



Health(care) Economics

OLLI Berkshire Community College
October 6, 2021

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Executive Director
NEED



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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: 54 members**

- 2 Fed Chairs: Janet Yellen, Ben Bernanke
- 6 Chairs Council of Economic Advisers
 - o Furman (D), Rosen (R), Bernanke (R), Yellen (D), Tyson (D), Goolsbee (D)
- 3 Nobel Prize Winners
 - o Akerlof, Smith, Maskin

- **Delegates: 600+ members**

- At all levels of academia and some in government service
- All have a Ph.D. in economics
- Crowdsource slide decks
- Give presentations

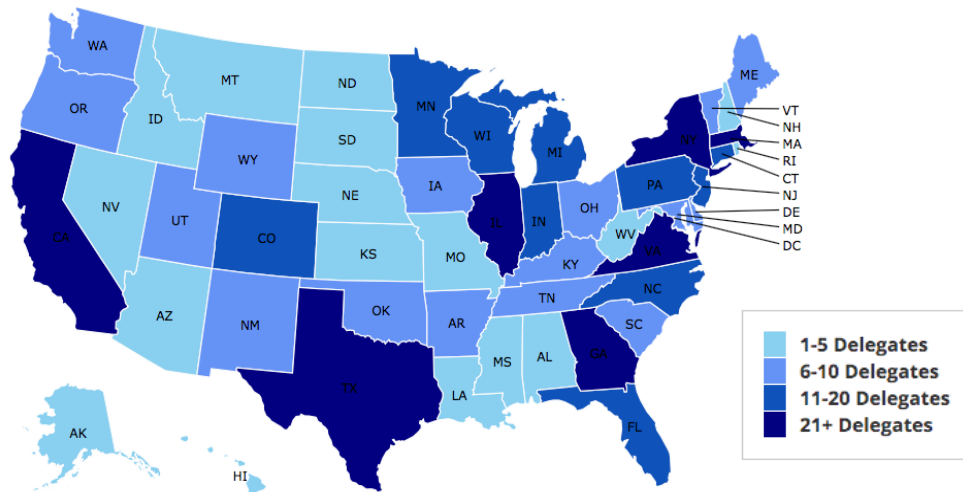
- **Global Partners: 44 Ph.D. Economists**

- Aid in slide deck development



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Where Are We?



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Credits and Disclaimer

- **This slide deck was authored by:**
 - Veronika Dolar, SUNY Old Westbury
 - Jon Haveman, NEED
- **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).



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Outline

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



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What is Health(care) Economics?

- Health Economics is a field of **MICRO**economics that focuses on the health care industry.
- Examples of other subfields of microeconomics include:
 - labor economics, industrial organization, economics of education, public economics, and urban economics.



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Health Economics is part of Microeconomics

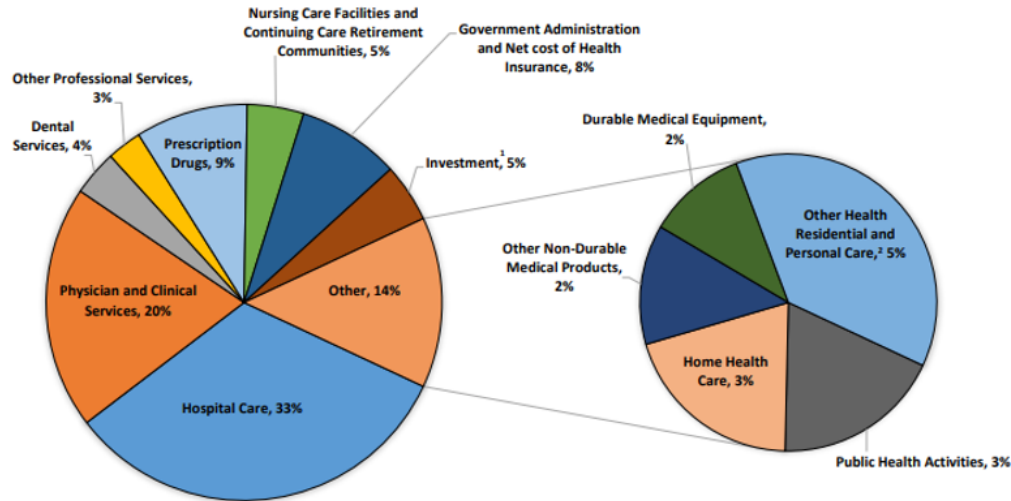
- Although health economics is part of “micro-” economics, it is actually very big:
 - In 2019, U.S. national health expenditure were **17.7% of GDP**, which is equivalent to around **\$3.8 billion**.
 - U.S. Healthcare is the 5th largest economy in the world.
- For comparison, GDP in each country in 2019:
 - Germany: \$3,845 billion (4th largest economy)
 - UK: \$2,827 billion (6th largest economy)
 - France : \$2,715 billion (7th largest economy)



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Where the money goes?



What is Health Economics?

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

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, different rules should be set up for achieve the best results for **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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Why Are We Talking About the Market for Health Insurance?



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The Three Legs of the Healthcare Stool

- The market for Health Insurance is where they all come together.
 - Access
 - Quality
 - Cost
- We will discuss metrics of performance for each.



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Access

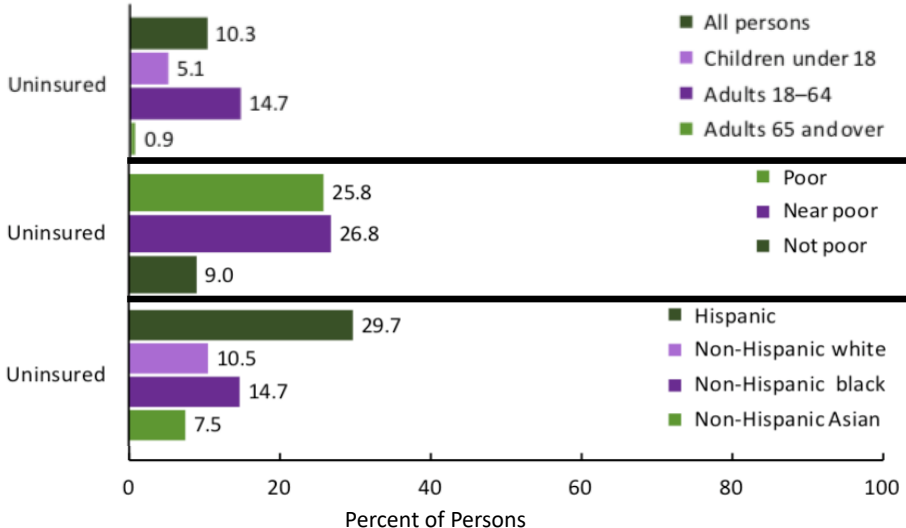



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Health Insurance Coverage, 2019



Category	Demographic	Uninsured (%)
Overall Population	All persons	10.3
	Children under 18	5.1
	Adults 18–64	14.7
	Adults 65 and over	0.9
Income Level	Poor	25.8
	Near poor	26.8
	Not poor	9.0
Race/Ethnicity	Hispanic	29.7
	Non-Hispanic white	10.5
	Non-Hispanic black	14.7
	Non-Hispanic Asian	7.5



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Percent of Persons

Source: National Center for Health Statistics

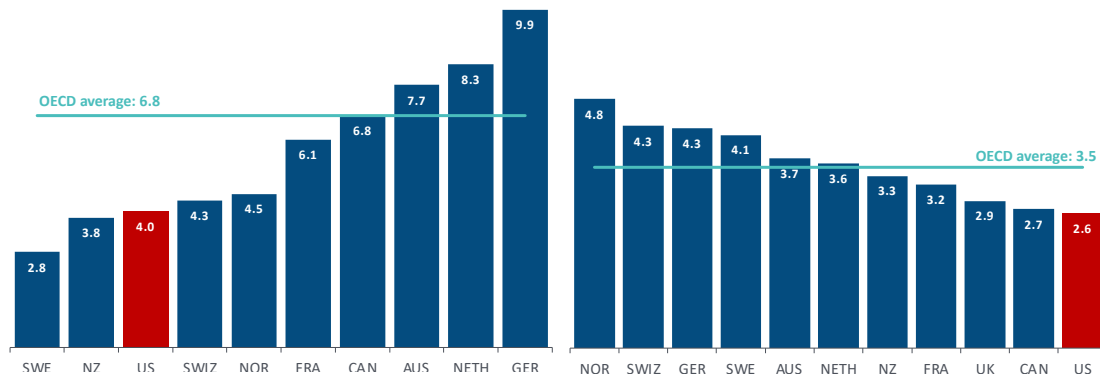
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Physician Visits and Physician Supply

Average physician visits per capita, 2017

Practicing physicians per 1,000 population, 2018



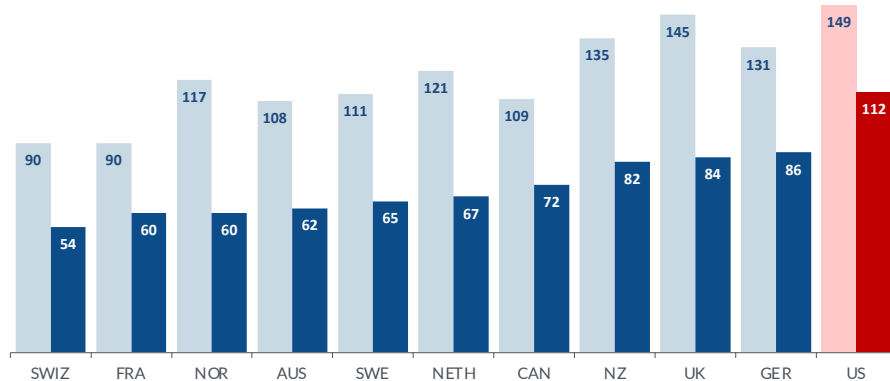
Source: Roosa Tikkanen and Melinda K. Abrams, U.S. Health Care from a Global Perspective, 2019: Higher Spending, Worse Outcomes (Commonwealth Fund, Jan. 2020).

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Avoidable Deaths

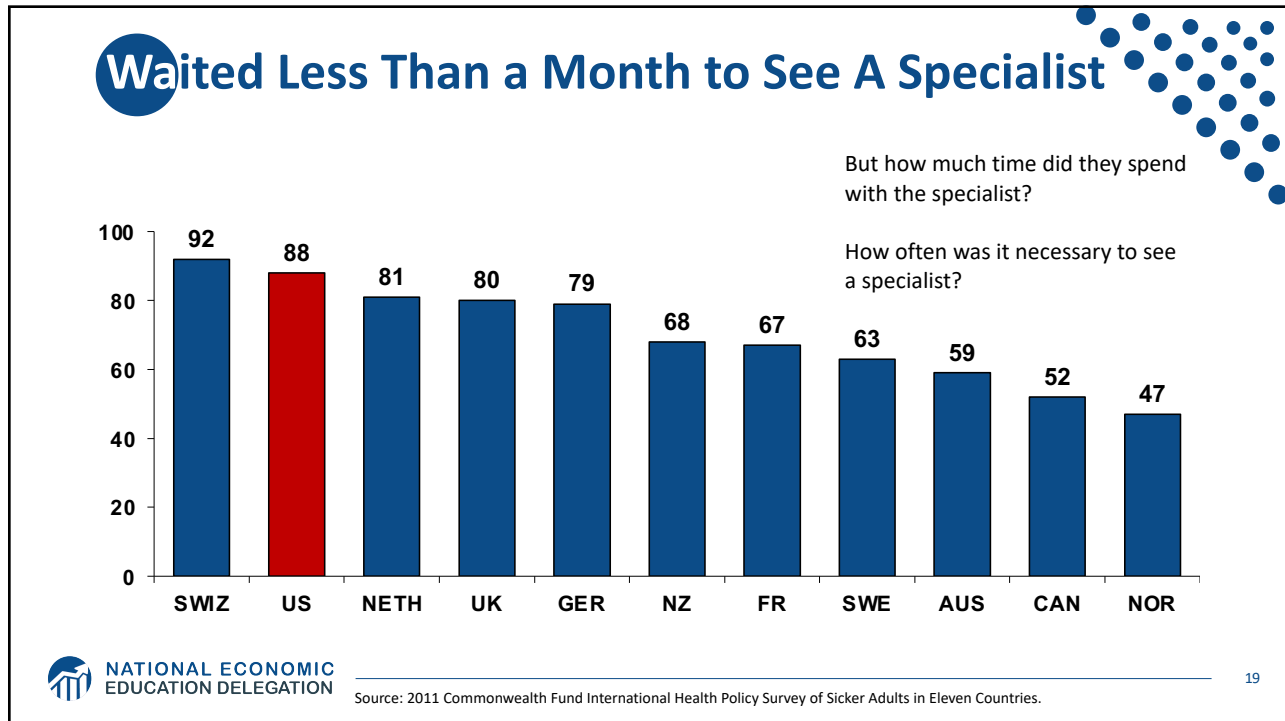
Deaths per 100,000 population.
Heart disease, stroke, hypertension...

■ 2000 ■ 2016

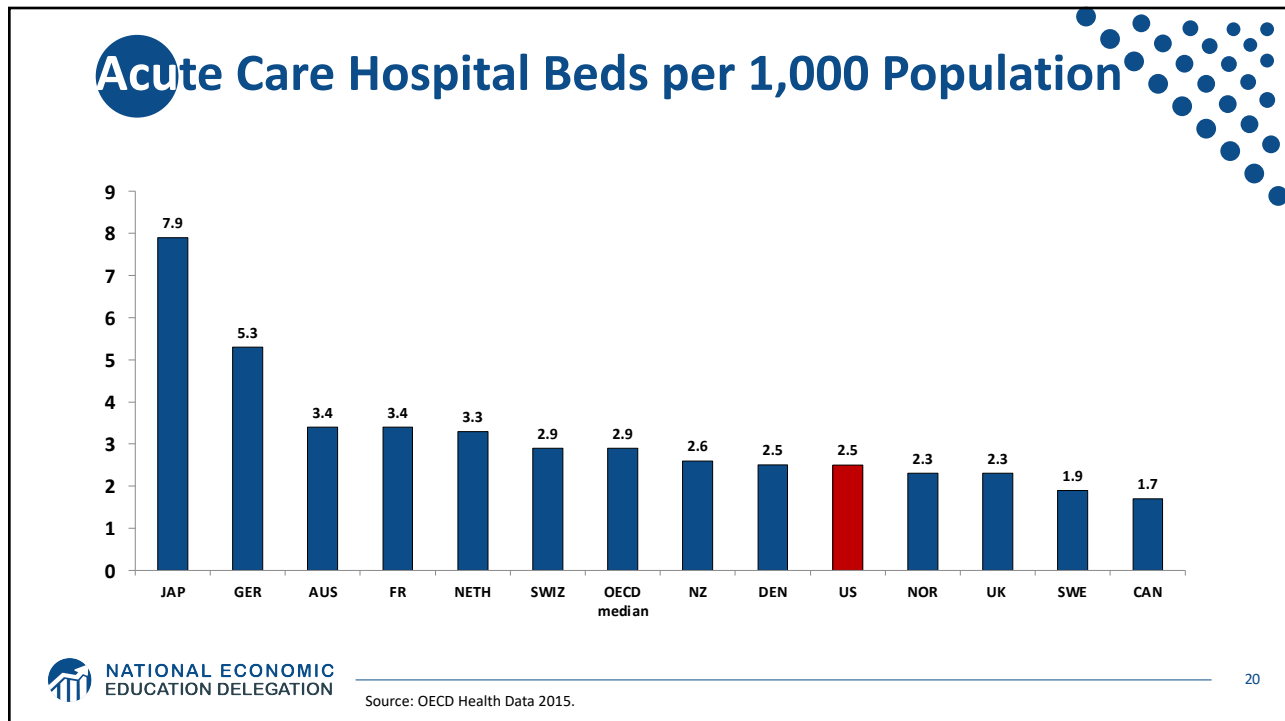


Source: Roosa Tikkanen and Melinda K. Abrams, U.S. Health Care from a Global Perspective, 2019: Higher Spending, Worse Outcomes (Commonwealth Fund, Jan. 2020).

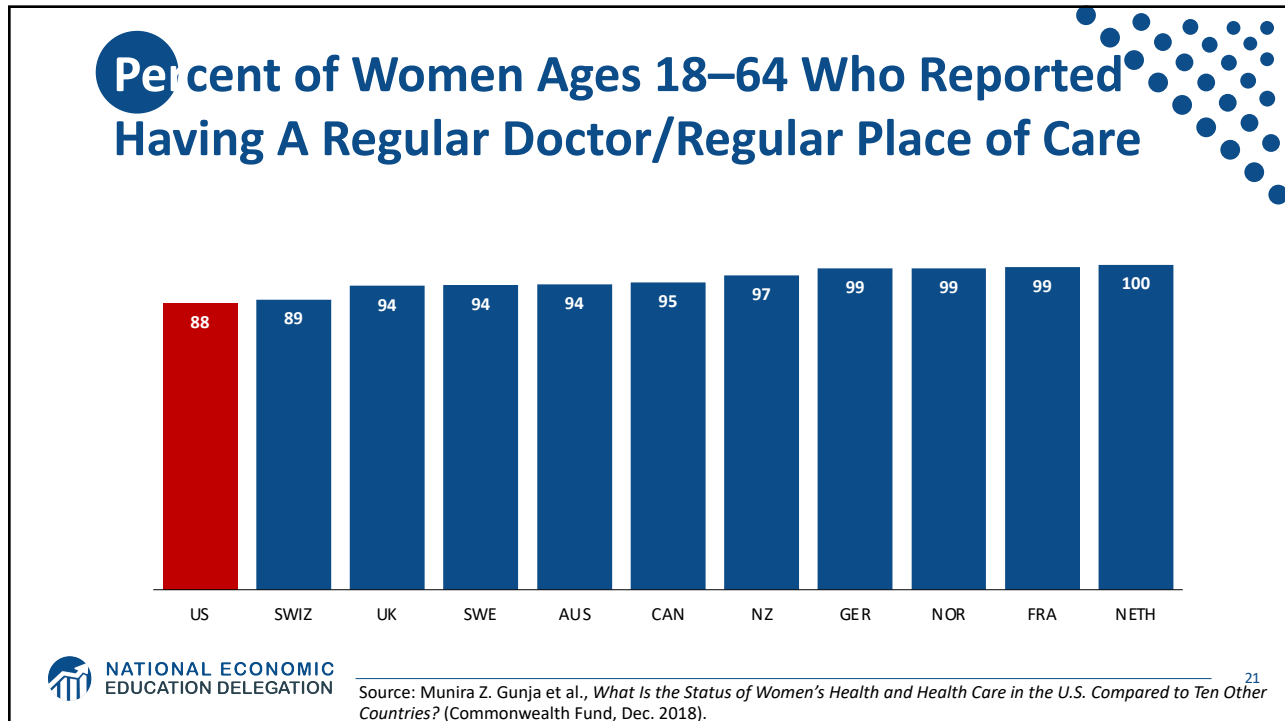
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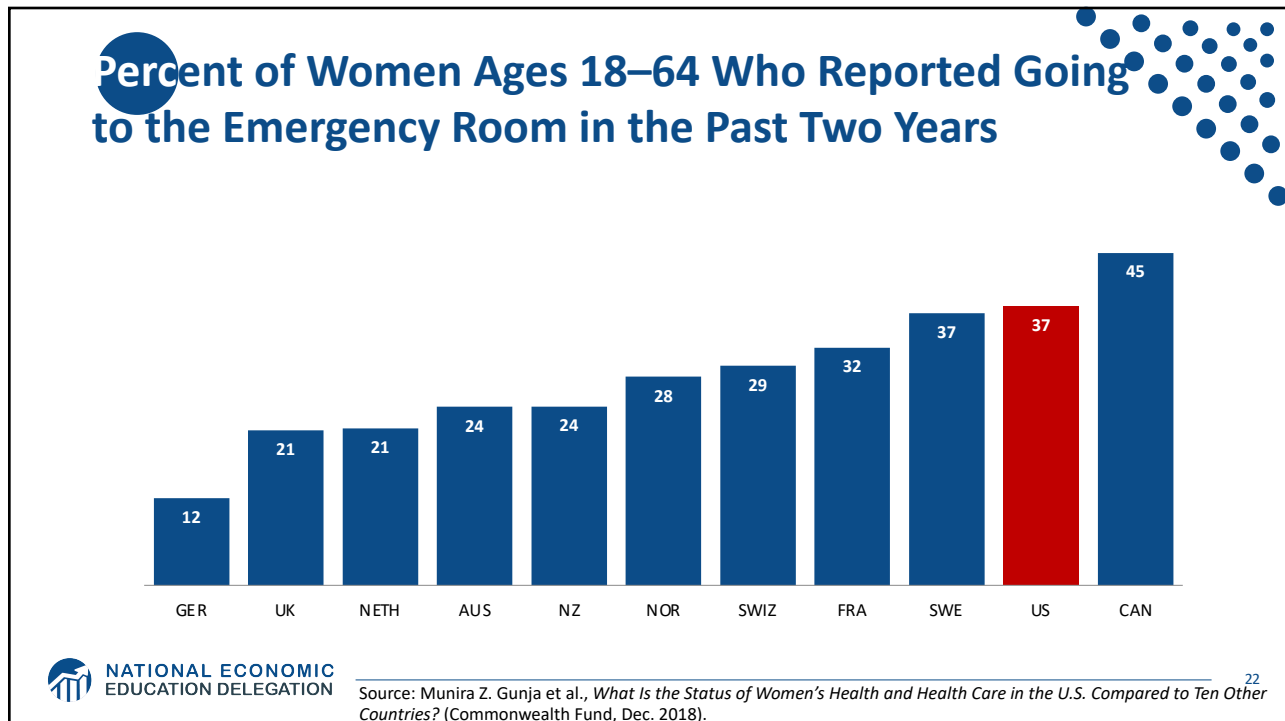
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Access Notes

- Insurance coverage in the U.S. is not universal.
- Supply of medical personnel and equipment may be lower than elsewhere.
- Avoidable (amenable) deaths are higher, perhaps indicating less access to care.
- Emergency room use is higher in the U.S. than elsewhere.
- Specialized medicine is more accessible.

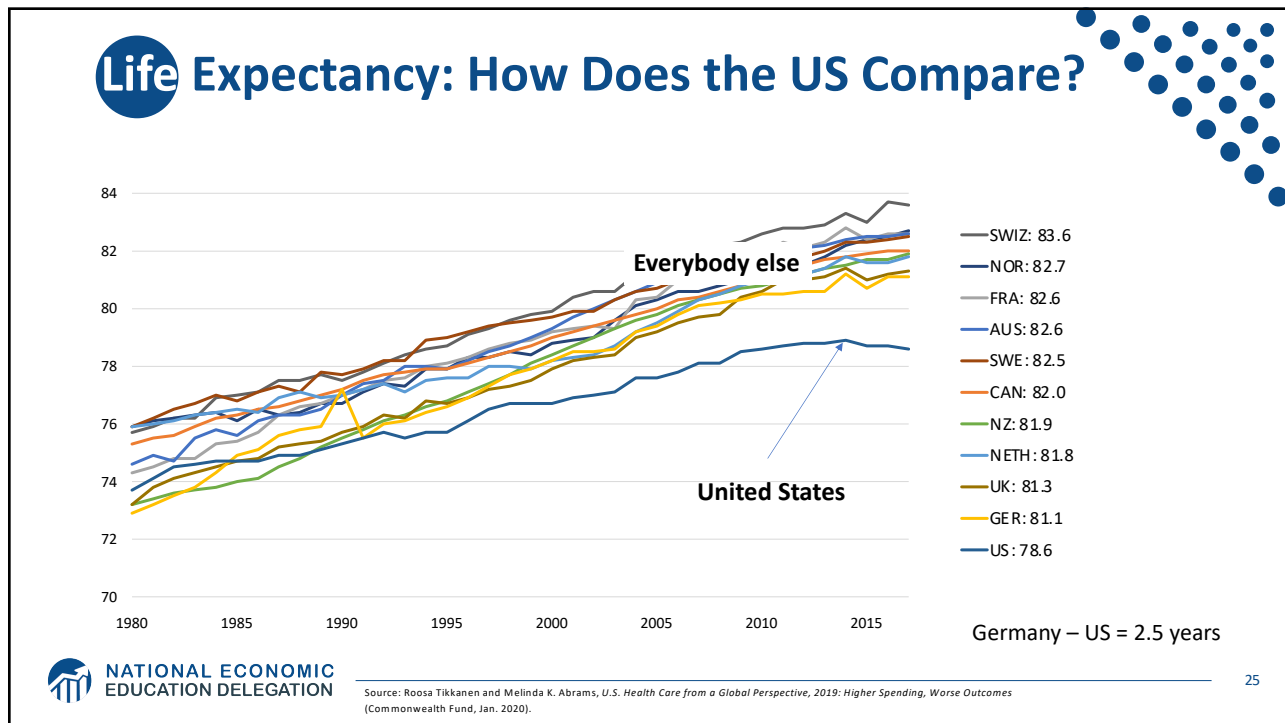


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Quality



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Life Expectancy at Birth by Race, 2017

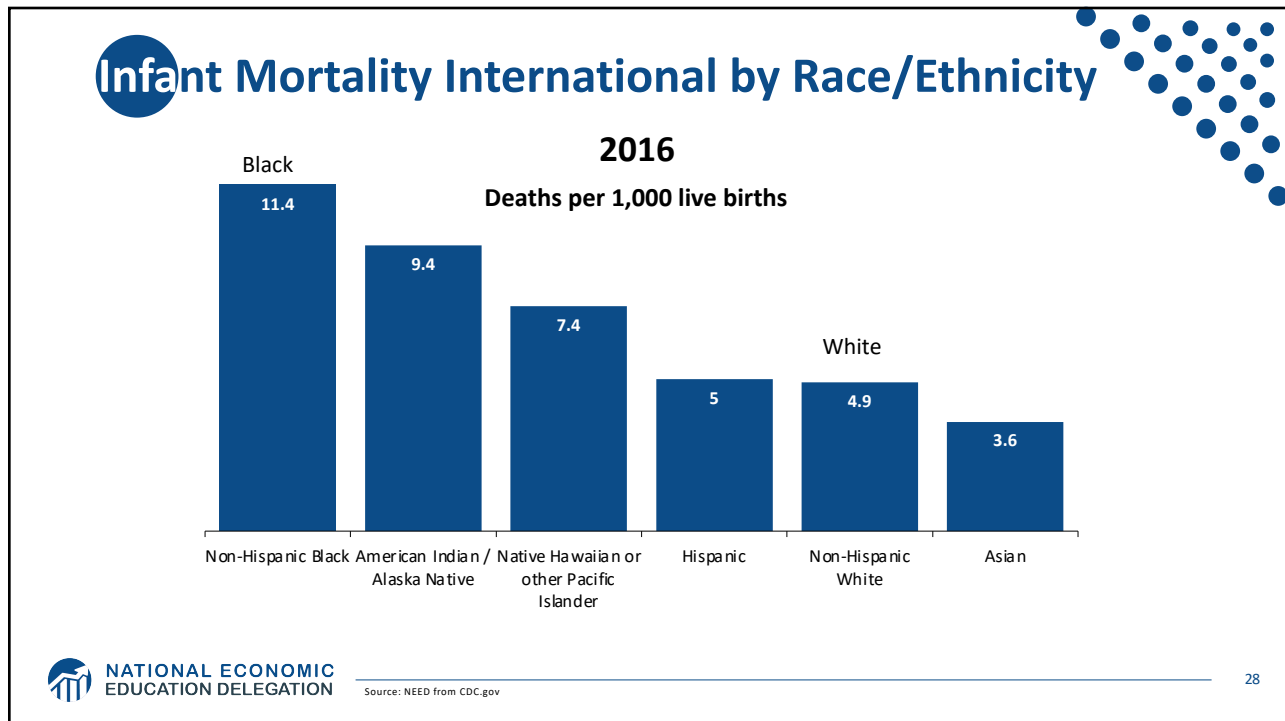
Race/Ethnicity	Life Expectancy (Years)
All Races	78.6
White	78.8
Black	75.3
Hispanic	81.8

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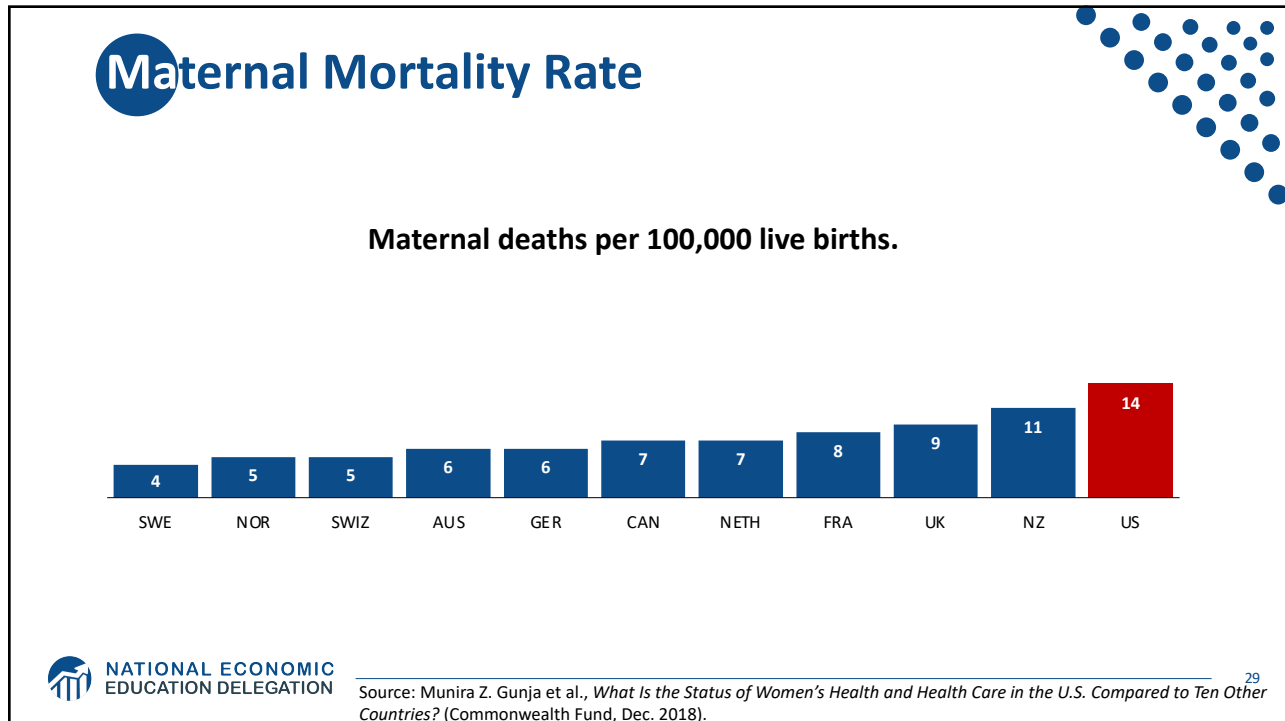
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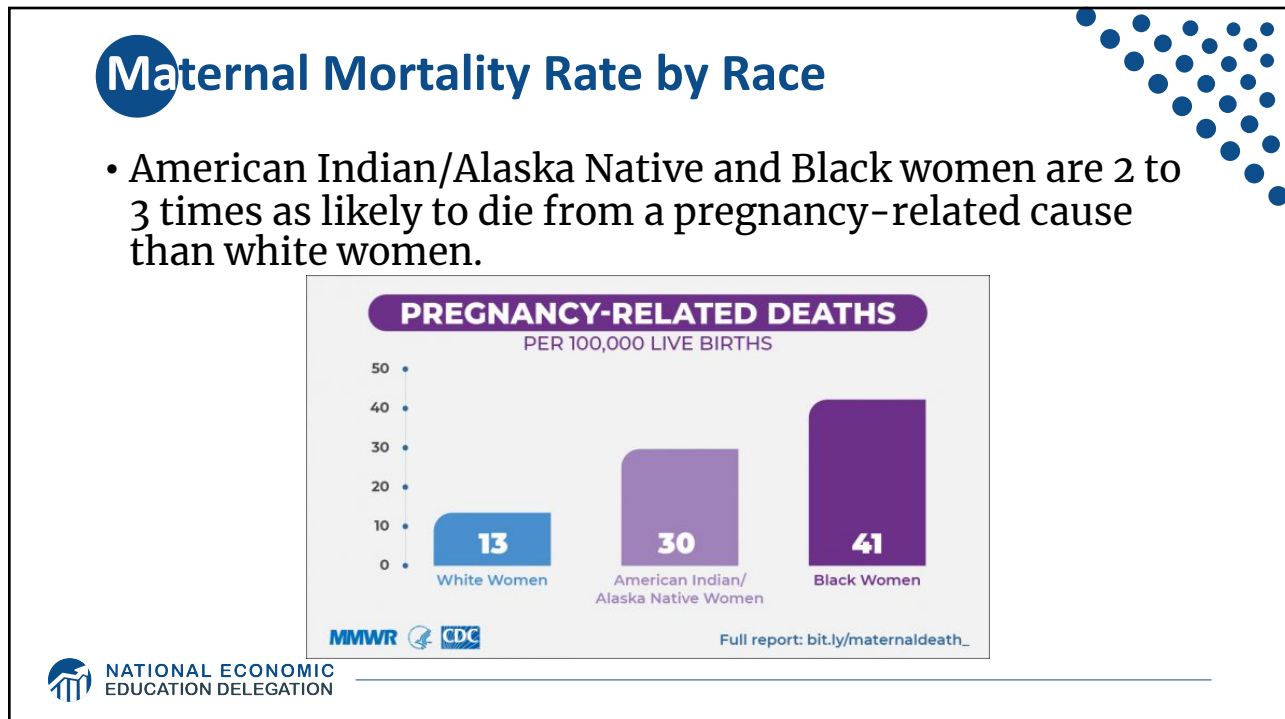
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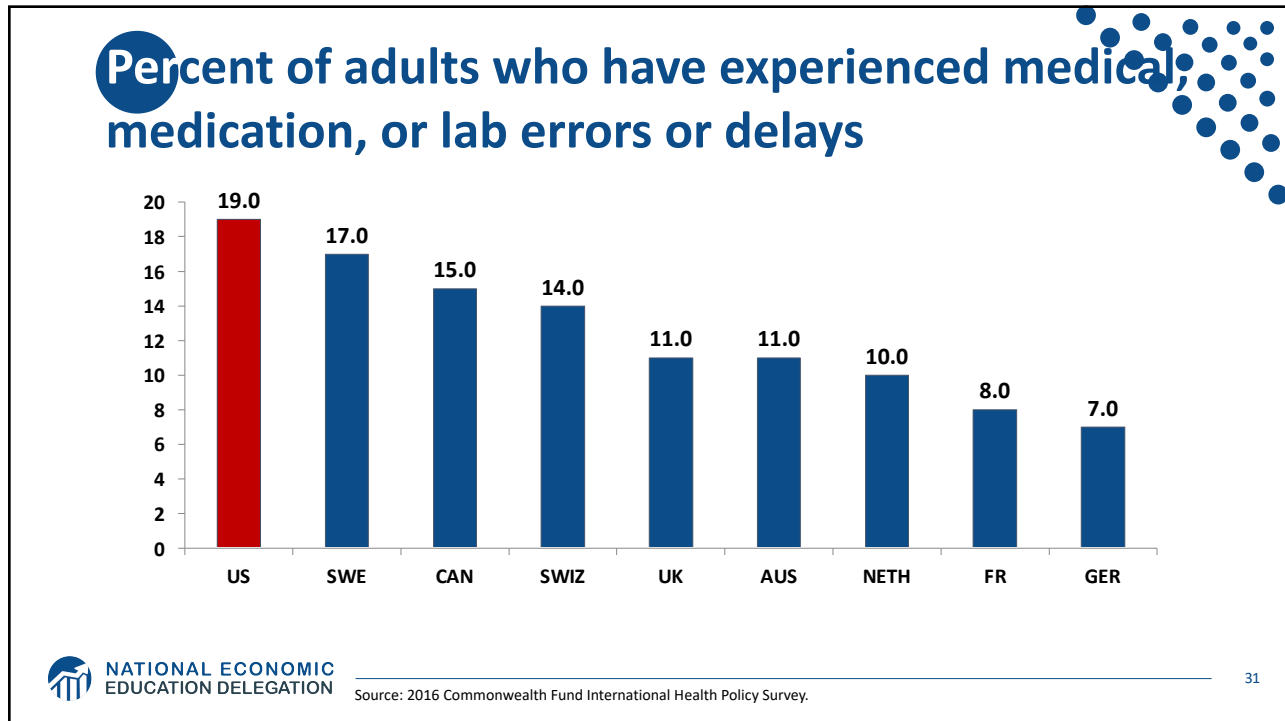
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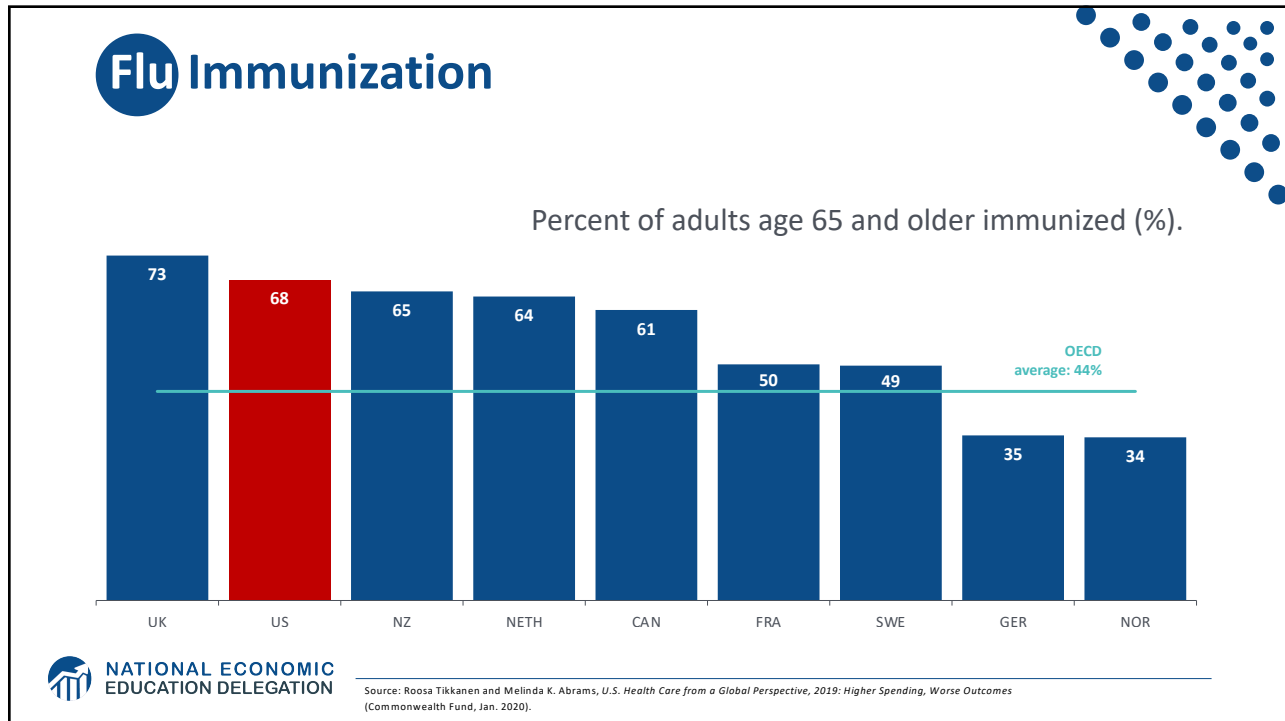
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Prevention and Screening

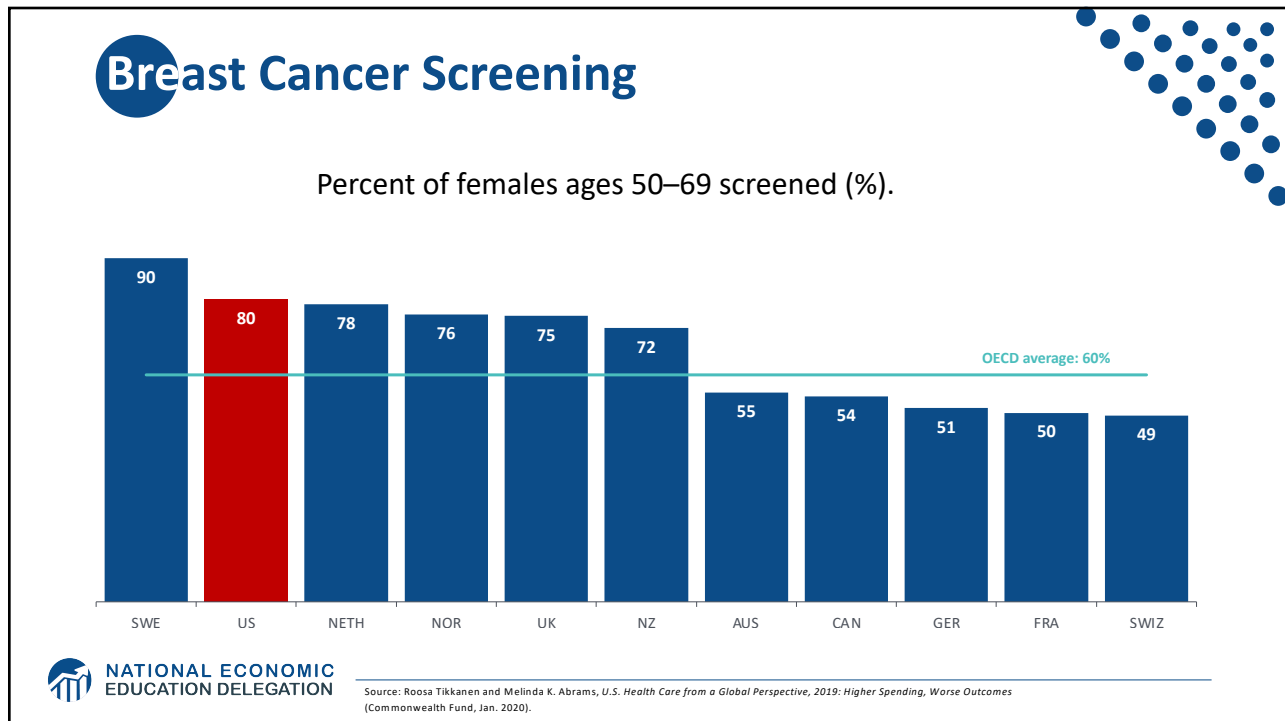
- The U.S. excels in **some** prevention measures, including flu vaccinations and breast cancer screenings.
- The U.S. has the highest average five-year survival rate for breast cancer, but the Lowest for Cervical Cancer.

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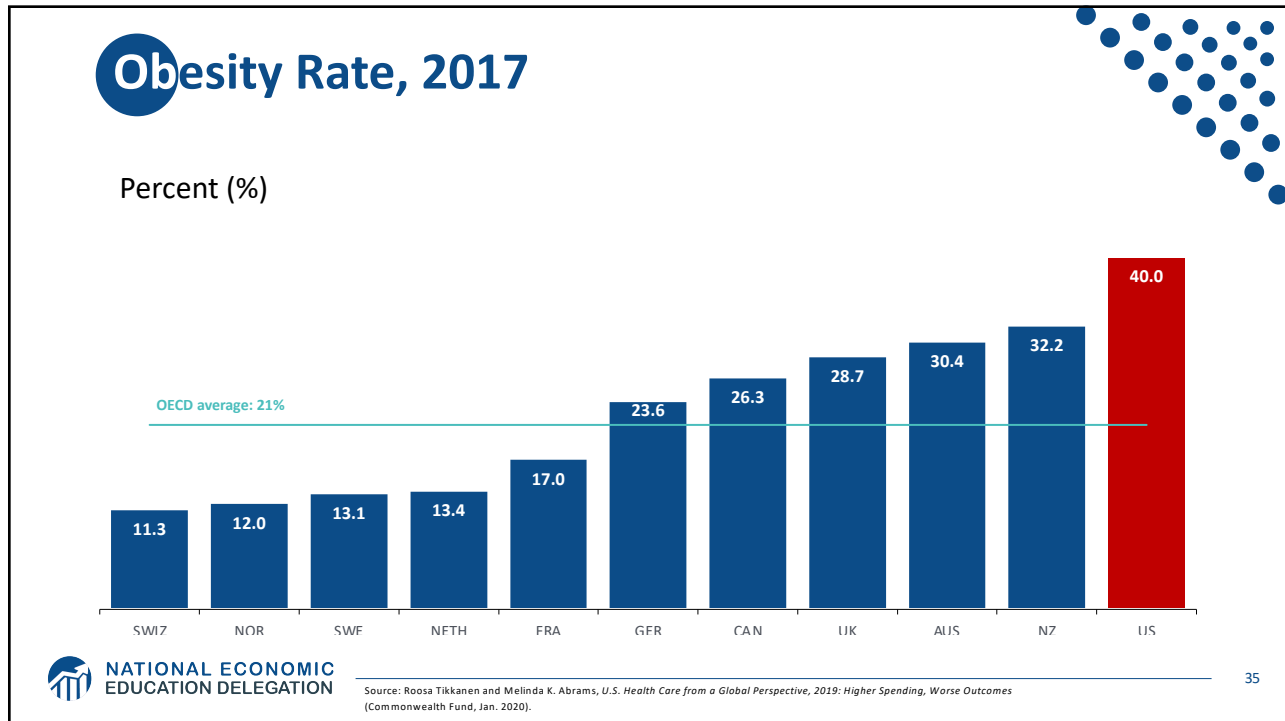
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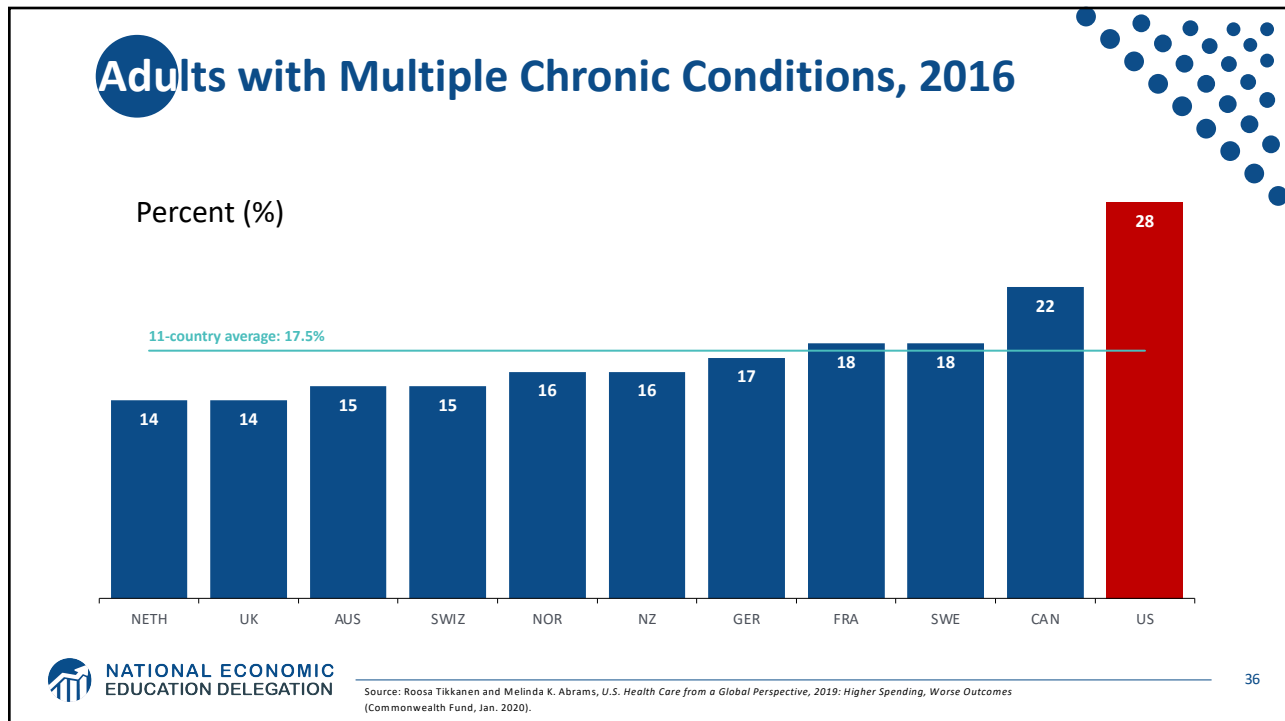
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The World Health Report 2000, *Health Systems: Improving Performance*

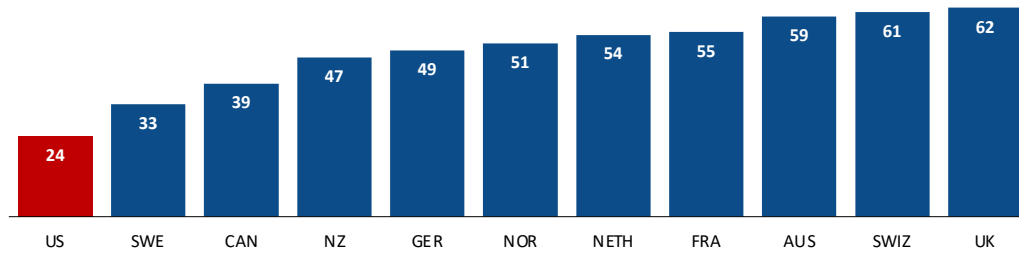
Overall Ranking		Overall Ranking	
30.	Canada	1.	France
31.	Finland	2.	Italy
32.	Australia	3.	San Marino
33.	Chile	4.	Andorra
34.	Denmark	5.	Malta
35.	Dominica	6.	Singapore
36.	Costa Rica	7.	Spain
37.	United States	8.	Oman
38.	Slovenia	9.	Austria
39.	Cuba	10.	Japan



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Perception of Quality of Medical Care

Percent of women ages 18–64 who rated their quality of medical care as *excellent or very good*.



Source: Munira Z. Gunja et al., *What Is the Status of Women's Health and Health Care in the U.S. Compared to Ten Other Countries?* (Commonwealth Fund, Dec. 2018).

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Quality of Care Notes

- Metrics of quality in the U.S. are not very good.
- Quality of care is not considered very good in the U.S.
- The system has challenges: obesity/lifestyle.
- The system has bright spots!

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A Bit About Quality

- 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.
- Compared to peer nations, the U.S. has among the highest number of **hospitalizations from preventable causes** and the highest rate of avoidable deaths.
- 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 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.

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Costs



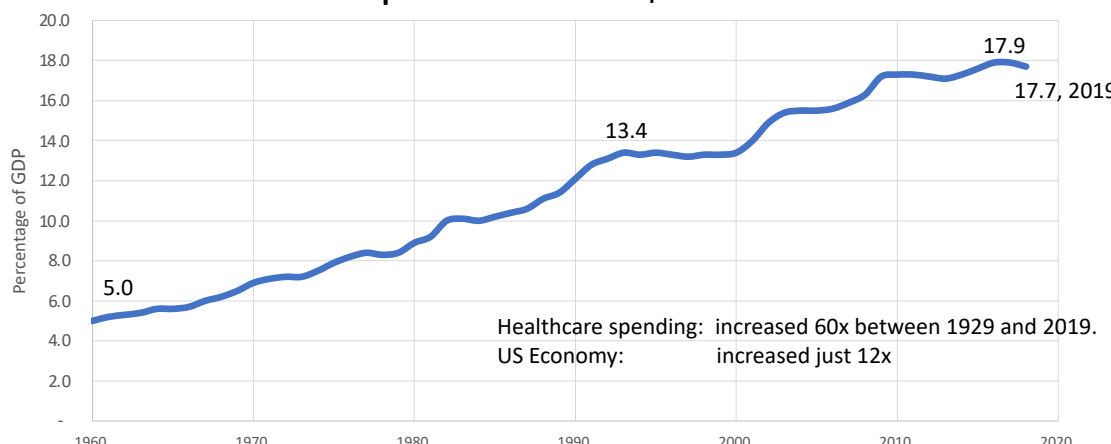
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National Health Expenditure as Percent of GDP

Total Expenditures in 2019: \$3.8 Billion



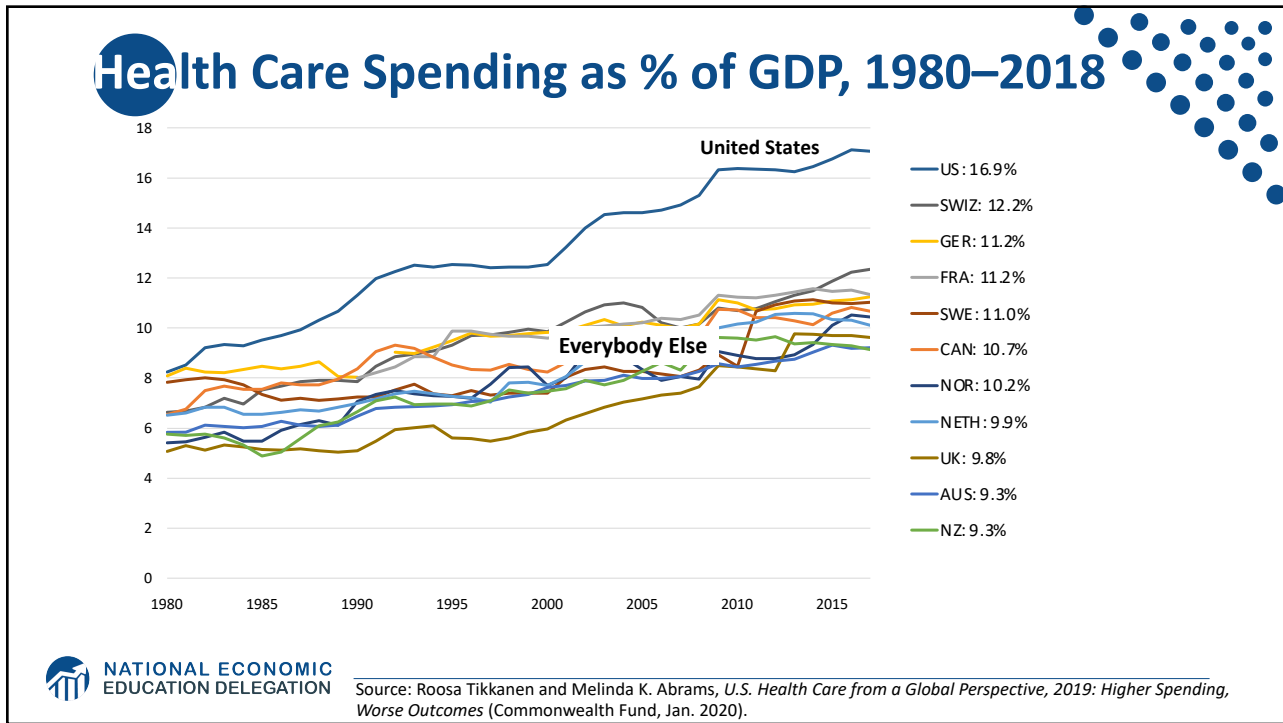
Year	Percentage of GDP
1960	5.0
1990	13.4
2019	17.9

Healthcare spending: increased 60x between 1929 and 2019.
US Economy: increased just 12x

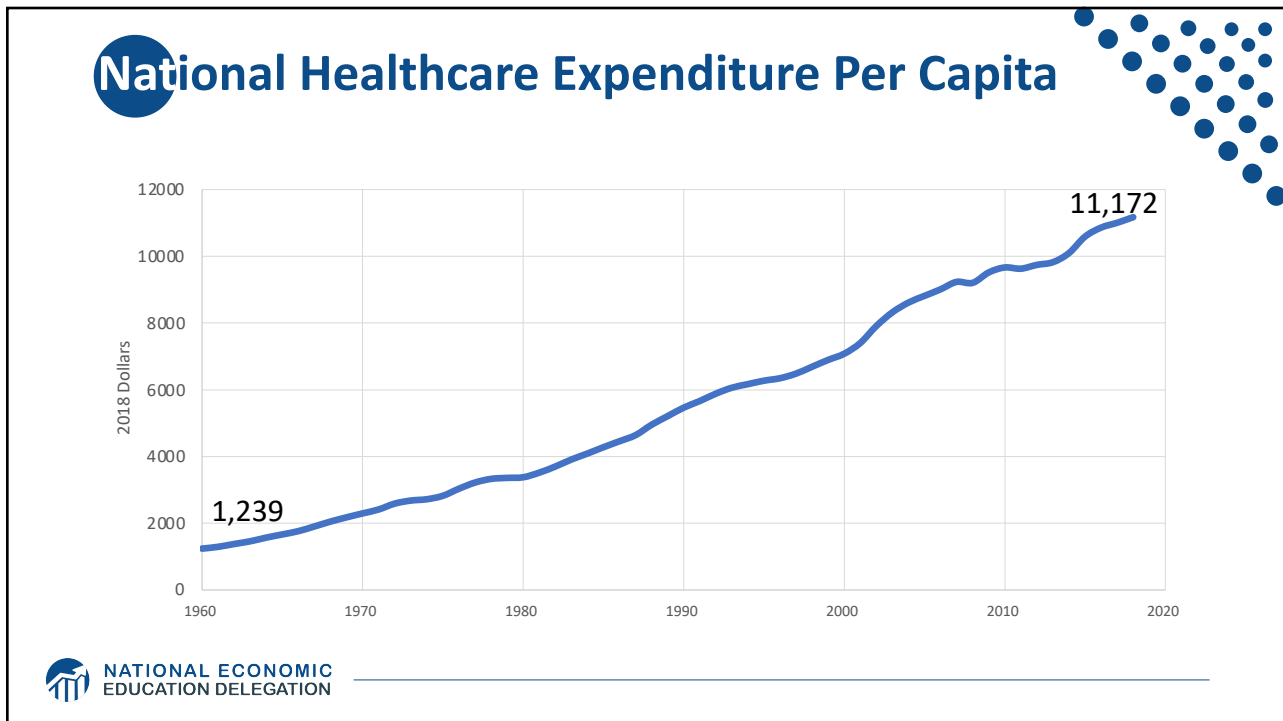


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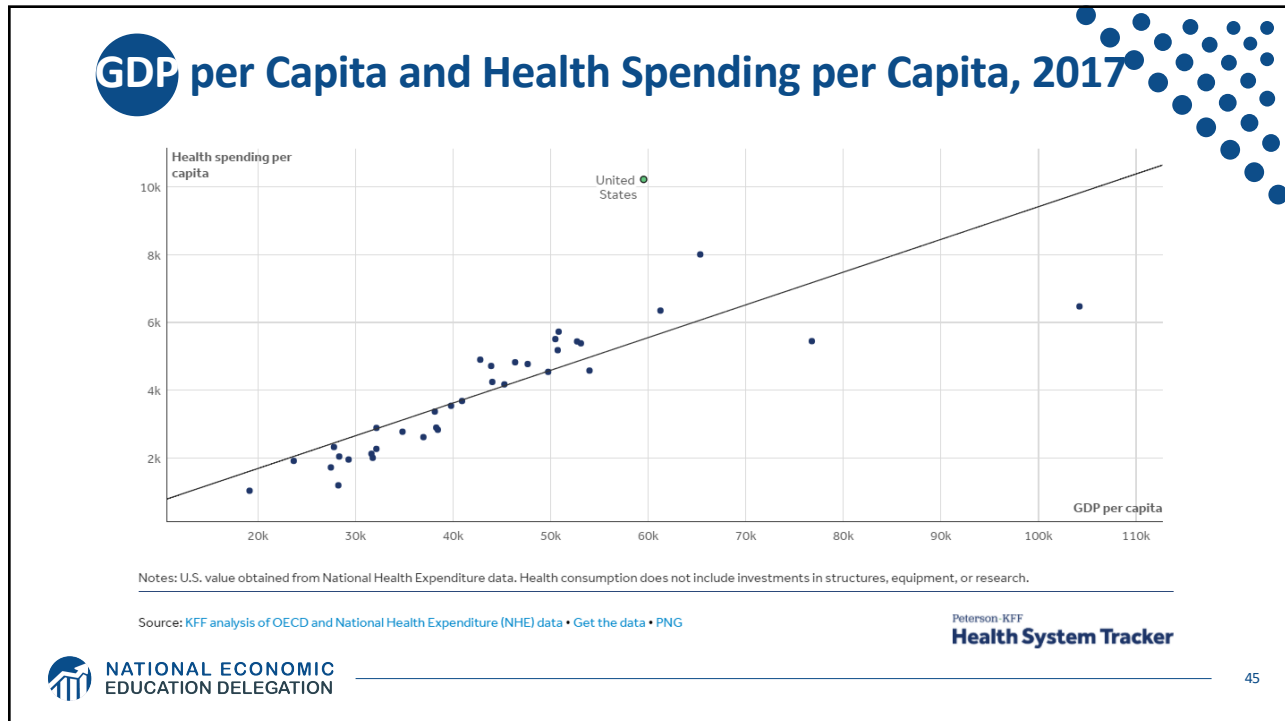
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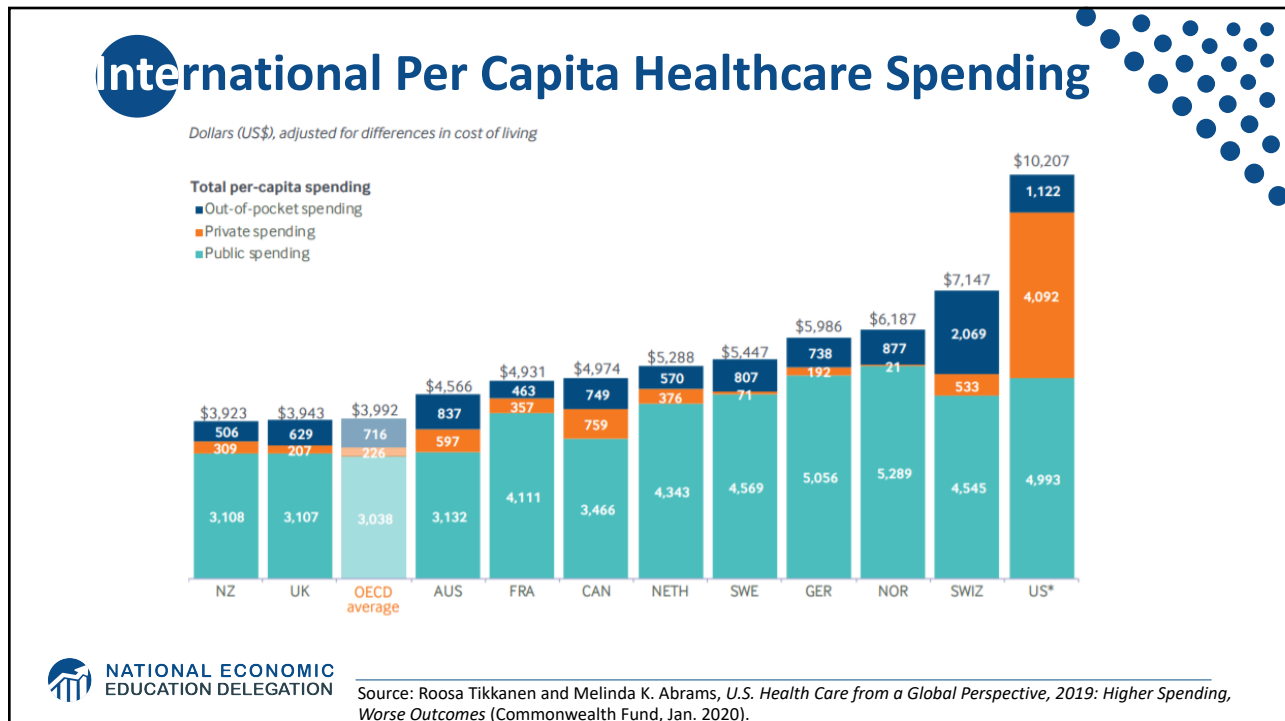
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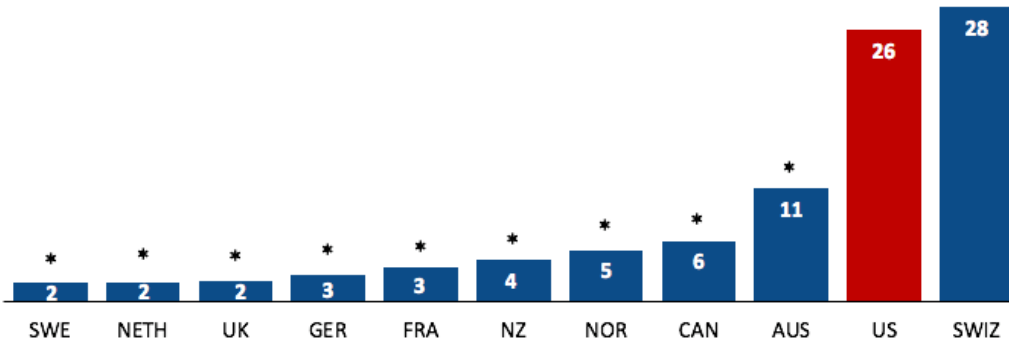
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Out-of-Pocket Costs

Percent of women ages 18–64 with out-of-pocket costs of \$2,000 or more.



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Source: Munira Z. Gunja et al., *What Is the Status of Women's Health and Health Care in the U.S. Compared to Ten Other Countries?* (Commonwealth Fund, Dec. 2018).

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Why is Healthcare Spending Increasing?

- Costs in the United States, and elsewhere are increasing rapidly.
- The share of economic spending on health care has been steadily increasing for all countries because:
 - Health spending growth has outpaced economic growth.
 - Richer countries demand more services, like attention to health.
- Also because of
 - Advances in medical technologies.
 - Increased demand for services.
 - Rising prices in the health sector – why?



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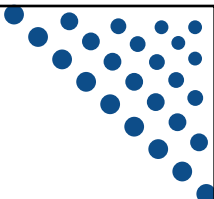


Markets Matter for Costs

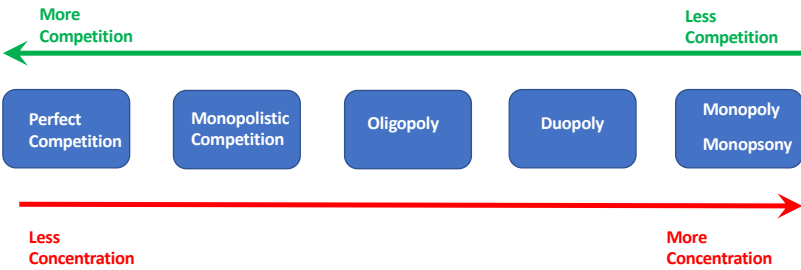
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What types of markets are there?




More Competition ←

→ Less Competition

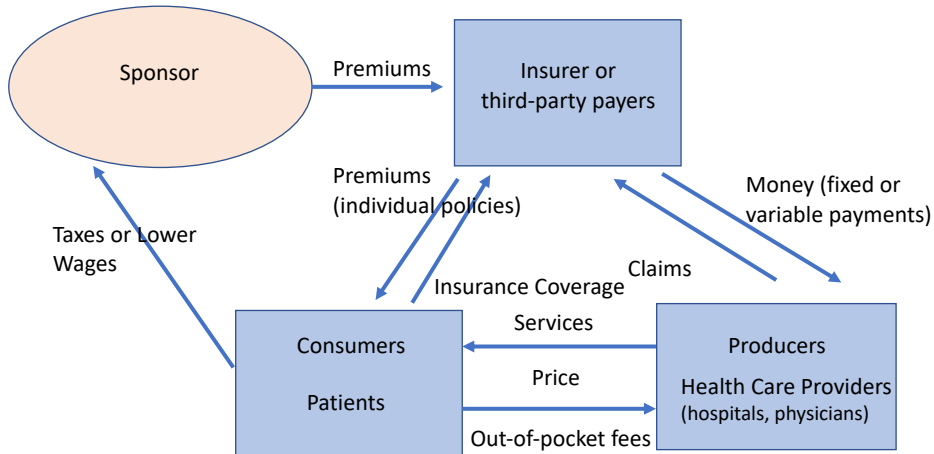
Perfect Competition Monopolistic Competition Oligopoly Duopoly Monopoly Monopsony

Less Concentration → More Concentration

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Health Care Markets are Different



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Are Health Care Markets Special?

- Market Structure
- Type of products and services
- Principal-Agent Problem
- Asymmetric Information
- Moral Hazard

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Policy Matters for Costs

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Hospital Monopolization Across the Nation

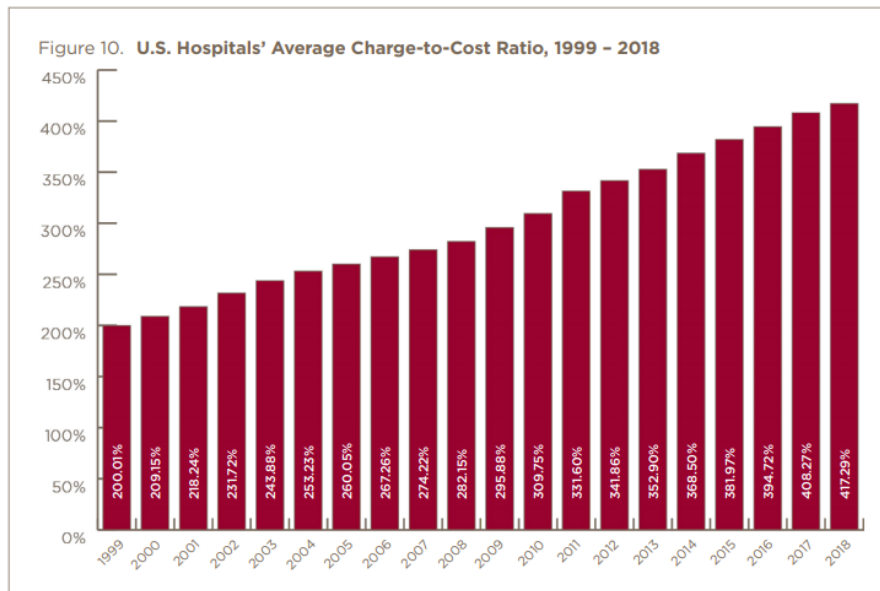
- Most of the top 100 most expensive hospitals are located in states in the west and south.
 - Florida had the highest number, with 40 hospitals.
 - Other top states included Texas with 14 hospitals, Alabama with eight, Nevada with seven, and California with six.
- Hospitals Charge Patients More Than 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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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
 - 14,000 more physicians left independent practice to become hospital employees.

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Drug Price Comparisons

Drug Prices for 30 Most Commonly Prescribed Brand-Name and Generic Drugs, 2006–07
 US is set at 1.00

	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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Medicare Modernization Act

- Prescription Drug Component
- Medicare Part D, **by law**, cannot negotiate drug prices like other governments do.
- 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**.

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Concentration in Pharmaceutical Companies

- The number of mergers and acquisitions involving one of the top 25 firms more than doubled:
 - 29 in 2006 to 61 in 2015
- Between 1995 and 2015, 60 drug companies merged into 10.

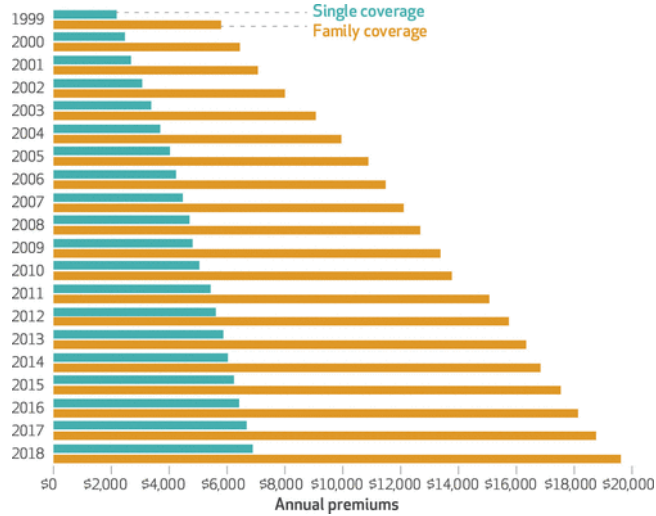


Monopolization of Health Insurance Market

- 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.

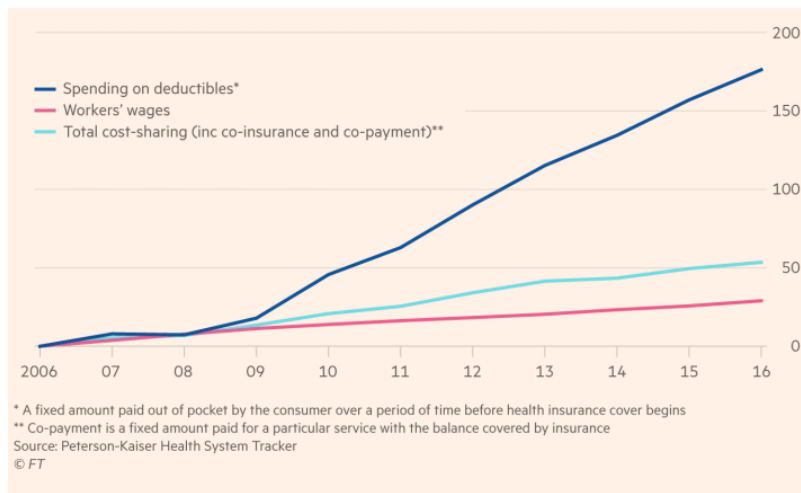


Average annual premiums for single and family coverage, 1999–2018



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Spending on Deductibles



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Reason for Higher Health Insurance Rates

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

Health Care Systems and Institutions

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, Spain, New Zealand)
 - Out of pocket model – you pay yourself
 - Mixed (United States)



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US Health Care System

- **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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Definition: Universal Coverage

- **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.
 - Protects individuals from excessive financial hardships.



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Definition: 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 socialized.
 - The money for the payment can be either collected by
 - Taxes collected by the government
 - Premiums collected by National or Public Health Insurance
- **Single-payer systems: 17 countries**
 - Norway, Japan, United Kingdom, Kuwait, Sweden, Bahrain, Brunei, Canada, United Arab Emirates, Denmark, Finland, Slovenia, Italy, Portugal, Cyprus, Spain, and Iceland.



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Definition: Socialized Medicine

- **Socialized medicine:** this model actually takes the single-payer system one step further.
 - Government not only pays for health care but operates the hospitals and employs the medical staff.
- This is NOT part of the current debate in the US.



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Definition: 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



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Tradeoffs

Tradeoffs take place among the three legs:

- Increasing quality in health care may lead to higher health care costs.
 - This means a compromise in access (affordability).
- I.e., with increasing quality, access may suffer.
- By increasing access, quality may suffer.
- By decreasing costs, quality may suffer.



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Summary

- US HealthCare system is not performing well (very expensive with low quality and access).
- One of the main reasons for very high costs is the monopolization of healthcare markets.
 - Hospitals, health insurance, big pharma, physicians, etc.
- In addition, the Medicare Modernization Act of 2003 by law prevents government to negotiate drug prices.
- A few simple solutions could drastically reduce costs:
 - Enforcement of antitrust laws in this sector.
 - Introduction of a public option in the health insurance market.
 - Ability for the US government to negotiate drug prices like most every other nation.
- Universal health insurance would increase access and perhaps also reduce costs.
- But there are always tradeoffs: you can pick two, but the third may suffer.



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Thank you!

Any Questions?

www.NEEDelegation.org

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Jon@NEEDelegation.org

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Available NEED Topics Include:

- Coronavirus Economics
- US Economy
- Climate Change
- Economic Inequality
- Economic Mobility
- Trade and Globalization
- Minimum Wages
- Immigration Economics
- Housing Policy
- Federal Budgets
- Federal Debt
- Black-White Wealth Gap
- Autonomous Vehicles
- US Social Policy


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Health Insurance Coverage, 2019

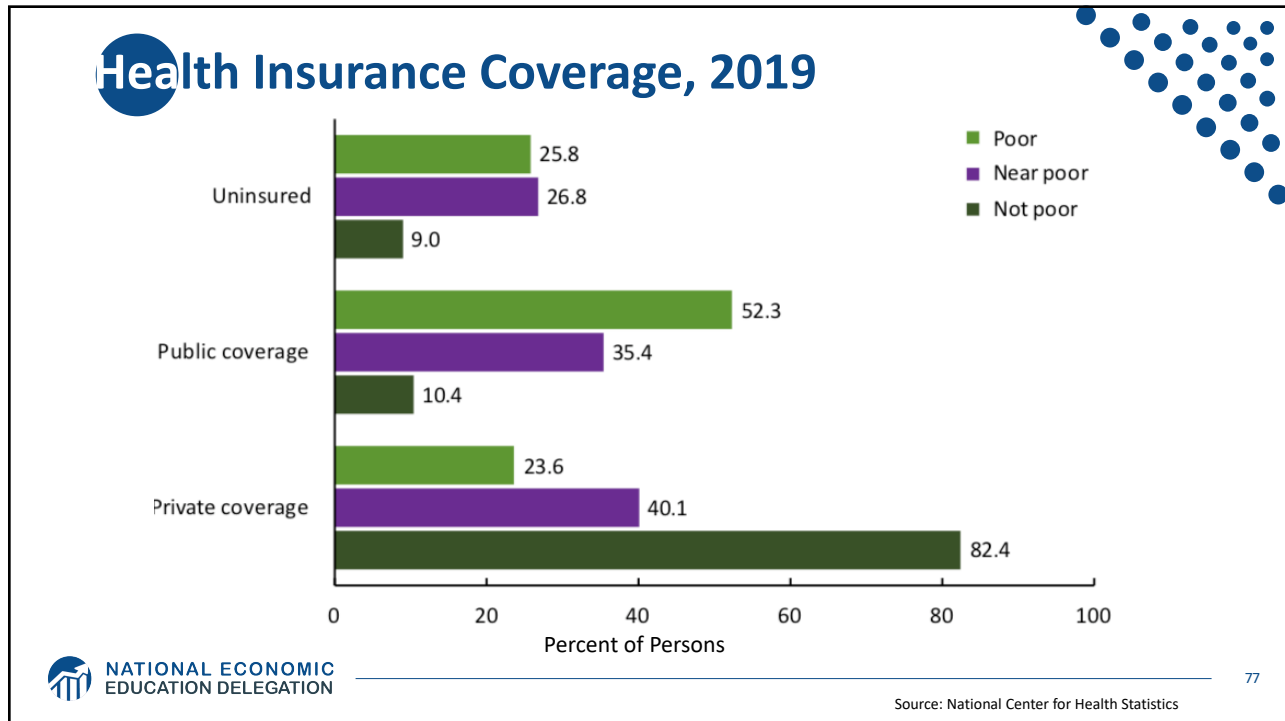
Coverage Category	All persons	Children under 18	Adults 18-64	Adults 65 and over
Uninsured	10.3	5.1	14.7	0.9
Public coverage	37.4	41.4	20.4	96.0
Private coverage	61.3	55.2	66.8	49.1

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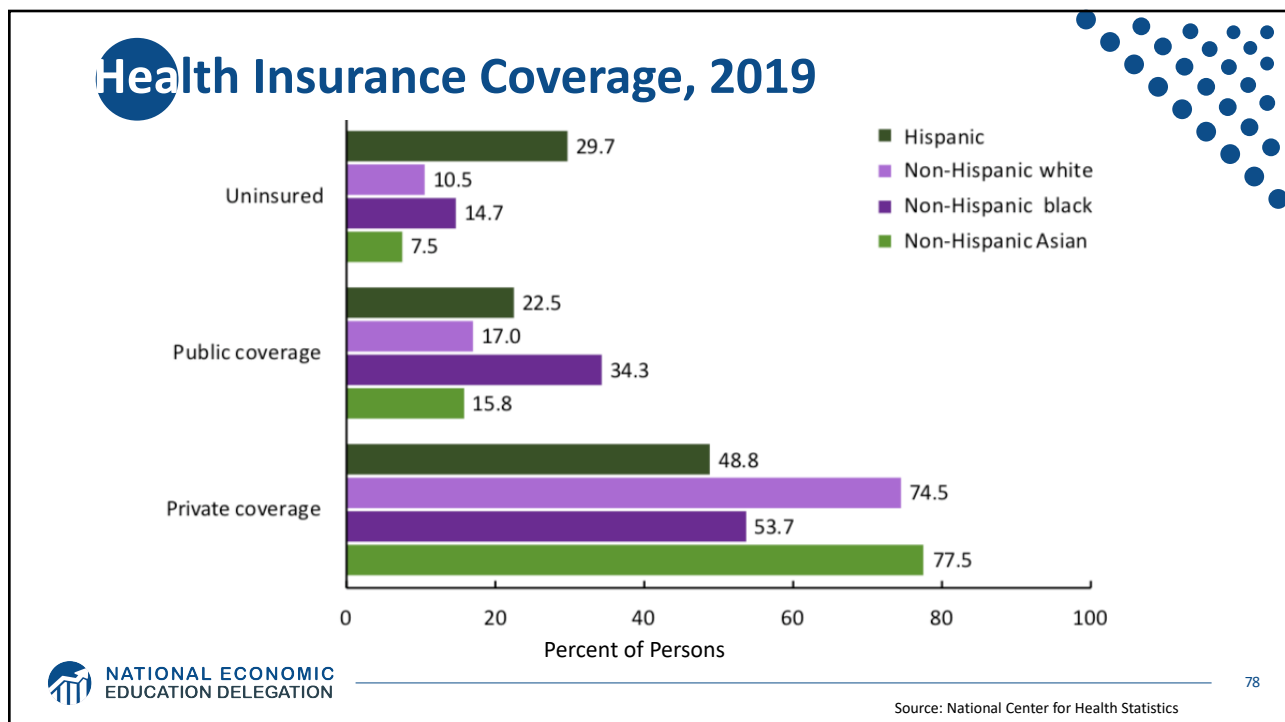
Source: National Center for Health Statistics

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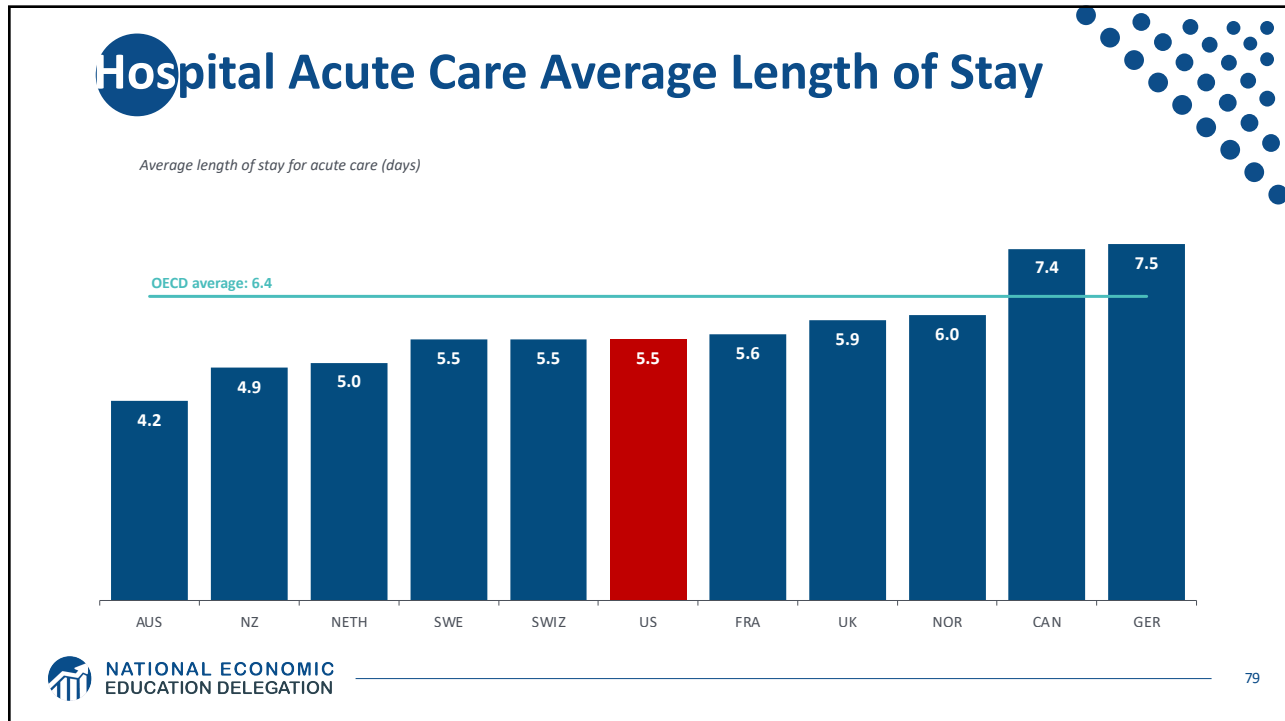
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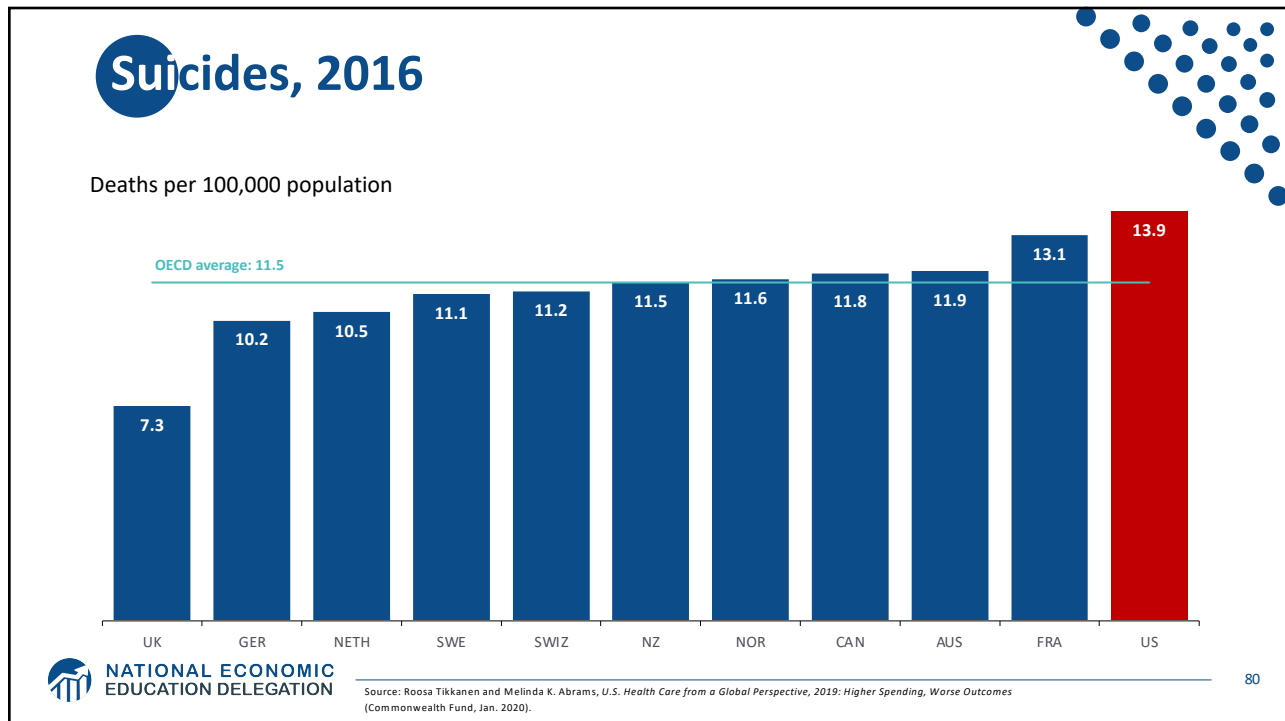
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Big Pharma



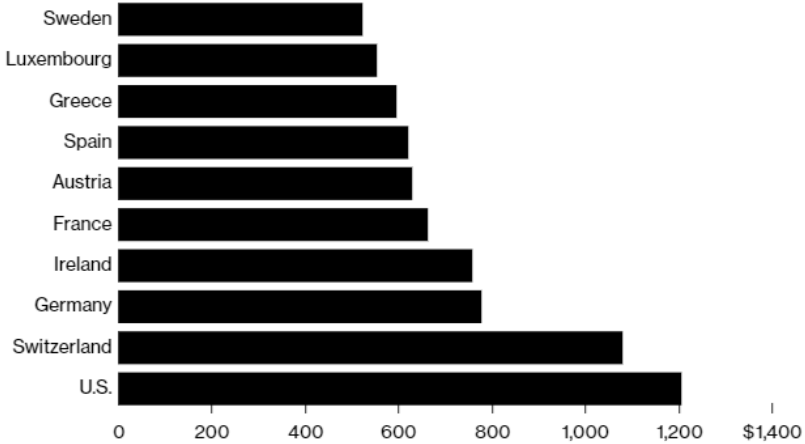
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Spending on Pharmaceuticals

Top spenders per capita on drugs in 2016, in U.S. dollars

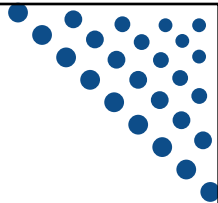


Country	Spending (U.S. dollars)
Sweden	520
Luxembourg	550
Greece	600
Spain	620
Austria	650
France	680
Ireland	750
Germany	780
Switzerland	1080
U.S.	1200

Source: Organisation for Economic Co-operation and Development



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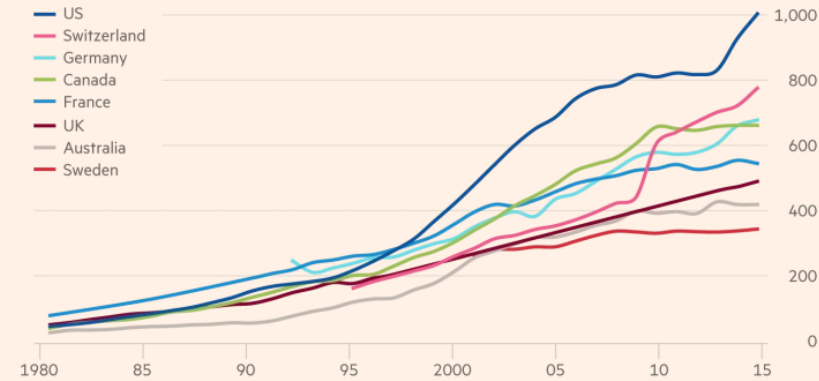


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Drug Prices: Trends Over Time

US prescription drug spending per capita has increased faster than in other countries*

Selected countries (\$)



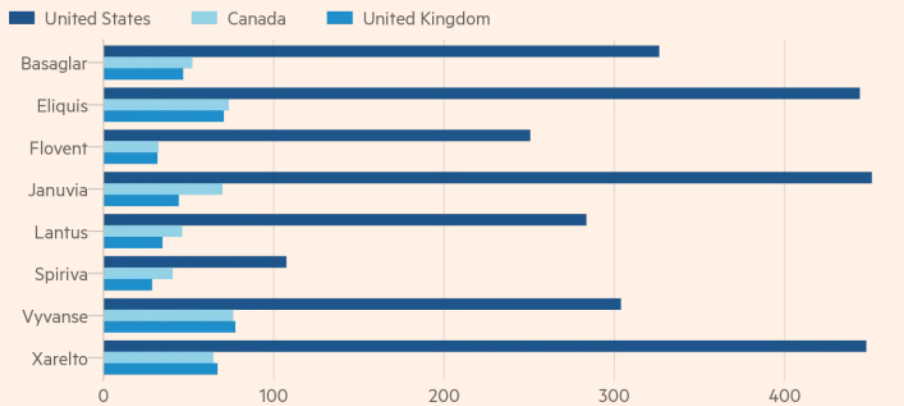
* Figures relate to prescription drugs, not hospital spending



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Drugs in the US cost much more than their equivalent in the UK and Canada

Eight bestselling brand drugs for conditions ranging from diabetes to asthma and ADHD. Drug price (\$)



Note: Their equivalents may be generic versions. Prices have been converted to US dollars using exchange rates available on September 17th, 2019



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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.



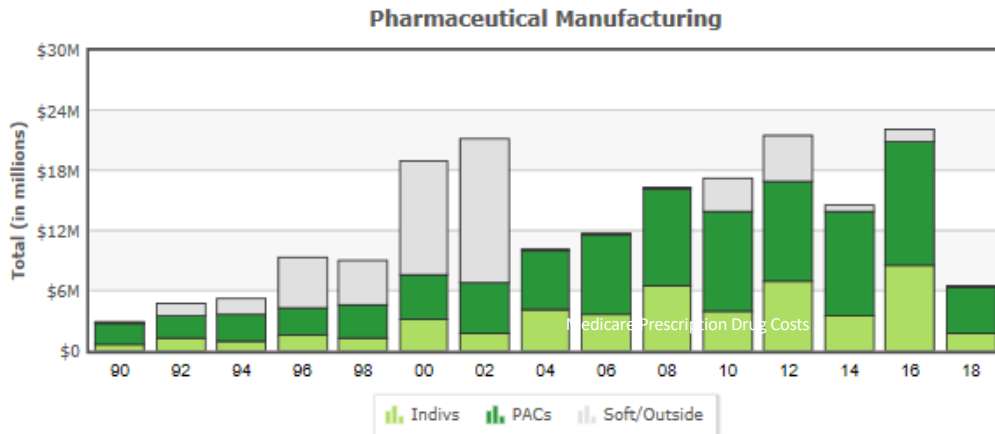
Reasons for higher drug prices

- 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.



Lobbying

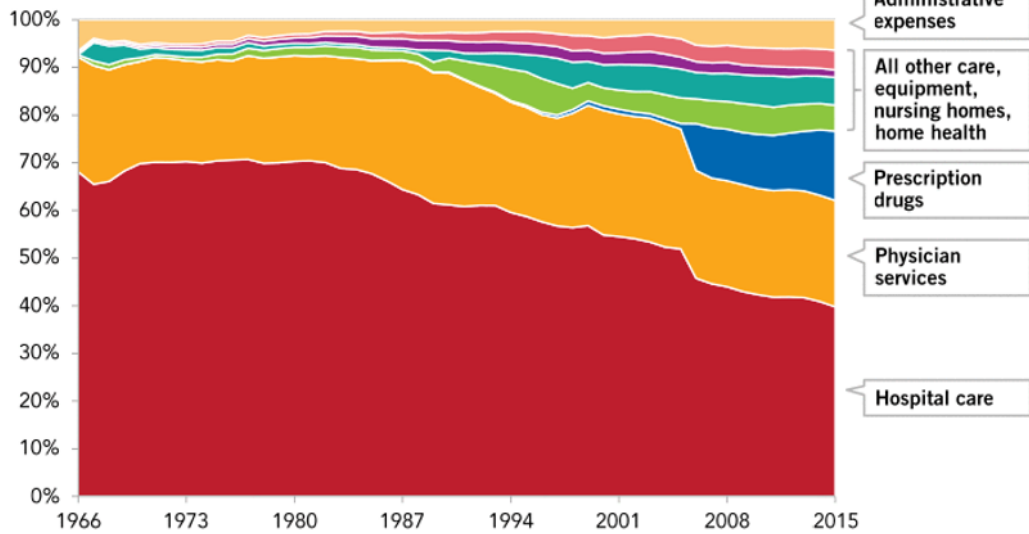
Contribution Trends, 1990-2018



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COMPOSITION OF MEDICARE PAYMENTS (% OF TOTAL MEDICARE SPENDING)



SOURCE: Centers for Medicare and Medicaid Services, National Health Expenditures December 2016. Compiled by PGPF.

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