

Funding Universal Healthcare in Utah

Replacing an Inefficient, Inequitable, and Destructive Healthcare Finance System with a Fair System That Will Promote Economic Efficiency and Better Health

Gerald Friedman
Professor of Economics
University of Massachusetts at Amherst
Amherst, MA. 01003
July 15, 2023

gfriedma@econs.umass.edu

@gfriedma

Draft: not to be cited or circulated

I am grateful for research assistance from Tai Spargo Pasquale, Saul Bezner, and Natasha Friedman. I have benefitted from discussions with Diane Archer, Michael Ash, Travis Campbell, Ben Day, Nancy Folbre, Jim Kahn, Joseph Kane, Richard Master, and Jon Weissman. I have also benefited from comments from Heather Clark, Frank Farkas, Lyn Newkirk, Alice Swift, Nancy Talanian, and Maria Idali Torres. Remaining mistakes are, of course, my responsibility.

Funding Universal Healthcare in Utah	1
Replacing an Inefficient, Inequitable, and Destructive Healthcare Finance System with a Fair System That Will Promote Economic Efficiency and Better Health	1
Introduction: paying for healthcare	3
It's the Prices	4
Controlling Costs While Increasing Access	7
The Cost of Coverage with the Existing System of Fragmented Private Health Insurance	7
Integrating Medicare and Medicaid into a Universal Program	9
Total Costs for System Improvements	9
Savings from Moving to Utah Cares: Provider Administration	9
Savings from Moving to Utah Cares: Insurance Administration	10
Savings from Moving to Utah Cares: Eliminating Monopoly Rents: Hospitals and Other Providers	12
Savings from Moving to Utah Cares: Eliminating Monopoly Rents: Prescription Drugs and Medical Devices	15
Savings from moving to Utah Cares: eliminating monopoly rents: prescription drugs and medical devices	15
Waste and Fraud	17
Opportunities to Bend the Cost Curve	18
Paying for a Better System	21
Remaining Revenue from Existing Sources	21
New Revenue Sources	22
Other Considerations: Productivity and Health	23
Appendix 1: Alternative Funding Arrangements to Reduce Burden on Low-income Families	25
Appendix 2: Alternative Funding Arrangements to Reduce Burden of Premiums	25
Figures	32
Tables	46
References	52

Introduction: paying for healthcare

This economic analysis explores the implications of a state cooperative health plan in Utah implemented in 2027 and fully in place by 2029. The Act would replace the current multi-payer system in which individuals, private businesses, and government entities pay public and private insurers for healthcare coverage. It would establish Utah Cares, a non-profit trust to finance medically necessary care, including dental and vision care, doctor visits, hospitalization, long-term care, medical devices, mental/behavioral health, prescribed occupational and physical therapy, prescription drugs, and rehabilitative care. Utah Cares would offer this comprehensive coverage to all Utah residents and pay for it with broad-based premiums. Unlike socialist programs, like the British National Health Service, it would leave the provision of healthcare unchanged with independent private providers and multiple providers, including the Veterans' Administration, and offer opportunities for residents to buy alternative insurance if they so choose.

Utah Cares would liberate Utah residents from the restrictions on choice established by private health insurance. By eliminating deductibles, co-pays, and the network restrictions common with the current system, it would free residents to seek out the care most appropriate to their needs.

Utah Cares will finance medical care with substantial savings compared with the existing multi-payer system of public and private insurers. By reducing administrative and other waste, including health insurance company profits and excessive prices for drugs and medical devices, and a form of global budgeting for hospitals, the plan would increase real disposable income for the vast majority of Utah residents. It would simultaneously increase employment by reducing the burden of health insurance on businesses. Some of these savings would be used to extend coverage to the three percent of residents still without insurance under the Affordable Care Act. Other savings would be reinvested in the healthcare system to improve coverage for the growing number with inadequate coverage.

By reducing barriers to access to healthcare, the plan would eliminate the financial penalty associated with health problems. It would also reduce economic inequality by replacing the current regressive system of health insurance finance with contributions proportional to income and ability to pay. Utah Cares would also improve the state's business climate by reducing the burden of healthcare costs on Utah businesses while improving the health of Utah residents.

In addition, by improving access to healthcare and the health of Utah residents, Utah Cares would promote higher productivity because healthier citizens are more productive. By removing health insurance from bargaining, Utah Cares would also promote more amicable labor relations, reducing discord and improving worker morale. In short, by improving health and the economy, Utah Cares would promote faster growth in income, providing additional resources to fund the state's healthcare system.

It's the Prices

We spend more on healthcare in the United States because the price of care is higher in the United States.¹ For decades, policy has missed this fundamental point. Instead of addressing prices and underlying inefficiencies, it has tried to slow rising costs by reducing the utilization of healthcare, doing so with rising deductibles and other forms of cost sharing.² While this approach has had some success in slowing the growth in healthcare spending, it has done so at the expense of reducing access to care (see Figure 1). No other country has performed so badly and developed so much waste in its healthcare finance system.³ The United States is unique, combining the fastest increase in costs with relatively small increases in life expectancy (see Figure 2). By reducing access to needed care, rising deductibles and co-pays have increased mortality (see Figure 3).⁴

While the poor performance of American healthcare dates back to the 1970s, the problem has become even more acute recently. Despite improvements in medical technology and the high quality of American medicine and medical training, life expectancy in the United States has fallen sharply in recent years, dropping by 1.8 years in 2020 and an additional 0.9 years in 2021. Reversing a quarter century of progress, this is the largest two-year decline in a century.⁵ While

¹ Anderson et al., "It's The Prices, Stupid"; Anderson, Hussey, and Petrosyan, "It's Still The Prices, Stupid"; Reinhardt, "Economists in Health Care"; Reinhardt, *Priced Out*; For a study of US prices in international context, see International Federation of Health Plans, "2013 Comparative Price Report: Variation in Medical and Hospital Prices by Country"; Hargraves and Bloschick, "International Comparisons of Health Care Prices from the 2017 IFHP Survey"; McKinsey Global Institute, "Accounting for the Cost of Health Care in the United States"; Committee for a Responsible Federal Budget, "Capping Hospital Prices"; Cicchiello and Gustafsson, "Brand-Name Drug Prices"; Reinhardt, "U.S. Health Care Prices Are the Elephant in the Room"; Pozen and Cutler, "Medical Spending Differences in the United States and Canada"; Gee and Spiro, "Excess Administrative Costs Burden the U.S. Health Care System"; Pany, Biniek, and Neuman, "Price Regulation, Global Budgets, and Spending Targets."

² Rae, Cox, and Levitt, "Deductible Relief Day"; Kaiser Family Foundation, "Average Annual Family Premium per Enrolled Employee For Employer-Based Health Insurance"; Abelson, "Workers With Health Insurance Face Rising Out-of-Pocket Costs"; Case and Deaton, "Rising Morbidity and Mortality in Midlife among White Non-Hispanic Americans in the 21st Century"; Case and Deaton, *Deaths of Despair and the Future of Capitalism*. About a third of the US population reports they could not afford to access needed healthcare; Riffkin, "Cost Still a Barrier Between Americans and Medical Care."

³ For summaries, see Friedman, *The Case for Medicare for All*; El-Sayed, *Medicare for All: A Citizen's Guide*; Archer, "What Is Wrong with Medicare Prices for All?"; Barber et al., "Healthcare Access and Quality Index Based on Mortality from Causes Amenable to Personal Health Care in 195 Countries and Territories, 1990–2015"; Emanuel, *Which Country Has the World's Best Health Care?*; Johnson, *The Customer Revolution in Healthcare*; Johnson, *Market Vs. Medicine*; Johnson, "Healthcare's Administrative 'Sludge' Is Worse than You Think"; Makary, *The Price We Pay*.

⁴ Collins et al., "The Problem of Underinsurance and How Rising Deductibles Will Make It Worse Findings from the Commonwealth Fund Biennial Health Insurance Survey, 2014"; Collins, Bhupal, and Doty, "Health Insurance Coverage Eight Years after the ACA: Fewer Uninsured Americans and Shorter Coverage Gaps, but More Underinsured."

⁵ Arias et al., "Provisional Life Expectancy Estimates for 2022."

it would be easy to blame the declining life expectancy on the COVID pandemic, the pandemic explains only 74% of the decline in life expectancy in 2020 and only half in 2021.⁶ Furthermore, our health-care performance has been declining for decades.⁷ And our relative performance compared with our European partners, fellow affluent liberal capitalist states, has been, frankly, abysmal. Before the pandemic, we had nearly half a million more age-standardized excess deaths than comparable European countries, nearly 20% of all deaths in the United States. Because of our poor performance during the pandemic, that number soared to over 600,000 in 2020 and nearly 700,000 in 2021 (see Table 1). Nor can our poor performance during COVID be attributed only to the pandemic: much of our excess COVID mortality is associated with lack of health insurance leading to poor access to needed healthcare, late treatment adding to both mortality and spread.⁸

Some states have been providing better healthcare.⁹ Utah has done better than most, ranking 11th in life expectancy of 51 states (including the District of Columbia), and only seven states have a lower rate of mortality amenable to healthcare, or deaths that might have been prevented had the person received healthcare.¹⁰ Despite the generally healthy population habits, with low rates of alcoholism and drug abuse, Utah's healthcare system performs relatively poorly in some crucial measures, including a high rate of infant mortality and high suicide rates.¹¹ And the state has experienced rising rates of mortality amenable to healthcare.¹²

⁶ Arias et al.

⁷ Case and Deaton, *Deaths of Despair and the Future of Capitalism*; Case and Deaton, "Rising Morbidity and Mortality in Midlife among White Non-Hispanic Americans in the 21st Century"; Anderson et al., "It's The Prices, Stupid."

⁸ Campbell et al., "Exacerbation of COVID-19 Mortality by the Fragmented United States Healthcare System"; Galvani et al., "Universal Healthcare as Pandemic Preparedness"; Bilinski and Emanuel, "COVID-19 and Excess All-Cause Mortality in the US and 18 Comparison Countries"; Barnay and Defebvre, "The First COVID Wave" finds that the Covid experience for adults over 50 was significantly worse in the United States than in other affluent countries. Burn-Murdoch, "Why Are Americans Dying so Young?"

⁹ McCarthy, Radley, and Hayes, "2018 Scorecard on State Health System Performance"; Gamble, "50 States Ranked by Overall Health in 2022"; Agency for Healthcare Research and Quality, "The Quality of Health Care Varies Widely across the Nation. State Snapshots, an Interactive Tool from the Agency for Healthcare Research and Quality (AHRQ), Uses More than 200 Statistical Measures to Offer State-by-State Summaries of Health Care Quality."

¹⁰ Commonwealth Fund, "Performance Indicator Content | Commonwealth Fund."

¹¹ CDC, "Stats of the States - Infant Mortality"; Commonwealth Fund, "The Commonwealth Fund - 2020 Scorecard On State Health System Performance."

¹² Commonwealth Fund, "The Commonwealth Fund - 2020 Scorecard on State Health System Performance."

In recent years, Utah has been controlling healthcare costs. The annual rate of growth in per capita healthcare spending has slowed dramatically since the 1990s, falling from 5.9% a year 1992-2006 to 3.5% a year since (see Figure 4).¹³ Unfortunately, increases in cost sharing account for much of this by discouraging the sick from seeking care. Since 2002, the average deductible on a private-sector employment-based health insurance plan, for example, has been increasing dramatically even while fewer workers are covered by employment-based insurance and more are in plans with a deductible (see Figures 5 and 6).¹⁴ As recently as 2002, half of private employees were covered by an employment-based health insurance plan, and almost half of these, 22% of all employees, had family plans that covered spouses and children. By 2019, the share with any health insurance declined to 44%, down six percentage points, while the share with family coverage dropped by a third to 14%. The quality of coverage has also declined. In 2002, barely half of employees with health insurance faced a deductible on top of their premiums; such deductibles are nearly universal now, and their size has increased nearly fourfold.

With fewer people covered and soaring deductibles and other forms of cost sharing, the cost of being sick and the cost of receiving healthcare has increased. This is how Utah has contained the cost of healthcare in the state: by restricting access to care and utilization of healthcare. In the 1990s, before the widespread use of cost-sharing policies like high deductible health insurance plans, real healthcare utilization per person increased by 1.2% per annum, keeping pace with rising per capita income.¹⁵ Between 2000-2010, the rate of increase in utilization fell to 1.0% per annum. From there, despite the economic recovery after the economic crisis of 2007-10, utilization nearly plateaued with average increases of barely 0.5% per annum, and over a third of that was because of the extension of coverage under the Affordable Care Act.¹⁶

Facing higher costs, we see in Utah the same pattern seen in the rest of the United States: increasing mortality where the sick cannot afford to access healthcare.¹⁷ Utah counties where more people cannot afford to see a doctor have dramatically higher mortality rates (see Figure 8). In Carbon County, for example, with its declining mining industry, nearly 17% of residents report that they could not afford to see a doctor, 29% above the state average, and the age-

¹³ Kaiser Family Foundation, "Health Care Expenditures per Capita by State of Residence"; Montez et al., "US State Policies, Politics, and Life Expectancy"; Commonwealth Fund, "The Commonwealth Fund - 2020 Scorecard on State Health System Performance."

¹⁴ Agency for Healthcare Research and Quality, "MEPS Summary Tables."

¹⁵ This is per capita spending on personal healthcare adjusted for price changes, the BLS Consumer Price Index for Medical Care, and changes in the age distribution of the population adjusted for average healthcare spending at different ages.

¹⁶ Real per capita utilization increased by 6% from 2008-19 and 2% of that, a third, was due to the fall in the rate without any health insurance from 15% to 9%.

¹⁷ Note that this effect is not only due to cost sharing but also due to differences in income.

adjusted mortality rate of 424 per 100,000 is 35% above the state average.¹⁸ In the state's wealthiest county, Summit, fewer than 11% cannot afford to see a doctor, 17% below the state average, and the mortality rate is 40% below the state average. In affluent suburban Davis County, by contrast, only 9% report they could not see a doctor, 29% below the state average, and the age-adjusted mortality rate is 252 per 100,000, 20% below the state average (see Figure 8 and Table 5). The relationship between mortality and access, the ability to afford to see doctors when sick, is strong enough that one may project that if all counties in Utah had no more than 4% of the population unable to see doctors, mortality would fall by over 40%.¹⁹

Notwithstanding the decline in employment-based health insurance coverage, fewer Utah residents are going without any health insurance (see Figure 9). This is because of the increase in nongroup coverage, subsidized through the Affordable Care Act, and increases in enrollment in public programs, Medicare and Medicaid. In effect, in Utah, as elsewhere in the United States, we are substituting public for private insurance, and public for private funds in providing healthcare. We have been shifting the cost of healthcare from employers to employees and the tax-paying public as a whole.

Controlling Costs While Increasing Access

There are limits to our ability to transfer resources to healthcare from other activities. Utah residents' access to care can be assured only if costs can be controlled. These costs can be controlled while access increases only if the price of care is contained. This can only happen if healthcare is provided more efficiently and we squeeze monopoly rents out of the healthcare system.

The Cost of Coverage with the Existing System of Fragmented Private Health Insurance

What would be the cost of healthcare with universal access through a public program? Estimates begin with estimates of the cost of coverage under the existing system, before adding the extra cost of a universal program and subtracting any projected savings. The results of this exercise are in Table 2. For each activity, such as hospitals or pharmaceuticals, I use estimates from the Center for Medicare and Medicaid Services (CMS) available on the state level, most recently for 2019.²⁰ To adjust these spending estimates to 2027 and 2029, I raise each by the rate of inflation

¹⁸ Robert Wood Johnson and University of Wisconsin, Population Health Institute, "County Health Rankings."

¹⁹ Much of the excess mortality experienced in the US during Covid may be explained by financial barriers to access. Among adults over 50, 31% went without healthcare because of cost, 5 times the rate in other countries; Barnay and Defebvre, "The First COVID Wave"; Campbell et al., "Exacerbation of COVID-19 Mortality by the Fragmented United States Healthcare System"; Galvani et al., "Universal Healthcare as Pandemic Preparedness."

²⁰ US Government, CMS, "US State Estimates by State of Residence -- Health Expenditures" CMS does not include administrative costs in its estimates, including costs within the insurance industry. I have estimated these by applying administrative ratios (the "Medical Loss Ratio") for the different insurers in Utah. Because these data are for 2019, it has been necessary to extrapolate forward using estimates of the increase in per capita spending in Utah as described in the text. The MLRs are from Wilson, "An Overview of Healthcare Expenditures in the State of Utah."

in healthcare spending per capita to estimate per capita for each health-care service in Utah for 2000 to 2019. I estimate total spending as per capita spending times the population in each year, where population is estimated assuming the annual rate of population increase for 2000-19 continues.

I make two further adjustments to account for universal coverage and universal access.

First, I assume that those who are currently uninsured will increase their utilization of healthcare. While this includes 9% of the population, it will increase spending by less than that because the uninsured tend to be relatively young and healthy, and because they are *already* using healthcare, either from charitable support or out-of-pocket.²¹ For this reason, an increase in insurance of 9% would be associated with an increase in spending of barely 2.5% percent.

In addition, I assume that removing most deductibles and co-pays will increase utilization. While this will have real benefits in health and economic efficiency, and may reduce complications and cost in the future, it will involve immediate expenses.²² The impact of reduced cost-sharing (deductibles and co-pays) has been the subject of significant research. One of the best studies, used by CMS, is by Brot et al. who found that moving to a high-deductible plan with significant deductibles and co-pays was associated with a reduction in spending of 11-15%.²³ These estimates are a little higher than those used by CMS, which estimates the general effect on utilization of changes in the actuarial value (AV) of insurance plans, or the share of costs covered by insurance. In Utah, the current AV of insurance plans is about 82% percent, including public plans. Using the CMS estimates, moving up to 96%, with full coverage of medical expenses, would increase utilization by over 5%.²⁴ To this we need to add an adjustment for activities outside of the CMS calculation of AV, including dental and home healthcare. I adjust utilization in these activities by extrapolating from the estimate from the CMS projection of the relationship between AV and utilization and the current insurance rates for dental, home healthcare, nursing care, and other services.

²¹ Hadley and Holahan, "The Cost of Care for the Uninsured: What Do We Spend, Who Pays, and What Would Full Coverage Add to Medical Spending."

²² Experience has been that new systems of universal coverage have had relatively small effects on total utilization. It may be that physicians have reallocated their time to needy patients previously unable to access care by reducing low-value care provided relatively affluent patients. Cheng and Chiang, "The Effect of Universal Health Insurance on Health Care Utilization in Taiwan. Results from a Natural Experiment"; Enterline et al., "The Distribution of Medical Services before and after Free Medical Care — The Quebec Experience"; There is also evidence that increased access to primary care may lead to future cost savings. See Fruge, "Impact of Primary Care on Healthcare Cost and Population Health: A Literature Review"; Reschovsky et al., "Paying More for Primary Care: Can It Help Bend the Medicare Cost Curve?"; There may also be supply constraints on the provision of healthcare to new patients, especially if a new system limits the prices of services; see Clemens, Gottlieb, and Hicks, "How Would Medicare for All Affect Health System Capacity?"

²³ Brot-Goldberg et al., "What Does a Deductible Do?"

²⁴ Pope et al., "Risk Transfer Formula for Individual and Small Group Markets Under the Affordable Care Act."

Integrating Medicare and Medicaid into a Universal Program

Medicaid currently reimburses at rates as low as 80% of those of Medicare. This is greatly inequitable for Medicaid providers, who are paid less than other providers for the same services. It also makes it difficult for Medicaid recipients to access care. This discrimination will no longer be possible when all residents are in the same health plan. The required price increase must be added to the cost of the program.

Currently, Medicare recipients who are not dual eligible (that is, are not on Medicaid) may enroll at their own expense in Medicare Part B at a cost of over \$165 a month.²⁵ The Act would provide Medicare recipients with care under the same circumstances as other residents, regardless of whether they pay these premiums. Therefore there would be no reason for them to continue enrolling in Part B. However, unless the premiums are paid, Utah Cares would lose access to Medicare Part B funds. Therefore, it will have to pick up this cost, a significant benefit to the elderly.²⁶

Total Costs for System Improvements

Coverage expansion to the uninsured and the underinsured is projected to add \$3.4 billion to healthcare spending in 2027. With the full integration of Medicaid and Medicare by 2029, including covering Medicare Part B premiums, the cost of system improvements rises to \$4.7 billion in 2029.

Savings from Moving to Utah Cares: Provider Administration

American health care providers (hospitals, physicians, etc.) spend significantly more time on administrative tasks than do their counterparts in countries with universal coverage systems.²⁷ Physicians in the U.S., for example, devote one-sixth of their work hours to administration, including bill processing, which is four times the time spent by their Canadian counterparts.²⁸

²⁵ Of course, the premium may be expected to rise by 2027. I have assumed that it will increase at the rate of increase in per capita healthcare spending.

²⁶ An alternative would be to make Part B premium payments a requirement for access to benefits. This would mean that seniors would be the only ones charged a premium for access to Utah Cares benefits

²⁷ Reducing time spent on administrative tasks will free provider energies and time for patient care, easing the supply constraint mentioned above. If an improved administrative system free 10% of physician time from insurance paperwork, that would provide more than the time needed to treat the uninsured and underinsured, and would also protect provider income even with some reduction in prices.

²⁸ Congressional Budget Office, "How CBO Analyzes Proposals for a Single-Payer Health Care System | Congressional Budget Office"; Shrank, Rogstad, and Parekh, "Waste in the US Health Care System"; Himmelstein, "A Comparison of Hospital Administrative Costs in Eight Nations"; Woolhandler, Campbell, and Himmelstein, "Cost of Health Care Administration in the United States and Canada"; Jiwani et al., "Billing and Insurance-Related Administrative Costs in United States' Health Care: Synthesis of Micro-Costing Evidence"; Himmelstein, Campbell, and Woolhandler, "Health Care Administrative Costs in the United States and Canada, 2017"; Berwick and Hackbarth, "Eliminating Waste in US Health Care"; Woolhandler and Himmelstein, "Administrative Work Consumes One-Sixth of U.S. Physicians' Working Hours and Lowers Their Career Satisfaction"; Morra et al., "US Physician Practices Versus Canadians"; Holmgren et al., "Assessment of Electronic Health Record Use Between US

Updating electronic records (used not only for patient care but for billing) requires an average of 16 minutes of physician time per patient visit.²⁹ It costs much more to process bills in our system than in other countries; the Commonwealth Fund reports that doctors report “wasting time on billing and insurance claims.” Even other countries that rely on private health insurers, like Switzerland or the Netherlands, reduce the administrative burden for providers through regulations that standardize benefit packages and payment systems.³⁰ (Note that this does not include the substantial expense borne by employers and plan enrollees for processing bills to the insurance industry.³¹)

Simplifying the reimbursement process would save physicians nearly six hours a week, equivalent to more than a 10% increase in the available supply of physicians.³² If Utah health care providers, including hospitals, nurses, and physicians, were to spend, proportionally, only as much on administration as do providers in Canada, or of revenue instead of 24% percent, they would save nearly nine billion dollars on administrative costs.

Savings from provider administration will be captured by Utah Cares through lower reimbursement rates, leaving physician incomes secure.³³ Physicians will benefit from higher Medicaid reimbursements as well as higher utilization, especially from those now uninsured or underinsured.

Savings from Moving to Utah Cares: Insurance Administration

In the current system, nearly 10% of total spending goes to the administration of the insurance system—including private insurance and employer-sponsored self-insured plans (which are

and Non-US Health Systems”; Cutler and Ly, “The (Paper) Work of Medicine: Understanding International Medical Costs.”

²⁹ Overhage and McCallie, “Physician Time Spent Using the Electronic Health Record During Outpatient Encounters”; Holmgren et al., “Assessment of Electronic Health Record Use Between US and Non-US Health Systems”; Downing, Bates, and Longhurst, “Physician Burnout in the Electronic Health Record Era.”

³⁰ Schneider et al., “Mirror, Mirror 2017: International Comparison Reflects Flaws and Opportunities for Better U.S. Health Care”; Shrank, Rogstad, and Parekh, “Waste in the US Health Care System”; Blanchfield et al., “Saving Billions Of Dollars—And Physicians’ Time—By Streamlining Billing Practices”; Emanuel, *Which Country Has the World’s Best Health Care?*

³¹ Pfeffer, “Magnitude and Effects of ‘Sludge’ in Benefits Administration.”

³² A 2005 study found that California physicians spent 41% of their revenue on administrative activities, including 14% directly on billing and insurance related expenses; Kahn et al., “The Cost Of Health Insurance Administration In California”; Adopting a better system will increase the supply of doctors because the current financing system contributes to physician burnout by piling administrative sludge on practitioners. Downing, Bates, and Longhurst, “Physician Burnout in the Electronic Health Record Era.”

³³ Note that this will have the perverse effect of locking in higher reimbursements for less efficient providers while penalizing those who are already operating efficiently in that billing activities.

administered much like insurance)—as well as on government insurance programs. And this does not even include the vast cost of administration to the general public. Private health insurers in Utah account for the bulk of this spending. They spend over 20% of premiums on administrative activities, including redundant bill reviews, medical review programs, and other overhead, plus profit.³⁴ Salaries are also much higher for managers in private health insurers. The head of the Centers for Medicare and Medicaid Services, responsible for health insurance programs covering nearly half the population of the United States, is paid a bit less than \$250,000. By contrast, the CEOs of seven large health insurers averaged over \$16 million per year in compensation in 2016. The average health insurance CEO is paid more in a week than the CMS head is paid in a year.³⁵

Private insurers also waste resources in other ways. Competition leads them to spend money on advertising and marketing their competing plans, spending that cures no illness and provides no health care. Many insurers are too small to realize the scale economies possible with a large billing network. Traditional Medicare operates with a medical loss ratio (MLR) of over 98%, meaning that less than 2% of its spending is for administrative activities, saving over 10% compared to private insurance.³⁶ Despite the greater efficiency of public programs, the private system of administrative waste has spread to the public sector through the Medicare Advantage plans and to Medicaid (through managed care programs).³⁷ Maintaining dual public-private systems also inflates public costs because it requires eligibility checks for access to public programs. For Medicare, this can be done relatively cheaply by checking birth certificates. Public safety-net programs like Medicaid and CHIP, however, spend significant funds policing eligibility. The limited range of public insurance has also undermined efficiency by leading individuals to seek supplemental private coverage. Overhead costs are even higher in the individual insurance market, including the Medigap policies purchased by many seniors to cover

³⁴ Even under the ACA, government measures of insurance company MLR leave extensive scope for insurance companies to pass off administrative costs as medical costs. Allowable expenses include “educational outreach to members, utilization management, case management, disease management, and quality management.” In addition, the time period allowed for medical expenses, net premiums, and re-insurance recovery are not consistently defined, leaving room for companies to inflate their MLR; Families USA, “Medical Loss Ratios: Evidence from the States”; Naumburg, “Medical Loss Ratios in Maryland”; The Affordable Care Act sets limits on administrative waste with minimum MLR of 85% for group plans and 80% for individual plans. Nationally, health insurers refunded over \$2.6 billion in excessive administrative charges under the ACA in 2020 to nearly 8 million subscribers; Fehr and 2020, “Data Note”; a California estimate is that the MLR there is only 82%; Kahn et al., “The Cost Of Health Insurance Administration In California.”

³⁵ Baker, “Top Health Care CEOs Made \$1.7 Billion Last Year.”

³⁶ Cai et al., “Projected Costs of Single-Payer Healthcare Financing in the United States”; Frank and Milhaupt, “Profits, Medical Loss Ratios, and the Ownership Structure of Medicare Advantage Plans.”

³⁷ Gruber, “Delivering Public Health Insurance through Private Plan Choice in the United States.”

insurance costs not covered by Medicare. Indeed, last year's MLR in the individual market fell to under 80%, with over one fifth of all spending going to administration.³⁸

Raising the MLR to the level of traditional Medicare, 98%, would save Utah over three billion dollars in 2027 and more in 2029 with savings from simplifying the administration of Medicaid.³⁹ In addition, eliminating the need to identify and administer private insurance plans would save employers over \$300 million more, and even more for both employers and their employees in reduced time and stress from problems accessing benefits through the private insurance industry.⁴⁰

Savings from Moving to Utah Cares: Eliminating Monopoly Rents: Hospitals and Other Providers
In his seminal article on health economics, Nobel Prize-winning economist Kenneth Arrow warned that health-care markets tend toward monopoly because of the combination of asymmetric information—where the sick lack information about the proper treatment of their illnesses—and economies of scale in medical facilities, like hospitals.⁴¹ Until the 1970s, monopoly pricing was restrained by state regulations, by the force of professional mores, and by the culture of not-for-profit communities.⁴² The demise of rate setting, and the replacement of mores and non-profit values with financial incentives, has liberated the managers of hospitals and pharmaceutical and equipment manufacturers to use monopoly power to raise prices and profits and to expand their power through forming alliances and through collusion.⁴³

The virtually unfettered exercise of monopoly power accounts for much of the higher prices Americans pay for healthcare. It has transferred wealth from businesses and ordinary people to the owners of a few giant healthcare corporations and their top management. Public attention has

³⁸ Fehr and 2020, "Data Note."

³⁹ While Medicaid has a higher MLR than private health insurance, eligibility checks and other administrative expenses make it less efficient than Medicare so integrating into a single system will achieve some savings; see Wilson, "An Overview of Healthcare Expenditures in the State of Utah."

⁴⁰ While they could be captured through employment fees, these savings are not included in our estimate of the funding program. They are left as benefits to employers and their workers; Pfeffer, "Magnitude and Effects of 'Sludge' in Benefits Administration"; Hancock, "Churning, Confusion And Disruption — The Dark Side Of Marketplace Coverage."

⁴¹ Arrow, "Uncertainty and the Welfare Economics of Medical Care"; Reinhardt, "Economists in Health Care."

⁴² McDonough, "Tracking the Demise of State Hospital Rate Setting"; Anderson, "All-Payer Rate Setting"; Anderson and Herring, "The All-Payer Rate Setting Model for Pricing Medical Services and Drugs."

⁴³ There is always a danger that providers will gain control over rate setting. To some degree this is happened for medical specialists; see Laugesen, *Fixing Medical Prices*.

been focused on pharmaceutical and drug prices—even the Trump Administration charged that drug prices are about twice as high in the United States as elsewhere (see Figure 10).⁴⁴

The attention paid to pharmaceutical prices should not distract from other areas of monopoly pricing. A decade ago, reviewing data for Massachusetts hospitals, the Commonwealth’s Attorney General warned that elite hospitals were charging prices four to five times as high as other providers for the same service.⁴⁵ Other studies have found that the consolidation of hospital networks and physician practices has pushed up prices and inflated managerial salaries. The median charge for inpatient procedures in California districts where a large share of hospital patients is treated within a single hospital network is nearly double that in districts with less market concentration.⁴⁶ The purchase of a growing share of physician practices by hospital networks, and the subsequent steering of patients, has only made the situation worse, raising prices for powerful hospital networks.⁴⁷

We see the same pattern in Utah where larger hospitals are able to use the greater market power that comes from size to charge higher prices. Using the All Payer Claims Database, we have been able to compare the prices charged for five particular services by hospitals with the average patient load of the hospitals.⁴⁸ In Utah, large hospitals in urban centers charge higher prices than

⁴⁴ Amazingly, their recommendation is to raise prices elsewhere; Council of Economic Advisers, “Reforming Biopharmaceutical Pricing at Home and Abroad”; Cicchiello and Gustafsson, “Brand-Name Drug Prices”; McKinsey Global Institute, “Accounting for the Cost of Health Care in the United States”; Frank and Hannick, “Five Things to Understand about Pharmaceutical R&D”; Lazonick et al., “US Pharma’s Financialized Business Model.”

⁴⁵ Office of Massachusetts Attorney General Martha Coakley, “Investigation of Health Care Cost Trends and Cost Drivers”; Coakley, “Examination of Health Care Cost Trends and Cost Drivers Pursuant to G.L. c. 118G, § 6½(b) Report, 2011.”

⁴⁶ Nicholas C. Petris Center on Health Care Markets and Consumer Welfare, “Consolidation in California’s Health Care Market 2010-2016: Impact on Prices and ACA Premiums”; Also see Bai and Anderson, “Extreme Markup”; Abelson, “Hospital Prices”; Meier, Creswell, and McGinty, “Hospital Billing Varies Wildly, U.S. Data Shows”; Lopez, Jacobson, and Levitt, “How Much More Than Medicare Do Private Insurers Pay?”; American Hospital Association, “Underpayment by Medicare and Medicaid Fact Sheet.”

⁴⁷ PAI-Avalere, “Physicians Advocacy Institute > PAI Research > Physician Employment and Practice Acquisitions Trends: 2019-21”; Abelson, “High Medical Bills Set Up Major Legal Showdown in California Sutter Health, the Big Hospital Group, Is Accused of Abusing Its Market Power to Charge Higher Prices.”; Abelson, “Many Hospitals Charge Double or Even Triple What Medicare Would Pay”; Squires and Blumenthal, “Do Small Physician Practices Have a Future?”

⁴⁸ This is the procedure used in Massachusetts except that the data are for all hospital charges while the Massachusetts Attorney General only had data for one insurer; see Utah Department of Health and Human Services, “About the All Payer Claims Data | DHHS Healthcare Information and Analysis Programs” The conditions studied here include abdominal hernia, appendicitis and other appendiceal conditions, fracture of the upper limb (initial encounter), open wounds to limbs (initial encounter), stress fracture (initial encounter), and urinary tract infections.

smaller hospitals for the same services. For these conditions, we find that the largest hospitals, those treating 500 or more patients for the five conditions studied here, charge an average price almost twice that of hospitals with 200 patients, and 250% that charged in small hospitals with 50 patients (see Figure 12).⁴⁹ If the prices charged at hospitals charging above the average for Utah hospitals were lowered to the Utah hospital average for these five conditions, accounting for 0.6% of all hospital discharges, alone the savings would be almost \$40 million in 2022.

Individual health insurers lack the market clout to resist the demands of networks and elite (so-called “must-have”) hospitals. Acting as individuals, they have been unable to bring down even the most exorbitant prices charged at these facilities. They acknowledged this during the debate over the Affordable Care Act when insurance industry lobbyists—notably Karen Ignagni of America’s Health Insurance Plans (AHIP)—supported Obama Administration initiatives in alliance with Administration economists who sought to strengthen insurance companies against hospitals and drug companies.⁵⁰ So-called must-have hospitals have the market power to force private insurance plans to accept high prices in order to maintain access to hospitals and their networks for their members. In any case, insurance plans have only a weak incentive to resist these hospitals because the plans can pass higher costs along in higher premiums.⁵¹ As a result, expectations that private insurance plans will resist prior hospital prices have been disappointed, across the country as well as in Utah.⁵²

Only one insurer currently has market power to balance that of elite hospitals with control over provider networks: the Centers for Medicare and Medicaid Services, supervising the Medicaid and Medicare programs. Using its market power, CMS has been able to restrain hospital price increases and the smaller increases in physician prices, holding down the rate of inflation in healthcare. This has created a growing gap between the high prices charged by private health insurers and the price hospitals charge Medicare, although there is some evidence that Medicare rates may be as much as 9% below the actual cost (including both variable and average fixed costs) of providing hospital services.⁵³ In the case of Medicaid, reimbursement rates are

⁴⁹ Note that the price data used here includes the Medicaid and Medicare prices, where government mandate limits price variation.

⁵⁰ Bob Herman, “Seismic Changes in the Health Insurance Industry Bring Opportunities and Friction,” accessed September 10, 2017, <http://www.modernhealthcare.com/article/20160130/MAGAZINE/301309964>; Paul Starr, *Remedy and Reaction, the Peculiar American Struggle over Health Care Reform* (New Haven: Yale University Press, 2011), <http://site.ebrary.com/lib/amherst/Doc?id=10506565>; Brill, *America’s Bitter Pill*.

⁵¹ The elasticity of demand for health insurance, even for plans provided by any individual company, is quite low.

⁵² Barry Meier, Julie Creswell, and Jo Craven McGinty, “Hospital Billing Varies Wildly, U.S. Data Shows,” *The New York Times*, May 8, 2013, <http://www.nytimes.com/2013/05/08/business/hospital-billing-varies-wildly-us-data-shows.html>; Office of Massachusetts Attorney General Martha Coakley, “Investigation of Health Care Cost Trends and Cost Drivers.”

⁵³ Lopez, Jacobson, and Levitt, “How Much More Than Medicare Do Private Insurers Pay?”; Rand Corporation, “Hospitals Are Paid Twice as Much (or More) by Private Insurers than Medicare, Study Finds”; Berenson, “Addressing Pricing Power in Health Care Markets: Principles and Policy Options to Strengthen and Shape Markets The Final Report of the Academy’s Panel on Pricing Power in Health Care Markets”; Koller and Khullar, “The Commercial Differential for Hospital Prices.”

substantially lower than Medicare, making it difficult for Medicaid recipients to find physicians willing to provide services at these low rates.⁵⁴

Lowering hospital prices to Medicare rates with an increase in these rates of 10% would save over a billion dollars in 2027 and even more in 2029, even while providing more funding for those smaller and safety net hospitals currently receiving lower prices for services.⁵⁵ While all hospitals would also gain from raising Medicaid rates, increased utilization by the insured, and payment for the uninsured currently receiving free care, the greatest gains would go to those who treat many on Medicaid and the uninsured: safety net hospitals and those in rural areas. (Utah hospitals in 2019 provided over \$400 million in free care. Virtually all of this would be covered by the Utah Cares plan, over 1/3 of the revenue to be lost from lower prices, although, again, much of this gain would be for smaller and safety net hospitals, not for the large, must-have hospitals losing from lower prices.⁵⁶) While some physicians would receive lower prices from the elimination of monopoly pricing, among some providers, physicians as a whole would gain more from higher Medicaid rates and extensions in coverage than they would lose from lower prices. Overall, eliminating monopoly profits would reduce some hospitals' ability to accumulate reserves, to reimburse investors in the case of for-profit hospitals, and would compel them to lower their often-inflated managerial salaries and ambitious investment plans.⁵⁷ It may be difficult for these hospitals to unwind these activities quickly.⁵⁸ It may be advisable to reduce prices gradually, perhaps over a four-year period with reductions of 25% in excess of prices each year.⁵⁹

⁵⁴ Kaiser Family Foundation, "Medicaid-to-Medicare Fee Index"; Rickert, "Do Medicare And Medicaid Payment Rates Really Threaten Physicians with Bankruptcy?"

⁵⁵ Note that these savings are substantially less than would be projected from the hospital price study referenced above. In part, this is because prices would be increased for many small and rural hospitals currently charging less than large urban hospitals with market power, such as the University of Utah Hospital or Intermountain Medical Center, both with the prices and patient load well above average.

⁵⁶ Lown Institute, "Nonprofit Hospitals Receive Billions More in Tax Breaks than They Invest in Their Communities."

⁵⁷ The effect of price reductions for these must-have hospitals will be mitigated because Medicare +10% prices will not be mandated for nonresident (non-Utah) patients. Over 5% of Utah personal healthcare spending is by out-of-state residents, including over 10% of hospital spending, and these patients are concentrated in major hospital centers, like the University of Utah Hospital system. Surplus revenue from treating these patients will continue to be available for these hospital systems.

⁵⁸ Cai and Kahn, "Medicare For All Would Improve Hospital Financing | Health Affairs Blog"; Pany, Biniek, and Neuman, "Price Regulation, Global Budgets, and Spending Targets."

⁵⁹ This gradual reduction is the approach followed by the CBO in Congressional Budget Office, "How CBO Analyzes Proposals for a Single-Payer Health Care System | Congressional Budget Office."

Savings from Moving to Utah Cares: Eliminating Monopoly Rents: Prescription Drugs and Medical Devices
Savings from moving to Utah Cares: eliminating monopoly rents: prescription drugs and medical devices

The unfettered exercise of monopoly power has been especially toxic for Americans who need prescription drugs. A comprehensive survey published in 2007 found that drug prices are about 60% higher in the United States than in Europe or Canada.⁶⁰ More recent studies, including by the Trump Administration, suggest that this now understates the penalty Americans now pay because drug prices may now be double those paid elsewhere. Because of higher prices charged in the United States, over 40% of pharmaceutical company revenue for twelve leading multinational pharmaceutical companies comes from the United States, and direct comparisons of particular drugs show American prices are often dramatically higher (see Figure 10).⁶¹ Prices in the United States range from 3.2 times the Canadian price to 9.3 times as high (see Figure 10). The International Federation of Health Plans found that, for eight common drugs, the price in the United States is, on average, over three times the average price in Canada, England, or the Netherlands. In no case is the United States' price lower, and for only two drugs (Enbrel and Humira) are prices in the United States less than twice the price paid in other countries.⁶² For example, a treatment of cancer drug Gleevac costs \$6,214 in the United States but only \$1,141 in Canada; a multiple sclerosis drug Copaxone costs \$3,875 in the United States but only \$862 in England; and an acid reflux drug Nexium costs \$215 in the United States but only \$23 in the Netherlands.⁶³

Inflated drug prices reflect the market power of companies whose brand reputation is reinforced by patent protection and the lack of an effective check by our fragmented insurance industry. Producers charge inflated prices derived from market power, although they could still profit from providing the same product even at a much lower price.⁶⁴ When market power is reduced with the removal of patent protection, for example, patients can buy the same drug for much lower

⁶⁰ McKinsey Global Institute, "Accounting for the Cost of Health Care in the United States"; International Federation of Health Plans, "2013 Comparative Price Report: Variation in Medical and Hospital Prices by Country"; Kesselheim, Avorn, and Sarpatwari, "The High Cost of Prescription Drugs in the United States."

⁶¹ International Federation of Health Plans, "2013 Comparative Price Report: Variation in Medical and Hospital Prices by Country."

⁶² International Federation of Health Plans.

⁶³ International Federation of Health Plans.

⁶⁴ At \$1000 per pill in the United States, \$84,000 for a full course of treatment, Gilead Science's Hepatitis C drug Sovaldi has produced more profit in one year than Gilead spent on R and D for over a decade. Almost half of all revenue to Gilead in 2014 was profit. Despite large sales elsewhere, 84% of Sovaldi revenues were in the United States because of hard bargaining by foreign governments and insurers to secure lower prices than are paid by Americans; Belk, "Gilead Sciences"; Pollack, "Gilead Revenue Soars on Hepatitis C Drug."

prices. When a drug goes “off patent,” the entry of two new producers typically lowers prices by half, and prices fall by over 80% when there are eight or more producers.⁶⁵

Some Americans pay less for drugs. Negotiating directly to buy drugs in bulk, the Veterans Administration provides drugs at half the price paid by other Americans.⁶⁶ With a population of over three million, Utah is as large as some small European countries with much lower drug prices.⁶⁷ A single agency negotiating prices for four million residents should be able to negotiate dramatically lower prices. Bringing prices down by 60%, comparable to the savings achieved by the Veterans Administration, would save nearly a billion dollars in 2027 and more in 2029.

Americans also pay much more for medical devices than do residents of countries where government regulation and negotiation bring prices closer to the marginal cost of production. A recent paper found that cardiac implants are between two and six times as expensive in the United States as in Germany or the United Kingdom. It also found significant price variation between different hospitals in the United States, further supporting the view that some device manufacturers are able to exercise market power to drive the price of the devices well above the cost of production.⁶⁸ Prices vary as well for other devices. A DonJoy Tru-Pull Advanced knee brace can be purchased directly from a Canadian supplier for \$141 but charges \$774 in Massachusetts.⁶⁹

It is projected that direct bargaining over the price of medical equipment will save at the same rate as pharmaceuticals, saving over \$100 million.⁷⁰

⁶⁵ Health, “About the Center for Drug Evaluation and Research - Generic Competition and Drug Prices”; Baker, “A Free Market Solution for Prescription Drug Crises.”

⁶⁶ Frakt, Pizer, and Feldman, “Should Medicare Adopt the Veterans Health Administration Formulary?”; Blumenthal and Squires, “Drug Price Control”; Congressional Budget Office, “Comparing the Costs of the Veterans’ Health Care System With Private-Sector Costs.”

⁶⁷ Bagalman, “The Number of Veterans That Use VA Health Care Services: A Fact Sheet”; a study of 11 countries found those with single-payer insurance system had lower drug prices and bargaining power largely explains higher drug spending in the United States; see Morgan, Leopold, and Wagner, “Drivers of Expenditure on Primary Care Prescription Drugs in 10 High-Income Countries with Universal Health Coverage.”

⁶⁸ Wenzl and Mossialos, “Prices For Cardiac Implant Devices May Be Up To Six Times Higher In The US Than In Some European Countries”; Henschke and Redberg, “Medical Device Price Differentials In The U.S. And Europe – Rethinking Price Regulation?”; Herman, “Medical Devices Cost More in U.S. than in Similar Countries.”

⁶⁹ OrthoMed Canada, “Knee Braces for Patellofemoral Pain Syndrome - OrthoMed Canada” the Massachusetts price was the bill to my wife’s insurer. Her insurer paid \$370 and billed her for \$74 copay.

⁷⁰ McKinsey Global Institute, “Accounting for the Cost of Health Care in the United States,” 56. As is done with the VA, the state would establish a formulary list of covered drugs and negotiate prices with producers. It would then make these drugs available at the reduced prices to pharmacies and other private vendors; see National

Waste and Fraud

Fraudulent billing—including duplicate billing and billing for services not rendered—accounts for 3-10% of healthcare spending in the United States, including an error rate in Federal programs of over 9%.⁷¹ This includes the “accidental fraud” caused by duplicate billing due to the confusing nature of the insurance process.⁷² A single-payer authority would reduce fraud in three ways. Eliminating multiple payers would immediately eliminate the possibility of duplicate billing. It would also simplify the process of tracking bills. Finally, public authorities have greater subpoena and prosecutorial powers, giving them more power to stop fraud.

Within the Medicare Advantage program, for one, there could be substantial savings from reduced fraud, including as much as 7% from reducing upcoding, or the overstatement of diagnoses in order to gain higher payments under the Medicare risk-adjustment program.⁷³ By reducing fraud and “accidental” overcharging, Utah could, *conservatively*, save 2% of total costs, or over \$500 million in 2027 and more later as the system expands to include Medicaid and Medicare.⁷⁴

Opportunities to Bend the Cost Curve

The high cost of healthcare in the United States is largely due to relatively rapid inflation in the price of healthcare over the last half century. Since 1975, healthcare prices in the United States have risen by 1.75 percentage points per year faster than the general rate of inflation. By contrast, in Canada, with its national health insurance system, healthcare prices have risen only 0.25 percentage points above the general rate of inflation, and in the last 20 years have risen at a slower rate than nonmedical prices.⁷⁵ Over more than half a century, this 1.5% per annum difference more than accounts for healthcare spending in the United States having risen to more

Committee to Preserve Social Security and Medicare, “Price Negotiation for the Medicare Drug Program: It Is Time to Lower Costs for Seniors.”

⁷¹ King and General Accounting Office, “Medicare and Medicaid Fraud, Waste, and Abuse”; National Health Care Anti-Fraud Association, “Testimony of the National Health Care Anti-Fraud Association to the House Insurance Committee”; Shrank, Rogstad, and Parekh, “Waste in the US HealthCare System” puts the number a bit lower, at about 1%, which is the savings rate used here.

⁷² Anyone who has tried to interpret a hospital bill can appreciate how easy it would be to make mistakes.

⁷³ MedPac, “The Medicare Advantage Program: Status Report,” 46; Cunningham-Cook and Perez, “The \$20 Billion Scam At The Heart Of Medicare Advantage.”

⁷⁴ This savings estimate is made after taking account of increases in utilization due to the universal coverage plans, extension of coverage, and removal of copayments and deductibles. The estimate of savings from fraud reduction is conservative compared with, for example, the Lewin Group, which regularly assumes that 5% of claims are fraudulent. Twenty percent of these errors would be detected with enhanced subpoena powers without taking account of the reduction in duplicate claims under a system like that proposed here.

⁷⁵ Canadian Institute for Health Information, “National Health Expenditure Trends | CIHI”; Bureau of Labor Statistics, “CPI Home”; Himmelstein and Woolhandler, “Cost Control in a Parallel Universe.”

than twice the level in Canada.⁷⁶ Indeed, the gap would be even greater had there not been a significant decline in utilization of healthcare services in the United States relative to Canada.⁷⁷

Slowing the rate of increase in healthcare prices to Canadian levels would dramatically reduce future healthcare costs. I am not assuming such success here. In my 10-year projection (see Figure 11), I assume only a reduction in inflation of 1/6 as much (0.26% per annum) with a slowing of price inflation in prescription drugs and hospitals to the rate of inflation in physician services. Over 10 years, even this relatively small change in the rate of healthcare inflation lowers healthcare spending in Utah by 14%.

There are tools within Utah Cares to slow healthcare inflation, often while providing better healthcare. Direct negotiation of drug prices is one such tool. With a pharmaceutical market comparable to small European countries, Utah would be in a strong position to negotiate such prices. Entering into a compact with other states or large buyers would enhance its bargaining power further, as would a viable threat to manufacture generic drugs, as California has done in bringing down the cost of insulin.⁷⁸

Utah Cares could also bring down hospital price inflation. It could, for example, steer investment into areas of need and away from inefficient competition. A promising area of regulation might be a model of global budgeting, as is done in the state of Maryland. Alone among the states, Maryland in the 1980s did not abandon state regulation of hospital prices.⁷⁹ By 2014, price regulation had lowered per capita healthcare prices in Maryland by 10% relative to the rest of the United States, including a nearly 30% decline in per capita cost of non-Medicare and non-Medicaid admissions.

Looking to move beyond price regulation, in 2014, Maryland implemented an All-Payer Model for hospitals, shifting the state's hospitals to an annual, global budget encompassing inpatient and outpatient services.⁸⁰ The premise of the all-payer approach, or "global budgeting," is similar to that behind accountable care or health maintenance organizations. While fee-for-service rewards providers for providing services, a global budget rewards them for measures that reduce the cost of services provided, either by increasing efficiency, reducing the need for services, or denying services. The danger of a capitation or global budgeting approach is that providers have an incentive to deny or limit care in order to stay within budget or increase any budgetary

⁷⁶ Peterson-KFF, "How Does Health Spending in the U.S. Compare to Other Countries?"

⁷⁷ Real per capita spending rose by 2.1% in Canada compared to 1.1% in the United States. The gap is even larger after taking account of population aging and its effect on utilization demand.

⁷⁸ Mueller, "California Moves to Cap Insulin Cost at \$30."

⁷⁹ McDonough, "Tracking the Demise of State Hospital Rate Setting."

⁸⁰ Center for Medicare & Medicaid Innovation, "Maryland All-Payer Model"; Sharfstein, Kinzer, and Colmers, "An Update on Maryland's All-Payer Approach to Reforming the Delivery of "; Sharfstein, Kinzer, and Colmers; Rajkumar et al., "Maryland's All-Payer Approach to Delivery-System Reform."

surplus. Maryland seeks to balance the approaches by blending fee-for-service and global budgeting by setting fees according to the position of the provider relative to the set budget. In this way, the state seeks to push hospitals to increase efficiency through measures like better care coordination to avoid duplication of services, and by reducing readmissions and potentially preventable complications.

Since the implementation of global budgeting, Maryland hospital spending has decreased significantly compared to the national average.⁸¹ In each year since 2014, per capita hospital spending in Maryland has increased at less than the national average, with an average reduction of almost 2% per annum. Hospitals have responded to global budgeting with dramatic improvements in care, shown by a 52% reduction in preventable complications and 9% reduction in readmissions from 2014 to 2018. Maryland has by far the lowest cost of inpatient Covid-19 treatment of any state.⁸² Overall, there have been very substantial savings for Marylanders. Had per capita national hospital spending increased at the same rate as in Maryland, hospital spending in the United States would have been \$75 billion less in 2014, rising to \$184 billion less in 2018, a reduction of almost 20%.

In addition to financial savings, Maryland's global budgeting system has been achieved with improvements in healthcare quality. Maryland hospitals have improved coordination with community health providers and opened "hotspot" clinics to address behavioral health and other high utilizers. To improve care and continuity of care, hospitals have invested in providing transportation to follow-up medical appointments and implementing patient education and telehealth programs. They have also expanded programs to address social determinants of health, including programs to house the homeless and job placement.⁸³

Establishing Utah Cares would allow Utah to achieve some of the improvements in health and finance that Maryland has gained. Financial stability and restraint could be gained by using the buying power of the program to establish global budgets for hospitals.⁸⁴ Global budgets then would give hospitals proper incentives to promote preventive care and coordinate care to limit hospital stays, improving both finance and health.

⁸¹ Maryland Department of Health, "Maryland's All-Payer Model Results"; Maryland Department of Health, "Maryland's All-Payer Hospital Model Results Performance Year Three Calendar Years 2014 through 2016."

⁸² Fair Health, "COVID-19 Treatment and Hospitalization Costs."

⁸³ Maryland Hospital Association, "The Total Cost of Care Model: Uniquely Maryland, Uniquely Successful"; Sapa, Wunderlich, and Haft, "Maryland Total Cost of Care Model"; Maryland Department of Health, "Maryland's All-Payer Model Results"; Center for Medicare & Medicaid Innovation, "Maryland All-Payer Model"; Cohen, "MARYLAND'S ALL-PAYOR HOSPITAL PAYMENT SYSTEM."

⁸⁴ Chu, "Global Budgeting of Hospitals in Hong Kong"; Murray, "Hospital Global Budgets"; Pany, Biniek, and Neuman, "Price Regulation, Global Budgets, and Spending Targets"; Langenbrunner, Cashin, and O'Dougherty, *Designing and Implementing Health Care Provider Payment Systems*; Wolfe and Moran, "Global Budgeting in the OECD Countries."

Global budgets could also be adjusted to direct hospital services to areas of need, including to rural and safety net hospitals where considerations of profit have reduced needed services.⁸⁵ While Utah has fared better than some other states in protecting rural healthcare delivery, there are three rural hospitals at risk of closing, endangering healthcare for residents of these regions.⁸⁶ By providing a tool to direct funding where needed, Utah Cares would be able to protect the delivery of healthcare to all of Utah’s residents.

Paying for a Better System

Remaining Revenue from Existing Sources

After taking account of the additional costs associated with universal access and the savings coming from improved administration and the reduction of monopoly profits, Utah would spend \$39 billion in 2027 and \$43 billion in 2029 with full implementation and the integration of Medicare and Medicaid.⁸⁷ Spending in later years has been estimated on the assumption that spending increases will continue at a somewhat slower rate of increase than in the past years, about 0.4 percentage points slower than the rate of increase in recent years.⁸⁸ Spending from 2027 onward with the current system and with the Utah Cares program is in Figure 11.

Existing revenue sources and remaining out-of-pocket spending will supply over \$25 billion in 2027 and \$28 billion in 2029 (see Table 3). Funding levels in 2027 have been estimated from the most recent data on the assumption that past rates of increase will continue. Note that this is treating spending by public employers on employee and retiree health insurance in the same way as the treatment of private employers—that is, giving public employers a savings to the extent that their current spending, projected to be over \$600 million in 2027, exceeds what they would be paying for participation in the Utah Cares program.⁸⁹

There are a few particular issues to note:

- Medicare recipients cannot be compelled to receive coverage through Utah Cares, and, if many remain in traditional Medicare, it will compromise the program’s ability to capture savings from provider administration. Utah Cares encourages recipients to join by

⁸⁵ American Hospital Association, “Rural Report: Challenges Facing Rural Communities and the Roadmap to Ensure Local Access to High-Quality Affordable Care”; General Accountability Office, “RURAL HOSPITAL CLOSURES Number and Characteristics of Affected Hospitals and Contributing Factors.”

⁸⁶ Ellison, “892 Hospitals at Risk of Closure, State by State”; General Accountability Office, “RURAL HOSPITAL CLOSURES Number and Characteristics of Affected Hospitals and Contributing Factors”; Ellison, “The Rural Hospital Closure Crisis: 10 Things to Know.”

⁸⁷ I am assuming an actuarial rate of 96% with 4% of healthcare spending remaining out-of-pocket, including over-the-counter medications and some non-medically necessary services, such as cable television in hospital rooms or procedures of dubious value.

⁸⁸ I assume that price inflation in hospital services and pharmaceuticals slows to the rate of inflation for physician services.

⁸⁹ Pike, “2021 Utah Health Insurance Market Report”; Pew Charitable Trust, “State Employee Health Plan Spending”; UPEA, “URS and PEHP Present Budget Projections for the Coming Fiscal Year.”

offering itself as a Medicare Part C program. With its very high AV and comprehensive benefits, the Utah Cares program will be more attractive than any alternative.⁹⁰

- Medicaid payments will increase with higher reimbursement rates and higher enrollment under the program. This will involve increased federal funding to Utah Cares. Medicaid is a state program, so there should be no obstacle to integrating it into the larger program
- The VA will remain separate with its own funding and program.
- “Other” is a catchall category that includes “worksite healthcare, other private revenues, Indian Health Service, workers’ compensation, general assistance, maternal and child health, vocational rehabilitation, other federal programs, Substance Abuse and Mental Health Services Administration, other state and local programs, and school health.”⁹¹ I have assumed that funding for these programs will continue as in the past and at past rates of increase.
 - Medical spending financed through Workers Comp, disability coverage, and automobile insurance is projected to come to over \$860 million in 2027, and nearly a billion in 2029. While we are not including them here, these funds could be accessed to finance the Utah Cares program through a levy on these insurance programs.⁹²

New Revenue Sources

Additional revenue to finance Utah Cares must be raised from the state’s residents from sources like those itemized in Table 4. In addition, I have estimated needed and available revenue over ten years under two alternative assumptions: immediate implementation of full savings, including price reductions, and reduction of hospital prices over four years (see Table 4). Using reported income data from the Bureau of Economic Analysis, I have estimated needed revenue needs under two alternative programs: a single rate set on payroll income and needed revenue as a share of consumption spending on the assumption of a gross receipts or sales levy.⁹³ Revenue raised and projected surpluses are shown in Table 3.⁹⁴

I have also estimated the impact of Utah Cares on income for different groups in the population (see Figure 13). This demonstrates that even with premiums set at a fixed proportion of wage income or consumption, the funding programs given here are progressive in their impact. Moving from a health care system financed through lump-sum payments to one where payments

⁹⁰ Facing competition from Utah cares program, most, even all, private Medicare advantage programs will exit the state.

⁹¹ US Government, CMS, “US State Estimates by State of Residence -- Health Expenditures.”

⁹² The medical share of insurance programs is estimated from the Social Security Administration. Spending on Worker's Comp. and disability is from the Bureau of Labor Statistics, National Compensation Survey. Automobile insurance rates and the medical share (estimated at 4%) are from moneygeek.com.

⁹³ Unearned income includes income from interest, rents, profits, and dividends, Internal Revenue Service, “SOI Tax Stats Historic Table 2”; Bureau of Economic Analysis, “State Annual Personal Income.”

⁹⁴ A major advantage of the gross receipts levy is that it avoids any disincentive to business by not burdening employers, especially small employers.

are related to wages or consumption to income will inevitably benefit working households of lower and middle income, because these households spend a higher proportion of their income on healthcare and a fixed payment is a higher share of their income.⁹⁵

Because of the financial savings achieved through implementing Utah Cares, it will be possible to provide universal access to healthcare for all of the state's residents at a lower cost than the current system (see Table 2 and Figure 10). So great are the savings that the additional revenues needed to finance the program are substantially less than the premiums and other cost sharing that employers and family members now pay for healthcare.⁹⁶

Other Considerations: Productivity and Health

Should Utah continue on its current approach of containing healthcare costs by reducing access to care, it would be possible to stabilize healthcare spending at around 16.5% of state income. By contrast, adopting Utah Cares would dramatically reduce healthcare costs and put the state on a path to further reducing the burden of healthcare on individuals, governments, and businesses (see Figure 14). It would do this both by lowering the cost of care and by inaugurating a virtuous cycle that improves the efficiency of the Utah economy.

Establishing Utah Cares will benefit businesses and workers by lowering the cost of healthcare, removing the burden of unfunded and unpredictable retiree healthcare costs. It will also eliminate job lock where workers are compelled to remain at a particular employment to maintain their health insurance.⁹⁷ In assessing alternative health plans, the Congressional Budget Office recently concluded that replacing our current system of fragmented private health insurance would raise life expectancy, improve health, and raise labor productivity, increasing income and consumption as well as leisure time.⁹⁸ Lowering the cost of operation will allow businesses to compete more effectively on national and international markets, increasing employment and income in the state. Businesses will also benefit directly by removing the cost of selecting and implementing health insurance programs for their workers.

As demonstrated in Figures 3 and 7, improving access to healthcare will lead to reduced mortality and improved population health. These are ends in themselves. In addition, however, they have ancillary benefits. A healthier population is a more productive population. Healthy workers miss fewer days due to illness, and lower stress is associated with better concentration

⁹⁵ Saez and Zucman, "Make No Mistake."

⁹⁶ Spending for private insurance premiums and out-of-pocket in 2027 will at current trends be over \$30 billion, or double the additional cost for the Utah cares program.

⁹⁷ Penn Wharton Budget Model, "Medicare for All."

⁹⁸ Congressional Budget Office, "How CBO Analyzes Proposals for a Single-Payer Health Care System | Congressional Budget Office"; Nelson, "Economic Effects of Five Illustrative Single-Payer Health Care Systems: Working Paper 2022-02 | Congressional Budget Office."

and higher productivity.⁹⁹ An analysis across member nations in the OECD finds that not only are Preventable Years of Lives Lost (PYLL) associated with less access to healthcare, but increases in PYLL are associated with lower labor productivity.¹⁰⁰ Putting these effects together, raising the share of the state’s residents who can afford to see a doctor from 87% up to 96% percent would be associated with a reduction in PYLL of almost 50% (from 6591 down to 3377) and an increase in labor productivity of 8%, equivalent to over four years of productivity and income growth.¹⁰¹ Improving healthcare portability and lowering the cost to employers of healthcare will also raise productivity by improving the match of workers to jobs and encouraging investment. I assume that these effects, improving health and the business climate, will raise productivity by 11 percentage points spread out over 16 years.¹⁰²

The positive association between productivity and healthcare access creates a virtuous cycle where treating people better is itself productive, beneficial not only to those who directly benefit but to the entire community.¹⁰³ Even those who will pay more will benefit from living in a healthier community with more productive workers. And higher productivity and income will allow lower premium rates than those given here under the static assumption of no increase in employment, income, and productivity (see Figure 14). It is even possible that increases in productivity might allow a reduction in the premiums needed to fund the program.

⁹⁹ Penn Wharton Budget Model, “By freeing the residents of Utah from private health insurance, and the grip of pharmaceutical corporations and other healthcare monopolies, Utah Cares will give them the healthcare they deserve at an affordable price. More jobs, better healthcare, healthier businesses, healthier people, and more money in people’s pockets. Isn’t this exactly what the doctor orders? Medicare for All”; Wilkinson, *The Spirit Level*.

¹⁰⁰ As used here, PYLL is the sum of all deaths of the number of remaining years up to age 70 for those who died of causes considered preventable. OECD, “Health Status - Potential Years of Life Lost - OECD Data.”

¹⁰¹ Gordon, *The Rise and Fall of American Growth*.

¹⁰² For similar estimates, see Penn Wharton Budget Model, “Medicare for All”; Nelson, “Economic Effects of Five Illustrative Single-Payer Health Care Systems: Working Paper 2022-02 | Congressional Budget Office.”

¹⁰³ Penn Wharton Budget Model, “Medicare for All”; Wilkinson, *The Spirit Level*; Ebeke and Ebeke, “The Missing Link between Income Inequality and Economic Growth”; Friedman, *The Case for Medicare for All*.

Appendix 1: Alternative Funding Arrangements to Reduce Burden on Low-income Families

A funding program based on universal contribution, where everyone is liable, could raise the cost of healthcare to the poorest residents of Utah, including those currently covered by Medicaid who do not now pay for their care and those who have subsidized care under the Affordable Care Act or other public programs. This extra burden could be ameliorated by providing refunds for those low-income residents with the refunds paid for with higher contributions by others^[1]. The cost of such a program and the required increase in the proposed contribution rates are shown in the table below under the assumption that residents whose reported household adjusted gross income on their federal return is under \$25,000 will receive a refund at 100% of the average contribution for people of their income, and those with incomes between \$25,000 and \$50,000 would receive a refund equal to 50% of the average contribution.

Table A1. Amended funding plan with protection for low-income households

	Share of all Utah households receiving refund	Refund share of revenue	New premium required to cover cost of Utah Cares
Payroll premium of 10.9%	47%	13.3%	12.6%
Gross receipts premium of 6.8%	55%	6.9%	7.3%

Appendix 2: Alternative Funding Arrangements to Reduce Burden of Premiums

A variety of measures could be implemented within Utah Cares to lower the required premiums or to lessen the burden. Twelve possibilities are itemized here.

1. All insurance programs need to maintain sufficient reserves to pay benefits through periods of unusually high levels of need or when premium revenues fall because of economic distress.[2] It is assumed here that Utah Cares requires reserves sufficient to weather a significant economic contraction plus a further 10% of needed spending in case of a sudden surge in demand. The largest economic downturn in recent decades came in 2009 when wage income in Utah fell by 3.4%, 8.4% below trend. Adding this to 10% for reserves, Utah Cares should have reserves of nearly 19% of spending. [3]
 1. Comparable reserves are already available, held by the state's private health insurers. These reserves, collected by surpluses from premiums above medical and other expenditures, properly belong to the residents of Utah and could be used to fund the needed reserves for Utah Cares. This would allow premiums to be set at the level of benefit and administrative costs without regard to accumulating reserves, that is, 10.9% of wages or 6.8% of gross receipts.
 2. It would be possible to accumulate reserves over 5 years by raising premiums to 11.3% of wages or 7.13% of gross receipts.[4]
 3. It would be possible to accumulate reserves over 10 years by raising premiums to 11.2% of wages or 7.08% of gross receipts.
2. Many small businesses, including the self-employed, currently do not provide health insurance to their workers and would find it a burden to suddenly face premiums of over 10% of wages. Their burden could be alleviated by exempting the first \$50,000 or \$100,000 in wage and salary income from the premium. To fund this exemption, it would be necessary to raise the base rate by 0.36% or 0.72% of payroll.[5]
3. The state of Utah and local governments currently offer health insurance to their workers at a cost of over \$800 million, a substantial bonus for them from Utah Cares. Requiring maintenance of effort by these public authorities would allow a substantial reduction in the new premiums required.[6]
4. Workers' comprehensive insurance, disability insurance, and automobile coverage all have substantial health care components that are expected to cost nearly \$1 b. in 2027. Requiring these plans to pay into the Utah Cares program would allow a reduction in the payroll premium of 0.73% or of the gross receipts premium of 0.46%.[7]
5. Including dental, vision, and other (e.g. mental health and alternative therapies) and long-term and home-care coverage in Utah Cares is a significant increase in the coverage available to residents.[8]
 1. Providing dental, vision, and other only to children and those below the Federal Poverty Line (eligible for Medicaid) would save over \$3 billion.
 2. Providing long-term and home care only to children and those below the Federal Poverty Line (eligible for Medicaid) would save over nearly \$500 million.
6. Most health private health insurance plans, as well as the Federal Medicare program, have significant cost sharing.

1. Requiring households above the poverty line (e.g. non-Medicaid households) to pay a deductible of \$500 would raise over \$300 million.[\[9\]](#)
2. A \$20 copay for brand-name prescription drugs would lower premiums by about 0.1%.[\[10\]](#)
3. A \$1600 deductible for elective surgery would generate \$1.2 billion, lowering payroll premiums by 0.85% and gross receipts by 0.53%.[\[11\]](#)
7. Exempting food from the general receipts tax would significantly reduce the premium burden on low-income households, funded with an increase in the rate of over 0.5% on other commodities.[\[12\]](#)

Should all the program reductions be accepted, premiums could be lowered to 6.1% of wage and salary income or 3.8% of gross receipts.

Table A2. Alternative premium rates

	Share of wages	New Premium rate	Share of consumption	New Premium rate
Base premium rate with reserves from current insurers		10.92%		6.83%
5 years to accumulate reserves		11.30%		7.13%
10 years to accumulate reserves instead of 5	-0.09%	11.21%	-0.05%	7.08%
Wage exemption of \$50,000	0.36%	11.66%	na	na
Wage exemption of \$100,000	0.72%	12.02%	na	na
Continue 80% public employee health premiums	-0.57%	10.74%	-0.44%	6.69%
Collect workers comp, disability, auto health insurance	-0.73%	10.58%	-0.46%	6.67%
Drop adult vision and dental above 100% FPL	-2.28%	9.02%	-1.43%	5.70%
Household deductible of \$500 above 200% FPL	-0.24%	11.06%	-0.15%	6.98%
Drop food from general sales tax	na	na	0.51%	7.63%
Drop coverage long-term and home-care for adults above 100% FPL	-0.35%	10.95%	-0.22%	6.91%
\$20 co-pays for brand-name prescription drugs	-0.11%	11.19%	-0.07%	7.06%

\$1600 deductible (as in Medicare) for elective surgery	-0.85%	10.45%	-0.53%	6.59%
All negatives	-5.23%	6.07%	-3.35%	3.78%

[1] Income distribution is reported for Utah in the Internal Revenue Service, “SOI Tax Stats Historic Table 2.” Data here are for 2019.

[2] The latter is a particular problem for a universal public program whose revenue is based on income or spending is cyclically sensitive but whose benefit payments are not.

[3] A 2010 study of Massachusetts health insurers found that private insurers maintained reserves equal to 22% of annual benefits. It was argued that this level was excessive because, by raising the cost of premiums, it discouraged enrollment. Patrick et al., “Study of the Reserves and Surpluses of Health Insurers in Massachusetts.”

[4] These calculations assume the continued growth in wages and consumption at past trends, a return on surplus reserves of 4%, and growth in healthcare utilization and cost as outlined in the text.

[5] The number of businesses in the state is from Census Bureau, “U.S. Census Bureau QuickFacts.” It is assumed that each business will take the full exemption. This overstates the exempted amount because some businesses will have payroll under \$50,000 or \$100,000. The reduction in revenue after the exemption is then compared with wage levels to estimate the new payroll premium rate required to fund Utah Cares.

[6] Pike, “2021 Utah Health Insurance Market Report”; Pew Charitable Trust and MacArthur Foundation, “State Employee Health Plan Spending: An Examination of Premiums, Cost Drivers, and Policy Approaches.”

[7] The cost of these programs and the medical share are estimated from the Bureau of Labor Statistics, “Program Index”; National Academy of Social Insurance, “Workers’ Compensation: Benefits, Costs, and Coverage”; U. S. Social Security Administration, “Recent Trends in Workers’ Compensation.”

[8] Spending on these programs is from the estimates described in the text above.

[9] The number and income distribution of Utah households is from the Census Bureau, “The Demographic Statistical Atlas of the United States - Statistical Atlas.”

[10] The number of prescription drug purchases to be covered by Utah Cares (outside of Medicaid, Medicare, VA) is from Kaiser Family Foundation, “Number of Retail Prescription Drugs Filled at Pharmacies by Payer”. The share of brand-name (non-generic) drugs is a national number applied to Utah from Assistant Secretary for Planning and Evaluation, “Trends in Prescription Drug Spending, 2016-2021.”

[11] The \$1600 deductible is in the Medicare program. Surgical procedures are from Utah Department of Health and Human Services, “Healthcare Facility Data | DHHS Healthcare Information and Analysis Programs.” Data are adjusted to 2027 and 2029 assuming continued growth in utilization at past rates. The share of elective procedures is from McDermott and

Liang, “Overview of Major Ambulatory Surgeries Performed in Hospital-Owned Facilities, 2019”; Mattingly et al., “Trends in US Surgical Procedures and Health Care System Response to Policies Curtailing Elective Surgical Operations During the COVID-19 Pandemic”; Best et al., “The Likely Economic Impact of Fewer Elective Surgical Procedures on US Hospitals during the COVID-19 Pandemic”; Magno-Padron et al., “Elective Surgery Resource Utilization.”

[\[12\]](#) The share of expenditures on food-in-the-home is from the Bureau of Labor Statistics, “CE Home.”

Figures

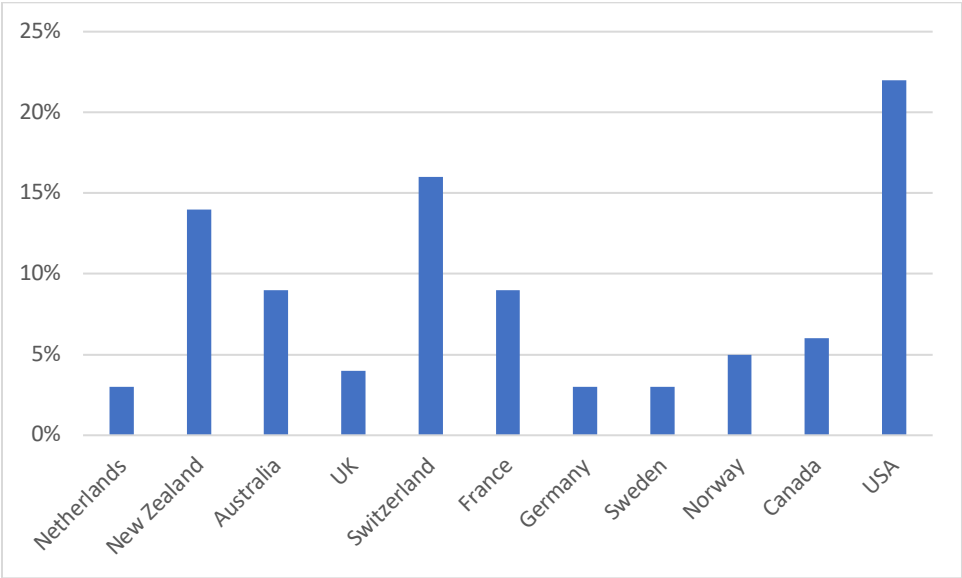


Figure 1. Proportion reporting that they did not receive medical care in the past year because of cost.

Source: Commonwealth Fund¹⁰⁴

¹⁰⁴ Commonwealth Fund, "International Profiles of Health Care Systems | Commonwealth Fund."

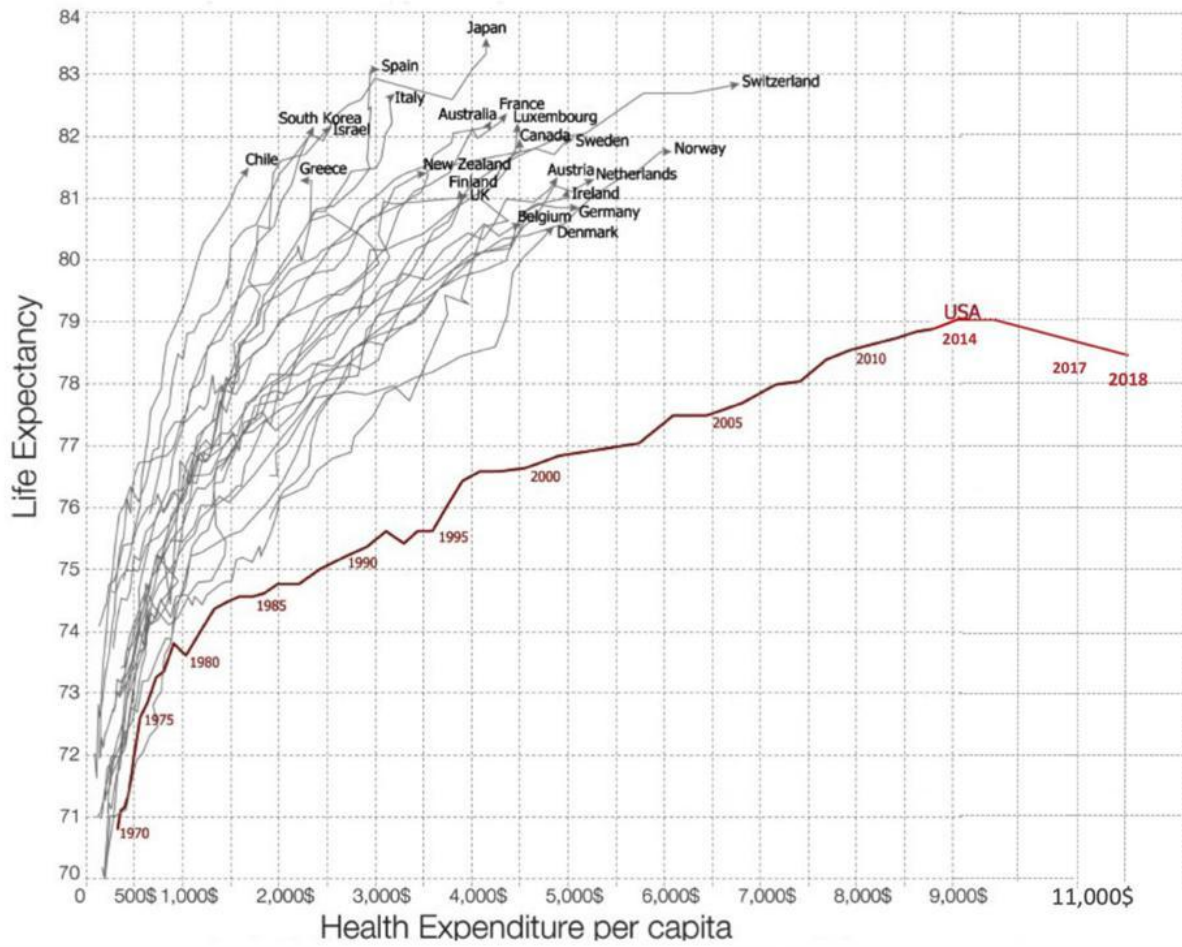


Figure 2. Changing life expectancy and healthcare spending, United States compared to other affluent countries

Source: [Forbes](#),

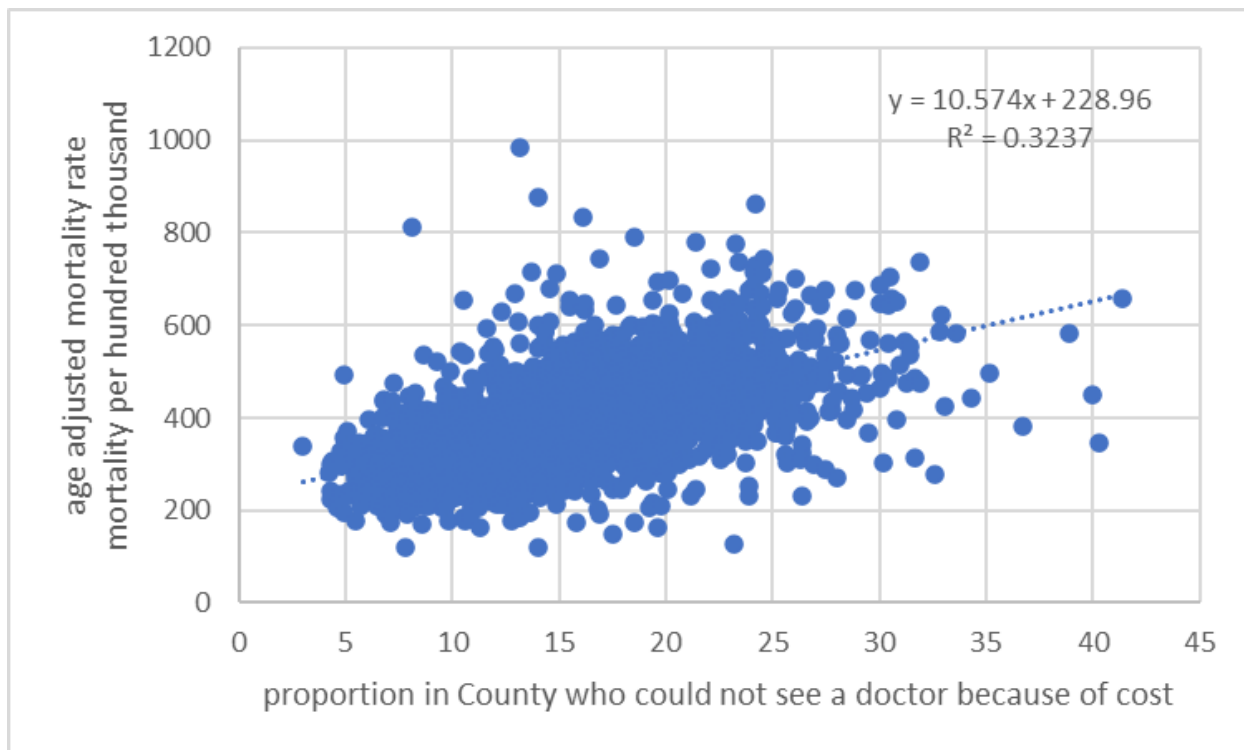


Figure 3. Age-adjusted mortality and un- and under-insurance

Source: Robert Wood Johnson and the University of Wisconsin, County health rankings¹⁰⁵

Note: This shows the relationship between the proportion who report they could not afford to see a doctor and the age-adjusted mortality in US counties in 2012. It also shows the regression of mortality on access with the age-adjusted mortality rate increasing by 10.6 per 100,000 for every increase in the proportion who could not afford to see a doctor.

This does not necessarily measure the impact of cost sharing (e.g., deductibles or the lack of any insurance) because it conflates these policies with income levels and other factors influencing health that may be correlated with ability to afford medical care.

¹⁰⁵ Robert Wood Johnson and University of Wisconsin, Population Health Institute, "County Health Rankings."

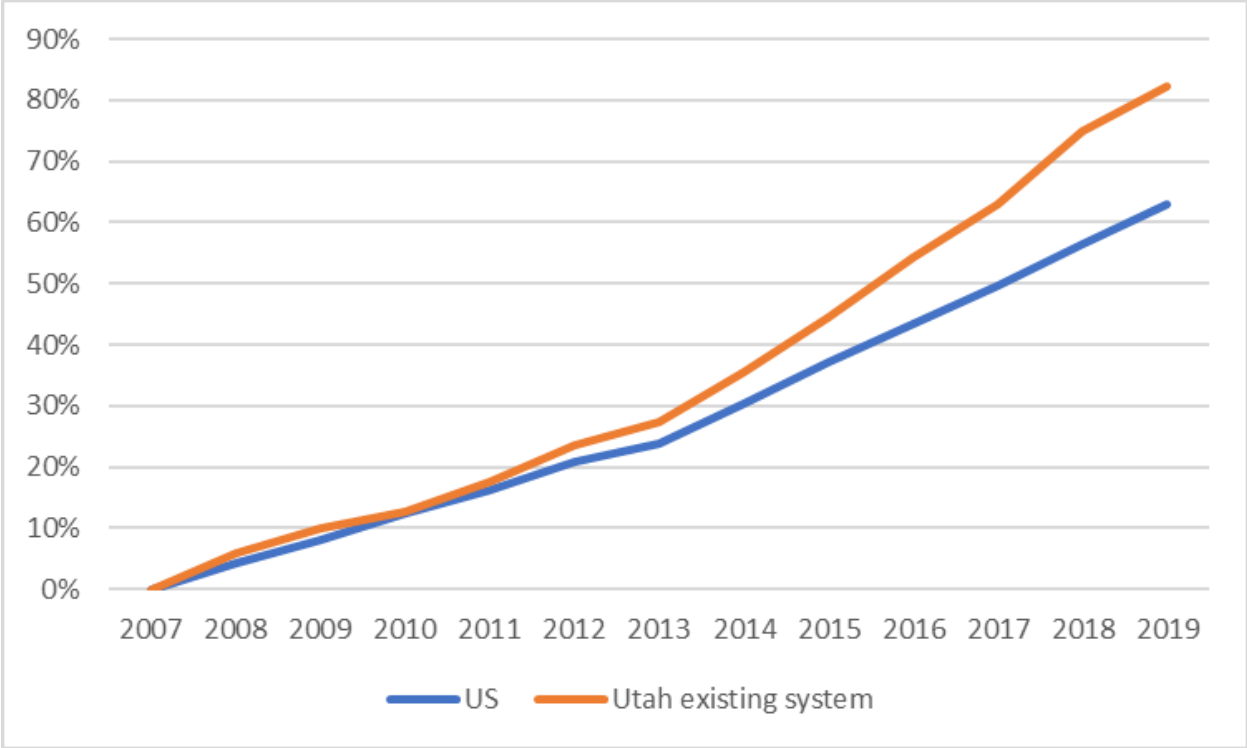


Figure 4. Increase in healthcare spending since 2007, Utah and the United States.

Note: This shows the increase in aggregate healthcare spending in Utah and the United States since 2007. Utah spending has increased at faster than the national rate despite a slowdown in per-capita spending in Utah because of faster population growth.

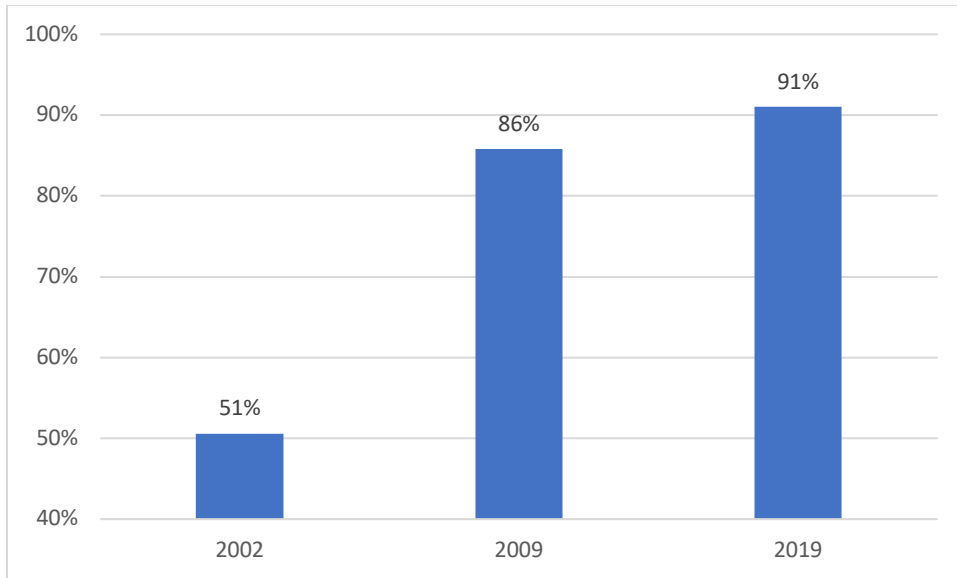


Figure 5. The rising cost of being sick: share of employees in employment-based insurance plans with deductibles, Utah 2002-2019

Source: Agency for Health Care Research and Quality, *Medical Expenditure Panel Survey*¹⁰⁶

¹⁰⁶ Agency for Healthcare Research and Quality, "Medical Expenditure Panel Survey Insurance Component State Tables."

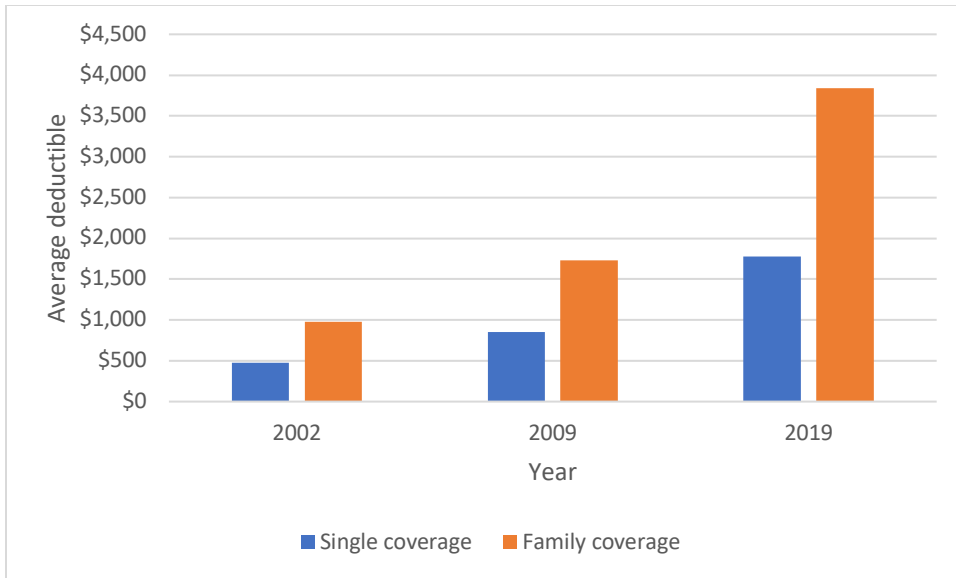


Figure 6. The rising cost of being sick: average deductible, private-sector employer-provided health Insurance, Utah

Source: Agency for Health Care Research and Quality, *Medical Expenditure Panel Survey*¹⁰⁷

¹⁰⁷ Agency for Healthcare Research and Quality.

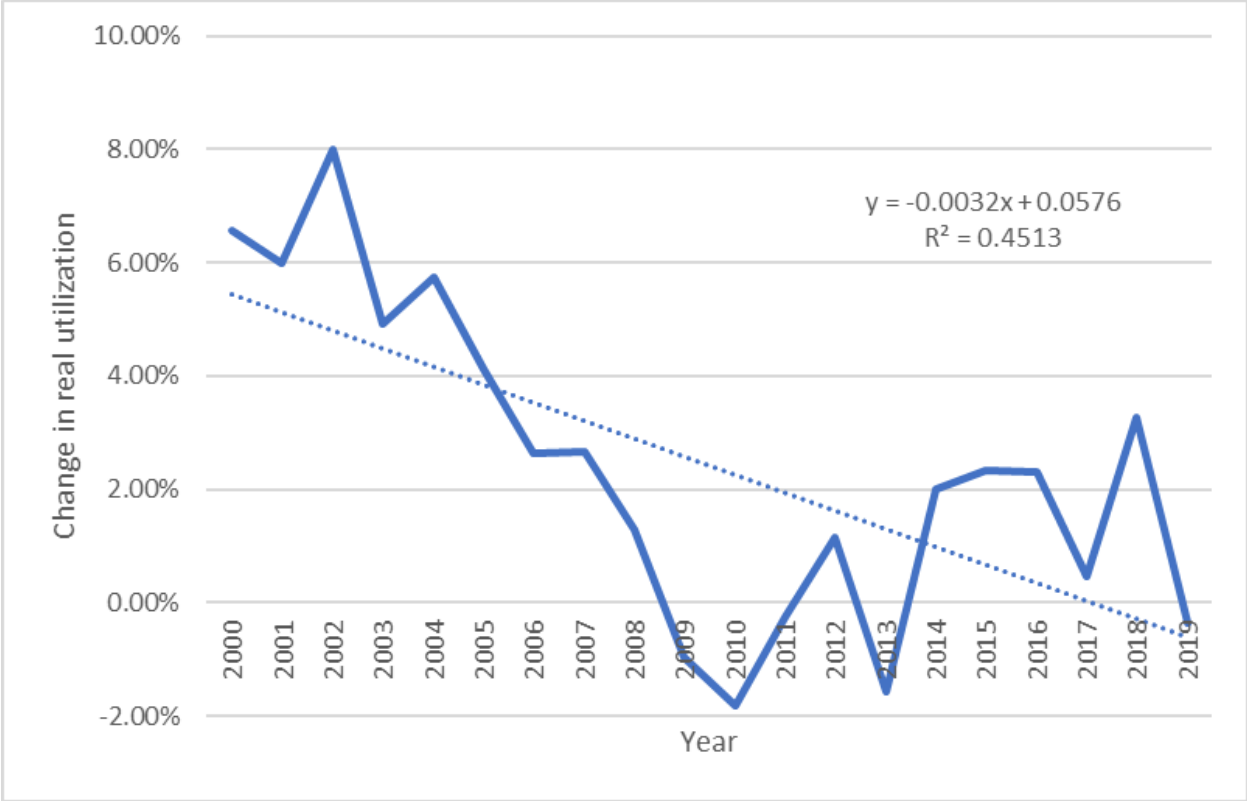


Figure 7. Annual change in real utilization of healthcare, Utah, 2000-2019

Note: Per-capita health expenditures have been discounted by the rate of change in the BLS price index for medical services and then further adjusted for the change in the age distribution of the population. The equation indicates that the annual increase in utilization fell by 0.3% per annum so that by 2018, utilization was falling on average.

Sources: Center for Medicare and Medicaid Services, National Health Expenditures by State of Residence. Bureau of Labor Statistics, Consumer Price Index. Census of Population.

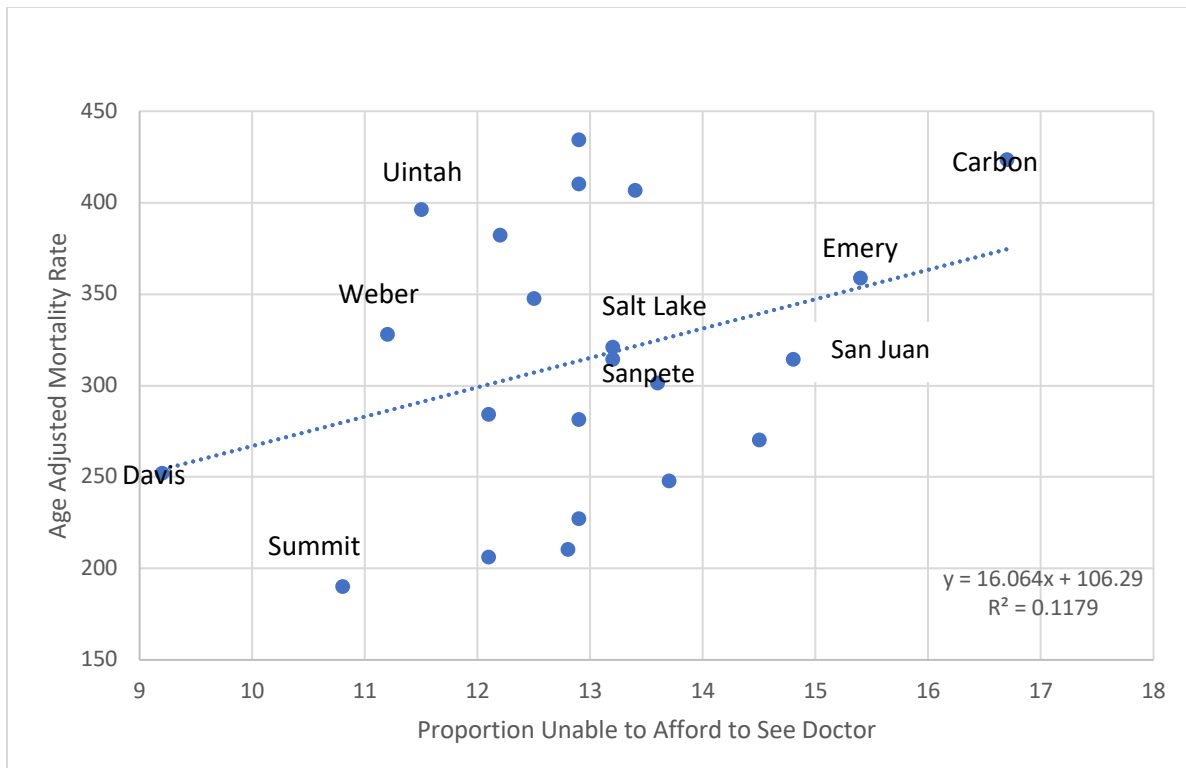


Figure 8. Effect of access on mortality. Age-adjusted Mortality and Access to Care, Utah counties, 2012.

Note: this shows the relationship between the proportion who report they could not afford to see a doctor and the age-adjusted mortality in Utah counties in 2012. It also shows the regression of mortality on access with the age-adjusted mortality rate increasing by 16 per 100,000 for every increase in the proportion who could not afford to see a doctor. This relationship is even stronger in Utah than in the nation as a whole (Figure 3) where the coefficient on ability to afford to see a doctor is 10.5..

This does not necessarily measure the impact of cost sharing (e.g. deductibles or the lack of any insurance) because it conflates these policies with income levels and other factors influencing health that may be correlated with ability to afford medical care.

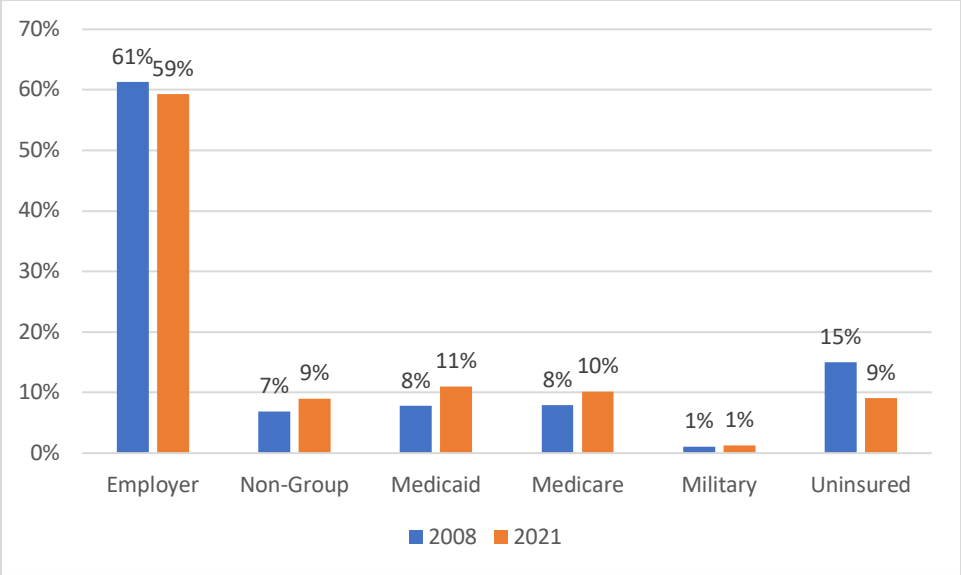


Figure 9. Sources of Health Insurance Coverage, Utah

Source: Kaiser Family Foundation

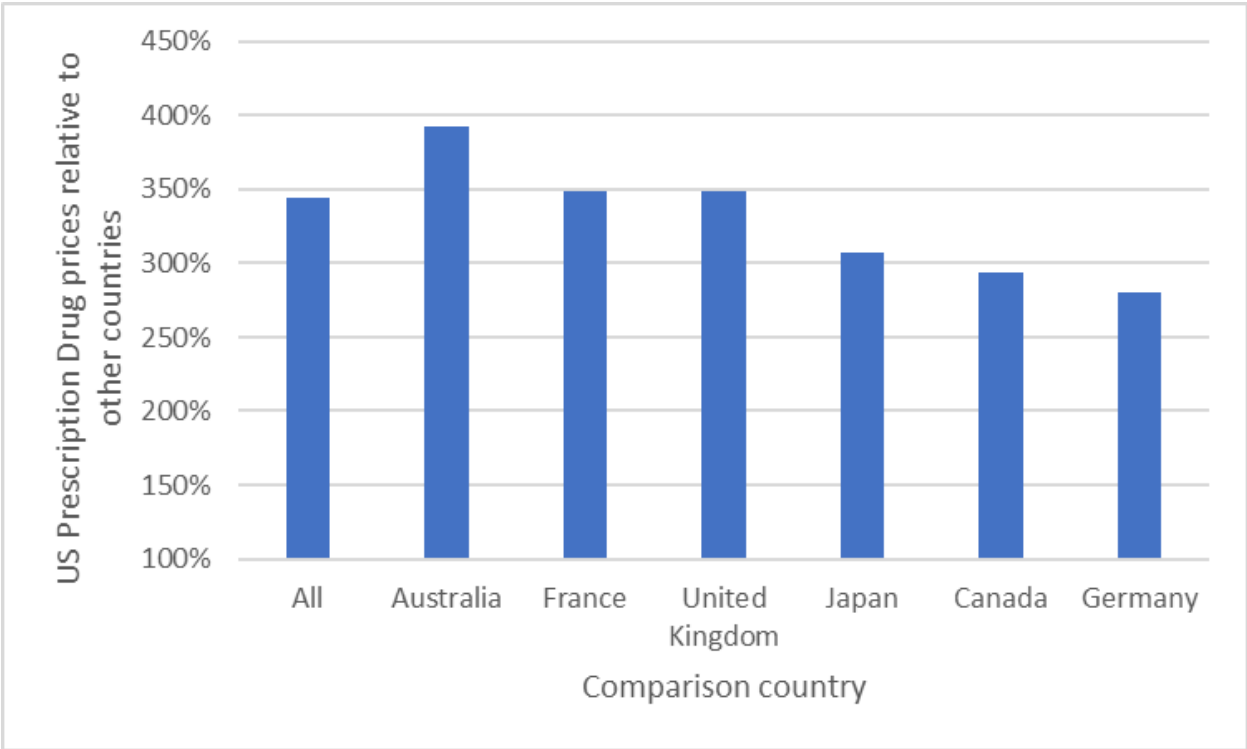


Figure 10. Prices for common prescription drugs, US vs. selected other OECD member countries, 2021

Note: This figure shows the relative price of commonly used prescription drugs in the United States compared with comparably affluent countries. On average, US drug prices are 350% of those in these other countries.

Source: <https://www.commonwealthfund.org/publications/2021/nov/brand-name-drug-prices-key-driver-high-pharmaceutical-spending-in-us>

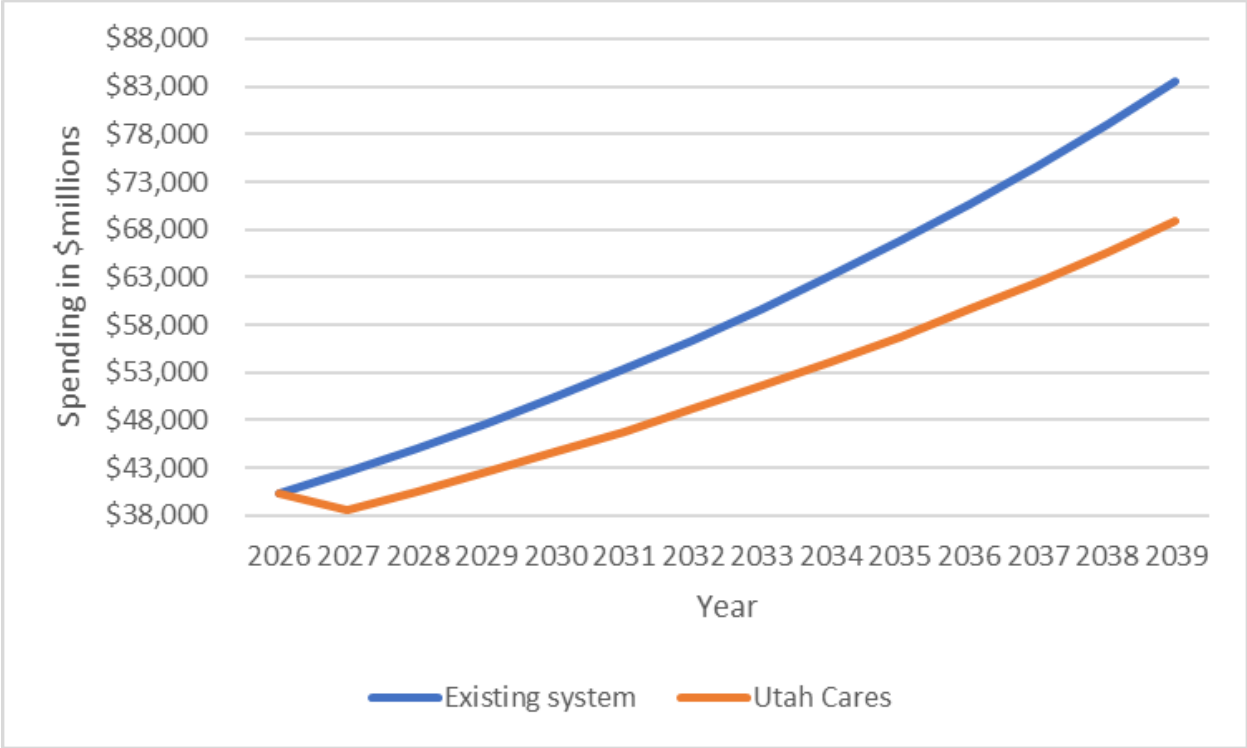
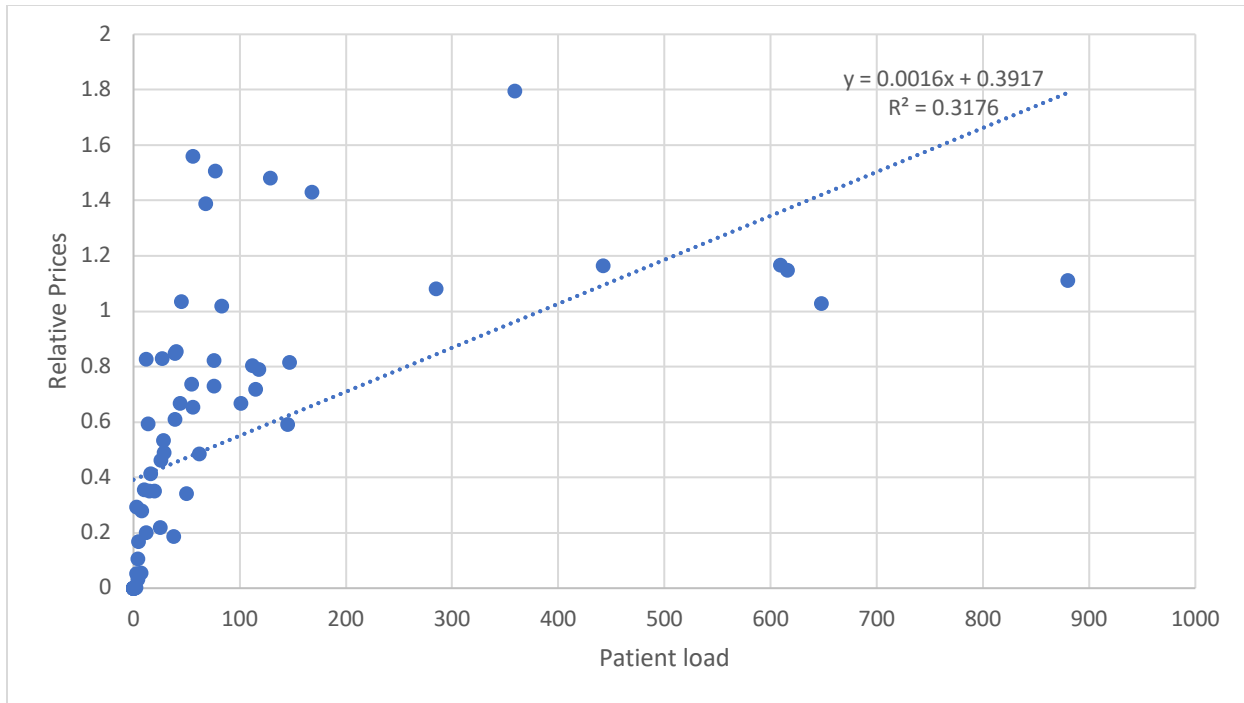


Figure 11. Comparison of Healthcare Spending: current system and Utah Cares

Sources: Center for Medicare and Medicaid Services, National Health Expenditures by State of Residence. Bureau of Economic Activity, GDP by State with an estimate of health insurance administration (9.28% of personal expenditures) added to personal health expenditures. Projections made by the author of GDP based on average growth rate of GDP 2001-19; projections of health expenditures under the current system based on average growth rate of expenditures 2009-19, a period of relatively slow growth. Projections for the Utah Cares system assume per-capita health expenditures for hospitals and pharmaceuticals grow only at the 2009-19 rate of physician services.



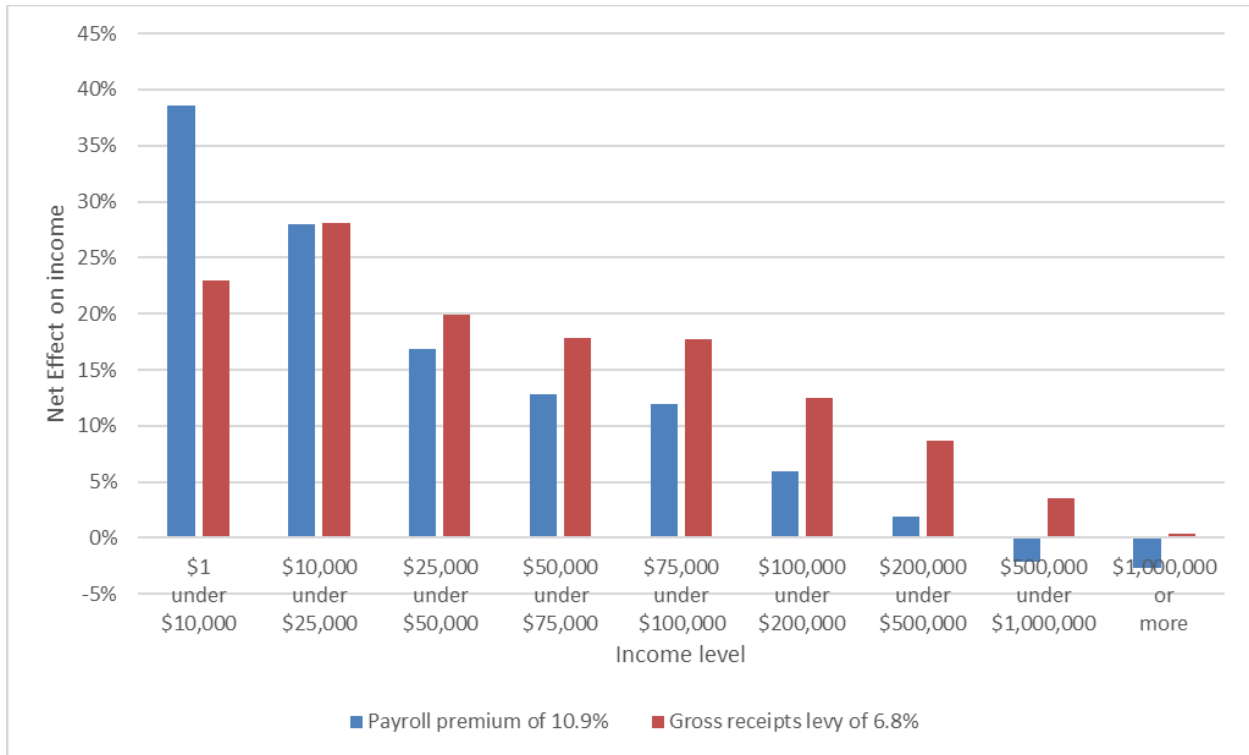


Figure 13. Effect of Utah Cares on net income after premiums and healthcare spending

Note: the net effect on income is healthcare spending minus Utah Cares premiums. Wage income is from IRS *Sources of Income* for Utah, 2020; spending on healthcare and other activities is from the Bureau of Labor Statistics, *Consumer Expenditure Survey*, 2018.

Source: Taxable income from IRS, “Sources of Income” for Utah

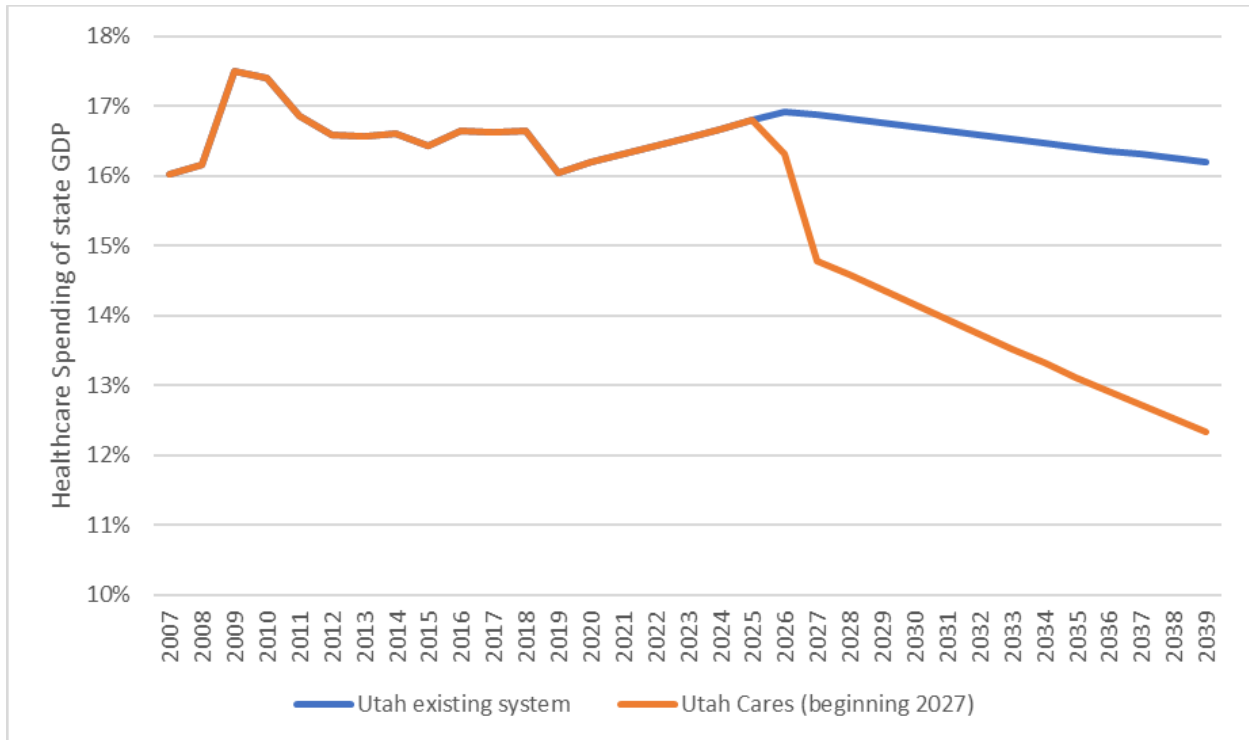


Figure 14. Healthcare spending of state GDP, existing system vs. Utah Cares

Note: Utah Cares lowers spending upon implementation in 2027 and 2029.

Sources: Center for Medicare and Medicaid Services, National Health Expenditures by State of Residence. Bureau of Economic Activity, GDP by State with an estimate of health insurance administration (9.28% of personal expenditures) added to personal health expenditures. Projections made by the author of GDP based on average growth rate of GDP 2001-19; projections of health expenditures under the current system based on average growth rate of expenditures 2009-19, a period of relatively slow growth. Projections for the Utah Cares system assume per-capita health expenditures for hospitals and pharmaceuticals grow only at the 2009-19 rate of physician services. It is also assumed that Utah Cares raises labor productivity by 8 percentage points spread over 16 years and by ending job lock and encouraging investment in the state raises output by a further 3 percentage points, also spread over 16 years.

Tables

Table 1. Excess US mortality compared with European averages, 2017-21

	2017	2018	2019	2020	2021
US deaths all causes, age standardized	2,951,062	2,929,215	2,890,767	3,376,837	3,455,604
Excess deaths with European average rates	465,445	450,694	482,668	751,988	892,491
Percentage of counterfactual standardized excess deaths	18.70%	18.20%	20.00%	28.60%	34.80%
US Covid-19 deaths, standardized				385,666	463,199
Excess Covid-19 deaths with European rates				136,594	223,266

Source: Heuveline P (2023) *The Covid-19 pandemic and the expansion of the mortality gap between the United States and its European peers*. *PLOS ONE* 18(3): e0283153.

<https://doi.org/10.1371/journal.pone.0283153>

<https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0283153>

Table 2. Projected cost of healthcare, Utah, current system and with universal coverage at high actuarial value (\$000,000s)

	Without Utah Cares	Utah Cares Plan	
		Without Plan But With Improved Access	
		2027	2029
Personal Healthcare, Current Utilization	\$ 38,784,210,428	\$ 38,784,210,428	\$ 44,429,745,355
Nonresident Care And Provider Admin	\$ 230,579,437	\$ 230,579,437	\$ 253,356,958
Total Personal Healthcare	\$ 39,014,789,864	\$ 39,014,789,864	\$ 44,683,102,312
Improved Access		\$ 3,016,578,446	\$ 3,324,817,469
Total Personal Healthcare With Improved Access	\$ 39,014,789,864	\$ 42,031,368,311	\$ 48,007,919,781
Insurance Admin	\$ 3,622,126,592	\$ 3,902,185,232	\$ 4,457,047,275
Total	\$ 42,636,916,456	\$ 45,933,553,543	\$ 52,464,967,057
Savings		Savings With Utah Cares	
Hospital Price Adjustment		\$ (817,338,152)	\$ (1,265,465,344)
Physician Price Adjustment		\$ (75,514,649)	\$ (121,875,106)
Drug And Device Pricing		\$ (992,593,838)	\$ (1,565,861,634)
Provider Admin		\$ (1,938,640,988)	\$ (3,146,400,923)
Medicaid Price Adjustment			\$ 782,336,806
Insurance Admin		\$ (3,024,061,809)	\$ (3,565,580,391)
Fraud		\$ (565,545,563)	\$ (921,555,914)
Total Savings		\$ (7,413,694,998)	\$ (9,804,402,507)

Table 3. Existing revenue sources, projected 2021 (\$000,000s)

Revenue sources	2027	2027	2029
	without program	With program	
Medicare	\$ 7,382,505,991	\$ 7,382,505,991	\$ 8,421,278,998
Medicaid	\$ 4,735,433,296	\$ 4,735,433,296	\$ 5,401,743,664
CHIP	\$ 62,923,837	\$ 62,923,837	\$ 71,777,685
VA	\$ 986,713,716	\$ 986,713,716	\$ 1,125,551,609
Other (e.g. public health, charity)	\$ 5,158,855,857	\$ 5,158,855,857	\$ 5,884,744,900
Nonresident revenue	\$ 209,617,670	\$ 209,617,670	\$ 230,324,507
Remaining out-of-pocket	\$ 6,686,626,199	\$ 3,257,252,189	\$ 1,562,265,472
ACA subsidies	\$ 1,451,339,316	\$ 1,451,339,316	\$ 1,655,553,455
New ACA subsidy money for newly insured		\$ 65,608,731	\$ 77,695,859
New Medicaid moneys for uninsured		\$ 2,013,365,932	\$ 2,219,392,607
New Medicaid moneys for higher Medicaid prices			\$ 913,561,561
Existing revenue	\$ 26,674,015,881	\$ 25,323,616,534	\$ 27,563,890,316

Note: Medicaid includes adjustment for Federal share of Medicaid price and coverage increases, but not state share. Other includes state and local public health, workplace healthcare, Indian Health Service, charitable contributions, and others. Medical spending through Workers' Comp, Homeowners', and Auto Insurance has been removed.

Table 4: Revenue sources from Utah personal income (\$millions)

<i>Additional healthcare revenue needed from state</i>	2027 Current program	Utah Cares 2027	Utah Cares 2029
<i>Additional revenue needed</i>	\$15,682,727,662	\$13,255,729,751	\$15,158,937,414
<i>Needed after Federal and state revenue and out-of-pocket spending</i>	12.70%	10.50%	10.90%
With reserve accumulated over 5 years		10.70%	11.30%
Relative to wages including out of pocket	18.00%	13.10%	12.00%
relative to personal consumption	8.00%	6.60%	6.80%
With reserve accumulated over 5 years		6.70%	7.10%

Table 5. Projected effect of Utah Cares on county mortality

County	Percent could not see doctor due to cost	Actual Age-adjusted annual mortality rate	Annual deaths	Reduction in Age-adjusted mortality rate	Projected reduced annual mortality if only 4% could not see doctor due to cost
Box Elder	13	281.3	365	39.4%	144
Cache	12	206.3	493	17.3%	85
Carbon	17	423.5	269	59.7%	161
Davis	9	251.9	1799	32.3%	581
Duchesne	13	410.3	201	58.4%	117
Emery	15	358.8	122	52.5%	64
Grand	13	406.7	123	58.1%	71
Iron	13	320.9	366	46.9%	171
Juab	13	434.5	111	60.7%	67
Millard	12	284.4	104	40.0%	42
Morgan	13	210.5	54	19.0%	10
Salt Lake	14	301.5	7656	43.4%	3,325
San Juan	15	314.5	122	45.8%	56
Sanpete	13	314.3	232	45.7%	106
Sevier	12	382.2	235	55.4%	130
Summit	11	190.0	193	10.2%	20
Tooele	13	347.6	458	50.9%	233
Uintah	12	396.2	317	57.0%	181
Utah	14	247.8	2459	31.2%	767
Wasatch	13	227.2	137	24.9%	34
Washington	15	270.3	1106	36.9%	408
Weber	11	328.1	1926	48.0%	925
Total for counties with data			18,848		7,699

Source: Behavioral Health Survey at County Health Rankings, <http://www.countyhealthrankings.org/rankings/data>

Note: This does not measure the impact of cost sharing (e.g. deductibles or the lack of any insurance) alone because it also measures other factors influencing the ability to afford care, notably income.

References

- Abelson, Reed. "High Medical Bills Set Up Major Legal Showdown in California Sutter Health, the Big Hospital Group, Is Accused of Abusing Its Market Power to Charge Higher Prices." *New York Times*, October 3, 2019. <https://www.nytimes.com/2019/10/03/health/sutter-hospitals-medical-bills.html>.
- . "Hospital Prices." *The New York Times*, May 9, 2019, sec. Health. <https://www.nytimes.com/interactive/2019/admin/10000006498140.embedded.html?>
- . "Many Hospitals Charge Double or Even Triple What Medicare Would Pay." *The New York Times*, May 10, 2019, sec. Health. <https://www.nytimes.com/2019/05/09/health/hospitals-prices-medicare.html>.
- . "Workers With Health Insurance Face Rising Out-of-Pocket Costs." *The New York Times*, October 8, 2020, sec. Health. <https://www.nytimes.com/2020/10/08/health/health-insurance-premiums-deductibles.html>.
- Agency for Healthcare Research and Quality. "Medical Expenditure Panel Survey Insurance Component State Tables," 2020. https://meps.ahrq.gov/mepsweb/data_stats/state_tables.jsp?regionid=18&year=-1.
- . "MEPS Summary Tables." MEPS Summary Table. Accessed October 1, 2020. https://www.meps.ahrq.gov/mepstrends/hc_use/.
- . "The Quality of Health Care Varies Widely across the Nation. State Snapshots, an Interactive Tool from the Agency for Healthcare Research and Quality (AHRQ), Uses More than 200 Statistical Measures to Offer State-by-State Summaries of Health Care Quality,," April 2018. <https://www.ahrq.gov/data/infographics/state-compare-text.html>.
- American Hospital Association. "Rural Report: Challenges Facing Rural Communities and the Roadmap to Ensure Local Access to High-Quality Affordable Care." American Hospital Association, 2019. <https://www.aha.org/system/files/2019-02/rural-report-2019.pdf>.
- . "Underpayment by Medicare and Medicaid Fact Sheet," December 2017. <https://www.aha.org/system/files/2018-01/medicaremedicaidunderpmt%202017.pdf>.
- Anderson, Gerard F. "All-Payer Ratesetting: Down but Not Out." *Health Care Financing Review* 1991, no. Suppl (March 1992): 35–41.
- Anderson, Gerard F., and Bradley Herring. "The All-Payer Rate Setting Model for Pricing Medical Services and Drugs." *AMA Journal of Ethics* 17, no. 8 (August 2015): 770–75.
- Anderson, Gerard F., Peter Hussey, and Varduhi Petrosyan. "It's Still The Prices, Stupid: Why The US Spends So Much On Health Care, And A Tribute To Uwe Reinhardt." *Health Affairs* 38, no. 1 (January 1, 2019): 87–95. <https://doi.org/10.1377/hlthaff.2018.05144>.
- Anderson, Gerard F., Uwe E. Reinhardt, Peter S. Hussey, and Varduhi Petrosyan. "It's The Prices, Stupid: Why The United States Is So Different From Other Countries." *Health Affairs* 22, no. 3 (May 1, 2003): 89–105. <https://doi.org/10.1377/hlthaff.22.3.89>.
- Archer, Diane. "What Is Wrong with Medicare Prices for All?" *JustCare* (blog), April 12, 2018. <http://justcareusa.org/what-is-wrong-with-medicare-prices-for-all/>.
- Arias, Elizabeth, Farida B Ahmad, Betzaida Tejada-Vera, and Kenneth Kochanek. "Provisional Life Expectancy Estimates for 2022." Vital Statistics Rapid Release. CDC, August 2022. <https://www.cdc.gov/nchs/data/vsrr/vsrr023.pdf>.
- Arrow, Kenneth J. "Uncertainty and the Welfare Economics of Medical Care." *The American Economic Review* 53, no. 5 (December 1, 1963): 941–73.
- Bagalman, Erin. "The Number of Veterans That Use VA Health Care Services: A Fact Sheet." Congressional Research Service, June 3, 2014. <https://fas.org/sgp/crs/misc/R43579.pdf>.
- Bai, Ge, and Gerard F. Anderson. "Extreme Markup: The Fifty US Hospitals With The Highest Charge-To-Cost Ratios." *Health Affairs* 34, no. 6 (June 1, 2015): 922–28. <https://doi.org/10.1377/hlthaff.2014.1414>.
- Baker, Dean. "A Free Market Solution for Prescription Drug Crises." *International Journal of Health Services: Planning, Administration, Evaluation* 34, no. 3 (2004): 517–26. <https://doi.org/10.2190/XN5F-XMRA-DUQU-36WW>.
- Baker, Sam. "Top Health Care CEOs Made \$1.7 Billion Last Year." *Axios*, July 26, 2018. <https://www.axios.com/health-care-ceo-pay-sec-filings-analysis-62afaf7e-e6a5-40e0-bb6e-a2b87fa2af4a.html>.
- Barber, Ryan M., Nancy Fullman, Reed J. D. Sorensen, Thomas Bollyky, Martin McKee, Ellen Nolte, Amanuel Alemu Abajobir, et al. "Healthcare Access and Quality Index Based on Mortality from Causes Amenable to Personal Health Care in 195 Countries and Territories, 1990–2015: A Novel Analysis from the Global Burden of Disease Study 2015." *The Lancet* 0, no. 0 (May 18, 2017). [https://doi.org/10.1016/S0140-6736\(17\)30818-8](https://doi.org/10.1016/S0140-6736(17)30818-8).

- Barnay, Thomas, and Eric Defebvre. "The First COVID Wave: Comparing Experiences of Adults Age 50 and Older in the U.S. and Europe," April 5, 2023. <https://doi.org/10.26099/jq7y-3m06>.
- Belk, David. "Gilead Sciences: A Profile in Congressionally Guaranteed Profiteering." The Huffington Post. Accessed February 9, 2015. http://www.huffingtonpost.com/david-belk/gilead-sciences-a-profile_b_6641194.html.
- Berenson, Robert A. "Addressing Pricing Power in Health Care Markets: Principles and Policy Options to Strengthen and Shape Markets The Final Report of the Academy's Panel on Pricing Power in Health Care Markets." National Academy of Social Insurance, April 2015.
- Berwick, Donald, and Andrew Hackbarth. "Eliminating Waste in US Health Care." *JAMA: The Journal of the American Medical Association* 307, no. 14 (2012): 1513–16.
- Bilinski, Alyssa, and Ezekiel J. Emanuel. "COVID-19 and Excess All-Cause Mortality in the US and 18 Comparison Countries." *JAMA* 324, no. 20 (November 24, 2020): 2100. <https://doi.org/10.1001/jama.2020.20717>.
- Blanchfield, Bonnie B., James L. Heffernan, Bradford Osgood, Rosemary R. Sheehan, and Gregg S. Meyer. "Saving Billions Of Dollars—And Physicians' Time—By Streamlining Billing Practices." *Health Affairs*, April 29, 2010, 10.1377/hlthaff.2009.0075. <https://doi.org/10.1377/hlthaff.2009.0075>.
- Blumenthal, David, and David Squires. "Drug Price Control: How Some Government Programs Do It." Accessed May 15, 2016. <http://www.commonwealthfund.org/publications/blog/2016/may/drug-price-control-how-some-government-programs-do-it?omnicid=EALERT1034812&mid=gfriedma@econs.umass.edu>.
- Brot-Goldberg, Zarek C., Amitabh Chandra, Benjamin R. Handel, and Jonathan T. Kolstad. "What Does a Deductible Do? The Impact of Cost-Sharing on Health Care Prices, Quantities, and Spending Dynamics." Working Paper. National Bureau of Economic Research, October 2015. <http://www.nber.org/papers/w21632>.
- Bureau of Economic Analysis. "State Annual Personal Income," 2011. <http://www.bea.gov/regional/spi/>.
- Bureau of Labor Statistics. "CPI Home : U.S. Bureau of Labor Statistics." Accessed May 11, 2023. <https://www.bls.gov/cpi/>.
- Burn-Murdoch, John. "Why Are Americans Dying so Young?" *Financial Times*, March 31, 2023, sec. Data Points. <https://www.ft.com/content/653bbb26-8a22-4db3-b43d-c34a0b774303>.
- Cai, Christopher, and James Kahn. "Medicare For All Would Improve Hospital Financing | Health Affairs Blog." Accessed December 8, 2020. <https://www.healthaffairs.org/doi/10.1377/hblog20191205.239679/full/>.
- Cai, Christopher, Jackson Runte, Isabel Ostrer, Kacey Berry, Ninez Ponce, Michael Rodriguez, Stefano Bertozzi, Justin S. White, and James G. Kahn. "Projected Costs of Single-Payer Healthcare Financing in the United States: A Systematic Review of Economic Analyses." *PLOS Medicine* 17, no. 1 (January 15, 2020): e1003013. <https://doi.org/10.1371/journal.pmed.1003013>.
- Campbell, Travis, Alison P. Galvani, Gerald Friedman, and Meagan C. Fitzpatrick. "Exacerbation of COVID-19 Mortality by the Fragmented United States Healthcare System: A Retrospective Observational Study." *The Lancet Regional Health - Americas* 12 (August 1, 2022): 100264. <https://doi.org/10.1016/j.lana.2022.100264>.
- Canadian Institute for Health Information. "National Health Expenditure Trends | CIHI." Accessed May 11, 2023. <https://www.cihi.ca/en/national-health-expenditure-trends>.
- Case, Anne, and Angus Deaton. *Deaths of Despair and the Future of Capitalism*. Princeton: Princeton University Press, 2020.
- . "Rising Morbidity and Mortality in Midlife among White Non-Hispanic Americans in the 21st Century." *Proceedings of the National Academy of Sciences* 112, no. 49 (December 8, 2015): 15078–83. <https://doi.org/10.1073/pnas.1518393112>.
- CDC. "Stats of the States - Infant Mortality," September 30, 2022. https://www.cdc.gov/nchs/pressroom/sosmap/infant_mortality_rates/infant_mortality.htm.
- Center for Medicare & Medicaid Innovation. "Maryland All-Payer Model," November 27, 2019. <https://innovation.cms.gov/initiatives/Maryland-All-Payer-Model/>.
- Cheng, S. H., and T. L. Chiang. "The Effect of Universal Health Insurance on Health Care Utilization in Taiwan. Results from a Natural Experiment." *JAMA* 278, no. 2 (July 9, 1997): 89–93.
- Chu, David K. W. "Global Budgeting of Hospitals in Hong Kong." *Social Science & Medicine* 35, no. 7 (October 1, 1992): 857–68. [https://doi.org/10.1016/0277-9536\(92\)90100-5](https://doi.org/10.1016/0277-9536(92)90100-5).
- Cicchello, Aimee, and Lovisa Gustafsson. "Brand-Name Drug Prices: The Key Driver of High Pharmaceutical Spending in the U.S." Commonwealth Fund, November 17, 2021. <https://doi.org/10.26099/dnr4-f655>.
- Clemens, Jeffrey, Joshua D. Gottlieb, and Jeffrey Hicks. "How Would Medicare for All Affect Health System Capacity? Evidence from Medicare for Some." *Tax Policy and the Economy* 35 (June 2021): 225–62. <https://doi.org/10.1086/713497>.
- Coakley, Martha. "Examination of Health Care Cost Trends and Cost Drivers Pursuant to G.L. c. 118G, § 6½(b) Report, 2011." Boston, Mass.: Attorney General of Massachusetts, 2011. <http://www.mass.gov/ago/docs/healthcare/2011-hcctd.pdf>.

- Cohen, Harold. "MARYLAND'S ALL-PAYOR HOSPITAL PAYMENT SYSTEM." Maryland HSCRC, n.d. <https://hscrc.state.md.us/Documents/pdr/GeneralInformation/MarylandAll-PayorHospitalSystem.pdf>.
- Collins, Sara, Herman Bhupal, and Michelle Doty. "Health Insurance Coverage Eight Years after the ACA: Fewer Uninsured Americans and Shorter Coverage Gaps, but More Underinsured." Survey brief. Commonwealth Fund, February 2019. https://www.commonwealthfund.org/sites/default/files/2019-02/Collins_hlt_ins_coverage_8_years_after_ACA_2018_biennial_survey_sb.pdf.
- Collins, Sara, Petra Rasmussen, Sophie Beutel, and Michelle M. Doty. "The Problem of Underinsurance and How Rising Deductibles Will Make It Worse Findings from the Commonwealth Fund Biennial Health Insurance Survey, 2014," May 2015. http://www.commonwealthfund.org/~media/files/publications/issue-brief/2015/may/1817_collins_problem_of_underinsurance_ib.pdf.
- Committee for a Responsible Federal Budget. "Capping Hospital Prices." Committee for a Responsible Federal Budget, February 23, 2021. <https://www.crfb.org/papers/capping-hospital-prices>.
- Commonwealth Fund. "International Profiles of Health Care Systems | Commonwealth Fund," May 2017. https://www.commonwealthfund.org/sites/default/files/documents/___media_files_publications_fund_report_2017_may_mossialos_intl_profiles_v5.pdf.
- . "Performance Indicator Content | Commonwealth Fund." Accessed March 29, 2023. <https://www.commonwealthfund.org/datacenter/mortality-amenable-health-care-deaths-100000-population>.
- . "The Commonwealth Fund - 2020 Scorecard on State Health System Performance." Accessed March 28, 2023. <https://2020scorecard.commonwealthfund.org>.
- Congressional Budget Office. "Comparing the Costs of the Veterans' Health Care System With Private-Sector Costs," December 2014. https://www.cbo.gov/sites/default/files/113th-congress-2013-2014/reports/49763-VA_Healthcare_Costs.pdf.
- . "How CBO Analyzes Proposals for a Single-Payer Health Care System | Congressional Budget Office," December 10, 2020. <https://www.cbo.gov/publication/56898>.
- Council of Economic Advisers. "Reforming Biopharmaceutical Pricing at Home and Abroad." Washington, D. C.: White House, February 2018. <https://www.whitehouse.gov/wp-content/uploads/2017/11/CEA-Rx-White-Paper-Final2.pdf>.
- Cunningham-Cook, Matthew, and Andrew Perez. "The \$20 Billion Scam At The Heart Of Medicare Advantage." The Lever, May 26, 2023. <https://www.levernews.com/the-20-billion-scam-at-the-heart-of-medicare-advantage/>.
- Cutler, David, and Dan Ly. "The (Paper) Work of Medicine: Understanding International Medical Costs." *Journal of Economic Perspectives* 25, no. 2 (Spring 2011): 3–25.
- Downing, N. Lance, David W. Bates, and Christopher A. Longhurst. "Physician Burnout in the Electronic Health Record Era: Are We Ignoring the Real Cause?" *Annals of Internal Medicine* 169, no. 1 (July 3, 2018): 50–51. <https://doi.org/10.7326/M18-0139>.
- Ebeke, Christian, and Christian Ebeke. "The Missing Link between Income Inequality and Economic Growth: Inequality of Opportunity." *VoxEU.Org* (blog), April 3, 2019. <https://voxeu.org/article/inequality-opportunity-income-inequality-and-economic-growth>.
- Ellison, Ayla. "892 Hospitals at Risk of Closure, State by State," March 6, 2022. https://www.beckershospitalreview.com/finance/892-hospitals-at-risk-of-closure-state-by-state.html?origin=BHRSUN&utm_source=BHRSUN&utm_medium=email&utm_content=newsletter&oly_enc_id=0417D8588189D4U.
- . "The Rural Hospital Closure Crisis: 10 Things to Know." Becker's Hospital Review, February 7, 2020. <https://www.beckershospitalreview.com/finance/the-rural-hospital-closure-crisis-10-things-to-know-02072020.html>.
- El-Sayed, Abdul. *Medicare for All: A Citizen's Guide*. New York: Oxford Univeristy Press, 2021. <https://www.goodreads.com/book/show/52617340-medicare-for-all>.
- Emanuel, Ezekiel, ed. *Which Country Has the World's Best Health Care?* New York: Public Affairs, 2020.
- Enterline, Philip E., Vera Salter, Alison D. McDonald, and J. Corbett McDonald. "The Distribution of Medical Services before and after Free Medical Care — The Quebec Experience." *New England Journal of Medicine* 289, no. 22 (November 29, 1973): 1174–78. <https://doi.org/10.1056/NEJM197311292892206>.
- Fair Health. "COVID-19 Treatment and Hospitalization Costs." FAIR Health, n.d. <https://s3.amazonaws.com/media2.fairhealth.org/brief/asset/COVID-19%20Cost%20Tracker%20Brief.pdf>.
- Families USA. "Medical Loss Ratios: Evidence from the States." Families USA, June 2008. <http://www.familiesusa.org/assets/pdfs/medical-loss-ratio.pdf>.
- Fehr, Rachel and 2020. "Data Note: 2020 Medical Loss Ratio Rebates." *KFF* (blog), April 17, 2020. <https://www.kff.org/private-insurance/issue-brief/data-note-2020-medical-loss-ratio-rebates/>.

- Frakt, Austin, Steven D. Pizer, and Roger Feldman. "Should Medicare Adopt the Veterans Health Administration Formulary?" SSRN Scholarly Paper. Rochester, NY: Social Science Research Network, April 14, 2011. <http://papers.ssrn.com/abstract=1809665>.
- Frank, Richard, and Kathleen Hannick. "Five Things to Understand about Pharmaceutical R&D." *Brookings* (blog), June 2, 2022. <https://www.brookings.edu/blog/usc-brookings-schaeffer-on-health-policy/2022/06/02/five-things-to-understand-about-pharmaceutical-rd/>.
- Frank, Richard, and Conrad Milhaupt. "Profits, Medical Loss Ratios, and the Ownership Structure of Medicare Advantage Plans." *Brookings* (blog), July 13, 2022. <https://www.brookings.edu/blog/usc-brookings-schaeffer-on-health-policy/2022/07/13/profits-medical-loss-ratios-and-the-ownership-structure-of-medicare-advantage-plans/>.
- Friedman, Gerald. *The Case for Medicare for All*. The Case For. Medford, MA: Polity, 2020.
- Früge, Donald. "Impact of Primary Care on Healthcare Cost and Population Health: A Literature Review." Rhode Island Department of Health, February 23, 2012. <http://www.health.ri.gov/publications/literaturereviews/ImpactOfPrimaryCareOnHealthcareCostAndPopulationHealth.pdf>.
- Galvani, Alison P., Alyssa S. Parpia, Abhishek Pandey, Pratha Sah, Kenneth Colón, Gerald Friedman, Travis Campbell, James G. Kahn, Burton H. Singer, and Meagan C. Fitzpatrick. "Universal Healthcare as Pandemic Preparedness: The Lives and Costs That Could Have Been Saved during the COVID-19 Pandemic." *Proceedings of the National Academy of Sciences* 119, no. 25 (June 21, 2022): e2200536119. <https://doi.org/10.1073/pnas.2200536119>.
- Gamble, Molly. "50 States Ranked by Overall Health in 2022." *Becker's Hospital Review*, December 6, 2022. <https://www.beckershospitalreview.com/rankings-and-ratings/50-states-ranked-by-overall-health-in-2022.html>.
- Gee, Emily, and Tophér Spiro. "Excess Administrative Costs Burden the U.S. Health Care System." Center for American progress, April 8, 2019. <https://cdn.americanprogress.org/content/uploads/2019/04/03105330/Admin-Costs-brief.pdf>.
- General Accountability Office. "RURAL HOSPITAL CLOSURES Number and Characteristics of Affected Hospitals and Contributing Factors." General Accountability Office, August 2018. <https://www.gao.gov/assets/gao-18-634.pdf>.
- Gordon, Robert J. *The Rise and Fall of American Growth: The U.S. Standard of Living since the Civil War*. The Princeton Economic History of the Western World. Princeton: Princeton University Press, 2016.
- Gruber, Jonathan. "Delivering Public Health Insurance through Private Plan Choice in the United States." *Journal of Economic Perspectives* 31, no. 4 (November 2017): 3–22. <https://doi.org/10.1257/jep.31.4.3>.
- Hadley, Jack, and John Holahan. "The Cost of Care for the Uninsured: What Do We Spend, Who Pays, and What Would Full Coverage Add to Medical Spending." Kaiser Commission on Medicaid and the Uninsured, May 10, 2004. <http://www.thesoutherninstitute.org/docs/publications/Policy%20Resources/KaiserReport.pdf>.
- Hancock, Jay. "Churning, Confusion And Disruption — The Dark Side Of Marketplace Coverage." *Kaiser Health News* (blog), December 7, 2017. <https://khn.org/news/churning-confusion-and-disruption-the-dark-side-of-marketplace-coverage/>.
- Hargraves, John, and Aaron Bloschichak. "International Comparisons of Health Care Prices from the 2017 IFHP Survey." Accessed March 21, 2020. <https://healthcostinstitute.org/hcci-research/international-comparisons-of-health-care-prices-2017-ifhp-survey>.
- Health, Center for Devices and Radiological. "About the Center for Drug Evaluation and Research - Generic Competition and Drug Prices." WebContent. Accessed August 1, 2014. <http://www.fda.gov/AboutFDA/CentersOffices/OfficeofMedicalProductsandTobacco/CDER/ucm129385.htm>.
- Henschke, Cornelia, and Rita F. Redberg. "Medical Device Price Differentials In The U.S. And Europe – Rethinking Price Regulation?" *Health Affairs Forefront*. Accessed May 5, 2023. <https://doi.org/10.1377/forefront.20181206.716970>.
- Herman, Bob. "Medical Devices Cost More in U.S. than in Similar Countries." *Axios*, October 5, 2018. <https://www.axios.com/2018/10/05/medical-devices-cost-more-in-us-than-in-similar-countries>.
- Himmelstein, David. "A Comparison of Hospital Administrative Costs in Eight Nations: U.S. Costs Exceed All Others by Far." Accessed November 10, 2018. <https://www.commonwealthfund.org/publications/journal-article/2014/sep/comparison-hospital-administrative-costs-eight-nations-us>.
- Himmelstein, David U., Terry Campbell, and Steffie Woolhandler. "Health Care Administrative Costs in the United States and Canada, 2017." *Annals of Internal Medicine* 172, no. 2 (January 21, 2020): 134. <https://doi.org/10.7326/M19-2818>.
- Himmelstein, David U., and Steffie Woolhandler. "Cost Control in a Parallel Universe: Medicare Spending in the United States and Canada." *Archives of Internal Medicine* 172, no. 22 (December 10, 2012): 1764–66. <https://doi.org/10.1001/2013.jamainternmed.272>.

- Holmgren, A. Jay, N. Lance Downing, David W. Bates, Tait D. Shanafelt, Arnold Milstein, Christopher D. Sharp, David M. Cutler, Robert S. Huckman, and Kevin A. Schulman. "Assessment of Electronic Health Record Use Between US and Non-US Health Systems." *JAMA Internal Medicine* 181, no. 2 (February 1, 2021): 251–59. <https://doi.org/10.1001/jamainternmed.2020.7071>.
- Internal Revenue Service. "SOI Tax Stats Historic Table 2." Accessed November 24, 2017. <https://www.irs.gov/statistics/soi-tax-stats-historic-table-2>.
- International Federation of Health Plans. "2013 Comparative Price Report: Variation in Medical and Hospital Prices by Country." International Federation of Health Plans, 2014. <http://static.squarespace.com/static/518a3cfee4b0a77d03a62c98/t/534fc9ebe4b05a88e5fbab70/1397737963288/2013%20iFHP%20FINAL%204%2014%2014.pdf>.
- Jiwani, Aliya, David Himmelstein, Steffie Woolhandler, and James Kahn. "Billing and Insurance-Related Administrative Costs in United States' Health Care: Synthesis of Micro-Costing Evidence." *BMC Health Services Research* 14, no. 556 (2014). <http://www.biomedcentral.com/content/pdf/s12913-014-0556-7.pdf>.
- Johnson, David. "Healthcare's Administrative 'Sludge' Is Worse than You Think." 4sight Health, March 4, 2021. <https://www.4sighthealth.com/healthcares-administrative-sludge-is-worse-than-you-think/>.
- Johnson, David W. *Market Vs. Medicine: America's Epic Fight for Better, Affordable Healthcare*. 4sight Health, 2016.
- . *The Customer Revolution in Healthcare: Delivering Kinder, Smarter, Affordable Care for All*. New York: McGraw-Hill, 2020.
- Kahn, James G., Richard Kronick, Mary Kreger, and David N. Gans. "The Cost Of Health Insurance Administration In California: Estimates For Insurers, Physicians, And Hospitals." *Health Affairs* 24, no. 6 (November 1, 2005): 1629–39. <https://doi.org/10.1377/hlthaff.24.6.1629>.
- Kaiser Family Foundation. "Average Annual Family Premium per Enrolled Employee For Employer-Based Health Insurance." *KFF* (blog), September 11, 2020. <https://www.kff.org/other/state-indicator/family-coverage/>.
- . "Health Care Expenditures per Capita by State of Residence." *KFF* (blog), September 13, 2022. <https://www.kff.org/other/state-indicator/health-spending-per-capita/>.
- . "Medicaid-to-Medicare Fee Index." *KFF* (blog), July 12, 2017. <https://www.kff.org/medicaid/state-indicator/medicaid-to-medicare-fee-index/>.
- Kesselheim, Aaron S., Jerry Avorn, and Ameet Sarpatwari. "The High Cost of Prescription Drugs in the United States: Origins and Prospects for Reform." *JAMA* 316, no. 8 (August 23, 2016): 858–71. <https://doi.org/10.1001/jama.2016.11237>.
- King, Kathleen, and General Accounting Office. "Medicare and Medicaid Fraud, Waste, and Abuse." United States Senate, Subcommittee on Federal Financial Management, March 9, 2011. <http://www.gao.gov/new.items/d11409t.pdf>.
- Koller, Christopher F., and Dhruv Khullar. "The Commercial Differential for Hospital Prices: Responses From States and Employers." *JAMA* 322, no. 8 (August 27, 2019): 723–24. <https://doi.org/10.1001/jama.2019.9275>.
- Langenbrunner, Jack, Cheryl Cashin, and Sheila O'Dougherty. *Designing and Implementing Health Care Provider Payment Systems: How-to Manuals*. World Bank Publications, 2009.
- Laugesen, Miriam. *Fixing Medical Prices: How Physicians Are Paid*. Cambridge, Massachusetts: Harvard University Press, 2016.
- Lazonick, William, Matt Hopkins, Ken Jacobson, Mustafa Erdem Sakinc, and Oner Tulum. "US Pharma's Financialized Business Model." *SSRN Electronic Journal*, 2017. <https://doi.org/10.2139/ssrn.3035529>.
- Lopez, Eric, Gretchen Jacobson, and Larry Levitt. "How Much More Than Medicare Do Private Insurers Pay? A Review of the Literature." *The Henry J. Kaiser Family Foundation* (blog), April 15, 2020. <https://www.kff.org/medicare/issue-brief/how-much-more-than-medicare-do-private-insurers-pay-a-review-of-the-literature/>.
- Lown Institute. "Nonprofit Hospitals Receive Billions More in Tax Breaks than They Invest in Their Communities." *Lown Institute Hospital Index* (blog). Accessed April 22, 2023. <https://lownhospitalsindex.org/2023-fair-share-spending/>.
- Makary, Marty. *The Price We Pay: What Broke American Health Care--and How to Fix It*. New York: Bloomsbury Publishing, 2019.
- Maryland Department of Health. "Maryland's All-Payer Hospital Model Results Performance Year Three Calendar Years 2014 through 2016." Maryland HSCRC, March 2018. https://hscrc.maryland.gov/Documents/Modernization/Maryland%20APM%20Performance%20Report%20CY2016_3_9_18.pdf.
- . "Maryland's All-Payer Model Results." Maryland HSCRC, 2019. <https://hscrc.maryland.gov/Documents/Maternal%20Task%20Force/HSCRC%20All%20Payer%20Model%20PY5%20Results.pdf>.
- Maryland Hospital Association. "The Total Cost of Care Model: Uniquely Maryland, Uniquely Successful." Maryland Hospital Association, August 2022. <https://www.mhaonline.org/transforming-health-care/tracking-our-all-payer-experiment>.

- McCarthy, Douglas McCarthy, David C. Radley Radley, and Susan L. Hayes Hayes. "2018 Scorecard on State Health System Performance." New York, NY United States: Commonwealth Fund, May 3, 2018. <https://doi.org/10.15868/socialsector.30564>.
- McDonough, J E. "Tracking the Demise of State Hospital Rate Setting." *Health Affairs* 16, no. 1 (January 1, 1997): 142–49. <https://doi.org/10.1377/hlthaff.16.1.142>.
- McKinsey Global Institute. "Accounting for the Cost of Health Care in the United States," January 2007. http://www.mckinsey.com/mgi/rp/healthcare/accounting_cost_healthcare.asp.
- MedPac. "The Medicare Advantage Program: Status Report." Washington DC: Medicare Payment Advisory Commission, March 2023. https://www.medpac.gov/wp-content/uploads/2023/03/Ch11_Mar23_MedPAC_Report_To_Congress_SEC.pdf.
- Meier, Barry, Julie Creswell, and Jo Craven McGinty. "Hospital Billing Varies Wildly, U.S. Data Shows." *The New York Times*, May 8, 2013. <http://www.nytimes.com/2013/05/08/business/hospital-billing-varies-wildly-us-data-shows.html>.
- Montez, Jennifer Karas, Jason Beckfield, Julene Kemp Cooney, Jacob M. Grumbach, Mark D. Hayward, Huseyin Zeyd Koytak, Steven H. Woolf, and Anna Zajacova. "US State Policies, Politics, and Life Expectancy." *The Milbank Quarterly* 98, no. 3 (2020): 668–99. <https://doi.org/10.1111/1468-0009.12469>.
- Morgan, Steven G., Christine Leopold, and Anita K. Wagner. "Drivers of Expenditure on Primary Care Prescription Drugs in 10 High-Income Countries with Universal Health Coverage." *Canadian Medical Association Journal* 189, no. 23 (June 12, 2017): E794–99. <https://doi.org/10.1503/cmaj.161481>.
- Morra, Dante, Sean Nicholson, Wendy Levinson, David N. Gans, Terry Hammons, and Lawrence P. Casalino. "US Physician Practices Versus Canadians: Spending Nearly Four Times As Much Money Interacting With Payers." *Health Affairs* 30, no. 8 (2011): 1443–50. <https://doi.org/10.1377/hlthaff.2010.0893>.
- Mueller, Julia. "California Moves to Cap Insulin Cost at \$30." Text. *The Hill* (blog), March 19, 2023. <https://thehill.com/policy/healthcare/3907583-california-moves-to-cap-insulin-cost-at-30/>.
- Murray, Robert. "Hospital Global Budgets: A Promising State Tool for Controlling Health Care Spending." Commonwealth Fund, March 22, 2022. <https://doi.org/10.26099/98xk-am95>.
- National Committee to Preserve Social Security and Medicare. "Price Negotiation for the Medicare Drug Program: It Is Time to Lower Costs for Seniors." National Committee to Preserve Social Security and Medicare, October 2009. http://www.ncpsm.org/pdf/price_negotiation_part_d.pdf.
- National Health Care Anti-Fraud Association. "Testimony of the National Health Care Anti-Fraud Association to the House Insurance Committee." Harrisburg, PA: House of Representatives, Commonwealth of Pennsylvania, January 28, 2010. <http://www.docucu.com/view/7d4b3344492e717c21f4767dcad3ae16/National-Health-Care-Anti-Fraud-Association.pdf>.
- Naumburg, Eric. "Medical Loss Ratios in Maryland," July 12, 2010.
- Nelson, Jaeger. "Economic Effects of Five Illustrative Single-Payer Health Care Systems: Working Paper 2022-02 | Congressional Budget Office." Working Paper. United State Congress: Congressional Budget Office, February 2022. https://www.cbo.gov/publication/57637?utm_source=feedblitz&utm_medium=FeedBlitzEmail&utm_content=812526&utm_campaign=Express_2022-02-23_14:30:00&utm_medium=FeedBlitzEmail&utm_content=812526&utm_campaign=Express_2022-02-23_14:30:00.
- Nicholas C. Petris Center on Health Care Markets and Consumer Welfare. "Consolidation in California's Health Care Market 2010-2016: Impact on Prices and ACA Premiums." Berkeley, Calif.: School of Public Health, University of California, Berkeley, March 26, 2018. http://petris.org/wp-content/uploads/2018/03/CA-Consolidation-Full-Report_03.26.18.pdf.
- OECD. "Health Status - Potential Years of Life Lost - OECD Data." The OECD. Accessed March 8, 2021. <http://data.oecd.org/healthstat/potential-years-of-life-lost.htm>.
- Office of Massachusetts Attorney General Martha Coakley. "Investigation of Health Care Cost Trends and Cost Drivers," January 29, 2010. http://www.mass.gov/Cago/docs/healthcare/Investigation_HCCT&CD.pdf.
- OrthoMed Canada. "Knee Braces for Patellofemoral Pain Syndrome - OrthoMed Canada." Accessed May 5, 2023. <https://www.orthomed.ca/knee/patella-stabilizers-straps-braces/patellofemoral>.
- Overhage, J. Marc, and David McCallie. "Physician Time Spent Using the Electronic Health Record During Outpatient Encounters: A Descriptive Study." *Annals of Internal Medicine* 172, no. 3 (February 4, 2020): 169. <https://doi.org/10.7326/M18-3684>.
- PAI-Avalere. "Physicians Advocacy Institute > PAI Research > Physician Employment and Practice Acquisitions Trends: 2019-21." Accessed May 10, 2023. http://www.physiciansadvocacyinstitute.org/PAI-Research/Physician-Employment-and-Practice-Acquisitions-Trends-2019-21?utm_source=4sight+Health+Readers&utm_campaign=5e4a66af52-

EMAIL_CAMPAIGN_2018_08_29_09_53_COPY_01&utm_medium=email&utm_term=0_96b6d85309-5e4a66af52-147497014.

- Pany, Maximilian, Jeannie Biniek, and Tricia Neuman. "Price Regulation, Global Budgets, and Spending Targets: A Road Map to Reduce Health Care Spending, and Improve Affordability." *KFF* (blog), May 31, 2022. <https://www.kff.org/health-costs/report/price-regulation-global-budgets-and-spending-targets-a-road-map-to-reduce-health-care-spending-and-improve-affordability/>.
- Penn Wharton Budget Model. "Medicare for All: Comparison of Financing Options." Penn Wharton Budget Model, January 30, 2020. <https://budgetmodel.wharton.upenn.edu/issues/2020/1/30/medicare-for-all-background>.
- Peterson-KFF. "How Does Health Spending in the U.S. Compare to Other Countries?" *Peterson-KFF Health System Tracker* (blog). Accessed May 11, 2023. <https://www.healthsystemtracker.org/chart-collection/health-spending-u-s-compare-countries/>.
- Pew Charitable Trust. "State Employee Health Plan Spending." Pew Charitable Trusts, August 2014. <https://www.pewtrusts.org/~/media/Assets/2014/08/StateEmployeeHealthCareReportSeptemberUpdate.pdf>.
- Pfeffer, Jeffrey. "Magnitude and Effects of 'Sludge' in Benefits Administration: How Health Insurance Hassles Burden Workers and Cost Employers." Stanford Graduate School of Business. Accessed February 27, 2021. <https://www.gsb.stanford.edu/faculty-research/publications/magnitude-effects-sludge-benefits-administration-how-health-insurance>.
- Pike, Jonathan. "2021 Utah Health Insurance Market Report." Insurance Department, State of Utah, December 1, 2021. <https://insurance.utah.gov/wp-content/uploads/2021HealthMarketReport.pdf>.
- Pollack, Andrew. "Gilead Revenue Soars on Hepatitis C Drug." *The New York Times*, April 22, 2014. <http://www.nytimes.com/2014/04/23/your-money/gilead-revenue-soars-on-hepatitis-c-drug.html>.
- Pope, Gregory, Henry Bachofer, Andrew Pearlman, John Kautter, Elizabeth Hunter, Daniel Miller, and Patricia Keenan. "Risk Transfer Formula for Individual and Small Group Markets Under the Affordable Care Act." *Medicare & Medicaid Research Review* 4, no. 3 (2014): E1–23.
- Pozen, Alexis, and David M. Cutler. "Medical Spending Differences in the United States and Canada: The Role of Prices, Procedures, and Administrative Expenses." *Inquiry : A Journal of Medical Care Organization, Provision and Financing* 47, no. 2 (2010): 124–34.
- Rae, Matthew, Cynthia Cox, and Larry Levitt. "Deductible Relief Day: How Rising Deductibles Are Affecting People with Employer Coverage." *Peterson-KFF Health System Tracker* (blog). Accessed December 7, 2020. <https://www.healthsystemtracker.org/brief/deductible-relief-day-how-rising-deductibles-are-affecting-people-with-employer-coverage/>.
- Rajkumar, Rahul, Ankit Patel, Karen Murphy, John M. Colmers, Jonathan D. Blum, Patrick H. Conway, and Joshua M. Sharfstein. "Maryland's All-Payer Approach to Delivery-System Reform." *New England Journal of Medicine* 370, no. 6 (February 6, 2014): 493–95. <https://doi.org/10.1056/NEJMp1314868>.
- Rand Corporation. "Hospitals Are Paid Twice as Much (or More) by Private Insurers than Medicare, Study Finds." Accessed July 12, 2020. <http://www.advisory.com/daily-briefing/2019/05/13/hospital-prices-rand>.
- Reinhardt, Uwe E. "Economists in Health Care: Saviors, or Elephants in a Porcelain Shop?" *The American Economic Review* 79, no. 2 (1989): 337–42.
- . *Priced Out*, 2019. <https://press.princeton.edu/books/hardcover/9780691192178/priced-out>.
- . "U.S. Health Care Prices Are the Elephant in the Room." *Economix Blog* (blog), March 29, 2013. <https://economix.blogs.nytimes.com/2013/03/29/u-s-health-care-prices-are-the-elephant-in-the-room/>.
- Reschovsky, James, Arkadipta Ghosh, Kate Stewart, and Deborah Chollet. "Paying More for Primary Care: Can It Help Bend the Medicare Cost Curve?" Issue Brief. Commonwealth Fund, March 2012. http://www.commonwealthfund.org/~media/Files/Publications/Issue%20Brief/2012/Mar/1585_Reschovsky_paying_more_for_primary_care_FINALv2.pdf.
- Rickert, James. "Do Medicare And Medicaid Payment Rates Really Threaten Physicians with Bankruptcy?" Health Affairs Blog. Accessed March 2, 2015. <http://healthaffairs.org/blog/2012/10/02/do-medicare-and-medicaid-payment-rates-really-threaten-physicians-with-bankruptcy/>.
- Riffkin, Rebecca. "Cost Still a Barrier Between Americans and Medical Care." *Gallup* (blog), November 28, 2014. <http://www.gallup.com/poll/179774/cost-barrier-americans-medical-care.aspx>.
- Robert Wood Johnson, and University of Wisconsin, Population Health Institute. "County Health Rankings." County Health Rankings & Roadmaps. Accessed April 27, 2014. <http://www.countyhealthrankings.org/rankings/data>.

- Saez, Emmanuel, and Gabriel Zucman. "Make No Mistake: Medicare for All Would Cut Taxes for Most Americans | Emmanuel Saez and Gabriel Zucman." *The Guardian*, October 25, 2019, sec. Opinion. <https://www.theguardian.com/commentisfree/2019/oct/25/medicare-for-all-taxes-saez-zucman>.
- Sapra, Katherine J., Katie Wunderlich, and Howard Haft. "Maryland Total Cost of Care Model: Transforming Health and Health Care." *JAMA* 321, no. 10 (March 12, 2019): 939–40. <https://doi.org/10.1001/jama.2019.0895>.
- Schneider, Eric C., Dana Sarnak, David Squires, Arnav Shah, and Michelle Doty. "Mirror, Mirror 2017: International Comparison Reflects Flaws and Opportunities for Better U.S. Health Care." Commonwealth Fund, 2017. <http://www.commonwealthfund.org/interactives/2017/july/mirror-mirror/?omnicid=EALERT1243408&mid=gfriedma@econs.umass.edu>.
- Sharfstein, Joshua M., Donna Kinzer, and John M. Colmers. "An Update on Maryland's All-Payer Approach to Reforming the Delivery of Health Care." *JAMA Internal Medicine* 175, no. 7 (July 1, 2015): 1083–84. <https://doi.org/10.1001/jamainternmed.2015.1616>.
- Shrank, William H., Teresa L. Rogstad, and Natasha Parekh. "Waste in the US Health Care System: Estimated Costs and Potential for Savings." *JAMA*, October 7, 2019. <https://doi.org/10.1001/jama.2019.13978>.
- Squires, David, and David Blumenthal. "Do Small Physician Practices Have a Future?" Commonwealth Fund, May 26, 2016. <http://www.commonwealthfund.org/publications/blog/2016/may/do-small-physician-practices-have-a-future?omnicid=EALERT1042838&mid=gfriedma@econs.umass.edu>.
- UPEA. "URS and PEHP Present Budget Projections for the Coming Fiscal Year." UPEA, February 10, 2020. <https://upea.net/2020/02/10/urs-and-pehp-present-budget-projections-for-the-coming-fiscal-year/>.
- US Government, CMS. "US State Estimates by State of Residence -- Health Expenditures," 2017. <https://www.cms.gov/NationalHealthExpendData/downloads/res-us.pdf>.
- Utah Department of Health and Human Services. "About the All Payer Claims Data | DHHS Healthcare Information and Analysis Programs." Accessed May 5, 2023. <https://healthcarestats.utah.gov/about-the-data/apcd/>.
- Wenzl, Martin, and Elias Mossialos. "Prices For Cardiac Implant Devices May Be Up To Six Times Higher In The US Than In Some European Countries." *Health Affairs* 37, no. 10 (October 2018): 1570–77. <https://doi.org/10.1377/hlthaff.2017.1367>.
- Wilkinson, Richard G. *The Spirit Level: Why Greater Equality Makes Societies Stronger*. New York: Bloomsbury Press, 2010.
- Wilson, Fernando. "An Overview of Healthcare Expenditures in the State of Utah." Salt Lake City: Matheson Center for Health Care Studies, University of Utah, January 9, 2023.
- Wolfe, Patrice R., and Donald W. Moran. "Global Budgeting in the OECD Countries." *Health Care Financing Review* 14, no. 3 (1993): 55–76.
- Woolhandler, Steffie, Terry Campbell, and David Himmelstein. "Cost of Health Care Administration in the United States and Canada." *New England Journal of Medicine*, no. 349 (2003): 768–75.
- Woolhandler, Steffie, and David Himmelstein. "Administrative Work Consumes One-Sixth of U.S. Physicians' Working Hours and Lowers Their Career Satisfaction." *International Journal of Health Services* 44, no. 4 (January 1, 2014): 635–42. <https://doi.org/10.2190/HS.44.4.a>.