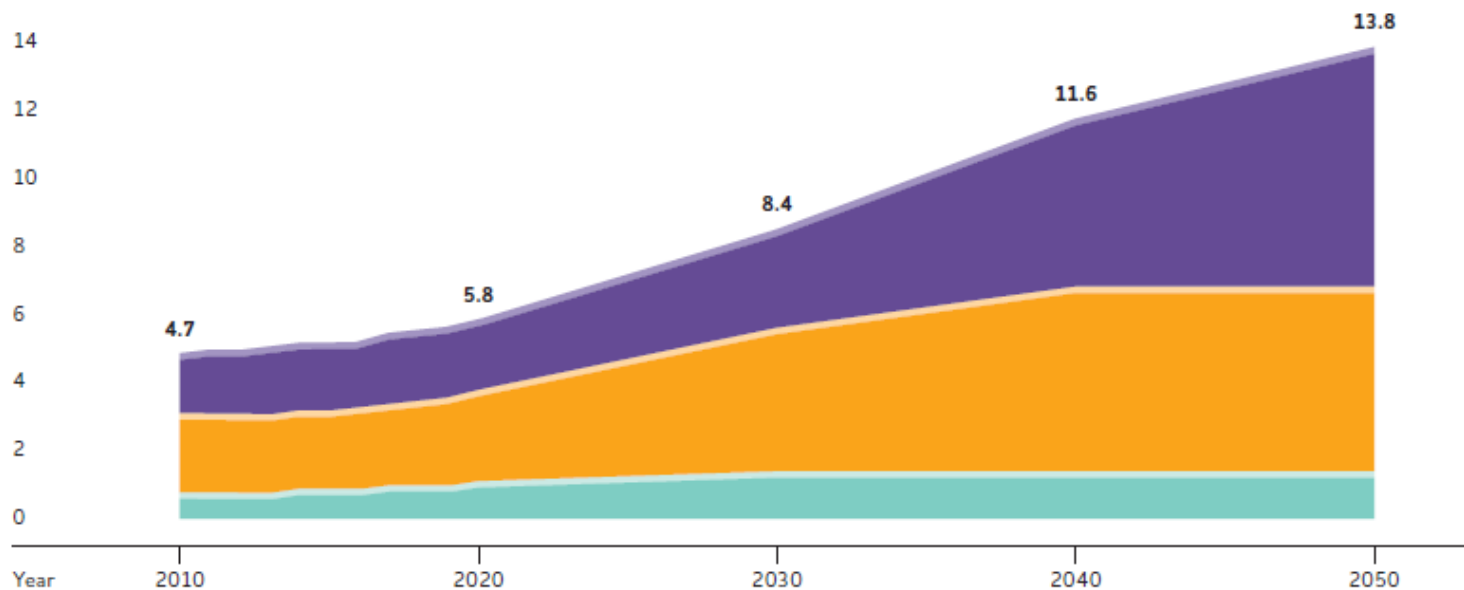
Projected Number of People Age 65 and Older (Total and by Age Group)  
in the U.S. Population with Alzheimer's Dementia, 2010 to 2050

Millions of people  
with Alzheimer's

Ages 65-74

Ages 75-84

Ages 85+

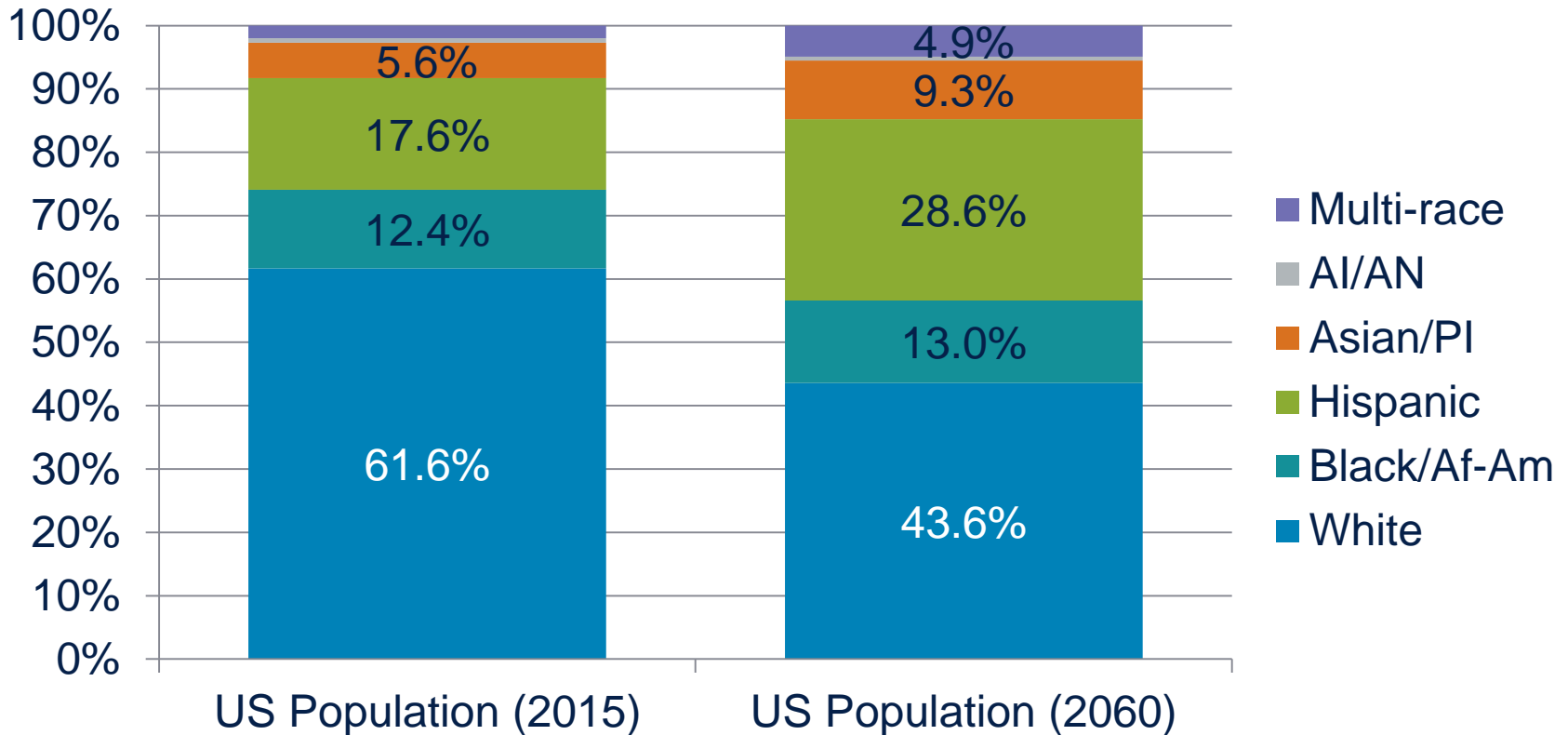


Created from data from Hebert et al.<sup>A12,31</sup>

# Health care system challenges...

## Demographics

### Diversity of U.S. Population, 2015 & 2060



Sources: U.S. Census Bureau; California Department of Finance

# Health care system challenges...

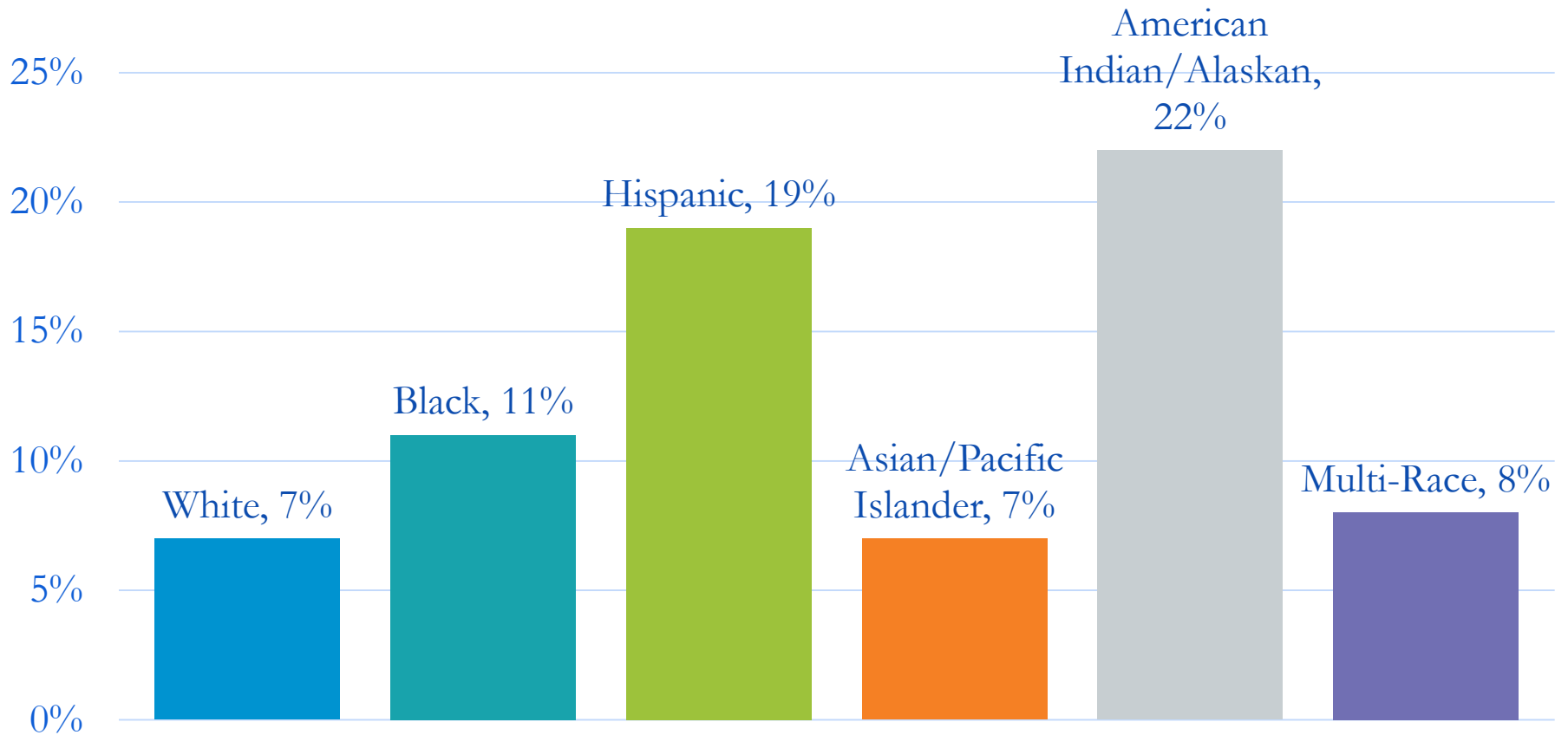
## Demographics



# Health care system challenges...

## Disparities

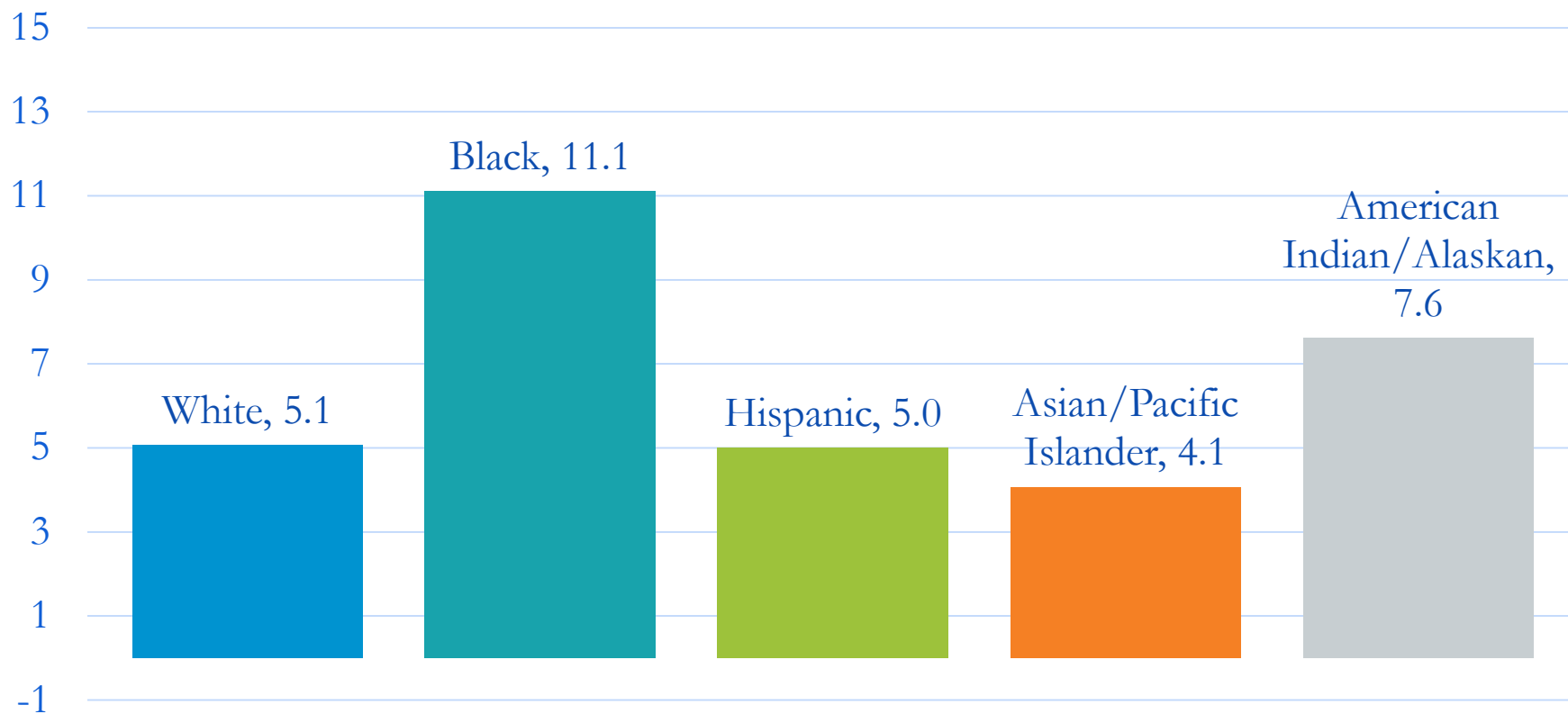
Percent of non-elderly without health insurance, 2017



# Health care system challenges...

## Disparities

Infant mortality per 1000 live births, 2015



# Health care system challenges...

## Costs

### US spending on health care:

\$3,337,200,000,000 in 2016

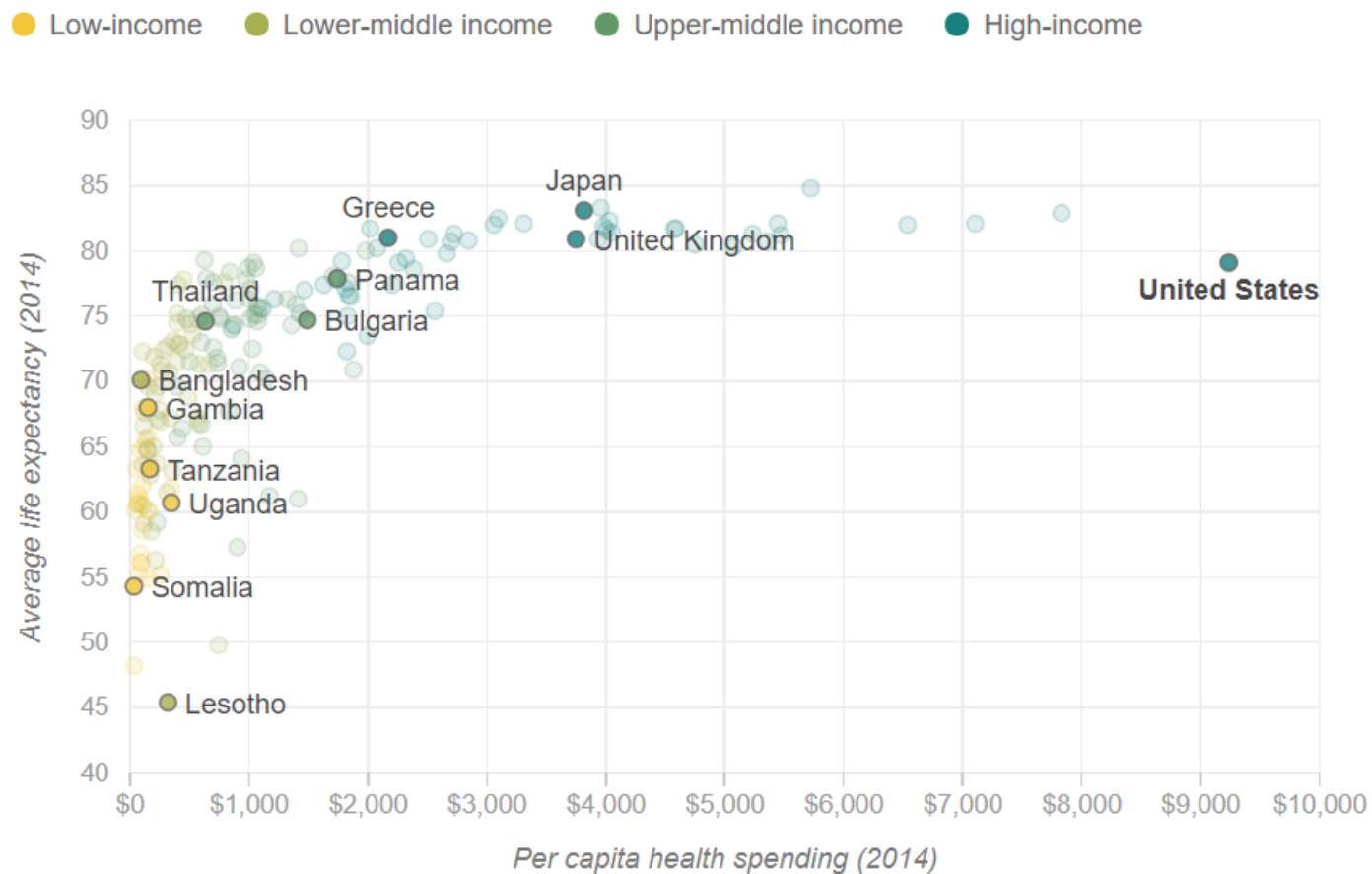
\$10,348 for each person in the United States



# Health care system challenges...

## Costs

### Per Capita, U.S. Spends Far More Than Other Countries With Similar Life Expectancy



Source: Institute for Health Metrics and Evaluation, World Bank country classifications

# Making choices & finding solutions: Principles of any economic system

- Resources are limited
  - You must make choices
- Substitutability
  - Resources can be dedicated to many uses
  - What is the value of alternate uses of a resource?
- Heterogeneous preferences
  - One person's pleasure is another's poison



# How much should be consumed?

People compare the **marginal cost** with the **marginal benefit**

Marginal cost = **change in cost** for one-unit increase in quantity

Marginal benefit = **change in benefit** for one-unit increase in quantity

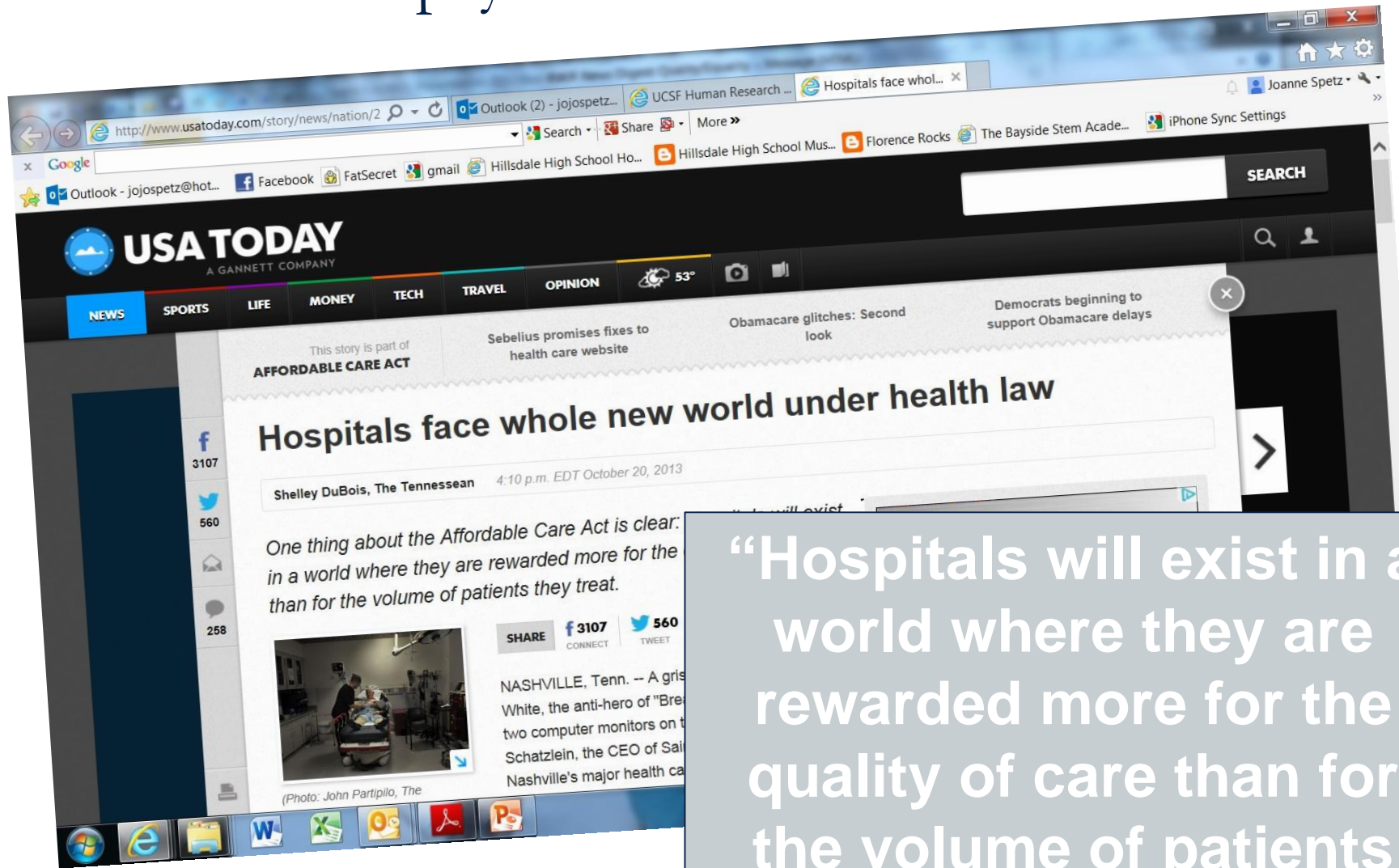
# This concept applies to any input in health care

- Number of PAs we should have
- Number of nurses we should have
- Number of years of training
  
- Number of radiation treatments for DCIS
- Whether or not to place a stent
- Screening for abdominal aortic aneurysm
  
- How many physical therapists per patient
- How many specialty versus primary care physicians
- Adding community health workers to your team

# Quadruple Aim



# Health system solutions: Value-based payment

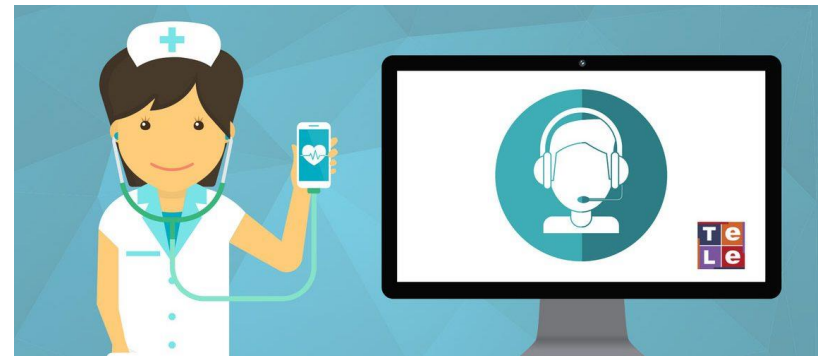


“Hospitals will exist in a world where they are rewarded more for the quality of care than for the volume of patients they treat.”

# Health system solutions: Integration and coordination of services



**POPULATION  
HEALTH**  
Leading the way to a healthier future.

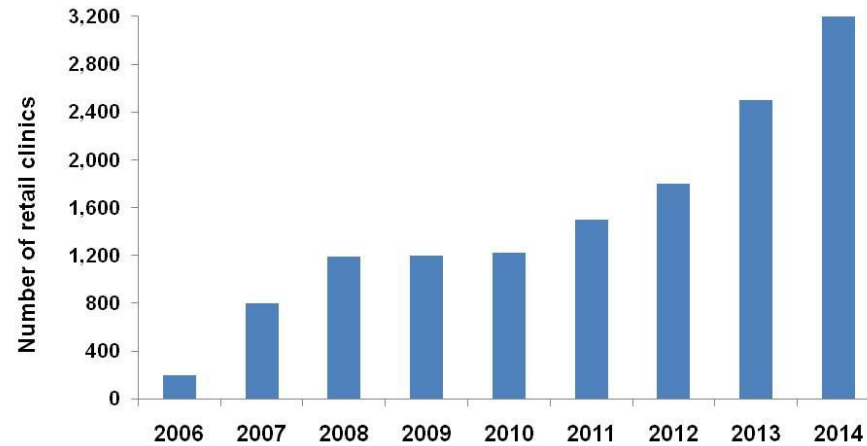




# Health system solutions: Expanded sites of care

## Retail clinics

Retail Clinic Growth Stalls in 2008-2010,  
Then Enters Growth Mode to 2014



Source: Retail Clinics: Update and Implications, Deloitte Center for Health Solutions, November 2009

## Community Paramedicine







NURSE

SORRY, THERE'S A NURSE SHORTAGE. HOW ABOUT AN INSURANCE EXECUTIVE?





# What roles are APPs taking in innovative care models?

- Care management and coordination
  - Coaching, patient education, motivational interviewing, referrals to specialists, home visits
- Informatics
- Geriatric and long-term care
  - Home- and community-based services
- Population health
  - Assess panels and populations of patients
  - Develop, initiate, and evaluate programs
- Interprofessional collaboration
  - How to delegate
  - How to lead

# Residencies prepare APPs for this complex world

## 2018 National Sample Survey of Registered Nurses

To what extent did your master's or doctoral training prepare you to be a licensed independent practitioner?

59.6%	To a great extent
36.0%	Somewhat or very little
4.4%	Not at all

# Residencies prepare APPs for this complex world

Did you complete an NP post-graduate residency or fellowship?

10.1% say “yes”

How much did training prepare?	Completed NP Residency	No NP Residency
To a great extent	69.3%	58.5%
Somewhat/little	28.4%	36.9%
Not at all	2.3%	4.6%

Percent that said they felt confident in their ability to practice in interprofessional teams “to a great extent”:

	Completed NP Residency	No NP Residency
To a great extent	83.5%	76.3%

# Residencies prepare APPs for this complex world

In my NP position I can practice to the fullest extent of my state's legal scope of practice

	Completed NP Residency	No NP Residency
Strongly agree	66.2%	58.7%
Agree	25.9%	29.3%
Disagree	7.9%	12.1%

In my NP position my NP education is fully utilized

	Completed NP Residency	No NP Residency
Strongly agree	68.3%	59.5%
Somewhat/little	24.6%	29.3%
Not at all	7.1%	11.3%

# Residencies prepare APPs for this complex world

Training topics that would help you do your job better

	Completed NP Residency	No NP Residency
Evidence-based care	50.4%	47.0%
Patient-centered care	39.7%	35.2%
Caring for medically complex pts	30.8%	35.3%
Team-based care	25.1%	25.9%
Quality improvement	23.3%	23.4%
Practice management/admin	20.0%	21.5%
Social determinants of health	19.0%	19.9%
Population-based health	15.4%	14.7%
Value-based care	14.9%	16.1%

Questions?

Thoughts?

Ideas?

Perspectives?





Thank you!

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