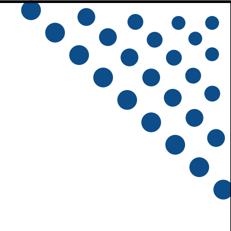

# Health(care) Economics

OLLI San Francisco
June 22, 2021

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*State University of New York*
*SUNY Old Westbury*

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## National Economic Education Delegation

- **Vision**
  - One day, the public discussion of policy issues will be grounded in an accurate perception of the underlying economic principles and data.
- **Mission**
  - NEED unites the skills and knowledge of a vast network of professional economists to promote understanding of the economics of policy issues in the United States.
- **NEED Presentations**
  - Are **nonpartisan** and intended to reflect the consensus of the economics profession.

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# Who Are We?

- **Honorary Board: 49 members**
  - 2 Fed Chairs: Janet Yellen, Ben Bernanke
  - 6 Chairs Council of Economic Advisers
    - Furman (D), Rosen (R), Bernanke (R), Yellen (D), Tyson (D), Goolsbee (D)
  - 3 Nobel Prize Winners
    - Akerlof, Smith, Maskin
- **Delegates: 500+ members**
  - At all levels of academia and some in government service
  - All have a Ph.D. in economics
  - Crowdsource slide decks
  - Give presentations
- **Global Partners: 45 Ph.D. Economists**
  - Aid in slide deck development

NATIONAL ECONOMIC EDUCATION DELEGATION 3

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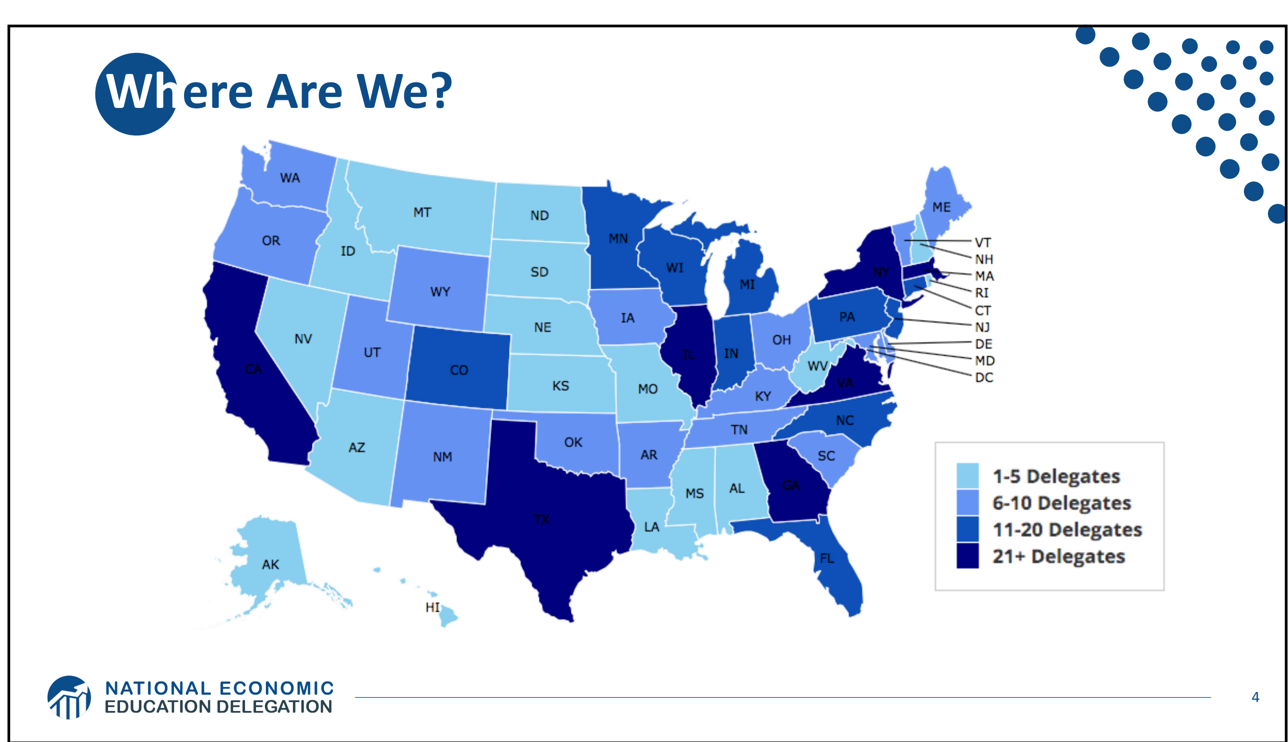
# Where Are We?

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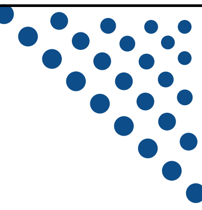

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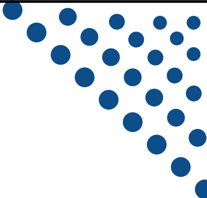
  - Veronika Dolar, SUNY Old Westbury

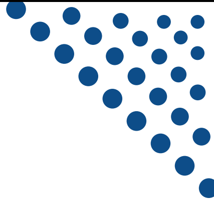
- **Disclaimer**
  - NEED presentations are designed to be nonpartisan.
  - It is, however, inevitable that the presenter will be asked for and will provide their own views.
  - Such views are those of the presenter and not necessarily those of the National Economic Education Delegation (NEED).



## Outline

- What is Health(care) Economics?
- Taking the Pulse of the Health Economy
- Health Care Systems and Institutions
- Health Insurance and Reform
- Pharmaceuticals – Big Pharma

## What is Health(care) Economics?



- Health Economics is a special field of (applied) microeconomics that focuses on the health care industry.
- Examples of other subfields of microeconomics are labor economics, industrial organization, economics of education, public economics, and urban economics.

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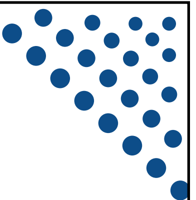
## Health Economics is part of Microeconomics



- Although health economics is part of “micro-” economics, it is actually very big:
- In 2019, U.S. national health expenditure was 17.8% of GDP, which is equivalent to around $3,427 billions.
- For comparison, the entire GDP of Germany in 2019 was $3,845 billions (4th largest economy), GDP of UK was $2,827 billions (6th largest economy), and $2,715 billions in France (7th largest economy).

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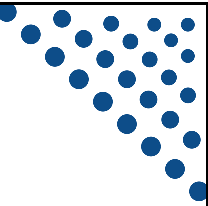
## What is Health Economics?



- Health economics studies health care resources markets and health insurance.
- Healthcare is the biggest industry and the largest employer in the US.

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## What is a Market?

- A market is a group of buyers and sellers of a particular product in the area or region under consideration. The area may be the earth, or countries, regions, states, or cities.
- The concept of a market is any structure that allows buyers and sellers to exchange any type of goods, services and information.
- Markets can be physical and non-physical.
- There are many different types of markets and depending on the type a different rules should be set up for eliciting the best results for the society.

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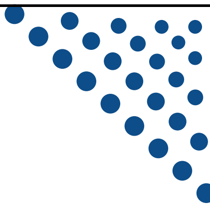

# Markets studied in health economics

- **Markets for:**
  - Physicians
  - Nurses
  - Hospital facilities
  - Nursing homes
  - Pharmaceuticals
  - Medical supplies (such as diagnostic and therapeutic equipment)
  - **Health Insurance**

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# Market Economies

- In market economies, prices adjust to balance supply and demand.
- These equilibrium prices are the signals that guide economic decisions and thereby allocate scarce resources.
- The invisible hand works through the price system:
  - The interaction of buyers and sellers determines prices.
  - Each price reflects the good's value to buyers and the cost of producing the good.
  - Prices guide self-interested households and firms to make decisions that, in many cases, maximize society's economic well-being.

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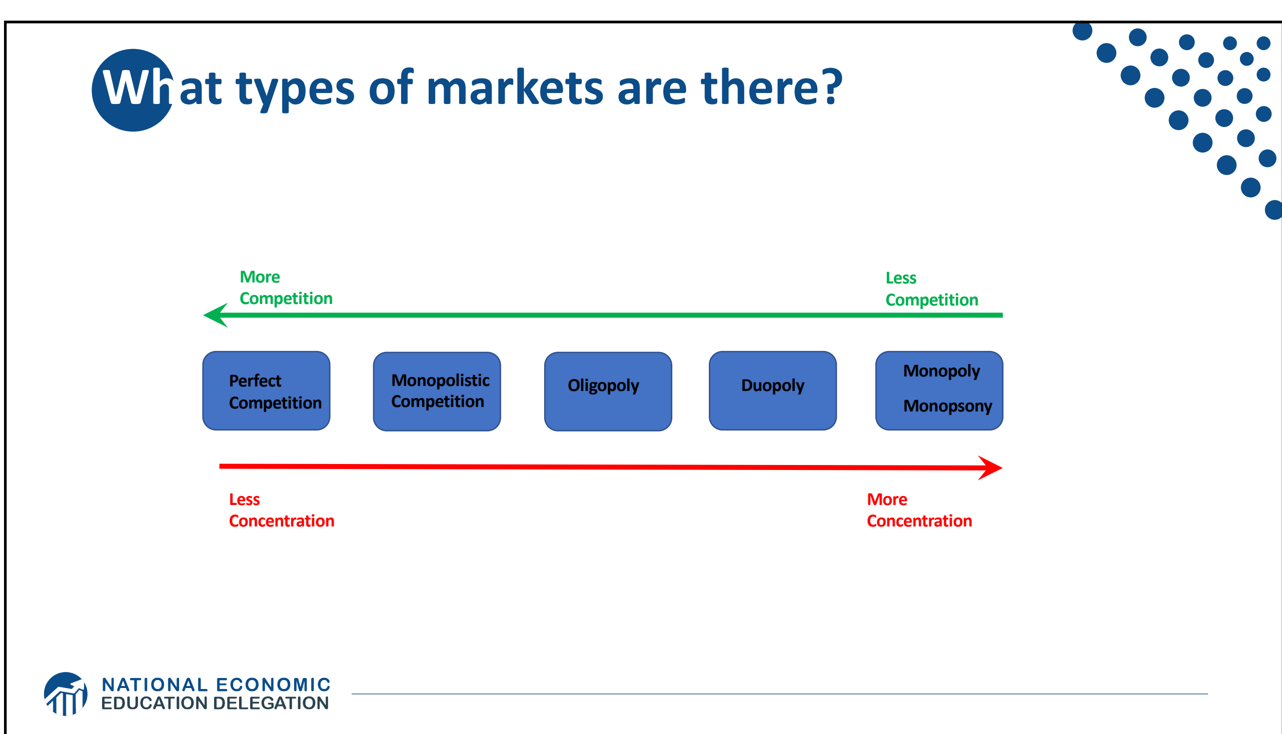


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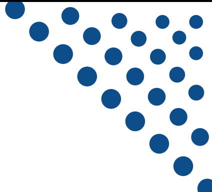

## Hospital Monopolization

- Market consolidation among and between health systems, hospitals, medical groups, and health insurers has surged over the last decade.
- Over an 18-month period between July 2016 and January 2018, hospitals acquired 8,000 more medical practices, and 14,000 more physicians left independent practice to become hospital employees, according to an analysis.

## Hospital Monopolization: California

- A large Northern California hospital system used its size and influence to achieve a "domination of the market".
- Sutter Health grew into a behemoth hospital system and then, like a classic monopoly, used its dominance in Northern California to raise hospital prices.
- Sutter used its windfall from excessive pricing to acquire more entities and grew into a conglomerate of 24 hospitals, 12,000 doctors and several cancer, cardiac and other specialty centers.
- In some counties, Sutter was the sole hospital for a thousand square miles.

# Hospital Monopolization Across the Nation

- Most of the top 100 most expensive hospitals are located in states in the west and south.
  - Florida had the highest number, with 40 hospitals.
  - Other top states included Texas with 14 hospitals, Alabama with eight, Nevada with seven, and California with six.
- Hospitals Charge Patients More Than Four Times the Cost of Care
- The most expensive hospitals cost of care range from 1,808 % at the high end to 1,129 % at the low end.

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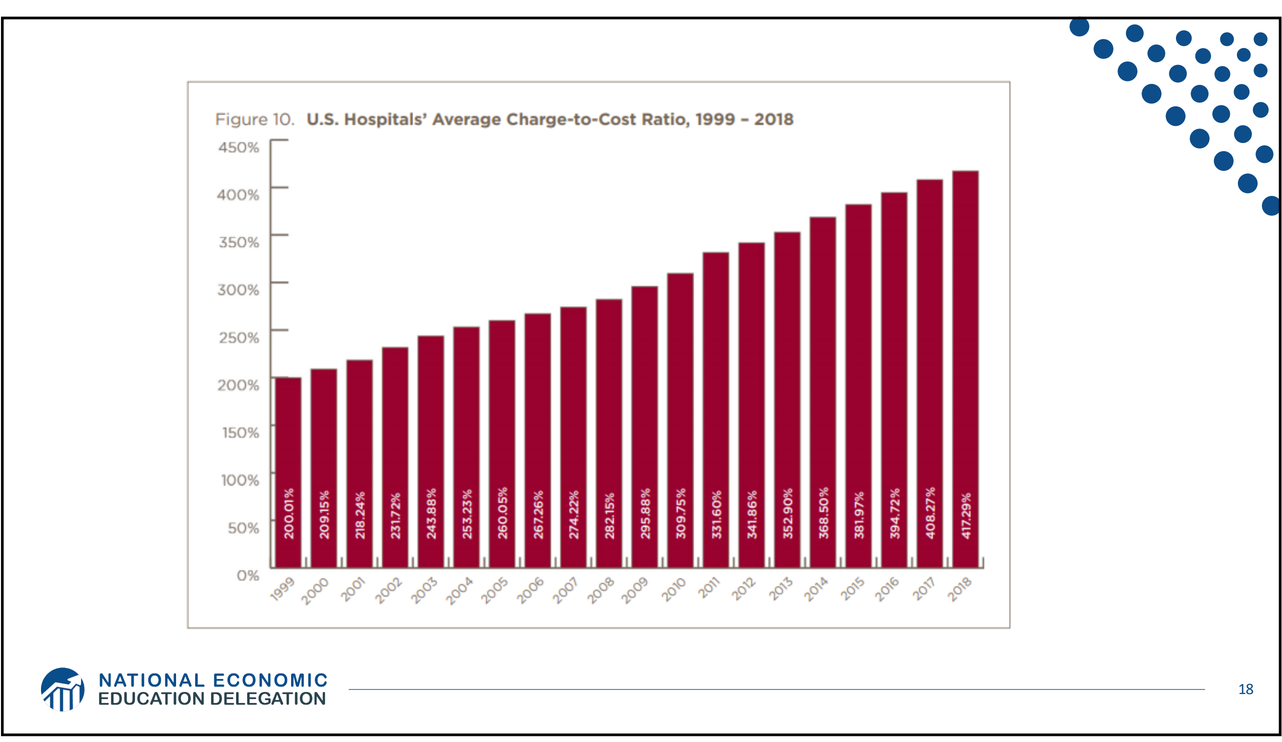


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# Hospital Monopolization: Florida

- South Florida hospitals recorded combined profits of nearly $1.3 billion in 2018 and have posted combined profits above $1 billion for four of the past five years.
- HCA hospitals were the most profitable, with a net income of $363.6 million, according to the report.
- Baptist Health, a nonprofit and the largest system in the Miami area, had a net income of $142.8 million and Memorial Healthcare System in Broward County, a nonprofit hospital network, had a net income of $158.6 million.

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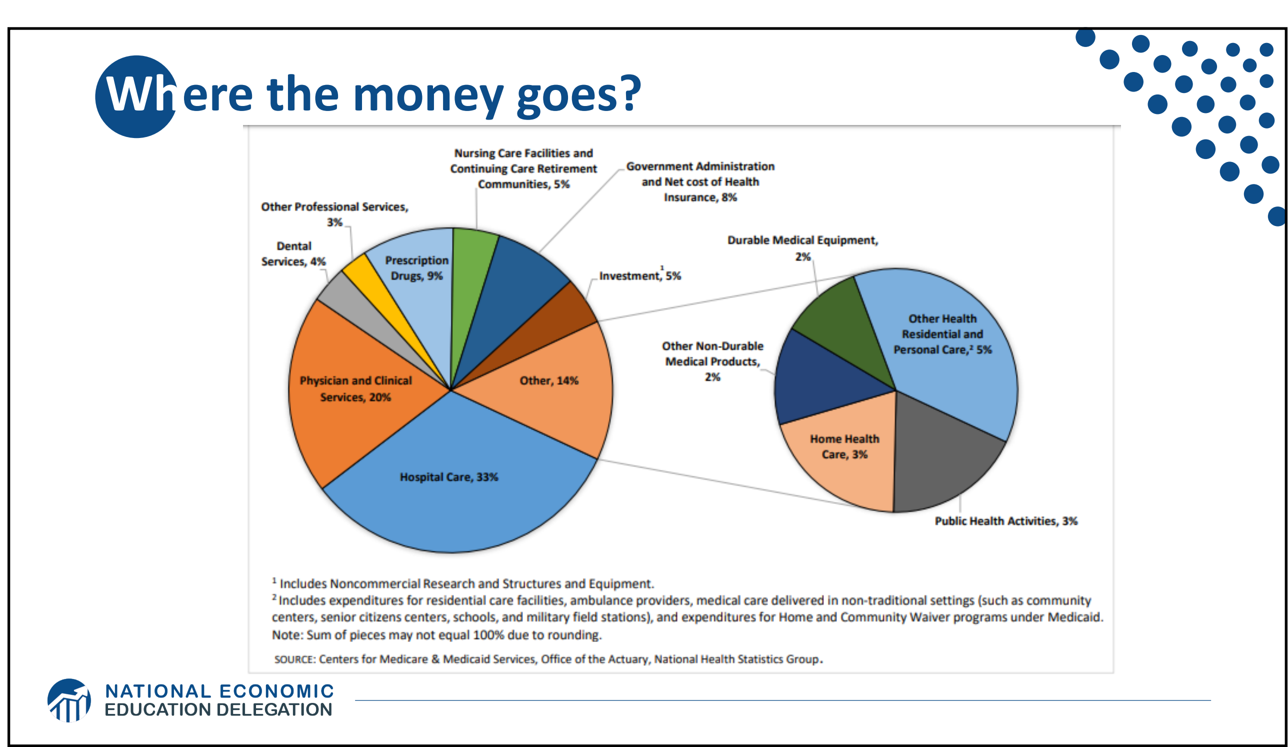


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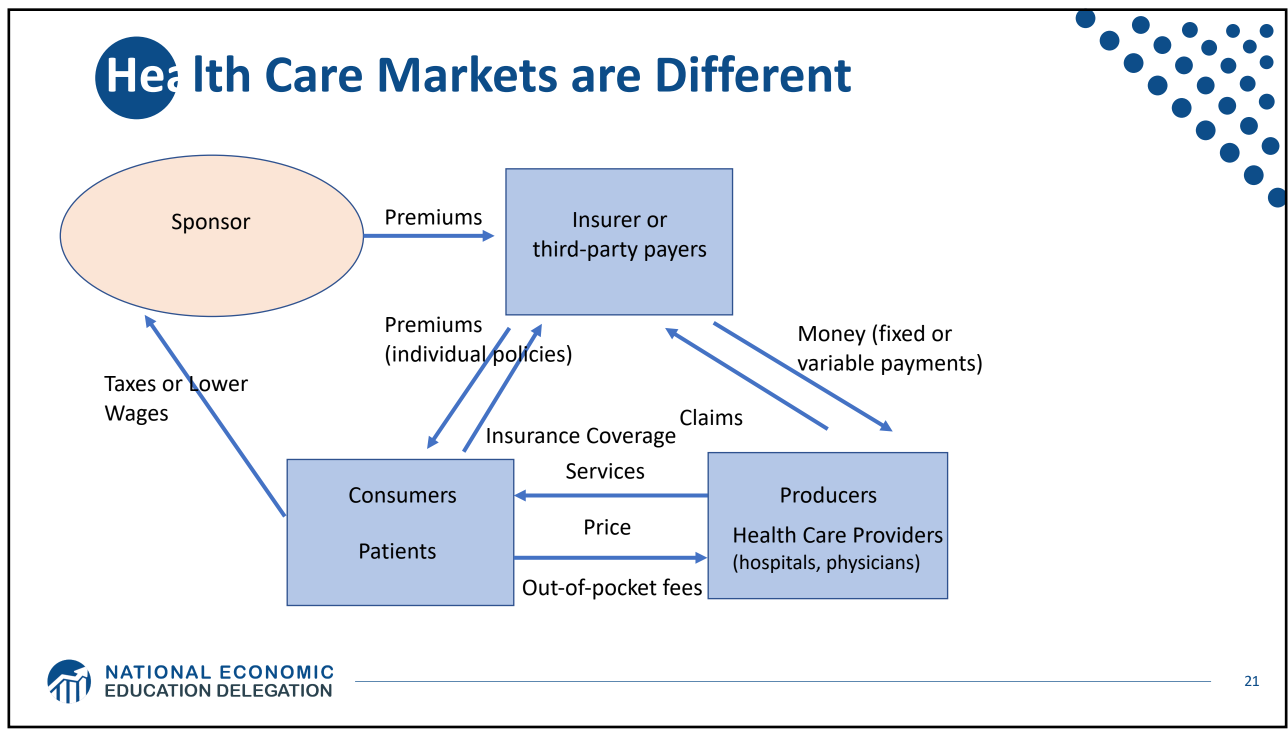


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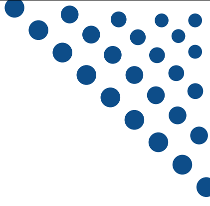

## Pulse of the Health Economy

- **Health economy involves activities related to population health:**
  - Production and consumption of goods and services
  - Distribution of those goods to consumers
- **Performance indicators of medical care**
  - Costs
  - Quality
  - Access

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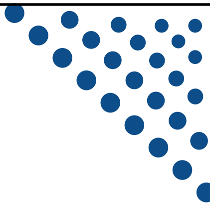
## Tradeoffs



Tradeoffs take place among the three legs:

- By increasing quality health care this leads to higher health care costs, which means that some individuals might not be able to afford it and the access may be more limited.
- By increasing access, the costs and/or quality may suffer.
- By decreasing costs, access and/or quality may suffer.

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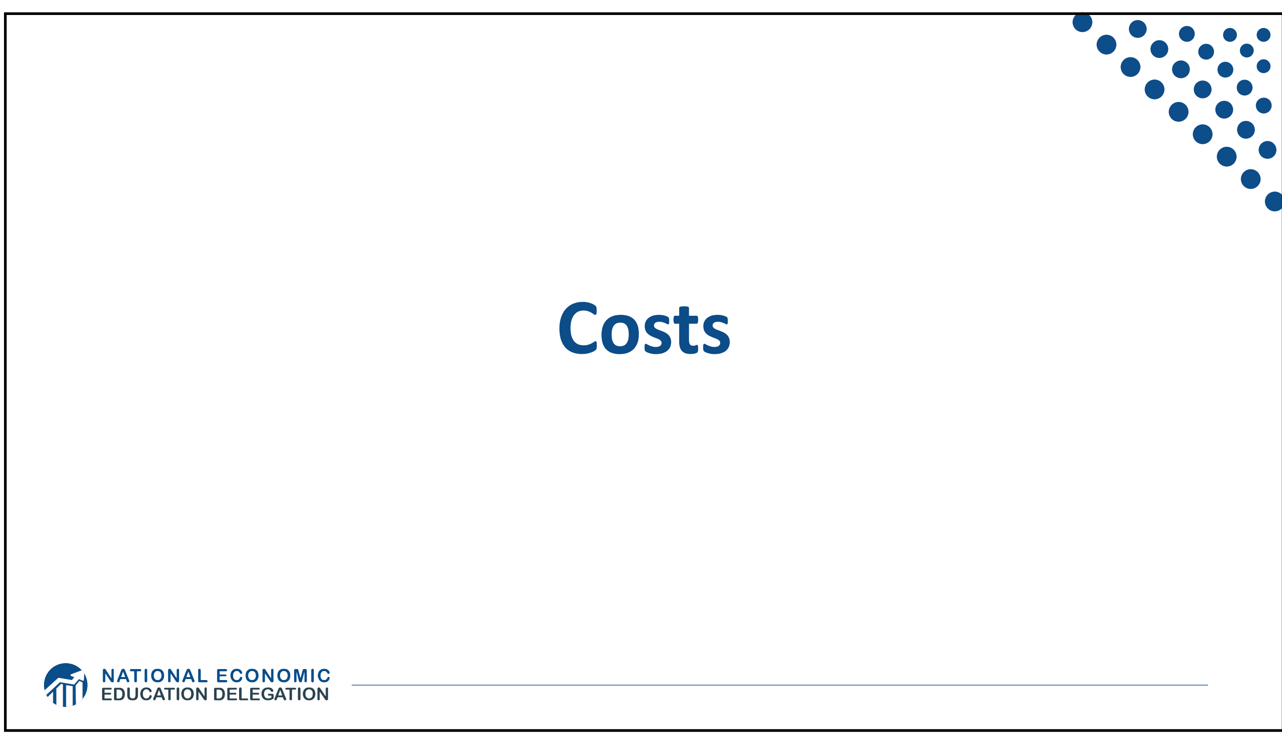


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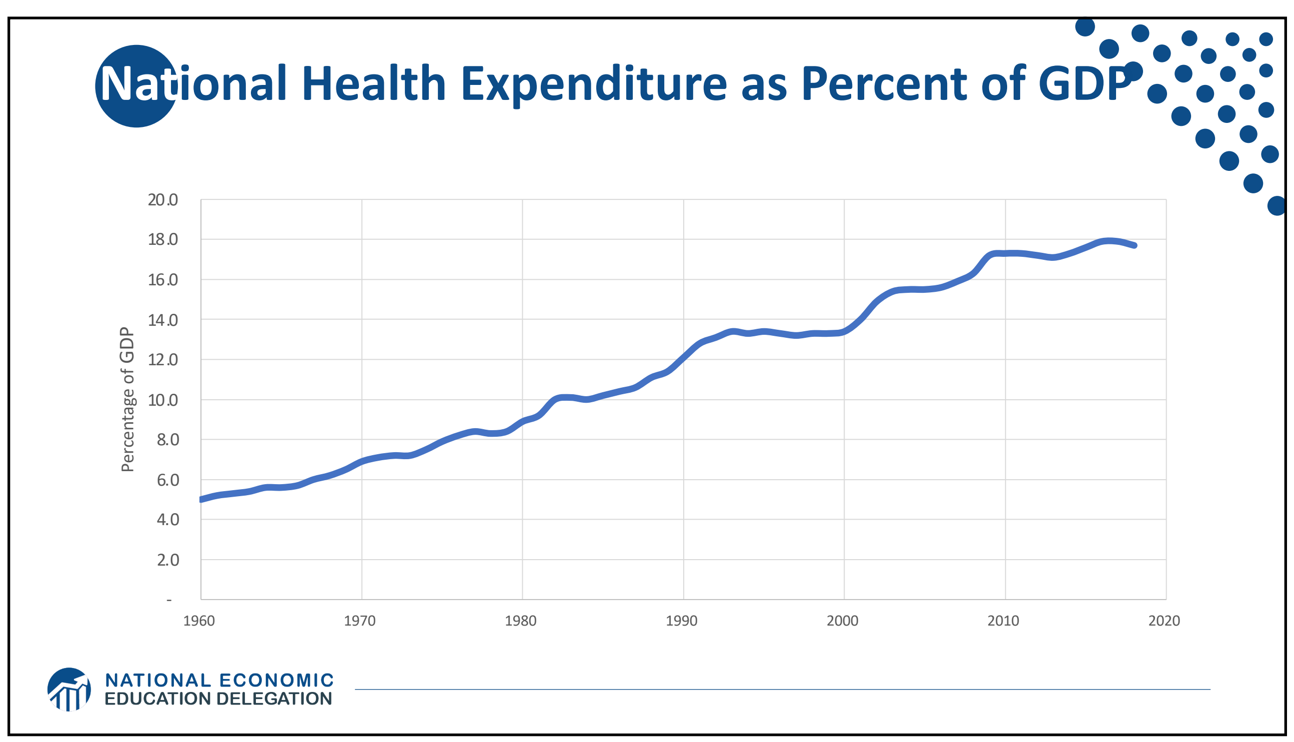


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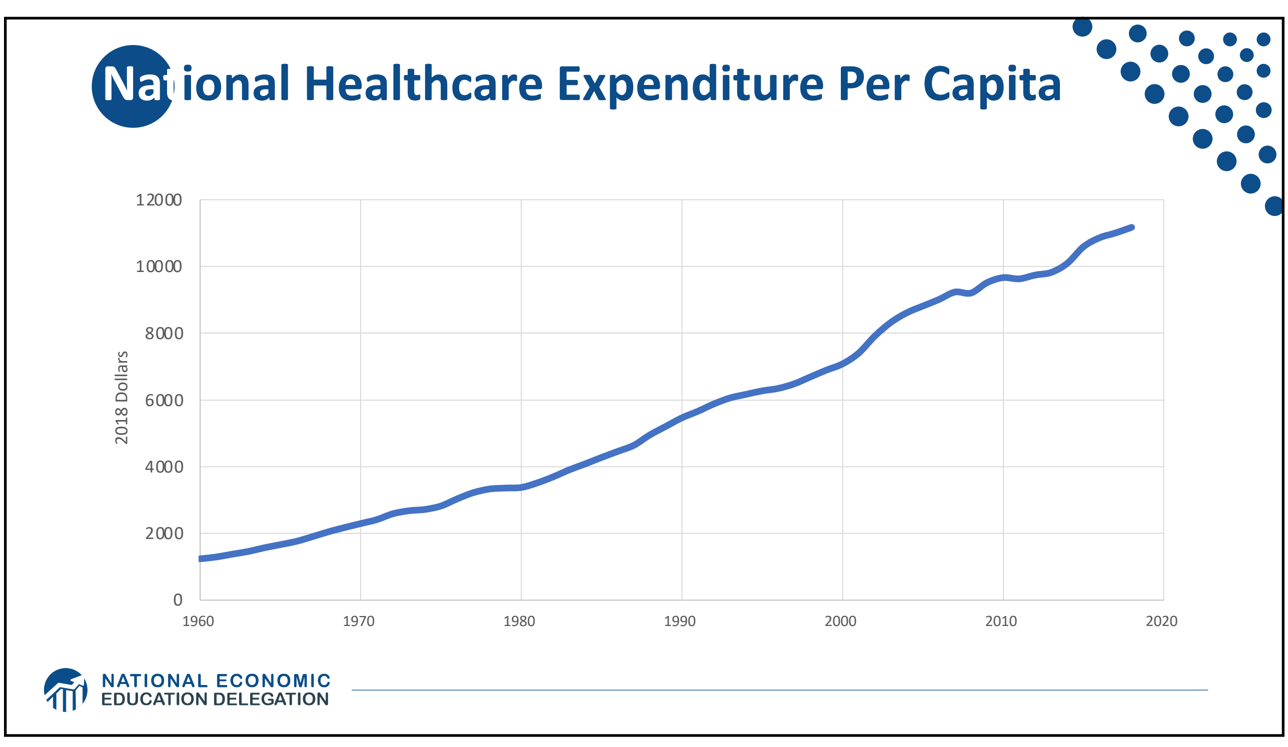


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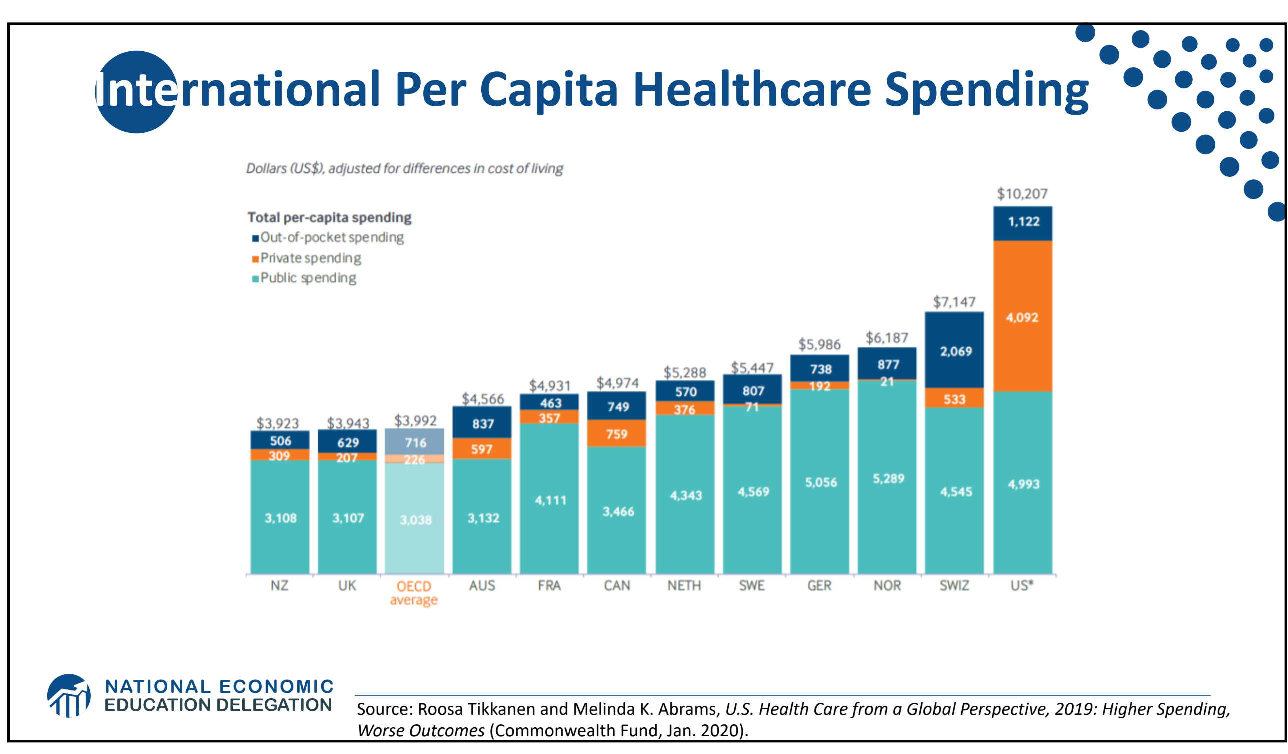


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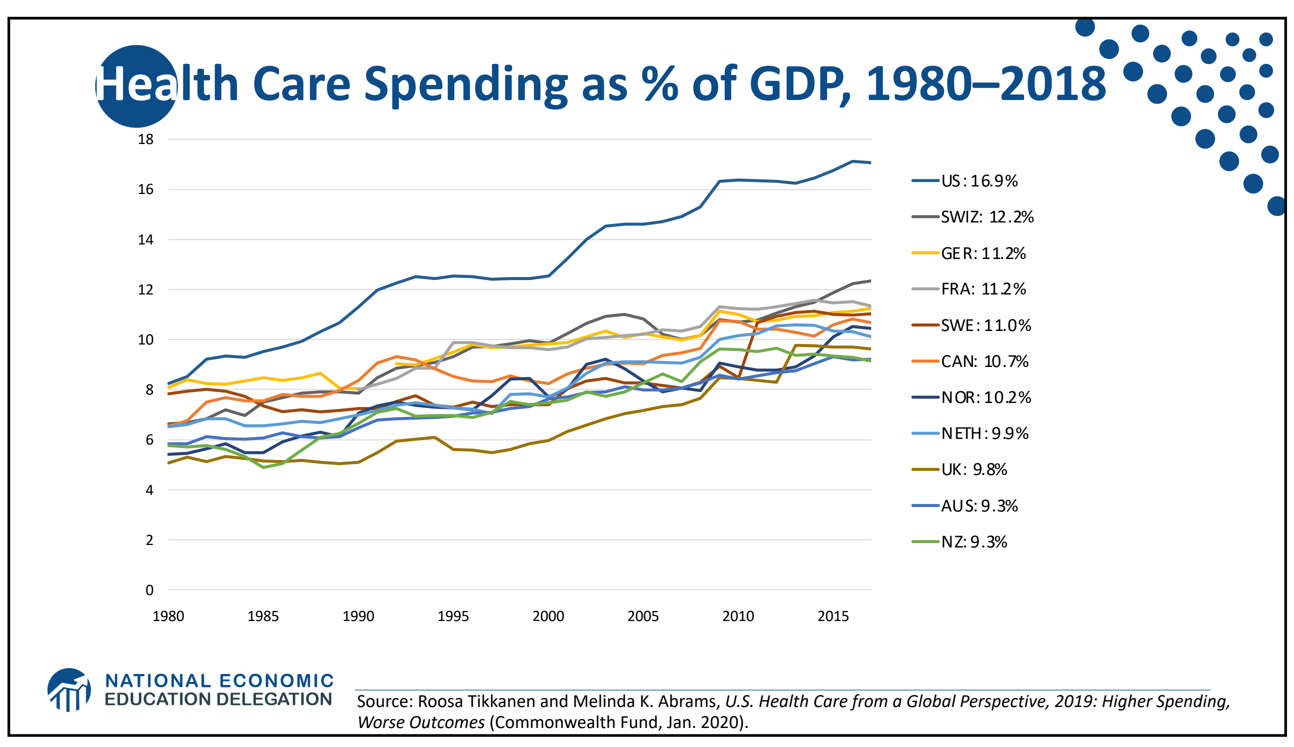


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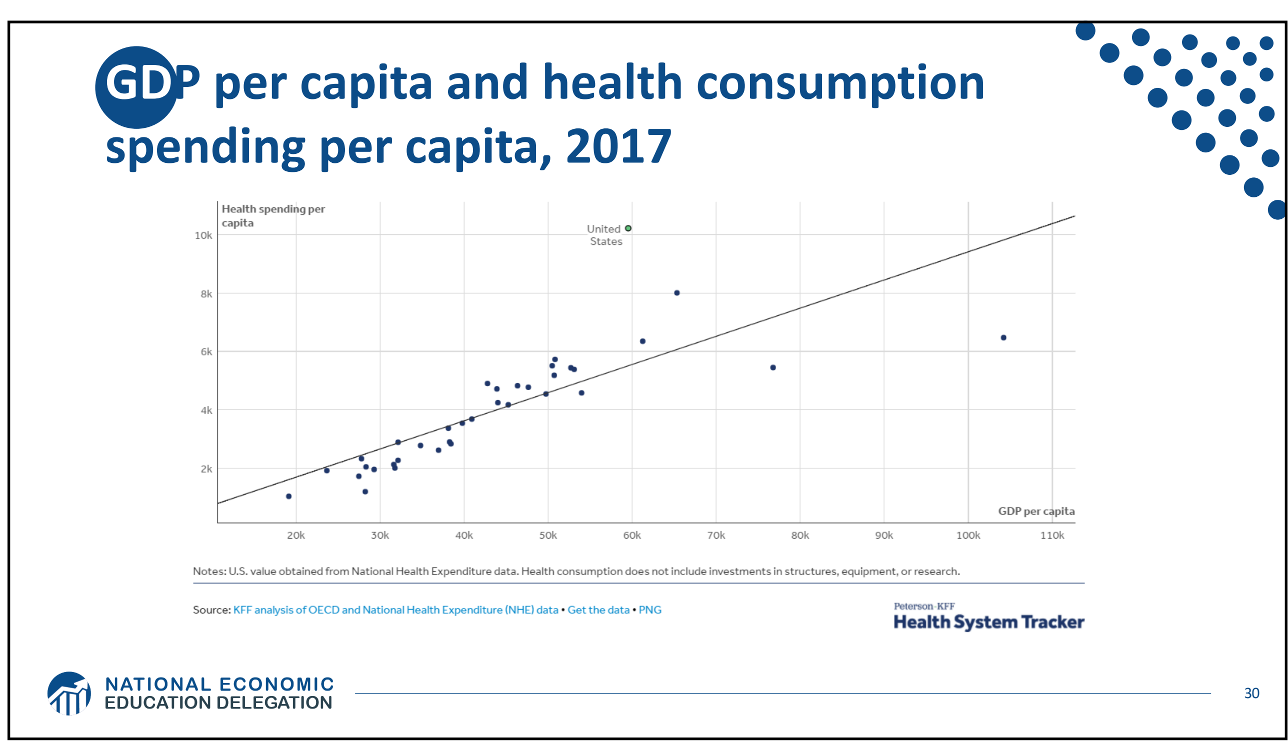


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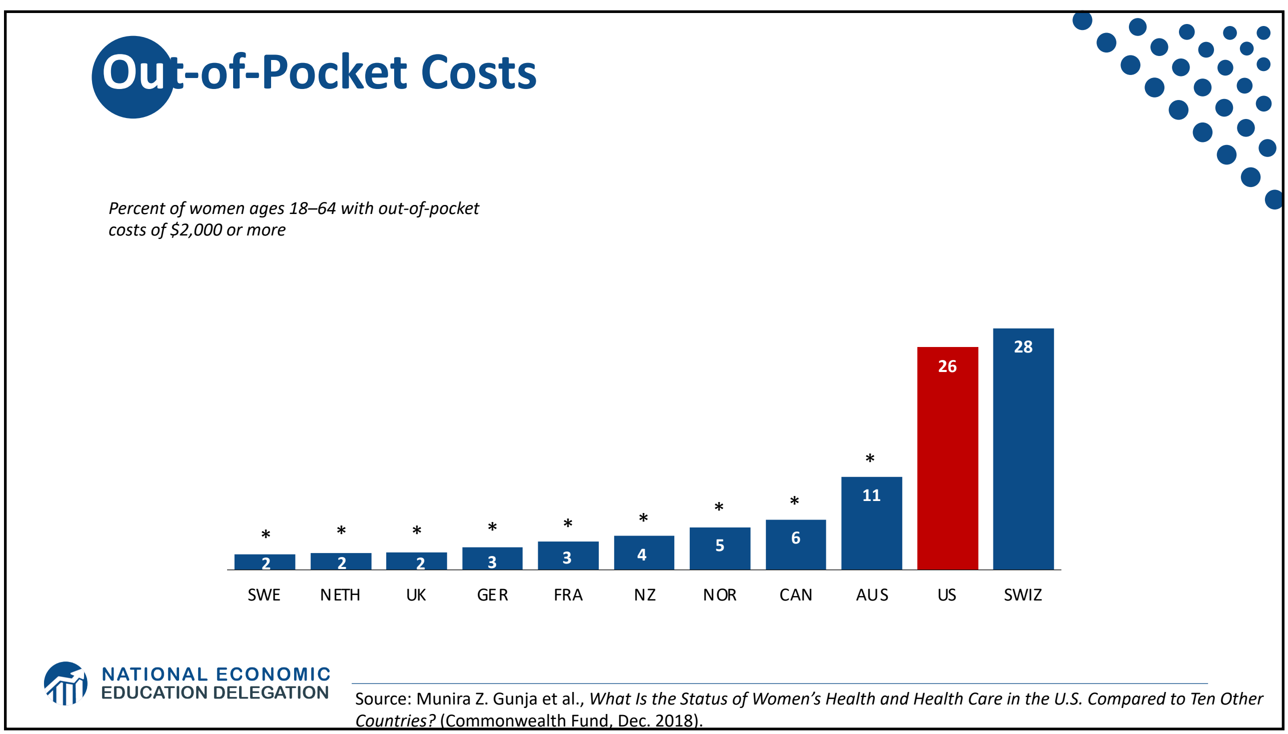


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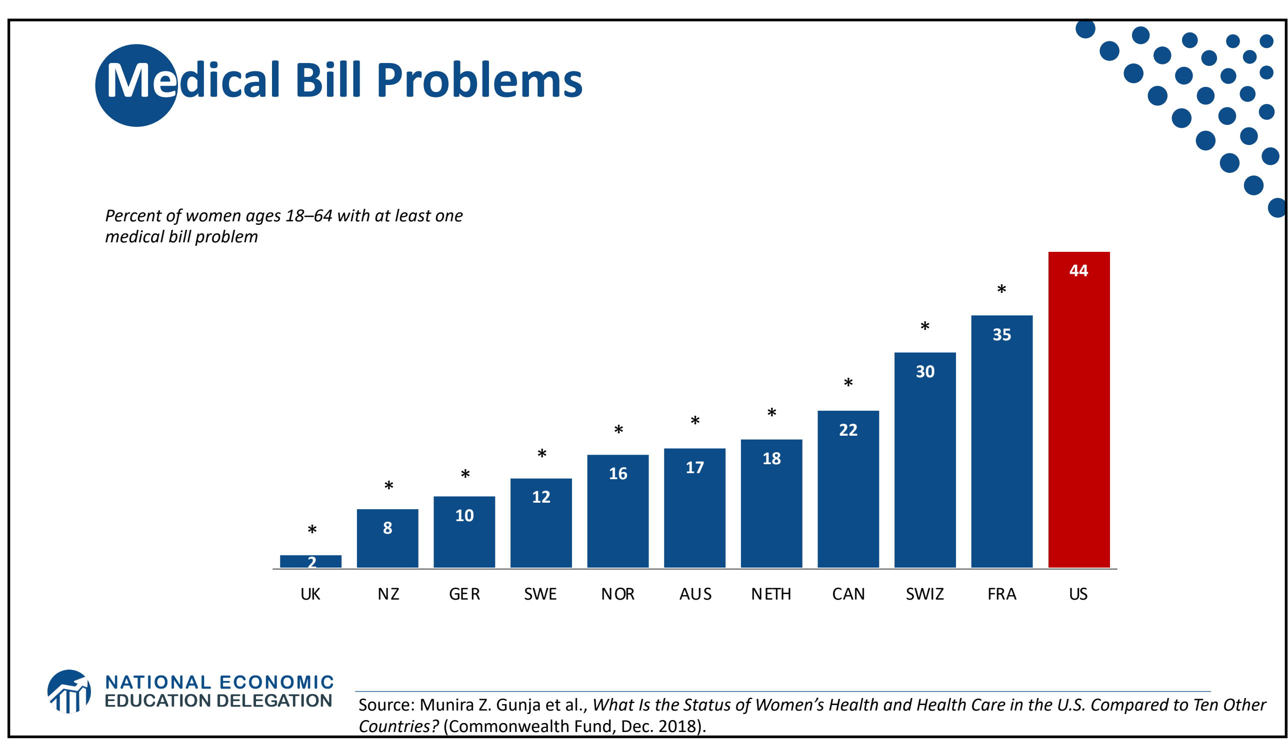


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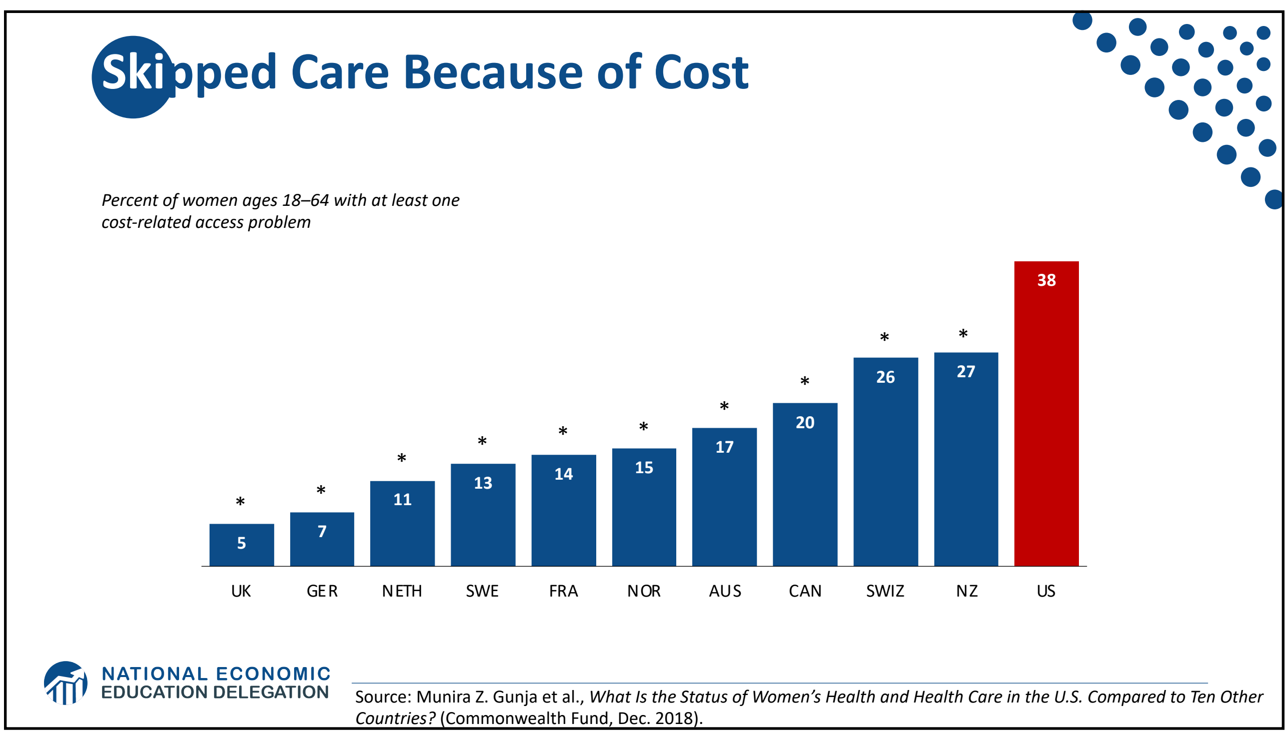


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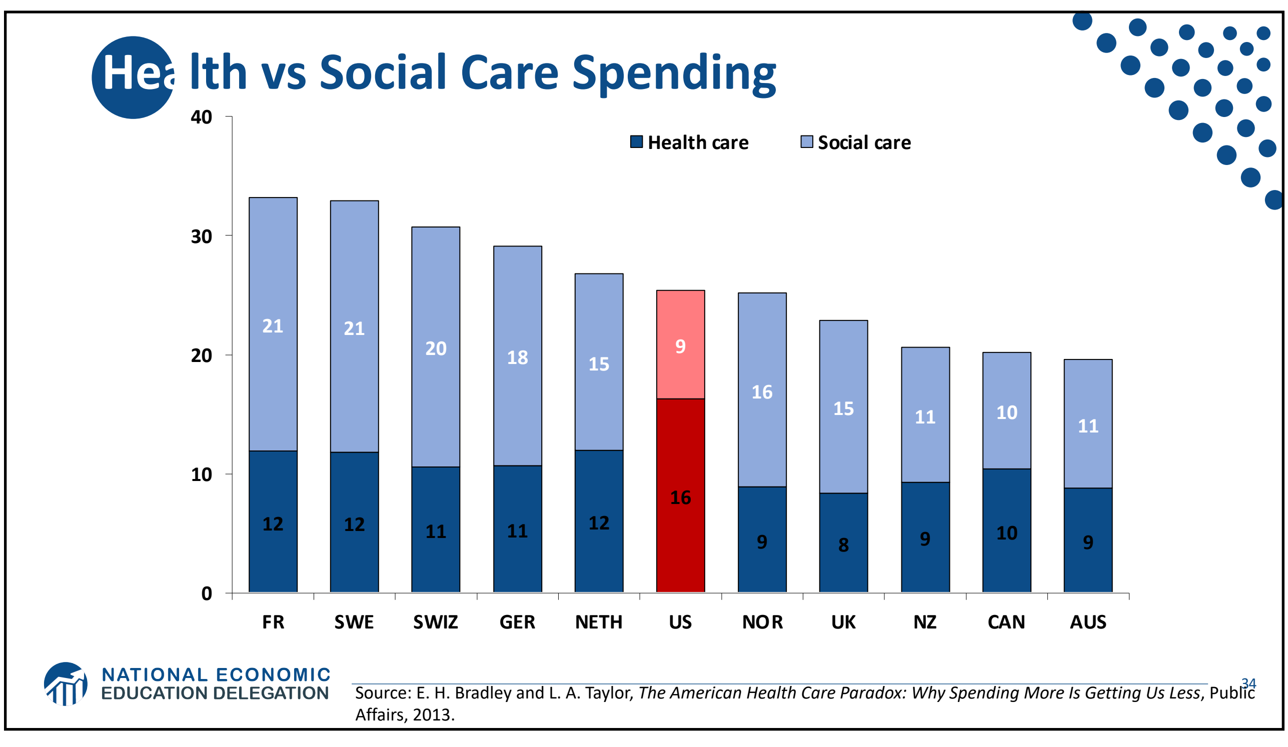


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## Health vs Social Care Spending

- A 2013 study by Bradley and Taylor found that the U.S. spent the least on social services—such as retirement and disability benefits, employment programs, and supportive housing—among the countries studied in this report, at just 9 percent of GDP.
- From 2000 to 2011, for every dollar the US spent on health care, the country spent another $1.00 on social services, whereas across the OECD, for every dollar spent on health care, countries spend an additional $2.50 on social services

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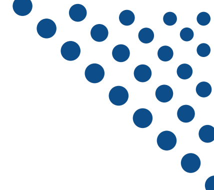
## Why this increase in healthcare spending?



- The share of the economy spent on health care has been steadily increasing for all countries because
  - health spending growth has outpaced economic growth.
- Also because of
  - advances in medical technologies
  - increased demand for services
  - rising prices in the health sector – why?

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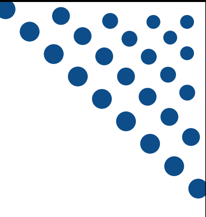

# Quality

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## Summary

- The U.S. has the highest chronic disease burden and an obesity rate that is two times higher than the OECD average.
- Americans had fewer physician visits than peers in most countries, which may be related to a low supply of physicians in the U.S.
- Americans use some expensive technologies, such as MRIs, and specialized procedures, such as hip replacements, more often than our peers.
- The U.S. outperforms its peers in terms of preventive measures — it has the one of the highest rates of breast cancer screening among women ages 50 to 69 and the second-highest rate (after the U.K.) of flu vaccinations among people age 65 and older.
- Compared to peer nations, the U.S. has among the highest number of hospitalizations from preventable causes and the highest rate of avoidable deaths.

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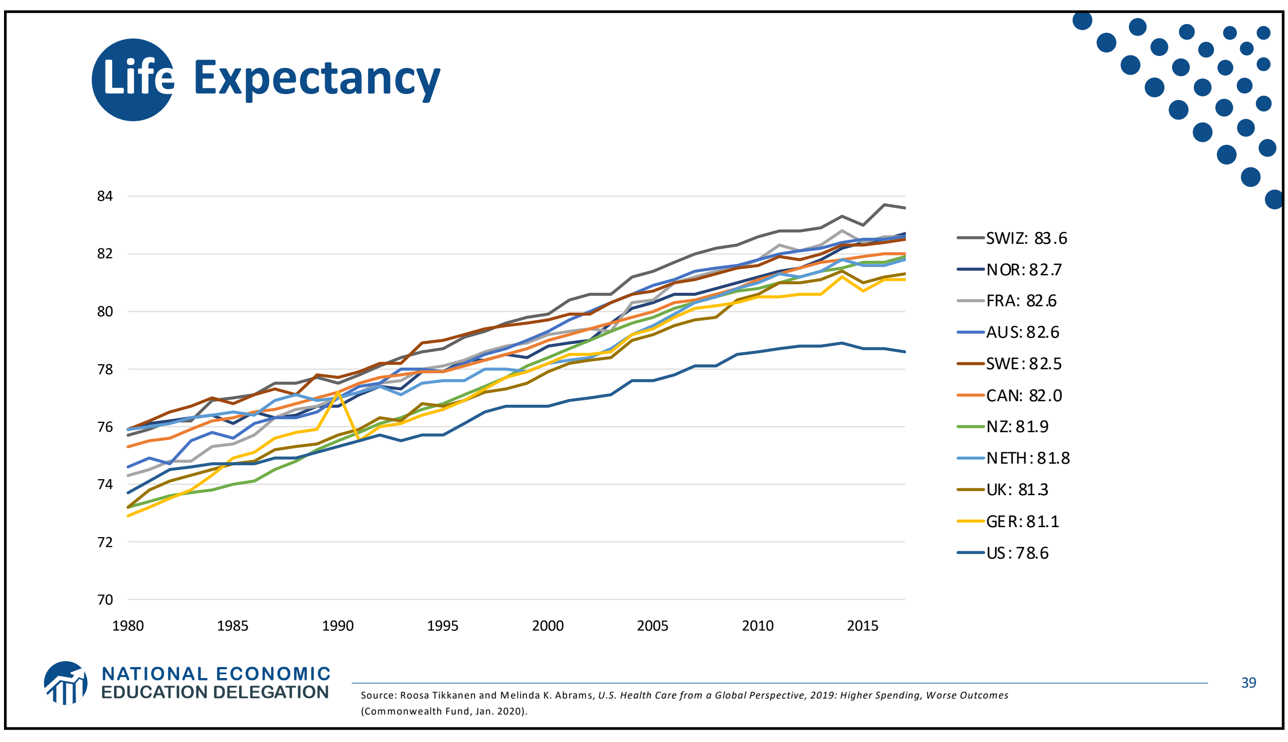


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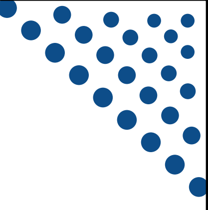

- Despite the highest spending, Americans experience worse health outcomes than their international peers.
- Life expectancy at birth in the U.S. was 78.6 years in 2017 — more than two years lower than the OECD average and five years lower than Switzerland, which has the longest lifespan.

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- In the U.S., life expectancy masks racial and ethnic disparities. Average life expectancy among non-Hispanic black Americans (75.3 years) is 3.5 years lower than for non-Hispanic whites (78.8 years).
- Life expectancy for Hispanic Americans (81.8 years) is higher than for whites, and similar to that in Netherlands, New Zealand and Canada.

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# Life Expectancy by Race

| All Races | 78.6 |
|---|---|
| White | 78.8 |
| Black | 75.3 |
| Hispanic | 81.8 |
| Non-Hispanic white | 78.5 |
| Non-Hispanic black | 74.9 |

Life expectancy at birth 2017

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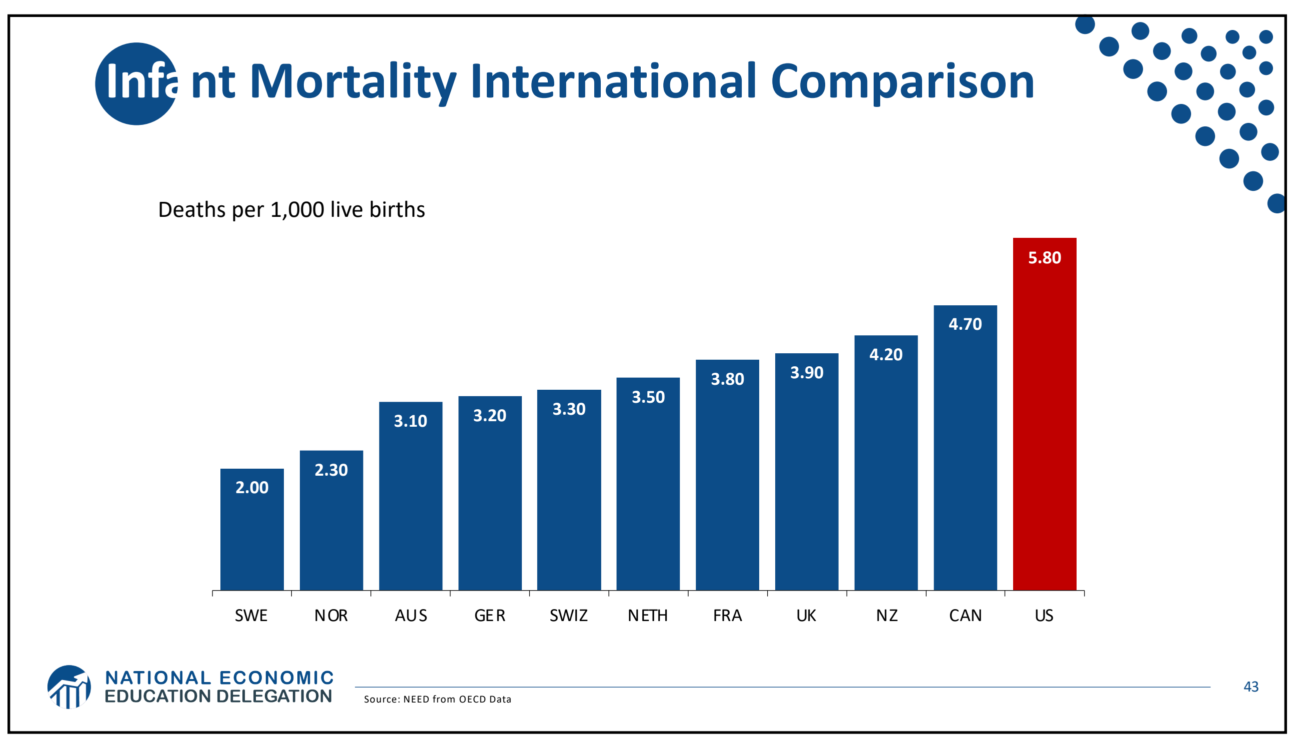


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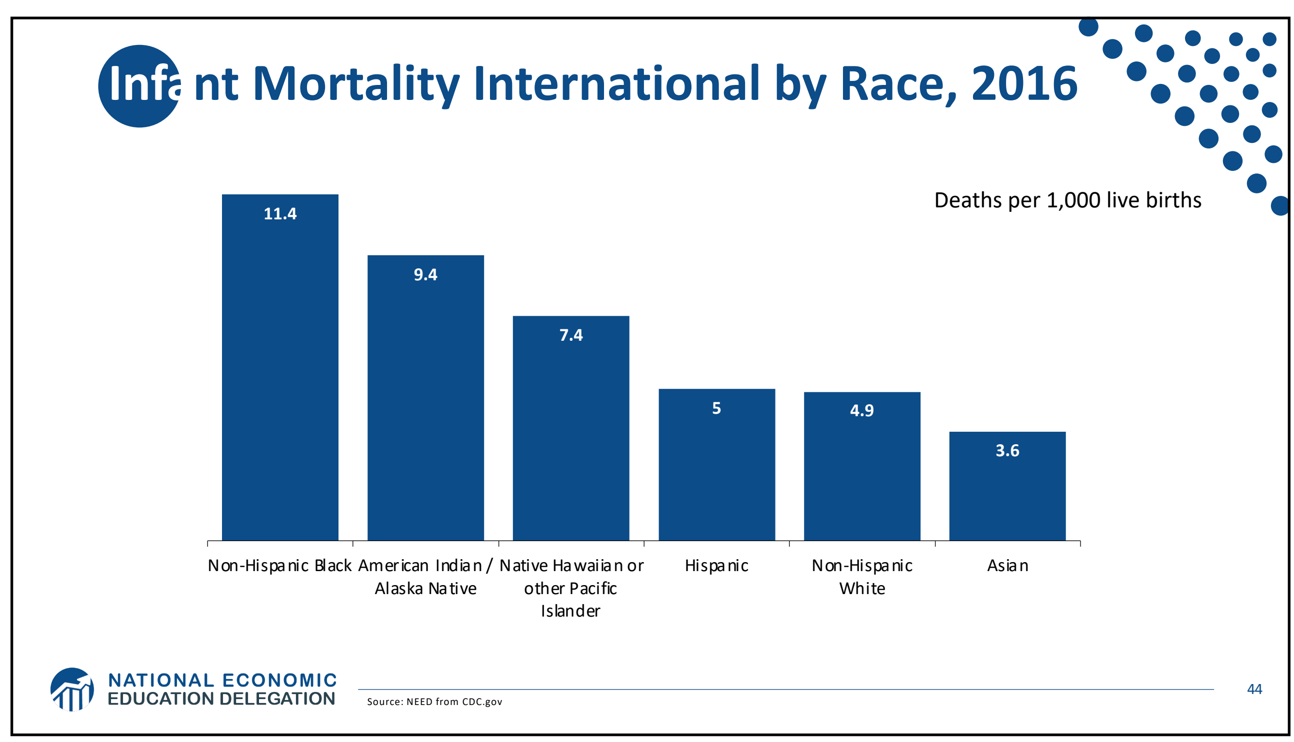


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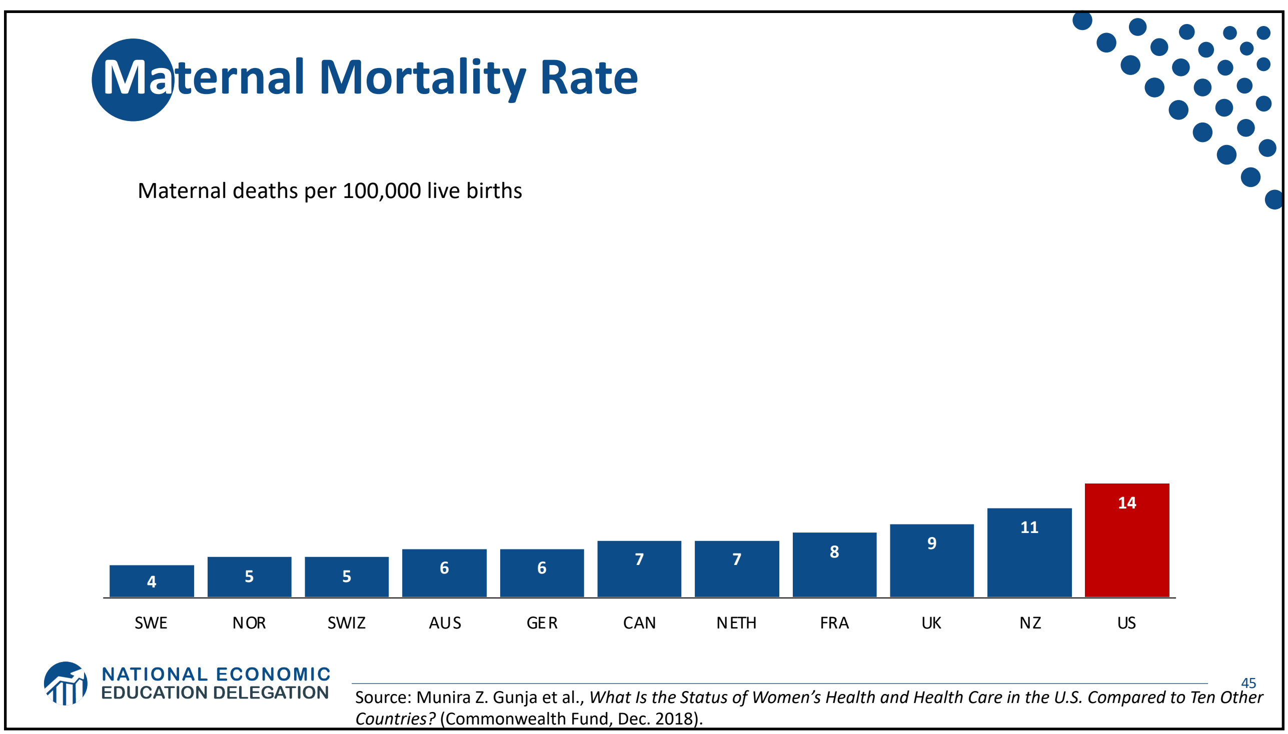


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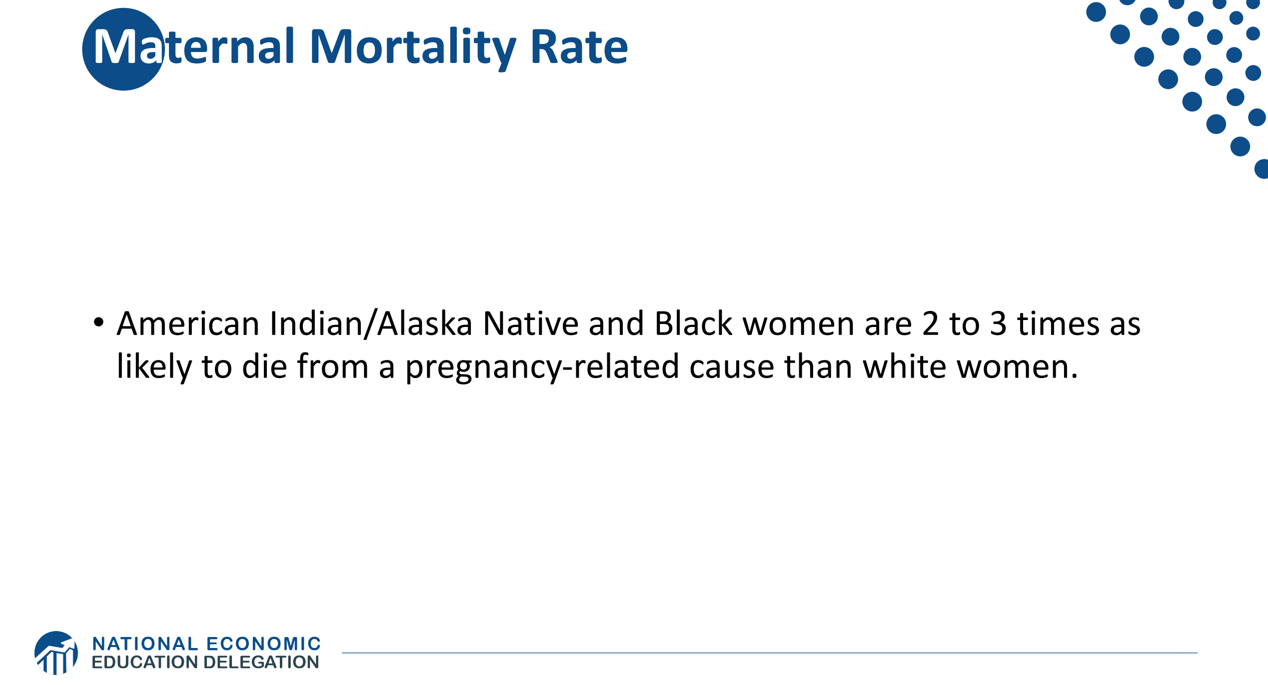


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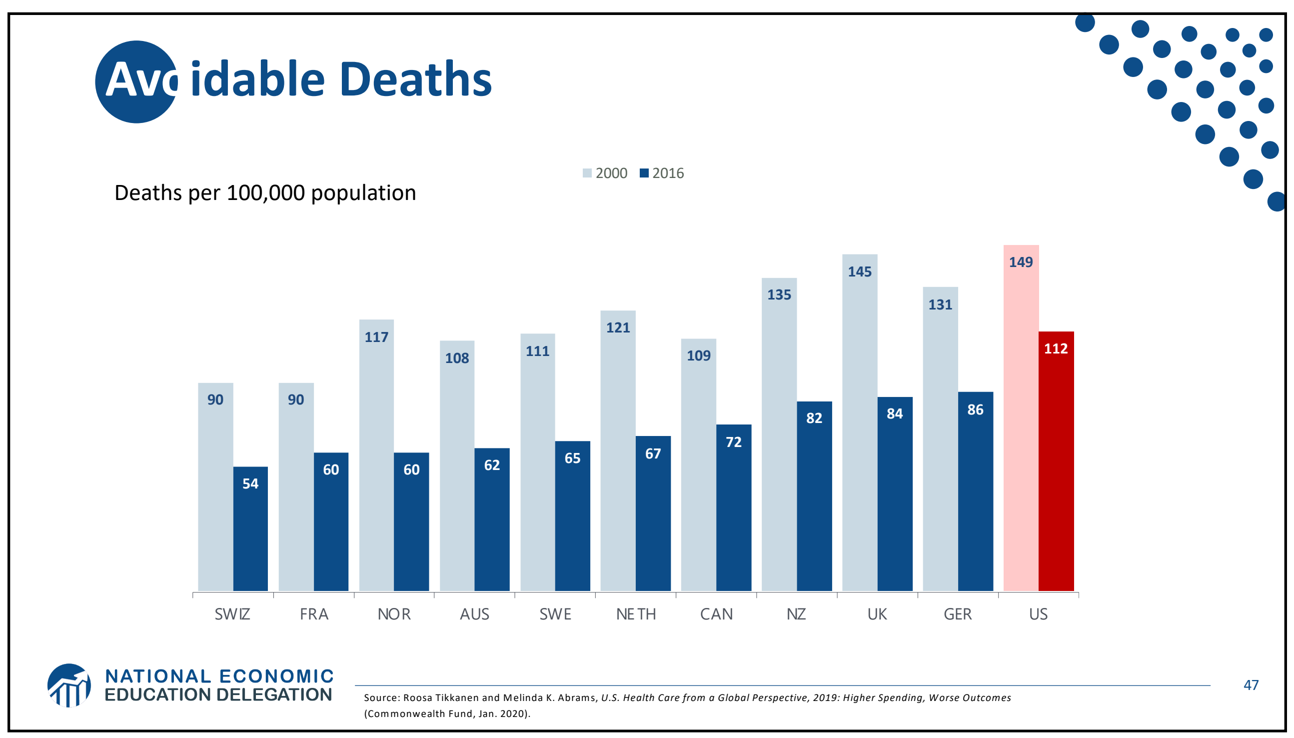


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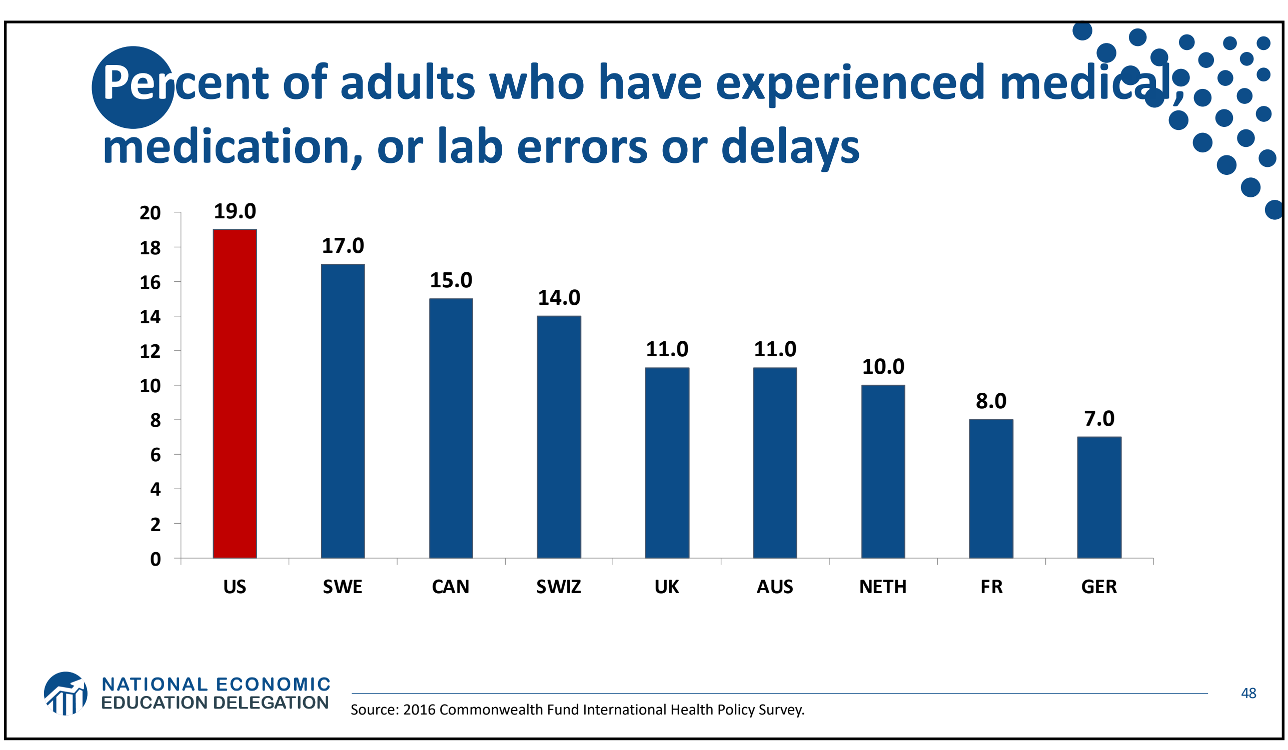


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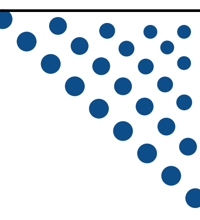
# Prevention and Screening



- The U.S. Excels in Prevention Measures, Including Flu Vaccinations and Breast Cancer Screenings
- The U.S. Has the Highest Average Five-Year Survival Rate for Breast Cancer, but the Lowest for Cervical Cancer

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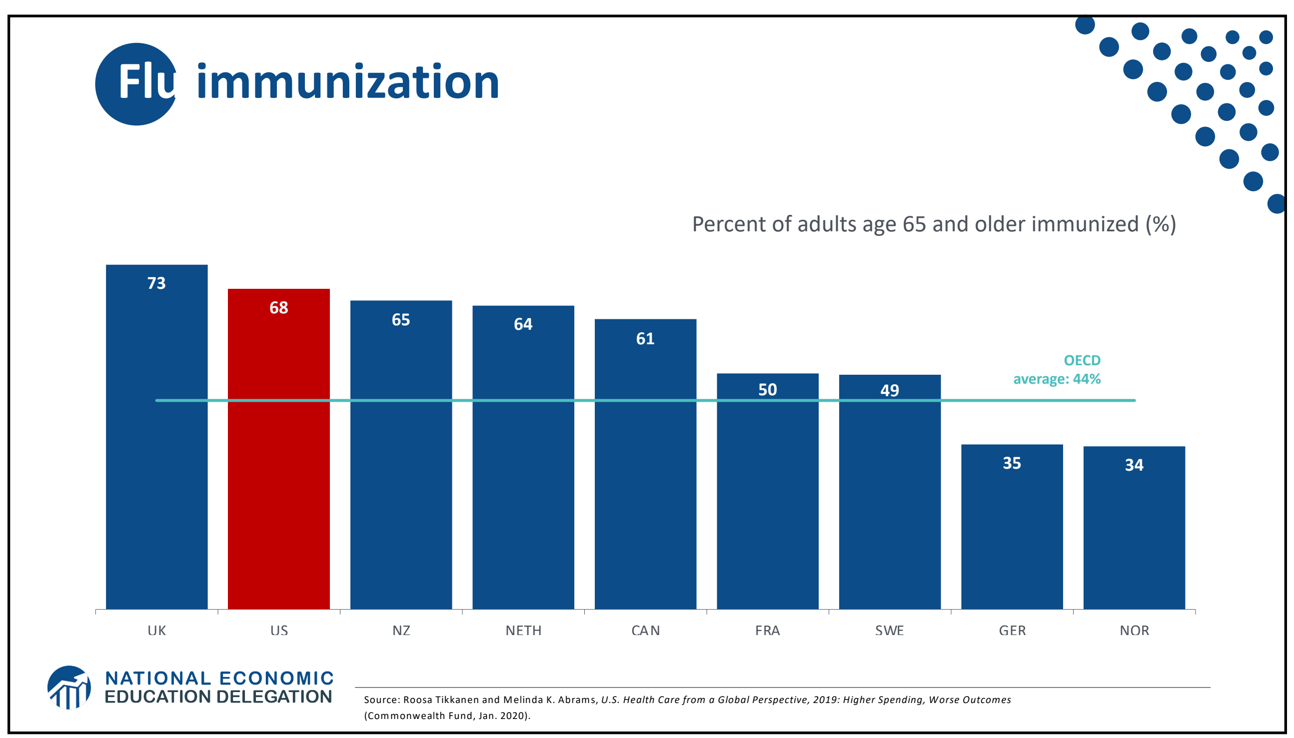
# Flu immunization

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Source: Roosa Tikkanen and Melinda K. Abrams, *U.S. Health Care from a Global Perspective, 2019: Higher Spending, Worse Outcomes* (Commonwealth Fund, Jan. 2020).

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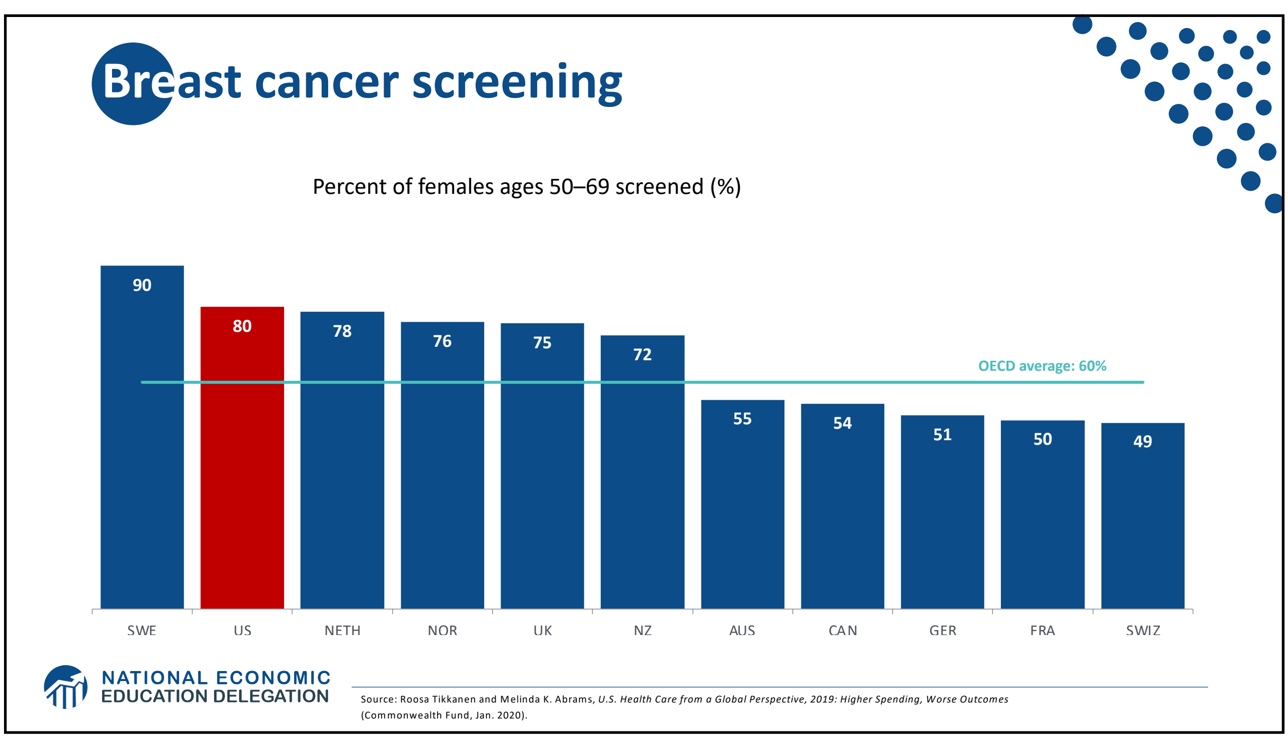


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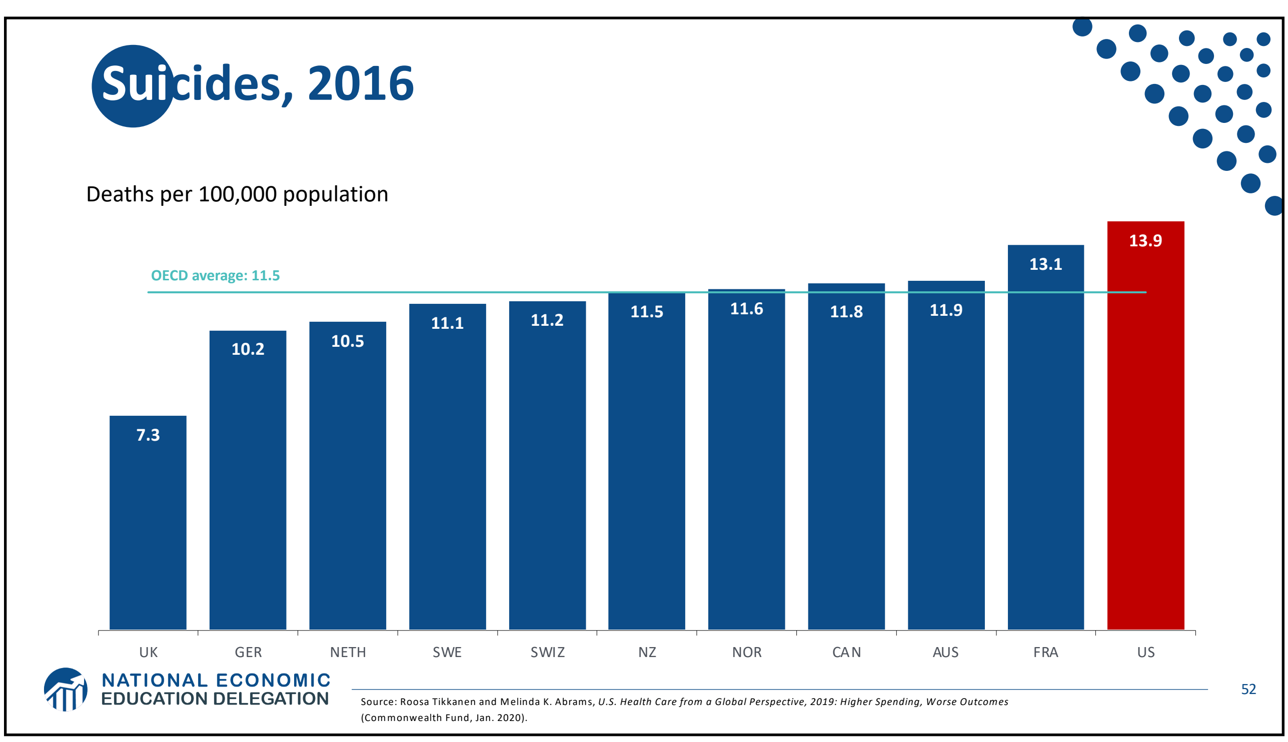


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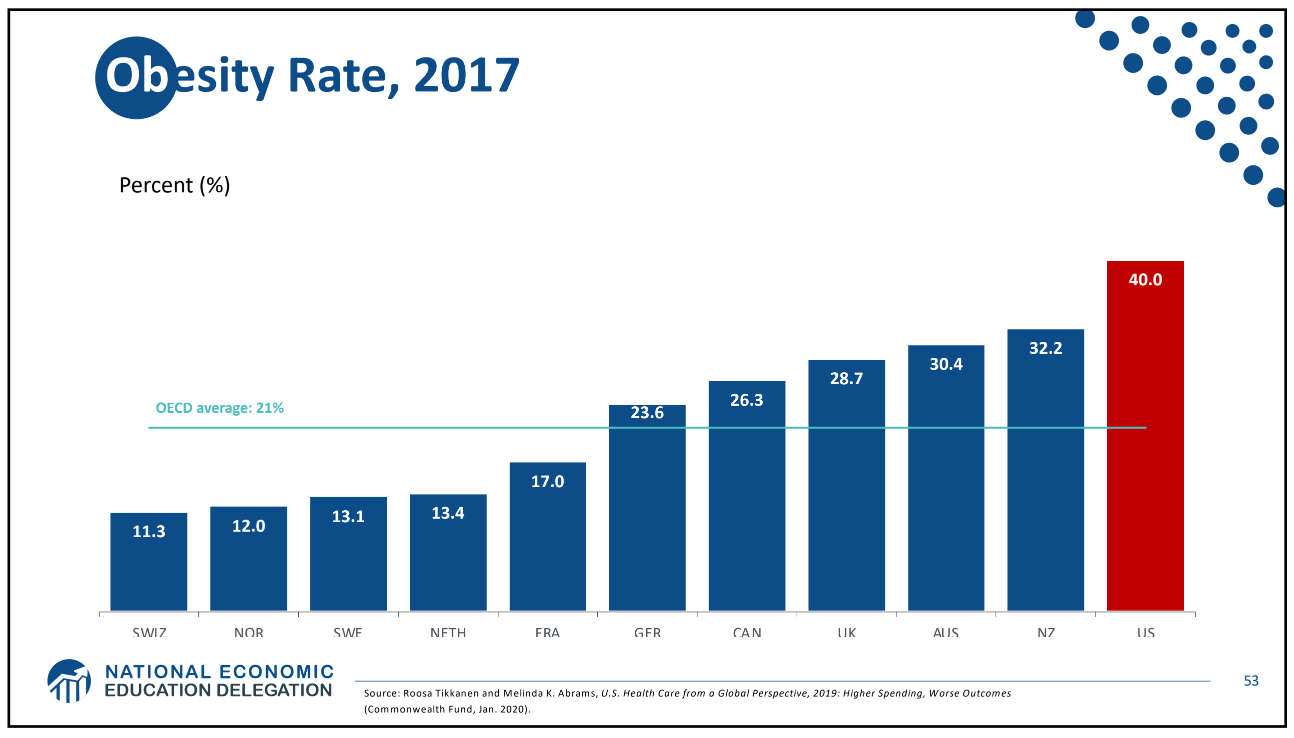


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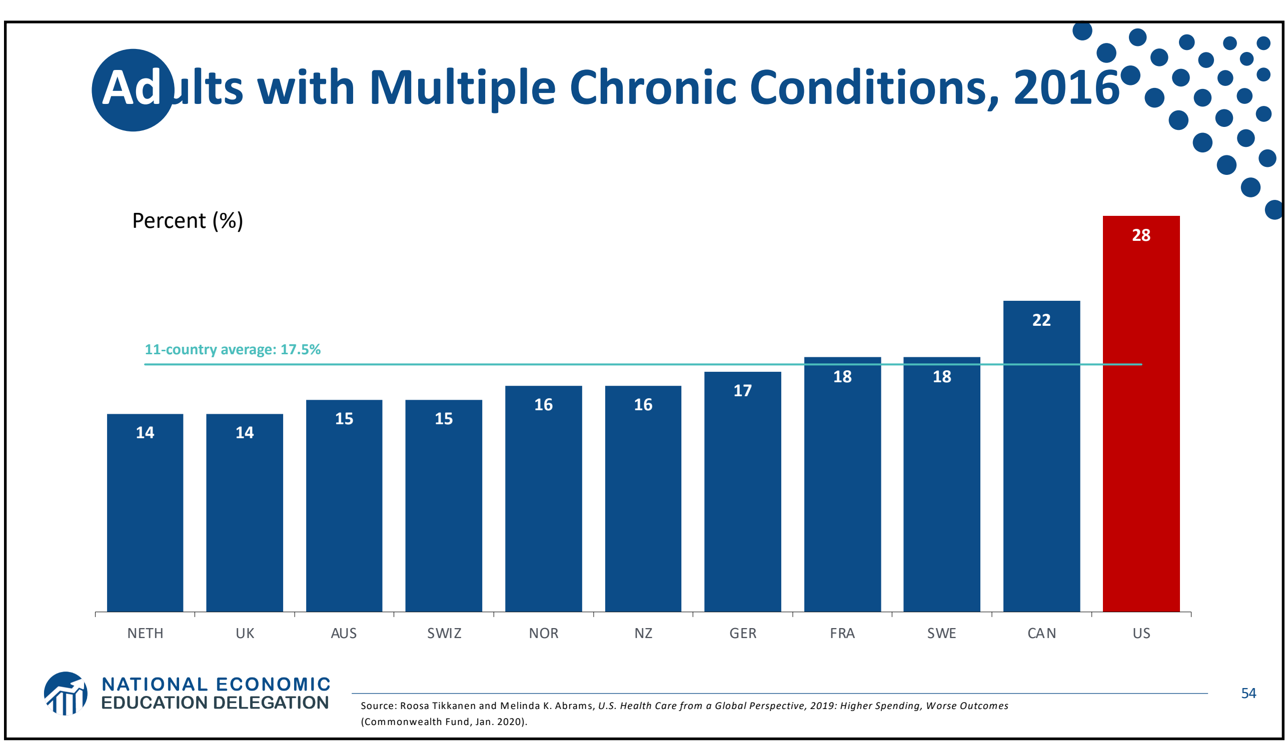


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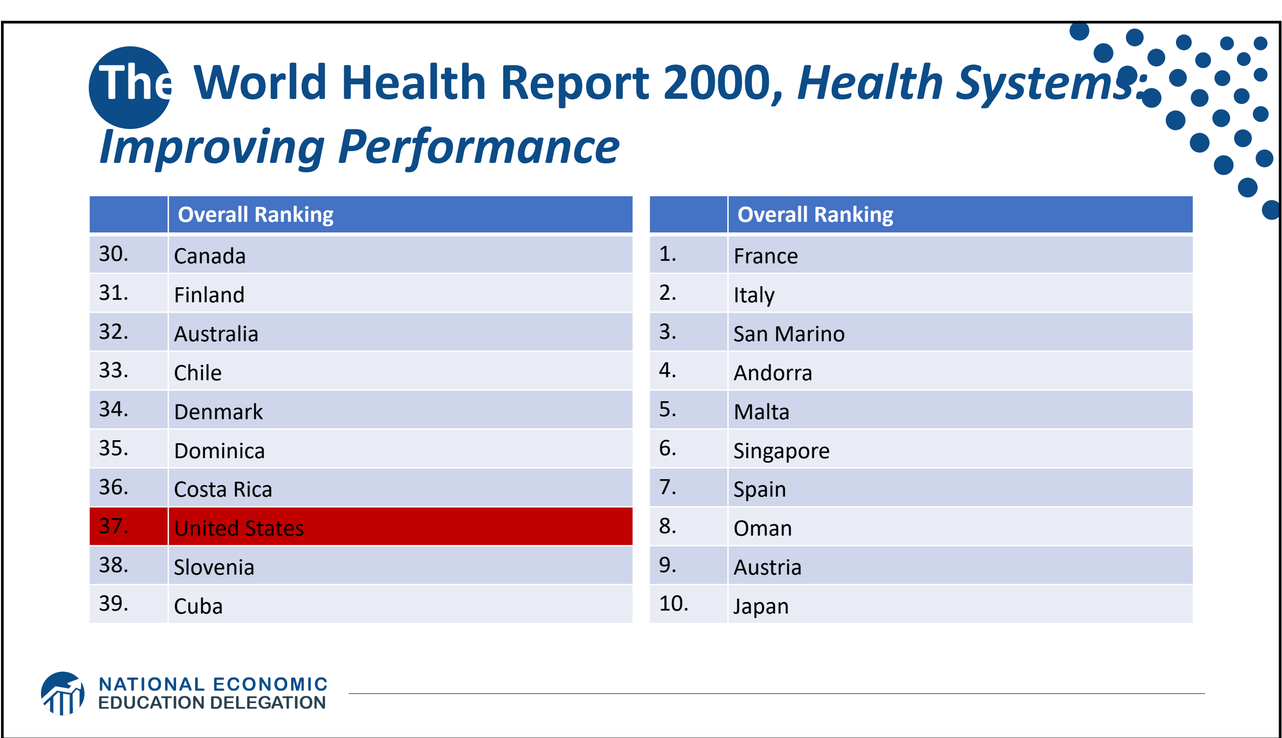


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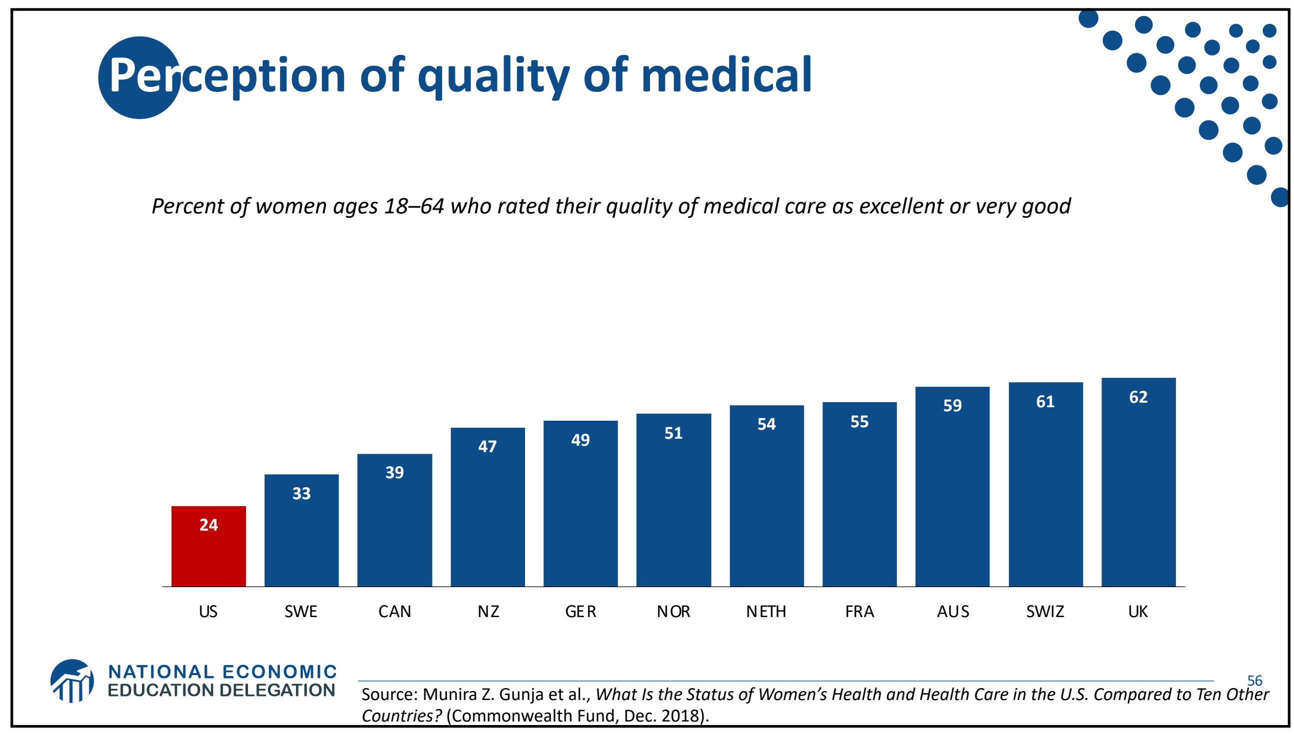


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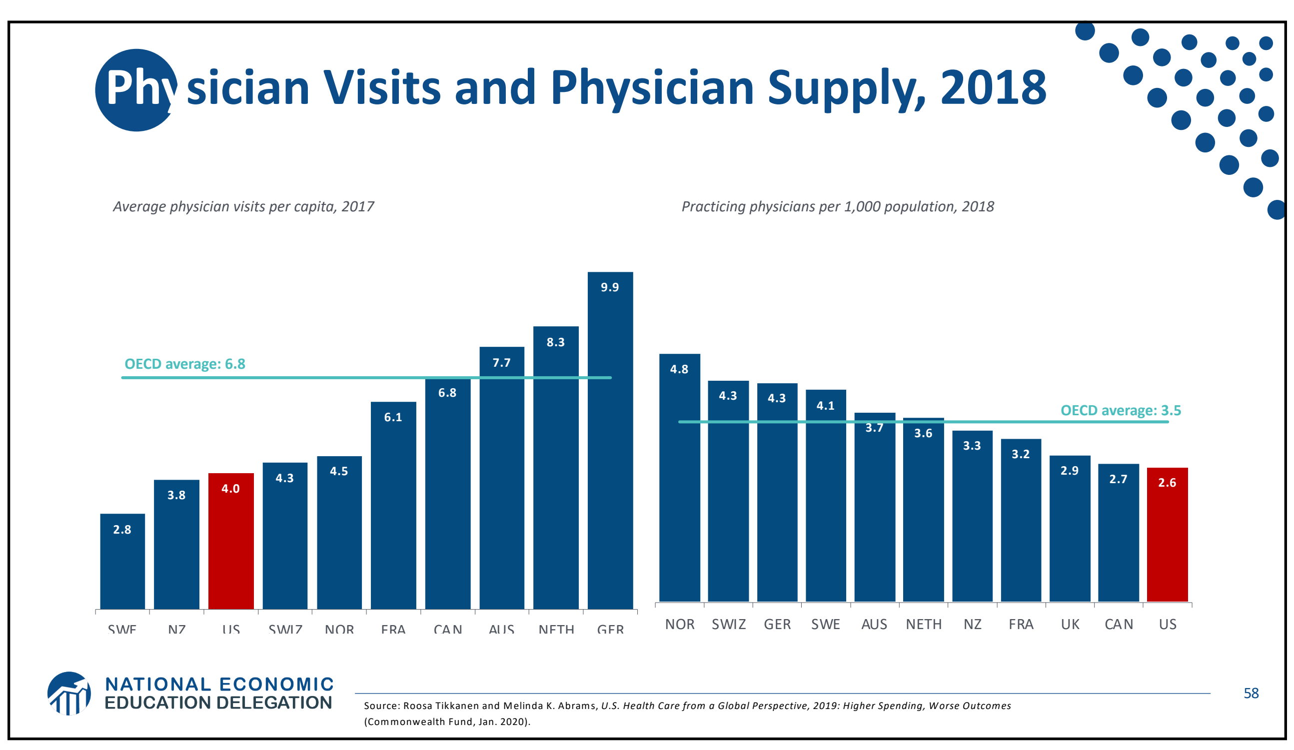


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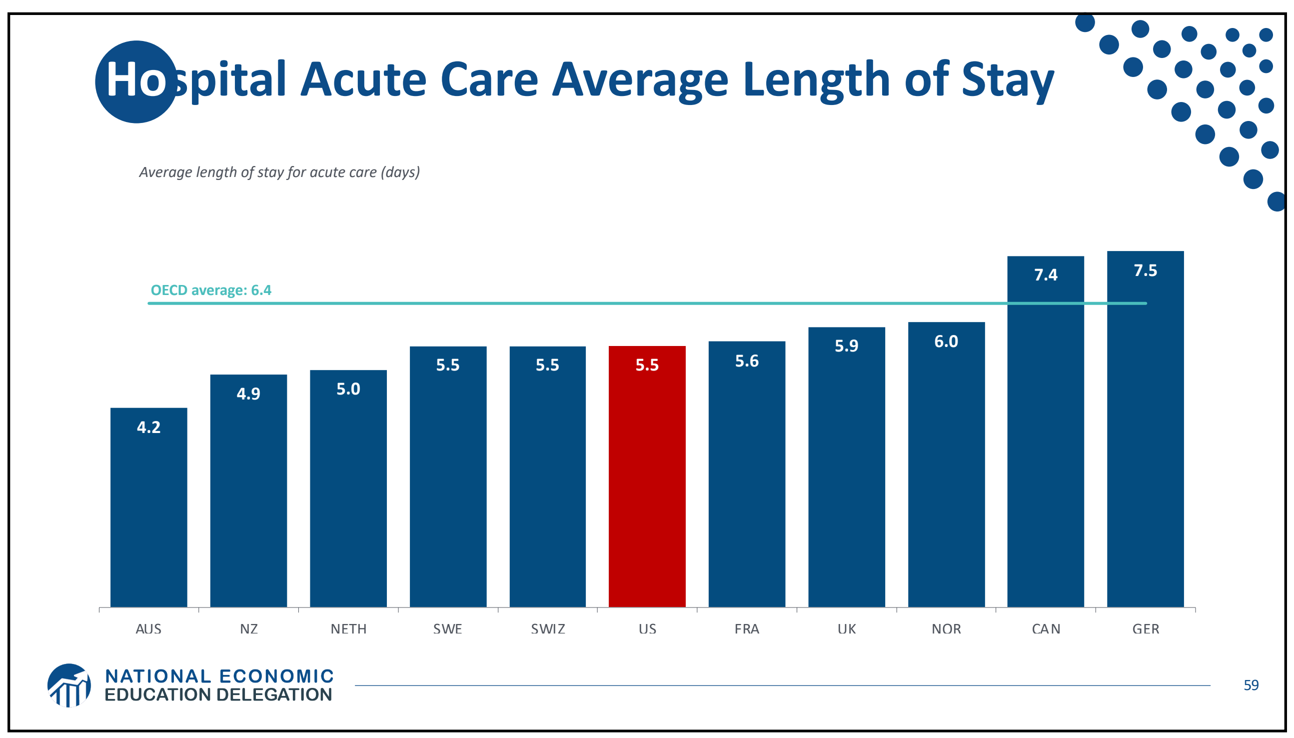


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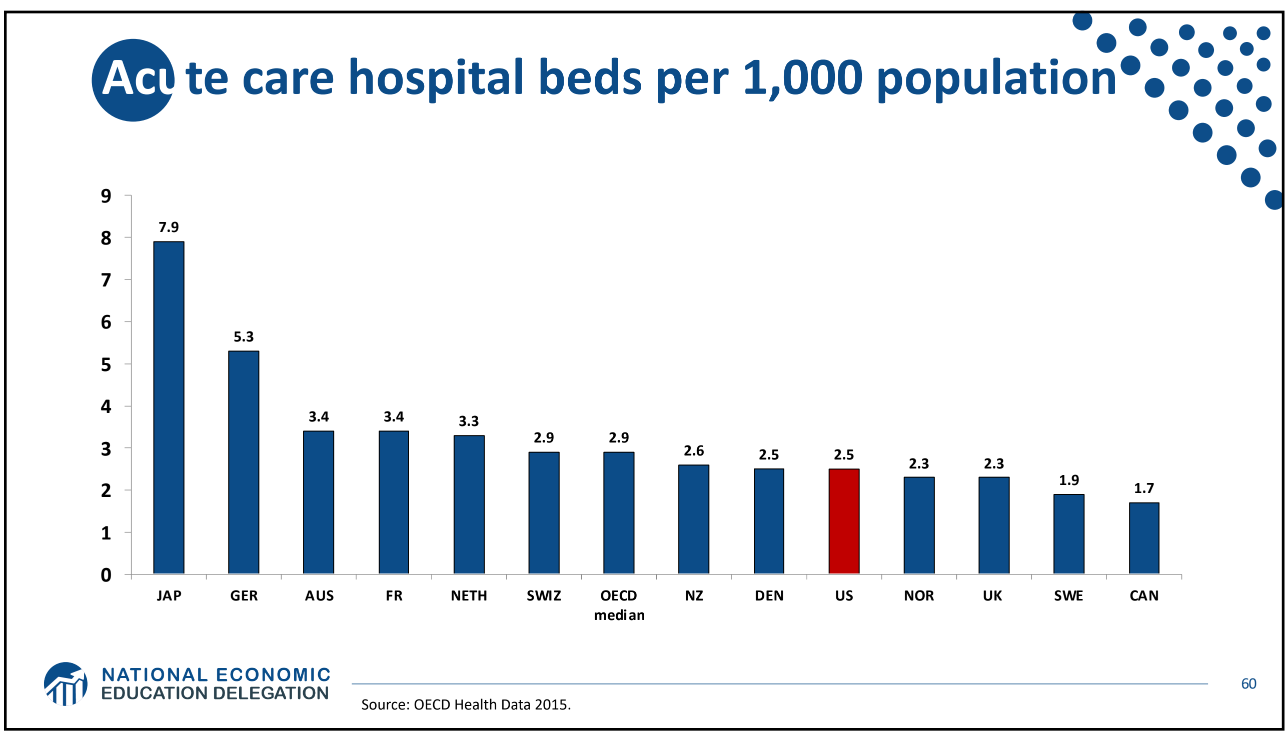


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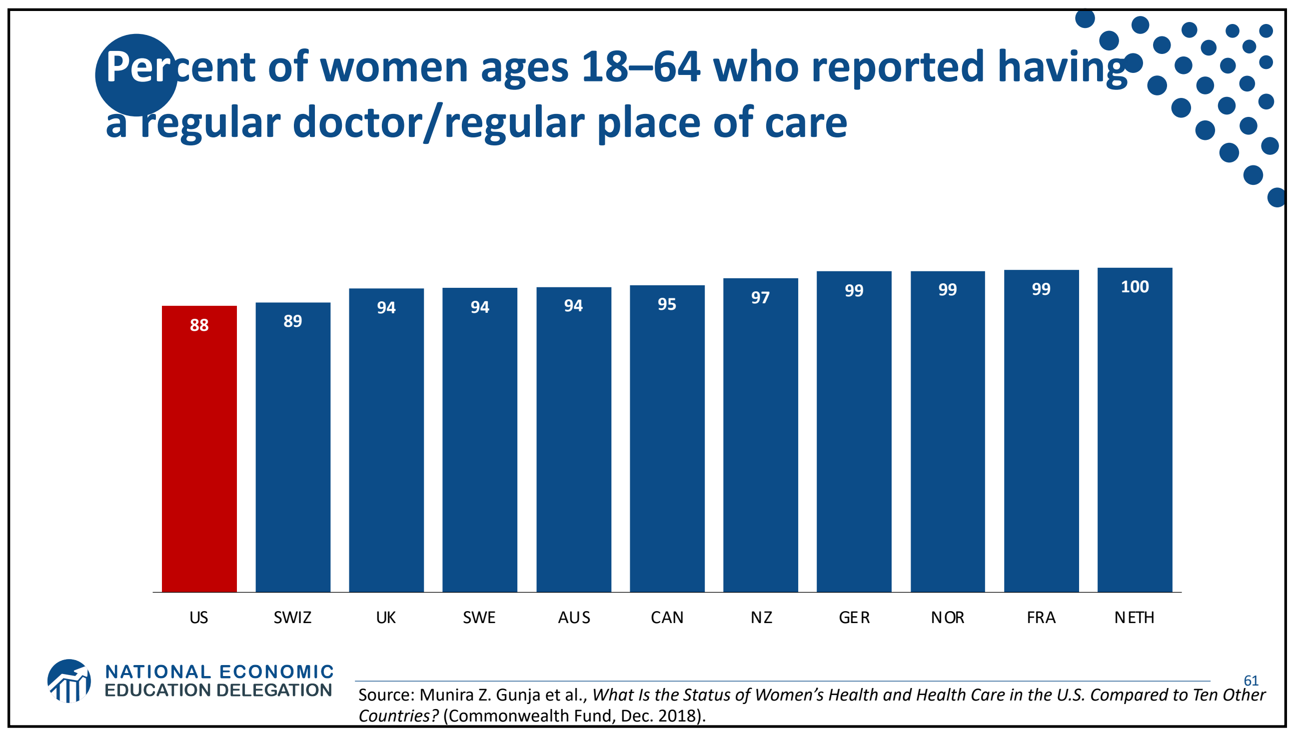


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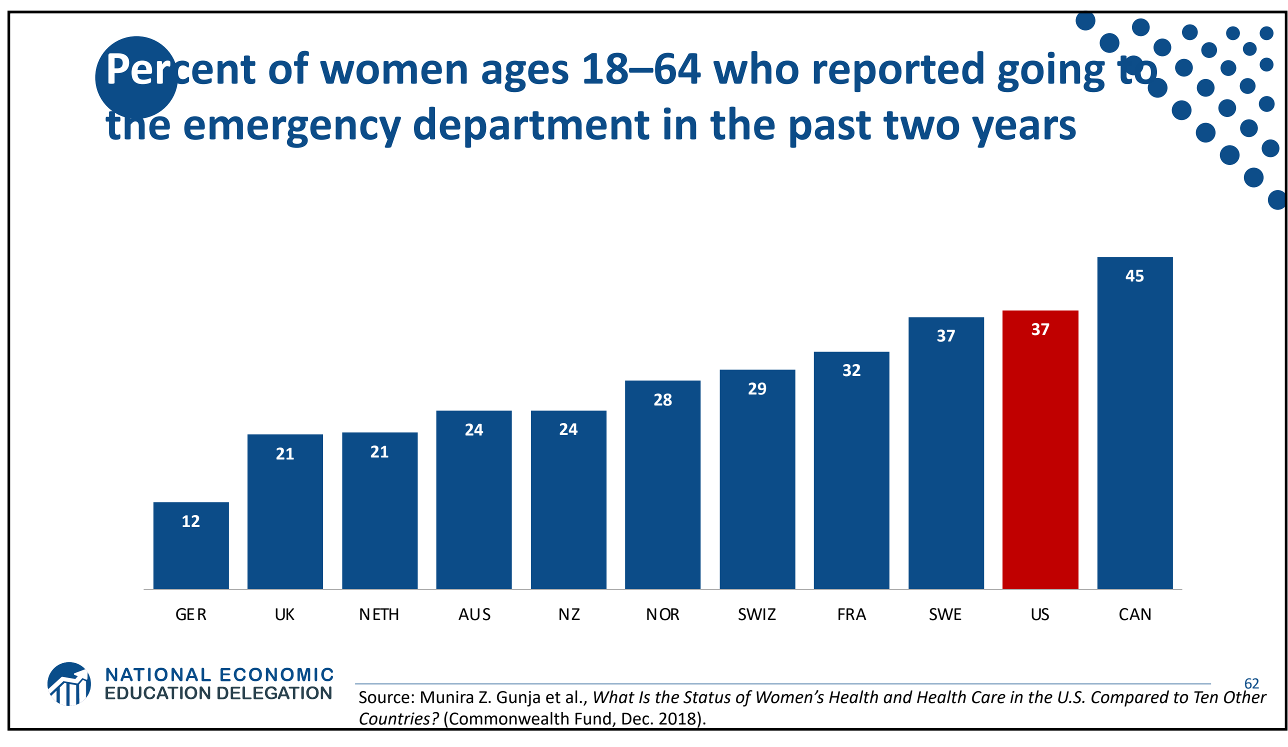


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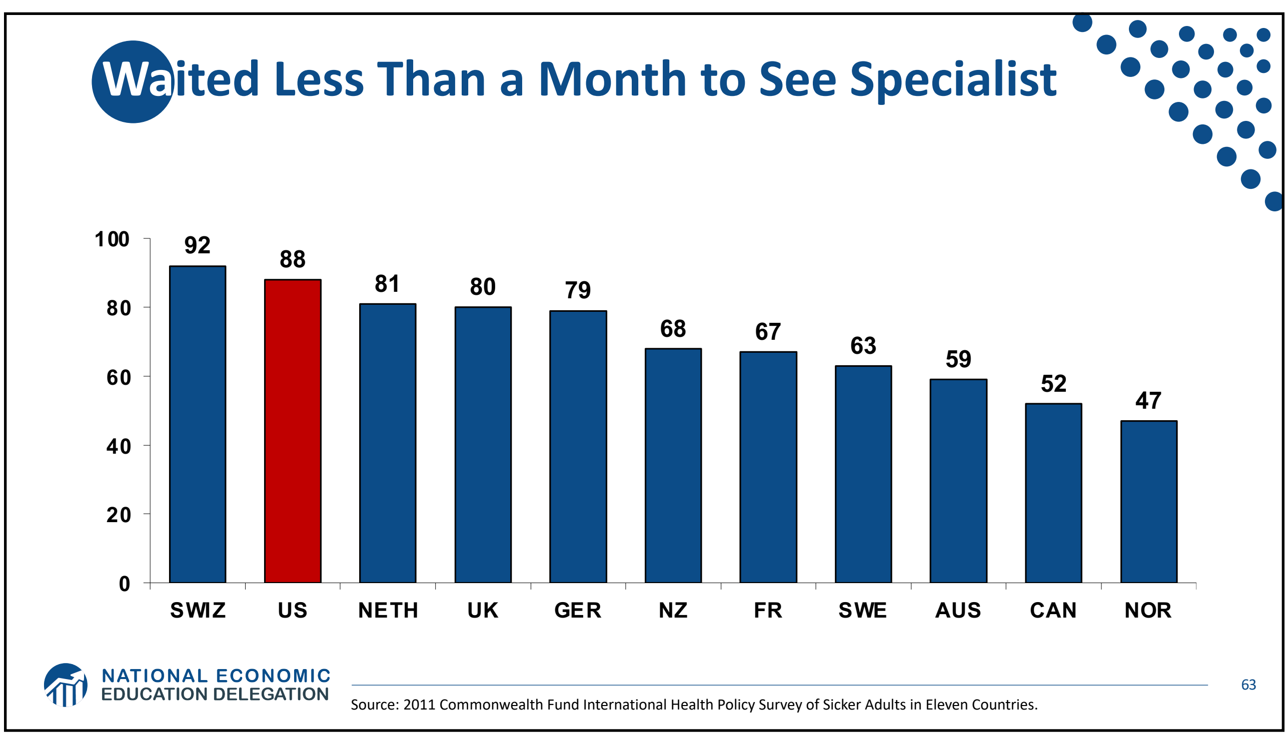


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## Health System Classification

- **Developed countries of the world have each taken a different approach for their health care delivery systems**
- **5 basic models:**
  - National health insurance (Canada)
  - Bismarck (France, Germany, Japan, Switzerland)
  - Beveridge – socialized medicine (United Kingdom)
  - Out of pocket model – you pay yourself
  - Mixed (United States)

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- **Medicare – National Health Insurance**
- **Military Veteran Care – Beveridge model (socialized medicine)**
- **Employer-sponsored insurance – Bismarck model**
- **Individual market health plans - Bismarck model**
- **Uninsured - Out of pocket model**

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# Health Insurance and Reform

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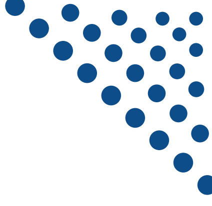
## Definitions



- **Universal coverage** refers to health care systems in which all individuals have insurance coverage.
- Generally, this coverage includes access to all needed services and benefits while protecting individuals from excessive financial hardships.

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# Single Payer

- **Single-payer** refers to financing a health care system by making one entity solely and exclusively responsible for paying for medical goods and services.
- It is only the financing component that is necessarily socialized.

  The money for the payment can be either collected by
  - Taxes collected by the government
  - Premiums collected by National or Public Health Insurance

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# Socialize Medicine

- **Socialized medicine:** this model actually takes the single-payer system one step further.
- In a socialized medicine system, the government not only pays for health care but operates the hospitals and employs the medical staff.
- This has NOT been proposed by any presidential hopeful and is not part of the current debate in the US.

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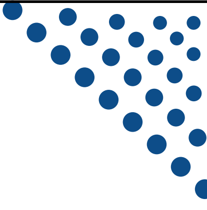
# Third-Party Payer



- A **third-party payer** is an entity that pays medical claims on behalf of the insured. Examples of third-party payers include government agencies, insurance companies, health maintenance organizations (HMOs), and employers.
  - Employer-sponsored health plans
  - Individual market health plans
  - National health insurance

NATIONAL ECONOMIC EDUCATION DELEGATION

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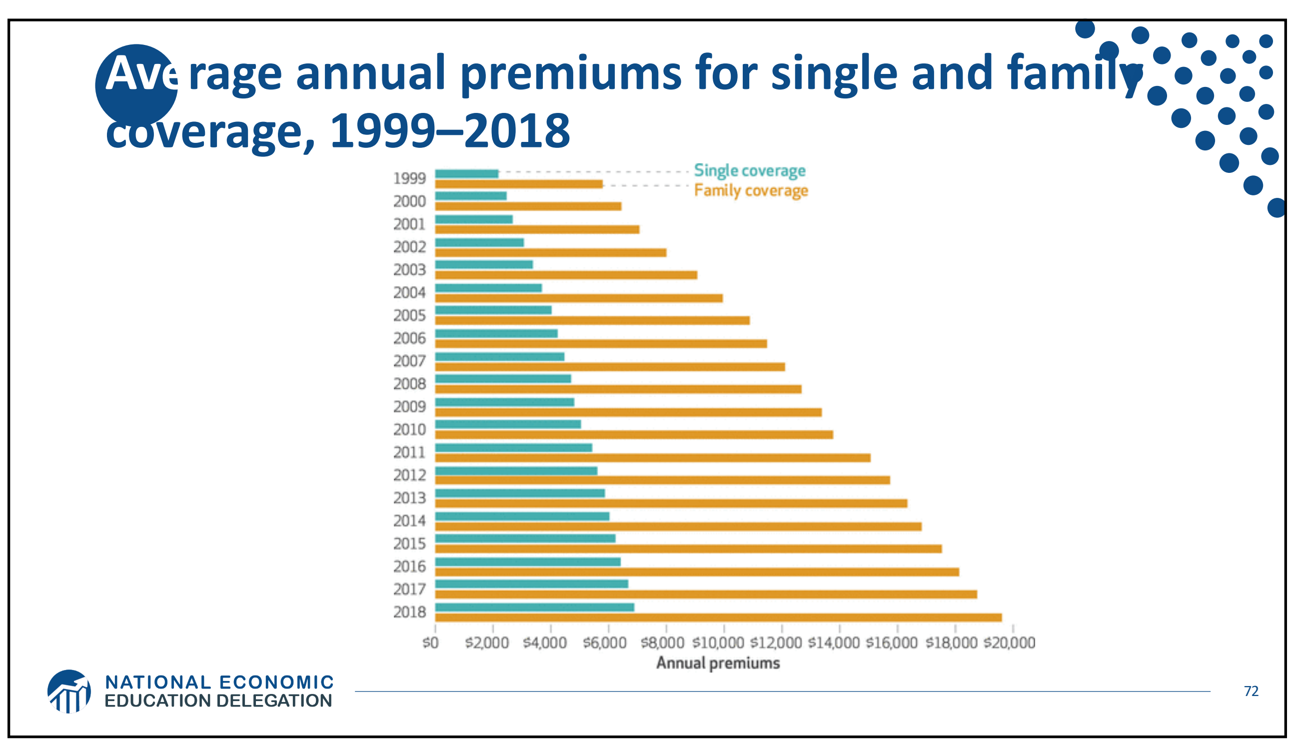


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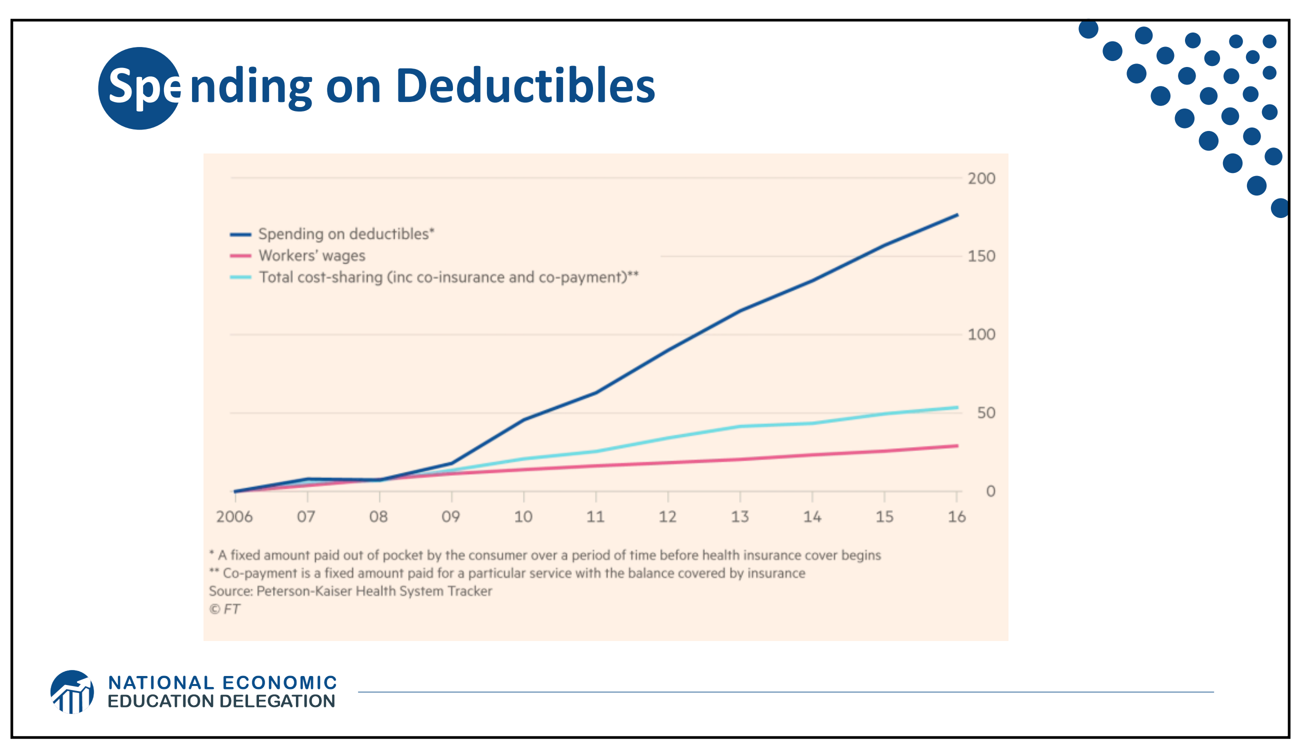


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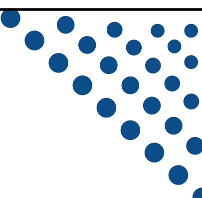

## Reason for Higher Health Insurance Rates

- Advances in medical technologies
- Rising prices in the health sector (Why?)
- Increased demand for services
- Concentration of insurance companies!

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# Monopolization of Health Insurance Market

- As of 2011, there were close to 100 insurers in Switzerland competing for consumer health care dollars, forcing firms to compete by setting prices to just cover costs.
- In the United States, markets are state specific and consumers may choose from plans available in the state in which they reside.
- In 2014, of the 50 states and the District of Columbia, 11 had only 1 or 2 insurers, 21 had 3 or 4, and only 19 states had 5 or more.
- As of July 2019, the number of states with only 1 or 2 insurers had increased from 11 to 20, indicating a growing divide between ACA exchanges and competitive markets.

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# Big Pharma

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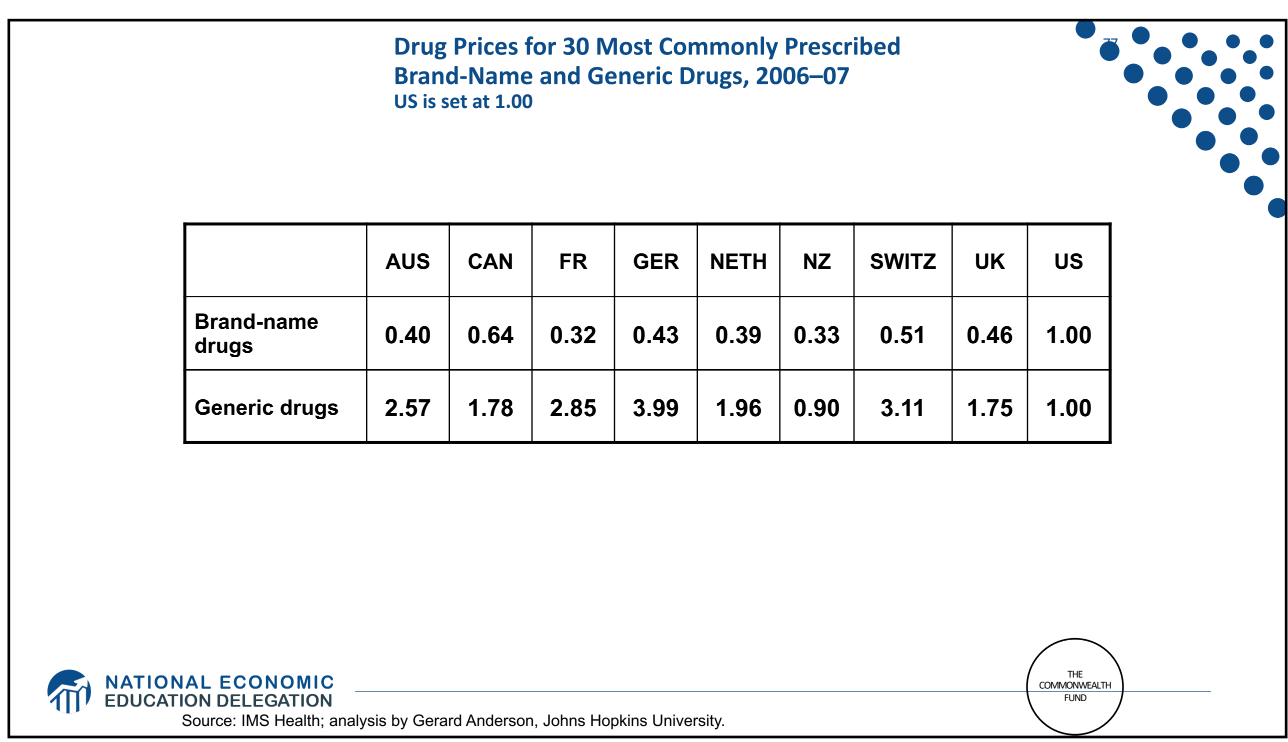


| | AUS | CAN | FR | GER | NETH | NZ | SWITZ | UK | US |
|---|---|---|---|---|---|---|---|---|---|
| Brand-name drugs | 0.40 | 0.64 | 0.32 | 0.43 | 0.39 | 0.33 | 0.51 | 0.46 | 1.00 |
| Generic drugs | 2.57 | 1.78 | 2.85 | 3.99 | 1.96 | 0.90 | 3.11 | 1.75 | 1.00 |

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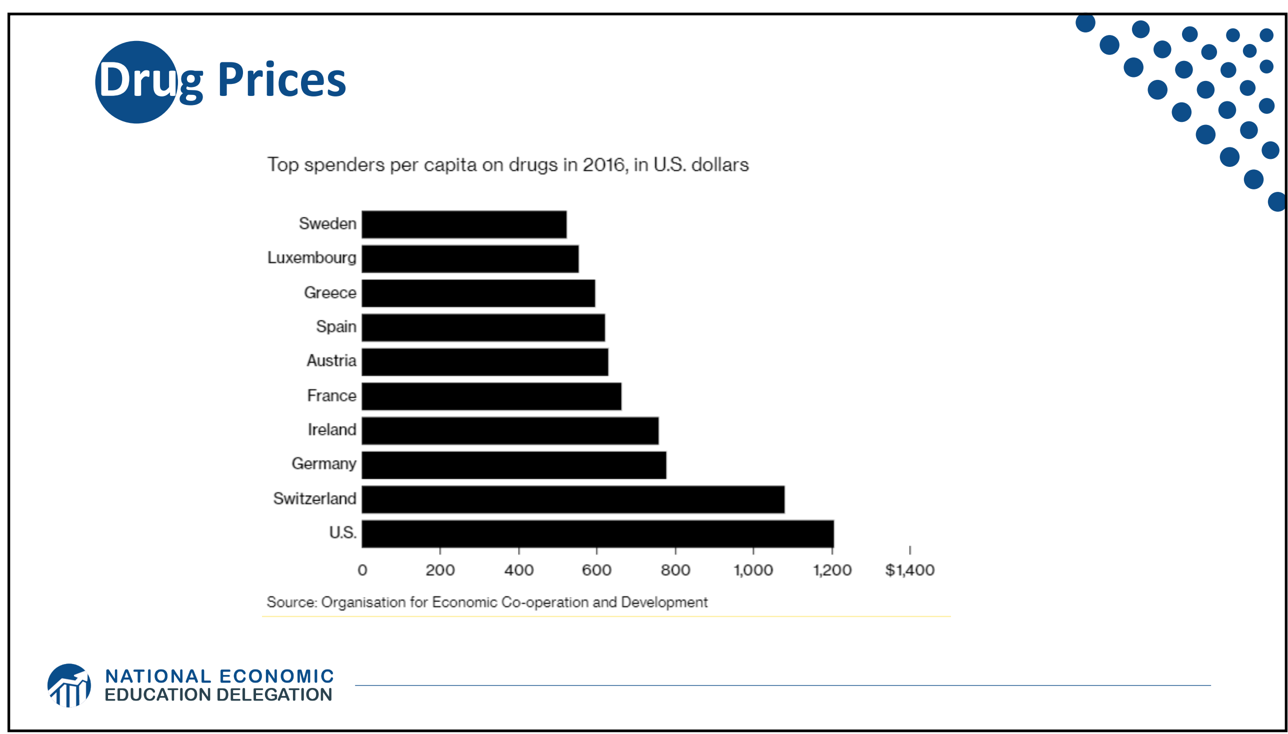


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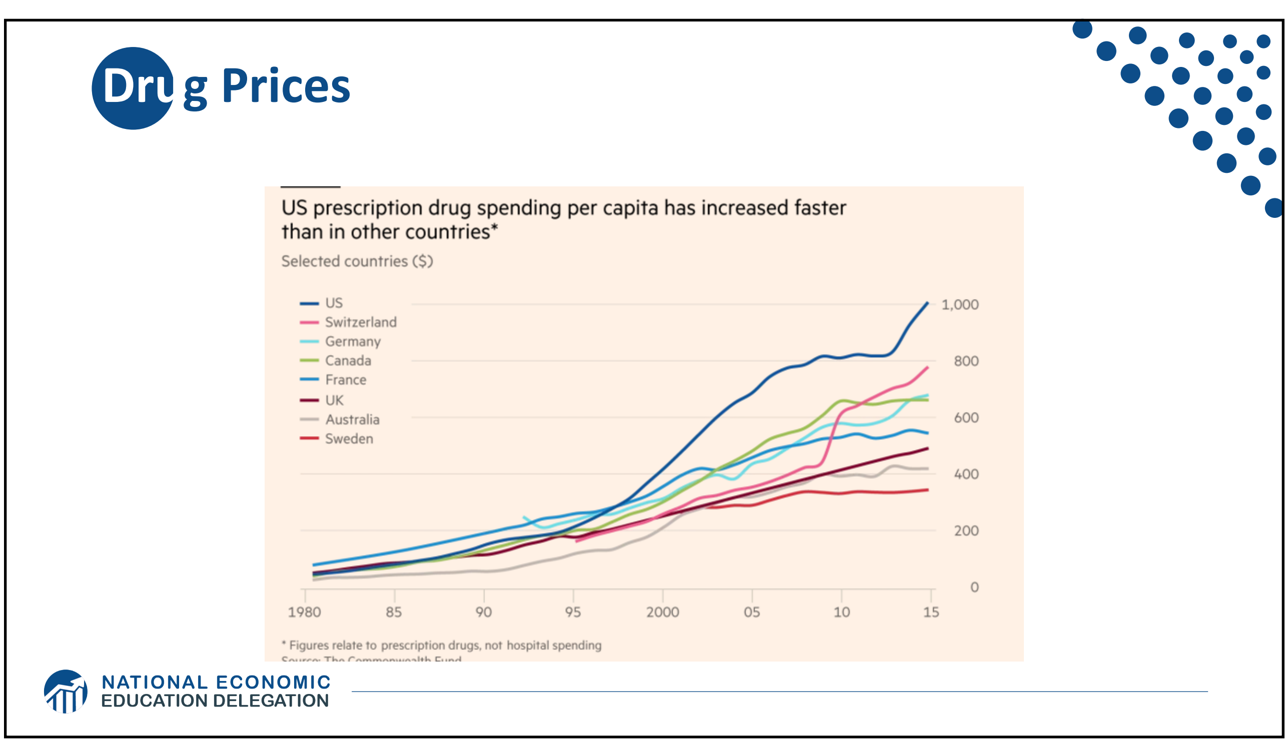


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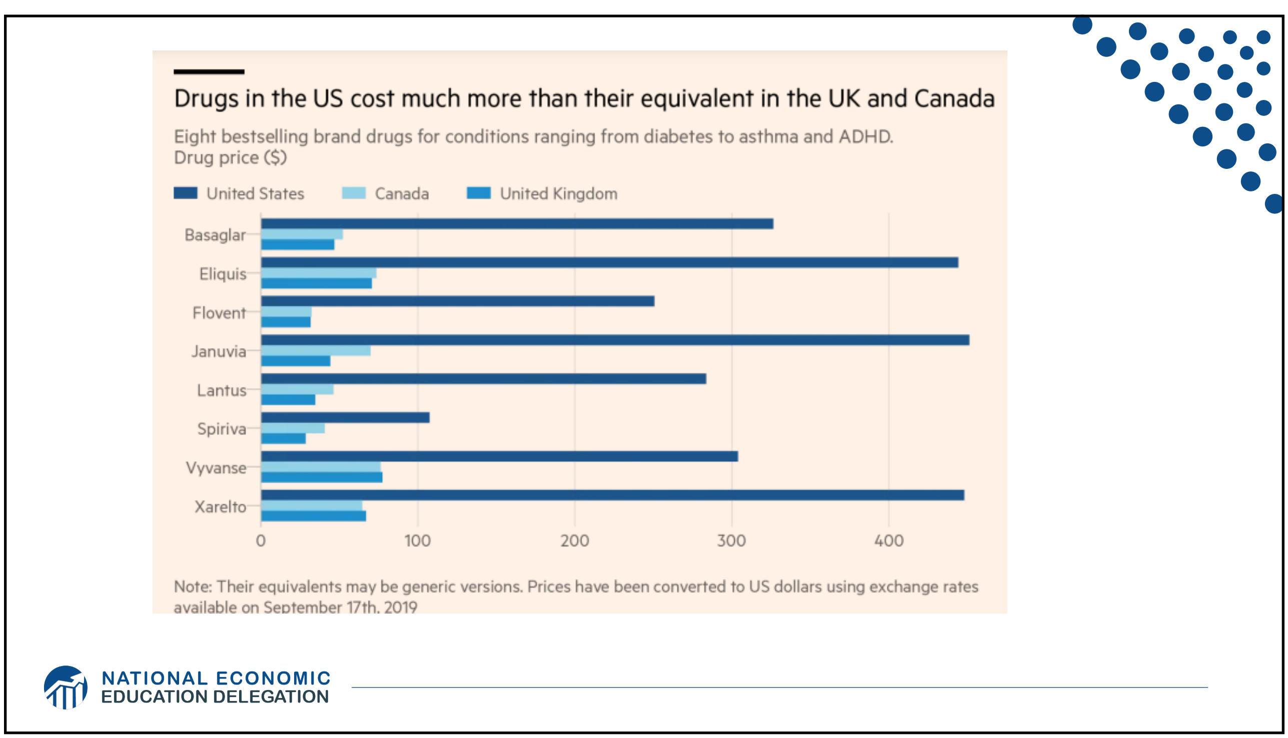


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## Price Hikes

- Turing Pharmaceuticals' 5,555% price increase of Daraprim® in 2015 and Mylan's 500% increase of EpiPen®…
- More than 3,400 drugs have boosted their prices in the first six months of 2019, an increase of 17% in the number of drug hikes from a year earlier.
- The average price hike is 10.5%, or 5 times the rate of inflation.
- About 41 drugs have boosted their prices by more than 100% in 2019.
- Over the course of a decade, the net cost of prescription drugs in the United States rose more than three times faster than the rate of inflation.

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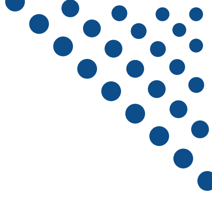

## Reasons for higher drug prices

- The **Medicare** Prescription Drug, Improvement, and **Modernization Act**, also called the **Medicare Modernization Act** or MMA, is a federal **law** of the United States, enacted in 2003.
- Concentration of pharmaceutical companies and increase in prices.

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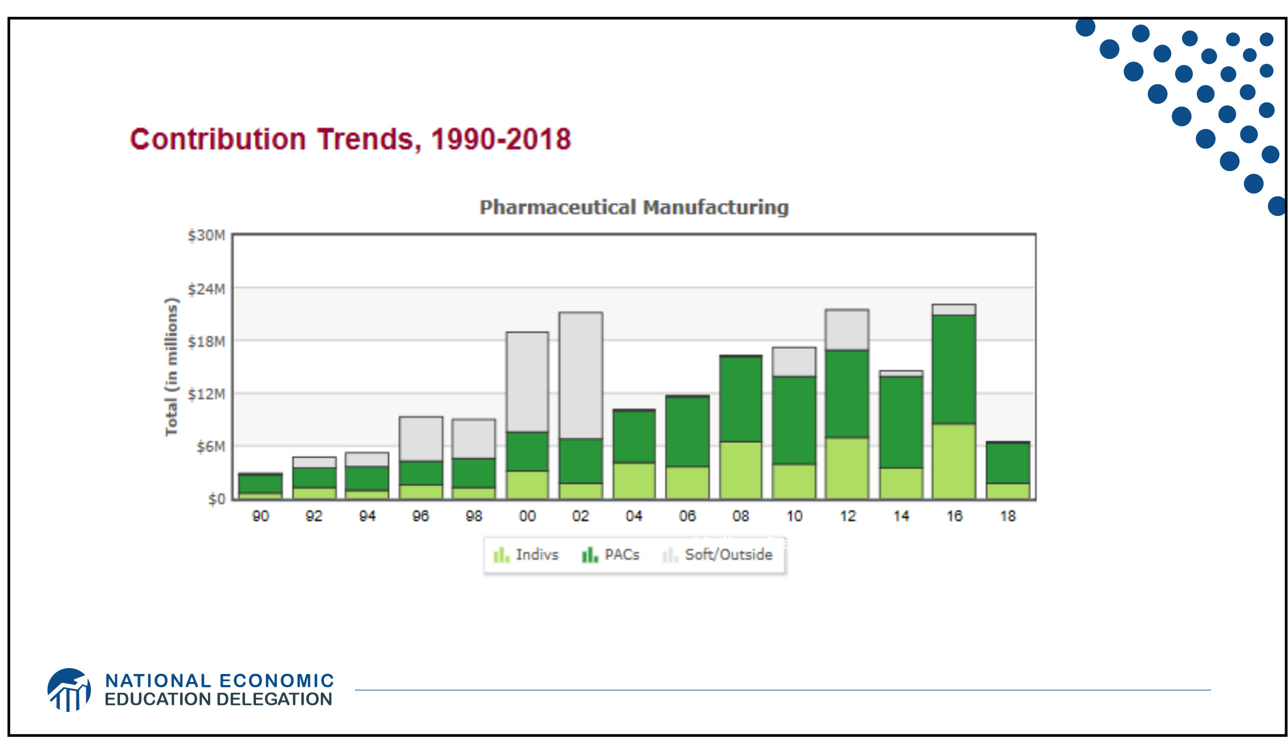


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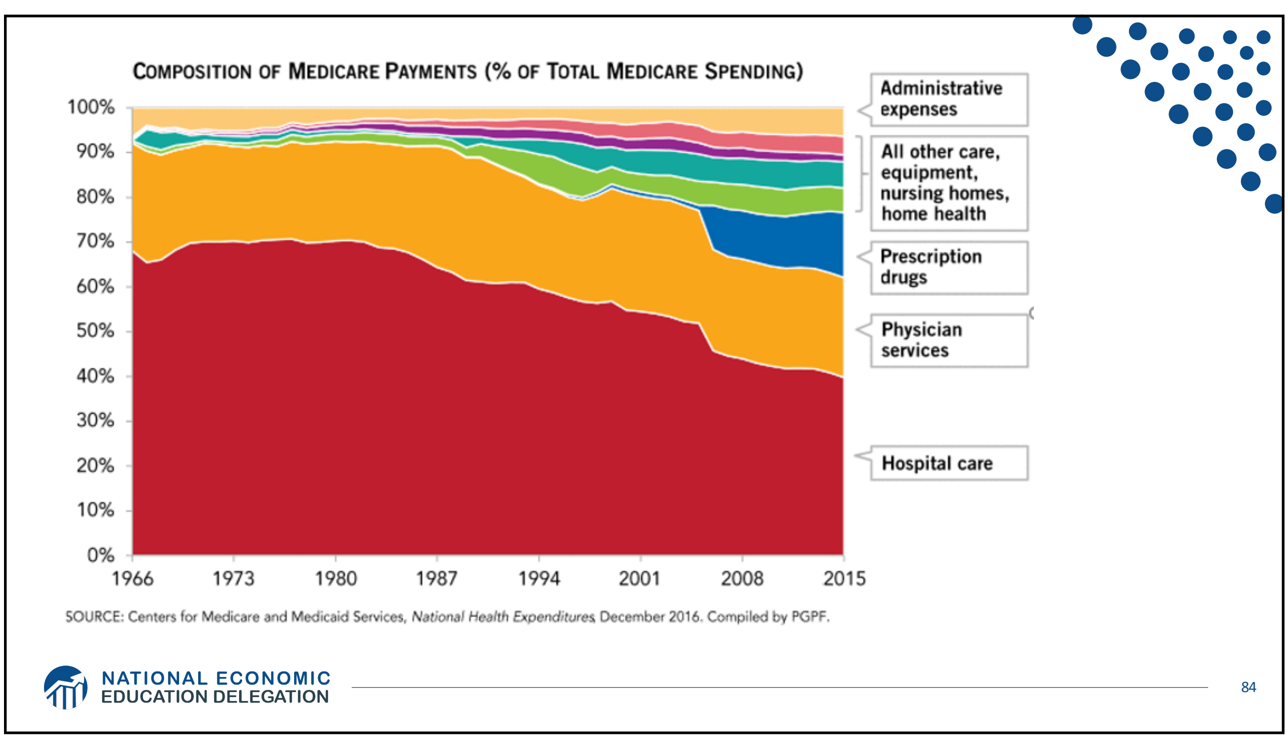


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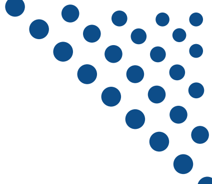
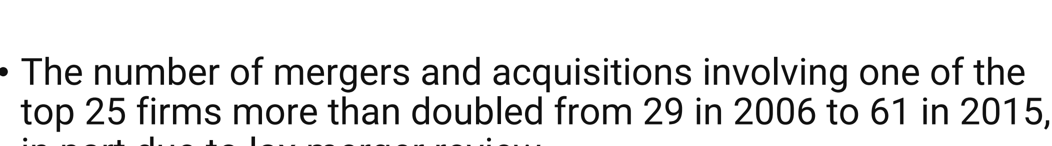
## Impact of Medicare Modernization Act



- Medicare Part D, by law, cannot negotiate drug prices like other governments do.
- The study found that in 2017, Medicare spent nearly $8 billion on insulin. The researchers said that if Medicare were allowed to negotiate drug prices like the U.S. Department of Veterans Affairs (VA) can, Medicare could save about $4.4 billion *just* on insulin.

## Concentration in Pharmaceutical Companies



- The number of mergers and acquisitions involving one of the top 25 firms more than doubled from 29 in 2006 to 61 in 2015, in part due to lax merger review.
- Between 1995 and 2015, 60 pharmaceutical companies merged into 10.
- In 2010, R&D returned 10.1%. In nearly every year since, that figure has dropped. In 2017, the return was 3.7%, and in 2018, 1.9%.

- US HealthCare system is not preforming well (very expensive and low quality and access)
- One of the main reasons for very high costs is the monopolization of healthcare markets (hospitals, health insurance, big pharma, etc.)
- In addition, the Medicare Modernization Act of 2003 by law prevents government to negotiate drug prices.
- Few simple solutions could drastically decrease the costs:
  - Enforcement of antitrust laws in this sector
  - Introduction of a public option in health insurance market
  - Ability for the US government to negotiate drug prices like most every other nation
- Universal health insurance would increase the access and potentially also reduce the costs

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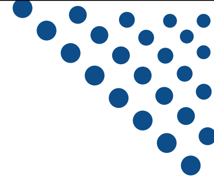

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