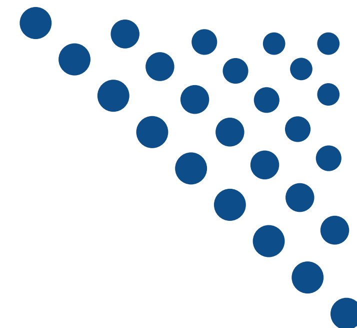


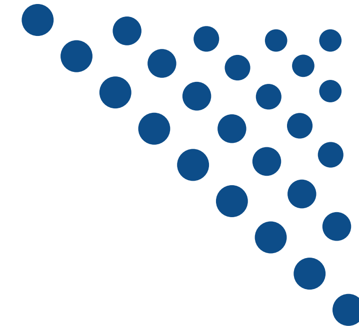
Osher Lifelong Learning Institute, Summer 2023

Contemporary Economic Policy

Oklahoma State University, OK
May-June, 2023

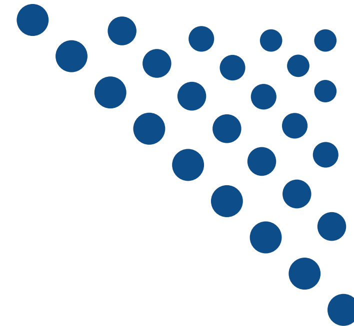
Jon Haveman, Ph.D.
National Economic Education Delegation

Available NEED Topics Include:



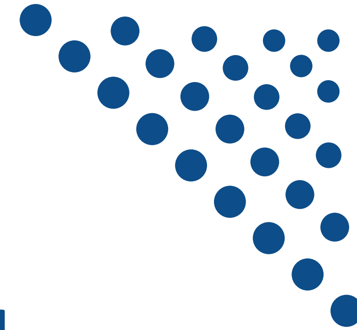
- US Economy
- Healthcare Economics
- Climate Change
- Economic Inequality
- Economic Mobility
- Trade and Globalization
- Minimum Wages
- Immigration Economics
- Housing Policy
- Federal Budgets
- Federal Debt
- Black-White Wealth Gap
- Autonomous Vehicles
- Healthcare Economics

Course Outline

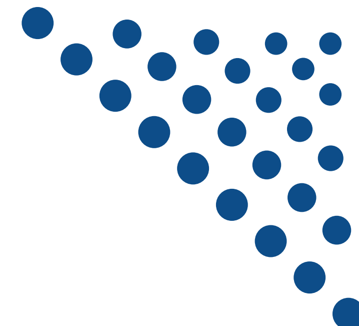


- **Contemporary Economic Policy**
  - **Week 1 (5/24): US Economic Update (Jon Haveman, NEED)**
  - Week 2 (5/31): Healthcare Economics (Jon Haveman)
  - Week 3 (6/7): Federal Debt (Brian Peterson, Lagrange College)
  - Week 4 (6/14): Trade Deficits and Exchange Rates (Alan Deardorff, Univ. Michigan)

Submitting Questions



- **Please submit questions in the chat, or by raising your digital "hand."**
  - I will try to handle them as they come up.
- **We will do a verbal Q&A once the material has been presented.**
  - I will also try to take some verbal questions during the break.
- **Slides will be available from the NEED website tomorrow (https://NEEDEcon.org/delivered_presentations.php)**

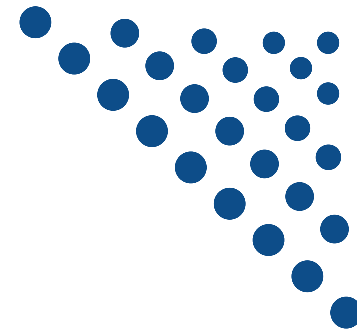


Health(care) Economics

OLLI – Oklahoma State University
May 31, 2023

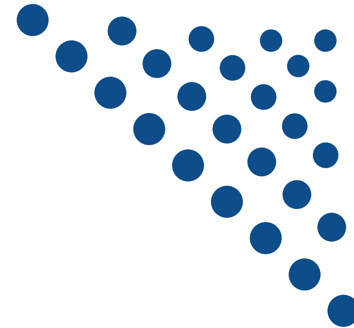
Jon Haveman, Ph.D.
NEED

Credits and Disclaimer



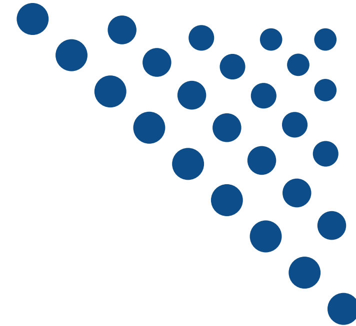
- **This slide deck was authored by:**
  - Veronika Dolar, SUNY Old Westbury
  - Jon Haveman, NEED
- **This slide deck was reviewed by:**
  - Jonathan Gruber, MIT
  - Robert Hansen, Dartmouth College
- **Disclaimer**
  - NEED presentations are designed to be nonpartisan.
  - It is, however, inevitable 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



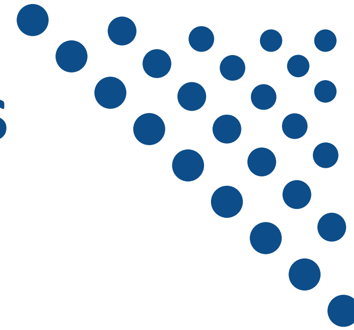
- What is Health(care) Economics?
- Health Insurance and Outcomes
- Health Care Systems and Institutions

What is Health(care) Economics?



- Economics has 2 primary fields: Micro and Macro
- 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.

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 expenditures were **17.7% of GDP**, which is equivalent to around **$3.8 trillion**.
  - U.S. Healthcare is the 5th largest economy in the world.
- For comparison, GDP in each country in 2019:
  - Germany: $3,845 trillion (4th largest economy)
  - UK: $2,827 trillion (6th largest economy)
  - France : $2,715 trillion (7th largest economy)

Where the money goes?

Nursing Care Facilities and Continuing Care Retirement Communities, 5%

Government Administration and Net cost of Health Insurance, 8%

Other Professional Services, 3%

Dental Services, 4%

Prescription Drugs, 9%

Investment,[1] 5%

Durable Medical Equipment, 2%

Other Health Residential and Personal Care,[2] 5%

Other Non-Durable Medical Products, 2%

Physician and Clinical Services, 20%

Other, 14%

Home Health Care, 3%

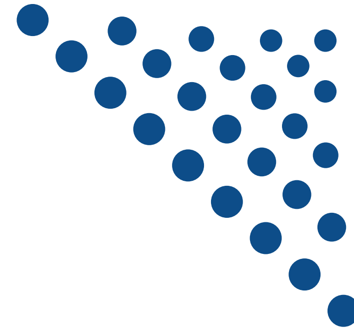
Hospital Care, 33%

Public Health Activities, 3%

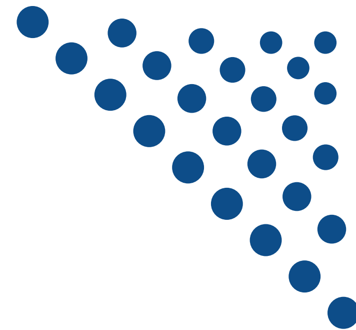
NATIONAL ECONOMIC EDUCATION DELEGATION

Source: Centers for Medicare & Medicaid Services, Office of the Actuary, National Health Statistics Group.

Markets Studied in Health Economics



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



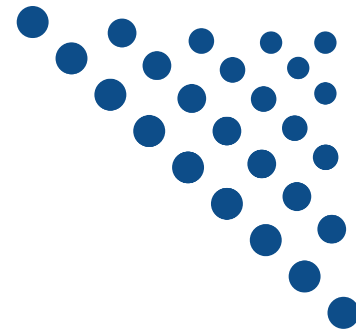
Why Are We Talking About the Market for Health Insurance?

The Three Legs of the Healthcare Stool

- **The market for Health Insurance is where they all come together.**

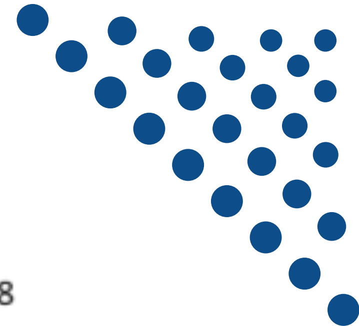
  - Access
  - Quality
  - Cost

- **We will discuss metrics of performance for each leg.**



Access

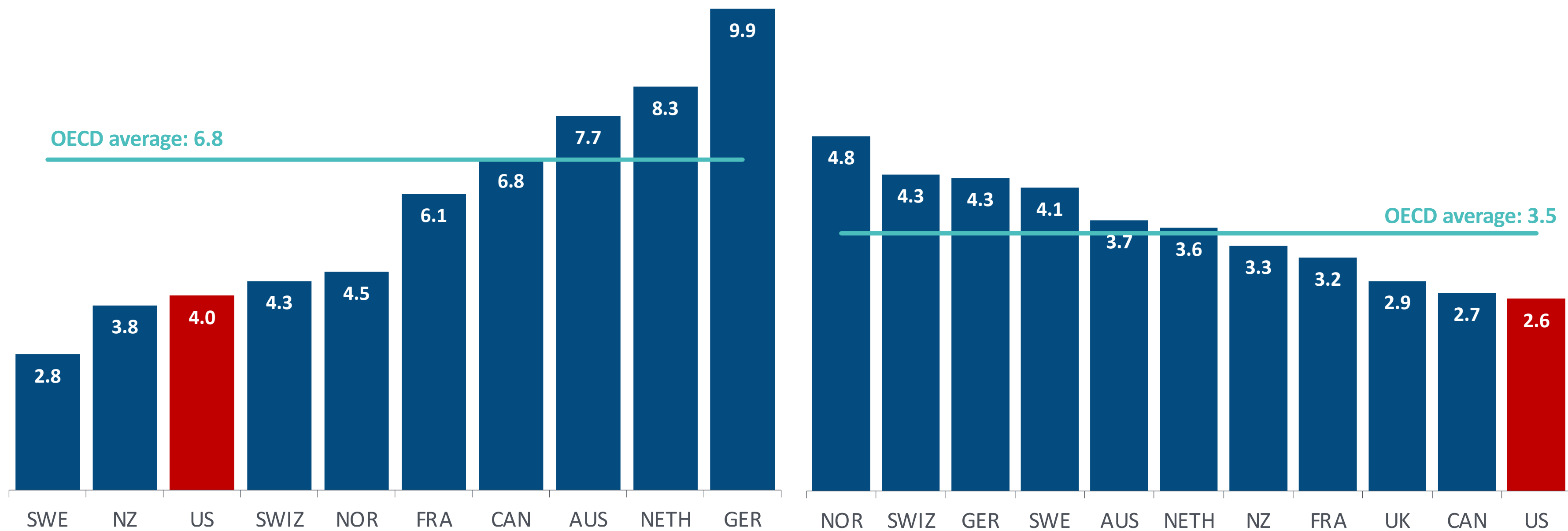
Health Insurance Coverage, 2019 - 92%



NATIONAL ECONOMIC EDUCATION DELEGATION

Source: National Center for Health Statistics

Physician Visits and Physician Supply



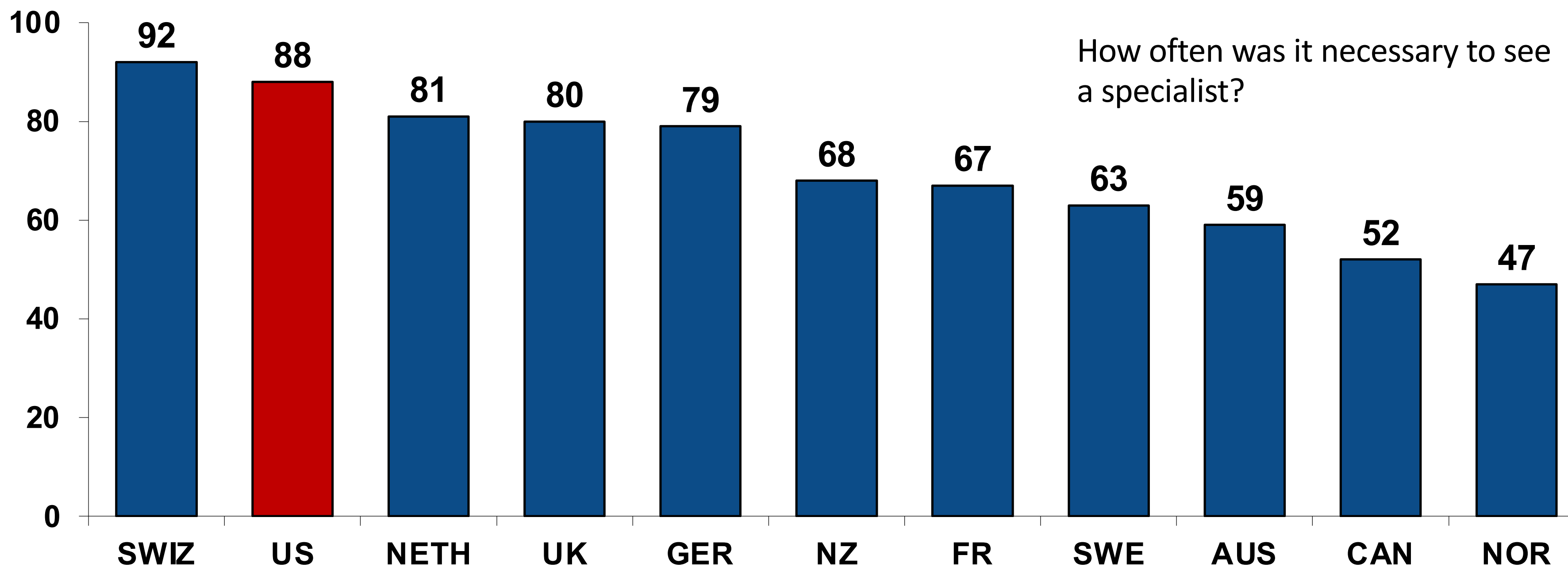
NATIONAL ECONOMIC EDUCATION DELEGATION

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

Waited Less Than a Month to See A Specialist

But how much time did they spend with the specialist?

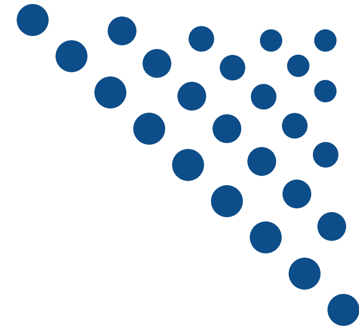
How often was it necessary to see a specialist?



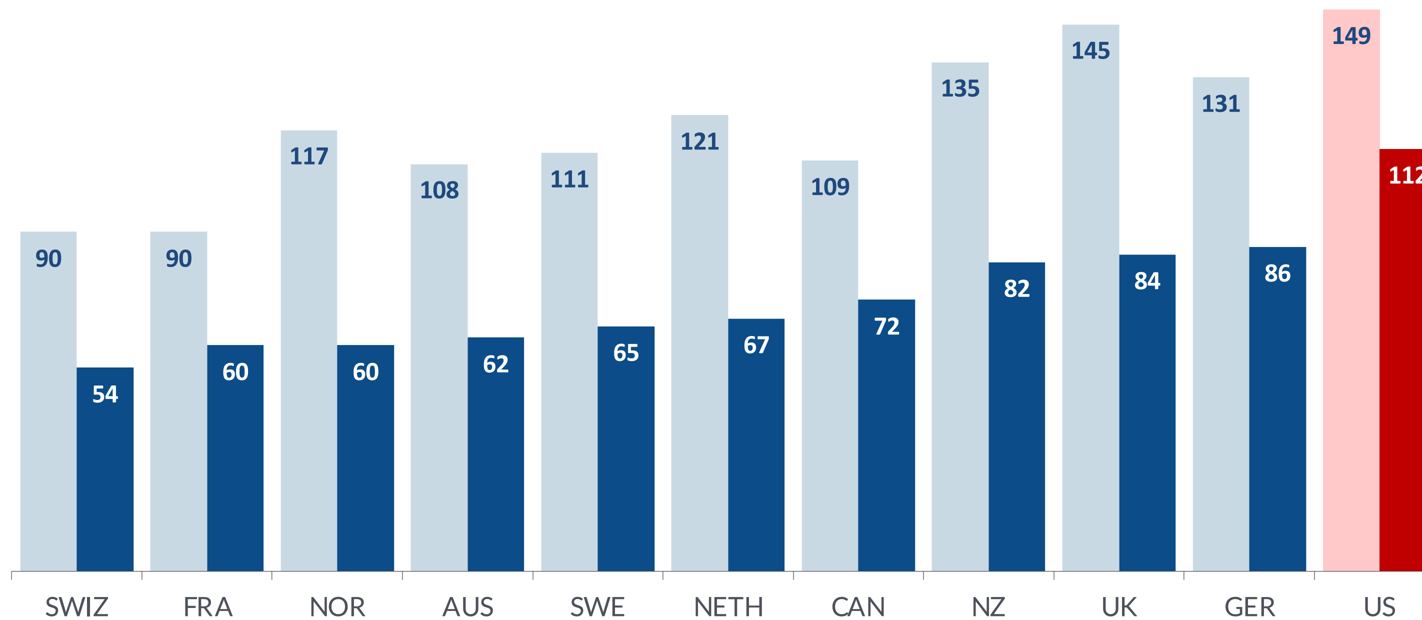
NATIONAL ECONOMIC EDUCATION DELEGATION

Source: 2011 Commonwealth Fund International Health Policy Survey of Sicker Adults in Eleven Countries.

Avoidable Deaths



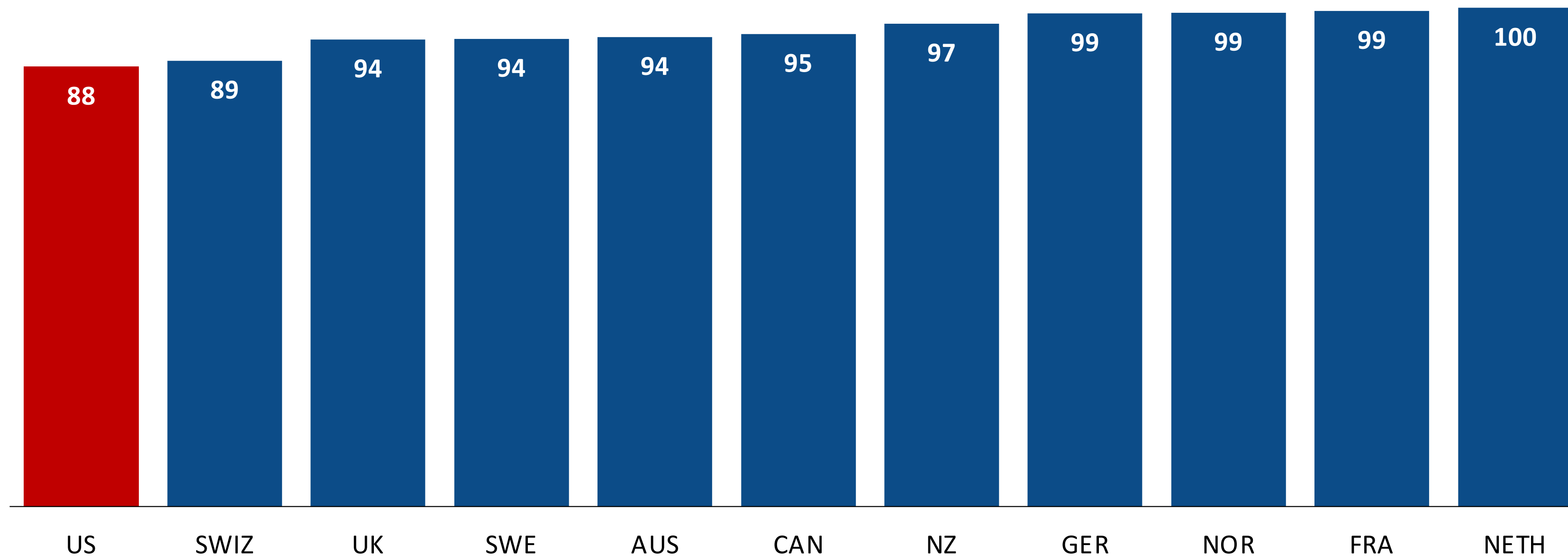
Deaths per 100,000 population.
Heart disease, stroke, hypertension…



NATIONAL ECONOMIC
EDUCATION DELEGATION

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

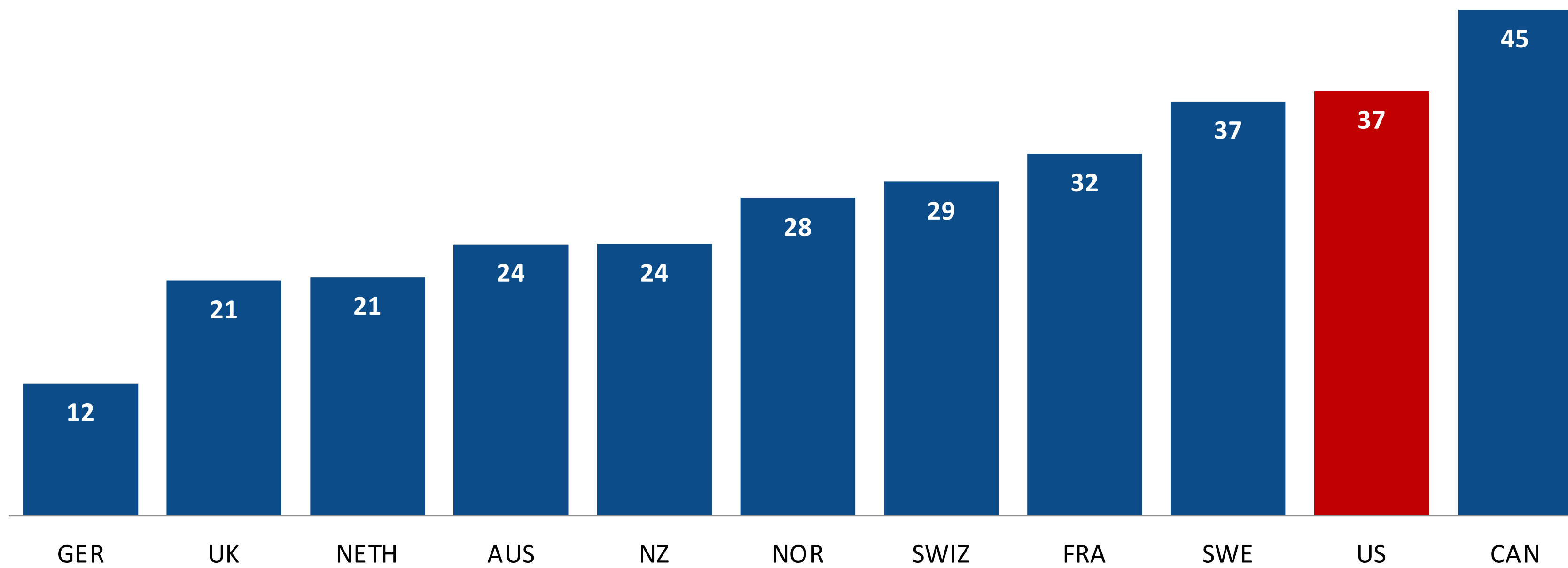
Percent of Women Ages 18–64 Who Reported Having A Regular Doctor/Regular Place of Care



NATIONAL ECONOMIC EDUCATION DELEGATION

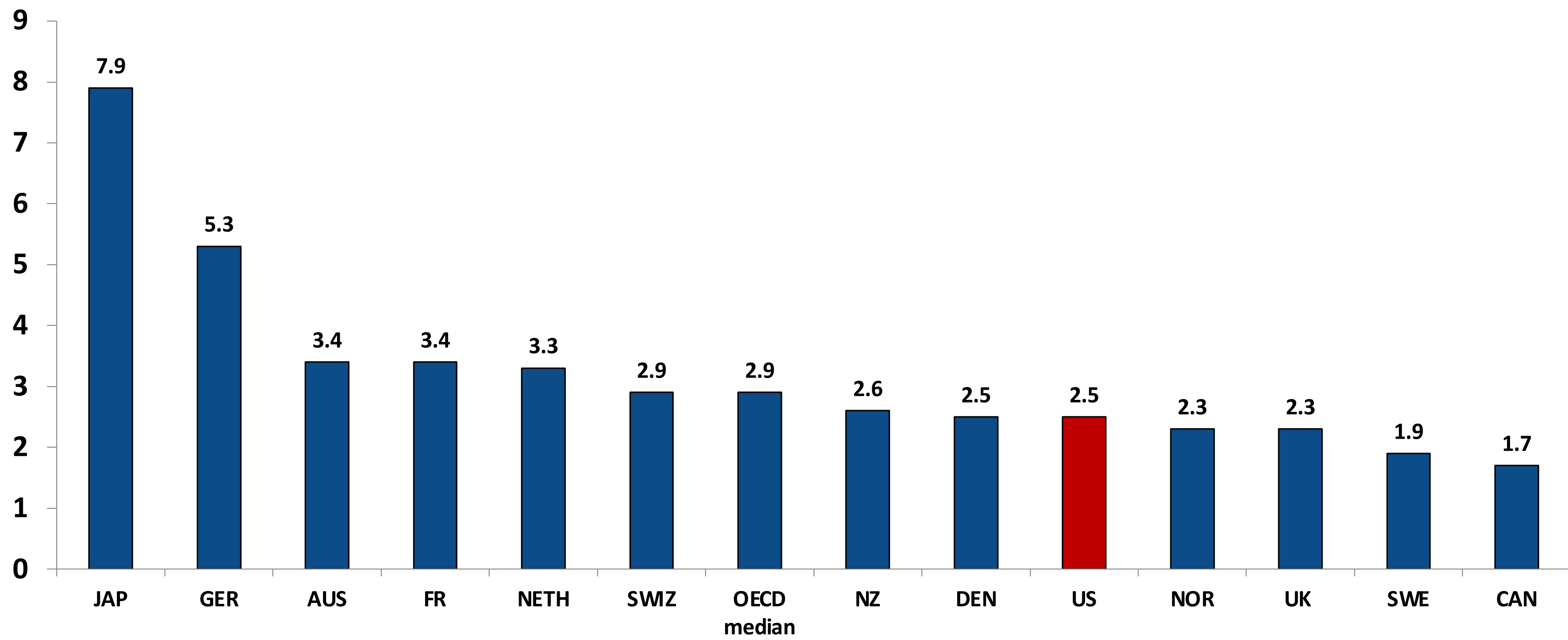
Source: Munira Z. Gunja et al., *What Is the Status of Women's Health and Health Care in the U.S. Compared to Ten Other Countries?* (Commonwealth Fund, Dec. 2018).

Percent of Women Ages 18–64 Who Reported Going to the Emergency Room in the Past Two Years



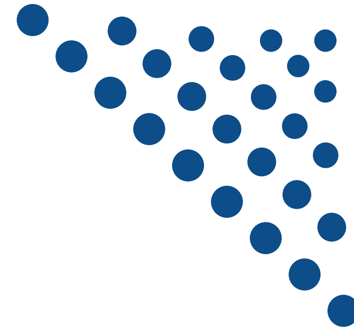
Source: Munira Z. Gunja et al., *What Is the Status of Women's Health and Health Care in the U.S. Compared to Ten Other Countries?* (Commonwealth Fund, Dec. 2018).

Acute Care Hospital Beds per 1,000 Population

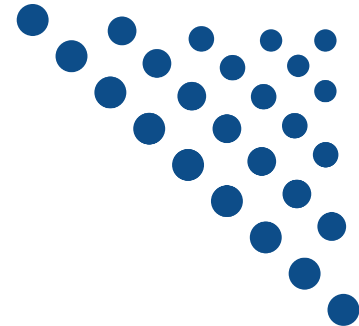


Source: OECD Health Data 2015.

Access Notes



- Insurance coverage in the United States 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 United States than elsewhere.
- Specialized medicine is more accessible.



Quality

Life Expectancy: How Does the US Compare?

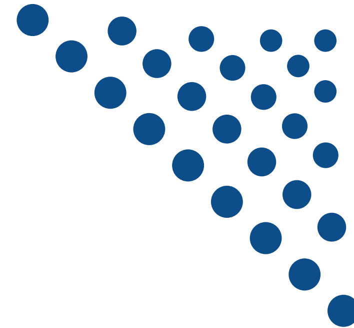
84
82
80
78
76
74
72
70
1980
1985
1990
1995
2000
2005
2010
2015
Everybody else
United States
SWIZ: 83.6
NOR: 82.7
FRA: 82.6
AUS: 82.6
SWE: 82.5
CAN: 82.0
NZ: 81.9
NETH: 81.8
UK: 81.3
GER: 81.1
US: 78.6

Germany – US = 2.5 years

NATIONAL ECONOMIC EDUCATION DELEGATION

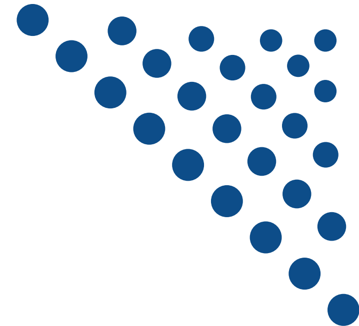
Source: Roosa Tikkanen and Melinda K. Abrams, *U.S. Health Care from a Global Perspective, 2019: Higher Spending, Worse Outcomes* (Commonwealth Fund, Jan. 2020).

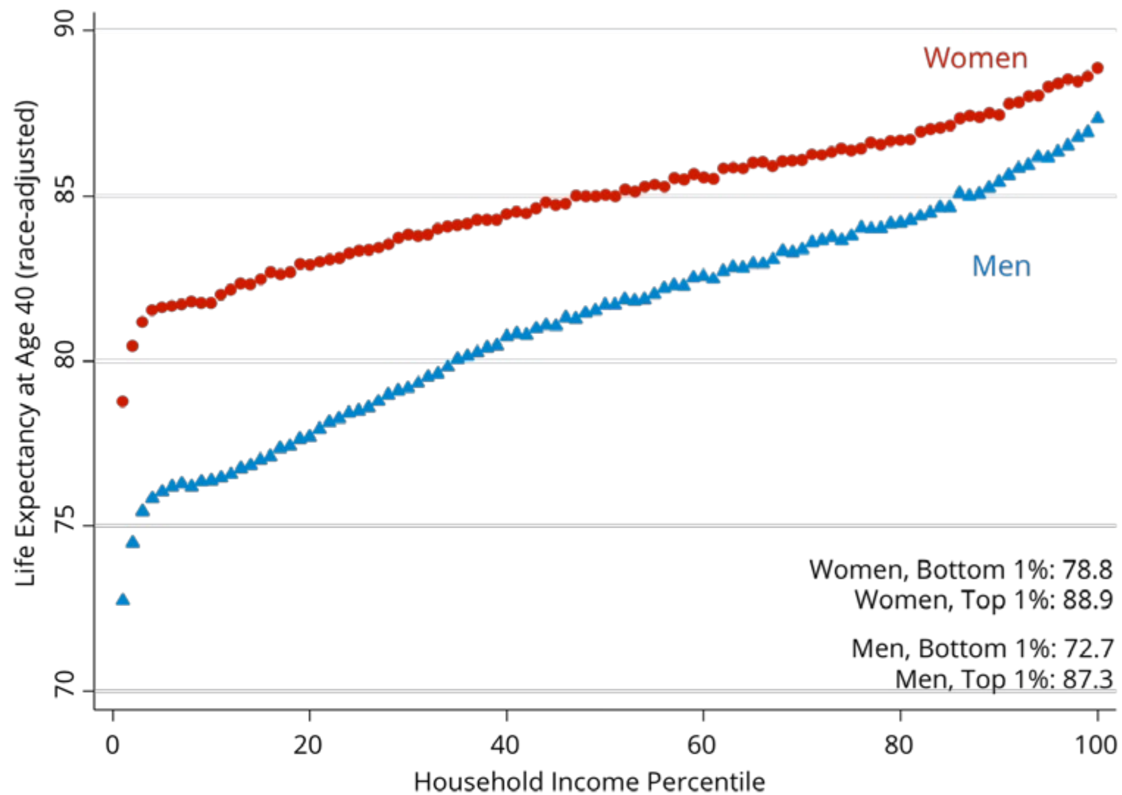
Life Expectancy at Birth by Race, 2017



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

Income Also Matters – Reflecting Access?



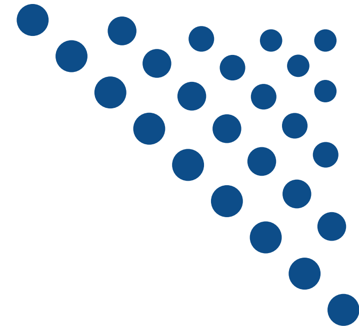


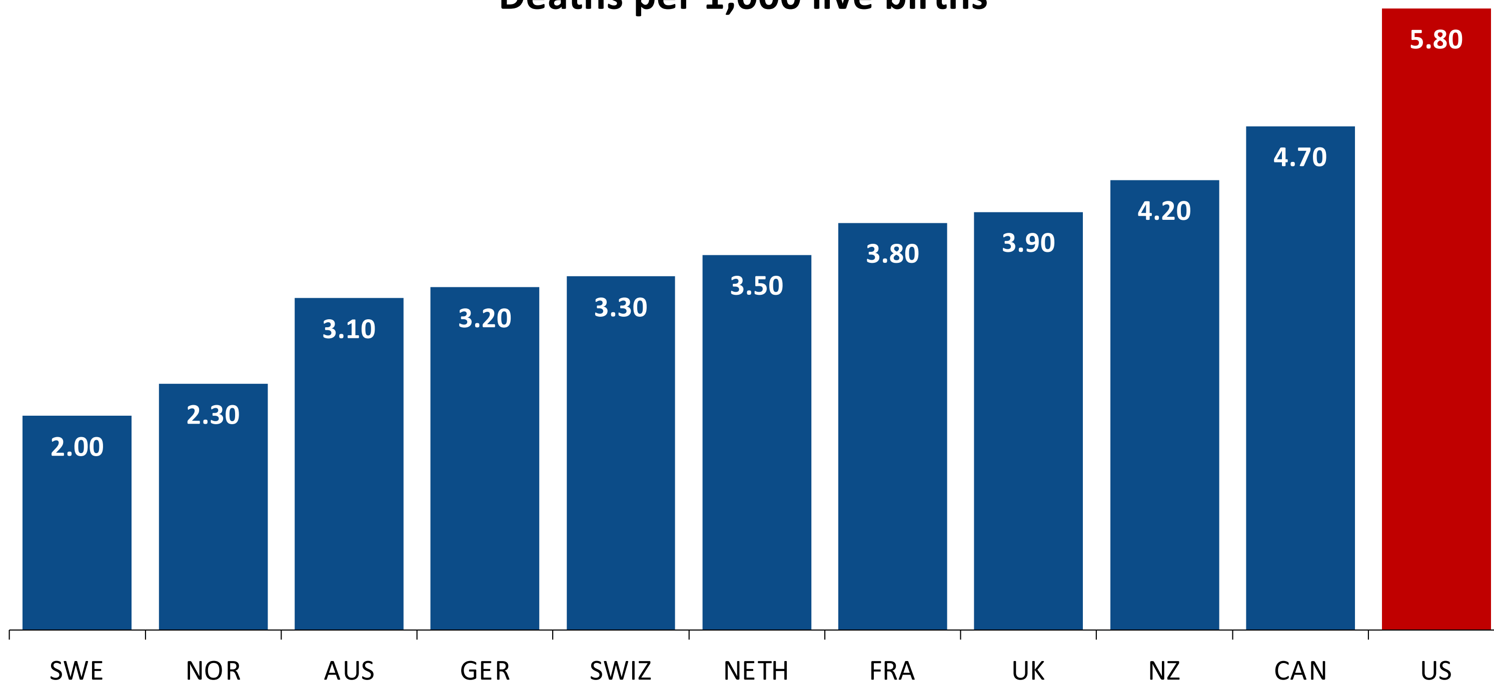
Men:
- 15-year difference
- Top to bottom

NATIONAL ECONOMIC EDUCATION DELEGATION

Source: https://healthinequality.org/documents/paper/healthineq_summary.pdf

Infant Mortality International Comparison

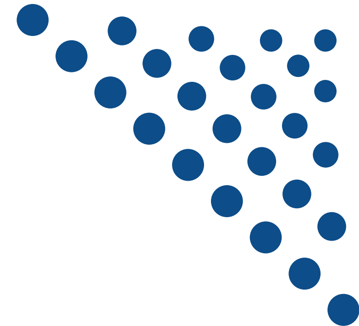


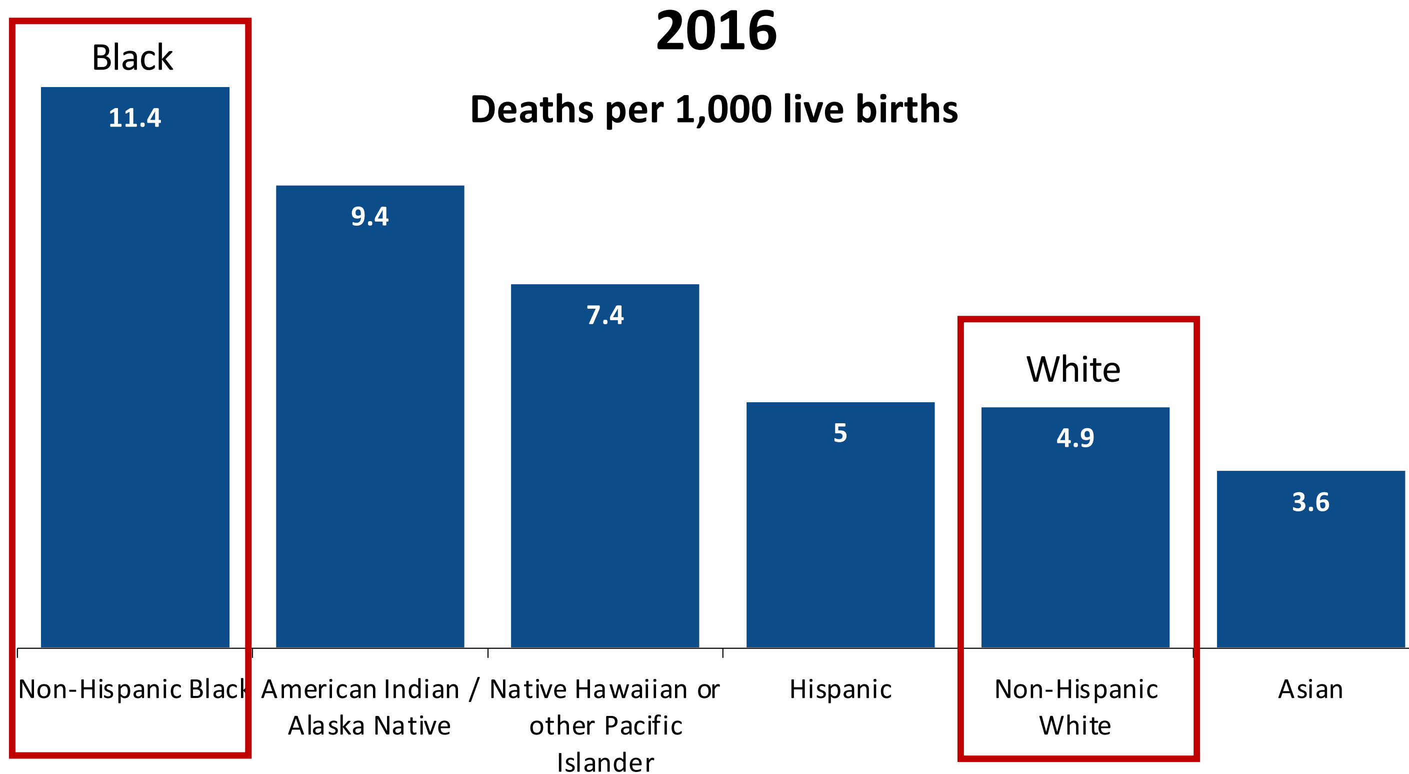


NATIONAL ECONOMIC EDUCATION DELEGATION

Source: NEED from OECD Data

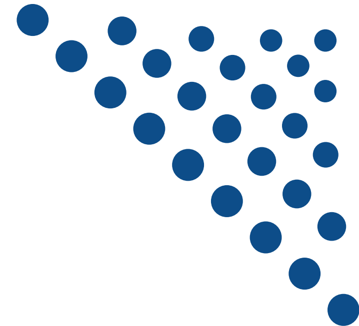
Infant Mortality by Race/Ethnicity



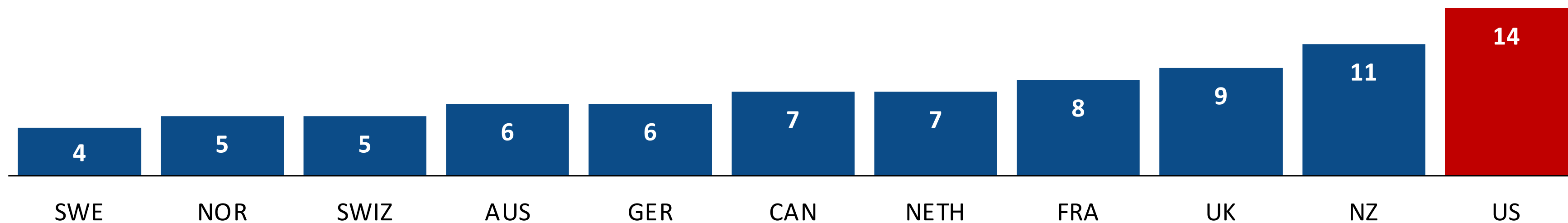


Source: NEED from CDC.gov

Maternal Mortality Rate



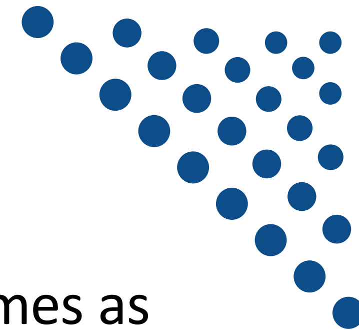
Maternal deaths per 100,000 live births.



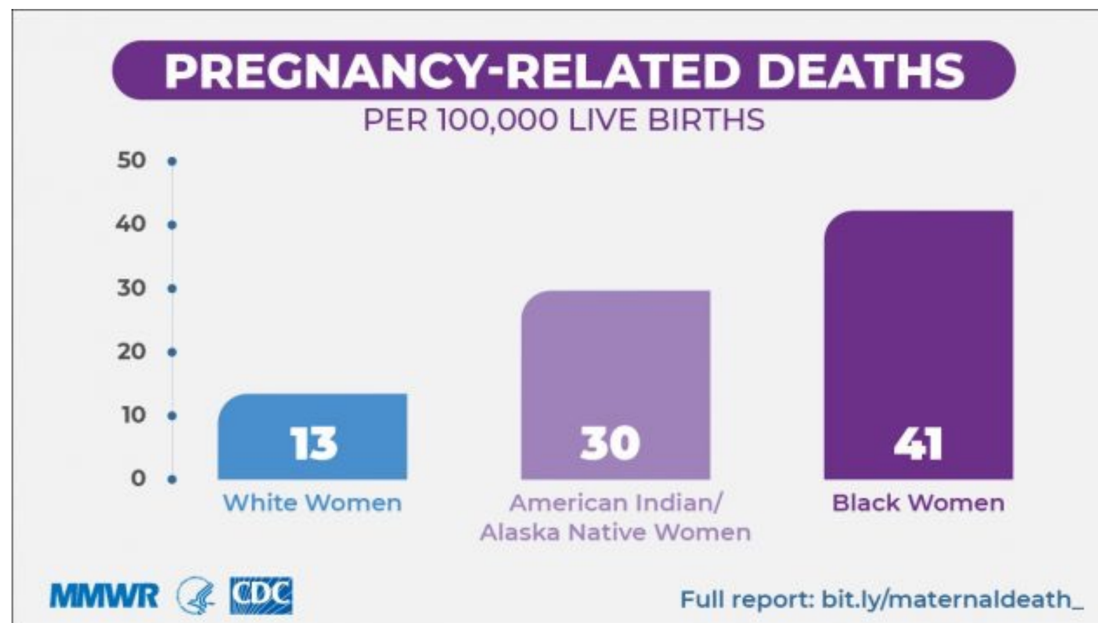
NATIONAL ECONOMIC
EDUCATION DELEGATION

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).

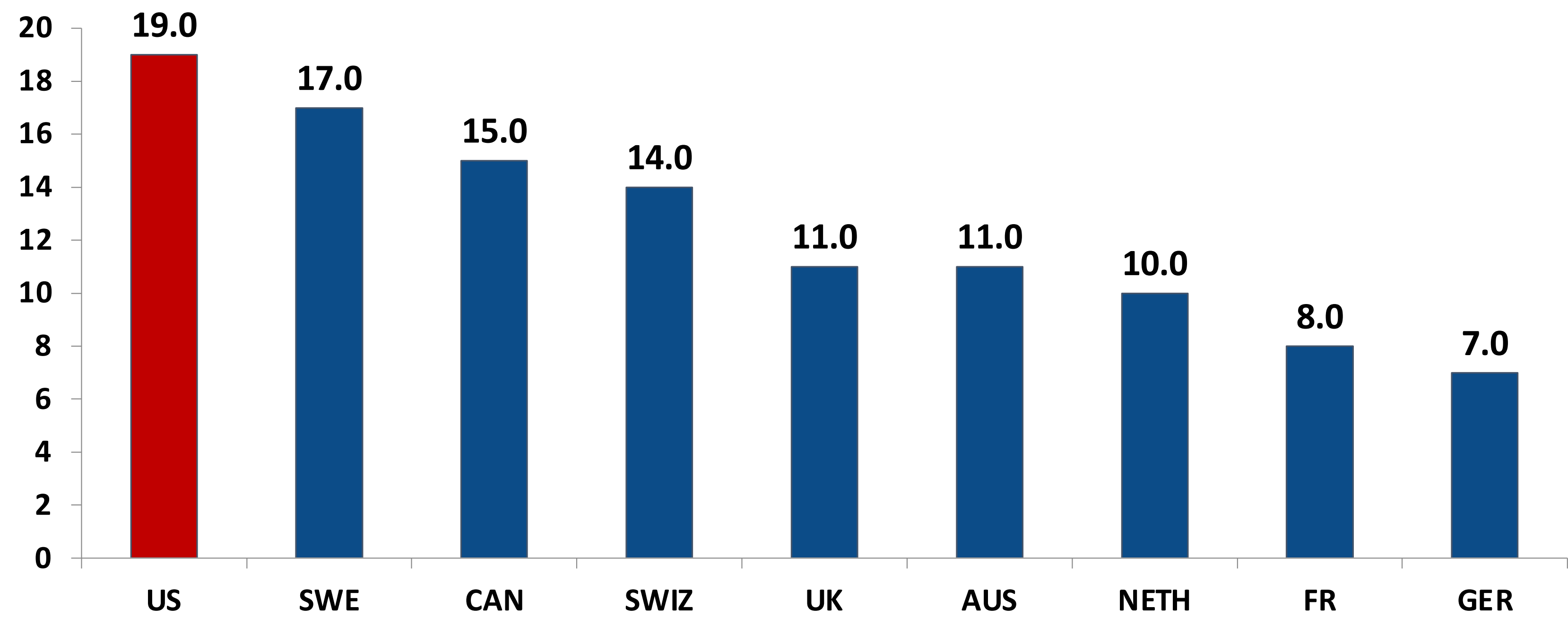
Maternal Mortality Rate by Race



- American Indian/Alaska Native and Black women are 2 to 3 times as likely to die from a pregnancy-related cause than white women.

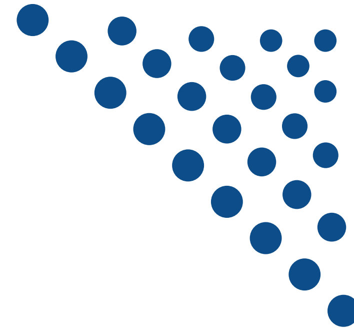


Percent of adults who have experienced medical, medication, or lab errors or delays



Source: 2016 Commonwealth Fund International Health Policy Survey.

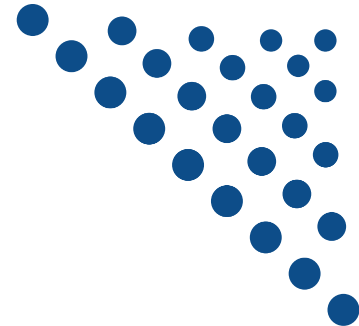
Prevention and Screening

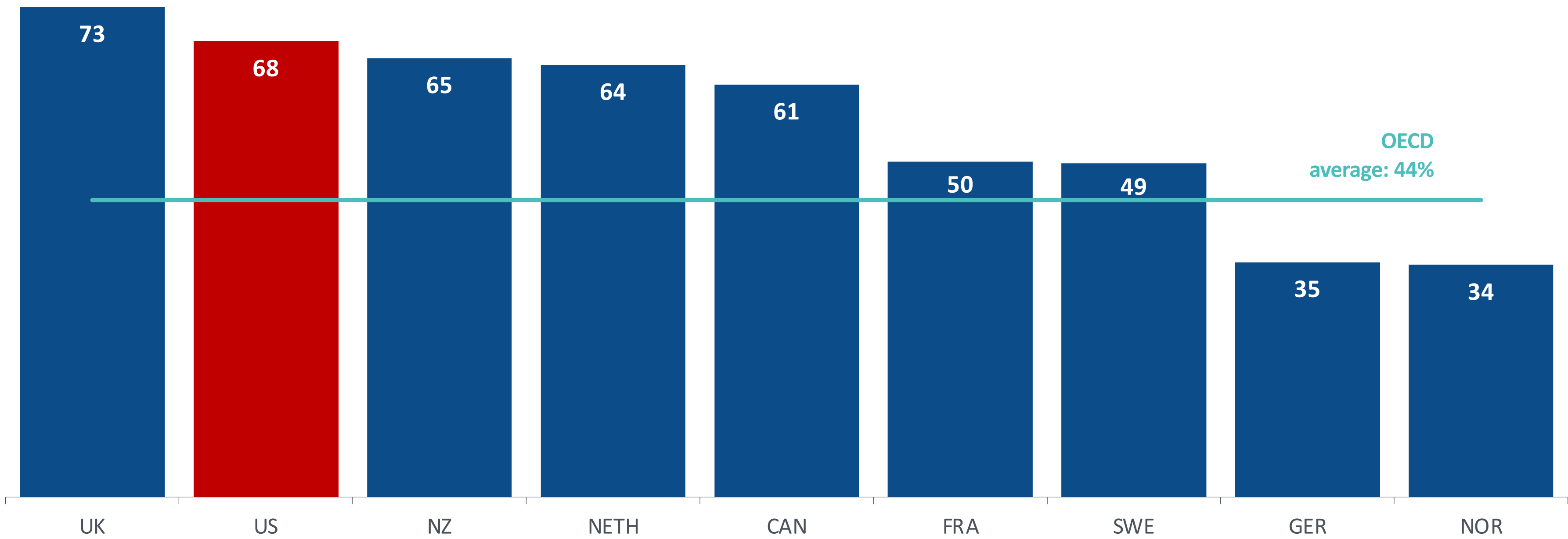


- The U.S. excels in **some** prevention measures:
  - including flu vaccinations and breast cancer screenings.

- The U.S. has:
  - The highest average five-year survival rate for breast cancer,
  - but the Lowest for cervical cancer.

Flu Immunization

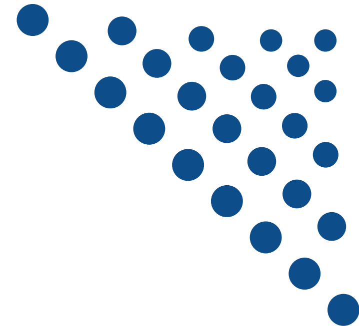




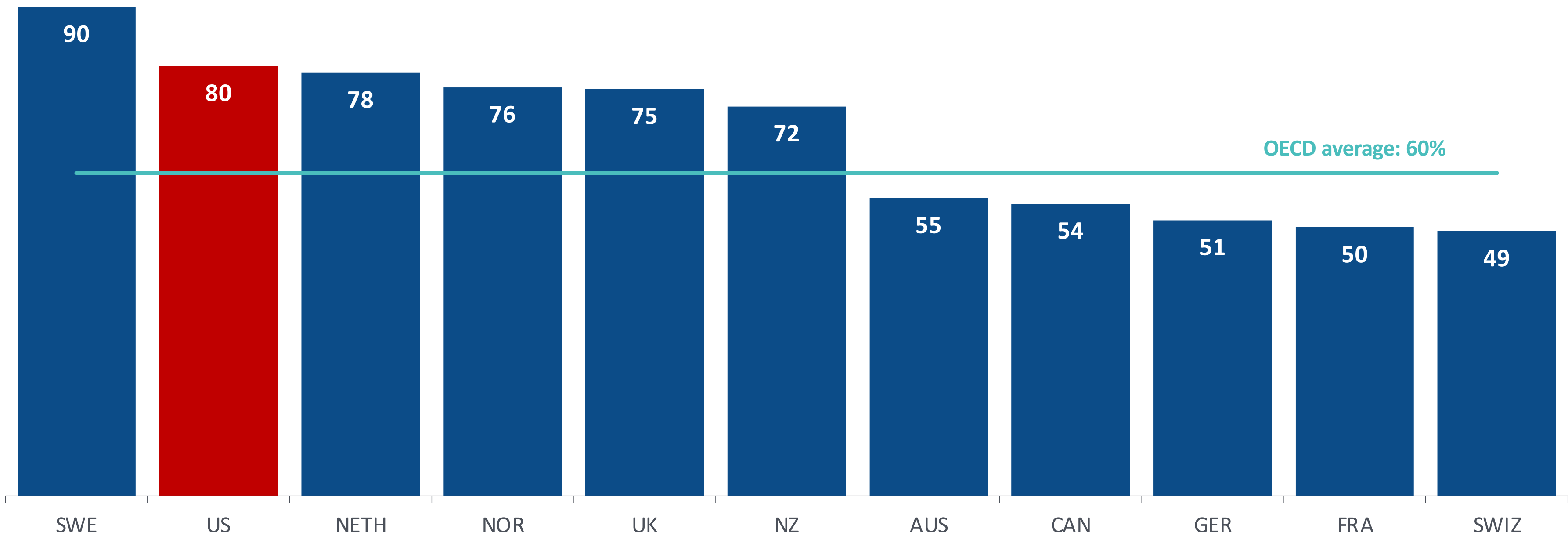
NATIONAL ECONOMIC EDUCATION DELEGATION

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

Breast Cancer Screening



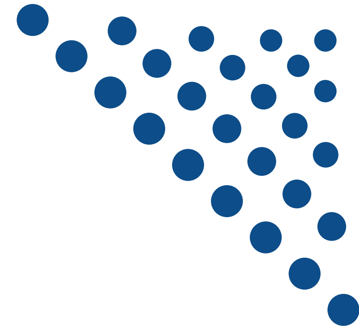
Percent of females ages 50–69 screened (%).



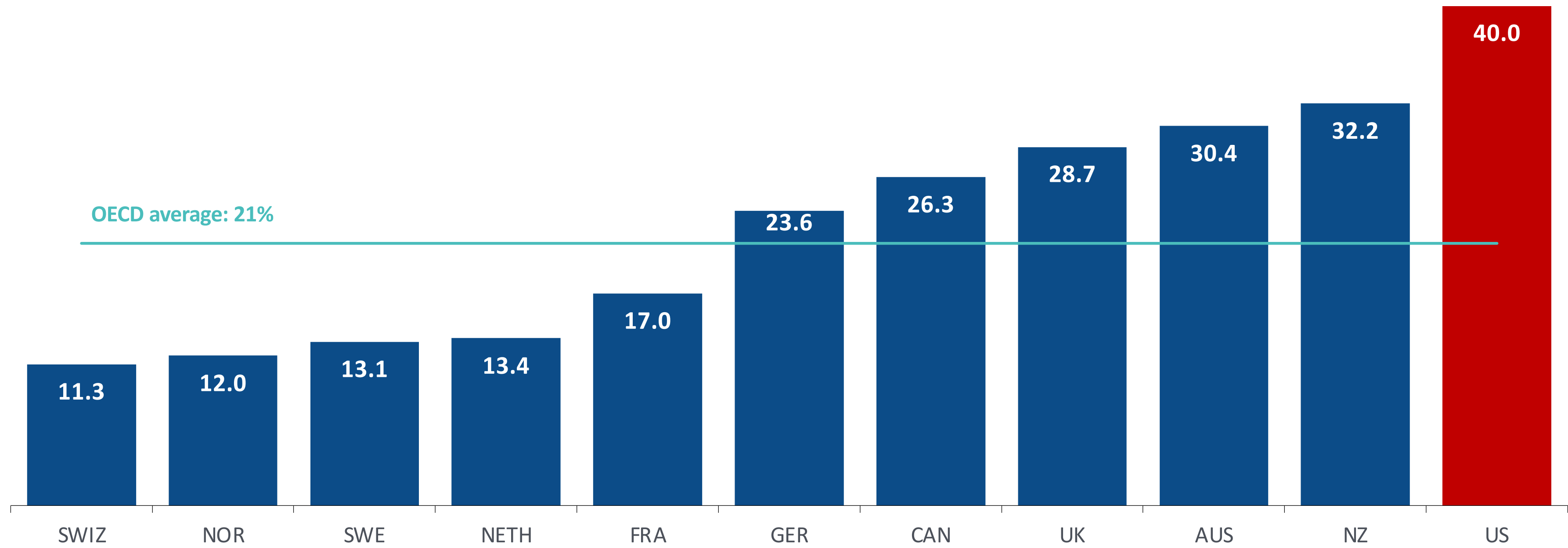
NATIONAL ECONOMIC
EDUCATION DELEGATION

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

Obesity Rate, 2017



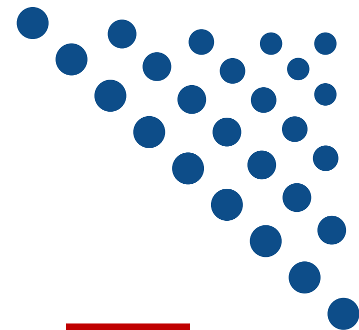
Percent (%)



NATIONAL ECONOMIC EDUCATION DELEGATION

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

Adults with Multiple Chronic Conditions, 2016



Percent (%)

Country	Percent (%)
NETH	14
UK	14
AUS	15
SWIZ	15
NOR	16
NZ	16
GER	17
FRA	18
SWE	18
CAN	22
US	28

11-country average: 17.5%

NATIONAL ECONOMIC EDUCATION DELEGATION

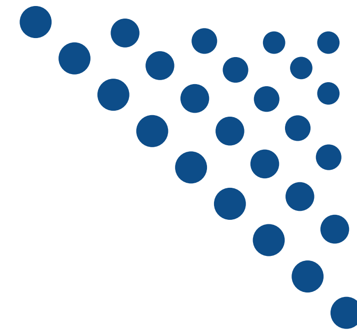
Source: Roosa Tikkanen and Melinda K. Abrams, *U.S. Health Care from a Global Perspective, 2019: Higher Spending, Worse Outcomes* (Commonwealth Fund, Jan. 2020).

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

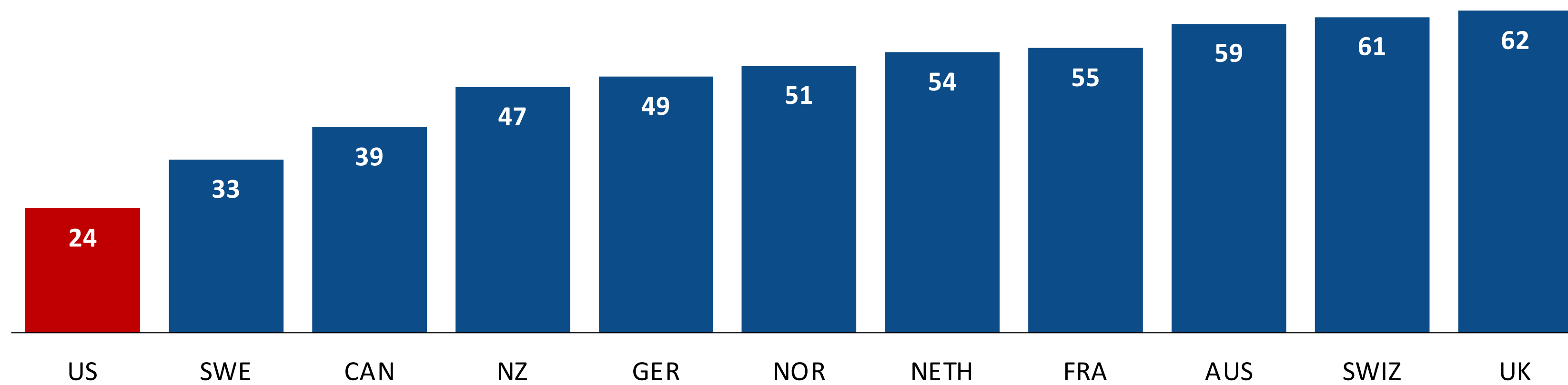
	Overall Ranking
1.	France
2.	Italy
3.	San Marino
4.	Andorra
5.	Malta
6.	Singapore
7.	Spain
8.	Oman
9.	Austria
10.	Japan

	Overall Ranking
30.	Canada
31.	Finland
32.	Australia
33.	Chile
34.	Denmark
35.	Dominica
36.	Costa Rica
37.	United States
38.	Slovenia
39.	Cuba

Perception of Quality of Medical Care

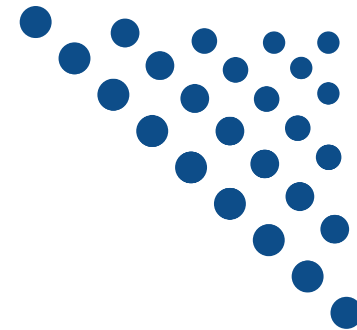


*Percent of women ages 18–64 who rated their quality of medical care as **excellent or very good**.*



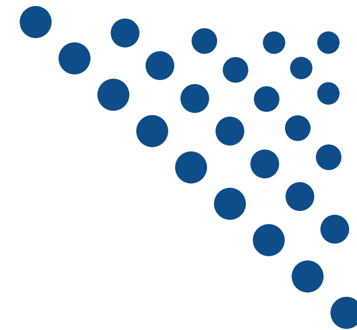
Source: Munira Z. Gunja et al., *What Is the Status of Women's Health and Health Care in the U.S. Compared to Ten Other Countries?* (Commonwealth Fund, Dec. 2018).

Quality of Care Notes

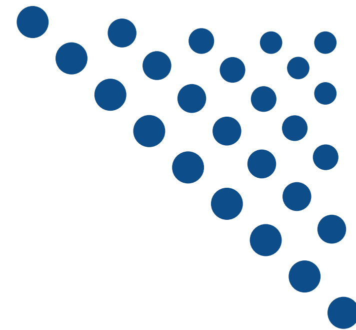


- Metrics of quality in the U.S. are not very good.
- Quality of care is not considered very good in the U.S.
- The system has challenges: obesity/lifestyle.
- The system has bright spots!

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.
- The U.S. has among the highest # of **hospitalizations from preventable causes.**
  - And the highest rate of avoidable deaths.
- Americans use some **expensive technologies more often than our peers.**
  - MRIs, and specialized procedures, such as hip replacements.
- The U.S. outperforms its peers in terms of **preventive measures.**
  - One of the highest rates of breast cancer screening among women ages 50 to 69.
  - Second-highest rate (after the U.K.) of flu vaccinations among people age 65 and older.

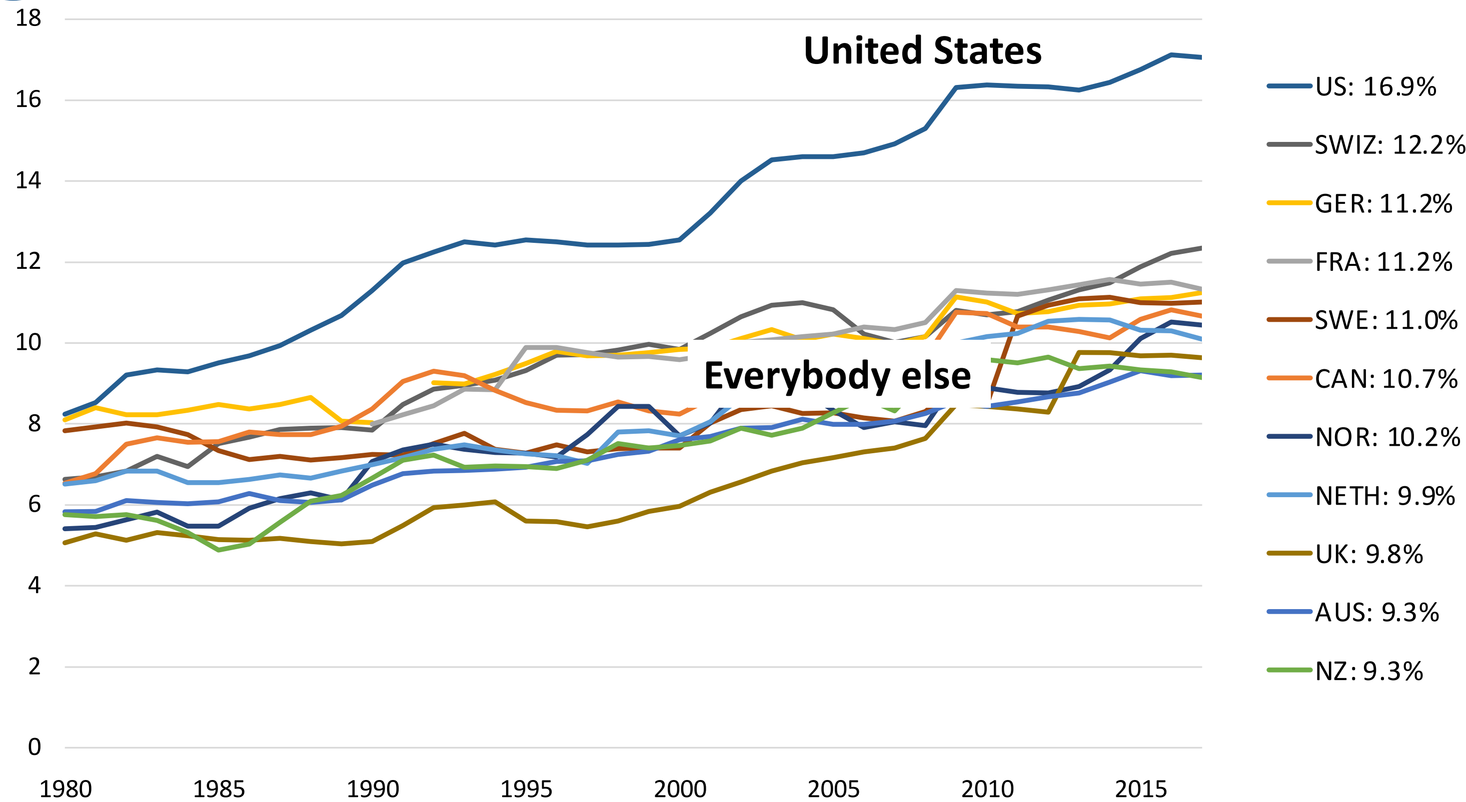


Costs

National Health Expenditure as Percent of GDP

Total Expenditures in 2019: $3.8 Trillion

Health Care Spending as % of GDP, 1980–2018



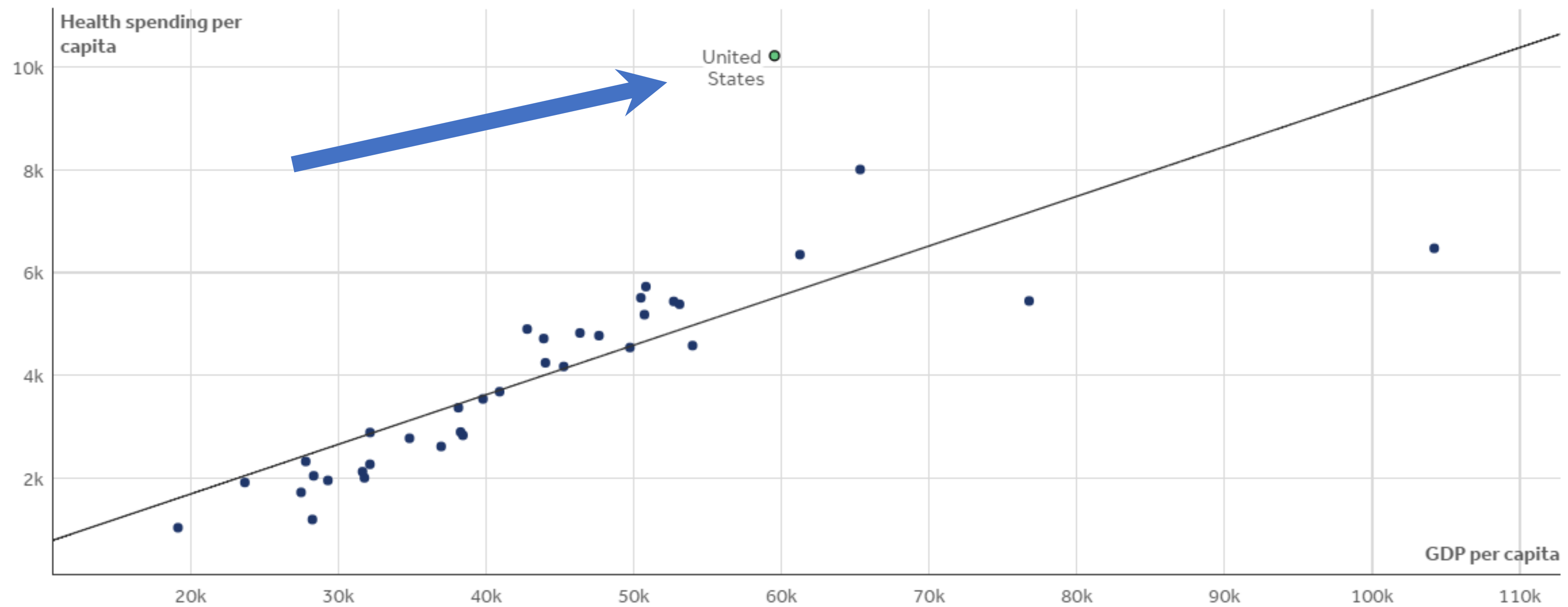
NATIONAL ECONOMIC EDUCATION DELEGATION

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

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?

GDP per Capita and Health Spending per Capita, 2017

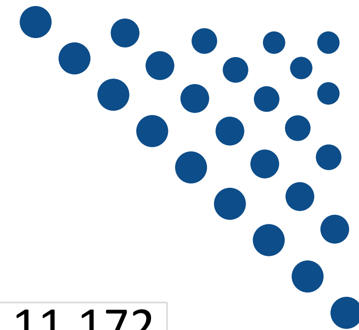


Notes: U.S. value obtained from National Health Expenditure data. Health consumption does not include investments in structures, equipment, or research.

Source: KFF analysis of OECD and National Health Expenditure (NHE) data • Get the data • PNG

Peterson-KFF Health System Tracker

National Healthcare Expenditure Per Capita



12000
10000
8000
6000
4000
2000
0

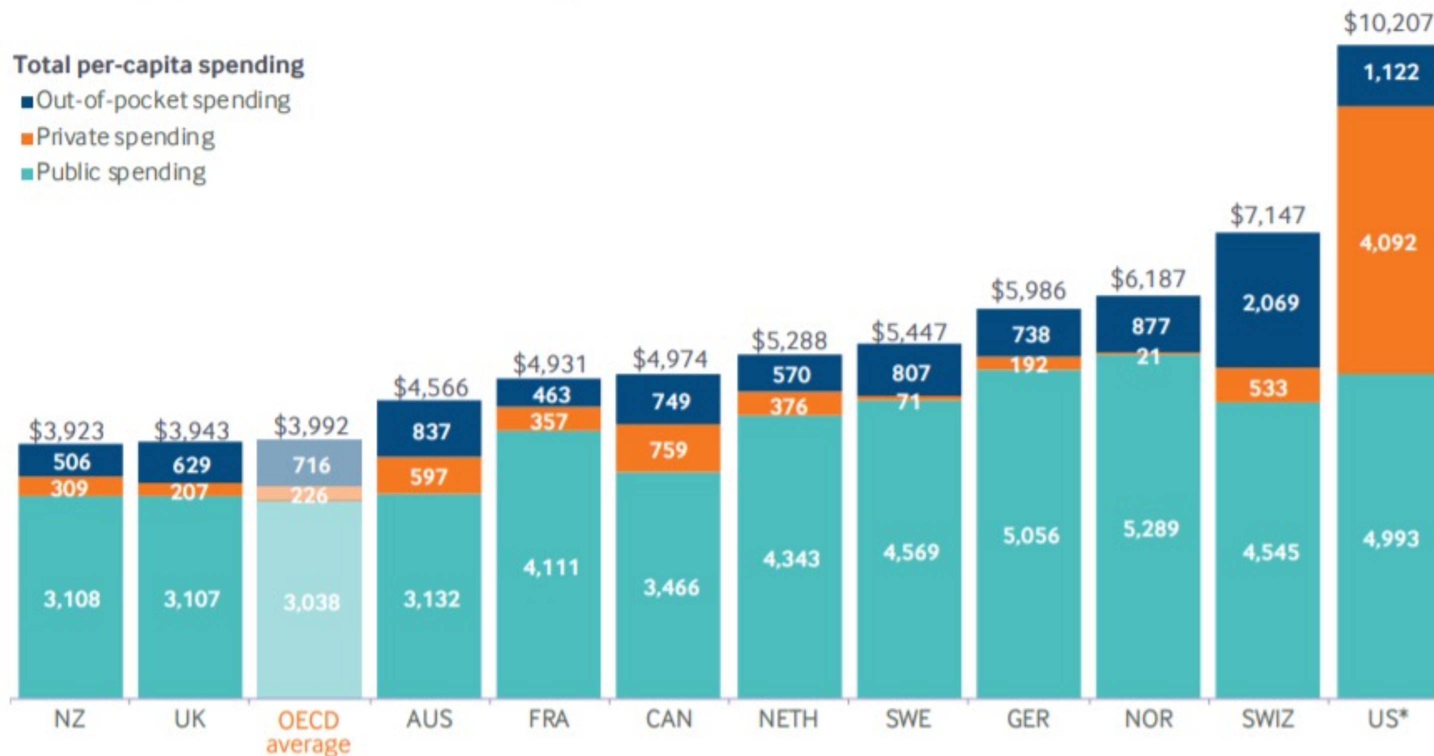
2018 Dollars

1960 1970 1980 1990 2000 2010 2020

1,239

11,172

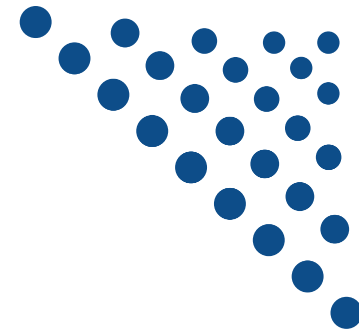
International Per Capita Healthcare Spending



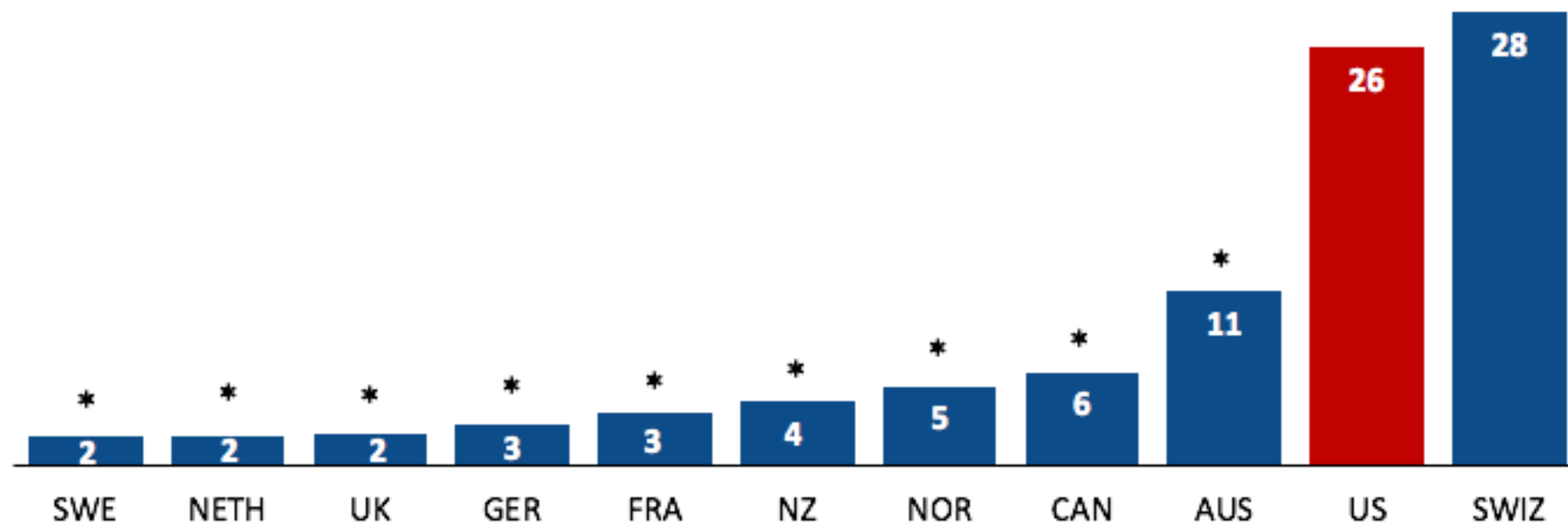
NATIONAL ECONOMIC
EDUCATION DELEGATION

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

Out-of-Pocket Costs



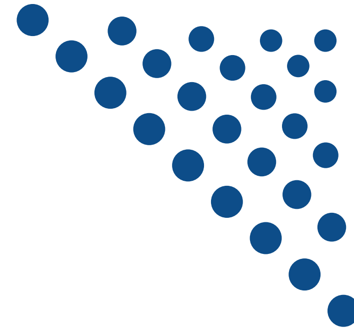
Percent of women ages 18–64 with out-of-pocket costs of $2,000 or more.



NATIONAL ECONOMIC EDUCATION DELEGATION

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).

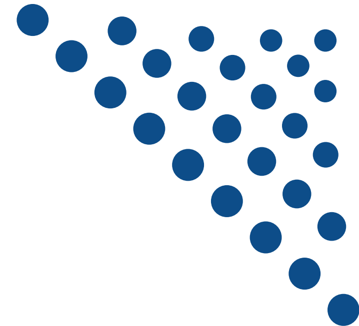
Why Are Costs so High in the US?



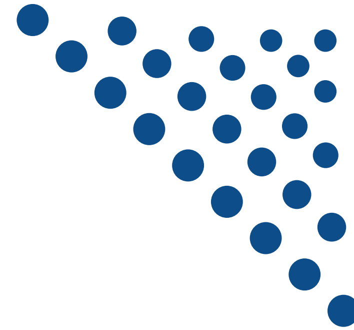
One Reason:

The United States is the only

profit-motivated healthcare system in the world.

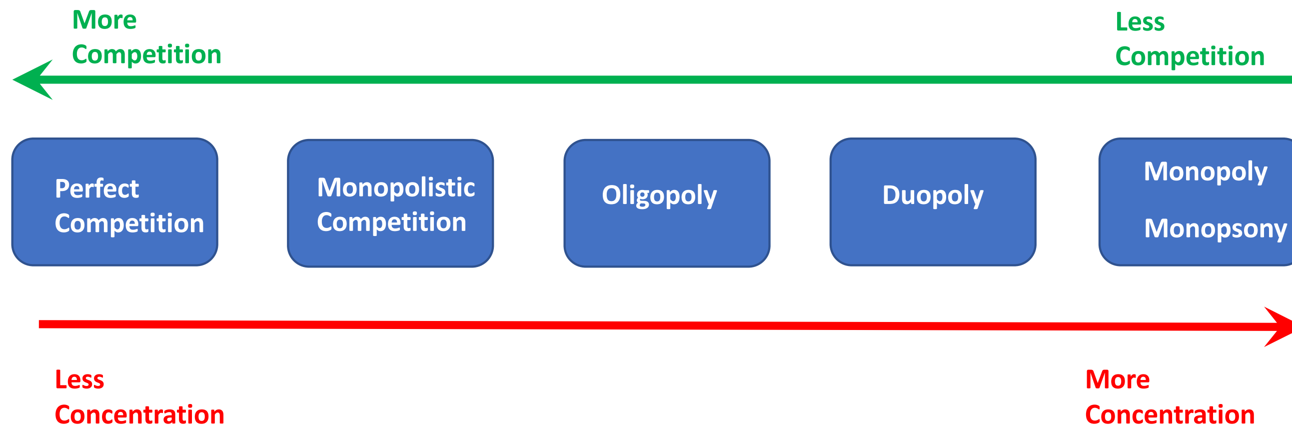


Markets Matter for Costs

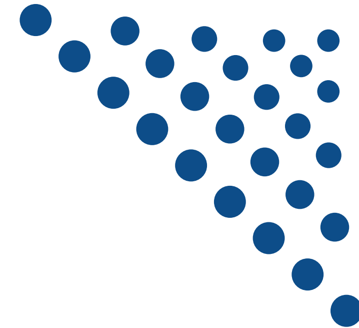


What types of markets are there?

The important thing: competition very often means lower prices!

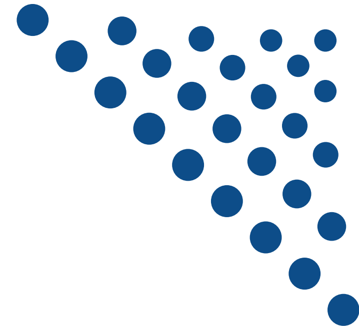


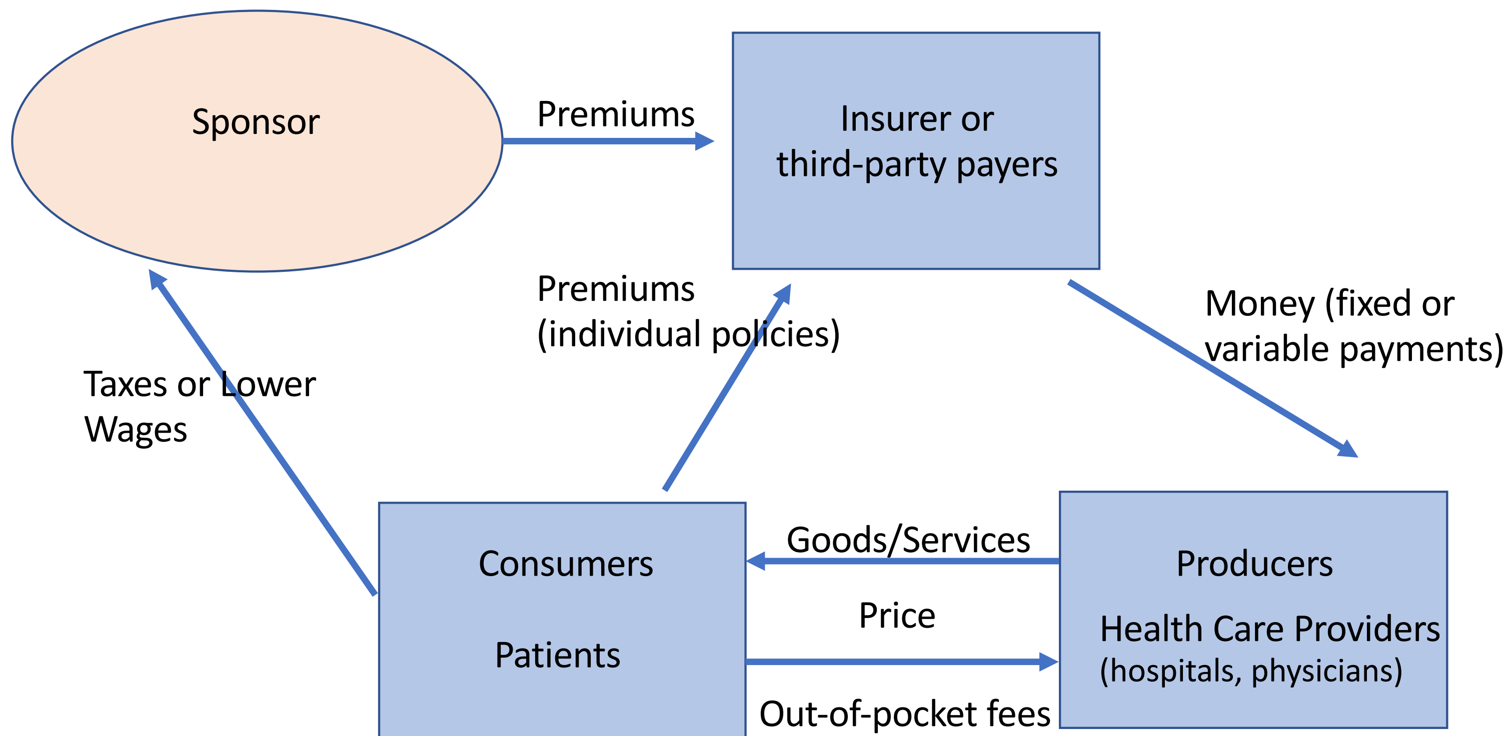
Are Health Care Markets Special?

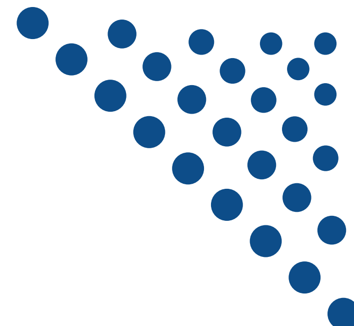


- Market Structure
- Types of products and services
- Principal-Agent Problem
- Asymmetric Information
- Moral Hazard
- Moral Imperative (?)

Health Care Markets are Different

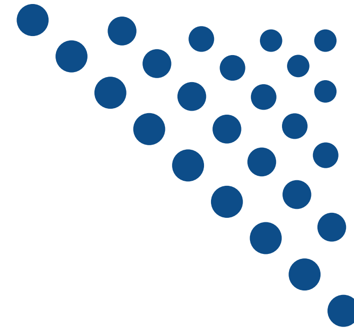






Policy Matters for Costs

Hospital Monopolization

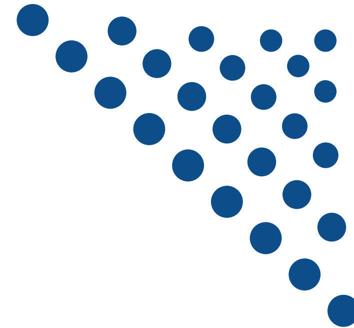


- Market consolidation among and between health systems, hospitals, medical groups, and health insurers has surged over the last decade.
- Over an 18-month period between July 2016 and January 2018:
  - Hospitals acquired 8,000 more medical practices.
  - 14,000 more physicians left independent practice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

Figure 10. **U.S. Hospitals' Average Charge-to-Cost Ratio, 1999 – 2018**

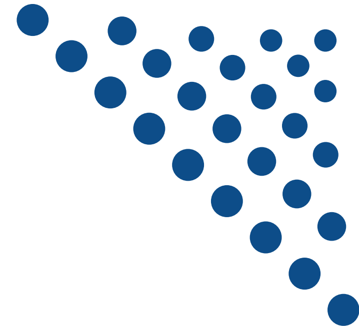
Year	Charge-to-Cost Ratio
1999	200.01%
2000	209.15%
2001	218.24%
2002	231.72%
2003	243.88%
2004	253.23%
2005	260.05%
2006	267.26%
2007	274.22%
2008	282.15%
2009	295.88%
2010	309.75%
2011	331.60%
2012	341.86%
2013	352.90%
2014	368.50%
2015	381.97%
2016	394.72%
2017	408.27%
2018	417.29%

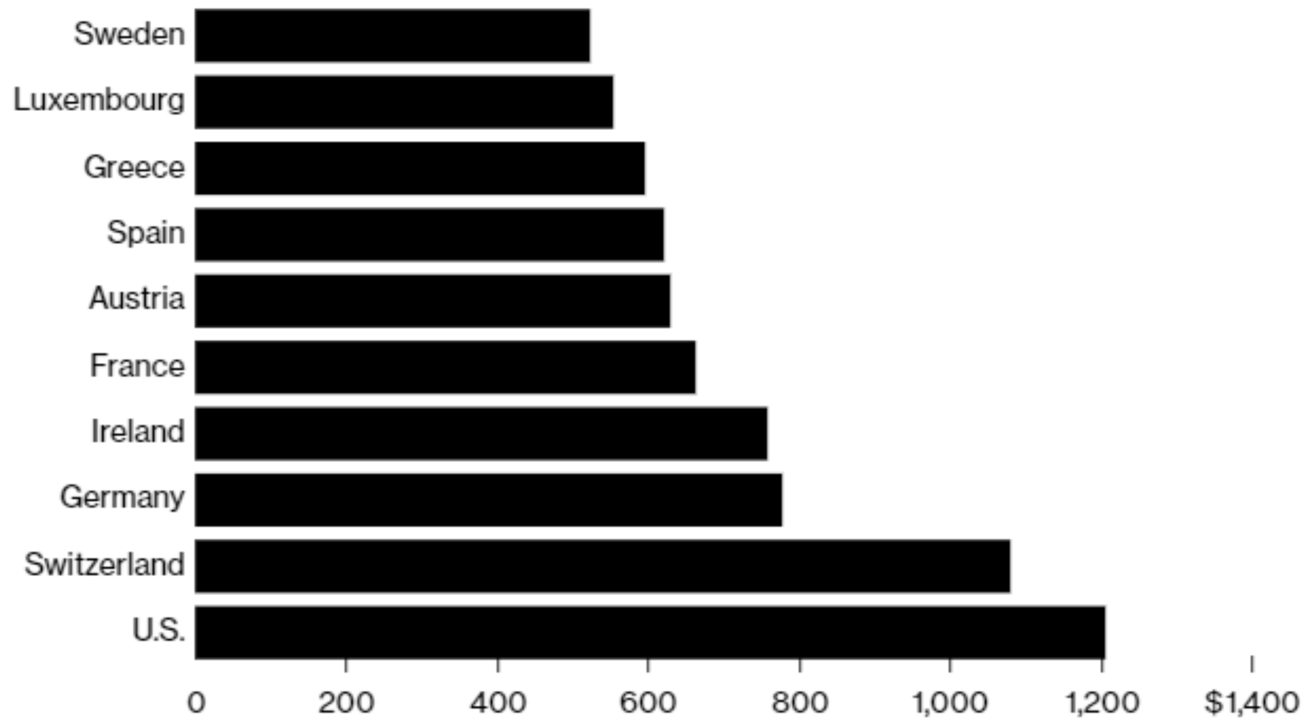
Hospital Monopolization Across the Nation



- Hospitals Charge Patients More Than Four Times the Cost of Care.
- The most expensive hospitals charge-to-cost ratios range from 1,808% at the high end to 1,129% at the low end.
- 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.

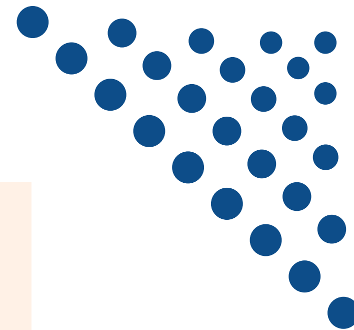
Spending on Pharmaceuticals





Source: Organisation for Economic Co-operation and Development

Drug Prices: Trends Over Time



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

Selected countries ($)

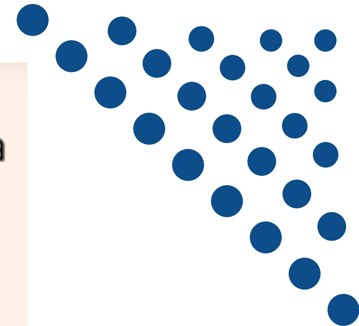
US
Switzerland
Germany
Canada
France
UK
Australia
Sweden

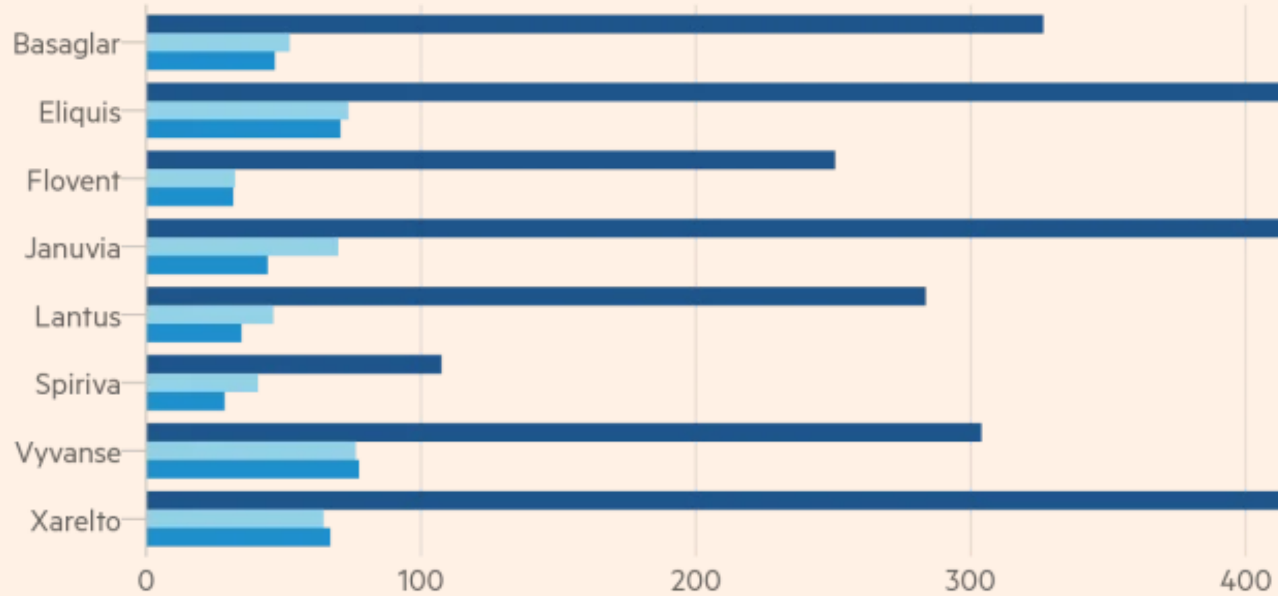
1,000
800
600
400
200
0

1980
85
90
95
2000
05
10
15

* Figures relate to prescription drugs, not hospital spending

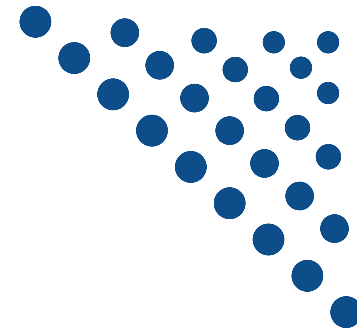
NATIONAL ECONOMIC
EDUCATION DELEGATION





NATIONAL ECONOMIC
EDUCATION DELEGATION

Drug Price Comparisons



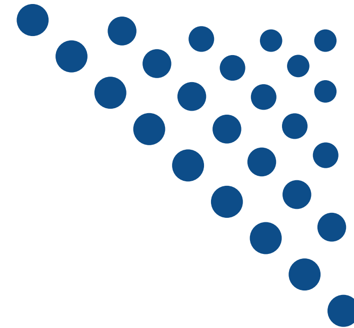
Drug Prices for 30 Most Commonly Prescribed Brand-Name and Generic Drugs, 2006–07
US is set at 1.00

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

NATIONAL ECONOMIC EDUCATION DELEGATION

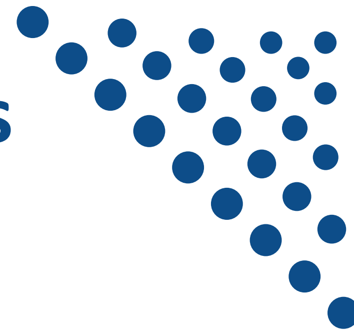
Source: IMS Health; analysis by Gerard Anderson, Johns Hopkins University.

Medicare Modernization Act



- Prescription Drug Component
- Medicare Part D, **by law**, can**not** 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**.

Concentration in Pharmaceutical Companies



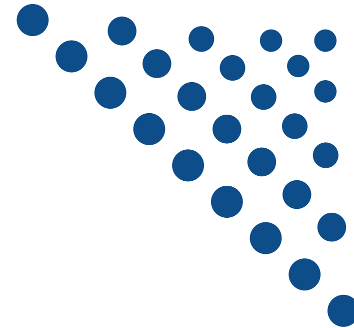
- The number of mergers and acquisitions involving one of the top 25 firms more than doubled:
  - 29 in 2006 to 61 in 2015

- Between 1995 and 2015, 60 drug companies merged into 10.

Price Hikes

- **Turing Pharmaceuticals' 5,555% price increase of Daraprim in 2015 and Mylan's 500% increase of EpiPen prices…**
- **More than 3,400 drugs 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 boosted their prices by more than 100% in 2019.**
- **Over 10 years, 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.
  - Prohibits government negotiation of lower prices.
  - IRA authorizes Medicare to negotiate over a growing list of pharmaceuticals
    - 10 in 2026, another 15 in 2027, another 15 in 2028…
    - Could save $237B over 10 years.

- Growing concentration of pharmaceutical companies.

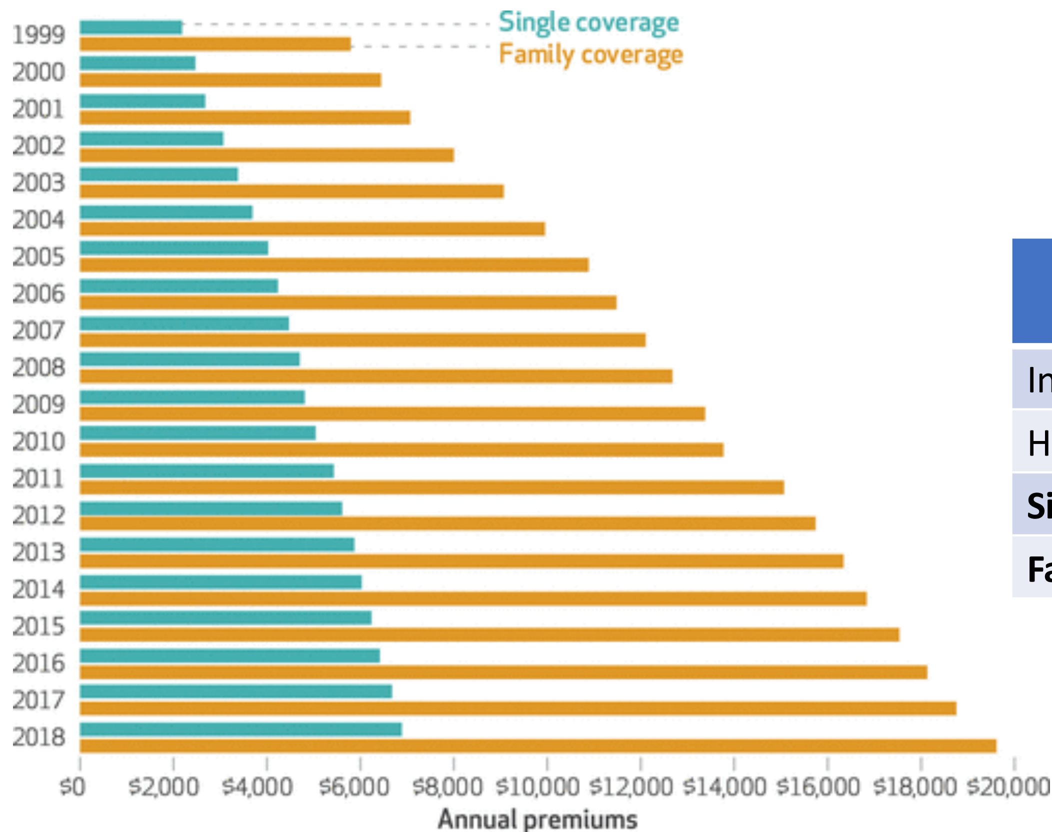
Source: https://www.kff.org/medicare/issue-brief/explaining-the-prescription-drug-provisions-in-the-inflation-reduction-act/

Monopolization of Health Insurance Markets

- 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. (CA had 11)
- As of July 2019, the number of states with only 1 or 2 insurers had increased from 11 to 20.

Average Annual Insurance Premiums, 1999-2018

Employer provided, Not Adjusted for Inflation

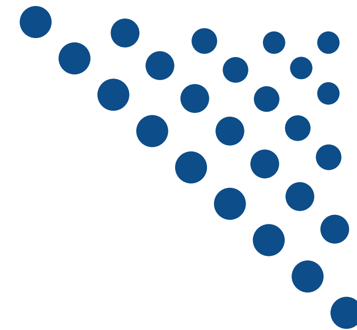


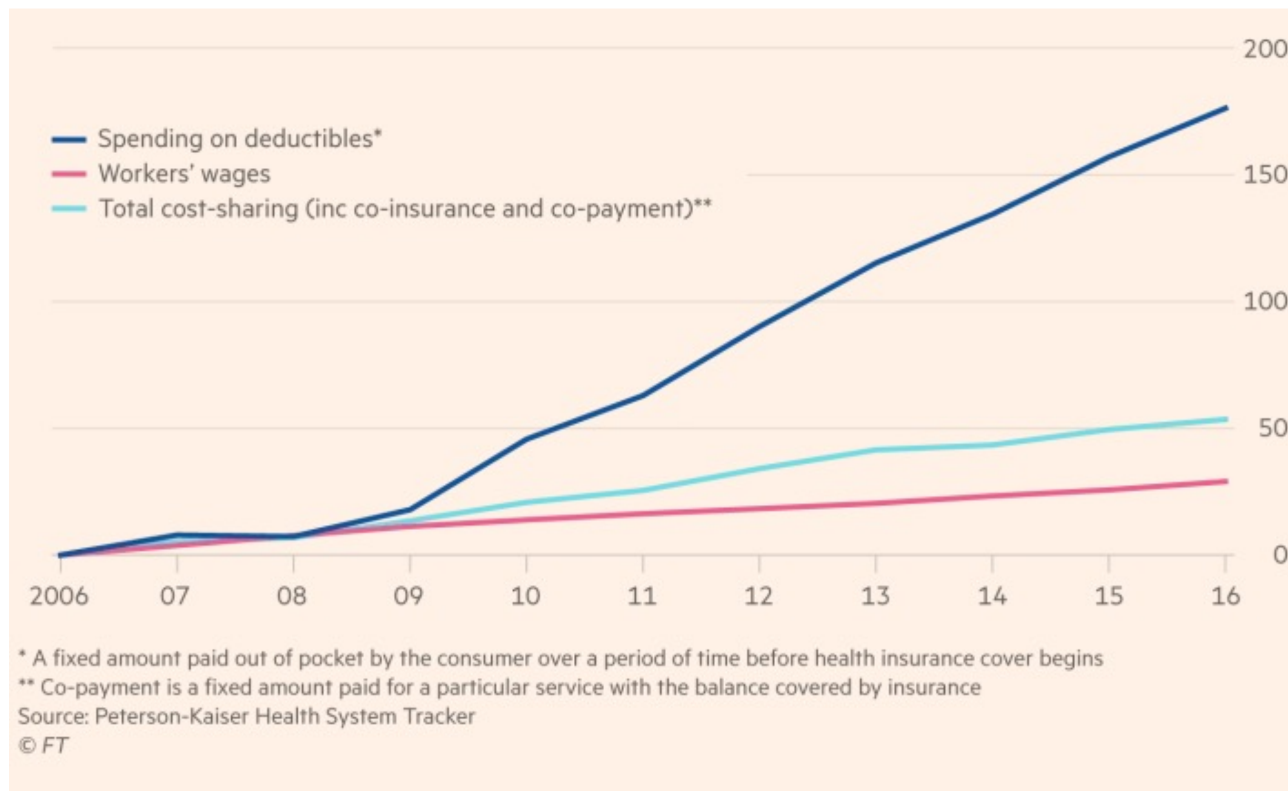
Single: ~$2,000 to ~$7,000
Family: ~$5,900 to ~$19,500

	Average Annual Rate of Change
Inflation	2.19
Health Care CPI	3.68
Single coverage	**6.51**
Family coverage	**6.52**

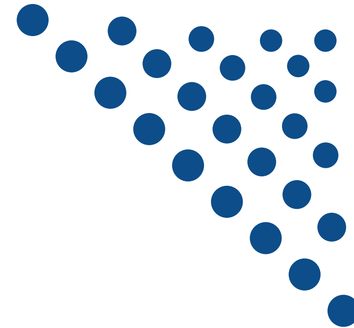
Source: The Commonwealth Fund

Spending on Deductibles

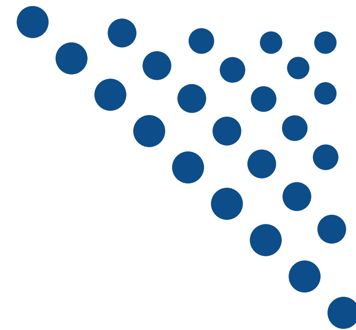




Reason for Higher Health Insurance Rates

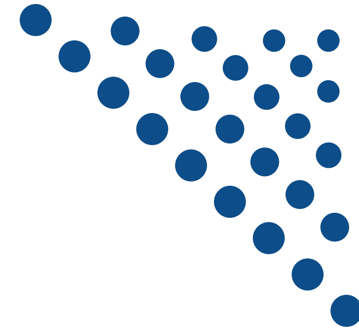


- Rising prices in the health sector
- Advances in medical technologies
- Increased demand for services
- Concentration of insurance companies



Health Care Systems and Institutions

Definition: Universal Coverage



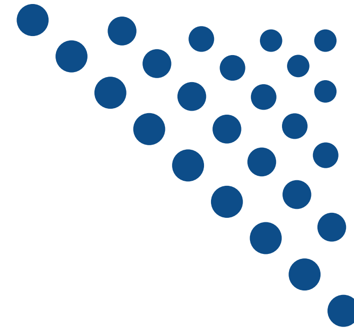
- **Universal coverage –** refers to health care systems in which ***all*** individuals have insurance coverage.
- Generally, this coverage includes:
  - Access to all needed services and benefits.
  - Protects individuals from excessive financial hardships.
    - Medical indebtedness is the #1 cause of bankruptcies in the United States.
- Canada has universal coverage, the United States does not.

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.
  - Not necessarily the government.
- 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.

Good reading: https://www.urban.org/sites/default/files/publication/99918/pros_and_cons_of_a_single-payer_plan.pdf

Definition: Socialized Medicine

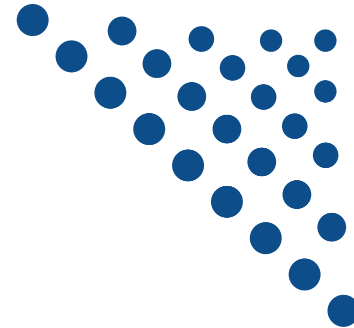


- **Socialized medicine** – this model takes the single-payer system one step further.
  - Government not only pays for health care but operates the hospitals and employs the medical staff.

- This has NEVER been a part of the debate in the United States.

Good reading: https://www.americanprogress.org/article/the-specter-of-socialized-medicine/

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

Health System Classification

- **Developed countries of the world have each taken a different approach for their health care delivery systems.**
- **5 basic models:**

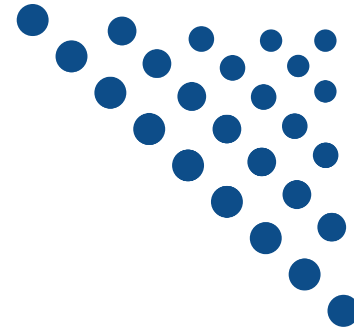
- Bismarck	(France, Germany, Japan, Switzerland)
- Beveridge – socialized medicine	(United Kingdom, Spain, New Zealand)
- National health insurance	(Canada)
- Out of pocket model – self insurance	
- Mixed	(United States)

Model 1: Bismarck

- **In this model, health insurance is paid for through PREMIUMS.**
  - Everybody must have insurance, only poor don’t have to pay premiums.
  - Premiums are paid into the “gov’t sickness fund” or directly to private insurers.
  - All insurers are private, but can’t make money off the sickness fund.
- **Pros:**
  - Everybody is covered and can avoid expensive healthcare bills.
  - Administrative costs are much lower than in the U.S.
  - Little waiting time to receive basic services.
- **Cons:**
  - Focus on low costs can mean fewer services are available in rural areas.
  - Mandatory premiums are high.
  - Longer waiting times for elective services.

https://www.ahaap.org/bismarck-model

Model 2: Beveridge



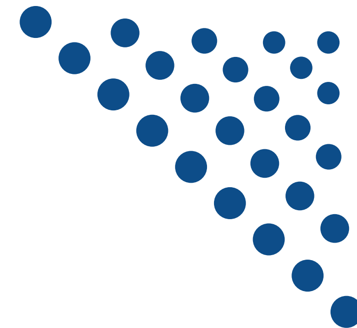
- **In this model, health insurance is paid for through TAXATION.**
  - Everybody has insurance, universal coverage. Everybody receives care at no cost.
  - All insurers are public.
  - Supplemental insurance is available in the private market.

- **Pros:**
  - Universal coverage.
  - Government controls quality of care, so cost of care may be low.
  - No medical bills or co-pays.

- **Cons:**
  - Taxes are high, regardless of use of healthcare.
  - Government controls quality of care, so service availability might be low.
  - Longer waiting times for non-emergency care.
  - Potential for excessive use of the system.

https://www.ahaap.org/beveridge-model

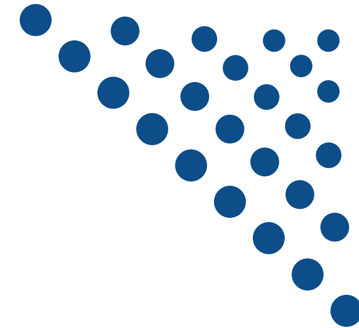
Model 3: National Health Insurance



- **This model has elements of both Beveridge and Bismarck.**
  - Like Beveridge: government is the single payer and paid for through taxes.
  - Like Bismarck: All health-care insurers are in the private sector.
- **Pros:**
  - Lowers the cost of healthcare for the economy – bargaining power.
  - Low administrative costs for care.
    - No incentive to deny claims.
  - Healthier workforce.
- **Cons:**
  - Everybody pays regardless of health care received.
  - May stop people from being careful about their health.
  - Limits payouts to doctors.
  - May affect technology adoption.

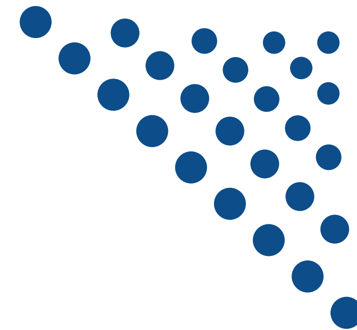
https://www.ahaap.org/national-health-insurance-model

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**

Tradeoffs

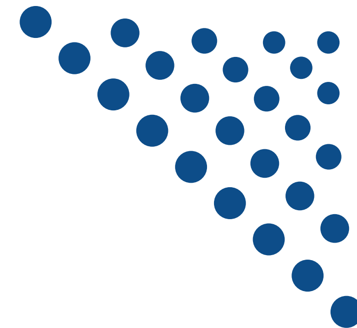


Tradeoffs take place among the three legs:

- Increasing quality in health care may lead to higher health care costs.
  - This means a compromise in access (affordability).

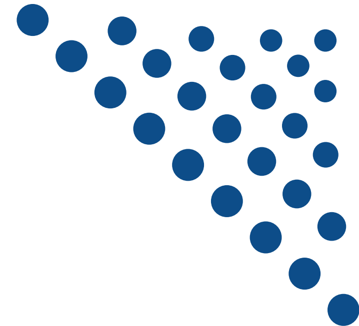
- I.e., with increasing quality, access may suffer.
- By increasing access, quality may suffer.
- By decreasing costs, quality may suffer.

Summary

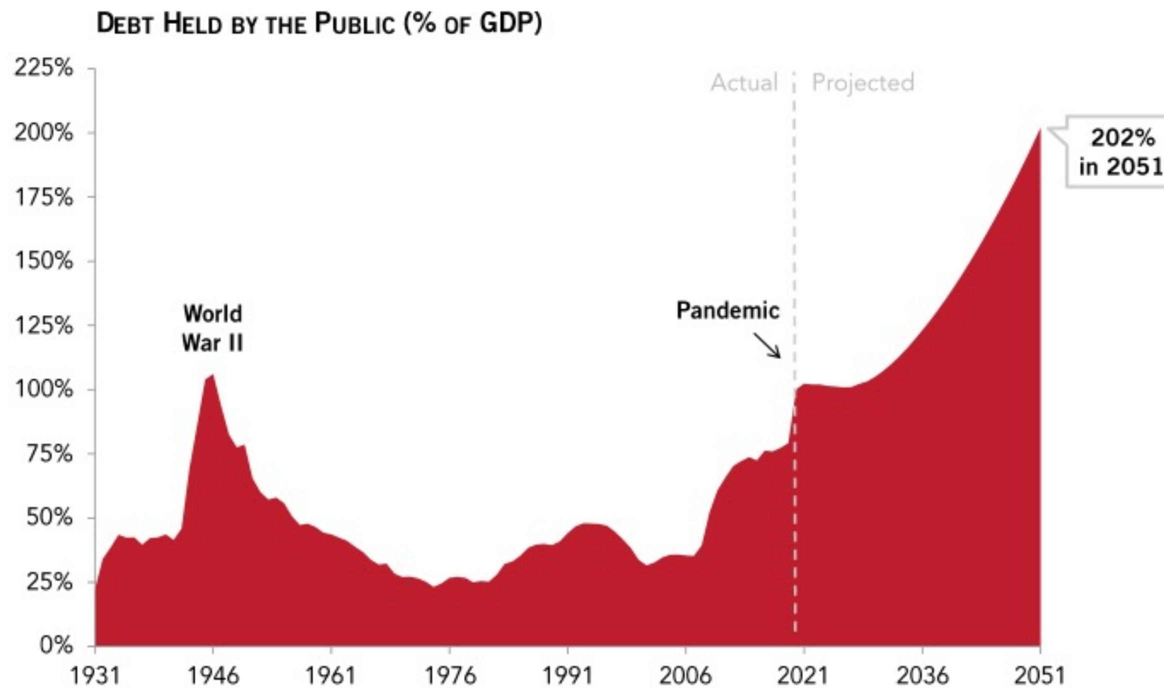


- US HealthCare system is not preforming well.
  - Very expensive with low quality and access.
- One of the main reasons for very high costs is the monopolization of healthcare markets.
  - Hospitals, health insurance, big pharma, physicians, etc.
- A few simple solutions could drastically reduce costs:
  - 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.

The Federal Debt: Brian Peterson



The national debt is on an unsustainable path

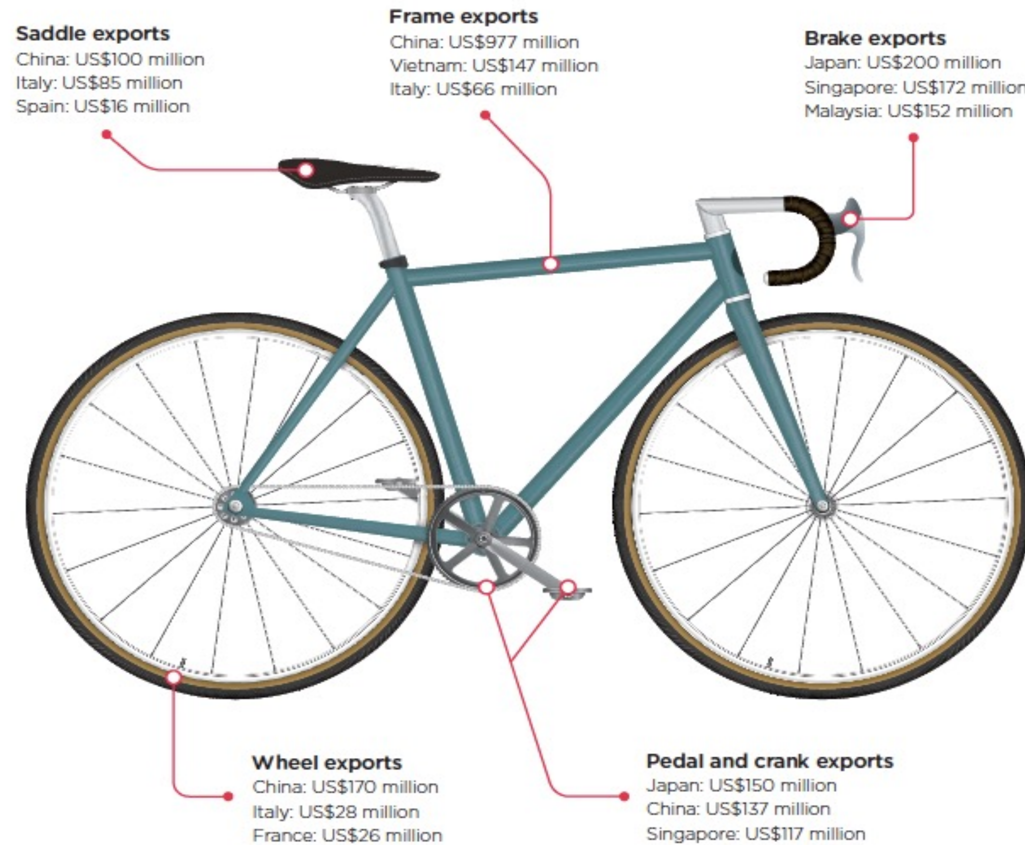


SOURCE: Congressional Budget Office, *The 2021 Long-Term Budget Outlook*, March 2021.

© 2021 Peter G. Peterson Foundation

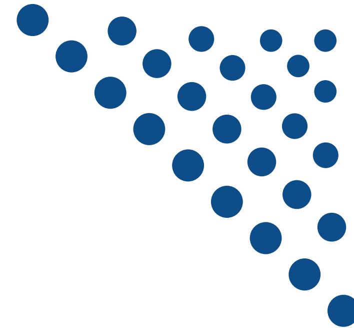
PGPF.ORG

Trade: Alan Deardorff, University of Michigan



Source: World Development Report 2020

Thank you!



Any Questions?

www.NEEDEcon.org

Jon D. Haveman, Ph.D.
Jon@NEEDEcon.org

Contact NEED: info@NEEDEcon.org

Submit a testimonial: www.NEEDEcon.org/testimonials.php

Become a Friend of NEED: www.NEEDEcon.org/friend.php