



Healthcare in America

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1. Introduction

The United States is one of just three highly developed countries without universal or near-universal basic healthcare coverage. With a patchwork of public and private systems, the U.S. has one of the most complex and expensive healthcare systems in the world which still leaves many uninsured or underinsured. Public coverage comes from Medicare, Medicaid, and programs for veterans. Private coverage is often provided by employers, but individuals can also secure their own private healthcare coverage independently.

The first push for government involvement in healthcare came under President Franklin D. Roosevelt (1933-1945), but it was opposed by the American Medical Association. As a result, private employer-based health insurance developed throughout the 40s and 50s, and came to dominate the health insurance market. Households' access to healthcare largely depended on the stable employment of family members, but the poor, unemployed, and elderly population had little access to affordable healthcare.

Three decades later, President Lyndon B. Johnson (1963-1969) passed the Social Security Amendments of 1965 to provide healthcare coverage for the senior and disabled citizens and laid the groundwork for Medicare and Medicaid. In the present day, 28 million people live without any health insurance because they do not qualify for public healthcare programs and are not able to afford private health insurance. The Affordable Care Act (2010) reduced the uninsured population to its current level (from 44 million uninsured) by expanding Medicaid coverage in states which opted in, and providing subsidies for low income American to seek private plans.

While the United States has one of the lowest healthcare coverage rates among developed countries, it spends more on healthcare than most OECD countries. Healthcare expenditure reached 3.8 trillion dollars in 2019—about 18% of the national GDP. Much of the high healthcare spending comes from the increasing prices of pharmaceutical drugs, in addition to high administration costs from the fragmented system. The consolidation and high profitability of the pharmaceutical industry and the lack of regulations on pricing and out-of-pocket spending creates a financial burden for government programs and individuals. This paper examines the history of healthcare, its current structure, and the dilemma in regulating the pharmaceutical industry.

Healthcare is a confusing and technical policy issue. This paper includes a glossary of key terms in the Appendix, which can be a helpful resource for readers.

2. Cost and Coverage in the US vs. Other Developed Countries

A recent analysis from the Commonwealth Fund discusses the differences between healthcare in America and other developed countries and assesses U.S. healthcare system spending, outcomes, risk factors and prevention, utilization, and quality, relative to 10 other high-income countries: Australia, Canada, France, Germany, the Netherlands, New Zealand, Norway, Sweden, Switzerland, and the United Kingdom. The analysis shows that the U.S. spends almost twice as much as the average OECD¹ country and yet has the lowest life expectancy. In 2018, the U.S. spent 16.9% of GDP on healthcare, while the second-highest ranking country, Switzerland, spent 12.2% and New Zealand and Australia spent only 9.3%.²

When healthcare expenditures are dissected, the public spending per capita in the U.S. is similar to other OECD countries. However, the private spending per capita and out-of-pocket spending per capita are significantly higher.

¹ OECD stands for Organization for Economic Cooperation and Development. It is a group of the 37 most developed countries in the world, co-founded by the United States, which aims to stimulate economic progress and trade, and is committed to democracy and the market economy..

²

https://www.commonwealthfund.org/publications/issue-briefs/2020/jan/us-health-care-global-perspective-2019?gclid=Cj0KCOjw2or8BRCNARIsAC_ppyal_JWN7CDV7OR9GXR2qyVOPeWmfWorEEfHRnv80y0jn0AarS4FX2UaAleCEALw_wcB

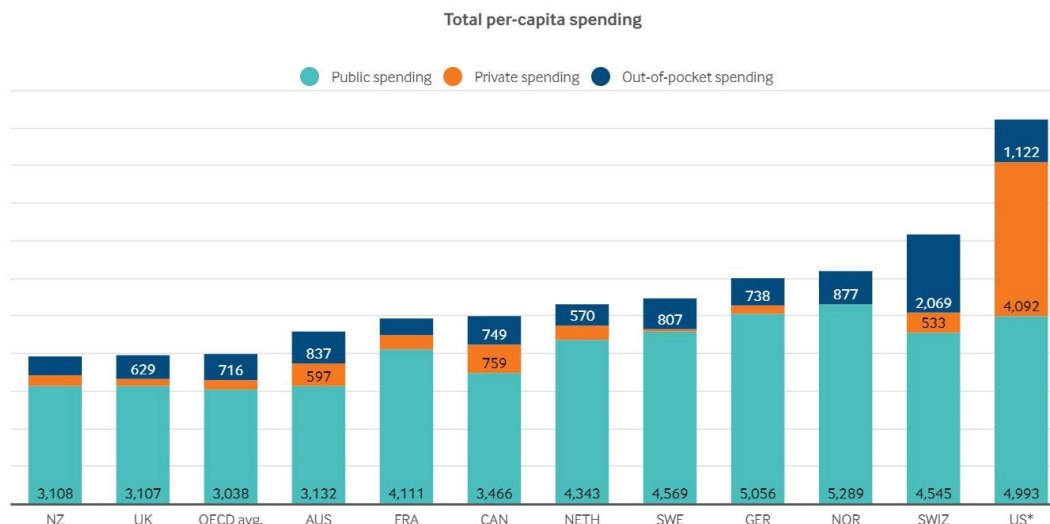


Figure 1: Per Capita Healthcare Spending of 10 OECD Countries³

Per-capita spending from private sources, including individual health insurance and employer-sponsored health insurance coverages, reached \$4,092 in the U.S., which is more than five times higher than Canada. Private spending as a share of total healthcare expenditure is much larger in the U.S. (40%) than in any other developed country (0.3% - 15%).

Per-capita out-of-pocket spending for healthcare includes copayments for doctor's visits, prescription drug expenses, or health insurance deductibles. The U.S. has higher per-capita out-of-pocket spending than all other developed countries except Switzerland.

Despite the highest spending, Americans have lower life expectancies of 78.6 years compared to the OECD average of 80.7 years in 2017. American adults also have the highest rates of chronic diseases and obesity.⁴ Notably, the U.S. is one of the three OECD countries without universal (or near universal) basic healthcare coverage—the other two being Greece and Poland.⁵ Basic healthcare coverage includes regular consultations with doctors and specialists, tests and examinations, and surgical and therapeutic procedures with dental care and pharmaceutical drugs partially covered. However, the U.S. does outperform peer nations in terms of preventive measures. For example, 68% of American adults aged 65 and older had a flu vaccine in 2016, much higher than the OECD average of 44%. Also, 80% of American females aged 50 to 69 years old are screened for breast cancer, while the OECD average is 60%.

3

https://www.commonwealthfund.org/publications/issue-briefs/2020/jan/us-health-care-global-perspective-2019?gclid=Cj0KCOjw2or8BRCNARIsAC_ppyal_JWN7CDV7OR9GXR2qyVOPeWmfWorEEfHRnv80y0jn0AarS4FX2UaAleCEALw_wcB

⁴ Australia, Canada, France, Germany, the Netherlands, New Zealand, Norway, Sweden, Switzerland, and the United Kingdom

⁵ <https://www.oecd.org/unitedstates/Health-at-a-Glance-2017-Key-Findings-UNITED-STATES.pdf>

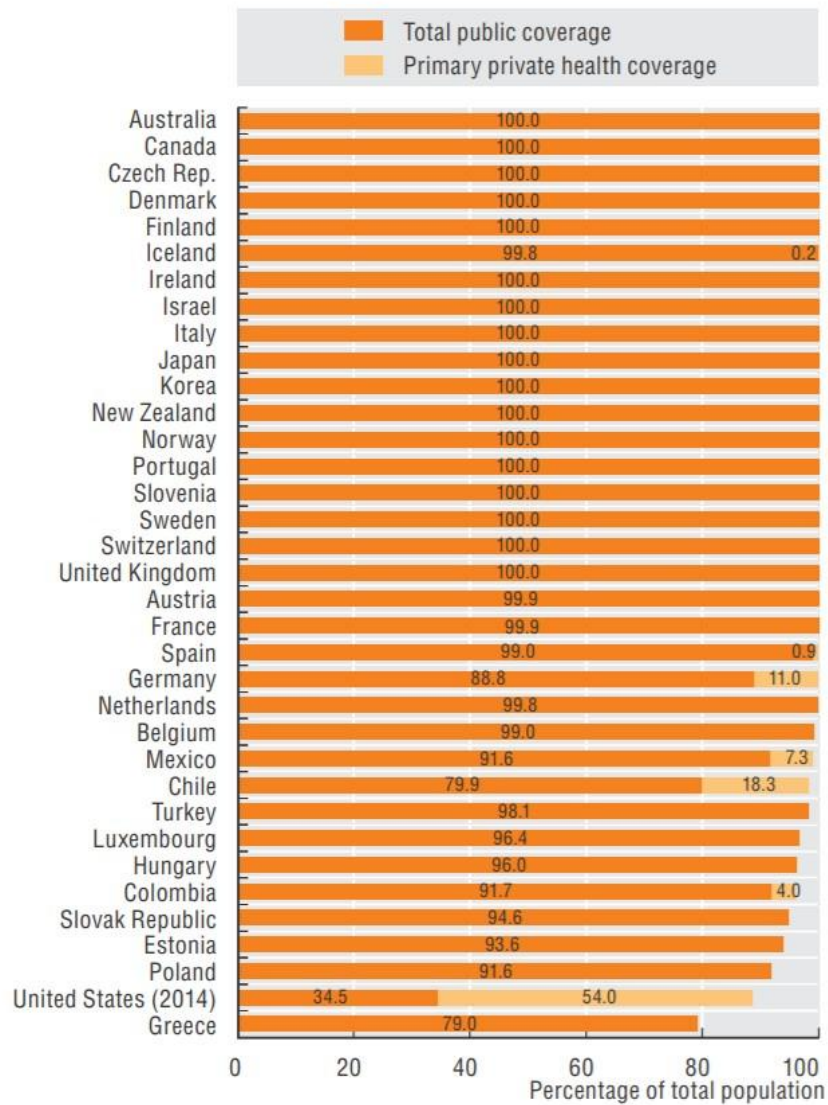


Figure 2: Basic Health Insurance Coverage, 2013⁶

Figure 2 shows that most OECD countries in 2013 had 100% public healthcare coverage, while the U.S. had 34.5% public coverage, 54% private coverage and 11.5% uninsured.

The main causes for higher spending in the US are:

1. Drug prices
2. Administrative costs
3. Healthcare provider wages

Drug prices are explored in more depth in Section 5, and administrative and other costs are discussed in Section 6. A comprehensive study from the Institute of Medicine found that in 2009,

⁶OECD Health Statistics 2015 <http://dx.doi.org/10.1787/health-data-en>.

\$750 billion (or 30% of total 2009 healthcare spending) was wasted on “inefficient spending and care.”⁷

3. Historical Overview

1900s-1920s The Start of “Organized Medicine”

At the beginning of the 20th century, President Theodore Roosevelt (1901-1909) said, “no country could be strong whose people were sick and poor.” Despite the belief that healthcare was important, the government did not lead the charge for stronger healthcare and most healthcare initiatives were led by organizations outside the government with minimal regulations.

American Medical Association (AMA)—the national organizations of state and local associations for physicians—became a powerful national force.⁸ Its membership grew from 8,000 in 1900 to 70,000 in 1991, which equals half of the physicians in the country. The prestige and income of physicians grew as medical education demanded stricter entrance requirements, better facilities, and higher fees. Improved technology, growing demand, and higher quality standards toward physicians and hospitals increased the cost of medical care. At the end of the 1920s, the average American household spent roughly 5% of their annual income on medical expenses.

Within the same time period, many European countries adopted some form of compulsory national health insurance to protect citizens against the cost of sickness, but similar proposals were rejected in the U.S. because of lack of interest, opposition from physicians, and WWI.

1930s-1950s The Rise of Health Insurance

The Blue Cross

In 1929, a group of Dallas school teachers contracted with Baylor University Hospital to receive up to 21 days of inpatient care a year for a prepaid monthly fee of 50 cents.⁹ Similar insurance frameworks—many including more than one hospital—were formed during the Depression years to provide hospitals with a steady stream of income and consumers more affordable inpatient care. By 1937, more than 600,000 members were enrolled in 26 different plans. With the American Hospital Association’s (AHA) support and state legislation, these plans formed the Blue Cross Network of plans—the forerunners to Health Maintenance Organizations (HMO), which will be discussed later under MCOs—organized as nonprofit corporations, allowing them to enjoy tax exemptions and avoid insurance regulations.

⁷ <https://khn.org/news/iom-report-focuses-on-750-billion-in-inefficient-health-care-spending/>

⁸ <https://journalofethics.ama-assn.org/article/us-health-care-non-system-1908-2008/2008-05>

⁹ Beazley S. *Eight Decades of Health Care*. Chicago, IL: Hospital and Health Networks

The Blue Shield

In the 1930s, physicians became concerned about the proposals of national healthcare insurance plans and the expansion of Blue Cross.¹⁰ They worried that third-party payments would reduce their income by restricting their freedom to set fees. To address this issue, the physicians set up Blue Shield as an insurance network to cover physician services.

Social Security Act of 1935

Around the same time, President Franklin Delano Roosevelt (1933-1945) recognized healthcare as a substantial need and worked on a health insurance bill. However, the AMA strongly opposed a national healthcare system. In the end, the Social Security Act of 1935 passed without a healthcare component.¹¹

Commercial Insurers

The success of Blue Cross and Blue Shield showed commercial insurers that the problem of adverse selection (those who were sick would seek coverage, and those who were healthy would not) can be avoided by prioritizing the young, healthy, and employed groups. Commercial insurance plans started to roll out quickly in the 1940s. The market of healthcare insurance experienced exponential growth.¹²

Company-based Insurance

Big companies started contracting with outside medical corporations to provide healthcare for workers in the 1920s.¹³ Such practices dramatically increased during WWII because of wage and price controls. Employers could not compete for labor using higher salaries, but they were allowed to offer health benefits as part of employees' wages to attract workers. The Internal Revenue Service (IRS) also removed healthcare benefits from companies' and employees' taxable income. As a result, the role of employers as the source of healthcare coverage also substantially increased.¹⁴

1965 Medicare and Medicaid

In the early 1950s, healthcare debates were tabled because the government and the people were primarily concerned with the Korean War. With numerous technological breakthroughs and no fiscal regulation, the price of hospital care doubled in the 1950s. By 1960, National Health Expenditures (NHE) accounted for 5% of GDP. More than 700 companies were

¹⁰ Leland RG. *Prepayment plans for hospital care*. JAMA. 1933;100(12):870-873

<https://jamanetwork.com/journals/jama/article-abstract/242217>

¹¹ <https://www.griffinbenefits.com/blog/history-of-healthcare>

¹² <https://journalofethics.ama-assn.org/article/us-health-care-non-system-1908-2008/2008-05>

¹³ <https://www.pbs.org/healthcarecrisis/history.htm>

¹⁴ Scofea LA. *The development and growth of employer-provided health insurance*. Mon Labor Rev. 1994;117(3):3-10. https://www.jstor.org/stable/41844254?seq=1#metadata_info_tab_contents

providing health insurance, but the poor, unemployed, and elderly still had difficulties affording healthcare.

President Kennedy (1961-1963) expected NHE to continue growing and pushed Congress to pass a healthcare plan for senior citizens. However, it failed against strong opposition from the AMA and Congress's fear of "socialized medicine."

After President Kennedy's assassination, President Johnson picked up his work and focused solely on expanding the Social Security Act of 1935 to provide affordable healthcare for senior and disabled citizens. The Social Security Amendments of 1965 passed and created the Medicare and Medicaid programs.

President Johnson also introduced the Hill-Burton Program—giving government grants to medical facilities in need of modernization, in exchange for providing a "reasonable" amount of medical services to those who could not pay.¹⁵ As a result, the federal government became the largest single purchaser of healthcare services, but health care cost inflation continued, partly because the public programs adopted the same reimbursement defects of private health insurance, which will be discussed later.

1970s, Expansion of Medicare and HMO

By 1970, NHE accounted for 6.9% of America's annual GDP. The soaring cost of healthcare was a personal issue for President Nixon (1969-1974) because his family struggled due to expensive and inadequate healthcare when he was young.¹⁶ His effort to create a marketplace employer-based healthcare was truncated by his corruption scandals, but he did achieve the expansion of Medicare in the Social Security Amendment of 1972 by extending Medicare to adults under 65 who have been severely disabled for over two years or have end stage renal disease.¹⁷

Health Maintenance Organization Act of 1973 (HMO)

HMO refers to the prepaid group health care plans that combined the financing and delivery of healthcare. The first HMO was established by the Ross-Loss Medical Group in 1929 to provide medical services to Los Angeles City and county employees for \$1.50 per month. In 1945, the Kaiser Foundation Health Plan was founded to provide prepaid health benefits to workers in Kaiser Shipyards, which was considered the model HMO. However, HMOs were small players in the healthcare industry until the 1970s.

Nixon and other politicians realized that HMOs were crucial in clinical prevention and were able to reduce healthcare resource utilization rates (further discussed in the MCO section),

¹⁵ <https://www.hrsa.gov/get-health-care/affordable/hill-burton/index.html>

¹⁶ <https://www.griffinbenefits.com/blog/history-of-healthcare>

¹⁷ <https://khn.org/news/nixon-proposal/>

particularly hospital admissions and lengths of stay.¹⁸ The Health Maintenance Organization Act of 1973 provided financial and regulatory support to help HMOs grow in the marketplace. In the 1970s, there were 26 plans with about 3 million subscribers nationwide; by 1991, the numbers had grown to be 556 plans with 35 million enrollees.

1980s Privatization and Corporatization of Healthcare

The Reagan Administration (1981-1989) deregulated many industries, including healthcare. Corporations began to integrate the previously decentralized hospital system, enter other sectors of healthcare services, and consolidate control. The 1980s marked the privatization and corporatization of healthcare.

1990s HIPAA and Medicaid Expansion

By 1990, NHE accounted for 12.1% of GDP—the largest increase in healthcare expenditures in America thus far. The Clinton Administration (1993-2001)'s initial healthcare plan, the Health Security Act of 1993, was put off due to various issues like foreign affairs and the increasing national deficit. The Health Insurance Portability and Accountability Act (HIPAA) passed in 1996 to protect the privacy of individuals and regulate discrimination against pre-existing conditions in health insurance. The Children's Health Insurance Plan (CHIP) in the Balanced Budget Act of 1997 expanded Medicaid to uninsured children under age 19.

In the meantime, more companies adopted HMO to reduce healthcare costs. "Managed care"—basically traditional HMO and fiscal management practices—gave health care organizations more control over how healthcare was delivered. Cost management measures including narrow network, selective physician contracting, clinical practice guidelines, and requiring enrollees to see a primary care physician (PCP) before a specialist allowed healthcare spending growth to slow down noticeably in the 1990s.

¹⁸Ellwood PM Jr, Anderson NN, Billings JE, Carlson RJ, Hoagberg EJ, McClure W. Health maintenance strategy. *Med Care*. 1971;9(3):291- 298. https://www.jstor.org/stable/3762756?seq=1#metadata_info_tab_contents

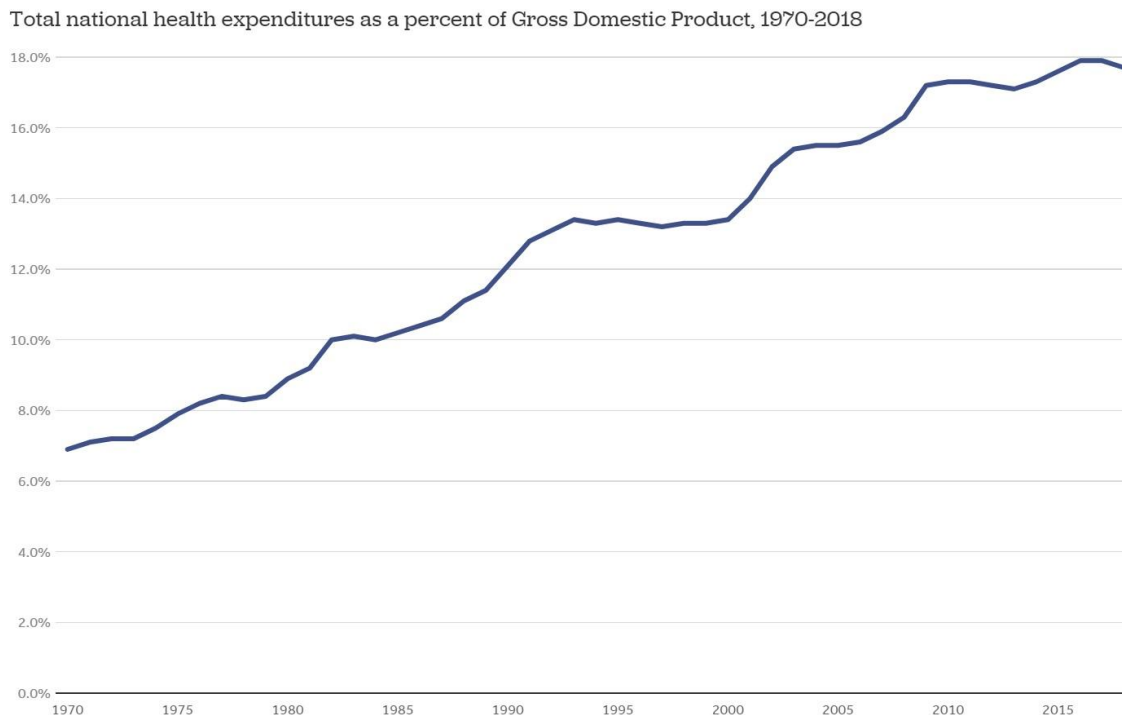


Figure 3: Total national health expenditure as a percent of GDP, 1970-2018¹⁹

However, many physicians and patients felt that “managed care” reduced their credibility and constrained their treatment decisions. Such resistance resulted in private and public payers backing away from managed care policies. Without replacements for such cost-restricting measures, health care costs picked up again in the late 1990s.

Going into the 21st century, the George W. Bush Administration (2001-2009) updated Medicare to include prescription drug coverage in the Medicare Prescription Drug, Improvement and Modernization Act of 2003.²⁰ The Medicare program remained voluntary. Unfortunately, there was no further progress in that decade as healthcare debates were tabled due to the focus on terrorism and the Second Iraq War.

4. Coverage in the 21st Century

Stepping into President Obama’s administration, the United States continued to provide healthcare services through a patchwork of public and private insurance plans—federal, state and local governments; and institutional and individual providers who are independent of each other.

¹⁹

<https://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/NationalHealthExpendData/NationalHealthAccountsHistorical>

²⁰ [https://www.ssa.gov/foia/piadocuments/FY07/Medicare%20Modernization%20Act%20\(MMA\)%20FY07.htm](https://www.ssa.gov/foia/piadocuments/FY07/Medicare%20Modernization%20Act%20(MMA)%20FY07.htm)

A. Publicly Funded Health Insurance: Structure, Funding, and Challenges

Medicare

Medicare is the federal health insurance program for:

- People who are 65 or older
- Certain younger people with disabilities
- People with End-Stage Renal Disease²¹

Enrollment in Medicare increased from 20 million people in 1970 to 61 million in 2019. As the second-largest program in the federal budget, Medicare costs \$644 billion in 2019, representing 14% of total federal spending. It also finances about 20% of all health spending and about 40 percent of all home health spending. Medicare is expected to play a bigger role in healthcare as the population of Americans 65+ increases from 56 million to 84 million by 2049.²²

The Financing of Medicare

Payroll taxes, premiums and other receipts finance 56% of Medicare's costs, while the other 44% is paid for by the federal government, also known as the General Fund.

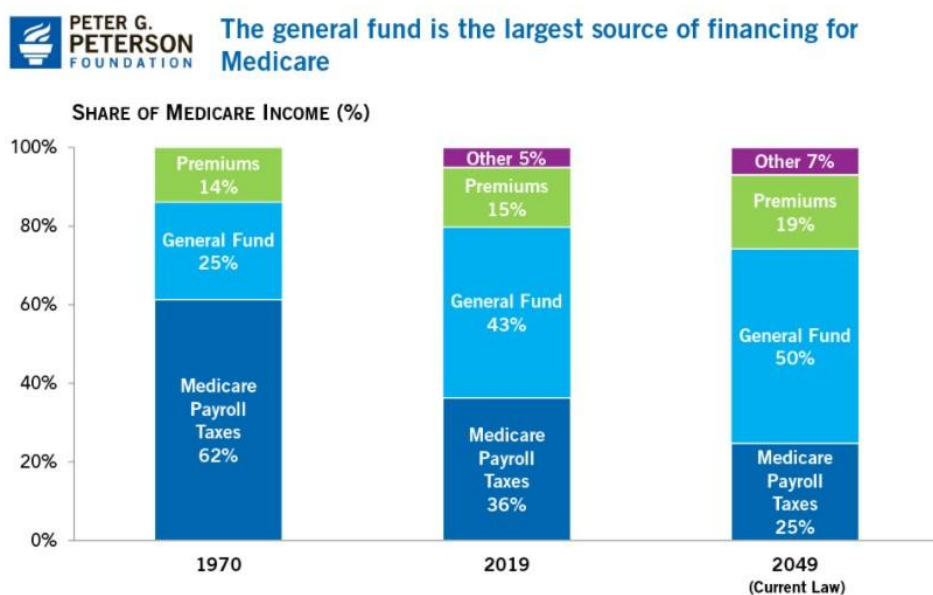


Figure 4: The General Fund is the largest source of financing for Medicare²³

As can be seen from the graph, the federal government is projected to be the biggest contributor to Medicare costs in 2049. Medicare payroll taxes are playing an increasingly smaller role and even tax structures like increasing payroll taxes for high earners by 0.9% in the most recent Affordable Care Act would not be enough to offset the cost growth. In the future,

²¹ permanent kidney failure requiring dialysis or a transplant, sometimes called ESRD

²² <https://www.pgpf.org/budget-basics/medicare>

²³ SOURCE

Medicare spending is projected to rise from 3.0% to 6.1% of the GDP and take up 20% of federal spending, largely due to the retirement of baby boomers (those born between 1944 and 1964), longer life expectancies, and healthcare costs that are growing faster than the economy.²⁴

Challenges to Medicare Funding

The funding from payroll taxes and premiums accumulates in a fund, and expenses are drawn from the fund. However, the fund has been running on deficits for the past few years and the Medicare Board of Trustees expects it to be depleted in 2026. With the current COVID-19 pandemic, the fund is experiencing more costs and reduced revenues as millions of Americans become unemployed and are unable to pay taxes. Therefore, the fund may face depletion even sooner and cut spending by 10% when that happens. More reforms are needed to address Medicare's growing cost and the government's fiscal sustainability. Read more about Medicare and how it's funded in Appendix 1.

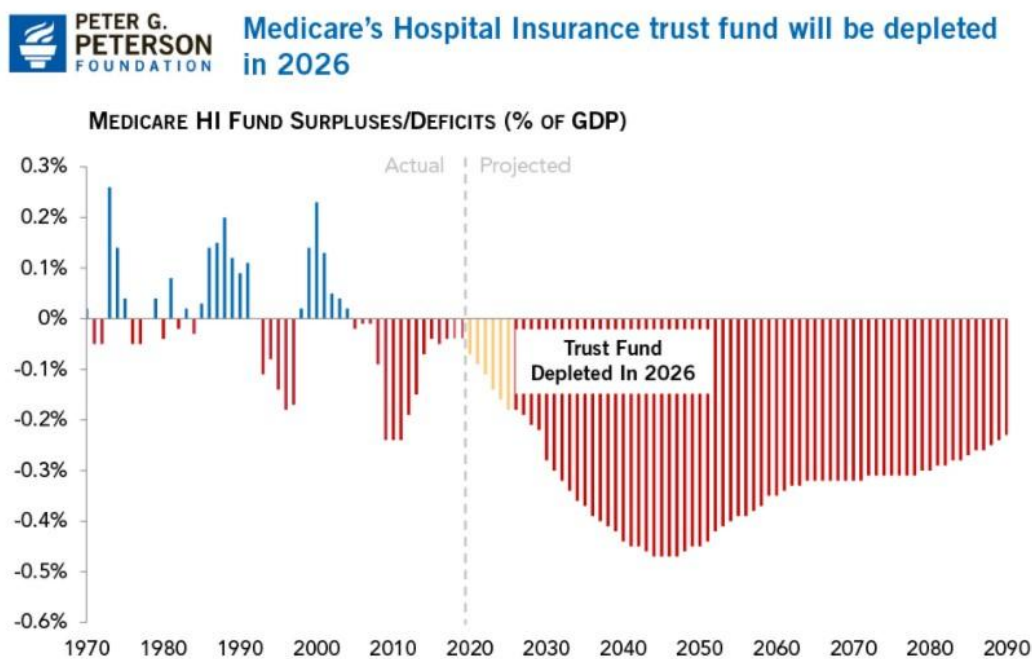


Figure 5: Medicare HI Fund Surplus/Deficits²⁵

Medicaid

Medicaid is a joint federal and state program which, together with the Children's Health Insurance Program (CHIP), provides health coverage to 72.5 million Americans, including children, pregnant women, parents, seniors, and individuals with disabilities.²⁶ States also have the options to cover other groups, like children in foster care, who are not otherwise eligible.

²⁴ <https://www.pgpf.org/budget-basics/medicare>

²⁵ https://www.pgpf.org/chart-archive/0277_medicare_deficits

²⁶ <https://www.medicaid.gov/medicaid/eligibility/index.html>

The Affordable Care Act (ACA) of 2010 allowed states to expand Medicaid coverage to nearly all low-income Americans under age 65, including adults with income at or below 138% of the federal poverty level (FPL).²⁷ The federal government covers 90% of the cost, and state governments are responsible for the other 10%. As of now, 12 states have not opted in to the Medicaid expansion, but state legislating bodies can vote to opt in at any time. Other non-financial criterias are residency of the state where people receive Medicaid, citizenship or lawful residency in the United States, and either pregnancy or parenting status for particular eligibility groups.

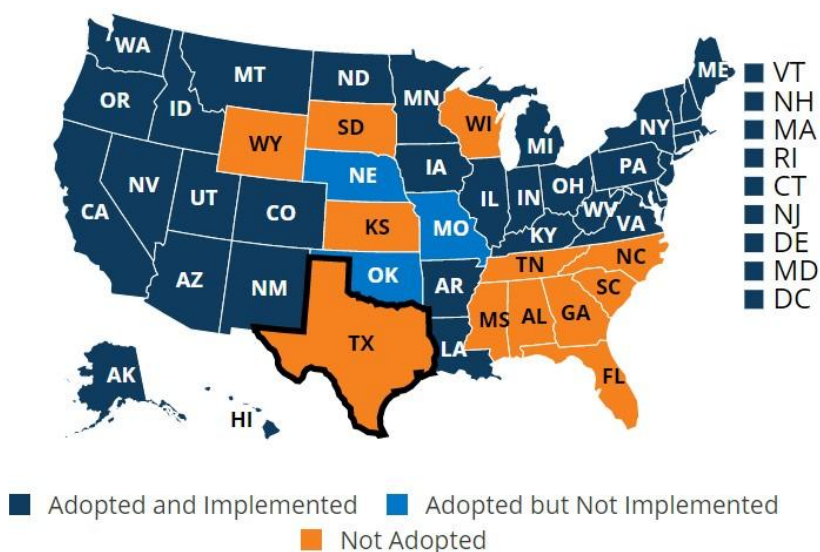


Figure 6: Status of state action on the Medicaid expansion decision²⁸

The Financing of Medicaid

Medicaid represents 16% of healthcare spending in the U.S and is the major source of financing for states providing healthcare services to low-income residents. Each state has a different formula to determine the share paid by the federal government depending on the state's per capita income. Medicaid provides a guarantee of federal matching payments with no preset limit, which means when state spending increases, so does federal spending. The funding also adjusts to changing demographics, economic shifts, healthcare costs, public health emergencies and natural disasters.²⁹

²⁷ FPL changes every year. In 2020, FPL for individuals is \$12,760, for a two-person household is \$17,240, for a three-person household is \$21,720. For more information: <https://aspe.hhs.gov/poverty-guidelines>

²⁸ <https://www.kff.org/medicaid/issue-brief/status-of-state-medicaid-expansion-decisions-interactive-map/>

²⁹ <https://www.kff.org/medicaid/issue-brief/medicaid-financing-the-basics/>

Payments to private managed care organizations (MCOs)³⁰ account for 46% of Medicaid spending.³¹ MCOs will be discussed in more detail in the later section: “MCOs: Public Meets Private.” The elderly and people with disabilities account for 25% of total enrollees in Medicaid and take up almost two-thirds of all Medicaid spending. Recessions, rising costs of prescription drugs, and increasing needs for long-term care and behavioral health services are the major factors pushing the increasing spending of Medicaid.

As of July 2019, 62.5% of Medicaid spending is paid by the federal government. The rest of the spending is financed by states (37.5%), and other non-federal sources.

Percent change in Medicaid spending and enrollment, state fiscal years 1998-2020

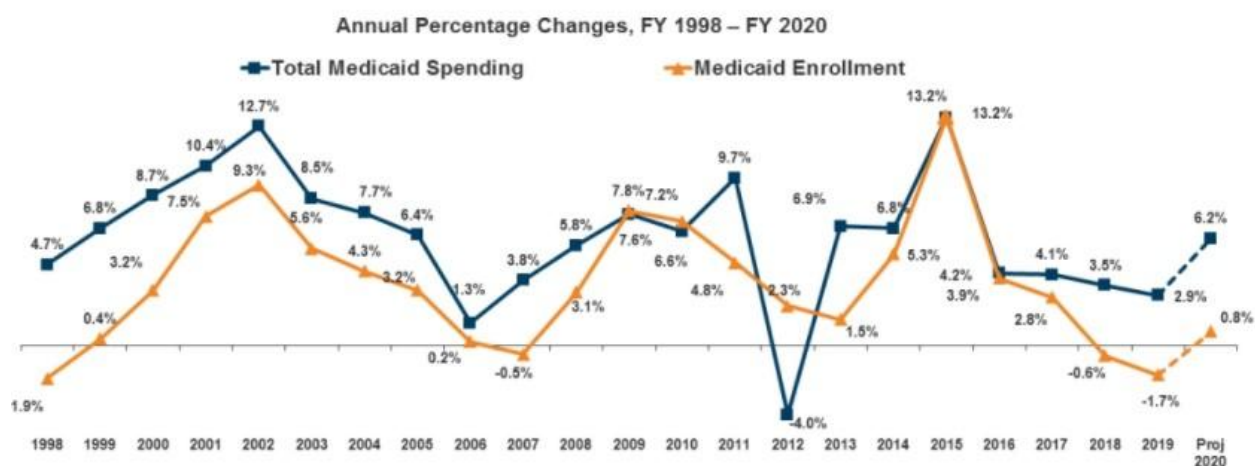


Figure 7: Percent change in Medicaid spending and enrollment³²

Medicaid and CHIP spending accounted for 3.0% of GDP in 2018 and the growth has flattened up to 2019, as improving economic conditions resulted in declines in enrollment. However, with the current COVID-19 pandemic, economic recession and the November 2020 elections, the financing, spending and enrollment of Medicaid will be affected, putting more fiscal pressure on the states and the federal government. Read more about Medicaid and how it’s funded in Appendix 2.

The Affordable Care Act

The Affordable Care Act expanded public health insurance coverage in the US in several key ways:

³⁰ Medicaid managed care organizations (MCOs) provide comprehensive acute care and in some cases long-term services and supports to Medicaid beneficiaries. MCOs accept a set per member per month payment for these services and are at financial risk for the Medicaid services specified in their contracts. <https://www.kff.org/medicaid/issue-brief/10-things-to-know-about-medicaid-managed-care/>

³¹ Kaiser Family Foundation, State Health Facts. Total Medicaid MCO Spending, FY 2017. <https://www.kff.org/other/state-indicator/total-medicaid-mco-spending/>

³² <https://www.kff.org/medicaid/issue-brief/medicaid-enrollment-spending-growth-fy-2019-2020/>

1. Medicaid expansion: as discussed in the Medicaid section, the ACA expanded Medicaid eligibility to households making under 138% of the federal poverty line (FPL) who live in states which opted in to the program. The 2020 FPL for a single person is \$12,760, and 26,200 for a family of 4. 138% of FPL for an individual is \$17,608 and \$36,156 for a family of 4. This change impacts:
 - a. Childless adults: prior to the Medicaid expansion, adults who did not have children were not eligible for Medicaid at any income level in 43 states.³³ In total, if every state adopted the program, childless adults in 48 states would become eligible for coverage when the ceiling was raised to 138% of FPL.
 - b. Low-income children: prior to the Medicaid expansion, children aged 6-19 were only eligible for Medicaid if their household was at or below the FPL in 37 states and DC. In total, if every state adopted the program, children in 40 states would become eligible for coverage when the ceiling was raised to 138% of FPL.
 - c. Low-income parents: prior to the Medicaid expansion, working parents faced low eligibility for Medicaid. In 17 states, working parents had to make less than 50% of FPL to qualify, and in 5 states, the ceiling was 30%. In total, if every state adopted the program, working parents in 38 states would become eligible for coverage when the ceiling was raised to 138% of FPL.

	Number of state which did not provide Medicare to people making below 138% of FPL <i>pre</i> -expansion	Number of state which did not provide Medicare to people making below 138% of FPL <i>post</i> -expansion
Childless adults	48	12
Children (6-19 years old)	40	11
Working Parents	38	11

Figure 8: Medicaid Eligibility in States Before and After the ACA³⁴

2. Tax credits for health insurance: households making less than 400% of FPL are eligible for tax credits which reduce their monthly insurance payments (premiums) to a set amount calculated as a percentage of their annual income. This amount ranges from 2% to around 9% of income, with individuals making higher incomes paying a higher percentage of their income towards premiums. Figure 9 shows the income level demarcations in 2019 and 2020.

³³ <https://www.kff.org/wp-content/uploads/2010/06/7334-05.pdf>

³⁴ <https://www.kff.org/wp-content/uploads/2010/06/7334-05.pdf>

Income % Poverty	Income Range in Dollars for the 2019 benefit year		Income Range in Dollars for the 2020 benefit year	
	Single Individual	Family of Four	Single Individual	Family of Four
Under 100%	Less than \$12,140	Less than \$25,100	Less than \$12,490	Less than \$25,750
100% – 133%	\$12,140 – \$16,146	\$25,100 – \$33,383	\$12,490 – \$16,612	\$25,750 – \$34,248
133% – 150%	\$16,146 – \$18,210	\$33,383 – \$37,650	\$16,612 – \$18,735	\$34,248 – \$38,625
150% – 200%	\$18,210 – \$24,280	\$37,650 – \$50,200	\$18,735 – \$24,980	\$38,625 – \$51,500
200% – 250%	\$24,280 – \$30,350	\$50,200 – \$62,750	\$24,980 – \$31,225	\$51,500 – \$64,375
250% – 300%	\$30,350 – \$36,420	\$62,750 – \$75,300	\$31,225 – \$37,470	\$64,375 – \$77,250
300% – 400%	\$36,420 – \$48,560	\$75,300 – \$100,400	\$37,470 – \$49,960	\$77,250 – \$103,000
Over 400%	More than \$48,560	More than \$100,400	More than \$49,960	More than \$103,000

Figure 9: Premium Subsidy Ranges, by Income in 2019 and 2020³⁵

B. Private Health Insurance

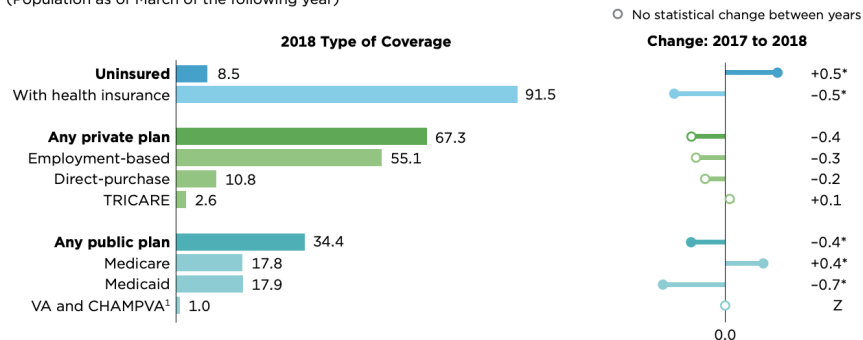
Private health insurance coverage is more prevalent than public coverage in America, with 67.3% of the insured population enrolled in private insurance and 34.4% in public insurance programs.³⁶ Private coverage includes employer-based plans, personal plans, and TRICARE.

Employer-based health insurance:

Employer-sponsored health insurance is a health policy selected and purchased by the employer and offered to eligible employees and their dependents. The employer typically shares the cost of premiums with its employees. Premium contributions from the employer are not subject to federal taxes and employee contributions can be made pre-tax, so employees' taxable income also decreases.

Most Americans, particularly those 65 and under, rely on health insurance offered through the workplace. In 2018, employer-based insurance remained the most common type of coverage with 55.1% of the population.³⁷

Percentage of People by Type of Health Insurance Coverage and Change From 2017 to 2018
(Population as of March of the following year)



³⁵ <https://www.kff.org/health-costs/issue-brief/explaining-health-care-reform-questions-about-health/>

³⁶ Some people may be enrolled in both private and public health insurance plans for a given calendar year.

³⁷ <https://www.census.gov/content/dam/Census/library/publications/2019/demo/p60-267.pdf>

Figure 11: Percentage of people by type of health insurance coverage and change (2017-2018)³⁸
(The percentages in Figure 11 do not add up because coverage is not mutually exclusive. For example, an individual can have a private plan and a public plan, or employment-based and direct-purchase coverage.)

Even with the tax exemptions, healthcare plans impose a significant cost on companies. In 2019, the average cost of employer-sponsored health insurance for annual premiums was \$7,188 for a single coverage and \$20,576 for family coverage. The annual deductible amount for single coverage was \$1,655 for covered workers.³⁹ The average annual cost has increased 54% over the last decade and continues to rise. Bigger companies are usually more financially capable of offering their employees health insurance than smaller companies—about 99% of companies with 200 or more workers offer health benefits in 2019, while the percentage drops to 71% for companies with 10 to 199 workers, and 41% for companies with 3 to 9 workers. Therefore, companies that provide health insurance stand to be more competitive in the job market.⁴⁰

Percentage of Firms Offering Health Benefits, by Firm Size, 1999–2019

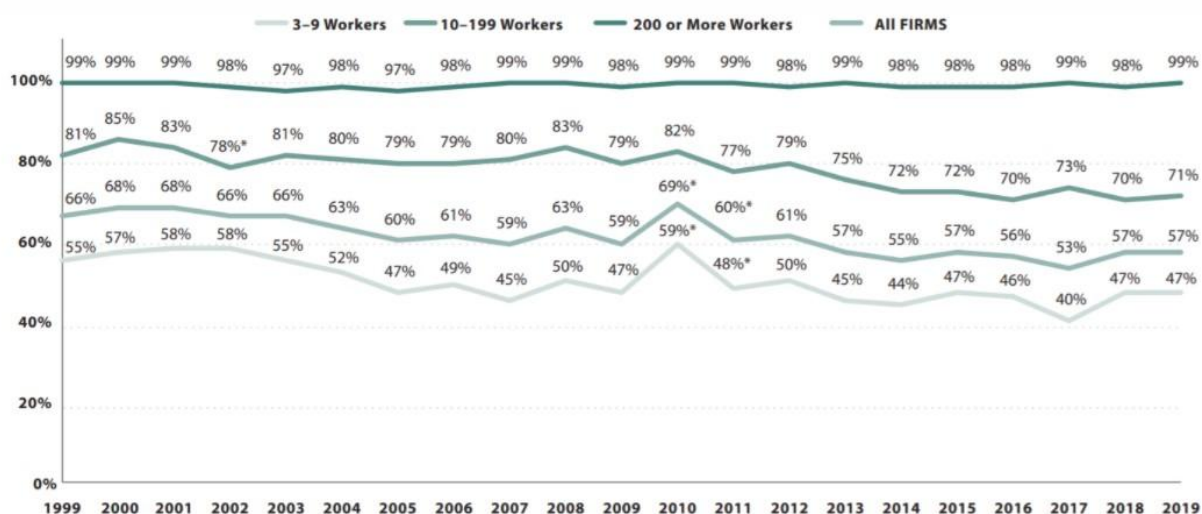


Figure 12: Percentage of firms offering health benefits, by firm size, 1999-2019⁴¹

Personal Health Plans

Individual insurance can be purchased by individuals regardless of their employment status. Direct-purchase personal health plans make up about 10% of the total population in the U.S. in 2018. Individuals can also apply for government subsidy if their employers do not provide affordable health coverage and their household income is less than 400% of the federal

³⁸ <https://www.census.gov/content/dam/Census/library/publications/2019/demo/p60-267.pdf>

³⁹ <http://files.kff.org/attachment/Summary-of-Findings-Employer-Health-Benefits-2019>

⁴⁰ <https://www.ehealthinsurance.com/resources/small-business/average-cost-of-employer-sponsored-health-insurance>

⁴¹ <https://www.kff.org/report-section/ehbs-2019-summary-of-findings/>

poverty level. This type of health insurance coverage allows individuals to choose between different insurance companies, doctors and hospitals

TRICARE

TRICARE, previously known as the Civilian Health and Medical Program of the Uniformed Services, is a health care program of the United States Department of Defense Military Health System. It provides civilian health benefits for U.S Armed Forces military personnel, military retirees and their dependents. TRICARE covers 9.4 million beneficiaries—2.6% of the total population in the U.S.—and represents \$50.6 billion or 8% of total U.S. military spending.

C.Managed Care Organizations (MCOs)—Public meets Private

In regular fee-for-service Medicaid, beneficiaries would go to any doctor that accepts Medicaid and request specialists or testing, and the government would reimburse the doctor's bills directly. However, this can lead to high costs for specialists and unnecessary testing, so the government contracts with Managed Care Organizations to set up gatekeepers for enrollees to limit the rise of healthcare expenditures and negotiate lower, preset medical fees of a group of treatments for patients within the MCO network.

Managed care plans decrease costs in two main ways. First, they create gatekeepers for patients seeking specialist care. A primary care physician, like a family physician, would serve as a gatekeeper to coordinate care for the enrollees. Enrollees must go to their primary care physician in the network in order to get a referral for specialty care and prior authorizations for non-emergency hospitalizations and other services. Second, the MCO contracts with healthcare providers and medical facilities (like hospitals) to provide care for members at lower costs. Because they represent a group of enrollees, they have more bargaining power over cost than a single person. These providers make up the plan's network and the network's rules decide how much of individuals' care the plan will pay for. A managed care plan is paid a capitated rate—flat monthly fee—to provide for almost all of the beneficiary's health care needs. The beneficiaries of Medicaid managed care plans can still receive medical benefits on services outside of the managed care plans on a fee-for-service basis. Enrollees of Medicaid are required to enroll in a managed care plan in many states to help control state health care spendings.⁴²

As of 2017, states contracted with a total of 282 Medicaid MCOs that represent a mix of private for-profit, private non-profit, and government plans. A total of 19 Parent firms—firms operating Medicaid MCOs in two or more states—account for about 75% of enrollment. Ten of them are non-profit companies and nine are pro-profit firms.⁴³ Six firms—UnitedHealth Group, Centene, Anthem, Molina, Aetna, and WellCare—operate MCOs in 10 or more states accounting

⁴² <https://www.stic-cil.org/pdf/Health%20Info/Understanding%20Managed%20Care.pdf>

⁴³ [Medicaid MCO Parent Firm Financial Information](#), 2016-2017, State Health Facts, KFF

for about 44% of all Medicaid MCO enrollments, and they are all publicly traded companies ranked in Fortune 500.⁴⁴

Six firms have a wide geographic reach in Medicaid, each with MCOs in 10 or more of the 39 MCO states.

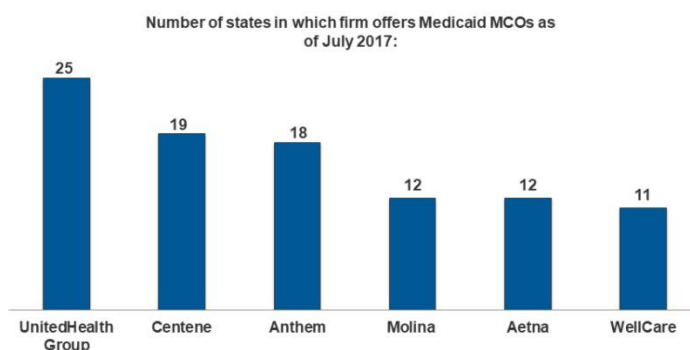


Figure 13: Number of states in which firm offers Medicaid MCOs⁴⁵

MCOs also increase the administrative costs of healthcare. One argument against MCOs is that they trade care costs for administrative costs, so care is harder to access but the overall price tag may not be significantly decreased.

D. The Uninsured and Underinsured Population

Even with several different forms of healthcare insurance plans available to the American people, there are still nearly 28 million people living without healthcare coverage in 2018. Most uninsured people are low-income families with at least one worker in the family. People of color are also at higher risk of being uninsured than non-Hispanic Whites.⁴⁶

Income Level	Number of Uninsured People
Below 138% FPL (Federal Poverty Level)	9.0 million
138-199% FPL	4.6 million
200-299% FPL	5.5 million
300-399% FPL	3.5 million
Above 400% FPL	4.6 million

⁴⁴ <https://www.kff.org/medicaid/issue-brief/10-things-to-know-about-medicaid-managed-care/>

⁴⁵ <https://www.kff.org/medicaid/issue-brief/10-things-to-know-about-medicaid-managed-care/>

⁴⁶

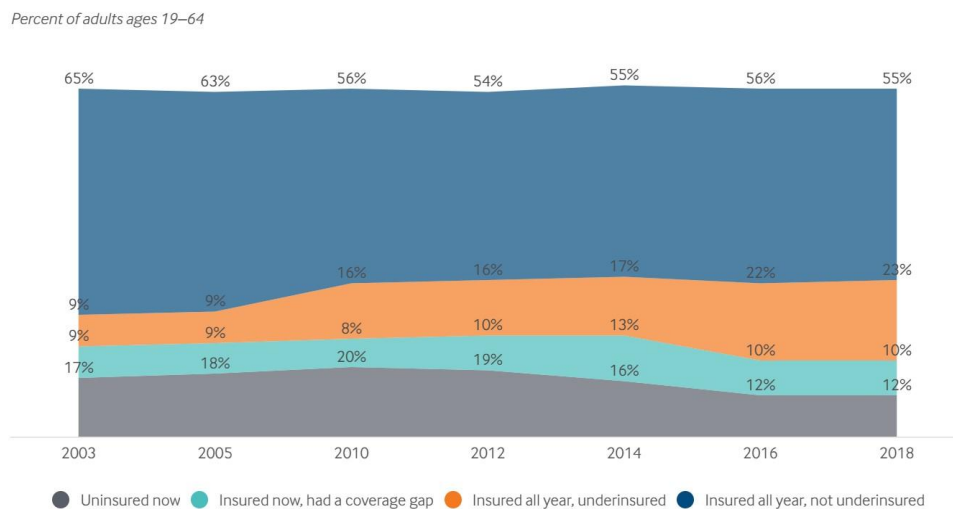
<https://www.kff.org/uninsured/issue-brief/key-facts-about-the-uninsured-population/#:~:text=Why%20are%20people%20uninsured%3F,of%20coverage%20was%20too%20high.>

Figure 14: Uninsured Americans by Income as Percent of FPL (2018)⁴⁷

The main reasons why people are uninsured are:

1. 4.4 million uninsured Americans live in states where Medicaid was not expanded, but would otherwise qualify for it because they make below 138% of the FPL.⁴⁸
2. Many are not aware of the options available for free or subsidized coverage. A 2017 survey found that 49% of uninsured Americans were not aware that the ACA offered subsidies for health insurance.
3. Many cite the high cost of health insurance as the main reason for their lack of coverage, and find that even subsidized coverage is not possible for them. These people also likely do not have a job which offers affordable coverage.

Some choose to remain uninsured even at affordable insurance prices due to the implicit insurance provided through hospital uncompensated care. Under federal law, any hospital that accepts reimbursement from Medicare must treat individuals who arrive in an emergent state whether they are able to pay or not. Hospitals can try to collect the costs of emergency care from uninsured patients, but they might not be able to do so (for example if patients are in personal bankruptcy). Such uncollected costs become “uncompensated care” costs and amounts to \$41 billion for hospitals in 2018.⁴⁹ The existence of free care for catastrophes is an option for primarily healthy individuals whose only likely medical concerns are emergencies.⁵⁰



⁴⁷ <https://www.census.gov/content/dam/Census/library/publications/2019/demo/p60-267.pdf>

⁴⁸

<https://www.kff.org/medicaid/issue-brief/the-coverage-gap-uninsured-poor-adults-in-states-that-do-not-expand-medi-caid/>

⁴⁹ <https://www.aha.org/fact-sheets/2020-01-06-fact-sheet-uncompensated-hospital-care-cost>

⁵⁰

<https://www.nber.org/papers/w13758#:~:text=Jonathan%20Gruber&text=One%20of%20the%20major%20social.issues%20around%20covering%20the%20uninsured.>

Figure 15: Status of insurance of US population, age 19-64⁵¹

Being underinsured means that people might have a medical problem but do not visit a doctor or clinic, do not fill a prescription, skip recommended tests, treatment, or follow-up or do not get needed specialist care due to the out-of-pocket expenses. The US is still a distance away from citizens being able to access the medical care they need without worrying about the financial burdens. It is estimated that as many as 91 million Americans are underinsured.⁵²

5. Pharmaceutical Costs

Drug Spending in the US vs. Other Developed Countries

Prescription drug costs have become a large portion of healthcare expenditures in the U.S. For example, in Medicare, the share of spending dedicated to hospital care has declined, while the share devoted to prescription drugs has been increasing steadily to 14% of all Medicare spending.⁵³

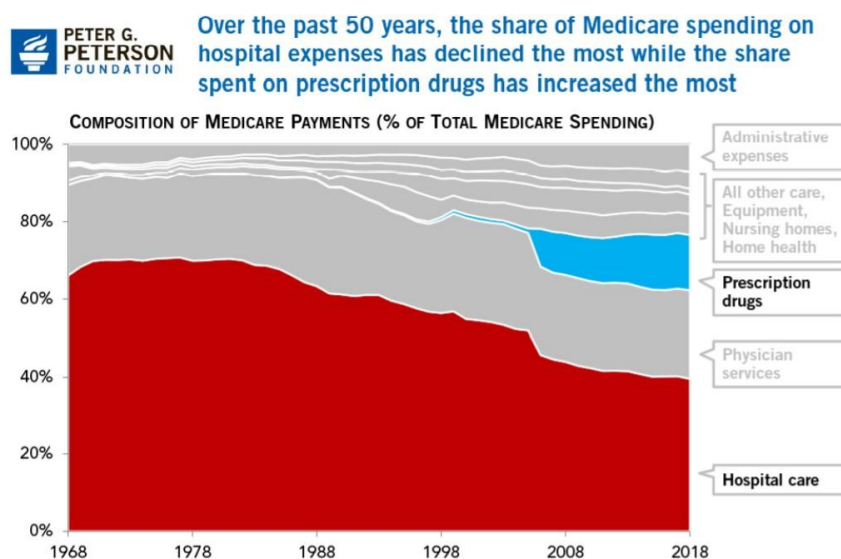


Figure 16: Composition of Medicare payments (% of total Medicare spending)⁵⁴

Prescription drug spending per capita in the United States is significantly higher than in other developed economies. The spending on prescription medications grew rapidly in the U.S.

⁵¹

<https://www.commonwealthfund.org/publications/issue-briefs/2019/feb/health-insurance-coverage-eight-years-after-aca>

⁵²

<https://www.commonwealthfund.org/press-release/2019/underinsured-rate-rose-2014-2018-greatest-growth-among-people-employer-health>

⁵³ <https://www.pgpf.org/blog/2018/09/how-will-the-rising-cost-of-prescription-drugs-affect-medicare>

⁵⁴

<https://www.pgpf.org/budget-basics/medicare#:~:text=How%20Much%20Does%20Medicare%20Cost,of%20total%20federal%20government%20spending.>

in the 1990s and early 2000s when annual numbers of FDA-approved drugs reached an all-time high and the sales of hypertensive and cancer drugs boomed. The increase in costs slowed in mid-2000s when fewer blockbuster drugs⁵⁵ gained approval and many popular drugs came off patent.⁵⁶ In 2014 and 2015, however, the prescription drug spending increased again by 20% in two years due to the introduction of several expensive specialty drugs to treat hepatitis C, cystic fibrosis, and other conditions.⁵⁷ As a result, spending on pharmaceuticals in the U.S. exceeded \$1,000 per capita in 2015, 30% to 190% more than other high-income countries.

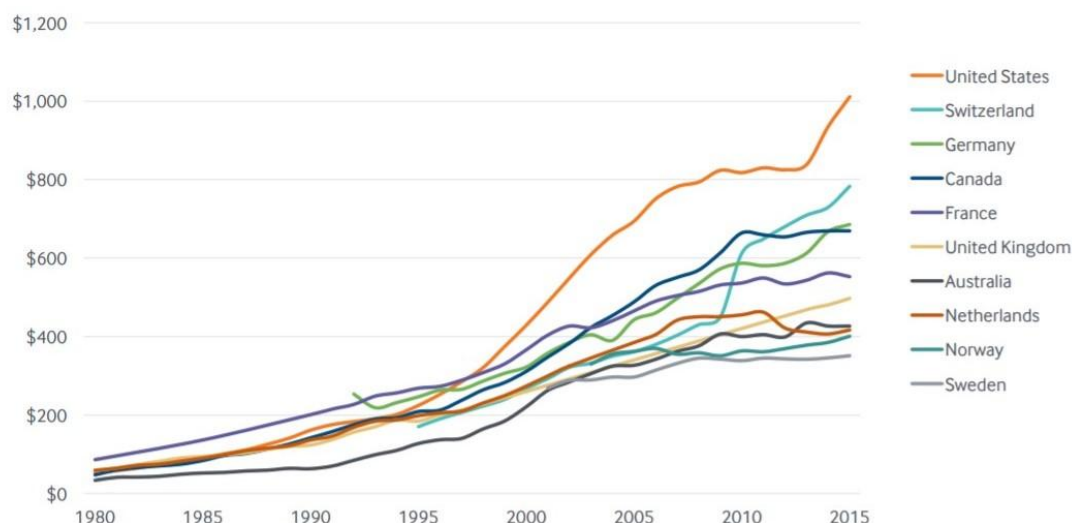


Figure 17: National Trends in Per Capita Pharmaceutical Spending 1980-2015⁵⁸

Understanding the Spending Difference

Studies have looked into different factors that could affect the pharmaceutical drug expenditure per capita. Both drug utilization—the prescribing, dispensing and use of medication—and types of drugs consumed cannot provide sufficient explanation. According to the Commonwealth Fund’s 2016 International Health Policy Survey,⁵⁹ 59% of American adults

⁵⁵ A blockbuster drug is an extremely popular drug that generates annual sales of at least \$1 billion for the company that sells it. Examples of blockbuster drugs include Vioxx, Lipitor, and Zoloft. Blockbuster drugs are commonly used to treat common medical problems like high cholesterol, diabetes, high blood pressure, asthma, and cancer. <https://www.investopedia.com/terms/b/blockbuster-drug.asp#:~:text=A%20blockbuster%20drug%20is%20an,the%20company%20that%20sells%20it.&text=Blockbuster%20drugs%20are%20commonly%20used,pressure%2C%20as thma%2C%20and%20cancer.>

⁵⁶M. Aitken, E. R. Berndt, and D. M. Cutler, “Prescription Drug Spending Trends in the United States: Looking Beyond the Turning Point,” *Health Affairs*, Jan.–Feb. 2009 28(1):w151–w160.

⁵⁷C. Roehrig, “The Impact of New Hepatitis C Drugs on National Health Spending,” *Health Affairs Blog*, Dec. 7, 2015.

⁵⁸<https://www.commonwealthfund.org/publications/issue-briefs/2017/oct/paying-prescription-drugs-around-world-w-hy-us-outlier>

⁵⁹

<https://www.commonwealthfund.org/publications/surveys/2016/nov/2016-commonwealth-fund-international-health-policy-survey-adults>

take one or more prescription drugs regularly. The percentage ranges from 47% to 60% in all countries and though the U.S. lies on the higher end among developed countries, it is not an outlier. Another research conducted by the Office for Health Economics in the UK also suggests that Americans do not consume significantly higher amounts of drugs than people in other developed countries.⁶⁰

In terms of the types of drugs used, generic drugs make up 84% of the total pharmaceutical market in the U.S.. Generic drugs are copies of brand-name drugs that have the same dosage, intended use, effects, side effects, route of administration, risks, safety, and strength as the original drug. In other words, generic drugs are the exact copy of brand-name drugs, which have ended their patent life so they have much lower per-unit costs. Americans consume generic drugs as opposed to brand-name drugs at a higher rate than most other developed countries. This should mean that Americans pay less per capita for prescription drugs, rather than more.



Figure 18: Share of generics in pharmaceutical market⁶¹

As drug utilization and types of drugs consumed do not explain the significantly high drug expenditure, we need to examine the prices of drugs themselves. In 2015, Bloomberg conducted an analysis to compare the prices of six top-selling drugs across countries and suggested that prices for many blockbuster drugs are notably higher in the U.S. than other countries even after adjusting for the confidential discounts offered to U.S. health plans.^{62,63}

⁶⁰ https://www.abpi.org.uk/media/1348/meds_usage.pdf

⁶¹ <https://www.commonwealthfund.org/publications/issue-briefs/2017/oct/paying-prescription-drugs-around-world-w-hy-us-outlier>

⁶² Institutional payers for pharmaceuticals negotiate confidential discounts off of the official list price of pharmaceuticals purchased in the community setting. The negotiated prices are kept as secret so other customers cannot demand similar deals.

⁶³ <https://www.bloomberg.com/graphics/2015-drug-prices/>



Figure 19: Monthly price of 6 top-selling prescription drugs⁶⁴

As can be seen from the diagrams above, Januvia, a diabetes pill provided by Merck & Co's, costs more than twice as much in the U.S. for a monthly supply of the same drug as in Canada. Similar situations apply to other drugs too.

Most countries have policies that limit patient's copayment for pharmaceuticals to reduce the price impact on patients' access to pharmaceutical drugs. In Norway, pharmaceutical copayments are capped at approximately \$260 per year. In the UK, the National Health Service requires little to no patient cost-sharing. In the U.S., however, much less is done to limit patients' exposure to high out-of-pocket costs. Individuals can receive tens of thousands of dollars in pharmaceutical bills for expensive medicines and even Medicare does not set a cap for beneficiaries' out-of-pocket prescription drug costs. Only seven U.S. states—Delaware, Louisiana, Maine, Maryland, Montana, New York and Vermont— have legislations in place to limit out-of-pocket spending for insurance within their states.⁶⁵

Affordability problems weigh heavily on patients' access to critical pharmaceuticals and treatments. According to a Commonwealth Fund survey in 2016, 14% of insured American adults reported that they did not fill a prescription or skipped doses of medicine in the past year

64

<https://www.commonwealthfund.org/publications/issue-briefs/2017/oct/paying-prescription-drugs-around-world-why-us-outlier>

65

<https://www.pewtrusts.org/en/research-and-analysis/blogs/stateline/2015/07/02/states-limiting-patient-costs-for-high-priced-drugs#:~:text=At%20least%20seven%20states%20%E2%80%94%20Delaware,%24250%20per%20prescription%20per%20month.>

because of the cost—the percentage is even higher for Americans without continuous insurance coverage.⁶⁶

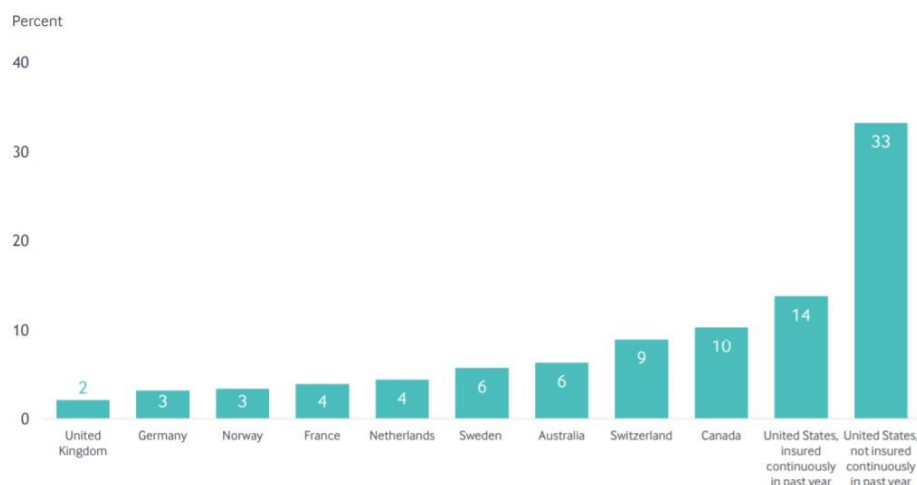


Figure 20: Adults who cited cost as a reason for skipping prescription doses, 2016⁶⁷

Why the Price of Drugs is Higher in the US

The U.S. pharmaceutical spending per capita far exceeds other high-income countries principally because of the high prices of new patented drugs paid by purchasers and consumers. Americans are also more likely than people in other developed countries to bear this financial burden with their own out-of-pocket expenses—both because of the large uninsured population and the less protective benefits in place. However, it has not always been this way. Pharmaceutical spending only dramatically increased in the U.S. during the 1990s, early 2000s, and mid 2010s when many blockbuster drugs were introduced all over the world. Other countries also experienced some level of expenditure increase, but they were significantly lower than the increase in the U.S..

One explanation is that the U.S. lacks price control strategies relative to other developed countries that employ centralized price negotiations, national formularies, and comparative and cost-effectiveness research for determining price ceilings. Because of the fragmented healthcare delivery and payment systems in the U.S., numerous separate negotiations take place between drug manufacturers and payers with complex arrangements for various federal and state health programs.⁶⁸

⁶⁶

<https://www.commonwealthfund.org/publications/journal-article/2016/nov/new-survey-11-countries-us-adults-still-struggle-access-and>

⁶⁷

<https://www.commonwealthfund.org/publications/issue-briefs/2017/oct/paying-prescription-drugs-around-world-why-us-outlier>

⁶⁸

https://www.commonwealthfund.org/blog/2016/drug-price-control-how-some-government-programs-do-it?redirect_source=/publications/blog/2016/may/drug-price-control-how-some-government-programs-do-it

Generally, the U.S. also allows wider latitude for monopoly pricing of brand-name drugs than other countries are willing to accept. The pharmaceutical monopolies result from patents awarded under federal law for novel molecules. After gaining regulatory approval and marketing, new drugs enjoy about 12 to 13 years of market exclusivity and can charge any price the pharmaceutical companies choose and the market will bear. The average prices for patent generic drugs not only cover research and development costs, but also include high profits. The 25 largest drug companies earned 20% profit in 2015. In comparison, the 25 largest software companies—with the same high R&d investment and low production and distribution costs as drug companies—earned 13.4% profit in 2015.⁶⁹

With that being said, patents eventually expire and competing pharmaceutical companies can manufacture the drug and sell it at a much lower price. However, the generic drug competition has been weakened recently by generic drug market monopolies, as these manufacturers have bought up their competition. Coinciding with the increase of pharmaceutical spending in 2014 and 2015 was the increased merger activities within the pharmaceutical industry, which not only pre-empted future competitions on existing patent drugs, but also reduced competition on old drugs.⁷⁰ Indeed, the prices of old and familiar drugs increased significantly after 2014. The price of the cardiac drug isuprel has increased more than sixfold between 2013 and 2015, and the price of the antibiotic doxycycline has soared 90-fold over the same period. The pharmaceutical companies responsible for raising the price of doxycycline are currently being investigated for price fixing, or colluding illegally to raise the price of generic drugs. Coordination between drug companies is illegal, however, if the companies merge, in effect they can legally do the same thing.

Another explanation of high pharmaceutical spending is the higher pace of adopting new drugs in the U.S. compared to other developed countries. Many European countries conduct comparative and cost-effectiveness research to assess not just whether a new drug is effective, but whether it is more effective than existing therapies and, in some cases, whether it is cost-effective. Therefore, there is a more gradual trend of the new drug adoption in those countries, while in the U.S., people consume a higher proportion of newer, more expensive drugs with no evidence of better health outcomes.⁷¹ Although brand-name, patented drugs comprise only 10% of all drug prescriptions in the U.S., they account for 72% of all drug spending.⁷²

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<https://www.commonwealthfund.org/blog/2018/its-monopolies-stupid#:~:text=At%20the%20core%20of%20the,federal%20law%20for%20novel%20molecules>.

⁷⁰ <https://www.gao.gov/assets/690/688472.pdf> Profits, Research and Development Spending, and Merger and Acquisition Deals, November 2017

71

<https://www.commonwealthfund.org/publications/issue-briefs/2017/oct/paying-prescription-drugs-around-world-why-us-outlier>

⁷² Generic Pharmaceutical Association. Generic drug savings in the US. http://www.gphaonline.org/media/wysiwyg/PDF/GPhA_Savings_Report_2015.pdf. Published November 3, 2015. Accessed July 13, 2016.

Drug Prices and Innovation

While high pharmaceutical prices pose a serious concern for national healthcare spending and patients' ability to afford treatments, the conversation should go beyond blaming pharmaceutical companies and the federal government for the lack of price control policies. Economic theory suggests that innovative companies make investment decisions on R&D opportunities based on their expectations of “net profit.” Research has shown that reducing revenue, on its own, would reduce R&D investment in the pharmaceutical industry and impede future yield of new therapies.⁷³ Government price controls would benefit current patients, but could restrict the number of new drugs for patients in the future.

Imposing limitations on the pharmaceutical industry could also negatively impact the United States's leadership in medical research and innovation in the world.⁷⁴ The pharmaceutical and medical devices industry performed \$111.8 billion of R&D in 2016, of which \$79.4 billion was invested domestically accounting for 20% of all domestic R&D expenditure in the U.S.⁷⁵ About 19% of the employment in the pharmaceutical industry is involved in research and the U.S. ranks first among the world in medical research output.⁷⁶ The U.S. leads the world in life-science innovation—from 1997 to 2016, U.S.-headquartered enterprises accounted for 42% of new chemical and biological entities introduced and approved around the world, outpacing contributions from the European Union member countries, Japan, China, and other nations.⁷⁷

However, the U.S. has not always held the leading position. Europe was the unquestioned center of biopharmaceutical research and development in the 20th century. In the latter half of the 1970s, European-headquartered enterprises introduced more than twice as many new drugs to the world as did those in the United States.⁷⁸ Throughout the 1980s, less than 10% of new active substances⁷⁹ were introduced first in the United States.

⁷³ <https://www.healthaffairs.org/doi/10.1377/hblog20190626.569971/full/>

⁷⁴ <https://itif.org/publications/2019/08/12/chinas-biopharmaceutical-strategy-challenge-or-complement-us-industry>

⁷⁵ “Business Research and Development and Innovation: 201” (National Science Foundation, August 2018), <https://nces.nsf.gov/pubs/nsf18313/#&>.

⁷⁶

<https://www.usnews.com/news/best-countries/articles/2017-06-16/us-leads-world-in-scientific-research-output-but-dominance-shrinking-study>

⁷⁷ https://www.efpia.eu/media/219735/efpia-pharmafigures2017_statisticbroch_v04-final.pdf.

⁷⁸ <https://www.usitc.gov/publications/332/pub3172.pdf>.

⁷⁹ New active substances (NAS) is defined as a chemical, biological or radiopharmaceutical substance not previously authorised as a medicinal product in the European Union. For more on NAS:

https://www.cov.com/-/media/files/corporate/publications/2013/10/new_active_substance_status_for_new_medicines.pdf

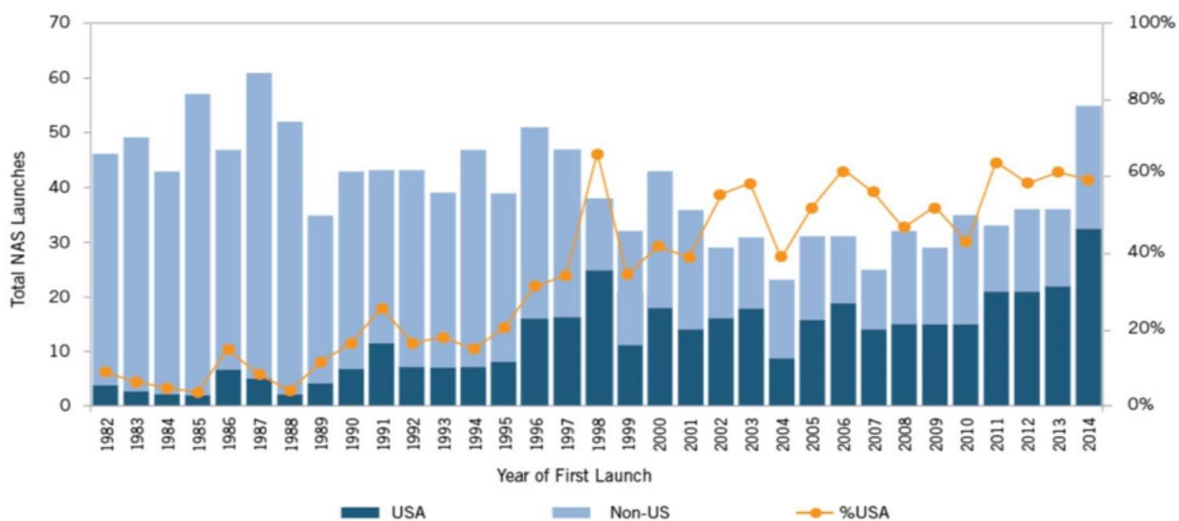


Figure 22: U.S. share of new active substances (NAS) launched in the world market⁸⁰

That story has changed in recent decades. By 2006, pharmaceutical companies invested 40% more in the United States than in Europe and by the 2010s, more than 60% of new drugs were first introduced in the United States. This improvement is backed by high R&D investment and the retention and creation of attractive jobs in the pharmaceutical industry in the U.S. This is another reason—beside limited negotiating power—why the federal government has been hesitant to regulate drug prices, which would reduce revenue and profits for pharmaceutical companies and their R&D investments and ability to retain good scientists.

The tradeoff is that if drug prices are limited, biopharmaceutical R&D development and new treatments for future patients would reduce; but if drug prices remain high, either many lower-income individuals (probably even middle-income individuals) cannot afford necessary prescriptions or the government has to bear an extremely high healthcare budget.

Some potential solutions are being discussed for maintaining R&D development while reducing pharmaceutical drug prices. The fundamental argument is that price incentives should be just one among many effective incentives for innovation. The 2006 report of the WHO Commission on Intellectual Property Rights has many proposals and the common idea is to delink the costs of research and development from the end product.

Push and Pull mechanisms

Economists, legal experts, and other stakeholders discussed whether deploying a combination of push and pull rewards might be able to sustain or even grow innovative output, even while reducing the prices payers pay for currently available prescription drugs.⁸¹

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<http://www.fda.gov/downloads/AboutFDA/CentersOffices/OfficeofMedicalProductsandTobacco/CDER/UCM477020.pdf>

⁸¹ <https://www.healthaffairs.org/doi/10.1377/hblog20190626.569971/full/>

Push mechanisms are upfront grants and in-kind contributions that get a project off the ground and into the market by mitigating the prohibitive costs of R&D or its most expensive parts, such as Phase III clinical trials.⁸² With upfront grants, pharmaceutical companies receive outside funding to share the cost of R&D development, reducing the need to pursue higher profits from drug pricing and revenues. In-kind contributions are non-monetary resources that partners or sponsoring organizations provide to support the project. They are cash-equivalent goods or services, which, if not donated, would have to be purchased with project funds. For example, in pharmaceutical R&D projects, in-kind contributions could be the time that individuals (non-faculty) within partner or sponsor organizations spend in providing direction and participating in the project. It could also include specialized skills and advice, access to special equipment, space, and data sets provided by partner or sponsor organizations.⁸³ These cash and cash-equivalent sponsorships help pharmaceutical companies limit their cost of R&D.

Pull mechanisms promise financial rewards after an objective or milestone has been reached. Rewards may include incentives, such as tax breaks, prizes or so-called advance market commitments, by which procurers commit to buy a certain amount of medicines or vaccines from the producer.⁸⁴ Tax breaks increase companies' net income and advanced market commitments guarantees revenue for promising pharmaceutical research. These are all non-price incentives that motivate pharmaceutical companies' continuous R&D developments.

Other non-price incentives include priority reviews given by FDAs to reduce the drug review time and cost. However, these conversations are still nascent in the United States and there is not sufficient data or analysis in whether and how non-price incentives would work in the country. There is still a lot to learn about how non-price incentives affect innovators' R&D investment decisions. The key is to involve as many stakeholders—pharmaceutical companies, payers, patients, policy makers—in the conversations as possible and proactively design, implement, and evaluate new, focused policy experiments to inform whether specific price or non-price incentives for R&D should be continued, expanded, or forgone.

6. Other Healthcare Costs

Based on data from the Organization of Economic Cooperation and Development (OECD), the United States spends about 16.9% of its GDP on healthcare, nearly twice as much as the OECD average of 8.8%.⁸⁵ Despite this, the US also suffers from the worst health outcomes compared to other OECD countries. Additionally, it has the lowest life expectancy, highest chronic disease burden and obesity rates, and among the highest number of avoidable

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<https://static1.squarespace.com/static/562094dee4b0d00c1a3ef761/t/57d9c6ebf5e231b2f02cd3d4/1473890031320/USG+HLP+Report+FINAL+12+Sept+2016.pdf>

⁸³ https://www.sshrc-crsh.gc.ca/funding-financement/policies-politiques/cash_inkind-especes_en_nature-eng.aspx

⁸⁴ https://www.sshrc-crsh.gc.ca/funding-financement/policies-politiques/cash_inkind-especes_en_nature-eng.aspx

⁸⁵ <https://www.commonwealthfund.org/publications/issue-briefs/2020/jan/us-health-care-global-perspective-2019>

hospitalizations and deaths.⁸⁶ The primary reason for these high prices and the disconnect between the cost and quality of American healthcare is high administrative costs. These include costs such as billing, insurance, and hospital infrastructure that aren't directly utilized for patient care. These costs were estimated to account for approximately 25.3% of hospital spending in the US, in contrast to only 19.8% in the Netherlands, 15.5% in England, and 12.4% in Canada.⁸⁷ The billions that America spends on administrative costs each year can be attributed to its multiplayer system, exorbitant hospital costs, and high healthcare provider wages.

In contrast with some of the developed countries listed above, which employ a single-payer system, the US has a number of disparate payment systems, all of which have their own rates and billing systems. Billing complexity and the systems required to process payments vary wildly among insurers, and a bulk of administrative costs can be traced back to this lack of standardization. The healthcare field employs 770 full-time workers per \$1 billion in revenue generated, compared to about 100 workers in other industries, and much of this disparity is because of the additional manpower required to parse through the complexities of the US's multiplayer system.⁸⁸ In addition, higher healthcare costs can be attributed to the imbalance of market forces in the multi-payer system. This is because the demand side of the market in a single payer system has significantly more power than the supply side, because healthcare providers are entering a controlled market and need to negotiate with a single entity to set their prices. Meanwhile, in a multi-payer system, healthcare providers hold much more market power and private insurers essentially set the price of healthcare with little oversight, resulting in soaring prices in comparison with other OECD countries operating under a single-payer system. The biggest proponents of the current multi payer system claim that the perceived discrepancy in administrative expenditures between private insurers and government programs is overblown. For example, the cost of collecting premium dollars isn't factored into the Medicare budget because it is handled by the Internal Revenue Service, another government agency, but this expense is factored into the administrative expenditures of private insurers, making their administrative costs appear artificially greater.⁸⁹ Critics of the single payer system also claim that the cost of developing and maintaining the sizable government entity that is necessary to administer a single payer system will supersede any administrative savings that come from a centralized system.⁹⁰

Hospital consolidation is a separate factor which contributes to higher US healthcare costs. Individual hospitals are consolidating through mergers and acquisitions to form large hospital networks, decreasing competition. These sprawling hospital systems have greater market

⁸⁶ Ibid.

⁸⁷ <https://www.modernhealthcare.com/article/20180407/NEWS/180409939/why-does-the-u-s-spend-so-much-more-on-healthcare-it-s-the-prices>

⁸⁸ <https://econofact.org/how-large-a-burden-are-administrative-costs-in-health-care>

⁸⁹ <https://www.atsjournals.org/doi/full/10.1164/rccm.200906-0882ED>

⁹⁰ https://www.urban.org/sites/default/files/publication/99918/pros_and_cons_of_a_single-payer_plan.pdf

power than individual hospitals. This change is reflected by hospital prices growing at a higher rate than prices for private practices and individual physicians. From 2007-2014, the price of inpatient care at a hospital grew 42%, while the price of receiving care from an individual physician only grew 17%.⁹¹ We know that this change is a reflection of hospitals' market power rather than a difference in healthcare inputs because hospitals in the US operated at a profit margin of 7% in 2016, compared to only 2-3% in other OECD countries.⁹²

Physicians and healthcare professionals also earn significantly higher salaries in the US than other OECD countries. The average physician in the US makes \$313,000 annually, which is nearly twice as much as physicians make in Germany (\$163,000), the country ranked second for physician salaries.⁹³ This can at least be partially attributed to the cost of a medical education in the US as compared to other countries. Public medical school is free or close to free in every country surveyed in the International Physician Compensation Report except the US and the UK, and the average public medical school in the US costs over three times as much as one in the UK.⁹⁴ The biggest proponents of US healthcare provider wages argue that a decrease in wages will result in a shortage of prospective healthcare workers. However, the US has much fewer practicing physicians per 1000 people than countries like Austria, Switzerland, Sweden, and Germany, all of which pay their physicians significantly less than the US.⁹⁵

7. Policy Options

The expansion of public healthcare could be a viable solution to many problems in America's current healthcare systems. First, the uninsured population that lacks affordable options in employer-based health insurance or individual health insurance can opt in government-provided health insurance. With more enrollees in public health insurance, the government would also have more bargaining power with hospitals and pharmaceutical companies to negotiate down hospital care and drug prices. Most OECD countries have reached universal healthcare coverage with a government-led single-payer system and with private healthcare co-existing as complementary or supplementary programs. However, public healthcare expansion faces many critiques. There are concerns that the program would be too expensive, limit choice for citizens, and provide substandard care.

There are several main ideas for policy reform on this issue:

- Eliminate the ACA: some feel that the Affordable Care Act went too far in involving the government in healthcare, and want to see it removed in its entirety. Parts of the ACA,

⁹¹ <https://www.healthaffairs.org/doi/abs/10.1377/hlthaff.2018.05424>

⁹² <https://www.americanprogress.org/issues/healthcare/reports/2019/06/26/471464/high-price-hospital-care/>

⁹³ <https://www.medscape.com/slideshow/2019-international-compensation-report-6011814#1>

⁹⁴ Ibid.

⁹⁵ https://stats.oecd.org/Index.aspx?DataSetCode=HEALTH_WFMI#

like making the Medicaid expansion mandatory for states, have been struck down by the Supreme Court, although the ACA was found to be constitutional in 2012. The ACA has gained in popularity since its passing, and many voices who initially argued for removing the Act altogether now argue for replacing it with a more efficient plan, although an outline for that plan has not yet been released.

- Continue the Medicaid expansion to states which have not yet opted in: 12 states (Alabama, Florida, Georgia, Kansas, Mississippi, North Carolina, South Carolina, South Dakota, Tennessee, Texas, Wisconsin, and Wyoming) have not opted in to the Medicaid expansion, and 2 states (Missouri and Oklahoma) voted to opt in during 2020, and the expansion will be implemented in 2021. Because of the Supreme Court ruling saying that the federal government can't force states to adopt the expansion, it is up to voters in the 12 states to contact their state legislators if they want the Medicaid expansion. 4.4 million uninsured Americans would qualify for the expanded Medicare, but live in the 14 states which have not yet expanded.⁹⁶
- Expand Medicaid to individuals above the 138% of the federal poverty level: many American households making above 138% of the federal poverty line cite cost as the main reason that they do not have health insurance. If all states raised the Medicaid ceiling to 199% of FPL, an additional 4.6 million uninsured people would qualify.⁹⁷
- National public option: every American would have the option to purchase health insurance from the government, and pay a premium calculated based on their income. This would allow every person to have access to high quality and affordable coverage, without forcing people off of their existing plans.
- Medicare for All: Medicare for All would replace private insurance with universal public insurance. Plans differ on what this would look like; some include copays, deductibles, and premiums calculated based on the individual's income, while others are all-inclusive. Some countries with Medicare for All-like systems also have a private insurance market where supplemental plans can be purchased to cover out-of-pocket expenses or optional procedures. Medicare for All systems in other developed countries cost less per capita than the current US system, and achieve universal coverage. However, wait times for elective procedures can be lengthy. Some countries, like Canada, only have government-managed health insurance and private healthcare providers. Others, like the United Kingdom, have government-run healthcare providers as well, where hospitals are directly employed by the government.

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<https://www.kff.org/medicaid/issue-brief/the-coverage-gap-uninsured-poor-adults-in-states-that-do-not-expand-medicare/>

⁹⁷ <https://www.census.gov/content/dam/Census/library/publications/2019/demo/p60-267.pdf>

8. Appendix

1. Medicare

Different parts of Medicare cover different specific services:

- Medicare Part A (Hospital Insurance) covers inpatient hospital stays, care in a skilled nursing facility, hospice care, and some home health care.
- Medicare Part B (Medical Insurance) covers certain doctors' services, outpatient care, medical supplies, and preventive services.
- Medicare Part C (Medicare Advantage) allows beneficiaries to enroll in private health plans to receive Part A and Part B Medicare benefits.
- Medicare Part D (prescription drug coverage) helps cover the cost of prescription drugs (including many recommended shots or vaccines).

Most people do not pay a premium—a monthly payment for health insurance—for Part A when they or their spouses pay Medicare taxes for a certain amount of time while working. If someone does not qualify for premium-free Part A, they can buy Part A with a monthly premium. For people that had paid Medicare taxes for 30-39 quarters, the standard Part A premium is \$252; while for people that paid Medicare taxes for less than 30 quarters, the standard Part A premium is \$458. For Part B, everybody pays a monthly premium of \$144.60 in 2020. Medicare drug coverage, Part D, varies in cost and specific drugs covered, and there could also be other costs throughout the year.⁹⁸

Medicare Part A is financed by the Hospital Insurance (HI) trust fund whose income comes primarily from a payroll tax on U.S. workers and employers. Medicare Part B and Part D are financed by the Supplementary Medical Insurance (SMI) trust fund whose income comes from the federal government's general fund. Medicare Part C is paid for through both the HI and SMI trust funds with a combination of the general fund, payroll taxes, premiums, and out-of-pocket charges.

2. Medicaid

The ACA used Modified Adjusted Gross Income (MAGI)—a new methodology for determining financial eligibility for Medicaid, CHIP, and premium tax credits and costs sharing reductions—to simplify income counting rules and the application process.

Non-federal funding sources for Medicaid:⁹⁹

- General Revenue: Income taxes, sales taxes, and other state and local sources. General Revenue and state general funds account for about 74% of the non-federal share of financing (FY 2012).

⁹⁸For more information at Medicare.gov

<https://www.medicare.gov/what-medicare-covers/your-medicare-coverage-choices/whats-medicare>

⁹⁹

<https://www.macpac.gov/wp-content/uploads/2017/07/The-Impact-of-State-Approaches-to-Medicaid-Financing-on-Federal-Medicaid-Spending.pdf>

- Healthcare-related taxes: Most states have at least one healthcare-related tax in place to finance about 10% of non-federal share (FY2012).
- Other local sources of non-federal share: Expenditures such as services at government-owned and operated hospitals in counties, municipalities and other units of local governments contribute to about 16% of the non-federal share of Medicaid spending (FY 2012).

3. Managed Care Organizations

There are different types of managed care plans and they are basically trade-offs between lower costs and wider choices:

- Health Maintenance Organizations (HMO) usually only pay for care within the network. HMOs set monthly fees and members need to visit their chosen primary care physicians for medical services or referrals to other specialists.
- Preferred Provider Organizations (PPO) allows more choice in enrollees' healthcare providers. PPOs will pay more if an enrollee receives care within the network, but they will still pay a portion if the enrollee goes outside the network. PPOs negotiate and make arrangements with physicians, hospitals and other care providers for lowered service fees.
- Point of Service (POS) plans allow individuals to choose between HMO and PPO each time they need care. If primary care physicians refer enrollees to care outside the network, the plan will pay all or most of the bill. If enrollees refer themselves to outside providers, the plan will still pay part of the bill if the service is covered.

4. Key Terms

- Affordable Care Act: The comprehensive health care reform law enacted in March 2010. The law has three primary goals: 1. Make affordable health insurance available to more people. The law provides consumers with subsidies ("premium tax credits") that lower costs for households with incomes between 100% and 400% of the federal poverty level. 2. Expand the Medicaid program to cover all adults with income below 138% of the federal poverty level. (Not all states have expanded their Medicaid programs.) 3. Support innovative medical care delivery methods designed to lower the costs of health care generally. 4. Mandating that health insurance companies can't refuse to cover someone, or charge more, based on their pre-existing conditions like cancer or diabetes.
- Children's Health Insurance Program: a low-cost plan to provide health insurance coverage for children in families which do not qualify for Medicaid. In some states, CHIP also covers pregnant women.
- Copayment: a fixed cost for a medical service which is paid by the patient and established through their health insurance plan. Copays are meant to share the cost of medical care between the insurer and the patient, and deter the patient from seeking unnecessary care because it comes at no cost to themselves.

- **Deductible:** a cost paid by the patient before the insurance covers any cost. For example, if an insurance plan has a deductible of \$50 and the patient needs a procedure which costs \$40, the patient pays for the entire cost. If the procedure costs \$110, the patient pays \$50 and the insurer pays \$60.
- **Employer-based health insurance:** Insurance that is purchased by employers for their employees and financed through employer or joint employer-employee contributions. Employer-based health insurance is currently subsidized in part by the federal government through tax exclusions for employer contributions to employee health insurance plans.
- **Generic drugs:** drugs which contain the same chemical makeup as ones which were originally patented. Generic drugs tend to be less expensive than their patented counterparts.
- **Hospital Insurance:** a trust fund for Medicare which payroll taxes pay into. It has been running a deficit for several years, and struggling again with the increased costs associated with Covid and fewer income sources due to high unemployment.
- **Managed Care Organization:** a private organization which coordinates healthcare for users and providers in a way designed to manage the cost. Costs can be lowered by creating gatekeepers who have to approve of expensive tests and treatments before they are provided to the user, and negotiating with healthcare providers for lower rates for large groups.
- **Medicaid:** a federal health insurance program for the elderly, or people with disabilities or specified illnesses.
- **Medicare:** a federal health insurance program for low-income Americans.
- **Patented drugs:** drugs which can only be produced by the company which developed them for a specified period of time. Patents are given to pharmaceutical companies by the government so that they can recoup their expenses from researching and developing the drug. Patented drugs can be expensive, and when the patent runs out (around 20 years) generic drugs which contain the same chemical compound can be sold, which are generally less expensive than the patented drug.
- **Personal Health Plans/Individual health insurance:** The healthcare coverage that one purchases on one's own, on an individual or family basis, as opposed to obtaining through an employer.
- **Pharmaceutical:** a compound manufactured to be used medicinally.
- **Premiums:** the cost of an insurance program. Premiums can be paid to the insurer in installments (for example, monthly or annually), or paid in full prior to the start of the coverage.
- **Prescription drugs:** a medication which legally requires a prescription from a doctor to be dispensed. Using a prescription drug without a prescription, or with a prescription but in a

way which was not prescribed (like taking more than the specified amount), is considered drug abuse.

- Supplementary Medical Insurance: a trust fund for Medicare which the federal government pays into.
- TRICARE: a private health insurance program which provides health benefits to military personnel, military retirees, and their dependents
- Uninsured: people without any form of health insurance (either from the government, their employer, or a private plan) are uninsured. They must cover all healthcare costs out-of-pocket, and, if they cannot afford to, then their only healthcare option is to use emergency care at a hospital. Hospitals are obliged to provide this care if they accept Medicaid, even if the patient is unable to pay.
- Underinsured: people with some form of health insurance who are unable to access some form of treatment or medication they would otherwise require due to the cost of the copayment or deductible are considered underinsured.