

"Americans Always Do the Right Thing": When will the U.S. Finally Control Runaway Hospital Price Growth?

Robert B. Murray and Katherine L. Gudiksen

This work was supported by Arnold Ventures

Policy Points:

- Most U.S. hospital markets are now high concentrated and non-competitive. Consolidated hospitals increasingly demand higher prices from private insurers, greatly eroding the affordability of ESI and resulting in other disruptive economic and social consequences.
- Managed care strategies, the private insurance industry, antitrust efforts, and a proliferation of alternative payment models by the federal government have all failed to constrain high and rapidly rising hospital prices and spending.
- Accordingly, we believe there is an urgent need for state-based, mandatory price regulatory systems for hospitals and strongly advocate for the development of such systems to counter the market power of hospitals and correct for other market failures.

Context: Two waves of hospital mergers since the late 1990s have led to highly consolidated U.S. hospital markets. Hospitals and health systems increasingly demand higher prices from private insurers, which greatly erodes the affordability of employer sponsored insurance and results in other disruptive economic and social consequences. The private insurance industry, antitrust activity and "value-based payment" strategies have been ineffective in constraining high and rapidly rising hospital prices and spending.

Methods: This work is based on a series of interviews with health policy leaders, the authors' experience with hospital rate setting systems, and an extensive review of past and current literature on health care cost constraint approaches, with a focus on the effectiveness of government-regulated provider pricing systems in the U.S. in past years and in developed countries worldwide.

Findings: Due to the political divisiveness at the federal level and the need to tailor regulated pricing systems to meet state policy goals, states are best positioned to implement regulated payment models. We describe a potential development path that begins with "lower-intensity" models, such as hospital price caps on State Employee Benefit Program hospital payments and price caps on all private sector out-of-network hospital payments, followed by the development of a more comprehensive all-payer "flexible" hospital global budget systems overseen by a public-utility style and independent regulatory agency.

Conclusions: Given the failings of private insurers, government antitrust activity, and voluntary "value-based payment" models promoted primarily by the federal government, the development of state-based and mandatory government administered price setting systems is the U.S.'s best hope for constraining what has been relentless health care price and spending growth.



Introduction

Spending on health care services accounts for an ever-growing proportion of U.S. gross domestic product (GDP), crowding out resources for defense, social welfare, education, climate change, and other needs. While employers fund a large portion of health care premiums for employees, research shows the burden of ever-increasing health care prices and spending falls primarily on workers and their families through higher premiums and cost-sharing, lower wages, less-generous insurance coverage, and reduced employment.^{2,3,4} Recent research confirms earlier studies and demonstrates that rising U.S. hospital prices are passed through, nearly dollar-for-dollar, into employee health insurance premiums. ⁵ Because employer premium contributions are distributed more or less equally across all insured workers, they constitute a uniform "head tax" for employer-sponsored insurance (ESI) that hurts lower- and middle-income workers the most. ⁶ The regressive misallocation of this burden and other negative social and economic consequences are the direct result of the pricing power of hospitals and other health providers acquired from two merger and acquisition (M&A) waves since the mid-1990s.^{7,8} At the same time, private insurers have been unable or unwilling to countervail growing hospital pricing power. With the hospital market already highly concentrated, federal and state antitrust action can at best forestall future hospital consolidation but likely cannot unwind the considerable monopoly pricing power in U.S. hospital markets. These circumstances have resulted in what amounts to a regressive transfer of wealth from consumers to health care providers of hundreds of billions of dollars annually. 10 This wealth transfer and its detrimental impacts on wage suppression and disemployment, and associated increases in unemployment insurance, reduced tax revenue and higher incidences of suicide and opioid addiction, has persisted for decades and will continue without policy intervention. 6, 11

This paper makes the case that mandatory state-based hospital rate-setting models offer the best prospect for meaningful cost containment—a conclusion supported by recent analysis of the effectiveness of different policy interventions to control U.S. health care price and spending growth.^{12,13} This paper also details the scope and dimensions of the nation's hospital price, spending and operational inefficiency problems and the social and economic ramifications of failing to address them. We then provide the rationale for developing state-based, government-administered hospital price and spending control systems (also referred to as a rate regulatory model) and describe the success of past hospital rate-setting models. Price caps on commercial hospital prices set as a multiple of Medicare prices and state all-payer hospital rate regulatory systems can counter the market power of consolidated hospitals and health systems, constrain price and revenue growth, incentivize improved hospital operating efficiency, and achieve other important policy goals.¹⁴ Finally, we conclude with a suggested strategy for states to implement hospital price and spending control models by establishing an independent



government agency with the authority to operate a system of mandatory price caps or global budgets designed to control hospital price, spending, and cost growth.

A Focus on Hospitals and States

We focus on hospitals because this industry represents the largest health care sector, accounting for over 30 percent of U.S. health care expenditures and approximately 5.3 percent of U.S. GDP in 2022.¹⁵ The hospital industry is already highly concentrated in most U.S. communities, and another wave of M&A activity started at the end of the Covid public health emergency (PHE).¹⁶ Consolidation has eroded market competitiveness, enabling hospitals and health systems to amass market power to negotiate high and rapidly rising prices that far exceed the cost of production. 10 Hospitals also have engaged in other forms of consolidation that drive hospital prices higher, such as vertical integration with physicians and mergers with hospitals in different geographic regions.¹⁷ Numerous studies have documented the upward trend in hospital prices, and a recent report by Yale researchers using data from the Bureau of Labor Statistics found that hospital prices grew faster than prices in any other industry from 2000 to 2019.18 Simply put, most U.S. hospital markets are noncompetitive¹⁹ and are not functioning efficiently or effectively. The erosion of the competitiveness of hospital markets has occurred for a variety of reasons, i.e., declining demand for inpatient hospital services, the emergence of new medical technologies including increased use of Electronic Health Records, and the lack of sufficient populations to support competing hospitals in rural areas. However, past and now continuing hospital M&A activity remains the primary cause of noncompetitive hospital markets. Consequently, hospital price growth is out of control.^{20,21}

We focus on state action, both because of the success of state-based rate-setting models in the 1970s and 1980s and because the current polarized political climate in Congress and past failures at enacting federal hospital payment reform suggest that hospital price regulation will not be a federal priority.²² Furthermore, state-based models can be tailored to unique characteristics of each state's hospitals and patient populations and address specific state policy concerns. State-based hospital rate regulatory models can also be designed to be less complex than past service-specific price regulatory approaches, thus facilitating implementation and operation by state government.²³

II. Causes of High and Rising Hospital Prices

A. High Hospital Profits and High Hospital Costs: How Can Both Be True?

Beginning in the mid-1990s, possibly in response to the rise of managed care delivery systems in the 1980s and early 1990s, ²⁴ U.S. hospitals began to pursue aggressive M&A activity. Since the mid-1990s, increased hospital market concentration has elevated the market power of merged hospital and health systems and standalone "must-have" hospitals 25 9 — providers that health plans must include in their networks to be attractive to employers and consumers—to negotiate high and rapidly rising prices with private payers.²⁶ ²⁷ These circumstances have driven up private insurer spending on hospital services and resulted in considerable year-over-year increases in hospital revenues. Hospitals, particularly nonprofits, reinvest revenues on operations and other oftentimes wasteful strategic activities, which increase their costs and lead to increasingly inefficient hospital operation.²⁸ Because of the market pricing power they have acquired, hospitals have earned record profits in recent years, despite having high operating costs.²⁹ In addition, analysis of audited financial statements of dominant hospital systems and "must-have" hospitals³⁰ show they have accumulated substantial cash and financial reserves.³¹ A Medicare Payment Advisory Commission (MedPAC) analysis of hospital cost reports found that hospital operating cost levels are correlated with hospital market power vis-à-vis private payers, concluding: "Strong market power leads hospitals to reap higher revenues from private payers. This in turn leads these hospitals to have weaker cost controls. Weaker cost controls lead to higher costs per unit of service."32

This phenomenon of high prices, high profits, and high operating costs is particularly prevalent among nonprofit hospitals. Unlike for-profit entities, which face substantial pressure from equity owners to reduce operating costs and wasteful spending to maximize shareholder returns, non-profits typically lack strong oversight by their boards of trustees. As a result, nonprofit hospital administrators have considerable freedom in how they spend excess revenues; they tend to invest in building grandiose facilities, adding private rooms and patient amenities, ³³ and adopting new and often unproven medical technologies (referred to as non-price competition), in an effort to attract physicians and patients. ³⁴ Clark Havighurst and Barak Richman have observed that nonprofit hospital managers "have a strong interest in expanding their [hospital's] size and maximizing its output as a way of enhancing their own authority, prestige, job satisfaction, and perquisites." ³⁵



High-priced, nonprofit hospitals also tend to have high administrative costs, including higher salaries and bonuses for upper management. One study demonstrated that nonprofit hospitals negotiate high prices with private insurers, as measured by high private sector to Medicare payment ratios. In turn, these nonprofit hospitals use most of these excess revenues on activities that promote their own self-interest—such as higher administrative costs and padding net income—and less on direct patient care or other activities—such as community benefits or charity care. ³⁶ These strategies, sometimes referred to as "empire building," have "bid up" hospital input costs over the last several decades resulting in what is now a high level of operating inefficiency by U.S. hospitals. ²⁸

Hospitals Facing Constraints on their Prices Have Lower Operating Costs

Importantly, not all U.S. hospitals have high costs. Hospitals that have less market negotiating leverage—because they face price pressure from more dominant private insurers and/or have large proportions of Medicare and Medicaid revenues (i.e., payments from payers that set fixed regulated rates)—tend to have much lower cost structures.³² Facing this type of financial pressure, these hospitals respond by managing their costs. Each year MedPAC identifies a cohort of U.S. hospitals facing such financial pressure, that also have high quality scores. Based on this analysis, MedPAC determined that hospitals can control costs without sacrificing quality. Other studies also show that hospitals can manage costs if they have financial incentives to do so.³⁷ MedPAC concluded that Medicare prices, which by law are set to allow efficient hospitals to earn a profit on Medicare patients, are not too low. MedPAC analysis shows that hospitals that operate efficiently, while providing high quality care, are able to breakeven or generate small profits on Medicare patients. Rather, over time U.S. hospitals, particularly nonprofit facilities, which account for over half of all U.S. hospitals, have bid up their input costs to extremely high levels such that it appears that Medicare payment levels are inadequate.

This finding that Medicare payment levels are adequate for efficiently run hospitals is supported by additional MedPAC research showing that Medicare payments were approximately 50 percent higher than the payment levels received by hospitals in other Organization for Economic Cooperation and Development (OECD) countries, after adjusting for cost-of-living differences. These other developed countries use regulated pricing systems to control provider prices and spending for all payers, putting downward pressure on hospital prices and revenues. This evidence supports the conclusion that hospital operating costs are strongly related to pricing pressures they face. When hospitals are reimbursed at higher levels by private payers, they have higher costs per patient. However, when faced with competitive pressure on prices and/or lower government-regulated prices applicable to most of their patients, hospitals can and do reduce operating costs without compromising quality.



The hospital industry, including the American Hospital Association (AHA), generally disputes that market power enables hospitals to raise prices excessively,³⁸ arguing that Medicare's hospital payment levels are inadequate and thus hospitals must "cost shift" (i.e., charge higher rates to private payers) to remain solvent.³⁹ As noted, MedPAC research shows that unconstrained prices paid by private insurers enable hospitals to generate large annual revenue increases, giving hospitals little reason to constrain their costs.⁴⁰ The preponderance of evidence on this question shows that hospitals do not "cost shift."^{41,42,43} Rather, hospitals raise their prices to private insurers because they have the market power to do so. In economic parlance, they "price discriminate."

B. Root Causes of Rising Hospital Prices, Spending, and Costs – Two Key Market Failures

The market for health care services is different from other economic sectors where market forces operate in a more predictable and economically efficient fashion. ⁴⁴ The market forces that might normally discipline the interactions of supply and demand to establish competitive prices in health care markets are distorted by so-called market failures specific to the health sector. Of all of the prominent market failures in the health sector, we focus on two causes of economic dysfunction in the pricing of hospital services: 1) factors that reduce the price sensitivity of patients and employers (i.e., moral hazard and the tax preference for health care premiums) and 2) structural factors that arise from provider consolidation and result in most hospital markets becoming noncompetitive. ^{19, 45}

Key Market Failure 1: The Implications of Moral Hazard and Tax Preferences for Health Insurance Premiums

The risk and uncertainty of illness and the potentially high expense of needed medical services lead most people to acquire third-party health insurance. Most commercial and Medicare coverage involves some patient cost-sharing and co-pays, but except for high-deductible plans, these direct out-of-pocket payments tend to be relatively small. Thus, it is economically rational for insured individuals to consume health services whenever the perceived utility of the care exceeds their out-of-pocket costs. However, insurance coverage shields patients from the cost implications of high medical prices, encourages overconsumption of health care services and disrupts the normal market mechanism where high and rapidly rising health care prices would normally cause patients to reduce consumption of a good or service. The presence and expansion of private health insurance, such as the insurance expansions associated with the Affordable Care Act (ACA), thus has further diluted patients' price-consciousness as a check on provider pricing power. The presence and provider pricing power.



The insensitivity to the cost implications of high health care prices is amplified by the U.S. tax system's exclusion of employer payments for health coverage from employees' taxable income. This exclusion, which subsidizes ESI, exacerbates price insensitivity by allowing more health insurance to be purchased than would be the case with after-tax dollars. Moreover, because the link between higher provider prices and lower wages, reduced benefits, or higher cost-sharing is indirect and not well-understood by most workers, they tend to demand more health care than would be the case without the employer tax subsidy. 47 48

The combination of moral hazard and the cost-concealing effects of the premium tax exclusion undermines patients and employers from demanding insurance companies be more aggressive in countering the price and spending power of consolidated hospitals. As is argued by Havighurst and Richman, these factors impart significant pricing freedom to dominant hospitals and health systems to increase their prices to private insurers, particularly since the enactment of the large-scale private insurance expansions per the ACA.

Key Market Failure 2: Noncompetitive Hospital Markets

According to a gauge—the Herfindahl-Hirschman Index (HHI)—used by the Federal Trade Commission (FTC) to measure the concentration of health care market,⁵⁰ approximately 95 percent of all hospital markets were "highly concentrated" in 2018. Fulton and colleagues also reported that a majority of Core Based Statistical Areas were "super concentrated" as of 2017.⁵¹ Given these results, most of the U.S. population now lives in a noncompetitive hospital market.⁵²

A large body of health services research associates the increase in hospital prices paid by private insurers to the growing concentration of the U.S. hospital industry. ^{10, 20, 53} These studies, and more recent information on the extent to which hospital prices have continued to rise, ⁵⁴ leave little doubt that noncompetitive hospital markets are the most important factor behind extremely high and rapidly rising hospital prices. Studies show that mergers of hospitals that are close to one another lead to the largest price increases, typically between 20 to 40 percent, with some documented price increases as high as 55 to 65 percent in the years immediately following a merger. ^{55, 56, 57} The research evidence also finds higher prices in markets with higher levels of hospital concentration and that prices tend to rise faster in markets where hospital concentration increased. ⁵⁸ More recent evidence finds that mergers of hospitals that are not rivals or substitutes (also known as cross-market mergers) ⁵⁹ lead to price increases of 9 to 30 percent. ^{60, 61}

Many studies have also documented extreme levels of price variation associated with varying levels of hospital concentration.^{62,63} For example, within the same geographic area, there



can be a 60 percent difference between the highest and lowest priced hospitals for the same inpatient services, and a twofold difference in prices for outpatient services. ^{26, 64} Researchers have identified high price and substantial price variation as signs of pronounced_market failure in health care markets. ^{20, 65, 66} Finally, there is mixed evidence about whether mergers reduce hospital operating costs despite hospital claims that operational efficiencies will result from a merger. One AHA-commissioned study found evidence of significant cost savings (4 to 7 percent) and that hospital costs grow more slowly after acquisition. ³⁸ In contrast, in 2017 a study that evaluated 81 hospital acquisitions by multihospital systems found no evidence of cost savings. ⁶⁷ However, there is no evidence that cost reductions result in price reductions for consumers, largely because of the absence of hospital competition in most markets. ^{68, 69, 70}

In addition to mergers between hospitals, researchers studying hospital-physician mergers (e.g. vertical mergers) consistently find these transactions led to higher prices (in part because of extra facility-based payments) for both Medicare and private insurers.⁴² Recent studies also found that hospital acquisition of physician practices led to price increases paid by private insurers of between 3 to 14 percent.^{71,72} Physician practices owned by or tightly integrated with hospitals have substantially different referral patterns compared with independent physicians and often refer more patients to hospital-based facilities.¹⁷

In her 2015 law review article "Resurrecting Health Care Rate Regulation," Erin Fuse Brown concludes that of all the market failures in health care, the development of noncompetitive hospital markets in recent decades has been the most important driver of rapid hospital price growth, which in turn has resulted in large increases in private insurer spending on hospital care. Similarly, MedPAC's review of consolidation concluded that hospital mergers leads to high and highly varying prices with little impact on quality. Since publication of these two studies, hospital consolidation through horizontal, vertical, and cross-market mergers has increased, intensifying chronic price, spending, cost, and affordability problems.

C. ACA Health Insurance Expansions without Cost Control: Increased Coverage for Millions but a Monopoly Pricing Bonanza for Hospitals

The ACA's Ineffective Health Care Cost Containment Strategy

Passage of the 2010 ACA expanded subsidized private health insurance starting in 2014—effectively creating a social insurance system in the U.S., similar to many OECD countries.⁷³ Millions of people who get private coverage through the ACA insurance marketplaces are eligible for government subsidizes and tax credits to lower premiums and out-of-pocket costs. In 2023,



health coverage hit a high with over 92 percent of the U.S. population enrolled in health insurance.⁷³ However, the ACA lacked mechanisms to directly control costs, including hospital price and spending growth that impacts private insurers.

Early drafts of the ACA included a public option plan that would have authorized the government to negotiate provider payment rates directly or link public option provider payments to a percentage of Medicare payments. Facing strong opposition from the private insurance industry and Republicans, the public option was omitted from the final ACA legislation.⁷⁴

Instead of price controls, the ACA established the Center for Medicare & Medicaid Innovation (CMMI), within the Centers for Medicare & Medicaid Services (CMS), to "foster healthcare transformation" by testing new payment and care delivery methods designed to lower costs and improve care. The Much like the early value-based care movement in the U.S., which gained popularity in the mid-2000s, the overall CMMI strategy has been guided by politically appealing and "unassailable" goals to incentivize providers and payers to increase "value instead of volume, quality instead of quantity, and health instead of health care." The Unfortunately, the risk-sharing Alternative Payment Models (APMs) developed by the CMMI are hampered because they tend to be highly complex and largely voluntary initiatives, which impose low levels of financial risk on participating providers if they fail to reduce costs and improve quality and given the voluntary nature of the programs, suffer from selection bias. Accordingly, the cost-containment results of these new models have been disappointing.

For example, MedPAC's 2019 evaluation of the Medicare Shared Savings Program (MSSP) for accountable care organizations (ACO), which was enacted directly in the ACA and is operated by CMS, had only a "small" impact on spending (between 1 to 2 percent lower than in the absence of the MSSP). A more recent analysis concluded the MSSP was associated with net losses for CMS of between \$775 million and \$2.1 billion over the period 2013 to 2021.⁸⁰ Additionally, evidence on the private insurance sector's experience with ACOs and other APMs similarly shows disappointing cost containment results.⁸¹

State Cost Growth Benchmarks

Coincident with CMMI's implementation of numerous and largely ineffective APMs, eight states have adopted broad limits on state health care spending growth, often referred to as a cost growth benchmark (CGBM).⁸² While varying in structure, regulatory authority, and scope, most initiatives establish a per capita health expenditure growth target/benchmark commensurate with growth rates that states deem "affordable," such as the annual growth in gross state product (GSP). The benchmarks are intended to encourage insurers and providers to voluntarily



comply with the cost increase limitations and restrain their requests for price increases. However, we believe CGBM initiatives have been hampered by the difficulty of accurately attributing cost growth experience to individual providers and a lack of sufficiently large financial penalties to induce compliance with the adopted spending growth targets. Because these approaches take considerable time to implement and a dearth of evidence of effectiveness in imposing price discipline, we fear these efforts have distracted politicians and policymakers from adopting more rigorous government-administered price caps and other hospital rate-setting strategies with proven success.

History Shows Mandatory Rate-Setting Models Work Than Voluntary Models

The lack of success of these largely voluntary approaches to cost containment should not be surprising to anyone familiar with past voluntary federal and state-based cost control initiatives. Research on federal and state health care cost containment initiatives clearly shows that voluntary models have not been as successful in controlling costs as mandatory models. When a model is voluntary, participants that perform unfavorably can simply drop out.⁷⁷

D. Noncompetitive Hospital Markets, Moral Hazard, and Lack of Government Price Controls Conspire to Drive Higher Hospital Prices

As noted by Havighurst and Richman in several articles, in the absence of effective antitrust action to forestall hospital consolidation or mandatory governmental price and spending constraints, the ACA insurance expansions—and accompanying consumer price-desensitizing effects—had the unintended consequence of amplifying hospital market power to negotiate higher prices from private insurers. 35,49 According to the authors, the presence and expansion of generous private health insurance made possible by the ACA effectively steepened the demand curve for hospital services, "enabling hospitals possessing advantageous market positions to parlay them into unusually large profits earned at premium payers' expense."49 Per their logic, the large expansion of private insurance availability in recent years has enhanced the pricing power of monopoly hospitals and hospital systems and contributed to what Vladeck and Rice called the "massive engine for the redistribution of resources from employers, taxpayers and households to the organizations that provide goods and services."83 In 2019, Anderson and colleagues attempted to quantify the magnitude of the excess spending on health services due to higher U.S. health care prices. To do so, they compared per capita total health spending in the U.S. to that of Switzerland, the OECD country with the next highest expenditure per capita and similar per capita income. Per their calculations, if the U.S. had spent the



same amount per capita as Switzerland in 2016, the U.S. would have spent \$630 billion less per year on health care. ⁸⁴ Similarly, OECD can be used to estimate the "excess" spending of U.S. hospitals. According to OECD hospital expenditure data for 2019, the U.S. spent \$3,635 per capita on hospital services (nominal values expressed as dollars per capita, adjusted for PPP), while Switzerland spent \$2,785 per capita on hospital services. Thus, had the U.S. spent the same amount on hospital care per capita as Switzerland in 2019, total U.S. hospital expenditures would have been \$304 billion less than the U.S. actually spent.

This report advocates that states seriously consider the implementation of three different "low-intensity" rate setting models: 1) price caps on hospital payments by state/public health benefit programs; 2) price caps on hospital out-of-network (OON) payments, which have been theorized can truncate excessive OON hospital prices and enhance the negotiating leverage of private insurers for in-network hospital prices; and 3) all-payer hospital global budgets, with regulatory compliance enforced at the aggregate budget level to simply the model. States may wish to implement these models in staged and sequential way to gain valuable experience with and reduce the political resistance to rate regulation as the early models demonstrate success without causing market disruptions. We believe that all-payer hospital global budgets is the most comprehensive overall approach. In this regard, if the U.S. were to implement hospital global budgets similar to the payment system in Maryland, hospital care could be expected to grow at approximately 3.5 percent on a per capita basis. From 2028 to 2032, the U.S. could save between \$35 billion to \$42 billion per year with cumulative and compounded savings of \$632 billion by the year 2032 (see Table 1).85 We note that this savings estimate is comparable to the savings estimates calculated by Congressional Budget Office (CBO) and RAND researchers from the implementation of government-administered rate-setting systems. 12, 13

Table 1 Projected Savings from Implementation of Hospital Global Budgets, 2028-2032 (in billions \$) 86

Line		2028	2029	2030	2031	2032
1	Projected Hospital Spending (a)	\$1,905	\$2,011	\$2,123	\$2,241	\$2,366
2	Projected Annual Growth Rate (a)	5.6%	5.6%	5.6%	5.6%	5.6%
3	Assumed Growth with HGB models starting 2027 (b)	3.5%	3.5%	3.5%	3.5%	3.5%
4	Hospital Spending at 3.5% per year starting 2027	\$1,868	\$1,933	\$2,001	\$2,071	\$2,143
5	Annual Savings	\$37	\$78	\$122	\$171	\$223
6	Cumulative Savings	\$37	\$115	\$238	\$409	\$632

⁽a) National Health Expenditurre Projections, 2023-32. Fiore et. al. Health Affairs. June 2024

⁽b) Assumed hospital expenditure growth based on Maryland performance 2014-2020 (line 1 minus line 4)

A sudden and dramatic imposition of price and spending limits on U.S. hospitals would cause shocks to the U.S. health care delivery system, so states should implement price and spending constraint gradually by applying more stringent price and spending constraints incrementally and over time. This projection is similar to other projections of the possible impact of mandatory price controls, 12, 13 which demonstrate the magnitude of savings that could be realized. Such savings will become more essential given the nation's bleak long-term debt outlook, a topic we discuss later in this paper.

III. Implications of Today's Dysfunctional Hospital Markets

A. Negative Macroeconomic Impacts

For many years, the rate of nominal U.S. health care spending growth has exceeded the rate of nominal GDP growth, a measure of overall economic activity and income. According to the National Health Expenditure Accounts (NHEA), U.S. health care spending growth has outpaced GDP growth on average between 0.5 to 3.4 percentage points each year since the 1970s, with health expenditures eating up an increasing share of the total economy. While the relationship between health spending and GDP growth historically has fluctuated, depending on changes in overall economic growth (the denominator in this equation), CMS projections of this relationship between health care expenditure growth and GDP growth clearly shows that excessive health spending will likely continue to crowd out investment in other economic sectors.⁸⁷

Excessive health spending growth means society has less money to spend on other vital economic and social programs, such as infrastructure, education, defense, new housing, social programs for an aging population, and climate change. Disproportionately large health spending increases also undermine health insurance affordability and suppress household wages and overall economic growth.¹

B. Hospital Consolidation has Negative Social and Economic Effects

The trend of health spending growth surpassing GDP and income growth is mirrored by the trend of private health insurance premiums growing much faster than employee compensation over time. According to data from the annual KFF Employer Health Benefits Survey and the U.S. Department of Labor, the average annual family premium for ESI increased to \$23,968 in



2023, an increase of over 290 percent since 1999. At the same time, average family earnings increased only 106 percent. The rising cost of health care means that families have less money to spend on everything from food to housing, needed medicines, education, and long-term care.⁸⁸

Most employers fund a large share of health insurance premiums for employees, contributing approximately 66% of premiums on average according to a KFF 2018 survey.⁸⁹ But as noted, employers have responded to rising health spending by increasing the share of employee premium contributions, increasing deductibles or copayments, reducing employment, or limiting wage growth. Because most employers contribute the same premium amount across employees, higher spending on health care makes employment of lower-wage employees relatively more expensive than high-wage workers and is meaningfully associated with general wage stagnation and wage inequality.⁵ A recent working paper by Brot-Goldberg and colleagues also demonstrates that hospital price increases due to mergers result in increased unemployment, reduced state and federal government tax revenues, and increased unemployment insurance payments. The authors also demonstrate that these negative employment impacts were associated with increased suicides and drug overdoses, resulting in further social and economic harm.⁶ These less obvious but highly regressive side effects of rising health care spending may have contributed to increased levels of social unrest and the rise of anti-elitist political ideologies among both conservatives and liberals in the U.S., leading to such populist movements as the Tea-Party movement, Occupy Wall Street, and Make America Great Again, in recent years.

IV. Insufficient Private Insurer Price Control, Antitrust Enforcement, and Hospital Accountability

A. Private Insurer Inability to Counter Hospital Price Demands

Significant Insurer Consolidation Generally Results in Higher Premiums

In addition to the consolidation of provider markets discussed previously, private health insurance markets are also highly concentrated. Theoretically, insurers with dominant market share should be able to counterbalance hospital market power. However, studies show that while increasing insurer market power may lower hospital prices in certain markets, savings from lower hospital prices do not necessarily result in lower premiums for privately insured people. There are many reasons for this, but private insurers are generally unable or unwilling to resist hospital pricing demands, more often acting like "middlemen," seizing the surpluses they can



earn by exercising their market power to negotiate lower prices but not passing on the savings through lower premiums to customers. Also, dominant insurers don't need to negotiate low prices with hospitals in their markets to remain competitive. They just need to obtain the best price, (relative to other competing insurers) to maintain advantage over smaller competitors and deter new market entry. Other studies on the impacts of insurer concentration found that premiums increased after mergers, particularly in markets where the merged entities had significant overlap before the union. 94,95

Insurers and Powerful Hospitals Often Collaborate to Keep Hospital Prices High

Beyond the lack of competitive forces to discipline insurers to limit premium increases, large insurers have also been found to collaborate with powerful hospitals to drive up prices, particularly for self-funded or self-insured employers that pay for employees' health expenses directly instead of paying an insurer take the financial risk of paying claims as fully insured health plans do. ⁹⁶ Although self-insured plans assume all or most of the financial risk for employees' health claims, they still contract with third-party administrators (TPAs). In these arrangements, the employer typically pays the TPA a fee (usually a percentage of claims expenses) to process claims and handle other administrative activities. The structure of these arrangements offers little motivation for large insurers to use their negotiating clout to get lower prices for their self-insured clients because TPAs may generate higher administrative fees when claim expenses are higher. ¹²

Recent research shows that these self-insured arrangements have not been successful in low-ering prices paid to providers and instead pay moderately higher provider prices relative to fully insured plans. ⁹⁷ Anecdotal evidence suggests that large insurers may negotiate trade-offs with powerful hospitals, agreeing to pay higher fees for the self-insured portion of their book of business, in exchange for lower fees on the book of business for which they assume full financial risk. ⁹⁸

B. Ineffective Antitrust Action

Traditionally, antitrust action has been the primary way to address market consolidation or monopoly pricing that negatively affect consumers. Historically, the FTC and the Department of Justice (DOJ), the two federal agencies that oversee antitrust activity, focused on preventing anticompetitive horizontal mergers between similar providers, such as horizontal hospital mergers.



Mixed Success of Antitrust Efforts

During the period 1993-2008, the FTC and DOJ suffered a long losing streak of challenging health care mergers, particularly nonprofit hospital mergers. The losing decisions reflected judicial skepticism about whether nonprofit hospitals would deliberately raise prices to supracompetitive levels, or a belief that if they did, hospitals would apply the additional revenue earned to charitable purposes. Subsequent FTC retrospective studies and other research demonstrate that nonprofit hospitals do raise prices following mergers and nonprofit hospitals have constituted a significant source of the provider market power problem in health care. The FTC used new analyses developed from the retrospective studies, and the agency had success in challenging and preventing hospital mergers. During this time, however, the FTC challenged only a small fraction of proposed mergers, struggling to match the pace of hospital and health system M&A activity. From 1998 to 2017, as the AHA showed, there were 1,577 hospital mergers among the nation's approximately 5,000 acute general hospitals. KaufmanHall documents an additional 428 consummated or announced hospital mergers from 2018-2023.

Federal antitrust enforcement also has been thwarted by limited resources and, until recently, sufficient guidelines or appropriate thresholds to effectively prevent other than horizontal consolidation, such as vertical acquisitions of physicians by hospitals, cross-market hospital mergers, and activity by private equity (PE).¹⁰⁵ New merger guidelines and increased federal attention to PE acquisitions of physicians may signal a new antitrust enforcement era.¹⁰⁶ However, these efforts may be too late to create meaningful competition in most health care provider markets.

Difficulty in Challenging New Forms of Consolidation

The FTC and DOJ have had limited success challenging newer forms of consolidation, such as vertical hospital and other provider mergers, cross-market hospital mergers, and more recently, PE provider acquisitions (discussed in more detail later). First, in the case of vertical and PE acquisitions, the FTC and DOJ have been hindered by limited reporting requirements. As of 2024, the threshold for notification of proposed transactions is \$119.5 million, leaving a significant number of transactions, particularly physician practice acquisitions, outside of federal review, even though these mergers can result in significantly reduced market competition. Furthermore, vertical mergers—such as when a hospital acquires a physician practice—have largely escaped FTC enforcement. The FTC filed a handful of complaints challenging vertical mergers, including Illumina-Grail and United-DaVita, but rarely opposing the acquisition of



a physician group.^{109,110,111,112,113} In 2021, the FTC announced that it would study the effect of vertical mergers between health care facilities and physician groups, as part of its merger retrospective program.¹¹⁴

Hospital consolidations are also increasingly spanning much broader geographies⁵¹ and increasingly involve hospitals in different markets—a cross-market merger. Researchers found that more than half of hospitals mergers from 2000 to 2012 involved hospitals and hospital systems operating in different markets.¹⁰⁸ In addition to M&A activity, powerful providers can negotiate anticompetitive contract clauses, including all-or-nothing, anti-tiering/anti-steering clauses, with insurers that impede market competition and can lead to increased prices.^{51, 115}

Private Equity (PE): A New and Concerning Focus of Antitrust Attention

In addition to vertical and cross-market mergers, state and federal antitrust agencies have raised concerns about PE investment in hospitals and other providers because of evidence that PE investment correlates with increased health care prices and overall spending while reducing the quality of care. 116 Researchers have raised concerns that the activities of PE firms are significantly increasing the "corporatization" of U.S. health care and consolidation of health providers as for-profit investors change the organization of hospitals, physician practices, and other providers to generate short-term gains. 106 Since, 2010, hundreds of hospitals, thousands of physicians, and many nursing homes, ambulatory surgical centers, and fertility clinics have been acquired by PE firms. 117 According to some researchers, PE firms use market failures to increase prices, spending, and profits while engaging in cost-cutting strategies that reduce the quality of care. 106 Currently, antitrust agencies or other state and federal regulatory bodies may not effectively review PE investment, in part because only 10% of PE deals are large enough to cross the threshold for pre-transaction notification. 117, 118

Difficulty in 'Unscrambling the Egg'

The Sherman Act, which governs anti-competitive practices by business, prohibits "every contract, combination, or conspiracy in restraint of trade," (Section 1) and any "monopolization, attempted monopolization, or conspiracy or combination to monopolize" (Section 2).¹¹⁹ In addition to restricting anticompetitive mergers and conduct, Section 2 of the Sherman Act gives antitrust enforcers the ability to breakup monopolistic companies.¹²⁰

However, as the prominent legal scholar Richard Posner notes, the Sherman Act does not have a good divestiture track record. He has argued that any suit against extant monopolies will be characterized by "daunting complexity" and experience with divestiture in monopolization cases suggests that "dismemberment would be a futile remedy, unlikely to have the intended



effect of restoring competition." ¹²¹ Concern about the inability to "unscramble the egg" ¹²²—forcing merged hospitals to divest themselves—is echoed in many reports assessing the potential of various policy approaches to constrain growth in hospital prices and spending, including more aggressive antitrust action. For example, CBO and RAND reports expressed skepticism about the viability of legal action to break up consummated hospital mergers, with CBO commenting that antitrust suits to break up hospital monopolies are "expensive, rare, and difficult to win." ^{12, 117}

Overall, "renewed" and/or "aggressive" antitrust enforcement, as advocated by market enthusiasts, may not be able to do more than just discourage further hospital consolidation, leaving in place an already highly concentrated hospital industry. In the absence of government regulation of private-sector health care prices, the U.S. may be subject to future decades of high and rapidly rising hospital prices, eroded affordability, and continued redistributions of personal wealth to already rich and powerful provider monopolies.

C. Lack of Hospital Accountability

The third reason that market forces have not sufficiently restrained prices is that hospitals in the U.S. are not held accountable for activities that run counter to the public interest.

Lack of Board Oversight and Accountability for Nonprofit Hospitals

Nonprofits hospitals account for about 56 percent of all acute care facilities, ¹⁰⁴ but many health services researchers have questioned whether nonprofits are providing enough charity care and community benefit to justify the value of their tax exemption, ¹²³ which is estimated to exceed \$34 billion annually. ¹²⁴

As we have noted, nonprofit hospitals appear to lack sufficient board oversight regarding M&A strategies, allowing or even encouraging hospital management to increase market power vis-à-vis private insurers, resulting in high and rising negotiated prices and use of anticompetitive contract clauses. Several studies on the governance of nonprofit institutions have observed the tendency of nonprofit hospital managers to invest in expansionist strategies and empire building. 125,126 In particular, one recent study concluded that: "nonprofit boards are weaker than their for-profit counterparts: monitoring of management is more effective when boards are agile, independent, and incentivized to exert effort on behalf of the principals they represent. Non-profit hospital boards also tend to be unusually large an often include directors with conflicts of interest." 127



Hospitals' Cycle of Bidding Up their Operating Costs Fuels More Market Concentration and Increased Prices

This lack of accountability for nonprofit hospital managers and management decisions generally enables ongoing overinvestment or empire building that enhances market power and increases operating costs. These higher costs must in turn be financed by higher prices and revenues, aided by additional hospital consolidation, anticompetitive contracting, and exploitation of existing market failures in the health sector. This vicious cycle continues unabated, without any prospect of it being broken in coming decades.

The growing divergence between the rates paid by Medicare and private insurers is evidence of this cycle. Private-sector hospital prices increased from an average of 113 percent of Medicare prices in 1997 to nearly 170 percent of Medicare in 2018,¹²⁸ and RAND found that employers and private insurers in 2022 paid on average 254 percent of what Medicare would have paid for the same services at the same facilities.²⁶

As discussed, the hospital industry's ability to charge supracompetitive prices has allowed many hospitals and health systems to amass huge cash reserves and investments.³¹ As reported by MedPAC, both for-profit and nonprofit hospital operating margins peaked in 2021 at all-time high levels. Average total hospital margins, including PHE relief funds, were nearly 16 percent for for-profits and 8 percent for nonprofits in 2021.¹²⁹ Margins declined in 2022, in part due to reduced volumes and rising labor costs, but are projected to rebound in 2023 and 2024,¹³⁰ given reports of a surge in hospital prices in recent months.⁵⁴ Hospitals use their growing financial largess to obtain, defend, and extend their market dominance.¹³¹ These activities include significant investments in lobbying and consolidating their market dominance by wooing key local and federal politicians with generous campaign donations.^{132, 133}

The Fallacy of Hospitals as 'Engines' of Economic and Job Growth

Hospital advocates have attempted to justify empire-building strategies by arguing that these activities economically benefit local communities because hospitals are "engines" of economic and job growth. 134 Local politicians give much weight to the employment opportunities offered by a growing hospital sector, prompting them to support hospital investment strategies and oppose hospital cost-containment strategies. 135

However, economic research clearly shows that health spending that grows faster than the overall U.S. economy results in significant crowding out and displacement of employment and wage growth in other economic sectors.¹ For every job created in the health care sector, the



costs of running the U.S. health care system grows and can result in layoffs in other sectors unable to fund the increased burden of the cost of health insurance premiums for workers. In one stark example, RAND economists demonstrated that a 10 percent increase in excess growth in health care spending over U.S. GDP growth translates to 120,803 fewer jobs in other sectors. Additional analysis performed suggests that for every job added to the health sector under these circumstances, the U.S. sacrifices 1.23 jobs in other economic sectors. Baicker and Chandra also describe health care growth as a wildly inefficient jobs program that results in an inefficient redistribution of wealth from more productive activities in the economy. They conclude that reliance on the health system to be job creators "conflicts directly with the goal of ensuring that all Americans have access to care at an affordable price."

V. The Urgent Need for Mandatory Rate Regulatory Models

Prominent market failures, including noncompetitive hospital markets, moral hazard and the tax deductibility of health care premium expenses, have conspired to enable hospitals to achieve dominant market positions in most U.S. market and increase their prices and revenue growth to extremely high levels. Government intervention is now required.

A. When the Market's Invisible Hand is Undermined by Market Failures, the Visible Hand of Government is Needed

Given the failure of the private health insurance industry, federal and state antitrust activity, and APM initiatives to control rising hospital price and spending growth, we believe the best way to constrain hospital prices and spending is developing a mandatory system of regulated hospital prices. CBO and RAND researchers concluded that regulating hospital prices would be more effective in controlling health care prices and spending than other proposed approaches, such as policies to improve market competition or more aggressive antitrust activity. ^{12, 13} Hospital rate-setting systems have a strong track record of controlling hospital price, spending, and cost growth in other developed countries and certain U.S. states in the 1970s and 1980s. ^{14, 139}

B. OECD Country and Past State-Based Rate-Setting Efforts Have Been Effective

After World War II, virtually every other developed country in the world adopted some form of mandatory, government-administered price and spending controls on hospitals and other



health care providers.¹⁴⁰ Policymakers have attributed the presence of either a single payer or a coordinated all-payer regulated payment system as a primary reason why other developed countries' health care costs are roughly half those of the U.S.¹⁴¹

State-based rate-setting models were actually quite common in this country in the 1970s and 1980s with this approach to controlling hospital price and spending growth labeled as "the center of the policy paradigm for controlling health care costs during the 1970s."¹⁴² By 1980, as many as 30 states had adopted either prospective rate setting or budget review systems for hospitals. ¹⁴³ Several all-payer hospital rate-setting programs were successfully implemented in the 1970s and 1980s in New York (from 1971-1996), New Jersey (1974-1993), Massachusetts (1975-1991), and Washington (1975–1989). Maryland's system has been in continuous operation since 1974. ¹⁴⁴ These systems demonstrated a record of effective cost containment, expanded access to hospital care, improvements in hospital financial stability, and the ability to accommodate beneficial changes in care delivery. ^{14, 145}

C. Weaknesses and Vulnerabilities of Hospital Rate Setting

While state-based rate-setting systems experienced some success in controlling hospital price and spending growth, along with achieving other policy goals, critics argue that state-based rate setting ultimately failed because only Maryland retained its system. A review of sources chronicling the "demise" of state-based rate setting shows that the systems in New York, Massachusetts, and New Jersey were terminated due to the erosion of support by key interest groups, including labor, business, legislators, and insurers because regulators loosened rate-setting constraints in response to hospital industry opposition. The relaxation of rate-setting methods by regulators in these states undermined the cost containment success of these systems. Ironically, frequent changes in rate methods to appease hospitals and politicians contributed greatly to the increased complexity of these systems.

The emergence of managed care as a new and more effective pro-market cost-control mechanism in the 1990s and changes in state political leadership (to parties favoring market-based solutions over regulatory solutions) also contributed to the eroding popularity of rate setting. But managed care failed at effective cost containment due to the eventual structural market domination of hospitals through extensive M&A activity. These developments primarily underscore the conclusion that health care markets are highly vulnerable to market failure of this nature, and only government rate regulation can intervene effectively to correct these problems. Evaluation of rate-setting methods finds that less complex regulatory systems, such as price caps benchmarked to a multiple of Medicare prices or all-payer flexible hospital global budgets, built on well-explained formula-based rate methods tend to be more effective.^{23, 146}



D. Promising Signs on the Horizon

Given the profound market failures in health care, particularly in hospital markets, and lack of success in reining in hospital prices and spending, a number of health economists support establishing low-intensity rate regulatory methods, such as price caps, price growth caps, and hospital global budgets.⁶⁶

Montana and Oregon have successfully countered some of the pricing power of hospitals by establishing price caps for their state employee benefit programs. Although, Montana recently terminated this program despite realizing savings, the Oregon strategy of setting relatively high price caps for acute care hospital services has generated considerable savings for the state while avoiding disruptions to hospitals. As discussed below, several elements of the Oregon strategy are potentially helpful for other states looking to embark on a rate regulatory strategy to address uncontrolled hospital price and spending growth.

E. Conclusions Regarding State-based Rate Setting Options

First, a review of past rate-setting models and strategies and evaluations of most CMMI payment models, clearly demonstrates that mandatory rate models, enforced by legislative authority to set and annually increase hospital prices, are significantly more effective than voluntary models. 148, 149,151, 154 Based on this evidence and related points discussed previously regarding voluntary Medicare Alternative Payment Models, we conclude that voluntary approaches will not be effective at constraining hospital price and spending growth or pressuring hospitals to more effectively manage costs.

Second, effective state rate-regulatory systems are best implemented and administered by a small, independent, and nimble government agency. Several of the early state rate-setting system governance structures were based on a public utility approach, which typically include an independent state agency governed by a board or commission whose members had an interest in health care and a range of backgrounds with an emphasis on promoting the public interest. Public utility governance models emphasize transparency and public deliberations of various policy proposals from the agency's professional staff regarding the core activities and responsibilities of the rate-setting agency. Such an approach can also help avoid another weakness of government rate regulation – that of regulatory capture.¹⁵⁰ This overall approach is described in a Handbook on Hospital Rate Regulation written by the authors.¹⁵¹ Other work has discussed ways in which states can protect hospital rate regulatory systems from the dangers of both regulatory capture and regulatory failure.¹⁵⁰ We have learned much about what caused previous state-based hospital rate systems to fail. Other developed countries all continue oper-



ate successful provider rate regulatory systems. The U.S. can still learn from these international system and past experience to implement regulatory models to rein in excessive hospital price and spending growth.

Third, as was the case in the 1970s and 1980s when states gained legislative support for price regulation to address significant state budget deficits, states that link implementation of a rate-setting model to balancing state budgets have a better chance of gaining support for rate regulation. Starting with price caps for public employee benefits can demonstrate to legislators, policymakers, employers, and insurers that a system of price caps can generate substantial savings while avoiding negative effects to the quality of care or hospital financial viability. States that link the use of price caps or other rate-setting models to the need to generate savings for the state and reduce premiums paid by privately insured individuals can leverage their constitutional requirement to balance state budgets to use price caps and other forms of hospital rate regulation. This circumstance will become even more relevant as federal budget difficulties impinge on federal discretionary spending and federal funding of state budgets.

Fourth, states interested in implementing hospital price regulatory models should concentrate efforts on "lower intensity" and less complex models. Additional information on these recommended payment models can be found elsewhere.^{23, 152, 153}

VI. Conclusion: Never Waste a Good Crisis

According to recent CBO estimates, budget deficits—the amount that government spending exceeds revenues in any given year—will total \$1.6 trillion, or about 5.2 percent of GDP, in 2024 and grow to over \$2.6 trillion in 2034.¹⁵⁴ The CBO estimates that total debt held by the public—the accumulation of annual deficits—will increase from 99 percent of GDP in 2024 to 116 percent of GDP by 2034. Making current tax reductions permanent would cause this ratio to increase to an astounding 211% by 2054.¹⁵⁵ The U.S. has never witnessed these magnitudes of deficits and overall debt except during extreme social or economic crises such as World War II, the 2007-2009 great recession, and the Covid PHE. Most economists believe that debt levels at these magnitudes would be completely unsustainable and will require drastic spending reductions and increases in tax revenues.¹⁵⁵ The CBO warns that as debt levels rise, interest costs will become the fastest growing component of the federal budget, crowding out discretionary spending and making it more challenging to address the "fiscal gap" between revenues and spending.¹⁵⁴

The basic conclusion is clear—the long-term fiscal outlook is unsustainable and will eventually require significant federal action through large spending cuts and tax increases that will likely erode the pace of long-term U.S. economic growth. This bleak debt situation will pressure the federal government to cut or cap the employer health insurance premium tax exclusion and cut federal subsidies for people obtaining coverage through the ACA insurance marketplaces. States also will feel increasing pressure to reduce discretionary programs as federal lawmakers clamp down on federal spending. Approximately 36 percent of state budgets, which by state law must be balanced, are funded by federal dollars. ¹⁵⁶ Linking the passage of state-based hospital price regulation to the growing need to balance state budgets may, as it did in the 1970s and 1980s, provide the fortitude for states to implement hospital pricing systems.

Given the failure of private insurers, antitrust action, and new voluntary payment models, we believe the U.S. has no choice but to return to state-based hospital rate regulatory models to reign in hospital prices and spending and create strong incentives for hospitals to improve operating efficiency. In fact, we believe it is inevitable that the U.S. will eventually move in this direction, first at a state level and then subsequently at a federal level, mandating some form of rate and spending control for hospitals (and perhaps other providers) nationally. A quote about the U.S., commonly attributed to Winston Churchill, seems apropos given the lack of success in combating rising hospital prices, spending and costs: "Americans will always do the right thing, after they have exhausted all other possibilities." This article has attempted to demonstrate the failure of U.S. health policy in combating ever-rising hospital prices, spending, and operating costs. Ultimately, state and federal governments must confront these large economic and social problems by finally doing the "right" thing by implementing mandatory government-administered price and spending regulatory models for hospitals. The longer the U.S. fails to act the harder it will be to reverse these longstanding trends that continue to enrich hospitals and other providers at the expense of individuals and families.

- 1. Office of the Assistant Secretary for Planning and Evaluation. The Effect of Health Care Cost Growth on the U.S. Economy. U.S. Department of Health and Human Services; 2007. aspe.hhs.gov/reports/effect-health-care-cost-growth-us-economy. Accessed September 6, 2024
- 2. Gruber J. Health Insurance and the Labor Market. Working Paper. National Bureau of Economic Research; 1998. www.nber.org/system/files/working_papers/w6762/w6762.pdf. Accessed September 6, 2024.
- 3. Baicker K, Chandra A. The labor market effects of rising health insurance premiums. *J Labor Econ.* 2006;24(3): 609–634. www.nber.org/system/files/working_papers/w11160/w11160.pdf. www.nber.org/system/files/working_papers/w11160/w11160/w11160.pdf. <a href="https://www.nber.org/system/files/working_papers/w11160/w11160/w11160/w11160/w11160/w11160/w11160/w11160/w11160/w11160/w11160/w11160/w11160/w11160/w11160/w11160/w11160/w116
- 4. Emanuel, E. Fuchs, V. R. Who really pays for health care? The myth of "shared responsibility". JAMA. 2008;299(9):1057–1059. www.researchgate.net/publication/5533663 Who Really Pays for Health Care. Accessed September 6, 2024.
- 5. Finkelstein A. McQuillan C. Zidar O. and E. Zwick. The Health Wedge and Labor Market Inequality. 2023. 2023. NBER Working Paper No. 31091. https://www.brookings.edu/wp-content/up-loads/2024/01/16653-BPEA-SP23 WEB Finkelstein-et-al session print.pdf
- 6. Brot-Goldberg Z, Cooper Z, Craig S, Karnet L, Lurie I, Miller C. *Who Pays for Rising Health Care Prices? Evidence from Hospital Mergers.* Working Paper. National Bureau of Economic Research; 2024. www.nber.org/papers/w32613. Accessed September 6, 2024.
- 7. Fuchs VR. Managed care and merger mania. *JAMA*. 1997;277(11):920–921. jamanetwork.com/journals/jama/article-abstract/414706. Accessed September 6, 2024.
- 8. Dafny L. Hospital industry consolidation—still more to come? NEJM. 2014;370(3):198–199. www.nejm.org/doi/10.1056/NEJMp1313948. Accessed September 6, 2024.
- 9. Berenson R. Addressing pricing power of integrated delivery: the limits of antitrust. *J of Health Polit Policy Law.* 2015;40(4):711-744. read.dukeupress.edu/jhppl/article-abstract/40/4/711/13749/Addressing-Pricing-Power-in-Integrated-Delivery?redirectedFrom=fulltext. Accessed September 6, 2024.
- 10. Anderson G, Hussey P, Petrosyan V. It's still the prices, stupid: why the US spends so much on health care, and a tribute to Uwe Reinhardt. *Health Aff*.2019;38(1):87-95. doi.org/10.1377/hlthaff.2018.05144.
- 11. Note: in addition to quantifying the repressiveness of this financial burden through the imposition of this "head tax" regardless of a worker's take home income, the authors also demonstrate other regressive effects of hospital price increases due to hospital mergers, such as reduced employment, reduced government tax revenue due to this reduced employment and increased incidence of suicide and drug overdoses related to job losses.
- 12. Policy Approaches to Reduce What Commercial Insurers Pay for Hospitals' and Physicians' Services. Congressional Budget Office. 2022. https://www.cbo.gov/publication/58541. Accessed September 6, 2024.
- 13. Liu J, Levinson A, Qureshi NS, Whaley C. *Impact of Policy Options for Reducing Hospital Prices Paid by Private Health Plans.* Santa Monica, CA: RAND; 2021. rand.org/pubs/research_reports/RRA805-1.html. Accessed September 6, 2024.



- 14. Murray R, Berenson R. *Hospital Rate Setting Revisited*. Washington, DC: The Urban Institute; 2016. <u>urban.org/sites/default/files/publication/73841/2000516-Hospital-Rate-Setting-Revisited</u>. <u>pdf</u>. Accessed September 6, 2024.
- 15. Hartman M, Martin AB, Whittle L, Catlin A. National health care spending in 2022: growth similar to prepandemic rates. *Health Aff.* 2024;43(1): 6-17. www.healthaffairs.org/doi/10.1377/hlthaff.2023.01360. Accessed September 6, 2024.
- 16. Singh A. Hospital and Health System M&A in Review: Financial Pressures Emerge as Key Driver in 2023. Chicago, IL: KaufmanHall; 2024. kaufmanhall.com/insights/research-report/2023-hospital-and-health-system-ma-review. Accessed September 6, 2024.
- 17. Richards MR, Seward J, Whaley C. *Treatment Consolidation After Vertical Integration: Evidence from Outpatient Procedure Markets*. Working Paper. RAND Corporation; 2020. www.rand.org/pubs/working_papers/WRA621-1.html. Accessed September 6, 2024.
- 18. Bureau of Labor Statistics. Consumer Price Index. U.S. Department of Labor. 2024. www.bls. gov/data. Accessed September 6, 2024. as reported by Cooper Z. Consolidation and Corporate Ownership in Health Care. Testimony Before the Senate Committee on Finance. 118th Congress, 1st session. June 8, 2023. www.finance.senate.gov/imo/media/doc/20230605_sfc_testimony. pdf. Accessed September 6, 2024.
- 19. Fuse Brown E. Resurrecting health care rate regulation. *HLJ*. 2015;67(1): 85-142. repository. uclawsf.edu/hastings_law_journal/vol67/iss1/3. Accessed September 6, 2024.
- 20. Cooper Z, Craig SV, Gaynor M, VanReenen J. The price ain't right? hospital prices and health spending on the privately insured. *Q J Econ.* 2019;134(1):51-107. doi.org/10.1093/qie/qjy020.
- 21. Gaynor M. Antitrust Applied: Hospital Consolidation Concerns and Solutions. Testimony Before the Senate Committee on the Judiciary, Subcommittee on Competition Policy, Antitrust, and Consumer Rights.117th Congress, 1st session. May 19, 2021. www.judiciary.senate.gov/download/martin-gaynor-testimony. Accessed September 6, 2024.
- 22. Manchikanti L, Standiford HI, Benyamin RM, Hirsch J. Evolution of US health care reform. *Pain Physician*. 2017;20(3):107-110. <u>pubmed.ncbi.nlm.nih.gov/28339426</u>. Accessed September 6, 2024.
- 23. Gudiksen KL, Murray R. Options for states to contain the pricing power of health care providers. *Front. in Health Serv.* 2022;2:1-17. doi.org/10.3389/frhs.2022.1020920.
- 24. Town RJ. Douglas W, Feldman R, Burns LR. Revisiting the relationship between managed care and hospital consolidation. *Health Serv* Res. 2007;42(1):219-238. www.ncbi.nlm.nih.gov/pmc/articles/PMC1955242. Accessed September 6, 2024.
- 25. There are many reasons why some hospitals are able to operate as "must have" providers for the purposes of insurance hospital network configuration. These include: 1) geographic isolation in areas which cannot support competing hospitals due to insufficient population; 2) providing a unique service (such as a level I trauma unit, burn unit or organ transplant center otherwise unavailable in the market or due to governmental franchise designations; or 3) general reputation. These hospitals are able to charge extremely high prices and still maintain sufficient patient volumes because patients just want access to these services and are willing to "pay the price" due to: 1) the price-desensitizing impacts of generous private insurance coverage and the tax preferences for employer-sponsored insurance (which results in moral hazard); 2) employers' and employees' strong preference for broad hospital networks; 3) governmental service designations



- such as level IV trauma centers and neonatal intensive care units and 4) brand reputation, which in a competitive market might afford the provider the ability to charge higher prices, but not supracompetitive prices.
- 26. Whaley C, Kerber R, Wang D, Kofner A, Briscombe B. *Prices Paid to Hospitals by Private Health Plans: Findings from Round 5 of an Employer-led Transparency Initiative*. Santa Monica, CA: RAND Corporation; 2024. www.rand.org/pubs/research_reports/RRA1144-2.html. Accessed September 6, 2024.
- 27. Health Care Cost Institute. 2021 Health Care Cost and Utilization Report. Washington, DC: Health Care Cost Institute; 2021. healthcostinstitute.org/images/pdfs/HCCl_2021_Health_Care_Cost_and_Utilization_Report.pdf. Accessed September 6, 2024.
- 28. MedPAC Staff. Meeting highlight: hospital consolidation and its implications for Medicare. MedPAC. November 15, 2016. www.medpac.gov/meeting-highlight-hospital-consolidation-and-its-implications-for-medicare. Accessed September 6, 2024.
- 29. Each report from March 2014 to March 2023, documents hospital profits that were characterized as a 20-year all-time high in the March 2014 Report, to "record high" profit levels in the March 2023 Report. See Report to the Congress: Medicare Payment Policy. 118th Congress, 1st session. March 15, 2023. Washington, DC: Medicare Payment Advisory Commission. www.medpac. gov/document/march-2023-report-to-the-congress-medicare-payment-policy. Accessed September 6, 2024.
- 30. "Must-have" hospitals have been described in the research literature as those that privately insured accounts insist on having a part of their health plan's network due to reputation or the provision of certain specialized services
- 31. Kane N, Berenson R, Blanchfield B, Blavin F, Arnos D, Zuckerman S. Why policymakers should use audited financial statements to assess health systems' financial health. *J Health Care Finance*. 2021;1-26. www.healthfinancejournal.com/index.php/johcf/article/view/265. Accessed September 6, 2024.
- 32. Stensland J, Gaumer Z, Miller, M. Private-payer profits can induce negative Medicare margins. *Health Aff.* 2010;29(5):1045-1051. doi.org/10.1377/hlthaff.2009.0599.
- 33. Rosenthal E. Is this a hospital or a hotel? *New York Times*. September 21, 2013. www.nytimes. com/2013/09/22/sunday-review/is-this-a-hospital-or-a-hotel.html. Accessed September 6, 2024.
- 34. Robinson J, Luft H. Competition and the cost of hospital care. *JAMA*. 1987;257(23):3241-3245. <u>jamanetwork.com/journals/jama/article-abstract/366626</u>. Accessed September 6, 2024.
- 35. Havighurst CC, Richman BD. Distributive injustice(s) in American health care. *Law Contemp Probl.* 2006;69(7):7-82. scholarship.law.duke.edu/faculty_scholarship/2256. Accessed September 6, 2024.
- 36. Wang Y, Anderson GF. Hospital resource allocation decisions when market prices exceed Medicare prices. *Health Serv* Res. 2022;57(2):237-242. www.ncbi.nlm.nih.gov/pmc/articles/PMC8928020. Accessed September 6, 2024.
- 37. White, C., and V. Y. Wu. 2014. How do hospitals cope with sustained slow growth in Medicare prices? Health Services Research 49, no. 1 (February): 11-31. https://onlinelibrary.wiley.com/doi/full/10.1111/1475-6773.12101



- 38. Noether M, May S. Hospital Merger Benefits: Views from Hospital Leaders and Econometric Analysis. Washington, DC: Charles River Associations; 2019. www.aha.org/system/files/2018-04/ Hospital-Merger-Full-Report-FINAL-1.pdf. Accessed September 6, 2024.
- 39. American Hospital Association. *Medicare Significantly Underpays Hospitals for Cost of Patient Care*. American Hospital Association; 2024. www.aha.org/2024-01-10-infographic-medicare-significantly-underpays-hospitals-cost-patient-care. Accessed September 6, 2024.
- 40. Frakt A. *Hospitals' Medicare Margins*. The Incidental Economist Blog. July 26, 2015. theincidentaleconomist.com/wordpress/hospitals-medicare-margins. Accessed September 6, 2024.
- 41. Frakt A. How much do hospital cost shift? *Milbank Q.* 2011;89(1):90-130.www.ncbi.nlm.nih.gov/pmc/articles/PMC3160596. Accessed September 6, 2024.
- 42. Congressional Request on Health Care Provider Consolidation (March 2020 Report). In Report to the Congress: Medicare Payment Policy. 116th Congress, 2nd session. Washington DC: Medicare Payment Advisory Commission: 2020: 455-510. medpac.gov/wp-content/uploads/import_data/scrape_files/docs/default-source/reports/mar20_medpac_ch15_sec.pdf. Accessed September 6, 2024.
- 43. Glied S. COVID-19 overturned the theory of medical cost shifting by hospitals. *JAMA Health Forum* 2021 Jun 4. Vol. 2, No. 6, pp 3212128-212128. American Medical Association. https://jamanetwork.com/journals/jama-health-forum/fullarticle/2781591. Accessed November 8, 2024.
- 44. Arrow K. Uncertainty and the welfare economics of medical care. *Am Econ Rev.* 1963;53(5):941-973. assets.aeaweb.org/asset-server/files/9442.pdf. Accessed September 6, 2024.
- 45. Vladeck BC. The market vs. regulation: the case for regulation. *Milbank Mem Fund Q Health Soc.* 1981;59(2):209-223. doi.org/10.2307/3349756.
- 46. Options for Reducing the Deficit: 2017 to 2026. Congressional Budget Office. 2016. https://www.cbo.gov/budget-options/2016/52246. Accessed September 6, 2024.
- 47. Pauly M. Taxation, health insurance, and market failure in the medical economy, *J Econ Lit*. 1986;24(2):629, 641. msuweb.montclair.edu/~lebelp/PSC643IntPolEcon/PaulyHealthMktFail-JEL1986.pdf. Accessed September 6, 2024.
- 48. The Prices that Commercial Health Insurers and Medicare Pay for Hospitals' and Physicians' Services. Congressional Budget Office. 2022. https://www.cbo.gov/publication/57422, Accessed September 6, 2024.
- 49. Havighurst CC, Richman BD. The provider monopoly problem in health care. *Or L Rev.* 2010;89:847-881. heinonline.org/HOL/LandingPage?handle=hein.journals/orgl-r89&div=29&id=&page=. Accessed September 6, 2024.
- 50. HHI is the sum of the squared market share of each hospital or hospital system in each market multiplied by 10,000. Market share is calculated as proportional share of inpatient admissions or patient days possessed by a hospital relative the rest of the market. Thus, a market with only one hospital (a pure monopoly) would have an HHI of 10,000 and a market with two hospitals (a duopoly) would have an HHI of 5,000. A market is "moderately concentrated" if its HHI is between 1500 and 2500. If the HHI is greater than 2500, it means there are about four equal sized hospital owners in the market. Scores between 2,500 and 5,000 are considered "highly concentrated." HHI scores above 5,000 are considered to be "super" concentrated.



- 51. Fulton B, Arnold D, King JS, Montague A, Greaney T, Scheffler RM. The rise of cross-market hospital systems and their market power in the *U.S. Health Aff.* 2022;41(11):1652-1660. doi. org/10.1377/hlthaff.2022.00337.
- 52. Berenson R, King J, Gudiksen K, Murray RC, Shartzer A. Addressing Health Care Market Consolidation and High Prices. Research Report. San Francisco, CA: The Urban Institute and UC Hastings Law San Francisco; 2020. www.urban.org/sites/default/files/publication/101508/addressing_health_care_market_consolidation_and_high_prices_1.pdf. Accessed September 6, 2024.
- 53. Gaynor M, Ho K, Town R. *The Industrial Organization of Health Care Markets*. W. National Bureau of Economic Research; 2015. swvahealthauthority.net/wp-content/uploads/2016/09/11-gaynor-ho-the-industrial-organization-of-health-care-markets.pdf. Accessed September 6, 2024.
- 54. Evans M. Surging hospital prices are helping keep inflation high. *The Wall Street Journal*. May 16, 2024. www.wsj.com/health/healthcare/surging-hospital-prices-are-helping-keep-inflation-high-a146258b. Accessed September 6, 2024.
- 55. Dafny L. Estimation and Identification of merger effects: an application to hospital mergers. *J Law Econ.* 2009;52(3):523-550. <u>www.journals.uchicago.edu/doi/abs/10.1086/600079. Accessed September 6, 2024.</u>
- 56. Thompson E. The effect of hospital mergers on inpatient prices: a case study of the New Hanover-Cape Fear transaction. *Int J Econ Bus.* 2011;18(1):91–101. papers.ssrn.com/sol3/papers.cfm?abstract_id=132716. Accessed September 6, 2024.
- 57. Tenn S. The price-effects of hospital mergers: a case study of the Sutter-Summit transaction. *Int J Econ Bus.* 2011;18(1):65-82. swvahealthauthority.net/wp-content/uploads/2016/09/30-tenn-the-price-effects-of-hospital-mergers.pdf. Accessed September 6, 2024.
- 58. Health Care Cost Institute. Healthy Marketplace Index. *Health Care Cost Institute*. 2019. health-costinstitute.org/hcci-originals/healthy-marketplace-index/hmi. Accessed September 6, 2024.
- 59. Cross-market hospital mergers are defined as: mergers or acquisitions that involve multiple systems or independent hospitals that do not directly compete in the same geographic market, with a "market" usually measured as a CBSA.
- 60. Dafny L, Ho K, Lee RS. The price effects of cross-market mergers: theory and evidence from the hospital industry. *RAND J Econ.* 2019; 50(2):286-325. onlinelibrary.wiley.com/doi/abs/10.1111/1756-2171.12270. Accessed September 6, 2024.
- 61. Arnold DR, King JR, Fulton BF et al. New evidence on the impacts of cross-market hospital mergers on commercial prices and measures of quality. *Health Services* Res. 2024;1–13 doi:10.1111/1475-6773.14291.
- 62. Ginsburg PB. Wide Variation in Hospital and Physician Payment Rates Evidence of Provider Market Power. Washington, DC: Center for Studying Health System Change; 2010. www.hschange.org/CONTENT/1162. Accessed September 6, 2024.
- 63. Bai G, Anderson GF. Market power: price variation among commercial insurers for hospital services. *Health Aff.* 2018;37(10):1615-1622. doi.org/10.1377/hlthaff.2018.0567.
- 64. White C, Bond AM, Reschovsky JD. High and Varying Prices for Privately Insured Patients Underscore Hospital Market Power. Washington, DC; Center for Studying Health System Change; 2013. www.hschange.org/CONTENT/1375/1375.pdf. Accessed September 6, 2024.



- 65. Chernew M, Hicks AL, Shivani SA. Wide state-level variation in commercial health care prices suggests uneven impact of price regulation. *Health Aff.* 2020;39(5):791-799.
- 66. Chernew M, Dafny LS, Pany MJ. A Proposal to Cap Provider Prices and Price Growth in the Commercial Health-care Market. Washington, DC: Hamilton Project; 2020. www.brookings.edu/wp-content/uploads/2020/03/CDP_PP_WEB.pdf. Accessed September 6, 2024.
- 67. Lewis, M, Pflum. K. 2017. Hospital systems and bargaining power: Evidence from out-of-market acquisitions. *RAND Journal of Economics* 48, no. 3 (Fall): 579–610.
- 68. Dranove D R Lindrooth. Hospital Consolidation and Costs: Another Look at the Evidence," *Journal of Health Economics 22*, no. 6 (2003): 983–997
- 69. Schmitt M. Do Hospital Mergers Reduce Costs? *Journal of Health Economics*. 2017 Mar 1; 52:74-94.
- 70. Neprash HT, McWilliams JM. Provider Consolidation and Potential Efficiency Gains: A Review of Theory and Evidence. Antitrust Law Journal, vol. 82, no. 2 (April 2019), pp. 551–578. https://www.jstor.org/stable/27006797
- 71. Capps C, Dranove D, Ody C. The Effect of Hospital Acquisitions of Physician Practices on Prices and Spending. Working Paper. Institute for Policy Research Northwestern University; 2015. www.ipr.northwestern.edu/documents/working-papers/2015/IPR-WP-15-02.pdf. Accessed September 6, 2024.
- 72. Neprash H T, Chernew ME, Hicks AL, et al. Association of financial integration between physicians and hospitals with commercial health care prices. *JAMA Intern Med.* 2015;175(12):1932-1939. jamanetwork.com/journals/jamainternalmedicine/fullarticle/2463591. Accessed September 6, 2024.
- 73. Barnes M, Bauer L, Edelberg W, Estep S, Greenstein R, Macklin M. *The Social Insurance System in the U.S. Washington, DC*: The Brookings Institute; 2021. www.brookings.edu/wp-content/up-loads/2021/06/Social-Insurance-FP_v4.5.pdf. Accessed September 6, 2024.
- 74. Halpin H, Harbage P. The origins and demise of the public option. *Health Aff.* 2010;29(6):1117-1124. doi.org/10.1377/hlthaff.2010.0363.
- 75. Our Mission. CMS.gov website.www.cms.gov/priorities/innovation/about/our-mission. Accessed September 6, 2024.
- 76. McWilliams JM. Pay for performance: when slogans overtake science in health policy. *JAMA*. 2022;328(21):2114-216. doi:10.1001/jama.2022.20945.
- 77. Einav L, Finkelstein A, Ji Y, Mahoney N. *Voluntary regulation: Evidence from Medicare payment reform.* The quarterly journal of economics. 2022 Feb;137(1):565-618.
- 78. Smith B. CMS innovation center at 10 years progress and lessons learned. NEJM. 2021;384(8):759-764. www.nejm.org/doi/full/10.1056/NEJMsb2031138. Accessed September 6, 2024.
- 79. Federal Budgetary Effects of the Activities of the Center for Medicare and Medicaid Innovation. Congressional Budget Office. 2023. www.cbo.gov/publication/59274. Accessed September 6, 2024.
- 80. Ryan A, Markovitz A. Estimated savings from the Medicare shared savings program. JAMA



- Health Forum. 2023;4(12):e234449-e234449. doi:10.1001/jamahealthforum.2023.4449.
- 81. Milad M, Murray RC, Navathe A, Ryan AM. Value-based payment models in the commercial insurance sector: a systematic review. *Health Aff.* 2022;41(4):540-548. doi.org/10.1377/hlthaff.2021.01020.
- 82. Alinsky J. California takes steps forward to control health care costs. *Arnold Ventures*. May 16, 2024. www.arnoldventures.org/stories/california-takes-step-forward-to-control-health-care-costs. Accessed September 6, 2024.
- 83. Vladeck B, Rice T. Market failure and the failure of discourse: facing up to the powers of sellers. Health Aff. 2009;28(5):1305-1315. doi.org/10.1377/hlthaff.28.5.1305.
- 84. The income-elasticity of demand for health services is such that richer countries naturally spend higher percentages of their national income on it, with Switzerland having a per capita income of \$67,351 versus \$57,931 in U.S. dollars per person, PPP converted at current prices per data from the OECD. Organization for Economic Cooperation and Development. *Productivity Levels*. OECD Data Explorer. 2020. data-explorer.oecd.org. Accessed September 6, 2024.
- 85. Per the RTI and Mathematica evaluations of the Maryland CMS Demonstration, the Hospital Global Budget payment model with CMS has been able to hold hospital per capita expenditure growth to below the targeted level of 3.58 percent since 2014. See: Haber S, Bell H, Morrison M, et al. Evaluation of the Maryland All-Payer Model Volume I: Final Report. Waltham, MA: RTI International; 2019. downloads.cms.gov/files/md-allpayer-finalevalrpt.pdf. Accessed September 6, 2024; Rotter J, Calkins K, Stewart K, et al. Evaluation of the Maryland Total Cost of Care Model: Quantitative-Only Report for the Model's First Three Years (2019 to 2021). Washington, DC: Mathematica; 2022. www.mathematica.org/publications/evaluation-of-the-maryland-total-cost-of-care-model-quantitative-only-report-for-the-models-first. Accessed September 6, 2024. Also, analysis of the U.S. National Health Expenditure accounts for hospital spending in Maryland show that from 2014 to 2020 hospital per capita expenditure growth equaled 3.4%. See State (Residence): Health Expenditures by State of Residence. CMS.gov website. www.cms.gov/data-research/statistics-trends-and-reports/national-health-expenditure-data/state-residence. Accessed September 6, 2024.
- 86. Fiore JA, Madison AJ, Poisal JA, et al. National health expenditure projections, 2023-32: payer trends diverge as pandemic-related policies fade. *Health Aff.* 2024;43(7):910-921. doi. org/10.1377/hlthaff.2024.00469
- 87. Fiore JA, Madison AJ, Poisal JA, Cuckler GA, Smith SD, Sisko AM, Keehan SP, Rennie KE, Gross AC. National Health Expenditure Projections, 2023–32: Payer Trends Diverge As Pandemic-Related Policies Fade: Study examines National Health Expenditure projections, 2023–32. *Health Affairs*. 2024 Jul 1:10-377.
- 88. Kaiser Family Foundation. 2023 Employer Health Benefits Survey. San Francisco, CA: Kaiser Family Foundation; 2023. www.kff.org/report-section/ehbs-2023-summary-of-findings. Accessed September 6, 2024.
- 89. Rae M, Copeland R, Cox C. *Tracking the Rise in Premium Contributions and Cost-Sharing for Families with Large Employer Coverage*. San Francisco, CA: Peterson-Kaiser Family Foundation; 2019. www.healthsystemtracker.org/brief/tracking-the-rise-in-premium-contributions-and-cost-sharing-for-families-with-large-employer-coverage. Accessed September 6, 2024.
- 90. Guardado J, Kane C. Competition in Health Insurance: A Comprehensive Study of U.S. Markets.



- Chicago, IL: American Medical Association; 2023. www.ama-assn.org/system/files/competition-health-insurance-us-markets.pdf. Accessed September 6, 2024.
- 91. Scheffler R, Arnold D. Insurer market power lowers prices in numerous concentrated provider markets. *Health Aff*.2017; 36(9):1539–1546. www.healthaffairs.org/doi/full/10.1377/hlthaff.2017.0552. Accessed September 6, 2024.
- 72. Trish EE, Herring BJ. How do health insurer market concentration and bargaining power with hospitals affect health insurance premiums? *J Health Econ.* 2015;42:104-114.https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5667641/pdf/nihms914475.pdf. Accessed September 6, 2024.
- 93. Berenson R, Ginsburg PB, Christianson JB, Yee T. The growing power of some providers to win steep payment increases from insures suggests policy remedies may be needed. *Health Aff*. 2012;31(5):973-981. www.healthaffairs.org/doi/epdf/10.1377/hlthaff.2011.0920. Accessed September 6, 2024.
- 94. Dafny L, Duggan M, Ramanarayanan S. Paying a premium on your premium? Consolidation in the US health insurance industry. *Am Econ Rev.* 2012;102(2):1161-1185. www.aeaweb.org/articles?id=10.1257/aer.102.2.1161. Accessed September 6, 2024.
- 95. Guardado J, Emmons D, Kane C. The price effects of a large merger of health insurers: a case study of UnitedHealth-Sierra. *Health Management, Policy and Innovation*. 2013;1(3):16-35. hmpi. org/wp-content/uploads/2017/02/HMPI-Guardado-Emmons-Kane-Price-Effects-of-a-Larger-Merger-of-Health-Insurers.pdf. Accessed September 6, 2024.
- 96. Self-funded plans operated by businesses assume all or part of the financial risk associated with the magnitude of employee health expenses instead of contracting with a large insurer to assume this risk in arrangements called fully insured plans. Self-funded plans still contract with large insurers to act as Administrative Services Organizations (ASOs) to assist in negotiations with health care providers, pay claims and handle other administrative activities necessary to operate the company's self-funded health plan.
- 97. Sen AP, Cheng JY, Hargraves J. Health care service price comparisons suggest that employers lack leverage to negotiate lower prices. *Health Aff.* 2023; 42(9):1241-1249.
- 98. Personal conversation with Jack Keane, a consultant with extensive experience negotiating on behalf of national Blue Cross Blue Shield health plans for several decades from 1990 to 2018.
- 99. Capps C, "From Rockford to Joplin and Back Again: The impact of economics on hospital merger enforcement." *Antitrust Law J.* 2014; 59(3):443-478.
- 100. Richman BD. Antitrust and nonprofit hospital mergers: a return to basics. Univ PA Law Rev. 2008;156:121-150.
- 101. Massachusetts Attorney General. *Investigation of Health Care Cost Trends and Cost Drivers*. Preliminary Report. 2010. www.mass.gov/doc/2010-investigation-of-health-care-cost-trends-and-cost-drivers-preliminary-report/download. Accessed September 6, 2024.
- 102. In a retrospective analysis, the FTC determined that the approach taken in past cases to defining he relevant geographic market credited in past cases was flawed and mergers involving Non-profits, in fact, could result in anticompetitive effects." See Slaughter K. Algorithms and Economic Justice. Remarks Before the U.S. Federal Trade Commission. 115th Congress, 2nd session. May 14, 2019. www.ftc.gov/system/files/documents/public statements/1564883/remarks of commissioner rebecca kelly slaughter on algorithmic and economic justice 01-24-2020.pdf.



- Accessed September 6, 2024.
- 103. Brot-Goldberg Z, Cooper Z, Craig S. Klarnet L. Is There Too Little Antitrust Enforcement in the U.S. Hospital Sector? *American Economic Review*: Insights In Press.
- 104. Fast Facts on U.S. Hospitals. American Hospital Association. <u>www.aha.org/statistics/fast-facts-us-hospitals</u>. Accessed September 6, 2024
- 105. Schwartz K, Lopez E, Rae M, Neuman T. What We Know About Provider Consolidation. San Francisco, CA: Kaiser Family Foundation; 2020. www.kff.org/health-costs/issue-brief/what-we-know-about-provider-consolidation. Accessed September 6, 2024.
- 106. Fuse Brown E, Adler L, Duffy E, Ginsburg P, Hall M, Valdez S. Private Equity Investment as a Divining Rod for Market Failure: Policy Responses to Harmful Physician Practice Acquisitions. USC-Brookings Schaeffer Initiative for Health Policy. October 2021. www.brookings.edu/wp-content/uploads/2021/10/Private-Equity-Investment-As-A-Divining-Rod-For-Market-Failure-14.pdf. Accessed September 6, 2024.
- 107. Federal Trade Commission. *HSR Threshold Adjustments and Reportability for 2024*. February 5, 2024. www.ftc.gov/enforcement/competition-matters/2024/02/new-hsr-thresholds-filing-fees-2024. Accessed September 6, 2024
- 108. Cicchiello A, Gustafsson L. Federal Antitrust Tools are Inadequate to Prevent Anticompetitive Health Care Consolidation. New York, NY: The Commonwealth Fund; 2021. www.commonwealthfund.org/blog/2021/federal-antitrust-tools-are-inadequate-prevent-anticompetitive-health-care-consolidation. Accessed September 6, 2024.
- 109. Illumina, Inc. and GRAIL, Inc. *Complaint*. Docket No. 201-0144. Federal Trade Commission. August 15, 2024. www.ftc.gov/legal-library/browse/cases-proceedings/201-0144-illumina-inc-grail-inc-matter. Accessed September 6, 2024.
- 110. Nvidia/Arm. *Complaint*. Docket No. 211-0015. Federal Trade Commission. February 14, 2022. www.ftc.gov/legal-library/browse/cases-proceedings/2110015-nvidiaarm-matter. Accessed September 6, 2024.
- 111. UnitedHealth Group Incorporated, Collaborative Care Holdings, LLC, DaVita Inc., and DaVita Medical Holdings, LLC. *Complaint*. Docket No. 181-0057. Federal Trade Commission. August 22, 2019. ftc.gov/legal-library/browse/cases-proceedings/181-0057-unitedhealth-groupdavita-matter. Accessed September 6, 2024.
- 112. Lockheed Martin Corp. and Aerojet Rocketdyne Holdings Inc. *Complaint*. Docket No. 211-0052. Federal Trade Commission. February 15, 2022. www.ftc.gov/legal-library/browse/cases-proceedings/211-0052-lockheedaerojet-matter. Accessed September 6, 2024.
- 113. In re Corpus Christi Polymers LLC. *Complaint*. Docket No. 181 0030. Federal Trade Commission. December 21, 2018. www.ftc.gov/system/files/documents/cases/181 0030 pet complaint 12-21-18.pdf. Accessed September 6, 2024.
- 114. Federal Trade Commission. FTC to Study the Impact of Physician Group and Healthcare Facility Mergers. January 14, 2021. https://www.ftc.gov/news-events/news/press-releases/2021/01/ftc-study-impact-physician-group-healthcare-facility-mergers. Accessed September 6, 2024.
- 115. Gudiksen KL, Montague AD, King JS et al. *Preventing Anticompetitive Contracting Practices in Healthcare Markets*. The Source on Healthcare Price and Competition. The Source on Healthcare



- Price and Competition. September 2020. sourceonhealthcare.org/profile/preventing-anticompetitive-contracting-practices-in-healthcare-markets. Accessed September 6, 2024.
- 116. Congressional Request: Private Equity and Medicare. In Report to the Congress: Medicare and the Health Care Delivery System. 117th Congress, 1st session. Washington, DC: Medicare Payment Advisory Commission; 2021: 69-115. www.medpac.gov/wp-content/uploads/import_data/scrape_files/docs/default-source/default-document-library/jun21_ch3_medpac_report_to_congress_sec.pdf. Accessed September 6, 2024.
- 117. Cai C, Song Z. A policy framework for the growing influence of private equity in health care delivery. *JAMA*. 2023;329(18):1545–1546. doi:10.1001/jama.2023.2801.
- 118. Under the Hart-Scott-4. Antitrust Improvements Act of 1976, firms are generally exempt from this "premerger notification" requirement for deals valued below a dollar threshold. The threshold was set at \$50 million in 2000 and is adjusted annually by the rate of change in the gross national product. See Wollman, T. Stealth consolidation: evidence from an amendment to the Hart-Scott-Rodino Act. Am Econ Rev Insights. 2019;1(1);77-94.
- 119. In addition, the Federal Trade Commission Act bans "unfair methods of competition" and "unfair or deceptive acts or practices." The Supreme Court has said that all violations of the Sherman Act also violate the FTC Act.
- 120. See e.g. Standard Oil Co. of New Jersey v. U.S., 221 U.S. 1 (U.S. 1911) and United States v. AT&T, 552 F. Supp. 131 (D.D.C. 1982), aff'd mem. sub nom. Maryland v. United States, 460 U.S. 1001 (1983).
- 121. Posner RA, *Antitrust Law*. 2nd ed. Chicago, IL: University of Chicago Press; 2001. https://press.uchicago.edu/ucp/books/book/chicago/A/bo3628468.html
- 122. Baer WJ. Reflections on Twenty Years of Merger Enforcement under the Hart-Scott-Rodino Act. Federal Trade Commission. October 31, 1996. www.ftc.gov/news-events/news/speeches/reflections-20-years-merger-enforcement-under-hart-scott-rodino-act. Accessed September 6, 2024.
- 123. Bai G, Yehia F, Andersen GF. Charity care provision by US nonprofit hospitals. *JAMA Intern Med.* 2020;180(4):606-607. jamanetwork.com/journals/jamainternalmedicine/article-abstract/2760774. Accessed September 6, 2024.
- 124. Bai G. Revised Estimate of the Nonprofit Hospital Tax Exemption. ARTICLE IN REVIEW
- 125. Hansmann H, Kessler D, McClellan M. *Ownership Form and Trapped Capital in the Hospital Industry*. Working Paper. National Bureau of Economic Research; 2002. ndustry. Working Papers/w8989/w8989.pdf. Accessed September 6, 2024.
- 126. Chang T, Jacobson M. What Do Nonprofit Hospitals Maximize? Evidence from California's Seismic Retrofit Mandate. Santa Monica, CA: RAND and National Bureau of Economic Research; 2010. users.nber.org/~jacobson/ChangJacobson1609.pdf. Accessed September 6, 2024.
- 127. Lewellen K, Phillips G, Sertsios G. Control without ownership: governance of nonprofit hospitals. Drexel University LeBow College of Business. May 3, 2023. www.lebow.drexel.edu/news/control-without-ownership-governance-nonprofit-hospitals. Accessed September 6, 2024.
- 128. American Hospital Association. *Appendix 1: Supplementary Data Tables Trends in the Overall Health Care Market*. In *Trendwatch Chartbook 2020*. Chicago, IL: American Hospital Association; 2020. www.aha.org/system/files/media/file/2020/10/TrendwatchChartbook-2020-Appendix.pdf.



- Accessed September 6, 2024.
- 129. Hospital Inpatient and Outpatient Services (March 2024 Report). In Report to the Congress:

 Medicare Payment Policy. 118th Congress, 2nd session. Washington, DC: Medicare Payment Advisory Commission; 2024: 49-83. www.medpac.gov/wp-content/uploads/2024/03/Mar24_Ch3_MedPAC_Report_To_Congress_SEC-1.pdf. Accessed September 6, 2024/
- 130. Strata. Healthcare Leaders are Optimistic about 2024 Financial Performance, but Rising Costs Remain a Concern. March 13. 2024. www.stratadecision.com/article/healthcare-leaders-are-optimistic-about-2024-financial-performance-but-rising-costs-remain-a-concern-according-to-stratareport. Accessed September 6, 2024.
- 131. Richman B. Opinion: hospitals are a problem. Competition is the answer. *Politico*. January 19, 2023. www.politico.com/news/magazine/2023/01/19/hospitals-competition-antitrust-00078393. Accessed September 6, 2024.
- 132. Cooper Z, Kowalski A, Powell E, Wu J. *Politics and Health Care Spending in the United States*. Working Paper. National Bureau for Economic Research; 2020. nber.org/papers/w23748. Accessed September 6, 2024.
- 133. Federal Trade Commission. FTC Staff Opposes State Legislation in North Carolina Designed to Shield UNC Health System from Antitrust Enforcement. June 5, 2023. www.ftc.gov/news-events/news/press-releases/2023/06/ftc-staff-opposes-state-legislation-north-carolina-de-signed-shield-unc-health-system-antitrust. Accessed September 6, 2024.
- 134. Hospitals are Economic Engines. American Hospital Association Blog. February 1, 2017. www.aha.org/news/blog/2017-02-01-hospitals-are-economic-engines. Accessed September 6, 2024.
- 135. Roehrig C. Turner A. and K. Hempstead. Expanded Coverage has Pushed Health Services Employment Up by Roughly 240,000 jobs. The Incidental Economist. April, 4, 2017. https://theincidentaleconomist.com/wordpress/expanded-coverage-has-pushed-health-services-employment-up-by-roughly-240000-jobs/.
- 136. Baicker K, Chandra A. The health care job fallacy. N Engl J Med. 2012;366:2433-2435.
- 137. Sood N, Ghosh A, Escarce JJ. Employer-sponsored insurance, health care cost growth, and the economic performance of U.S. Industries. *Health Serv Res.* 2009;44(5):1449-1464. www.ncbi.nlm.nih.gov/pmc/articles/PMC2754542. Accessed September 6, 2024. Note: the relevant statistic cited in this report was provided by Sood based on his research. He estimated that when health expenditure growth exceeded overall GDP growth, an increase of one job in the health sector resulted in the reduction of 1.23 jobs in other economic sectors.
- 138. Per a personal communication with N Sood and a supplementary calculation he performed.
- 139. Barber S, Lorenzoni L, Ong P. *Price Setting and Price Regulation in Health Care: Lessons for Advancing Universal Health Coverage*. Geneva, Switzerland: World Health Organization and the Organization for Economic Co-operation; 2019. iris.who.int/handle/10665/325547. Accessed September 6, 2024.
- 140. Organization for Economic Co-operation and Development. *Paying Providers for Health Care*. Database on Modes of Payment for Inpatient and Outpatient Care. Organization for Economic Cooperation and Development. 2024. www.oecd.org/els/health-systems/paying-providers.htm. Accessed September 6, 2024.



- 141. Hacker S. Health care reform, 2015. *Democracy Journal*. 2010;18. ssrn.com/abstract=1942921. Accessed September 6, 2024.
- 142. Anderson GF. All-payer ratesetting: down but not out. *Health Care Financ Rev.* 1992; 1991: 35-31.
- 143. McDonough J. The Decline of State-Based Hospital Rate Setting: Findings and Implications. May 1995. National Academy for State Health Policy. eadn-wc03-6094147.nxedge.io/cdn/wp-content/uploads/sites/default/files/1995.May_decline.state_based_hospital.rate_setting.pdf.
- 144. Atkinson G. State Hospital Rate Seting Revisited. The Commonwealth Fund. Publication 1332, Vol. 69. 2009. www.commonwealthfund.org/publications/issue-briefs/2009/oct/state-hospital-rate-setting-revisited.
- 145. McDonough J. Interests, Ideas and Deregulation: The Fate of Hospital Rate Setting. Ann Arbor, MI: University of Michigan Press; 1997
- 146. Berenson R and Murray R. How Price Regulation is Needed to Advance Market Competition. Health Aff. 2022; 41(1): 26-34. https://www.healthaffairs.org/doi/abs/10.1377/hlthaff.2021.01235
- 147. Murray RC, Brown Z, Miller S, Norton E, Ryan A. Hospital facility prices declined as a result of Oregon's hospital payment cap. *Health Aff.* 2004;43(4): 424-432.
- 148. Coelen C, Sullivan D. An analysis of the effects of prospective reimbursement programs on hospital expenditures. Health Care Financing Review. 1981;2(3):1.
- 149. Sloan FA. Rate regulation as a strategy for hospital cost control: evidence from the last decade. The Milbank Memorial Fund Quarterly. Health and Society. 1983 Apr 1:195-221.
- 150. Murray R. Rate Regulation Revisited: Managing Regulatory Failure and Regulatory Capture in Health Care. Milbank Memorial Fund. October 10, 2022. https://www.milbank.org/publications/rate-regulation-revisited-managing-regulatory-failure-and-regulatory-capture-in-health-care/. Accessed September 20, 2024.
- 151. The Source on Healthcare Price and Competition. *Handbook on Hospital Rate Regulation*. San Francisco, CA: The Source on Healthcare Price and Competition. <u>sourceonhealthcare.org</u>. Accessed September 6, 2024.
- 152. Murray R. Setting Caps on Out-of-Network Hospital Payments: A Low-Intensity Regulatory Intervention for Reducing Hospital Prices Overall. New York, NY: Commonwealth Fund; 2022. www.commonwealthfund.org/publications/issue-briefs/2022/may/setting-caps-out-of-network-hospital-payments. Accessed September 6, 2024.
- 153. Murray R. Hospital Global Budgets: A Promising Tool State Tool for Controlling Health Care Spending. New York, NY: Commonwealth Fund; 2022. www.commonwealthfund.org/publications/issue-briefs/2022/mar/hospital-global-budgets-state-tool-controlling-spending. Accessed September 6, 2024.
- 154. The Budget and Economic Outlook: 2024 to 2034. Congressional Budget Office. 2024. www.cbo.gov/publication/59710. Accessed September 6, 2024.
- 155. Auerbach AJ, Gale W. *The Federal Budget Outlook: Update for 2024. Washington, DC:* The Brookings Institute; 2024. www.brookings.edu/articles/the-federal-budget-outlook-update-for-2024. Accessed September 6, 2024.



156. Thiess R, Theal J, Watkins K. Pandemic aid lifts federal share of state budgets to new highs. *Pew Charitable Trusts*. www.pewtrusts.org/en/research-and-analysis/articles/2023/08/28/pandemic-aid-lifts-federal-share-of-state-budgets-to-new-highs. Published August 28, 2023. Accessed September 6, 2024.

About The Authors

Robert Murray is President of Global Health Payment LLC, a management consulting firm specializing in the design and implementation of reimbursement systems for health care providers. In addition to his consulting responsibilities. Prior to his consulting experience, Mr. Murray was appointed by the Governor of Maryland to serve as Executive Director of the Health Services Cost Review Commission (HSCRC) in 1994, Maryland's all-payer hospital rate-setting agency. Since leaving the HSCRC, Mr. Murray has worked as a consultant developing hospital global budget payment models for the state of Vermont and a prospective payment system for small and rural hospitals for the state of Oregon. Mr. Murray also assisted CareFirst BlueCross BlueShield of Maryland with the development of its successful Patient-Centric Medical Home (PCMH) model. Internationally, he has assisted the Chinese Ministry of Health in the design of DRG-based payment systems and has worked as a Short-Term Consultant for the World Bank on a number of payment design-related projects.

Katherine L. Gudiksen, Ph.D., M.S., is the executive editor of The Source on Healthcare Price & Competition. She studies the effects of consolidation and the options that state policymakers have to address it, including laws to restrict specific contracting practices, state public option programs, and ways to limit excessive provider rates. The Source provides up-to-date and easily accessible information about healthcare price and competition in the United States to a diverse array of stakeholder perspectives and aims to bridge the gaps between health policy, law, and economics

About The Source

The Source on Healthcare Price & Competition ("The Source") works to address failing health care markets by providing up-to-date and easily accessible information about healthcare markets in the United States to a diverse array of stakeholder perspectives. The Source aims to bridge the gaps between health policy, law, and economics through its curated repository of news articles, policy papers, academic articles, litigation documents, and legislative/regulatory materials. Through analysis of these materials, The Source develops evidence-based policy solutions that promote healthcare affordability, access, equity, and quality to serve as a catalyst for change within the U.S. healthcare system.

Contact The Source

200 McAllister Street, San Francisco, CA 94102

Phone: +1 415-581-8834

Email: info@sourceonhealthcare.org

