Financialization in Health Care: The Transformation of US Hospital Systems

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Abstract

This paper examines the process of financialization as it has emerged in the healthcare sector, with particular attention to hospital systems. The concept captures two types of changes in capitalist activity that have occurred in recent decades. First, financial strategies and tactics, as opposed to healthcare operations, now play an increasingly important role in generating revenue for nonprofit hospitals. Second, the financial sector has come to play a much larger role in healthcare. Financial intermediaries and investors view healthcare organizations as vehicles for extracting wealth. This research calls into question common assumptions that healthcare systems are immune from financialization, based on the idea that the overwhelming majority are tax-exempt, highly regulated, nonprofit institutions that provide charity care. In this paper, we show how and why this assumption no longer holds.

We argue in Part I that financialization in healthcare emerged in response to changes in financial, healthcare, and anti-trust regulation. The seeds of change took root in the 1960s and '70s, developed in the 1980s and '90s, and accelerated in the 2000s. All three intersected to deregulate and reregulate healthcare and financial markets in ways that favor financial strategies and speculation in healthcare.

On the one hand, nonprofit hospital systems faced uncertainty in government reimbursement rules as well as rates that did not keep up with cost inflation and sought non-operating income, as detailed in Part II. The government facilitated financial strategies by allowing nonprofits to establish for-profit tax-exempt subsidiaries. They also pursued merger and acquisition (M&A) activities, sometimes designed to create anti-competitive conditions. In some cases, for-profit goals appear to dominate healthcare decision-making – calling into question the distinction between nonprofit and for-profit entities.

On the other hand, financial actors began to create investor-owned hospitals in the 1960s, when Medicare and Medicaid began reimbursing for-profit entities for the first time – and at higher rates than nonprofit systems. Three phases of the financial sector's penetration into healthcare are examined in Part III. First, from the 1960s-mid-1990s, investor owned chains grew rapidly through M&A activity by targeting community hospitals in small towns and rural areas, particularly in the south and west, where there was little or no competition. Second, from the mid-1990s on, largely unregulated private equity firms took over many for-profit chains, building on their strategies but using additional financial engineering tactics that often left hospital systems in financial distress. Third, from 2010 on, investors and private equity firms have been instrumental in dismantling local healthcare systems by acquiring the most lucrative or high 'value-added' services, such as radiology, anesthesiology, and other specialties. At a time when healthcare providers argue that local coordination and integration are more important than ever, financial actors are cherry-picking pieces of local systems and rolling them up into national corporations with little local accountability.

In sum, healthcare financialization has occurred along two parallel tracks: from 'the inside out' – as nonprofit hospitals increasingly adopt non-healthcare-related financial strategies to survive; and from 'the outside in' – as financial actors have moved into healthcare because they view it as a lucrative investment. Nonprofit, for-profit, and private equity owned hospitals have contributed in different ways to the process of financialization in healthcare – in which the logic of financial calculations often overshadows the logic of human care giving.

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Introduction

The concept of financialization has become a commonly used term to capture the idea that a fundamental shift has occurred in the character of capitalist activity over the last few decades. The central idea is that the financial sector has increased its influence over the economy in general and that financial calculations have come to dominate the decision-making in capitalist firms. While corporations used to make money by producing or trading goods and services, increasingly their profits depend on financial activities. Financial analysts view companies as assets to be bought and sold and as vehicles for extracting wealth through financial strategies rather than primarily through productive activities. These financial strategies include trading, buying and selling companies or divisions of companies, selling off assets, using debt or other financial tactics for tax advantages, or share price manipulation – strategies for making profits without regard to the effects on organizational productivity, employment, quality, innovation, or long-term competitiveness.

While research has increasingly examined how this financial turn has played out in commercial activities, social service activities such as healthcare have received much less attention. The assumption is that healthcare systems are immune from financialization because the overwhelming majority are tax-exempt non-profit institutions that provide charitable care to the public and are heavily regulated and funded by the government. In this paper, however, we show how and why this assumption no longer holds.

In Part I, we define what is meant by financialization and how it changes the meaning of healthcare provision. We also outline how financialization has emerged – in the economy more broadly and in healthcare specifically. First, the deregulation of financial services has facilitated the growing power of financial strategies and financial actors in the economy. Second, changes in healthcare regulations have encouraged financial calculations to become a more dominant driver in the decision-making of healthcare leaders. Third, the Internal Revenue Service introduced a rule that allowed nonprofit hospitals to engage in for-profit activities. Fourth, the relaxation of anti-trust regulation and enforcement spurred merger and acquisition strategies that have led to market consolidation and concentration. The intersection of these institutional changes has led to dramatic changes in the financial strategies of hospital-based systems.

These changes have occurred along two parallel tracks: from 'the inside out' – as nonprofit hospitals increasingly adopt non-healthcare-related financial strategies to survive; and from 'the outside in' – as financial actors have moved into healthcare because they view it as a lucrative investment. The first track, which we examine in Part II, is among nonprofit hospitals, which due to changes in regulatory rules and government reimbursement rates, have faced challenging and uncertain financing. They have responded by adopting financial strategies to increase their healthcare operating revenue and have supplemented it by increasing non-operating income in new ways. In brief, the IRS introduced a new rule in 1998 to allow nonprofit hospitals to set up tax-exempt for-profit arms. The nonprofit hospitals developed two primary financial strategies: the use of mergers and acquisitions (M&As) to expand

revenues and grow; and the creation of for-profit entities, including venture capital arms, insurance arms, and joint ventures with other for-profit entities. In the decade preceding the financial crisis, nonprofit hospitals also used financial derivatives to finance long-term debt used in part to finance hospitals' expansion efforts. Some argue that uncertainty in government reimbursement rates was the initial impetus for financially able hospitals to adopt these financial strategies. Less wealthy hospitals experienced increased financial instability. Many became targets of M&A activity by hospital systems engaged in expanding their healthcare networks. This raises a central question: Does the extensive M&A of large nonprofit health systems and their for-profit activities actually support the provision of quality health care or detract from it?

Part III analyzes the second track: how outside investors increasingly penetrated healthcare organizations, thereby expanding the power and influence of the financial sector in the healthcare industry. As the deregulation of financial services proceeded from the 1970s on, more finance capital was available and it was more mobile. Investors were looking for opportune targets, and health care became increasingly attractive. The establishment of Medicare and Medicaid financing for for-profit healthcare in the 1960s opened the doors for investor-owned nursing home and hospital chains. In this paper, we focus on the latter. We identify three overlapping phases of financial penetration. In the first phase, from the 1960s-mid-1990s, for-profit publicly traded investor-owned chains grew steadily and came to represent about 10 percent of hospitals by 2000. Their strategies included the aggressive use of M&As to buy up small hospitals to create large, far-flung corporations and a focus on small towns or rural areas in the south and west where they could dominate the market. Most were based in and around Nashville, Tennessee, and were involved in trading hospitals among themselves to better position themselves in particular markets. And many were found to have illegally boosted revenues through upcoding, unnecessary procedures, and false claims against government funding agencies.

In the second phase, beginning in the mid-1990s, private equity firms bought up (largely) for-profit hospitals using the leveraged buyout (LBO) model, as developed in the 1980s, to acquire them and take them private. They adopted most of the strategies of the for-profits but went beyond them in their level of extraction of wealth in a short time period. By 2010, 20 percent of hospitals were for profit, including private equity owned ones. Since 2010, a third phase of financialization has emerged in which private equity firms are contributing to the dismantling of local healthcare systems by targeting the most lucrative market niches, buying up pieces of hospital-based systems, and rolling them into national corporations.

In sum, both nonprofit and for-profit hospital actors have contributed in different ways to the process of financialization in healthcare – in which the logic of financial calculations often overshadows the logic of human care giving. The interaction between deregulation of financial markets, regulatory change in healthcare markets, and changes in anti-trust legislation and IRS rules led to a much larger role for finance in the healthcare sector. Changes in the financial regulation unleashed huge pools of liquid capital for investment as well as new financial tools for speculation and wealth extraction. Healthcare regulatory changes created opportunities for financial investments in the sector while also creating

financial pressures on healthcare providers to seek new sources of revenue and use new financial strategies to supplement revenue from healthcare operations. Over time, many nonprofit healthcare systems have come to look increasingly like for-profit corporations, blurring the boundary between what is and what is not a 'for-profit' system.

This research draws on quantitative evidence, academic studies, investigative reports, and a series of case studies. We incorporate in these analyses how a financial logic for managing healthcare organizations is fundamentally different from the logic of 'care' that has dominated healthcare historically. The research provides a cautionary tale of how and why the financialization of the healthcare sector may undermine the care-giving mission of hospital systems while raising prices for patients. And in some cases, there is clear evidence that financial actors have undermined hospitals' financial stability, their ability to train and retain highly qualified staff, and the organizational capacity to provide quality care.

Part I: Financialization and Institutional Change

In this section, we review the meaning of financialization and how it is used in healthcare before turning to the regulatory changes in banking that led to its emergence in the economy as a whole and the regulatory changes in healthcare that opened the doors for its development in that sector. The twin movements of financial and healthcare regulatory change over three decades have led to profound changes in the financial strategies of healthcare systems as well as their financial stability or lack thereof.

What is Financialization and Why Does It Matter?

The concept of 'financialization' emerged in the early 1990s, but the origins are obscure (Foster 2007). Some attribute the term to Giovanni Arrighi's research on global capitalism (1994). At a macro level, Gerald Epstein (2005:3) defines it as "… the increasing role of financial motives, financial markets, financial actors and financial institutions in the operation of the domestic and international economies." More specifically, it is "… a pattern of accumulation in which profits accrue primarily through financial channels rather than through trade and commodity production;" and two dimensions are important to identify – the growing weight of the financial sector in the economy as a whole and the growing weight of finance in non-financial companies (Krippner 2005:174; 2011; Guttman 2017)[1].

The importance of the concept is that it reverses prior economic theories of the role of finance in the economy. While the standard view is that finance is a set of activities to support and advance the non-financial productive economy, financialization scholars argue that finance is now an autonomous set of activities that dominates other productive sectors to extract wealth and accrue power.

Various measures capture the growth in the influence of the financial sector. Its share of corporate profits in the economy, for example, rose from 25.7 percent to 43 percent in the US between 1973 and

[1] See Mader, Mertens, and van der Zwan (2020:7) for a full list of definitions

2005 (Palley 2007: 36) and from 21 percent to 36 percent of EU-15 countries between 1970 and 2005 (Watt and Galgoczi 2009: 192). Krippner, however, argues that pure profit measures overstate financial sector growth relative to the non-financial sector, while cash flow measures (which include depreciation allowances) do the opposite. She uses both to bracket her estimate of relative changes over time[2]. She finds that both measures remained relatively stable in the 1950s and 1960, increased modestly in the 1970s, rose sharply in the 1980s, and surged in the late 1990s. By 2001, the ratios were three to five times higher than in the 1950s and 1960s (Krippner 2011: 40).

For non-financial companies, scholars typically measure financialization by the relative proportion of revenue that comes from financial, as opposed to productive activities. Krippner, for example, found that the ratio of portfolio income (dividends, capital gains, interest payments) to corporate cash flow remained stable in the 1950s and 1960s at less than 10 percent; rose to roughly 20 percent by 1980; and 40 percent by 1989, where it stabilized as of 2000 (2011:36). Another measure – the ratio of net acquisition of financial assets to tangible assets in non-financial companies – provides consistent data. The ratio was relatively stable at 40 percent or less until 1980, when it rose dramatically to about 100 percent in 2000 (2011: 39).

These indicators provide substantial evidence that a process of financialization in the economy as a whole gained momentum in the 1980s; but they do not shed light on organization-level dynamics or the mechanisms through which financial actors have shaped non-financial company strategies. Here, an important underlying factor is that capital became highly mobile. A 'market for corporate control' emerged in the 1970s and 1980s (Lazonick 1992). If a company's stock was undervalued relative to its assets, it could be easily bought and reorganized, with the underperforming parts resold and the market the final arbiter of value.

The availability of highly mobile capital provides incentives to shift business strategy away from a long-term view of competitive strategy based on reinvesting in products and technologies to one of selling off less profitable divisions as a quick fix exit option. Investors started viewing companies as 'bundles of assets' to be bought and sold. As CEO of General Electric in the early 1980s, Jack Welch is credited with developing this approach: "If a business wasn't first or second in its industry or didn't have a good chance of getting there, Welch unloaded it" (Lowenstein 2004: 55). Once companies adopt this financial logic, it is a logical next step to focus on stock price and therefore, to use retained earnings for stock buybacks (to boost stock price) rather than investments in R&D and innovation (Lazonick2009). This approach accelerated in the 1990s, when corporations increasingly tied CEO pay to stock options.

[2] Profits alone overstate the growth of financial firms because the total capital available to non-financial firms in any year includes profits subject to taxes plus depreciation allowance, but financial firms have little depreciation relative to non-financial firms. Cash flow data, by contrast, may inflate estimates of profits in manufacturing industries. Also, depreciation allowances need to be accounted for as they have become more liberal over time (Krippner 2011:34-5; 39-40).

The financial turn also has implications for workers. Many companies had embraced the idea that human capital is a valuable firm-specific (Becker 1964) or 'quasi-fixed' asset (Oi 1962). But if product divisions become disposable, then so do its employees, who are viewed as a variable cost. And if companies increasingly generate profits via financial activities, then their dependence on labor falls. High capital mobility decouples management-labor interdependence and undermines management incentives to invest in labor skills or strike bargains to ensure labor's cooperation in productive activities.

The Emergence of Financialization: Deregulation and Corporate Change

Financialization emerged due to a series of changes at the level of corporate governance, federal regulation, and economic theories that promoted a shareholder value model of the firm. They operated hand in glove. The stage was set in the 1970s when large US corporate conglomerates were suffering lower profit margins, due in part to their far-flung bureaucracies and in part to the 1970s economic crisis. Economists and industry analysts began to argue that corporations should focus solely on improving shareholder returns. Thomas Friedman's *New York Times* essay in 1970 stating that the sole purpose of the corporation is to maximize shareholder returns galvanized a new perspective on maximizing stock price at all costs – because shareholders are the principals and employees the agents (Friedman 1970; Jensen, and Meckling 1976; Jensen 1986). Corporations and financial actors embraced the shareholder value myth (Stout 2012).

Internal changes that had been occurring in American corporations facilitated the turn to shareholder maximization. As corporations expanded into large, diversified conglomerates in the 1950s through 1970s, many lost their ability to compete in diversified markets. They dropped their focus on division-specific productivity measures to evaluate performance in favor of financial metrics (Fligstein 1990). Financial metrics, which enabled corporations to 'manage by the numbers' (Lazonick 1992: 177), could be compared across radically different business lines, even if they didn't capture the actual underlying productivity or performance. This process undermined the authority of production and line managers who knew their business needs well and shifted power to Chief Financial Officers (CFOs), who over time became the new CEOs of corporations. This change in performance metrics also facilitated a shift from viewing the corporation in its entirety as the 'profit center' to viewing each unit as its own 'profit center' that must rise or fall on its own. The strategy of cross-subsidization that corporations had used to invest in new units or refurbish old ones was viewed as passe and 'unprofitable' because the alternative of selling off lower performing units would yield higher short-term returns for shareholder – even if investing in them would have produced higher long-term gains. The use of financial metrics also facilitated the power of financial analysts and Wall Street investors to weigh in on the reputation of companies and shape shareholder investments (Hayes and Abernathy 1980; Fligstein 1990).

These changes opened the doors in the 1980s for financial investors – corporate raiders – to buy out US conglomerates, typically using large amounts of debt that were loaded on the companies (leveraged buyouts), dismantle them and sell off less productive units for short term returns, and then exit. The leveraged buyout model of the decade became the precursor for the private equity model that re-emerged in the mid-1990s and 2000s and invaded the healthcare industry.

In the same period, the state played a critical role in changing the rules of the game in ways that favor financial actors over others – a point made by other scholars of financialization (Krippner 2011; Nölke, Heires, and Bieling 2013; Van der Zwan 2017). Four of the most important changes were due to legislative, administrative agency, and court action. They include freeing up pension funds for riskier investments; deregulating banking rules to allow banks to consolidate and to engage riskier financial activities, (including securities trading); decisions not to regulate the use of financial instruments and private investment funds that were growing rapidly; and changes in tax laws that favored CEO stock option pay. Together these changes allowed banks to become 'too big to fail' and engage in more speculative behavior than in the past and allowed large pools of unregulated and highly mobile capital (such as private equity) to move in and out of investments with a primary focus on short term returns.

First, in 1974, Congress passed legislation (the Employee Retirement Income Security Act, ERISA), which allowed pension funds and insurance ompanies to hold shares of stocks and high-risk bonds in their portfolios–a particularly critical change (U.S. Department of Labor n.d.). This freed up billions (about $35 billion in 1970), and later trillions ($13 trillion in 1995 and almost $35 trillion in 2020)[3] of dollars for securities investments (tradeable financial instruments such as stock designed to raise capital). And while the original law required fund managers to make investments based on the best interests of plan 'beneficiaries,' over time the Department of Labor (DOL) changed the interpretation to require investments based on the best interests of the 'plan' – that is, the highest risk-adjusted returns (Lydenberg 2012; Webber 2018). Pension funds joined other large institutional investors such as foundations and university and hospital endowments in supplying trillions for stock market investments (Useem 1996) as well as higher risk investments in hedge funds and private equity, which were largely unregulated. Their overall share in the stock market grew from under 30 percent in 1980 to over 50 percent in the late 1990s (Gompers and Metrick 2001; Zorn, Dobbin, Dierkes, and Kwok 2005: 274), while they supplied 35 percent of private equity financing (Appelbaum and Batt 2014).

Second, banking deregulation occurred from the 1970s to the 1990s, via passage of a series of laws, agency rules, and court decisions that loosened regulation. Securities laws passed in the 1930s established regulation of stock exchanges and federal oversight by the Securities and Exchange Commission (SEC). The 1933 Glass-Steagall had prevented institutions from engaging in both banking and securities trading because that had led to excessive risk-taking and conflicts of interest – for example, using individual bank deposits for stock market speculation. In 1982, Congress passed legislation allowing Savings and Loan banks (S&Ls) to make commercial loans (the Garn-St. Germain Act of 1982). This opened the door for investment in risky commercial activities, including junk bonds (those at high risk of defaulting). In the 1980s and 90s, the Federal Reserve, which regulates bank members, gradually allowed banks to diversify up to 5 percent, 10 percent, and ultimately 25 percent of their activities until the 1999 Financial Modernization Act (Gramm-Leach-Bliley Act) removed the wall between banks and commercial activities entirely. In the same period, the Interstate Banking and Branching Act of 1994 eliminated restrictions on interstate banking, which soon led to massive bank

[3] Statista 2020. https://www.statista.com/statistics/940498/assets-retirement-plans-by-type-usa/

consolidation and 'too big to fail' banks. And in 2004, the SEC allowed banks to relax their capital requirements and hold less in reserve in order to take on more debt. Banks also increased their use of 'securitization' – the pooling of illiquid assets into highly liquid securities that they could sell off.[4]

Third, the use of unregulated financial instruments, such as derivatives, and unregulated private investment funds, such as hedge funds and private equity funds, expanded dramatically in the 2000s. Derivatives are not actual investments, but contracts to buy an asset in the future – such as a grain or stock. They are 'bets on the future,' including bets on commodity prices, interest rates (interest rate swaps), stock (stock options), credit ratings (credit default swaps), or currency exchange rates (Stout 2009). Their value is based on the performance of the underlying asset, and they may be used to hedge against risk or for pure speculation. US common law rules generally limited their speculative use historically, but speculative use exploded in the 2000s after Congress passed the 2000 Commodity Futures Modernization Act, ruling that derivatives would be exempt from federal agency oversight. (Stout 2009). Financially strapped nonprofit hospitals engaged in some use of derivatives trading during the years leading up to the Great Recession of 2008.

Fourth, in 1993, Congress passed an amendment to the US Internal Revenue Code, intended to reign in excessive executive compensation, by eliminating the tax-deductibility of executive compensation above $1 million unless it was performance-based. An unintended consequence was that executive pay actually skyrocketed as corporations increased the use of stock option pay for executives (Wallace and Ferris 2006). The practice was already gaining interest based on an influential 1990 *Harvard Business Review* article advocating pay-for-performance (Jensen and Murphy 1990), designed to link their strategic decisions to share price. If CEO pay depended importantly on share price, then they would align their own personal interests with those of shareholders and focus more on boosting share price – in contrast to the CEOs in the past whose careers were tied to organizational growth and longevity. The increased sensitivity between CEO pay and share price led to a range of practices designed to manipulate earnings reports and share price and obscure the real financial volatility of companies (Lowenstein 2004; Wallace and Ferris 2006). Today, stock options and awards account for two-thirds to three-fourths of CEO pay, up from 20 percent in 1980.

In sum, the interaction between changes in corporate governance, the rise of institutional investors, financial deregulation, and the use of unregulated financial tools and pools of private capital led to a much larger role for finance in the economy. The institutional changes unleashed huge pools of liquid capital for speculation; and investors searched for new investment targets -- including sectors such as healthcare that they had ignored in the past.

Healthcare Regulatory Changes

As changes were occurring in the regulation of the financial sector, they were also unfolding in the healthcare sector, which depends heavily on government funding and is shaped by extensive

[4] For a concise chronology of the many laws, agency rules, and court decisions leading up to Gramm-Leach-Bliley Act, see Sherman (2009).

government regulation to ensure proper patient care. Fundamental changes in Medicare and Medicaid legislation in the 1960s led to major changes in funding for nonprofit hospitals as well as government funding of for-profit hospitals for the first time. Subsequently, federal and state governments have periodically changed funding rules and reduced the rate of growth of reimbursement such that they did not keep up with cost inflation, thereby squeezing profit margins. This created on-going financial uncertainty for healthcare providers and leading them to offset this uncertainty with other financial strategies. Changes to the Internal Revenue Service tax code in 1998 allowed non-profits to set up tax-exempt for-profit subsidiaries for the first time – relieving financial instability for some. All of these changes have led to a rise of for-profit activities in nonprofit hospitals, a blurring of boundaries between for-profit and nonprofit providers, and the growth in the share of financial income in hospitals' total net revenue relative to healthcare operating income. Large healthcare systems, particularly academic medical centers (AMCs), pursued these activities much more aggressively than did smaller systems with fewer resources.

The modern age in medicine in the US can be said to have begun in 1965, when Congress passed amendments to the Social Security Act that established the Medicare and Medicaid programs. Medicare provides federal health insurance for people over 65 and certain people with disabilities, while Medicaid covers people with low incomes and is administered jointly with the states. The legislation passed over the objections of the American Hospital Association (AHA) and physician groups. But hospitals and doctors' groups soon learned that they benefited from both programs.

Medicare covered hospital operating costs plus payments for existing capital costs (such as depreciation and interest on debt) as well as a 2 percent 'add-on' for capital improvements. Medicare and most state Medicaid programs included funding not only for nonprofit healthcare providers, but for for-profit ones as well. And they provided more generous reimbursement rates to for-profits than those paid to nonprofit and public entities. Medicare and Medicaid paid for-profits a premium based on the logic that for-profits needed additional capital payments for a return on shareholders' investments. This "virtually guaranteed for-profit facilities a 'risk-free' investment return" (Jeurissen et al. 2021:71). For-profit hospitals also benefited from government reimbursements for their interest payments on debt from buying up additional hospitals, while tax laws permitted them to claim accelerated depreciation.

Thus, Medicare and Medicaid increased revenues for both nonprofit and for-profit hospitals. But with higher relative government subsidies, the for-profit chains grew at a faster rate and their share of hospital beds doubled to 9 percent by the early 1980s (Jeurissen et al. 2021: 71).

Medicare raised health providers' revenues in two ways. It greatly increased hospital admissions by increasing access to health care among the nation's elderly. And it adopted the cost+ reimbursement formula used at that time by Blue Cross – thus institutionalizing a lack of constraints on fees that doctors and hospitals could charge. Medicare fully covered providers' costs for treating eligible patients, as did most insurance plans – thereby substantially reducing financial pressures on hospitals. Prices for procedures charged to insurance payers, including Medicare, were high and varied widely across

providers. Medicaid reduced the amount of uncompensated or charity care provided by hospitals, thus improving their bottom lines (Mayes and Berenson 2006).

Many Americans, however, were caught in limbo between having too much income to qualify for Medicaid and too little to afford health insurance or pay for necessary care. Hospitals faced substantial costs for uncompensated care for treating these uninsured patients – a financial challenge that was especially acute for hospitals in low-income urban and rural communities. This situation remained unaddressed until passage of the Affordable Care Act in 2010, which provided subsidies to cover the costs of commercial insurance for lower middle-income earners and provided funding to states to expand Medicaid coverage for poor residents.

Medicare's cost+ payment arrangement for reimbursing health care providers insulated hospitals from the vagaries of the market and provided a buffer against financial challenges. This arrangement began to come under pressure in the 1970s. The U.S. inflation rate was high during that decade, and rapid increases in medical fees outstripped the overall price rise. The rapid increase in fees charged to payers for procedures threatened the solvency of the Medicare program and focused attention on health care prices. A number of modest measures intended to slow the rate of health care inflation were adopted but had little effect.

Then, in 1983, Congress made drastic changes in the way that Medicare reimbursed hospitals. Instead of reimbursing hospitals on a cost+ basis for every service the patient received – fee for service payments that covered separate charges for doctors' services, lab tests, procedures, and hospital stays – Medicare instituted a "prospective payment" system. Under this system, hospitals received a predetermined payment for treating Medicare patients depending on their particular diagnosis – referred to as diagnostically related groups or DRGs (Mayes and Berenson 2006). The government also reduced the generous capital reimbursements to for-profit providers, the premium rate for the return-on-equity rates (cut from 1.5 to 1.0), and the option to charge Medicare for acquisition costs (Jeurissen et al. 2021:72).

This change in payments to hospitals did not apply to Medicaid, the joint federal-state program for insuring the poorest Americans. Medicaid continued to use either a fee for service payment model or, more commonly, a Managed Care Plan (capitated payments made on a per-enrolled person in the plan) to pay for Medicaid (Scott 1984).

The introduction of DRGs as the basis for reimbursements for procedures and stays at acute care hospitals marked Medicare's transition from a cost reimbursement model in which doctors and hospitals exercised control over medical prices to a prospective payments model in which Medicare prospectively set the rates hospitals received for most services. If a patient could be treated at lower cost than anticipated by the prospective payment for their diagnosis – as a result of fewer tests or a shorter hospital stay, for example – the hospital could keep the difference. If the cost of treating a patient exceeded the Medicare payment, the hospital absorbed the extra costs (Mayes and Berenson 2006).

The prospective payments program was phased in over four years and, for the first two, was a boon for hospital finances. In those early years, hospital administrators responded to the changed incentives in two main ways: Hospital billing departments, which had previously utilized clerical staff to send bills for services performed to Medicare for reimbursement, now developed a medical records capacity that enabled them to bill Medicare for the highest-paid DRG that could be applied to each patient. Hospitals also reduced diagnostic tests and cut short the stays of Medicare patients – discharging them sooner and in less stable condition than was the case before the introduction of prospective payments. The result, in the early years, was an increase, on average, in hospitals' margins and net operating income as shorter stays and fewer tests reduced costs while more detailed record keeping and the use of the highest possible DRG categories raised reimbursements.

The changes in how hospitals were paid put a premium on hospitals' ability to recruit and retain top administrative talent capable of introducing corporate practices to control costs such as managing purchasing, inventory, staffing, and scheduling. Hospital administrators also encouraged doctors to reduce the length of patient stays and move patient care outside of hospitals to facilities that had lower costs, but received more generous Medicare reimbursements. These included ambulatory surgery centers and skilled nursing or other facilities (Mayes and Berenson 2006). Hospitals with larger endowments and a payer mix that favored commercial insurers were in the best position to bring high-paid, highly credentialed administrative staff on board.

The introduction of Medicare in 1965 led hospitals to hire staff with a business background to manage the revenue. Hiring of high-level staff with an MBA or finance background became even more urgent after the introduction of DRGs. Professional coders replaced routine billing clerks in order to translate doctor visits and procedures into the highest billable DRG. It was a short step from this to having administrators advise doctors about what procedures to perform to ensure better revenue collection for the hospital. The corporatization of nonprofit hospitals and the ascension of MBAs rather than MDs to positions of authority and decision-making was underway. Hierarchy and the growth of administrative functions increased. Incentives for doctors who provided care for patients began to change. Despite the increase in margins for many hospitals as they adjusted to the new payment system, Medicare reimbursements grew at a slower rate than was previously the case. This was the honeymoon period for Medicare and the nation's acute care hospitals (Rosenthal 2017).

The honeymoon soon ended. The growth in hospital margins attracted the attention of Congress just as pressure to reduce the growing federal budget deficit increased. The result was pressure on Medicare to curb the growth of payments for DRGs. By 1989, the growth in Medicare expenditures had fallen to just 1 percent a year. This improvement for Medicare translated into a substantial decline in hospital Medicare operating margins and, for some hospitals, including academic medical centers, overall operating margins declined (Henderson 2015). Hospitals responded to this squeeze on operating margins by raising the prices charged to commercial insurers for medical procedures. Over the late 1980s and into the 1990s, as prices paid by insurers rose, premiums for employer-paid and individual

health insurance increased dramatically, outpacing the rise in hospital wages or overall inflation (Rosenthal 2017).

Further complicating payments to hospitals, Medicare moved to correct a problem created by its use of standardized payments to hospitals across the country for treating DRGs. This payment approach failed to account for the lower costs of treating healthier, more affluent patients and the higher costs of caring for poor patients whose health was generally worse and who were more likely to suffer from comorbidities. The result was a widening gap in hospitals' operating margins, with many urban and rural hospitals in poor communities facing losses, while those serving the more affluent patients were in the black. This led Medicare in 1990 to implement higher payments to those hospitals that cared for a disproportionate share of poor patients – so-called disproportionate share hospitals or DSHs. The disproportionate-share increase in Medicare payments, however, came out of reduced payments to other hospitals, especially teaching hospitals (Mayes and Berenson 2006).

The ratcheting down of increases in payments for DRGs culminated in 1997 when Congress passed the Balanced Budget Act. This legislation reduced real (inflation-adjusted) Medicare payments to hospitals in 1998 and 1999 and extended the prospective payments model to outpatient ambulatory services, skilled nursing facilities, and home health (Bazzoli et al. 2004-05). The prospective payments model already had been extended to doctors in 1992 by implementation of a 1989 law that introduced the 'resource-based relative values scale' with its standardized fee schedule. Standardization of payments to doctors based on this scale – which functioned as a measure of productivity – was intended to rein in excessive payments to some doctors. But hospitals began to use this measure to reward doctors financially based on their productivity, pressuring doctors to consider financial rewards and not solely patients' needs when treating them. While the government partially reversed cuts in Medicare payments in 1999 and again in 2000, the prospective payments rules remained in effect. The share of hospitals with negative overall operating margins rose from 22 percent in 1998 to 35 percent in 2000. By 2003, all aspects of the health care system in the US were subject to prospective payments for patients covered by Medicare (Mayes and Berenson 2006; Rosenthal 2017).

With the change from cost+ to prospective payments for Medicare designated DRGs, control of payments to hospitals shifted from the hospitals to Medicare. Hospitals could not count on receiving payments at the same level as in the past. Medicare adjusted the payments for DRGs annually, ratcheting down the increases, and by the late 1980s, succeeded in substantially slowing the growth of Medicare expenditures. For the hospitals, however, slower growth in Medicare payments translated into slower growth of revenue. Hospitals responded by looking for new ways to raise revenue and meet the financial challenges and uncertainty they now faced. Facing a squeeze on hospital revenues and falling Medicare operating margins, hospitals sought new ways to increase both operating and non-operating revenue.

In addition, of particular importance was the 1998 ruling by the IRS that allowed nonprofit hospitals, for the first time, to form Limited Liability Corporations (LLCs) and engage in for-profit activities without paying any taxes on the business income they earned. Wealthy hospitals with large endowments and

financial resources were well positioned to take advantage of the new IRS guidance. Nonprofit hospitals could now invest alongside Silicon Valley investors in promising start-ups. They could form joint ventures with venture capital (VC) investors to create a venture capital fund to invest in promising start-ups. Some were even able to launch their own VC subsidiaries. Hospitals with research facilities and clinical labs staffed by leading medical personnel and research scientists, and with a track record in research and innovation proved attractive to venture capital firms interested in the development of patentable medical breakthroughs.

Many large academic medical centers met this description and were the recipients of generous VC funding of joint ventures. Some of the largest and most financially successful nonprofit hospitals developed their own venture capital subsidiaries. These for-profit activities increased the non-operating income of some of the wealthiest nonprofit hospitals in America, greatly exacerbating existing inequities in nonprofit hospitals' income and wealth and widening the chasm between the richly resourced and less financially able hospitals.

Reinterpretation of Anti-Trust

The relaxation of anti-trust regulations in 1982 also greatly changed the institutional landscape in which hospitals operated – opening the doors for extensive M&A activity from then on. In health care – as elsewhere in the economy – these changes led to increased industry consolidation and concentration. Anti-trust regulation is based on the Clayton Antitrust Act of 1914, designed to prevent monopolies or other anti-competitive corporate practices and the Federal Trade Commission (FTC) Act, passed in the same year to establish the FTC as an oversight agency. They focused on regulating mergers among competitors in the same market. The Celler-Kefauver Act of 1950 amended the law to allow the government to limit vertical mergers (between firms and their suppliers).

Prior to 1982, guidelines for whether an M&A initiative would have anti-competitive results and hence trigger anti-trust enforcement, relied on concentration ratios – or the share of the market held by one or a small number of companies. That measure signaled whether the proposed merger would give the newly merged company undue power to stifle innovation, reduce quality, raise prices for their products and services, or reduce prices paid to suppliers and wages paid to workers.

In 1982, President Reagan's anti-trust enforcement chief rewrote the rules governing the interpretation of anti-trust law that had served, until then, as a deterrent against monopolization. It replaced a mandate to protect markets from domination by a few firms with a mandate to safeguard "consumer welfare," narrowly conceived of as lower consumer prices. Since 1982, the main factor used to determine if regulators will approve a merger is the promise of improved efficiency, usually ascribed to larger scale and assumed to flow to consumers in the form of lower prices. Without any change in anti-trust law, regulators allowed mergers and acquisitions to grow, including the growth of hospital chains that expanded via acquisition of other hospitals almost without constraint. As a result, competition has been inadequate and has led to consumer price increases in many healthcare markets (Gaynor 2018; Cooper and Gaynor 2020).

The FTC's ability to prevent mergers it believes are anti-competitive and pose problems for consumers faces limits, however, particularly in health care.

First, the FTC tends to focus on mergers of entities that compete head-to-head, often in regional or national markets. But most healthcare providers are local, such that a merger between two hospitals in different cities or regions of the country is unlikely to attract FTC attention. Second, anti-trust enforcement has been especially problematic in the case of nonprofit hospitals. Section 5 of the FTC Act gives the FTC broad jurisdiction to address behavior that violates anti-trust laws and to prosecute firms that engage in unfair competition or deceptive acts. The catch, however, is that this authority excludes nonprofit organizations, thus limiting the FTC's ability to prosecute anti-competitive behavior by nonprofit hospitals. The FTC can turn over such cases to the Department of Justice to pursue at its discretion (Steren and Wagner 2019). The FTC is empowered to review hospital mergers and issue opinions but lacks enforcement authority to prevent mergers that limit competition.

Certificates of Public Advantage (COPAs) limit the FTC's ability to enforce anti-trust actions against mergers of for-profit hospitals, including those that create a dominant provider of health services in a local area. Effectively, COPAs allow hospital mergers to go forward without oversight by the FTC in exchange for prolonged oversight by state authorities. Proponents of these state waivers for hospital mergers argue that they prevent rural hospitals from closing. The FTC is concerned that these mergers create near monopolies that harm consumers by raising prices and reducing quality of health services.

In 2018, Tennessee, Virginia, and West Virginia passed COPA laws to protect mergers in their states from being blocked by the FTC even when they eliminated competition all together. Later that year, Mountain States Health Alliance and Wellmont Health merged to form Ballad Health. The health system dominates a large part of rural Appalachia, covering northeast Tennessee and southwest Virginia. It operates 21 hospitals and employs more than 814 doctors. The Attorneys General of the two states approved the mergers, under the states' new COPA laws and over the strong objection of the FTC.

In June 2019, the FTC presented empirical results of a study of the effects on prices of several COPAs approved in the 1990s. In October 2019, the FTC began a study of the ongoing effects of recent mergers using state COPA laws on hospital prices, patient billing, and employee wages. The study includes Ballad Health in Tennessee and Virginia, and Cabell Huntington Hospital in West Virginia. In September 2020, Hendrick Health initiated the acquisition of Abilene Regional Medical Center, its only competitor in rural West Texas. Normally, the deal would have violated FTC anti-trust rules. But Texas had also passed a COPA law in 2019, taking the decision out of the hands of the FTC. The weakness of FTC enforcement facilitated the wave of merger activity by nonprofit and for-profit hospital systems.

A third constraint grows out of amendments passed under the Hart–Scott–Rodino Antitrust Improvements Act of 1976, which required firms to notify the FTC and the DOJ of their proposed merger plans. But the filing requirement is triggered only if the size of the parties or the value of the transaction exceeds a certain dollar threshold. The dollar amount had been $10 million This was changed to $50 million in 2001 and set to rise with inflation. As a result of this change, the majority of healthcare

providers – hospitals as well as those involved in vertical mergers – have fallen below the threshold that triggers a pre-merger filing. The threshold has risen annually: $50 million in 2001, $63.4 million in 2010, $76.3 million in 2015; and $92 million in 2021 (Foley & Lardner 2021).

In recent years, the FTC has made hospital mergers a top enforcement priority with three FTC antitrust suits filed in 2020 plus two letters to state regulators opposing hospital mergers. It lost it first suit against a merger of Philadelphia-area Thomas Jefferson University and Albert Einstein Healthcare Network (Allen, DiCunzolo, and Raup 2021). The FTC voluntarily dismissed its appeal of this decision to the 3rd Circuit Court when that Court declined to grant a preliminary request to enjoin the merger (Maas 2021).

Finally, FTC regulations governing vertical integration are weak, and the DOJ has challenged (unsuccessfully) only one vertical merger (TimeWarner/AT&T) in 40 years. While the DOJ and FTC finally issued Vertical Merger Guidelines on June 30, 2020, most healthcare and legal scholars view them as lacking specificity, premised on faulty assumptions, and unlikely to be useful to curtailing on-going vertical integration (Aguilar, Kifer, Sfekas, and Gowrisankara 2021).

But vertical integration in healthcare has become increasingly common, as insurance companies and hospitals merge to create a stable client base; or as hospitals attempt to increase admissions by creating a network of outpatient, primary care, and physician specialty practices as feeders into their systems. Between 2010 and 2018, the percentage of physicians' practices owned by hospitals/health systems almost doubled – from 29 percent to 48 percent for primary care doctors and 24 percent to 45 percent for specialists (Greaney and Scheffler 2020). A growing body of economic research has established a consistent pattern between this type of vertical integration and high (largely physician-related) patient costs (Neprash et al. 2015; Post, Buchmueller, and Ryan 2018; Godwin, Arnold, and Fulton 2021).

How Regulatory Changes Intersected to Foster Financialization

Recall that the process of financialization includes two dimensions: the increased reliance on financial strategies by healthcare organizations in order to offset or amplify healthcare operating revenues and the increased weight of financial actors in the healthcare sector. The regulatory changes in the financial sector and the healthcare sectors have come together – interacted to enhance both dimensions of financialization in healthcare since the 1970s and especially in the last three decades.

On the healthcare sector side, the regulatory environment of uncertainty coupled with ongoing reductions in the rate of growth of government reimbursement rates have made hospitals more likely to embrace financial strategies, including investments in securities, derivatives, and other risky investments. They have learned from experiments occurring in the financial sector, as we illustrate in Part II, and have adopted a number of them. Other regulatory changes, including the relaxation of anti-trust laws, as we described above, provided incentives for nonprofit hospitals to embrace mergers and acquisitions as an additional financial strategy, leading to consolidation and concentration in the industry over time.

On the financial side, the expansion of pools of capital led investors to seek targets in healthcare, with early investment in for-profit corporate chains, regulated by the SEC, which slowly expanded from the 1970s on. For-profit systems emerged because investors had cash to invest, and many believed they could deliver more efficient and effective healthcare due to economies of scale and the discipline of competitive markets, among other things. They represented the first inroads of financial investors into the sector.

Since the 2000s, however, a second wave of financial investors has penetrated healthcare – largely unregulated private equity firms making extensive use of financial engineering tools. They represent a qualitatively different level of financial penetration – an extreme form of the shareholder value model that promises 'outsized returns' to investors and goes far beyond the logic of publicly-traded for-profit corporations. As private equity investors penetrated healthcare, they have spread a 'financial' business model that treats productive enterprises as bundles of assets to be broken up, reconfigured, and sold. This financial logic is growing in the industry, shaping competitive conditions and causing spillover effects in non-profit and for-profit institutions

As we face the decade of the 2020s, hospital systems with different business models are competing with one another: small nonprofits, large non-profits with for-profit subsidiaries, for-profits, and private equity owned systems. Some nonprofit community hospitals continue with their historic charitable mission to provide healthcare to those in need, but many or most have operated in the red for years or have been gobbled up into larger systems to avoid bankruptcy. Rural community hospitals have closed at record numbers in the last decade. Large nonprofit systems with for-profit subsidiaries are surviving, some thriving, and often appear to have strategies that rival for-profit systems, while private equity ownership has led to financial disaster for many systems. In the next two sections, we examine the financial strategies of nonprofit systems in detail before turning to the final section on the strategies of financial actors in healthcare and their effects.

Part II: Financial Strategies of Nonprofit Acute Care Hospitals

In Part II we provide a detailed analysis of the financial strategies of nonprofit acute care hospitals. Two developments are especially important: mergers and acquisitions (M&As) and for-profit activities of large nonprofit hospital systems. In the decade leading up to the financial crisis of 2008-9, nonprofits made use of financial derivatives and other modern financial instruments in largely unsuccessful attempts to manage risk.

Horizontal mergers and acquisitions enable major hospitals to acquire smaller ones as feeder hospitals in a health system designed to keep the patient census high in the system's flagship medical centers. These hospitals, equipped with the most modern technology, home to highly skilled physicians in a range of specialties, with access to the most advanced and experimental treatments, are hugely expensive places to treat patients. A steady flow of acutely ill patients is key to the financial health of these hospitals now that healthcare has become focused on treating patients in the lowest cost venue and limiting the length of hospital stays for those admitted for in-patient care. Vertical integration of

hospitals with physicians' practices as sources of primary care and referrals for lab work and diagnostic imaging similarly increases the revenue of hospitals.

Consolidation of hospitals into multi-hospital health systems often is designed to decrease competition in health markets, enabling more powerful health systems to demand higher reimbursements from insurance companies and self-insured employers and to impose unfavorable conditions on them. This increases the operating revenues of these hospital systems. But it has deleterious effects for patients: the decline in competition results in higher prices for medical procedures, higher premiums and co-pays for patients, and higher healthcare costs overall, with the increase in these expenditures going mainly to higher prices, rather than to improvements in the quality of care.

Since 1998, the IRS has allowed nonprofit hospitals to engage in for-profit activities and pay no taxes on the unrelated business income they earn. The 1998 ruling favors large, well-endowed nonprofit hospitals, particularly academic medical centers with a highly regarded research capacity. AMCs are equipped with labs and other facilities staffed by leading medical personnel and scientists and a track record in research and innovation. These hospitals proved to be especially attractive to venture capital firms interested in partnering in the development of patentable medical breakthroughs. Some of the most successful academic medical centers developed their own venture capital arms. These ventures increased the non-operating income of some of the wealthiest hospitals in America and greatly exacerbated existing inequities in hospitals' income and wealth. The chasm between the richly resourced and less financially successful hospitals has widened.

Part II begins with a brief overview of acute care hospitals in the US. We then turn to the financial strategies nonprofit hospitals use to raise operating and non-operating income – including M&As and the use of for-profit ventures. We illustrate these strategies through 4 case studies of different types of nonprofit hospital systems.

Overview: Acute Care Hospitals in the US

The United States spends more on healthcare than any other OECD country (Statista 2019). With annual expenditures of $3.8 trillion in 2019 (17.7 percent of GDP), it's no surprise that financial actors have grown increasingly interested in the healthcare industry. A third of all healthcare spending in the United States ($1.2 trillion) is on hospital care (Centers for Medicare and Medicaid Services 2020), which makes hospitals an important locus of healthcare financialization.

According to the American Hospital Association (2021), there were 6,090 hospitals in the US, including federal government (208 hospitals), non-federal specialty and psychiatric hospitals (741), and community hospitals (5,141). The latter includes three types of ownership structures: nonprofit (2,964), for-profit (1,233), and state and local government owned (962). Two-thirds of community hospitals are urban and one-third are rural (AHA 2021).

Table 2-1 presents the historical trends in US hospitals and the percent share of community hospitals and hospital beds by ownership type. Community hospitals include specialty hospitals, such as children's

hospitals and cancer centers, so long as they are short-term, nonfederal hospitals. Additionally, many community hospitals are part of a health or hospital system. These hospitals are owned, leased, sponsored, or contract-managed by a single organization and may include affiliated clinics, urgent care centers, and other outpatient facilities. In recent years, after waves of hospital consolidation, the

Table 2.1: US Hospitals by Ownership Type, 1975-2019								
	1975	1980	1990	2000	2005	2010	2015	2019*
Number of Hospitals by Ownership Type								
All hospitals[1]	7,156	6,965	6,649	5,810	5,756	5,754	5,564	6,090
Nonfederal[1]	6,774	6,606	6,312	5,565	5,530	5,541	5,352	NA
Community[2]	5,875	5,830	5,384	4,915	4,936	4,985	4,862	5,141
Nonprofit	3,339	3,322	3,191	3,003	2,958	2,904	2,845	2,946
For profit	775	730	749	749	868	1,013	1,034	1,233
State-local gov't	1,761	1,778	1,444	1,163	1,110	1,068	983	962
Hospitals as % Share of Community Hospitals								
Nonprofit	57%	57%	59%	61%	60%	58%	59%	57%
For profit	13%	13%	14%	15%	18%	20%	21%	24%
State-local gov't	30%	30%	27%	24%	22%	21%	20%	19%
Number of Hospital Beds by Ownership Type								
All Beds[1]	1,465,828	1,364,516	1,213,327	983,628	946,997	941,995	897,961	NA
Nonfederal[1]	1,333,882	1,247,188	1,115,072	930,561	901,160	897,055	859,098	919,559
Community[2]	941,844	988,387	927,360	823,560	802,311	804,943	782,188	787,995
Nonprofit	658,195	692,459	656,755	582,988	561,106	555,768	530,579	NA
For profit	73,495	87,033	101,377	109,883	113,510	124,652	134,569	NA
State-local gov't	210,154	208,895	169,228	130,689	127,695	124,523	117,040	NA
Hospital Beds as % Share of Community Hospitals								
Nonprofit	70%	70%	71%	71%	70%	69%	68%	NA
For profit	8%	9%	11%	13%	14%	15%	17%	NA
State-local gov't	22%	21%	18%	16%	16%	15%	15%	NA

Source: CDC Table 89. Hospitals, beds, and occupancy rates, by type of ownership and size of hospital: United States, selected years 1975–2015. https://www.cdc.gov/nchs/data/hus/2017/089.pdf, AHA Annual Surveys.
[1]All hospitals include federal and nonfederal. Nonfederal hospitals include psychiatric hospitals, tuberculosis and other respiratory diseases hospitals, and long-term and short-term general and other special hospitals.
[2]Community hospitals are nonfederal short-term general and special hospitals whose facilities and services are available to the public. The types of facilities included in this category have changed over time.
* Source: American Hospital Association (2021).

number of hospitals within a system has steadily increased – from 3,100 in 2012 to 3,491 in 2018 (American Hospital Association Archives n.d.). This trend reflects the growing presence of large healthcare systems, which wield substantial market power through their networks. In 2019, two-thirds of community hospitals were system-affiliated (AHA 2021).

Nonprofit hospitals account for a majority of all community hospitals. However, the share of for-profit hospitals has grown steadily, almost doubling from 13 percent in 1975 to 25 percent in 2019. The nonprofit share remained remarkably steady, at about 57 percent over time, but sharp declines occurred in the share of state and local government hospitals – safety net hospitals that primarily serve the poor and uninsured. Their share declined from 30 percent in 1975 to 18.6 percent in 2019 – with the steepest decline occurring in the decade of the 1990sBy 2019, one out of every four community hospitals in the US was a for-profit. These trends are one indicator of the overall increase of financialization in health care. The share of hospital beds under for-profit ownership, however, is lower, at 17 percent of all community hospital beds, versus 68 percent of beds found in nonprofit hospitals. This is consistent with what we describe in Part III regarding the financial strategies of the for-profit chains: They have focused on buying out smaller hospitals in less competitive markets and have not tackled the large nonprofit systems or academic medical centers.

Our focus is on non-government, non-specialty acute care hospitals. Within the nonprofit sector, academic medical centers and very large hospital systems have opportunities for financial strategies that are largely unavailable to other nonprofits, while in the for-profit segment, private-equity-owned hospitals are able to take advantage of unique financial strategies.

Consolidation and Concentration in Hospital Markets

Hospital consolidation occurs when hospitals integrate horizontally by acquiring other hospitals and outpatient facilities. Horizontal mergers are expected to reduce costs through economies of scale and elimination of duplicate functions in administration – management, accounting, electronic medical record (Fulton 2017); and through reductions of service lines and beds by, for example, housing a service line such as maternal and neonatal care in one nearby hospital and in-patient mental health services in the other. Consolidation enables the combined hospital system to garner larger discounts on purchases of equipment and supplies and to spread fixed costs over a larger in-patient population by increasing the hospital system's footprint. Per patient costs of care decline but patient revenues increase, the merging hospitals argue, thus offsetting the loss of revenue as patients seek medical treatment at outpatient facilities – urgent care centers and ambulatory surgical (surgi-care) centers. Hospitals argue that consolidation can also reduce healthcare costs through increased diversity of specialty services at smaller or more remote hospitals as well as through better coordination of patient care across hospitals and outpatient facilities such as urgent care centers. The result, hospitals argue, is better patient care, lower health care costs, and reduced premiums for patients.

Mergers and acquisitions usually have not worked out this way, however. Lower costs sometimes failed to materialize, and when they did exist, were rarely passed on to patients. Instead, as documented in

numerous studies, consolidation of hospitals into large chains has increased their market power and allowed them raise health care costs and negotiate higher payments from insurers (Cooper, Craig, Gaynor, and Van Reenen 2015; Cutler and Scott-Morton 2013; Dafny , Ho, and Lee 2016; Fulton 2017; Gaynor 2011; Gaynor and Town 2012; Gaynor, Ho, and Town 2015; Gaynor 2018; Tsai and Jha 2014; Vogt and Town 2006). In fact, among the privately insured, the rising price of a hospital stay accounts for virtually all of the increase in healthcare spending (Waters 2020).

Federal legislation facilitated hospital consolidation by providing incentives for healthcare providers to adopt health information technology (HIT), with the goal of facilitating digital integration, the sharing of medical data, and care coordination across facilities. In 2009, as part of the American Recovery and Reinvestment Act (ARRA), Congress passed the Health Information Technology for Economic and Clinical Health (HITECH) Act, which promoted the use of HIT in providers receiving Medicare and Medicaid funding. It provided billions of dollars in incentives for provider adoption, implementation, and education. It required all healthcare providers to demonstrate 'meaningful use' of electronic medical records by 2014 in order to maintain their existing Medicaid and Medicare reimbursement levels (USF Health 2020).

Consolidation of hospitals into hospital chains or health systems has received little oversight from anti-trust regulators. Nonprofit hospital mergers receive far less scrutiny and oversight from the Federal Trade Commission (FTC) than do for-profit hospitals (Steren and Wagner 2019). As FTC Commissioner Rebecca Slaughter pointed out in her 2019 remarks, while the FTC has jurisdiction to review nonprofit hospital mergers, the nonprofit exemption prevents the agency from enforcing antitrust laws against anti-competitive conduct by nonprofit hospitals which, she suggests, involves nearly half of the nation's hospitals (Slaughter 2019:6,9).

Even when antitrust regulators have the authority to act, they are usually persuaded to approve the mergers by hospitals' arguments about the cost reductions the merged system would enjoy. This, despite the evidence that expected reductions in health expenditures and consumer premiums following mergers have proved to be elusive. Instead, cost savings as a result of consolidation have led to increases in hospital revenue and operating margins or "profit" – its revenue from patient care operations minus its costs.

Consolidation is not the same as concentration. A market is highly concentrated when a few firms account for a large share of the market. But in many hospital markets, consolidation has, in fact, led to concentration – with three or four hospital systems holding the bulk of market share. Waves of horizontal mergers consolidated hospitals into multi-hospital health systems. If consolidation also leads to concentration in particular hospital markets, then profits are likely to increase further as the consolidated hospitals use their market position to raise the prices they charge insurers for procedures. These cost and revenue considerations make horizontal mergers a major source of higher operating margins and "profits" for both nonprofit and for-profit hospitals.

Hospitals do not merge only with each other. Large hospital systems often engage in vertical integration, acquiring outpatient facilities, doctors' practices, and even, in some cases, insurance companies. Vertical mergers – especially direct ownership of doctors' practices by hospitals – can be expected to raise hospital revenues via an increase in referrals to hospitals for diagnostic imaging and lab tests. The number of tests performed in hospitals rises when hospitals own doctors' practices, raising hospital revenues. Higher payments to hospital than to nonhospital providers bolsters hospital revenue. It also raises health care costs (Whaley, Zhao, Richards, and Damberg 2021).

Hospital M&A in the 1980s

The first wave of mergers occurred in the 1980s, following Medicare's introduction of prospective payments based on DRGs. Many hospitals, anticipating a squeeze on CMS-related operating margins, turned to mergers to reduce operating costs and increase operating revenues through greater market power and to raise prices for procedures paid by non-CMS payers – namely, insurance companies and self-insured employers.

Insurance companies responded to this early M&A activity of hospitals by forming their own Health Management Organizations (HMOs). Insurance companies paid the HMO a capitated payment (a set payment per person covered by the HMO), and HMOs were able to retain the difference between these payments and their costs in caring for those whose health costs they covered. This put a premium on efforts to encourage early treatment of chronic conditions in order to reduce the need for expensive procedures if the diseases go untreated. It also included incentives to deny care to patients and led HMOs to send patients to the most expensive hospitals, typically academic medical centers, only when absolutely necessary. Hospitals, however, needed access to these patients. Increasingly, they negotiated contracts with managed care organizations, whose rising bargaining power continued the squeeze on hospital operating margins (Mayes and Berenson 2006). Academic medical centers and other hospitals responded with their own early use of mergers. These, especially for academic medical centers, met with mixed results (Aaron 2000).

Hospital M&A in the 1990s and 2000s

The early mergers of the 1980s were followed by subsequent M&A waves in the 1990s, the 2000s, and in the years since 2010 (Appelbaum and Batt, 2017). The threat of HMOs led to the wave of M&A activity by nonprofit hospitals in 1994 to 1997, peaking in 1997 at just under 200 mergers that year, before falling to about 50 mergers a year (Ettinger and Berenbaum 1996; Irving Levin Associates, 2013) as the HMO threat receded. The next wave of nonprofit hospital mergers occurred between 2004 and 2007 in response to access to low-cost debt and to reforms to the Balanced Budget Act of 1997 that reduced the growth of Medicare expenditures and constrained the growth of hospital revenues. The 1990s and 2000s also saw the growth of for-profit hospitals. For-profit hospitals grew from an estimated 12.5 percent of community hospitals in 1980 to 15 percent in 2000. As we describe in more detail in Part III, private equity firms, attracted by the recession-proof nature of healthcare and the large role of government payers, engaged in leveraged buyouts of hospitals in the 2000s. Anticipation of

passage of the Affordable Care Act in 2010 and the expected addition of 20 million people to the ranks of the insured led to another major wave of M&A activity driven by PE firms. By February 2011, 10 of the15 largest for-profit chains were owned by private equity and the remained had involvement with PE backing at some point. Private equity firms use a well-honed 'buy and build' strategy to expand their hospital holdings, thus contributing to consolidation of hospitals. They establish a 'platform' by acquiring one hospital company and then adding on and rolling up a series of other hospitals into a hospital chain (Appelbaum and Batt 2020: 11). The strategy allows PE firms to operate below the radar of anti-trust regulators because any one acquisition is often too small to fall under their jurisdiction, but this growth strategy allows PE-owned health systems to achieve pricing power at the local, regional, and sometimes even national level.

Use of Financial Instruments in the 1990s and 2000s

Nonprofit hospitals have always had to manage the debt they use for capital expenditures and to finance mergers and acquisitions. Tax-free municipal bonds were – and are – the main source of debt financing for capital improvements and expansion. In an uncertain or volatile interest rate environment, however, some hospitals turned to derivative contracts to manage interest rate risk. The main risk in the decade preceding the financial crisis of 2008-9 was that interest rates would increase. It was not unusual for lenders to demand variable rate bonds when lending long term so that they could profit from future increases in interest rates. Nonprofit hospitals made use of two main financial instruments, marketed by Wall Street banks, to manage the risk that interest rates might rise: interest rate swaps and auction rate securities.

Interest rate swaps are used to change the type of interest rate that a borrower must pay on its debt, in this case from a variable rate to a fixed rate. Leading up to 2008, many nonprofit hospitals had used the swap to exchange the existing variable interest rates on their bonds for fixed rates.

An interest rate swap does not entail an actual handover of any bonds or outstanding debt. Instead, the two parties pay each other. For instance, if a hospital holds debt with a variable interest-rate and it buys an interest-rate swap from an investment bank, the hospital agrees to pay the bank some fixed interest rate, and the bank pays the hospital's debt holders the floating rate on the bonds. The hospital has effectively locked in a fixed rate on its debt, and the risk that interest rates will rise has been shifted to the bank. Of course, if interest rates were to dip below the fixed rate, the hospital becomes the losing party. In the early 2000s, the primary risk was that interest rates would rise — not fall — and hospitals were concerned that they would be stuck with floating rates that tracked the market interest rate. The risks to the hospital from engaging in the swap were downplayed by the banks selling the derivatives. A 2005 study examining some of the largest US hospitals at the time found that "swaps [appeared] to be widely used by 70 percent of the systems, but the actual percentage of the systems' debt that [had] been swapped remained fairly small" (Cleverly and Baserman 2005:364).

By 2007, major Wall Street investment banks had convinced numerous nonprofit hospitals (and municipalities) to take on these financial derivatives as a means to make borrowing cheaper, especially

for organizations like hospitals that require long-term financing for large-scale projects (Dugan 2010) and for acquisitions. Banks pushing interest rate swaps, which included Citibank, cited low interest rates as the basis for their pitch, claiming that since interest rates were already so low, they were bound to rise, and hospitals would benefit by locking in the existing rate, rather than risking a future where rates might increase. Municipal Market Advisors, a consulting firm, claimed that at least one in six hospitals paid exorbitant fees to buy interest rate swaps leading up to the Great Recession, lured in by the false pretense that interest rates could not get any lower (Dugan 2010:1).

Unfortunately for the nonprofit hospitals, interest rates could — and would — fall. On September 18, 2007, the Federal Reserve began its dramatic slashing of interest rates. The Federal Reserve's interest rate target finally bottomed out at between zero and 0.25 percent. Hospital systems bloated with interest rate swaps on their long- term debt were still locked into fixed interest payments to banks.

Facing the prospect of drawn out, unnecessarily inflated interest rate payments for the coming years, hospitals were forced to pay millions more to terminate these unsuccessful bets on the direction of interest rates. For instance, Kentucky-based Owensboro Medical Health System "paid about $14 million to end an interest-rate swap with Merrill Lynch, now part of Bank of America Corp." (Dugan 2010:1). Rhode Island-based South County Hospital similarly owed $12.7 million to Merrill Lynch, a loss that ultimately resulted in layoffs (Walker and *The Baltimore Sun* 2013).

Even if hospitals escaped having to pay staggering fees to cancel their swaps, many still suffered from having to allocate a sizeable portion of their cash reserves to collateral for the swaps. In March 2013, the University of Maryland Medical System (UMMS) found itself with $93 million tied up in collateral because of its interest rate swap agreements. As interest rates fell, the amount of collateral required from hospitals only grew. Similar to UMMS, Johns Hopkins Health System had to post $103 million of collateral in the third quarter of its 2013 fiscal year. By 2013, exiting out of these agreements would have cost UMMS an additional $183 million and Johns Hopkins a whopping $233 million (Walker and *The Baltimore Sun* 2013). Meanwhile, the Cleveland Clinic Health System was required to post $105 million in collateral while $98 million had to be set aside at Pennsylvania-based Catholic Health East (Evans 2010). I n many cases, 2008 was a lesson for hospitals about the risks of these financial instruments. Many, but not all, retreated from the use of interest-rate securities. Some, such as Trinity Health in Michigan, began considering such outcomes in their annual stress tests (Evans 2010).

Auction rate securities (ARSs) were another financial instrument used by hospitals to manage the interest they paid on their long-term debt. Developed in 1984, ARSs became widely used among hospitals — though to a lesser extent than interest rate swaps — in the years leading up to the Great Recession. By 2007, the market for ARSs was estimated to be as high as $330 billion. They were particularly attractive for hospitals because they allowed for the financing of long-term debt with short-term interest rates, and in many instances, broker-dealers touted ARSs as being nearly risk-free and highly liquid (D'Silva, Gregg, and Marshall 2008).

In the end, the opposite proved to be true. ARSs functioned like other long-term debt instruments such as bonds with decades-long maturities. Their uniqueness lay in regular intervals whereby their interest rates would be reset by Dutch auction, essentially creating floating rates. In predetermined fixed intervals — often every one, four, five, or seven weeks — "potential purchasers (including existing holders who wish to reinvest) bid for securities by specifying both the quantity of securities they wish to buy and the minimum interest rate they will accept" (D'Silva, Gregg, and Marshall 2008:2). After bids were collected, the lowest offered interest rate that cleared the market was accepted, and bidders at that interest rate or lower received the ARSs at the clearing rate. In the event that not enough buyers offered bids, investment banks promised to be a buyer of last resort, preventing a failure in the market. This was essential because if an auction failed, hospitals would face soaring penalty rates on their debt.

The major investment banks behind ARSs included Citigroup and UBS, and for their bankers and brokers, ARSs generated sizeable profits. ARS bonds "generated more than $1 billion in fees at the initial sale," and the investment banks also brought in "annual payments for handling the auctions of a quarter percentage point, or about $650 million a year based on the $260 billion in ARS bonds outstanding before the collapse" (Stewart and Smith 2012:72). Later, Citigroup and UBS were investigated by the SEC and the attorneys general of New York, Massachusetts, and Texas for misleading nonprofit hospitals and local governments.

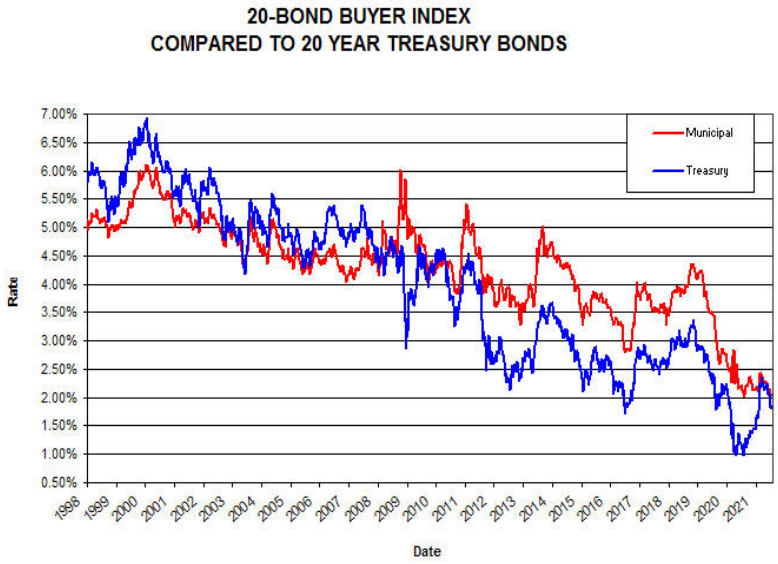
ARSs also made up a significant portion of many hospitals' long-term debt, making these hospitals especially vulnerable to failures of the ARS market. Stewart and Smith (2012) studied three particular hospitals' exposures to ARSs and found a significant investment in the instruments. Of the three, South County Hospital Healthcare System in Rhode Island held the largest proportion with $52 million in ARSs, amounting to 71.9% of their long-term debt. WellSpan Health, located in Pennsylvania, had issued $140 million in ARS in May 2007 (30.9% of their long-term debt), and Northwestern Memorial Health Care, in Illinois, issued $219.4 million in May 2004 (33.4% of their long-term debt) (Stewart and Smith 2012).

For a period of time, ARSs functioned well for hospitals. They could finance their long-term projects with these bonds while simultaneously accounting for them as highly liquid assets or cash equivalents. In addition, an assessment of the ARS market in 2008 found that 65 percent of ARSs were insured by third-party bond insurers (McConnell and Saretto 2010). When these third-party insurers' credit ratings were downgraded amid the housing and financial crisis, "institutional and corporate investors began to doubt the credibility of the bond insurers' default guarantees on the bonds they insured," a doubt that led to failure rates in ARS markets as high as 80 percent on February 20, 2008 (Stewart and Smith 2012:76). To make matters worse, the investment banks that promised to be lenders of last resort backed out, citing strain from the ongoing financial crisis and mortgage lending defaults (Greene 2008).

The failure of the ARS market had a drastic and scarring impact on hospitals from coast to coast. William Beaumont Hospital in Royal Oak, Michigan saw the interest rates on their debt soar from 2 percent to a penalty rate of 12 percent (Greene 2008). In California, Tri-City Medical Center in Oceanside found itself facing a rate of 17 percent – $16 million more than it would have paid without the ARS. In response, the hospital postponed renovations in order to make a $6 million payment to

Citigroup to back out of its ARSs and interest-rate swaps. In Oregon, Rogue Valley Medical Center ended up with rates at 18 percent, up from just 5 percent before the market collapsed. The painful event wiped out its operating margin, and in 2009 the hospital cut pay raises and laid off workers. On the other side of the country, Sarasota Memorial Hospital System in Florida lost more than $5 million on its auction-rate securities and interest rate swaps, forcing the hospital to backtrack on its intentions to build a new facility (Dugan 2010).

Nonprofit hospitals' interest in financial instruments peddled by Wall Street as risk management tools waned following these failures.[5] The current low interest rate environment makes the use of municipal bonds attractive to the hospitals. As the graph below shows, interest rates peaked in the early 2000s and have declined since. More recently, the municipal bond market has experienced persistent low interest rates. The interest rate on an index of tax-exempt 20-year municipal bonds has fallen to 2 percent. Apart from efforts to get around the provisions of the 2017 Tax Cut and Jobs Act described in the footnote, nonprofit hospitals have little need for high fee Wall Street products.



Source: WM Financial Strategies: Muni Bond Advisor. https://www.munibondadvisor.com/market.htm

[5] Nearly a decade after the Great Recession, hospitals once again were under pressure to seek out financial derivative instruments as a result of the 2017 Trump Administration's Tax Cuts and Jobs Act (TCJA) (Bannow 2019). Leading up to 2017, hospitals widely used the refinancing of debt to manage the interest burden. When municipal market interest rates fell, nonprofit hospitals would often borrow money at the lower rates to refinance their existing debt. They used a technique called 'advance refunding' to refinance bonds that had not reached their call date – the earliest date at which they could be repaid. The TCJA eliminated the ability of nonprofit hospitals and other nonprofits to use tax-exempt bonds to advance refinance an existing tax-exempt bond. Hospitals would not be able to take advantage of lower interest rates if interest rates were to fall. It did not take long for Wall Street firms to come up with complex, fee-generating workarounds with names such as forward delivery bonds and Cinderella bonds (Stewart and Owhoso 2004; Rose 2012; Bannow 2019; Franklin 2020).

Hospital Mergers since 2010

The Affordable Care Act (ACA), signed into law by President Barack Obama in 2010, went into effect in 2012 with full implementation in 2014. The legislation was intended to increase Americans' access to health care while reducing unnecessary procedures and curbing hospital utilization rates. It greatly expanded the number of people who qualified for Medicaid and covered a larger share of the poverty population. It also provided subsidized insurance premiums for individuals with incomes in excess of the Medicaid cut-off. In anticipation that this would reduce uncompensated hospital care of patients, the ACA also cut Medicaid and Medicare reimbursement rates. An unanticipated consequence, however, was that the costs of serving newly insured patients with pent-up healthcare needs was greater than the revenues providers received, and hospitals' net bad debt increased in the first few years. The effect was a relative decline in government funding that put great pressure on hospitals, especially smaller hospitals that were more reliant on government reimbursements for care of patients, to find new ways to cut costs and increase revenues (Thomson, Dettmar, and Garay 2018).

The ACA also encouraged the use of pay-for-value rather than pay-for-volume reimbursement models in both government programs and commercial health insurance plans. The pay-for-value model was intended to encourage hospitals to partner with public and private insurers to share the risks in patient outcomes –sharing any cost savings from reducing patient utilization of high-cost procedures and sharing any additional costs for patients requiring expensive care. The purpose of valued-based payments was to improve population health, reduce health costs by focusing on managing chronic conditions thus avoiding expensive procedures, and reduce Medicare and Medicaid expenditures (Appelbaum and Batt 2017).

The ACA aimed to maintain the quality of health care while reducing costs by encouraging patients to be treated in the lowest cost venue suitable for their care. This encouraged hospitals to vertically integrate with lower cost outpatient facilities to reduce cost while retaining these patients in the hospital's network. Vertical integration facilitates referrals and transfers of patients requiring more complex care to the hospital. With more patients treated in facilities outside each hospital, the ACA encouraged another round of horizontal integration via acquisitions of other hospitals, including smaller hospitals to serve as feeders to the main hospital (often an academic medical center) capable of performing more complex procedures. As noted in Part I, however, evidence is mounting that high levels of vertical integration in some markets have led to higher patient prices; and more research is needed regarding the non-economic trade-offs of vertical integration (Godwin, Arnold, and Fulton 2021).

In the decade since 2010, nonprofits have adopted the growth strategies of for-profits, (discussed more fully in Part III) with roughly 75 percent of M&As involving a non-profit as the acquirer. Large nonprofit hospital systems have pursued growth via these types of mergers, sometimes quite aggressively, with large academic medical centers leading the way. Mega mergers, in which two hospital systems with revenues of $1 billion or more merge to form large regional systems, are also on the rise (Kaufman Hall, 2019). In June 2021, two large Michigan-based nonprofit health systems–Spectrum Health and Beaumont Health–proposed to merge. The merger would create "a behemoth" with 22 hospitals, 305

outpatient locations, 64,000 employees, and $13 billion in operating revenue (Paavola 2021). In recent years, the two hospitals have ranked in the top 50 largest nonprofit hospital systems in the US based on total net revenue. Within Michigan, Spectrum and Beaumont are ranked first and fourth respectively. Beaumont is the single largest employer in Western Michigan driven by its acquisition of Lakeland Health, and Spectrum's revenues place it among the highest earning hospitals in the state (Greene 2018; *DBusiness* 2020). If the merger is allowed to proceed, the merged hospital system will dominate the health care market in Western Michigan, with predictable consequences for prices of procedures and patients' premiums and the financial stability of suppliers of medical products and devices.

Not all hospital mergers are successful. As noted in the literature on mergers more generally, many mergers fail because it is not easy to integrate conflicting cultures into a smoothly running operation. Acquired hospitals may feel that expectations weren't met. Executive departures can be disruptive. Performance at one of the hospitals or at the merged system may decline. A study by faculty at the University of Pennsylvania's Wharton School found that supply chain synergies from increased buying power tended to disappoint. They averaged just 10 percent of the expected cost savings. Other studies found that larger scale does not always lead to increased revenue; and when it does increase revenue, it may not increase the efficiency of the system (Kacik 2018a; Kacik 2018b; Craig, Grennan, and Swanson 2018).

Some hospital mergers are currently at different stages of unwinding (Kacik 2021):

> After being part of Ascension for 18 years, St. Mary's Healthcare in Amsterdam, NY, split from the St. Louis-based chain last year because St. Mary's said it has been paying more into Ascension than it was receiving;
>
> Egg Harbor Township, NJ.-based AtlantiCare and Danville, PA based Geisinger Health agreed to separate after suing each other for breaking their 2015 agreement;
>
> Yakima Valley Memorial Hospital (WA) separated from Seattle-based Virginia Mason Medical Center last year after Virginia Mason decided to merge with yet another hospital.

However, despite disappointing experiences of some hospitals that engaged in mergers, hospital merger activity has not slowed down.

For-Profit Activities of Nonprofit Hospitals.

The 1997 Balanced Budget Act included large reductions in federal hospital payments and was expected to lead to about a 10 percent loss in payments over five years. The Act threatened hospital operating revenue and margins even after the amount of lost revenue was subsequently reduced in legislation passed in 1999 and 2000. The 1997 legislation also extended the prospective payments model to outpatient ambulatory services (e.g., clinics, urgent care centers, surgical centers), skilled nursing facilities, and home health. Hospitals that had expanded their outpatient services in order to treat lower acuity patients in lower cost settings found revenue growth at these facilities reduced (Aaron 2000).

By 1997, academic medical centers faced growing competition from large, consolidated hospital systems capable of treating mid- and high-acuity patients at lower cost that threatened the mission of their teaching hospitals. Insurance companies reduced high-cost expenditures by failing to approve all but the most complex cases for treatment at an AMC. Government subsidies, including research grants and funding from the National Institutes of Health, were growing slowly, threatening non-operating revenue that supported the research mission of AMCs (Aaron 2000, Henderson 2015).

Medicare's actions to rein in federal health expenditures had the effect of reducing revenue for hospitals that relied on Medicare reimbursements for patient care as a significant share of their income. Academic medical centers faced further revenue constraints as large health systems increasingly competed with them for patients and as Medicare Advantage plans that received capitated payments from Medicare were reluctant to approve costly treatments in AMCs except in rare cases. The squeeze on operating revenue was a challenge.

These hospitals received a lifeline when, in 1998, the IRS introduced a new rule that enabled them to engage in for-profit activities on a much larger scale than was previously possible. Nonprofit is a tax status that means a hospital is exempt from paying taxes if it meets certain vague requirements for giving back to the community. It doesn't mean that the hospital is not allowed to make a profit, or to profit from activities unrelated to its mission of providing health care. Nonprofit hospitals have traditionally earned non-operating revenue from their gift shops, cafeterias, vending machines, pharmacies, parking lots, and so on as well as investment income from their endowments. But the possibilities for engaging in for-profit activities while retaining nonprofit tax status expanded tremendously after the IRS issued a rule in 1998 that spelled out the circumstances in which a nonprofit acute care hospital could form a limited liability company (LLC) with a for-profit business. The IRS's Revised Rule 98-15 allows nonprofit hospitals to benefit from this unrelated business activity without paying taxes on its share of the LLC's profits (Internal Revenue Service 1998). The rule changed the playing field for well-endowed nonprofit hospitals, and for academic medical centers in particular. Research has long been a central facet of the tripartite mission of AMCs that also includes treating patients and training doctors. Large AMCs have long enjoyed the ability to recruit and retain top medical research talent, giving them an edge in forming joint ventures with for-profit entities to pursue research and innovation that furthers hospitals' missions of caring for patients.

While the downward pressure on operating income may have been the initial motive for hospitals to seek a route to increase non-operating income, the speed with which hospitals with large endowments and/or research-ready assets embraced partnerships with Silicon Valley firms not available to less well-endowed hospitals has been breathtaking. Hospitals with the assets and/or financial resources to do so responded to the IRS rule by undertaking profit making activities on a scale previously unimaginable.

Kaiser Permanente, a large, well-endowed nonprofit health system, established a venture capital arm, KP Ventures, in 1998. Academic medical centers like Cleveland Clinic, which established Cleveland Clinic Innovations in 2000, moved quickly to establish their own venture capital subsidiaries to take advantage of this rule (Private Equity Wire 2019, Dinerstein 2017).

Cleveland Clinic Innovations is, arguably, the most financially successful of the hospital-based ventures engaged in the commercialization of basic research into patented medical products. By 2016, it held 450 licenses and 800 patents. A risk to nonprofit hospitals is that their LLC for-profit activities will grow so large that they threaten the hospital's tax-exempt status. Nonprofit hospitals have solved this problem by spinning off their for-profit businesses into tax-paying subsidiaries that then distribute after-tax profits to the hospital in the form of tax-free dividends. By 2016, Cleveland Clinic had created 40 active for-profit companies paying tax-free dividends to the health system (Dinerstein 2017). In 2019, the last year before the pandemic, its venture capital activities and other investments generated $1.2 billion in profits on $7 billion of investments. To manage these funds, Cleveland Clinic paid $28 million to investment advisors (Drucker, Silver-Greenberg, and Kliff 2020).

This investment by Cleveland Clinic in for-profit activities goes beyond what can be justified by the health system's need to compensate for downward pressure on operating income. And Cleveland Clinic is not alone.

St. Louis-based Ascension Health, the nation's second-largest hospital operator with more than 2,600 sites of care, including 146 hospitals in 19 states and Washington, DC, has operated its own venture capital fund since 2001 plus an investment advisory business, Ascension Investment Management, to help other companies with investment decisions. In the first quarter of 2021, the health system narrowed its pandemic-related operating loss to $16.7 million. However, its investment returns were large enough that its overall income for the quarter was $957 million. Bailout funds for healthcare providers from the Coronavirus Aid, Relief, and Economic Security Act (CARES Act) also helped Ascension's bottom line–with the health system receiving $110 million in grants in the first quarter of 2021 and a total of $1.8 billion since the Act was passed in March 2020 (Ascension Investment Management n.d., Pifer 2021a).

Seattle-based Providence Health System, which owns 51 hospitals and 1,000 clinics, has been compared to a Silicon Valley powerhouse because its two venture capital funds, which manage $300 million, have invested in deals alongside major investment firms such as Kleiner Perkins and Carlyle. The health system's total investment portfolio generated $1.3 billion in profits in 2019, dwarfing its profits from hospital operations caring for patients. The Covid-19 pandemic pushed its operating margin into negative territory. In 2020, Providence combined nine of its subsidiaries into one for-profit operation. This newly formed for-profit subsidiary, now named Tegria, will focus on healthcare consulting, revenue cycle management, and software technology and platforms. Providence's goal is to earn $1 billion in non-operating income in 2023. As befits a CEO who manages a significant investment fund, Providence's CEO, Dr. Rod Hochman, was paid more than $10 million in 2018 (Drucker, Solver-Greenberg, and Kliff 2020; Cohen 2020b).

Advocate Aurora is the latest AMC to launch a for-profit arm. In April 2021, it launched its investment fund Advocate Aurora Enterprises and announced, "it was on the hunt for organizations it can acquire or fund." Without even the fig leaf that it wants to advance its research mission to improve the treatment of hospital patients and provide medical services to Midwesterners, Advocate Aurora Enterprise's first

two investments are in the hottest areas of venture capital and private equity investment: in-home services for seniors with Senior Helpers and telehealth with a telenutrition company (Liss 2021a).

Disparities among hospitals in wealth and resources have multiplied. Venture capital-type investments are speculative: Investors are betting that a few will yield large returns and are willing – and able – to absorb the losses from the many promising investments that don't pan out. Only the most richly endowed hospitals in terms of both financial endowments and research labs and facilities can take full advantage of the 1998 IRS ruling. And these hospitals continue to grow richer, while other hospitals struggle to meet payroll and serve patients.

The venture capital model is to invest in a number of start-ups and aim for one to be a blockbuster innovation whose financial return justifies the investments made in all the promising companies. Most of the start-ups can be expected to have no financial payoff, even if they are successful in improving patient care. Smaller hospital systems are generally unable to bear the risks of failed investments while waiting for the payoff from the breakthrough innovation. Venture capital investors need to be able to live with a long time-horizon and to have a high tolerance for failure.

Sometimes a smaller hospital system, with limited resources for investing in start-ups will invest in a single company that is developing a product it believes will improve the health of its patients. Cone Health in North Carolina bet on Wellsmith, a smart phone app to help patients manage their diabetes. The app was successful in helping users lose weight and bring down blood sugar levels. But Cone abandoned its investment in the start-up when it concluded that there were too many competing products for the app to succeed financially. Dartmouth-Hitchcock hospital, an academic medical center in New Hampshire, had a similar experience with its investment in ImagineCare, a system that used remote monitoring technology to track about two dozen health indicators. In an early trial, the app was particularly successful in improving health outcomes for patients with chronic conditions. But the health system, faced with a short-term financial deficit, could not make additional investments to address unexpected technology problems. The health system ended its investment in the company (Rau 2021). The reasons why these small hospital systems abandoned their experiments in for-profit ventures varied. They include liquidity problems, inability to diversify investments, and lack of appetite for the harsh realities of competition in the digital marketplace.

In 2017, nonprofit acute care hospitals reported $52.6 billion in non-operating income from a variety of sources including sales of meals to non-patients, sales of drugs to non-patients, rental of hospital space, gifts and bequests, government appropriations, a variety of smaller sources (parking receipts, vending machines, gift shop, and so on), plus investment income. Across all of these hospitals more than 15 percent of the total non-operating revenues came from investment income – income from stocks, bonds, derivatives, asset sales, accounting gains from mergers and acquisitions, and gains from investments in for-profit subsidiaries. But gains from for-profit activity are very unequally distributed. It is hospitals that are rich enough to afford to engage aggressively in for-profit investment activities that reap the benefits of investment income, and for which Investment income is a large and important form of non-operating income. The top quartile of nonprofits with investment income accounted for nearly

all (98 percent) of investment income that year (Bai, Yehia, Chen, and Anderson2020). A recent study (Trilliant Health 2021) found that 40 nonprofit hospitals would have placed in the Fortune 500 in 2019 if they had been for-profit companies. A central question is whether these hospitals engage in for-profit activities mainly to supplement their operating income and shore up their finances or whether they have become essentially financial services enterprises with a nonprofit hospital attached to protect their tax status.

Table 2-2 presents the total net revenue and non-operating net income of nonprofit hospitals. It reports on the 'profits' of 87 large, wealthy nonprofit hospitals that are dominant in their local health markets. The list is drawn from an Axios analysis (Herman 2017) of the largest nonprofit hospitals by net revenue in 2017 and supplemented with the few hospitals that would have appeared on the Fortune 500, based on total revenue that were not already present in the Axios list (Trilliant 2021). The table reports the total net revenue and total non-operating income for these hospitals for their 2016, 2017, 2018, and 2019 fiscal years. While non-operating net income is somewhat volatile, the table shows that these hospitals are very wealthy, and, for the most part, have significant non-operating income over this time-period. For large, wealthy hospitals, non-operating income contributes nearly 50 percent, on average, of net revenue. A disproportionate share of academic medical centers, which make up only about 5 percent of all acute care hospitals, appears on this list of wealthy hospitals. They appear in bold in the table.

Table 2.2: Top Financial Performers among Nonprofit Hospitals

Hospital System	**Total Net Revenue (millions)**				**Non-Operating Net Income (millions)**			
	FY 2016	**FY 2017**	**FY 2018**	**FY 2019**	**FY 2016**	**FY 2017**	**FY 2018**	**FY 2019**
AdventHealth[1]*^	755.7	1123.2	618.7	1580.8	89.6	390.4	(165.6)	751.4
Adventist Health[2]*	169.1	229.8	427.0	240.0	89.6	390.4	544.0	145.0
Advocate Aurora HC[3]*^	597.6	811.3	195.3	1546.7	334.0	591.6	(277.1)	1065.6
Allina Health*	60.6	295.4	22.4	302.0	76.9	149.5	(63.9)	239.5
Ascension*^	477.7	1861.2	2375.0	1404.4	(275.5)	1038.5	2270.2	1021.8
Atrium Health*^	468.9	818.2	(107.9)	1161.2	266.5	590.9	(338.8)	774.8
Aurora Health Care[4]*	469.1	473.9	-	-	95.8	134.8	-	-
Banner Health*^	296.7	735.1	70.4	753.8	139.7	466.3	(115.9)	553.4
Baptist Health South Florida*	175.6	263.2	427.7	535.7	210.6	295.1	466.0	293.8
BayCare Health System*	611.9	803.4	216.6	1142.8	293.1	460.7	(127.7)	763.6
Baylor Scott & White Health*^	253.1	630.5	840.0	849.0	(229.5)	345.6	283.0	139.0
Baystate Health*	60.4	70.6	68.1	71.0	31.4	46.7	16.3	16.5
Beaumont Health*	286.7	325.5	147.1	390.2	91.1	173.6	(93.6)	205.0
Beth Israel Lahey Health^	2.9	(27.4)	(3.9)	83.4	6.5	18.8	1.2	14.5
BJC HealthCare*^	367.0	415.7	105.9	700.6	245.3	225.2	46.5	437.3
Bon Secours[5]*^	87.7	188.7	162.6	-	(33.9)	53.2	74.7	-

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Hospital System	**Total Net Revenue (millions)**				**Non-Operating Net Income (millions)**			
	FY 2016	**FY 2017**	**FY 2018**	**FY 2019**	**FY 2016**	**FY 2017**	**FY 2018**	**FY 2019**
Bon Secours Mercy[6]*	152.7	360.5	(66.4)	2593.2	90.3	202.7	346.5	2439.1
Catholic Health Intiatives[7]*	(575.6)	128.4	222.1	-	(204.1)	713.6	498.8	-
Cedars-Sinai Medical Center*	253.1	380.1	855.8	554.0	(87.5)	173.0	626.7	150.2
Children's Hosp., Phili. (CHOP)*	282.2	323.8	417.8	465.2	31.7	123.9	189.3	258.9
Christus Health*	227.5	173.1	174.4	126.4	(72.4)	91.9	51.1	(15.5)
Cleveland Clinic*^	513.5	1150.3	103.9	2025.2	270.3	819.8	(162.5)	1635.0
CommonSpirit Health[8]*^	(201.5)	425.7	988.1	9104.0	(138.1)	492.5	458.9	9616.0
Duke University Health*	213.1	262.3	627.5	437.0	104.7	139.2	342.2	153.5
Froedtert Health*	120.7	287.7	232.7	197.0	(23.9)	170.4	90.8	82.8
Geisinger*^	667.3	444.5	250.5	279.1	499.8	334.9	233.3	160.3
Hackensack Meridian*^	403.2	381.4	314.6	676.9	136.3	145.3	40.2	391.7
Hartford HealthCare*	217.1	178.8	200.5	204.5	81.6	144.8	123.2	32.7
HealthPartners[9]*^	99.9	175.5	181.0	189.6	77.0	111.5	(6.7)	214.1
Henry Ford Health System*	278.3	205.7	86.8	354.5	-	-	(64.6)	215.7
Highmark Health*^	60.0	1065.0	569.0	824.0	501.0	107.0	139.0	714.0
Hospital Sisters*	(342.4)	259.2	160.7	(246.5)	(111.4)	192.6	120.8	29.9
Houston Methodist*	350.0	531.5	291.3	1169.5	114.3	386.3	(181.7)	519.0
Indiana University Health*^	370.6	1100.7	436.6	1244.3	(177.4)	517.6	(175.4)	565.7
Inova Health System*	283.0	863.1	(143.4)	1103.6	265.0	674.8	(344.2)	883.9
Intermountain Healthcare*^	495.4	655.1	599.0	1340.0	237.5	296.1	52.0	834.0
Johns Hopkins Health*^	(42.3)	300.7	249.4	100.7	(251.9)	147.5	120.1	19.6
Kaiser Permanente*^	3120.0	3798.0	2503.0	7436.0	1196.0	1646.0	612.0	4704.0
Lehigh Valley Health*	48.0	230.1	106.7	174.8	29.2	184.5	73.6	62.0
M Health Fairview*^	221.2	456.9	11.1	13.4	90.6	358.5	(88.8)	248.3
Mass General Brigham *^	(249.0)	659.1	826.6	486.2	(141.1)	606.5	516.7	1.7
Mayo Clinic[10]*^	475.0	707.0	617.0	1063.0	-	-	-	-
McLaren Health Care*	225.9	300.8	223.8	93.0	81.7	142.9	105.6	19.8
MedStar Health*	46.1	297.1	271.9	187.9	(79.6)	140.0	111.0	36.1
Memorial Hermann Health*	106.8	315.9	333.1	306.3	(118.2)	245.3	213.5	115.8
MemorialCare*	36.7	206.4	123.0	179.4	12.1	171.7	85.5	53.7
Montefiore Medical Center*^	35.4	95.5	107.6	132.6	17.4	40.2	54.2	123.9
New York-Presbyterian Hosp.*^	421.6	689.9	250.5	823.7	145.8	342.9	(62.1)	495.1
NorthShore U. Health System	133.6	207.0	164.9	14.7	(5.3)	122.1	112.5	46.5
Northwell Health*^	342.6	294.2	22.9	671.8	207.0	313.0	(111.5)	483.4
Northwestern Medicine*^	718.8	982.9	744.9	347.7	681.7	479.5	469.6	64.2

Table 2.2: Top Financial Performers among Nonprofit Hospitals								
Hospital System	**Total Net Revenue (millions)**				**Non-Operating Net Income (millions)**			
	FY 2016	**FY 2017**	**FY 2018**	**FY 2019**	**FY 2016**	**FY 2017**	**FY 2018**	**FY 2019**
Novant Health*	455.2	477.9	94.0	523.5	184.2	303.4	(178.2)	368.0
NY Health & Hospitals Corp.^	(94.0)	(388.7)	(170.9)	(198.6)	(112.9)	(116.0)	(113.3)	(108.6)
NYU Langone Hospitals^	228.7	236.9	207.5	580.6	(62.3)	(61.2)	9.9	(25.6)
Ochsner Medical Center*	29.1	140.3	72.8	221.9	(21.3)	70.2	(29.2)	89.8
OhioHealth*	231.7	610.6	512.2	610.1	(8.7)	338.6	278.1	373.0
Orlando Health*	210.0	329.8	388.5	582.6	37.2	112.4	58.5	247.7
OSF HealthCare*	99.2	144.8	155.4	127.2	42.5	85.8	77.2	34.1
PeaceHealth*	(71.1)	318.6	197.1	108.6	(53.5)	165.2	101.7	59.3
Presbyterian HC Services*	157.4	300.7	(53.6)	312.1	107.2	261.0	(117.7)	318.1
Presence Health [11]*	(83.0)	-	-	-	(50.2)	-	-	-
ProMedica*	(182.7)	134.5	(66.5)	57.5	(66.6)	142.0	(79.5)	56.6
Providence St. Joseph Health*	5231.0	780.0	(445.0)	1358.0	5480.0	777.0	(448.0)	1144.0
Rush Health*	104.8	155.2	126.6	80.6	13.6	85.7	32.6	46.0
Sanford Health*^	142.2	156.6	106.1	926.1	11.8	5.1	(66.8)	770.9
Scripps Health*	283.8	351.8	226.8	186.1	141.0	283.5	141.1	82.0
Sentara Healthcare*^	369.6	626.0	201.7	881.2	135.7	381.9	(141.5)	555.6
Sharp HealthCare*	431.6	337.5	355.1	286.6	134.8	186.4	138.9	130.2
Sis. of Charity Leavenworth (SCL)*	196.1	340.8	24.2	390.0	78.4	203.4	(80.0)	242.0
Spectrum Health*^	212.0	357.2	278.6	1147.2	(52.0)	171.4	106.1	113.8
SSM Health*^	99.4	243.0	513.5	415.6	90.5	238.9	502.3	265.4
Stanford Health Care*	69.9	484.5	470.2	364.5	(78.1)	252.6	149.5	(18.9)
Sutter Health*^	622.0	958.0	(120.0)	189.0	245.0	632.0	(231.0)	737.0
Texas Children's Hospital*	143.5	233.9	291.1	134.9	97.9	218.3	177.9	28.6
Texas Health Resources*	605.2	944.4	81.8	1257.1	269.7	629.8	(225.0)	939.0
Trinity Health*^	89.8	1336.8	949.1	834.4	43.4	1355.0	812.2	673.5
UnityPoint Health*	171.5	262.4	(3.5)	386.0	164.9	283.8	(42.2)	285.5
University Hospitals*	130.5	253.4	59.6	71.6	5.7	109.6	(73.8)	105.9
University of California Health^	(316.9)	283.4	717.8	31.9	(61.0)	(31.4)	34.0	40.1
University of Chicago Medicine*	85.6	462.4	101.2	143.6	(20.8)	380.0	68.4	67.0
University of Colorado*	398.9	751.6	708.7	755.1	(66.4)	257.4	182.4	97.8
U. of Maryland Medical System*	0.2	183.4	216.8	36.2	(87.0)	111.3	109.6	(42.6)
U. of PA Health (Penn Med.)*^	1262.3	661.9	1073.4	761.7	843.2	306.3	690.3	324.0
U. of Pitt. Med. Center (UPMC)*^	134.4	990.5	(290.0)	420.0	(153.0)	301.9	(367.0)	374.0
Wake Forest Baptist Health*	44.9	141.6	70.5	4.3	(18.5)	65.5	67.5	6.2
WellStar Heath System*	105.8	213.7	194.0	256.6	(7.1)	68.6	56.1	66.5

Table 2.2: Top Financial Performers among Nonprofit Hospitals								
Hospital System	**Total Net Revenue (millions)**				**Non-Operating Net Income (millions)**			
	FY 2016	**FY 2017**	**FY 2018**	**FY 2019**	**FY 2016**	**FY 2017**	**FY 2018**	**FY 2019**
Yale New Haven Health System*	424.5	262.6	357.6	254.5	318.6	149.4	135.9	27.8

* Indicates Hospital is in the Top 84 Largest Nonprofit Hospitals as indicated by Herman
^ Indicates Hospital would be in Fortune 500 based on analysis by Trilliant Health
Bold: Indicates Hospital is an Academic Medical Center
1 Formerly known as Adventist Health before 2019
2 Distinguished from Advent Health (formerly Adventist Health) by Adventist Health System/West
3 Formerly Advocate Health Care before merger with Aurora Health Care in 2017, 2018 represents 9 months of income
4 Merged with Aurora Health Care in 2017
5 Merged with Mercy Health in 2018 to form Bon Secours Mercy
6 Formerly Mercy Health before merger with Bon Secours
7 Merged with Dignity Health in 2019 to form CommonSpirit Health
8 Formerly Dignity Health before Merger with Catholic Health in 2019
9 Non-operating Income is Investment Income
10 Non-operating Income not available
11 Acquired by Ascension in 2018

Source and Notes: Public financial statements noted in Appendix 1. Start dates of hospital fiscal years vary.

M&A and For-Profit Business Activities of Academic Medical Centers

Academic medical centers often function as the hub hospital in a consolidated health system. Most AMCs care for patients with rare or complex cases that few other hospitals have the ability to treat. It is also true, however, that such systems typically raise prices for procedures and generate large net operating incomes. Many AMCs are also home to wide-ranging and successful financial investments that generate high non-operating net income, making them some of the wealthiest nonprofit hospitals. Their medical prowess and financial success allow them to sustain positions of dominance in their local health markets.

In this section we delve more deeply into the financial strategies of academic medical centers and large nonprofit hospital systems. We touch briefly on the special circumstances of M&A activity of AMCs. We then investigate the financial strategies – hospital consolidation and investment in for-profit enterprises – of four hospital systems. Two are AMCs that have aggressively pursued these strategies: Northwell Health in the northeast and the University of Pittsburgh Medical Center (UPMC) in western Pennsylvania. Sutter Health in northern California is a large, well-endowed nonprofit hospital (but not an AMC) – that aggressively and strategically acquired hospitals and then raised prices charged to insurers. Montefiore is an AMC whose consolidation and for-profit investment activities have been designed to enable it to better serve poor communities in the Bronx and in contiguous communities.

Early M&A activity by AMCs yielded mixed results. Mergers and acquisitions reduce costs for the consolidated hospital system by eliminating overlapping administrative positions and by consolidating service lines to reduce the total number of beds and clinicians. This is difficult to accomplish, however, when doctors and administrators are tenured faculty in the AMC's medical school. Early attempts by AMCs to acquire hospitals often ended in failure as the following examples illustrate.

Between 1986 and 1997, Pennsylvania's Allegheny Health grew via M&As from one hospital with 740 beds to a chain of 14 hospitals with 4,601 beds. Along the way, it amassed a debt of $1.3 billion, which proved unsustainable, and in 1998 it declared bankruptcy. An alliance between the University of San Francisco and Stanford University that was supposed to cut staff and reduce hospital expenses ended up adding 1,700 positions and raising costs. It was dissolved. An aggressive push by the University of Pennsylvania medical center to buy physician practices to increase the number of patients referred to its hospital turned out to be a money-losing proposition. The leadership of Penn's academic medical center failed to consider that physicians affiliated with a world class teaching hospital would continue to refer patients to hospitals based on where they thought that patient's best interests would be served (Aaron 2000).

A later wave of mergers led by AMCs, many occurring in the years since 2010, has largely been successful in consolidating hospitals into health systems. These mergers differ from the earlier mergers in several ways. They are not mergers between AMCs as in some early mergers. Instead, successful mergers are between an AMC that acts as the main hospital in a hub and spoke arrangement with community hospitals it acquires. Cost savings are *not* achieved mainly by merging service lines, laying off clinical and administrative staff, and closing beds. Rather, they are accomplished by treating less complicated cases closer to home at community hospitals or outpatient clinics and filling beds at the AMC with high-acuity patients with complex cases referred for treatment by doctors at hospitals in the network.

Consolidation does pose a problem for some smaller AMCs that lack the resources to successfully integrate their hospital with community hospitals, as such mergers initially raise expenses for the AMC related to integrating acquired hospitals into the health system. In view of the difficulty hospitals are having going it alone, these weaker AMCs may choose to sell themselves to a financially stronger one. The University of Arizona Health Network chose to be acquired by Banner Health, a much larger AMC-centered health system. It gave up autonomy in the merger but gained financial stability and access to capital. Or an AMC hospital may need to divest from its medical school to achieve the benefits of merging with a community hospital. Vanderbilt University Medical Center divested from its medical school to gain the flexibility to partner with community providers (Morris, Abrams, Gerhardt, and Laughlin 2015: 7).

Case Studies of Nonprofits: Sutter Health, Northwell Health, UPMC, and Montefiore

The four case studies presented here provide insights into nonprofit hospitals' use of M&A and for-profit activities to raise operating and non-operating income and net total revenue. They also signal under

what conditions these strategies may lead to positive or negative patient outcomes. Sutter Health is a large nonprofit that illustrates the use of mergers and acquisitions as a financial strategy. Northwell Health and UPMC are academic medical centers that have used both M&A and investments in for-profit activities, including launching venture capital subsidiaries. Montefiore is an academic medical center that provides a contrast to other AMCs. Its horizontal and vertical acquisitions have been mission driven and whose small for-profit activities primarily include a company that manages relationships with insurance companies for its own patient population.

Sutter Health

Sutter Health is a financially successful nonprofit health system that does not include an academic medical center. The health system took a strategic approach to consolidation as a means of securing its financial stability. Its goal has been to secure a dominant position in the northern California health market. In this respect, it does not differ from many other large, nonprofit health systems.

Sutter began its string of acquisitions of hospitals and doctors' practices starting in the 1980s, and by 1998, it had already established sizeable market power. By 2020, Sutter Health owned 24 hospitals, 36 surgery centers, and 12,000 physicians' practices, up from 5,000 in 2010 – the result of a deliberate strategy of acquisition to expand its footprint in northern California. Sutter's acquisitions were designed to allow the health system to raise prices charged to insurance companies and to self-insured employers for medical procedures (Gold 2019, Waters 2020).

Prices overall increased by 25 percent in California between 2004 and 2013. But prices at the state's two largest hospital systems – Sutter Health and CommonSpirit, both prominent in northern California – increased by 113 percent over this period, compared to 70 percent in all other California hospitals (Waters 2020). These costs have mainly fallen on private insurers and employers and have translated into higher premiums and cost sharing by employees. Medicare sets prices it will pay for procedures, but private insurers do not have this ability. Over this period, private insurers paid twice as much on average as Medicare for identical procedures.

In 1996, Sutter acquired a string of hospitals across northern California: California Health System, the parent of California Pacific Medical Center in San Francisco; Alta Bates Hospital in Berkeley; Marin General Health Systems in Marin County; and Mills-Peninsula Health Services in San Mateo County. But it wasn't until Sutter's 1998 proposed purchase of Summit Medical Center that its acquisition activities and pricing behavior caught the attention of regulators. Acquiring Summit would give Sutter a virtual monopoly in Alameda County.

In 1999, the California Attorney General went to court to try to stop the merger. The proceedings in the case led to the surfacing of internal memos outlining Sutter's acquisition strategy. One highlight was a memo that outlined Sutter's plan to obtain a large market share, creating a "critical presence" in four geographic health markets resulting in Sutter becoming "indispensable for the major health plans." Despite the clearly stated strategy and intent to raise prices, the judge ruled in favor of Sutter and allowed the acquisition to proceed. Sutter continued to grow over the next decade and raised its prices

as it grew – through the use of a few powerful tactics. These included requiring health plans to contract with all Sutter hospitals and facilities if they wanted to get access to any Sutter facility; charging high prices to health plan members for out-of-network services; and refusing to give insurers, employers, and self-funded payers access to pricing, quality, and cost information (Waters 2020:5).

A retrospective study of the merger found that Summit's price increases for procedures following its acquisition by Sutter ranged from 28 percent to 44 percent – the largest of any comparable hospital in California (Tenn 2011). The health system was quite aggressive as it pursued its intentions to grow its network and create a monopolistic situation in which it could not only raise prices but also impose anti-competitive conditions that put payers at a disadvantage. Sutter refused to itemize hospital bills. It included a 'gag rule' in contracts that prevented payers from publicly discussing the prices they paid for services. This lack of transparency protected aggressive practices. Sutter enforced an 'all or nothing' requirement that forced payers that contracted with it to include all of Sutter's hospitals in their health plan, not just the hospitals its member might use. Despite this evidence, the court allowed the merger to proceed (Waters 2020).

In 2012, a class action lawsuit was filed in federal court on behalf of members of health plans that contract with Sutter hospitals. The suit alleged that Sutter used its market dominance to require payers that contracted with the health system to include all Sutter facilities in their plans if they wanted to include one of them. A second case, filed in 2014, claimed that Sutter used its dominant position in local markets to inflate the prices paid by employers and unions that self-insure and pay directly for employee or member health care (Gold 2019; Waters 2020). In 2018 Xavier Becerra, the California Attorney General, filed a civil lawsuit against Sutter accusing the health system of intentionally setting out to dominate the market in northern California and then raise prices. In a surprise move in October 2019, as these cases wended their way forward, Sutter offered to settle the suits by paying $575 million in damages. The health system also agreed to provide greater transparency and to end the practices that were detrimental to patients and payers (Gold 2019; CBS News 2020).

Hospital consolidation with the goal of dominating a health market and raising prices was not the only questionable revenue enhancing strategy embraced by Sutter Health. It also adopted an aggressive approach to charging Medicare for persons it covered in its Medicare Advantage (MA) plan. In privately run MA plans, Medicare pays the plans on a per-member basis, with payments adjusted to reflect seriousness (acuity) of the member's health condition. Acuity is based on diagnostic codes submitted by health providers who treat the MA's members. Sicker members generally result in higher payments to the plan as the risk is greater that these members will require more expensive procedures. In 2015, Sutter Health was accused of raising risk scores to get higher payments from Medicare. The risk adjustment factor manager for Sutter filed a whistle blower suit accusing the 24-hospital health system of working with physician groups and other providers affiliated with the health system to submit inaccurate diagnosis codes. As a result, Sutter received inflated payments from Medicare for its MA. The accusation claimed that the practice had been going on for about 6 years. The suit also claimed that

even after Sutter's hospitals became aware of that incorrect diagnosis codes were being used, it did not take steps to correct the problem.

In August 2021, Sutter Health agreed to settle the allegations of risk adjustment fraud for $90 million, $30 million of which had been paid out in April 2019. This is the largest False Claims Act settlement against a hospital system for defrauding Medicare by overcharging for its MA program. In addition to paying $90 million, Sutter has entered into a 5-year agreement with the HHS Office of the Inspector General to bring its risk assessment program into compliance and to hire an independent reviewer to audit its MA patients' medical records each year (Pifer 2021b).

These settlements have had an immediate effect on Sutter's bottom line. And they can be expected to have a continuing effect. The health system's past financial success was built on anticompetitive practices and fraudulent billing of Medicare. The health system will now have to develop a sustainable business model without relying on illegal revenue enhancers.

Along with most US hospitals, Sutter's operating revenue and margins fell in the first half of 2020 as the pandemic hit. Covid-19 increased expenses for treating patients safely and reduced revenue as patients put off surgeries that could be postponed to a later date. Most large nonprofit hospital chains saw operating margins rebound in the second half of 2020, as government aid kicked in. These health systems remained profitable for the year, due in large part to substantial funding from the federal government via the CARES Act. Median operating margins were down from 2.4 percent in 2019 to 0.5 percent in 2020, but most large chains – Mayo Clinic, Providence, Advocate Aurora, and Banner among them – finished in the black.

By the first quarter of 2021, most large hospital systems were recording operating profits as in-patient stays and outpatient visits returned to 2019 levels (*Healthcare Dive* 2021). Sutter's losses, however, continued into the first quarter of 2021 as the health system posted a loss of $49 million. The hospital chain's financial problems stemmed not only from the pandemic, but from the fact that its anti-competitive pricing business model based on price gouging was overturned in its settlement with the California Attorney General. Its CFO, Brian Dean, acknowledged this: "Sutter's efforts to address our affordability challenges started well before the pandemic," he stated, "but the current global health crisis has further heightened the situation and the urgency to address it" (Liss 2021b). The settlement for fraudulently billing Medicare will be a further hit to the health system's bottom line (Pifer 2021).

According to Sutter Health, the pressure from Covid-19 losses also led to the decision to lay off 277 employees, a cut mostly concentrated in the provider's IT department (Alvarez 2021b). In addition, over the course of the year, Sutter Health offered roughly 800 employees voluntary severance packages (Alvarez 2021c). The reductions came from the provider's core labor force as well as from facility closures in outlying areas. According to their chief financial officer, the health care provider also planned to close facilities in Antioch, Menlo Park, and Vallejo (Alvarez 2021c).

Lacking the research capabilities of an AMC, Sutter was less aggressive about investing in for-profit enterprises than many of its peers. According to Sutter Health's 2020 Financial Statement, the health

system valued its total investments that year at $7.8 billion, with about $3.2 billion in US equities, US public debt, and US corporate fixed income securities. Sutter's alternative investments included a $1.1 billion commitment to hedge funds and another $414 million and $267 million tied to private equity funds and private equity real estate funds, respectively (Sutter Health 2020: 17, 19). In 2015, Sutter created a new arm, Sutter Health Design and Innovation, to develop new ventures, joint ventures, and startups in the healthcare space. By 2018, the group had investments in a portfolio of over 30 different startups with a focus on primary care and maternity care (McGuinness 2018). Many of these included partnerships with large established technology companies like Apple, while others were with smaller startups. Some clearly supported Sutter's core mission to serve its patient population. For instance, through its Design and Innovation arm, Sutter Health partnered with Lyft, the ride-sharing company, to help transport patients to and from appointments (Roth 2020).

Sutter Health has been able to depend on investment revenue to operate in the black with positive total net revenue. For instance, in both 2019 and 2020, the health system faced operating losses of $548 million and $321 million, respectively. Still, after factoring in investment activities, the system reported $189 million and $200 million in total net revenue, respectively, for each year (Sutter Health n.d).

Northwell Health

On the other side of the country, in upstate New York, Northwell Health, an academic medical center, used mergers and acquisitions to establish itself as the largest health system in New York state. The system boasts the nation's largest provider of advanced wound care services, has clinical affiliations with New York's largest primary and specialty care practices, owns the Hofstra Northwell School of Medicine, and the nation's largest nonprofit, hospital-operated lab (Northwell Health 2019a). Northwell, the largest private employer in the state of New York, currently boasts a network of over 75,000 employees working across 23 hospitals and almost 800 outpatient facilities (Northwell Health website n.d.a)[6]. The health system covers much of Long Island, New York City, and Westchester County. Fitch Ratings in their credit report on Northwell Health noted that the system's market share of the service area grew to 30.9% in 2019. This is more than double its closest competitors: New York-Presbyterian Health System holds 12.3% of the market and Mount Sinai Health System, the third largest, has 10.6% (Fitch Ratings 2020). The three health systems have more than 50 percent of the market, indicating that consolidation has indeed led to a high level of concentration in Northwell's service area. Northwell Health is able to leverage its market share over this large geographic region in negotiations with insurers over prices for medical procedures and services.

The first hospital acquisition by Northwell Health, known at the time as North Shore University Hospital, occurred in 1990, when it acquired the Community Hospital at Glen Cove; the merged hospitals created the North Shore Health System. Much like Sutter, the health system began acquiring hospitals, especially those that, like the Bay Shore Hospital in Suffolk County, faced difficult financial straits. After expanding into New York City's boroughs, North Shore signed a monumental partnership with one of its

[6] New York State law prohibits for-profit hospitals.

main competitors, the Long Island Jewish Medical Center (LIJ), which was struggling at the time. Together, according to Northwell, the merger formed the "largest integrated health system in New York State and the second-largest, nonprofit, secular health system in the country." Despite the many concerns that were raised about the merger – about the potential for a monopoly, about the inordinate leverage the merged system would have, and about the likelihood that the merged entity would raise healthcare prices in the Long Island and Queens areas – the merger was allowed to proceed. Other acquisitions followed, and in 2010, the system expanded into Manhattan by acquiring Lenox Hospital. In January 2016, North Shore-LIJ officially changed the health system's name to Northwell Health (Northwell Health website n.d.b).

Despite Northwell Health's enormous size and its multi-billion-dollar revenue, the health system had razor thin operating margins (Crain's New York Business 2016). In 2019, its margin was 1.5 percent (Northwell Health 2019b). Northwell expanded into additional lines of business, including the creation of its own health insurance company in 2013, called CareConnect. The move stemmed from the need to shore up operating margins and from a desire to control all aspects of a patient's care experience. By the end of 2014, the first year of operating CareConnect, the insurance plan had 13,000 members. One year later, this number grew to 72,000 members despite an operating loss for CareConnect of $41.4 million. Yet, despite its losses at the time, Northwell was still betting on positive operating margins for its insurance business in the long run (Crain's New York Business 2016). By the end of 2017, however, any lingering hopes of a successful insurance arm had been dashed. In the first quarter of the year, $22.7 million of Northwell's $36.2 million in operating losses were attributed to CareConnect. In response, Northwell announced that they would be shuttering the insurance business in 2018 (Livingston 2017).

In 2013, Northwell formed a new division, Northwell Ventures, with a mission to "generate attractive returns, build profitable companies that drive quality health outcomes, increase operating efficiency, lower the overall costs of healthcare, and improve the patient experience" (Roth 2018a). Rather than run its own venture capital fund, the investment team used a $50 million allocation of capital from Northwell Health's balance sheet to partner with co-investors, either financial institutions or, later on, other healthcare providers to invest in start-up companies in the portfolios of VC firms engaged in activities adjacent to the healthcare space. For example, Northwell Ventures led a group of healthcare investors in providing $8 million of Series A funding to Conversa, the automated healthcare conversation platform that monitors patient health data over time using various biometric devices. This was followed in June 2020 by $12 million in Series B financing round, increased to $20 million in January 2021. This type of corporate investment arm was fairly new in health care in 2013 but by 2018, similar venture arms existed at other healthcare providers including UPMC, Cleveland Clinic, Providence, and Ascension (Drees 202 Roth 2018a, Conversa website).

Various investing activities, including through Northwell Ventures, have brought in significant income over time for Northwell Health relative to patient operations. In 2019, Northwell Health reported $172 million in investment income, just $16 million short of the entire system's net operating income. In

other words, the largest healthcare system in New York State made almost as much money from its investments as the net income from all its medical operations (Northwell Health Consolidated Financial Statements for Years Ended December 31, 2018 and 2019.

University of Pittsburgh Medical Center (UPMC)

Consolidation and concentrated ownership of hospital and health systems are common everywhere, including in areas largely dominated by small towns and rural areas. In western Pennsylvania, the University of Pittsburgh Medical Center, renamed UPMC in 1990, has been actively engaged in the acquisition of hospitals since the mid-1990s. In 1997 UPMC acquired Shadyside Hospital, a major provider of advanced healthcare services in Pittsburgh. Together with UPMC's flagship hospital, UPMC Presbyterian, the two house UPMC's major advanced technology, clinical research, and educational programs (UPMC 1997). That same year, UPMC established its own insurance company – the UPMC Health Plan. The motivation was to gain bargaining leverage in negotiations with Highmark, at the time the dominant insurer in the Pittsburgh area, over prices for medical procedures. The Health Plan enrolled all of UPMC's employees along with employees of the University of Pittsburgh (Toland 2011). There is always a tension, as Northwell Health learned to its chagrin, between a hospital that wants to fill as many beds as possible and an insurance company that wants to cut costs in part by keeping patients out of hospitals. This is difficult to manage in the patient's best interest in general and is especially difficult when the same parent firm owns both. Once established, the UPMC Health Plan provided an important incentive for the hospital system to expand – to add more members to the health plan and to serve more patients covered by Medicare and Medicaid who could fill hospital beds at no cost to UPMC's insurance subsidiary.

In 1998, UPMC added Horizon Health System's two hospitals to its growing network of 15 hospitals. The enticement for Horizon was a $20 million capital infusion from UPMC (UPMC 1998). The health system continued to use this strategy to add hospitals, focusing on health systems under financial strain and promising capital investments that were too good to pass up. The merger with Jameson Health System initiated in 2014 and finalized in 2016 involved a commitment of $70 million from UPMC to allow Jameson to expand its facilities and services. The proposed merger led the Pennsylvania Attorney General to raise anti-trust concerns that later were not pursued (UPMC 2014, Ellison 2016).

The motivation for expansion to increase the number of members covered by the UPMC Health Plan was apparent in the health system's expansion to the east, where it bumped up against hospitals owned by the University of Pennsylvania Health System. In 2015, UPMC acquired the seven-hospital Pinnacle Health System. The acquisition enabled UPMC to expand the reach of its profitable insurance business (Brubaker and Mamula 2017). UPMC continued adding hospitals to its health system, focusing on those under financial strain that would find its offer of a capital infusion attractive. It expanded south into neighboring states, acquiring Western Maryland Health System in 2020 and agreeing to invest $90 million in upgrading the system's facilities and services (Gough 2020). By the end of 2020, UPMC owned 40 hospitals with 8,400 licensed beds. In western Pennsylvania, UPMC owned 43% of the medical-surgical market. It is currently the largest nongovernmental employer in Pennsylvania (UPMC 2020).

The importance of the health plan to UPMC's financial situation is evident in its contribution to UPMC's revenue. By 2020, the UPMC Health Plan contributed $11.4 billion of UPMC's total $23.1 billion in operating revenue, exceeding its revenue from patient services. Patient volumes at its 40 hospitals fell in the first half of the year due to the pandemic but recovered in the second half. The health plan ended 2020 with 4 million members (Gough 2021).

UPMC's expansion did not always go smoothly. In 1996, UPMC bought the South Side Hospital, a financially constrained 225-bed acute care community hospital that had been serving the South Side neighborhood community for more than a century (UPMC 1996, *South Pittsburgh Reporter* 2018). In 2008, to the consternation of the South Side community, the hospital system announced that it would be shuttering the hospital and moving a majority of its operations across the Monongahela River to UPMC Mercy, a faith-based hospital that been recently acquired. UPMC Southside was converted into an outpatient center. Although UPMC Mercy was just two miles away from the South Side Hospital, it required a one-hour bus ride and encountered major objections from community members (Twedt 2009). A decade later, UPMC ended the remaining medical services in South Side, shuttering the only remaining outpatient surgical center in the neighborhood (WXPI 2018).

In 2011 UPMC faced a challenge to its growing influence in health care in the Allegheny Valley when the Allegheny Health Network, still weak financially and not fully recovered from its disastrous expansion and bankruptcy more than a decade earlier, was acquired by insurance company Highmark. It led to a nasty turf war between - UPMC and Highmark – two "juggernauts" and "mirror images" of each other that split the Pittsburgh area into two health silos (Johnson 2018). Patients unable to see their doctors in the opposing health network from their insurance carrier were collateral damage. Many suffered serious health complications, some life threatening, due to the delay in seeing their doctors and/or obtaining referrals and treatment. The Pennsylvania Attorney General brokered an agreement between the two systems that protected patients, but healthcare costs continued to rise (Waters 2020).

Horizontal mergers of hospitals and vertical mergers with insurance companies are sold to antitrust authorities as a means to improve efficiency and better coordinate care, resulting in lower health care costs. In Pittsburgh, however, the Health Care Cost Institute found that medical spending per person grew by 20 percent per person from 2012 to 2016, faster than the national average of 15 percent (Johnson 2018). While not as egregious as Sutter Health in using consolidation to raise medical prices, UPMC's use of mergers has led to the level of market concentration that research shows leads to higher patient and payer prices, and enhances hospital operating revenue and net operating income.

UPMC is also alleged to have used fraudulent billing practices to inflate operating revenues, and to have done this in a way that endangered patients' health and safety. The suit against UPMC, University of Pittsburgh Physicians medical group and cardiac surgeon James Luketich, chair of UPMC's cardiothoracic surgery department was filed under the False Claims Act. The civil suit, originally filed in US District Court in Pennsylvania in 2019 but now joined by the US Department of Justice, contends that Dr. Luketich performed as many as three operations simultaneously and that cardiac procedures carried out by him and his medical group took hours and even days longer than necessary because they were

carried out concurrently. Dragging out the procedures subjected patients to dangerous and unsafe conditions. Some developed pressure ulcers, internal bleeding or tissue swelling. The defendants are accused of having "regularly sacrificed patient health" to increase surgical volume "and to maximize profit." Performing concurrent surgeries and billing Medicare for each of them violates laws barring payment for simultaneous surgeries. UPMC is accused of ignoring or minimizing complaints about these practices brought to its attention by hospital staff. As of this writing, the defendants have not filed a formal response to the litigation (Shinkman 2021).

UPMC aggressively pursued non-operating income as well, using its wealth to establish its own venture capital operation. Of course, the hospital system's investments in for-profit start-ups preceded its formal establishment of a venture capital arm that could focus on making strategic investments. For example, in 2011 UPMC helped co-found Evolent Health Inc., a company that supports providers in "value-based care transformations" (UPMC Health Plan 2013) with an initial investment of $38 million (UPMC 2015). Just four years later, Evolent Health issued an initial public offering on the New York Stock Exchange with a market capitalization of over $1 billion. UPMC, which owned a 22.5% stake in the company, had turned a $38 million investment into roughly $250 million in just a few years (UPMC 2015).

In 2014, UPMC announced the formation of UPMC Enterprises, its new commercialization and innovation arm dedicated to strategic investments and new clinical ventures. At the helm was C. Talbot (Tal) Heppenstall, who joined UPMC in 2003 as treasurer and chief investment officer charged with managing the health system's great wealth. Prior to joining UPMC, Heppenstall had held a number of positions in financial services, including at PNC Capital Markets and RBC Wealth Management. At UPMC Enterprises, he worked closely with Jeanne Cunicelli, a former venture capitalist and managing director at Bay City Capital, who led the translational services division. Together, they led many of UPMC Enterprises' partnerships and investments. In 2020, Heppenstall retired and Cunicelli took over the leadership of the organization. During their tenure, the organization grew markedly. At last count, UPMC Enterprises employed more than 95 engineers; 80-plus managers, analysts, architects, and designers; and 20-plus marketing, human resources, and finance experts (UPMC 2020; UPMC Enterprises Fun Facts, n.d.).

UPMC Enterprises has invested in numerous ventures at various stages of development and growth and has identified two particular areas of focus: digital solutions and translational services. Promising examples include an investment in Curavi Health, a telemedicine service for post-acute and long-term care that merged in 2020 with CarePoint and USHealth Systems to form Arkos Health and Werewolf Therapeutics. The company works on immune-system-based cancer treatments that received over $100 million in Series A and B funding from UPMC Enterprises and other investors such as MPM Capital and Longwood Fund. By the beginning of 2020, UPMC Enterprises had invested more than $800 million in various entrepreneurial endeavors, earning it more than $1.5 billion in returns (UPMC 2020; Pennic 2020; Werewolf Therapeutics 2019).

In part, the success of UPMC Enterprises can be attributed to the health system's initial wealth. Health systems like UPMC, which have enormous asset holdings and liquid reserves, are uniquely able to take on risky investments in search of greater returns. In a 2018 interview, Hepenstall estimated that out of 80 different ventures UPMC had pursued over the previous 20 years, fewer than a fourth had been successful. The organization was able to reap large gains because it could afford to absorb the many losses (Roth 2018b).

In addition to providing financing for these new ventures, UPMC Enterprises leverages its large healthcare system to support the companies that it has a stake in. Heppenstall believed that one of UPMC Enterprises' biggest advantages was that the UPMC health system was the first, and often largest, customer for the companies in which it invested. Similar to other large systems like Northwell Health, UPMC offers much more than financing to new ventures: the massive system offers immediate access to a large consumer market as well as a network of medical experts throughout the system (Roth 2018a).

UPMC Enterprises' latest investment target is pharmaceuticals. When UPMC announced that it would spend $1 billion on life sciences from 2020 to 2024, it marked an opportunity to expand further into this line of business. Cunicelli and Dr. Steven Shapiro, UPMC's chief medical and science officer, believed they could leverage their close relationship with the research capabilities of the University of Pittsburgh, one of the National Institutes of Health's top funding recipients, to be a leader in the pharmaceutical space (Harris 2020).

The efforts build upon some of UPMC's previous investments in pharmaceuticals including RxAnte, a UPMC Enterprises' portfolio company it acquired in 2016. In 2019, RxAnte launched a program called Mosaic to help patients manage their prescriptions and connect with pharmacists (UPMC Enterprises 2019). The Centers for Medicare and Medicaid Services found that Medicare Advantage health plans w worked with RxAnte performed better than their peers on many metrics measured by the 2021 Star Ratings.

By the end of 2020, UPMC Enterprises had further expanded its holdings in the pharmaceutical industry, seeing noteworthy returns in the process. For instance, private-equity-owned CarepathRx acquired a UPMC pharmacy subsidiary called Chartwell in a $400 million deal. Post-merger, UPMC held a partial stake in CarepathRx, a growing pharmacy delivery company (CarepathRX and UPMC 2020).

Montefiore[7]

Montefiore Health System in the Bronx, a borough of New York City, provides an example of a nonprofit healthcare system that has used its for-profit activities and investments to support its mission of serving the population of low income and minority communities in the Bronx and nearby regions. It has not allowed its for-profit activities to overshadow its historic philanthropic mission. The Bronx, a county of 1.4 million people, is one of the poorest communities in the country. Just over27 percent of its

[7] See La France, Batt, and Appelbaum (2021) for a detailed analysis of Montefiore's strategic actions and financial and patient care outcomes along with complete sources.

population – and 44 percent of all children -- lives below the poverty line. The population of the Bronx suffers from particularly high rates of chronic disease and poverty-related health problems. More than 30 percent of the population is Black, and 50 percent, Hispanic. Founded as a Jewish philanthropic hospital in 1884, Montefiore has grown to become one of the nation's leading academic medical centers through its affiliation with Einstein Medical School. Its leadership has largely consisted of physicians who rose through the ranks, and its board of directors, which oversees Montefiore's strategic direction, is disproportionately composed of physicians and other healthcare professionals.

Given its high dependence on Medicaid and Medicare funding, Montefiore could not survive as a provider based on fee-for-services. It has relied on its for-profit insurance arm (Care Management Organization) and other securities investment activities to supplement its hospital operating income and to expand its revenue base through vertical integration of physician practices and horizontal integration of hospitals. In the 1990s, it began to shift to a health maintenance organization (HMO) model, which depends on vertical integration of physicians and payers. It began to employ physicians directly and established the Montefiore Independent Practice Association (IPA) in 1996, bringing together hospital-based and independent doctors affiliated with Montefiore. On the payer side, it created a wholly owned for-profit subsidiary in 1996 (the Care Management Company, CMO), that works with insurance providers (Aetna, US Healthcare, Blue Cross/Blue Shield, United Healthcare, etc.) to take over most of the functions of the health plan (paying claims, authorizing services, etc.). The CMO structure allows Montefiore to establish management contracts with physician organizations and to attract outside capital investors.

In 2011, the CMO received capitated payments for roughly 140,000 patients, and its annual budget of $850 million represented about 90 percent of the insurance premiums paid into the system for patients. According to its president, the CMO was not more profitable than other payment models, but the incentives to coordinate care were much stronger (Gardner 2011). The CMO accounts for about one-third of the system's patient volume, but preventative and coordinated care strategies developed there have led to system-wide efficiencies (Chase 2010).

The provider organizations contract with the insurance agencies, but the financial transactions flow through Montefiore's CMO. As of 2011, the IPA included 2,400 physicians, including 1,600 working at Montefiore's four hospitals, and its roughly 100 primary and outpatient specialty offices and 800 community-based, private-practice doctors.

HMOs are the precursors to the population health management of today, as both require a shift from fee-for-service to a capitated payment system. The hospital negotiates contracts with insurance companies in which the provider receives a fixed or capitated amount to provide all health care services to the insured member (the insurance company typically keeps about 10 percent of the premium). The provider has incentives to adopt cost-effective innovations and preventative care.

Following the 2008 recession, Montefiore began a substantial horizontal integration phase by targeting community hospitals in contiguous geographic areas; between 2010 and 2019, it grew from four

hospitals to 11 and incorporated 250 ambulatory centers, a nursing home, and a home care agency. It employs roughly 23,000 people. Expansion allowed it to increase revenues by integrating more patients into its system through primary care doctors and community hospitals as feeders into the system; simultaneously it achieved system efficiencies through effective resource allocation across specialized units. Patients from outlying communities also benefited from access to more sophisticated health care in Montefiore's Medical Center.

Even as Montefiore expanded and faced federal funding cuts in the post-ACA period, it reported relatively stable financials. Montefiore's 2018 financial statements also show a 23.8 percent equity financing ratio– indicating that Montefiore's use of equity to fund its assets outweighs its use of debt (Montefiore Health System 2020). The equity ratio is an important indicator of its ability to pay off debt and its long-term financial health. A positive ratio indicates that Montefiore has low debt relative to equity and therefore does not face a threat of financial distress.

In 2018, Montefiore's healthcare operating margin was thin – 0.89 percent; but it was higher than the median of negative 0.7 percent for comparable BBB rated non-profits. Its financial health, however, depended on non-operating income to supplement its healthcare operations. For example, its operating income *decreased* between the first half of 2018 and the first half of 2019; but its net income *increased* from $93.1 million to $100.9 million (an 8.5 percent increase) as 80 percent of Montefiore's income in 2019 was attributed to non-operating revenue sources.

In addition, Montefiore's patient care quality remained high throughout its expansion period – even as it integrated three bankrupt community hospitals and one financially struggling one. It was a top performer in the ACA's Pioneer Accountable Organization program, and its scores grew higher over the course of the program from 2012 to 2016.

Conclusion: Nonprofit Financial Strategies

In *The Hospital: Life, Death and Dollars in a Small American Town*, Brian Alexander paints a moving portrait of one hospital's impossible struggle to retain its autonomy, stay true to its mission, and serve its community. The challenges are overwhelming for a solo hospital. It must pay more than larger hospital chains for everything from syringes to life saving medicines because it lacks the heft to buy in bulk. And it may lack a large endowment from wealthy patrons that can be invested to provide a cushion of non-operating income to supplement the inadequate operating income from Medicare and Medicaid payments for patient services. It was the difficulties of going it alone as operating revenues were squeezed by changes in Medicare reimbursement policies, by business practices of HMOs, and by provisions of the Affordable Care Act that reduced in-patient stays and spurred multiple rounds of hospital consolidation. The opportunity to invest in joint ventures with for-profit entities and increase non-operating income that could be used to improve patient care was a lifeline for hospitals struggling to offset the squeeze on operating income.

Whatever the initial motives for hospitals adopting these financial strategies, for wealthy nonprofit hospitals with strong balance sheets, they soon came to take on a life of their own.

Hospitals have used mergers and acquisitions to achieve a range of financial goals. These include cost efficiencies via economies of scale and better vendor contracts and supply chain management as well as revenue enhancement via higher patient volumes. Some, like Montefiore, have bought up outlying community hospitals to serve as feeders for patients with complex diagnoses to receive care in the core medical center or have turned different hospitals into centers of excellence for specialized services. By contrast, the other cases we have analyzed have used M&As to expand revenues while also cutting costs through hospital closures, which has led to a decline in patient access to care. They have also made acquisitions to concentrate market power and raise prices.

Many hospitals have attempted to increase non-operating revenues by investing in risky for-profit ventures -- either by starting their own venture capital arms or working with VC-owned start-ups or in joint ventures. Many have failed. Those hospitals that have succeeded have required a large endowment and the ability to withstand the inevitable losses of those start-up companies that fail. The nonprofit hospitals that are active in this space are betting that at least one start-up will deliver a patentable innovation that will compensate for the failures and make the nonprofit hospital even richer than before. Well-endowed hospitals have been able to use their own balance sheets to fund risky investments in start-up companies owned by venture capital funds or to engage in joint ventures with VC investors. The richest hospitals have launched their own VC subsidiaries. Net non-operating income grew to be a substantial part of the total net revenue of some wealthy hospitals including, prominently, large academic medical centers.

For these large hospital systems, the meaning of nonprofit has become increasingly murky, raising questions about what makes them tax-exempt nonprofits.

Part III: Investor Penetration into Health Care

The penetration of financial investors into health care has proceeded in three phases. The first, from the 1960s to the 1990s, emerged from government re-regulation of health care that included funding, for the first time, of for-profit providers. Investors claimed that for-profit chains, subject to market competition, would improve the efficiency and effectiveness of healthcare services delivery. Some have referred to this phase as the beginning of the 'corporatization' of American healthcare. The second phase, beginning in the mid-1990s through the 2000s, also emerged in the wake of government policy changes–this time through financial sector deregulation, as described above, that allowed unregulated pools of capital, particularly private equity, to engage in leveraged buyouts of healthcare providers – primarily hospitals and nursing homes – with the primary goal of extracting wealth. This phase brought together two prior developments: The for-profit hospital chains that already had adopted the business model of shareholder maximization and the leveraged buyout model of the 1980s (renamed private equity). For-profit healthcare chains and private equity owned ones are tightly linked historically. As for-profit chains saw profits collapse in the wake of government funding declines in the 1980s, they looked to new financial actors to invest in their corporations. Private equity firms with large unregulated investment funds provided the financing; and the PE business model shifted the financialization of

health care to a new level. The for-profit corporate model gave way to a new more sophisticated financial model that garnered even greater returns for investors.

The third phase of financial penetration in health care emerged in the 2010s with the passage of the Affordable Care Act in 2010. A slew of private equity firms bought out hospitals in anticipation of high revenues and returns due in part to the ACA's increased coverage of previously uninsured patients. The higher revenues and returns, however, didn't materialize; and most private equity firms sold off their hospital operations. Instead, they started targeting 'pieces' of the healthcare system – the most lucrative parts that had high reimbursement rates – specialty physicians' practices (radiologists, anesthesiologists), trauma and burn centers, neo-natal intensive care units, urgent care and surgi-center clinics. The strategy was to buy up small practices, roll them up into larger regional or national corporations, and make money by cornering the market or garnering more bargaining power with insurance companies. We consider this a further development of financialization in health care because it leads to the dismantling of local healthcare systems – fragmenting care at a time when healthcare providers are calling for greater care coordination and integration across different providers in local systems.

The First Phase: Investor-driven For-profit Chains

The revolution in re-conceptualizing healthcare as a market-based sector began in the 1960s even though for-profit hospitals date to the early 20th century in the US. Most US hospitals originated as charitable or religious entities, and for-profits had few sources of finance capital. After the Great Depression, for-profit hospitals accounted for less than 10 percent of all hospital beds. Post-World War II, government funding of hospital construction (1946 Hill Burton program) excluded for-profit hospitals.

By the 1960s, however, there was growing momentum for the idea that health care needed market discipline – competition to solve problems of inefficiencies, overly bureaucratic organizations, gaps in public funding. Nonprofit hospitals relied only on debt financing, which limited their growth potential; but for-profit chains could attract private capital, raise additional equity capital by becoming publicly traded corporations, and access private sector debt via the banking system. Some even argued that private financing was morally superior to development aid handouts.

Reflecting this growing sentiment, Medicare (1965) and Medicaid (1966) not only included funding for for-profit hospitals but also provided more generous reimbursement rates than those paid to nonprofit and public entities. Medicare covered hospital operating costs plus payments for existing capital costs (such as depreciation and interest on debt) and also a 2 percent 'add-on' for capital improvements. Medicare and most state Medicaid programs included funding not only for nonprofit healthcare providers, but for for-profit ones as well. Medicare and Medicaid paid for-profit providers a premium, based on the logic that for-profits needed additional capital payments for return on investment. This "virtually guaranteed for-profit facilities a 'risk-free' investment return" (Jeurissen et al. 2021:71). For-profit hospitals also benefited from government reimbursements for their interest payments on debt from buying up additional hospitals, while tax laws permitted them to claim accelerated depreciation.

Thus, Medicare and Medicaid increased revenues for both nonprofit and for-profit hospitals, but with higher relative government subsidies, the for-profit chains grew at a faster rate and their share of hospital beds doubled to 9percent by the early 1980s (Jeurissen et al. 2021: 71).

With the government effectively subsidizing the growth of for-profit chains, their share of hospital beds doubled to 9 percent by the early 1980s. "By the early 1980s, for-profit providers were receiving 40% of all capital reimbursements nationally, although they accounted for only 7.6% of total hospital expenses" (Jeurissen et al. 2021: 71). They relied not only on Medicaid and Medicare, but also on the growing commercial healthcare insurance market.

The policies of the Reagan era reversed earlier reimbursement rules, leading to contradictory effects on for-profit healthcare systems. On the one hand, Reagan's rhetoric supported the for-profit model by attacking publicly funded services as "socialistic" and advocated an "ownership society" in which such social services were privatized (Hunter and Murry 2019; Guttmann 2017). On the other hand, his policies focused on reducing government subsidies, including the generous capital reimbursements to for-profit providers, premium rate for the return-on-equity rates (cut from 1.5 to 1.0), and option to charge Medicare for acquisition costs. The profit margins of for-profit hospitals (9.2 percent, double the industry average) were cited to justify those reductions. In 1983, when Medicare replaced cost-plus reimbursements with Diagnostic Related Group (DRG) payments, the premiums that for-profit hospitals had received were folded into DRG payments and disappeared altogether by 1992 (Jeurissen et al. 2021:72).

Recall that at the same time in the 1980s, corporate raiders were attacking large corporations, taking them over through leveraged buyouts, and earning spectacular returns for themselves and shareholders. It wasn't long before some of the for-profit hospital owners took notice and sought out new financial investors in the form of private equity firms. Thus, the early for-profit chains were a bridge to the second stage of financialization, which took off in the 1990s and 2000s, when private equity firms became dominant owners of for-profit hospital chains.

Several common strategies characterize the growth and development of the early corporate for-profit chains. First, they made aggressive use of M&As to grow, and quickly launched an initial public offering (IPO) to raise capital for ongoing growth. Second, they targeted small hospitals (under the radar of anti-trust regulators) in markets where they would be the dominant player. In other words, the growth of for-profit hospitals was not about increasing 'market competition,' as the theory predicted, but about targeting markets that for-profits could dominate. This led several chains to focus on small towns and rural areas where there was only one community hospital. The investors claimed they were saving community hospitals, and sometimes they did, but the process also gave them monopoly power in local markets.

Third, the for-profit chains grew to be large in size – bigger is better – and created far-flung entities that had a financial rather than healthcare logic. For example, one chain would buy a hospital in small town Texas, another in Idaho, another in Florida, and another in Alabama. While the chains could achieve

some economies of scale in terms of purchasing supplies, the financial strategy was mainly focused on buying up hospitals in places where the corporations would have market power. Fourth, they inflated their revenues by engaging in up-coding and billing for unnecessary procedures that led to violations of the False Claims Act and millions of dollars in settlements. Finally, they did a lot of horse-trading of hospitals – buying some, then divesting, and selling to their friends. This was facilitated by the fact that almost all of the for-profit headquarters were located in or near Nashville, Tennessee, where a tight network of healthcare financiers, lawyers, and corporate executives lived; and executives moved in and out of leadership positions in different for-profit chains over time.

Evidence points to the Hospital Corporation of America (HCA) as the mother of this for-profit model, which many others subsequently emulated. Founded in 1968 by Thomas Frist Sr. and his son, and Thomas Frist Jr. and headquartered in Nashville, Tennessee, HCA expanded rapidly by acquiring small hospitals and then expanding in markets in which it already operated or could dominate. It owned 11 hospitals in 1969 when it launched a successful IPO to raise capital for continued expansion. Within a year, it owned 26 hospitals. HCA continued this rapid expansion through the 1980s and merged in 1994 with another rapidly growing for-profit chain, Columbia Hospital Corporation (formed in 1987 by two former HCA executives – lawyer Rick Scott and financier Richard Rainwater). The merged entity reached its maximum size ever in the early 1990s, when it included 350 hospitals, 145 outpatient surgery centers, 550 home care agencies, and several other ancillary businesses. Trouble hit in 1997, when a major investigation uncovered fraudulent billing of Medicare and other health care programs, overstating the seriousness of diagnoses, providing kickbacks to doctors, striking illegal deals with home health care agencies, and filing false data. It pled guilty to 14 felonies and paid the government a total of $1.7 billion in criminal and civil penalties, "the largest health care fraud case in the history of the United States."[8] A slew of individual lawsuits also dogged the company.

HCA also opened the door for private equity investors. As early as 1989, HCA spun off hospitals that would form the Quorum Health Group, which received growth financing from PE firm Welsh, Carson, Anderson and Stowe (WCAS). In 1998-1999, it spun off other groups of hospitals to pay for the settlements, including Triad Hospital Group and LifePoint Health. All three of these would be involved in private equity buyouts and M&As throughout the 2000s and into the present day.

Another early mover in for-profit hospitals was National Medical Enterprises (NME) (later Tenet Healthcare), first incorporated by three California attorneys and finance consultants in 1969. Like HCA, the for-profit chain grew rapidly through M&A, with hospitals and related services in five states. Its strategy was to focus on a few high-volume markets in the south and set higher prices. NME owned 23 hospitals by 1975, when the owners incorporated it in Nevada. Unlike other chains, it diversified early and funded its expansion via fee generating activities: equipment rentals, hospital consulting, and

[8] Then CEO Richard Scott resigned, became Florida Governor in 2010. William Frist (son), became Tennessee Senator (R 1997-2004), and was investigated by the SEC in 2005 for insider trading related to his HCA stock sale when he was Senate Majority Leader. He was criticized for many years for holding HCA stock while directing legislation on Medicare reform.

construction. By 1990, it owned 200 hospitals and was the second largest hospital company in the country. And like HCA, it was hit with overbilling and insurance fraud scandals in the early 1990s that led to settlements with the government, insurance companies, and individuals of $750 million. To cover costs, NME sold off 140 psychiatric and rehabilitation centers; but only three years later, bought out American Medical Holdings for $3.3 billion and more than doubled its hospital capacity in the US. Tenet would also later buy and sell hospitals owned by private-equity firms.

Community Health Systems (CHS) represents one of the clearest links between for-profit chains in the corporate phase of healthcare financialization and the second period of private equity takeovers. Founded in 1985 by former executives of HCA and a former executive of another for-profit chain (Hospital Affiliates), it launched its IPO in 1991. Its M&A growth strategy was to buy up struggling nonprofit hospitals in non-urban markets – primarily rural – where it would have little or no competition and allowing it to charge high prices. It owned three hospitals in 1986, and 18 by 1996, when the founders wanted out and hired Merrill Lynch to find interested investors.

Theodore Forstmann, a leveraged buyout specialist who gained experience in the 1980s, came to the rescue and negotiated a $1.63 billion buyout for his firm (Forstmann Little & Company). Forstmann sought quick returns, leading the company to launch two IPOs in 2000 – the first raising $245.7 million and the second $269 million. In the process, it attracted a new investment firm, RFE Investment Partners. Forstmann retained 55 percent controlling stock until 2004, when CHS filed for another secondary stock offering, and took out a $260 million loan to pay off investors. Forstmann exited and is estimated to have tripled his initial investment. Between 1996 and 2004, the company spent $1.8 billion, acquiring 47 hospitals during the period, bringing its total to 85 hospitals. CHS had learned the PE buyout playbook and would go on to use the leveraged buyout model repeatedly in the 2000s – including a 2007 leveraged buyout of Triad Hospital Group for $6.8 billion (including assumption of its debt) – a hospital group that HCA had spun off only a decade earlier. Despite racking up billions in debt, CHS's days of reckoning didn't occur until 2015 and after, as its debt load forced a massive sell-off of hospitals and its stock price plummeted.

Second Phase: Private Equity and Healthcare as Financial Assets

The examples of HCA, Tenet, and CHS illustrate a broader pattern in which private equity firms would use the corporate platforms and strategies developed in the 1960s through 1990s to take over hospital systems. Table 3.1 provides the details of 15 hospital systems that were involved in PE leveraged buyouts, only one of which (Caritas Christi, later Cerberus-owned Steward Healthcare) was a nonprofit at the time of PE involvement. It is noteworthy that several strategies developed by for-profit chains became mainstays of PE-owned systems. These include the use of M&As to grow rapidly, the buying out of small hospitals below the radar of anti-trust regulators, the buying and selling of hospitals among each other to position themselves as dominant players in particular markets, and overbilling practices resulting in fraudulent claims lawsuits and millions in penalties paid to governments and other claimants. Also noteworthy is that most (about two-thirds of the systems in Table 3.1) targeted small

community hospitals in rural areas or small towns in the South, Southeast, and Southwest – with some activity in the West (California, Idaho).

Private equity ownership, however, took the for-profit model to an extreme version of the shareholder value model – also referred to as the financial model of the firm. The difference is that under the classic for-profit model, corporate leaders primarily raise capital in equity markets, invest it in productive enterprises, and assume that profits result from the effective management of productive activities. They tend to invest for the long term even as they buy and sell particular hospitals to gain dominant positions in competitive markets. The private equity model, by contrast, treats productive enterprises purely as bundles of assets to be bought, reconfigured, and sold for short-term gains. While for-profit systems rely primarily on equity financing (roughly 70 percent), PE-owned ones rely primarily on debt financing (60-80 percent), with the debt levered on the hospital system. This approach multiplies returns, spreads risk, and expands the amount of private equity capital available to buy out additional hospitals.

Table 3.1:
Evolution of Investor Owned Hospital Chains with Private Equity Involvement: 1968-2021

Name (Orig. name), HQ location	***Founding Year, Type, Founder***	***Target Markets, Regions***	***Private Equity Firms***	***Growth, Wealth, Private Equity LBO History***
Ardent Health (Behavioral Healthcare Corp.), Nashville, TN	1993, Private, for-profit, PE backed (Welsh, Carson, Anderson & Stowe, Clayton Assoc., Ferrer Freeman & Co., FE Invest. Ptnrs, Ridgemont PE)	Mid-sized cities SE, S, SW, W	Welsh, Carson, Anderson & Stowe (76%), FFC Partners II, RFE Investment Partners, and BancAm.Cap. Investors I; Equity Group	• 2001: PE LBO, $145M • 2010: $400M dividend recap, w/ $277M to WCAS • 2015: Acquires LHG Hospitals to form 19 hospitals in 6 states – 2nd largest private, FP operator • 2015: Sold to Ventas, a REIT, for $1.83B cash; Split into OpCo/PropCo, with OpCo named Ardent Health Services & sold to PE Equity Group Investments (Sam Zell) for $475M • 2021: In talks to be acquired by Apollo GM
Capella Health Care, Franklin, TN	2005, Private equity owned, GTCR Golder Rauner	Rural & small town hospitals S, W	GTCR Golden Rauner	• 2005, PE Platform Creation ($200M) • 2010, $600M Debt refinancing • 20xx: Sold to REIT Medical Properties Trust • 2016: Apollo buys out Capella for $550M & merges it into RCCH • 2018: Apollo buys out & merges Capella/RCCH into LifePoint

Name (Orig. name), HQ location	***Founding Year, Type, Founder***	***Target Markets, Regions***	***Private Equity Firms***	***Growth, Wealth, Private Equity LBO History***
Community Health Systems (CHS), Franklin, TN	1985, For-profit, founded by two lawyers	Struggling non-profit community hospitals; rural markets with little-no competition SE, S, SW	Forstmann Little & Co	• 1996: PE LBO $1.63B Forstmann Little & Co. do LBO for $1.63B. • 2000: IPO#1 for $245; new investor RFE Investment Partners • 2000: IPO#2 for $269M; Forstmann retains 55% controlling interest • 2004: Forstmann exits but continues financing • 2007: $5.1B LBO of Triad Health • 2013: $1.75B LBO of publicly traded Health Mgmt. Assoc. • 2015: owns 206 hospitals in 29 states, with $19.7B long term debt; • 2015-19: sells 53 hospitals to Quorum Health, Steward, others • 2019: 101 hospitals w/ $13.9B long term debt
Essent Healthcare, Nashville, TN	1999, For-profit with PE growth capital from Thomas Chressey Equity Partners	Small hospitals in small towns in S and W	Vestar Capital Partners, Cressey & Co; GE Capital, Warburg Pincus	• 2004: $80M capital from Vestar Capital Partners and Cressey & Co. for acquisitions • 2007: $120M recapitalization from GE Capital • 2011: $250M LBO by Warburg Pincus via its platform RegionalCare Hospital Partners • 2016: Acquired by Apollo GM
Hospital Corporation of America (HCA), Nashville, TN	1968, For-profit corporation, Thomas Frist Sr. and Jr.	Small hospitals in small towns & markets where it can dominate, SE, S, SW, W	Bain Capital, KKR, Merrill Lynch, BoA, Thomas Frist & family	• 1969: IPO with 11 hospitals • 1988 LBO by PE firm & Frist family for $5.1B • 1992 IPO raises $700M • 1994: Bought out by Columbia Hosp. Corp. (becomes Columbia/HCA); Owns 350 hospitals at its peak • 1998 spins off of 61 Lifepoint and Triad Hospitals & nets $900 tax free • 1998-2001: pays $1.78B in criminal & civil penalties for fraud • 2001 IPO • 2006 $21B LBO by PE consortium & Frist & family ($5.5B equity) with $29B debt and $33B enterprise value • 2010: IPO fails • 2010: issues three dividend recaps totaling $4.25B to PE firms & Frist family. • 2011: $3.79B IPO, with 3/4 stock retained by investors; post IPO debt level is $26B ($12B more than company assets) • 2020: Owns 185 hospitals, 121 outpatient centers, physician practices in 20 states
Iasis Health Care, Franklin, TN	1999, Private equity owned, Joseph Littlejohn & Levy (JLL) Partners, Trimaran Partners	Medium sized hospitals in high growth cities, S, SW US	JLL Partners, Trimaran Partners; TPG Capital	• 1999: PE Platform creation by JLL partners through buyout of 5 hospitals from Paracelsus Healthcare Corp. and 10 hospitals from Tenet Healthcare for $800M • 2004: PE LBO by TPG for $1.484M • 2012: attempted sale fails • 2015: attempted IPO fails • 2105: $450M dividend recap w/ $230M to TPG • 2017: all 18 hospitals in IASIS system sold to Steward HC (PE Cerberus owned) for $1.51B

Name (Orig. name), HQ location	*Founding Year, Type, Founder*	*Target Markets, Regions*	*Private Equity Firms*	*Growth, Wealth, Private Equity LBO History*
LifePoint Health, Brentwood, TN	1999 for profit, founded by former HCA exec. with 23 rural community hospitals in 9 states - a spinoff of Columbia/HCA following federal fraud investigation	Rural community hospitals, SE, S, SW	Apollo Global Management	• 2005: LifePoint merged with rival Province Healthcare Co to become 50-hospital national chain w/ $1.5 billion annual rev. Remained publicly traded until 2018 • 2018: $5.6B LBO by Apollo GM; merged with Apollo-owned RCCH, renamed LifePoint Health • 2021: Apollo buys out Kindred Health from TPG Capital and WCAS PE firms, who paid $4.1B in 2018 for Kindred. Blackstone buyout creates a national LifePoint chain of 89 hospitals, 50 post-acute providers, 35 outpatient clinics, 125 rehabilitation facilities, home care, hospice, and other services in 30 states • 2021: Apollo Fund VIII sells LifePoint to its own Fund IX for $2.6B, netting $1B for the PE firm and its investors
LPH Group (Legacy Hospital Partners), Dallas, TX	2008, For-profit, private equity owned -- CCMP Capital Advisors & Canada Pension Plan;	Small hospitals in small towns, S and W US	CCMP Capital Advisors Canada Pension Plan Invest. Board	• 2017: Its 5 hospitals are acquired by Ardent Healthcare
Quorum Health Group, Brentwood, TN	1989, For-profit, a spin-off of HCA; PE backed (Welsh, Carson, Anderson, & Stowe)	Rural hospitals spun off from HCA, SE, S, SW	Welsh, Carson, Anderson & Stowe	• 1989: $150M backing from WCAS • 1994: Launched IPO, 1994 • 2000: WCAS sells its shares on open market • 2000: Pays $95.5M to DOJ to settle inflated billing • 2001: sold to Triad HG for $2.4B • 2007: Triad bought out by CHS • 2016 - Quorum (38 debt ridden hospitals) spun out of CHS in order to pay down debt • 2017: $11.3M from KKR; • 2019: Declares bankruptcy
RCCH Healthcare Partners (Reg. Care Hospital Partners), Brentwood, TN	2009, For profit, private Equity backed with $300M from Warburg Pincus	All over AL, OH, CT, PA, TX	Warberg Pincus; Apollo Global Management	• 2011: Warburg Pincus buys out & merges Essent Healthcare into Reg. Care • 2013: LBO $800M by Apollo GM • 2016: Apollo buys out Capella, owned by REIT Medical Properties Trust, for $550M and merges it into RCCH; • 2018: Apollo buys out LifePoint and merges RCCH into LifePoint
Steward Healthcare (Caritas Health System) Boston -> Dallas, TX, 2016.	1860s-1910, Catholic hospitals, incorporated as 6 hospital non-profit system in 1985 by Boston Archdiocese	Anywhere	Cerberus Capital Management	• 2010 LBO (Cerberus equity invest $253M) • 2016: sells hospital real estate to Med. Prop. Trust (MPT) for $1.25B • 2016: buys 6 hospitals from CHS for $312M, and sells real estate to MPT for $301M • 2017: buys 18 hospitals from IASIS for $1.51B & sells 11 to MPT for $1.18B • 2021: Steward doctors borrow $335M from MPT to buy out Cerberus • 2021: Steward buys 5 hospitals from Tenet for $1.1B, with MPT acquiring the real estate for $900M.

Name (Orig. name), HQ location	*Founding Year, Type, Founder*	*Target Markets, Regions*	*Private Equity Firms*	*Growth, Wealth, Private Equity LBO History*
Tenet Healthcare (Nat. Med. Enterprises, NME), Dallas, TX	1968, For-profit corporation, founded by three attorneys and finance consultants	Highly diversified urban, suburban		• 1990: owns 200 hospitals through M&As financed by fee-generating activities – 2nd largest hospital company in US • 1990s: Pays $750M to settle overbilling & insurance fraud cases; and sells off 140 facilities • 2013: Buys out Vanguard HS from Blackstone for $1.8B • 2018: Sells Hahnemann Hospital (Philadelphia) to PE firm (Paladin) and Chicago real estate developer
Triad Hospital Group, Dallas, TX	1999, For-profit, publicly traded spin-off from Columbia/HCA carrying $675M debt; largest shareholder HF TPG-Axon Capital	Small city hospitals, S, SW, W US	TPG-Axon Capital Management	• 1999-20: sheds 13 hospitals to pay debt • 2001 $2.4B buys out Quorum Health Group (former HCA hospitals) - creating 3rd lgst hospital chain • 2003: carries massive $1.8B debt • 2007: bought out by CHS for $5.1B (+$1.7B debt), creating largest publicly-traded hospital system
Vanguard Health Systems, Nashville, TN	1997, For profit, founded by former HCA exec with PE backing - $1.5B growth loan (Morgan Stanley Capital Partners)	Near bankrupt NP community hospitals, S, SW, + Chicago	Morgan Stanley Capital Partners; Blackstone Group	• 2000: $250 LBO for McNeal H Network • 2003: $195M LBO for Baptist HS • 2004: $1.75B LBO ($1.05B debt) Blackstone Group (2/3rd ownership), with minority stakes by Morgan Stanley (18%) and management team (16%)

Sources: Authors compilation from PitchBook database, company websites, Private Equity Stakeholder Group Reports.

Publicly traded corporations also must provide detailed annual reports to the SEC and are subject to on-going public and shareholder scrutiny. Shareholders may exit at any time if they are dissatisfied. Private equity firms, by contrast, take their acquisitions private, thereby avoiding detailed financial reports, SEC monitoring, or public scrutiny. PE firms and their portfolio companies are largely unregulated and lack accountability. PE investors, the limited partners, also must commit their funds for 10 years and cannot exit if they are dissatisfied with the PE fund performance. And while the CEOs of major corporations are overseen by independent boards of directors representing shareholder interests, the GPs of PE-owned companies are members of the board of directors. The PE partners take over strategic decision making, manage the organization to extract cash to service the debt, and plan to exit the organization in a five-year time horizon. In doing so, they reduce healthcare services and organizations to a set of financial transactions to make money.

Having noted these differences, it is also important to recognize a blurring of boundaries between for-profit and PE-owned chains, as at least some for-profit chains have learned from private equity LBO strategies and adopted them – especially those like HCA and CHS that were acquired by PE firms and later returned to public markets.

The Private Equity Business Model

A review of how the private equity model works will help explain how PE ownership affects healthcare organizations. First, PE firms set up investment funds, led by a team referred to as the general partner (GP), and recruit investors (or limited partners, LPs) to make commitments to the fund, typically for a 10-year period. The LPs also pay a 2 percent annual management fee to the GPs, who take 20 percent of the returns over a given hurdle rate of return. Notably, LPs give up all rights to decision-making, often lack adequate information about GP investment decisions or fund valuations and are in an asymmetric power relationship vis-à-vis the PE firm (Batt and Appelbaum 2020). LPs invest with the expectation that the fund will yield 'outsized' returns (higher than the stock market). Given the illiquid nature of the LPs' investment, returns should be about three percentage points above the stock market. This promise in itself creates pressure for PE funds to deliver higher returns than those of the typical publicly traded for-profit corporation.

Second, PE makes heavy use of debt to buyout companies – leading to a capital structure for the acquired company that is typically 70 percent debt and 30 percent equity – compared to the capital structure of the typical publicly traded for-profit corporation, which is the reverse. The debt is loaded on the portfolio company (in this case the hospital system), which must service the debt by maximizing cash flow. Again, this debt structure puts pressure on the PE-owned health system to cut costs to service the debt, reducing resources available for investing in workforce skills, technology, or other processes to improve efficiencies or patient care. If something goes wrong and cash flow is insufficient to cover the debt, then the PE partners can walk away with few losses as they have little skin in the game.

Third, the time horizon for PE firms to exit their investments is typically three to five years. Before private equity partners acquire a company, they assess the level of risk and potential profitability of the enterprise and how they will exit the company in a three-to-five-year window with outsized returns. This intensifies the pressure on PE-owned healthcare providers to cut costs and increase revenues quickly. Once a PE firm acquires a company, it puts its partners on the board of directors, hires or fires the CEO, and develops a strategic plan to ensure that the PE fund extracts as much cash flow from the company as is needed to service debt and reward investors. This can be done through operational improvements (overhauling management and accounting systems, investing in updated technology), cost cutting (supplies and labor), or through financial engineering (e.g. selling assets).

Private equity firms typically extract wealth from their portfolio companies before exiting them. Common strategies include 'dividend recapitalizations,' in which they take out an additional loan that is loaded on the portfolio company and use the loan to pay dividends to themselves and their investors. They often sell off the property underneath a hospital and return the proceeds to themselves while requiring the portfolio company to pay rent on property it used to own (sale-leasebacks). They also typically require the portfolio company to sign a Management Services Agreement (MSA) that includes monitoring and advisory fees paid directly to the PE firm – even when they provide no services (Appelbaum and Batt 2016).

Notably, PE firms and their general partners have *financial* expertise, not *healthcare* expertise. They take over the board of directors of their portfolio companies and make all the strategic decisions. But they are not bound by the Hippocratic Oath that doctors take. In the context of hospitals, however, physician board members are likely to have the best expertise on patient care and services delivery. A number of empirical studies have found that physician membership on the board improves financial performance (Holt et al. 2011, Table 3).

Private equity firms argue that they benefit the healthcare sector by bringing in needed financial and management expertise that allows them to create cost efficiencies much more so than either nonprofit or for-profit chains. They argue that nonprofits lack this expertise or suffer from political interference; and compared to a typical for-profit corporation, PE concentrates ownership in one private investment fund, whose partners act as an activist shareholder with incentives to adopt radical strategies to maximize revenues and minimize costs. PE firms also are experts at managing M&As, which they argue are desperately needed in highly fragmented or decentralized organizations that cannot take sufficient advantage of scale economies or modern management techniques.

Critics argue, however, that because the PE firm promises its investors 'outsized returns,' (those that considerably beat the stock market or S&P 500), it may have to sacrifice healthcare quality to achieve these investor expectations. The focus on financial efficiency and short-term returns undermines the ability of healthcare providers to deliver high-quality care, which may require longer time horizons. This debate raises the fundamental question of how and why a PE firm can extract higher returns (than the stock market) to meet investor expectations in the context of a sector that is fraught with reimbursement rates that do not track the rate of inflation, increased costs of care and technology, thin operating margins, and other financial challenges. Some medical professionals also worry that under PE ownership they will lose their professional autonomy and control over decision-making (Gondi and Song 2019). In this context, healthcare providers may feel pressure to steer their focus away from patient outcomes in order to meet these financial expectations, further reinforcing the convergence of healthcare and financial motives.

Private Equity Growth and Expansion[9]

Health care is an attractive sector for PE investing because, unlike other sectors, health care is recession resistant and provides a secure and steady source of cash flow as third-party government and private insurers guarantee payments. This makes the PE business model one of even lower risk to the PE partners, but higher guaranteed cash flow for debt service compared to other more volatile sectors. In addition, private equity firms can take advantage of the highly fragmented nature of the healthcare market by buying up small providers cheaply and rolling them into larger ones that can be sold to large healthcare systems interested in expanding vertically or horizontally. After the passage of the ACA, private equity's investments in health care increased considerably because the law expanded the

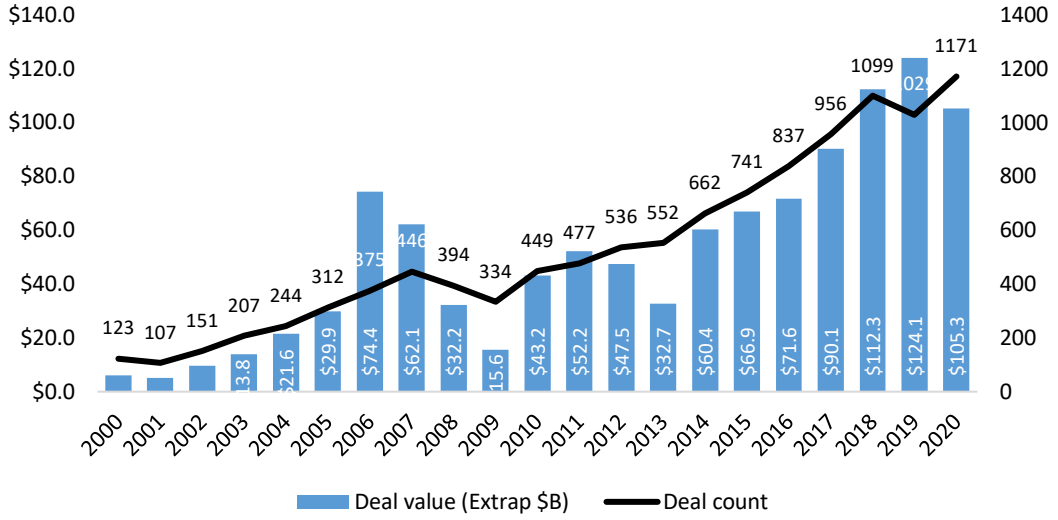
[9] For a fuller account of PE investment trends in health care, see Appelbaum and Batt (2020: 14-21).

number of people covered by insurance, increasing patient demand and the size of the healthcare market.

Private equity healthcare investments skyrocketed between 2000 and 2020, rising from $5 billion in 2000 to $124 billion in 2019 –an historic high in that year and a 25-fold increase overall. Accumulated totals over the period equaled 11,200 deals valued at more than $1 trillion. Investments largely continued even during the 2020 pandemic year.

PE firms also have shifted a greater proportion of their entire investment fund totals to the healthcare sector and away from other sectors. The proportion of PE funds spent on leveraged buyouts *in health care,* for example, shifted from less than 5 percent of all PE leveraged buyout funds in 2000 to 14 percent in 2018 (Appelbaum and Batt 2020: 14, Figure 2.1).

FIGURE 1: Total PE Investment in Health Care: 2000-2020



Source: PitchBook data calculations. Note: Values are estimates based on PitchBook's formula for extrapolating from the actual data, which on average are 50% of the extrapolated values.

Private equity's use of debt in its healthcare buyouts also has accelerated in recent years, raising major concerns about the financial stability of healthcare providers they own in the context of the Corona virus-induced economic and public health crisis. While the median debt leveraged on an acquired company in a PE healthcare buyout rose to 7X EBITDA (earnings before interest, taxes, depreciation, and amortization) in 2018, the total price (including equity investment) rose to an historic high of 15.8X EBITDA. This is considerably higher than the 2006 PE average of 11.5X EBITDA or the 2018 average of 11.5X EBITDA across all industries. This means that PE firms are paying 15.8 times the estimated value of an enterprise, which puts much greater pressure on them to figure out how to extract 'outsized earnings' and sell the entity at an even higher price in a few years. The high prices raise questions about the viability of the PE model to exit these investments and achieve outsized returns in the future. Private equity firms are often buying out large companies at debt multiples of 11X when the Federal

Accounting Standards Board (FASB) recommends banks do not loan anything more than 6X EBITDA (Batt 2018; Bain and Co. 2019). Extracting enough value to pay back such an exorbitant amount requires complex methods of financial engineering or issuing junk bonds (those with very low ratings that are high risk), rather than operational improvements tailored to long-term growth.

Private Equity's Growth Strategy: 'Roll-ups', M&As, and Consolidation

Private equity firms serve as market aggregators and resellers –targeting the most lucrative market segments, cream skimming the 'best targets,' consolidating them, reselling them, and moving on to the next most attractive market. They have applied the classic leveraged buyout model, described above, to the majority of their healthcare investments, which are largely short-term financial transactions designed to make outsized returns for themselves and their limited partner investors. The median, or typical, 'hold time' for a PE investment in health care was 4.6 years in 2012-2015 and 4.9 years in 2016-2019 (Appelbaum and Batt 2020:20, Figure 2.6). These short hold times illustrate their view of healthcare acquisitions as purely financial transactions, not as long-term investments to improve the quality and efficiency of healthcare services, as they pretend to do.

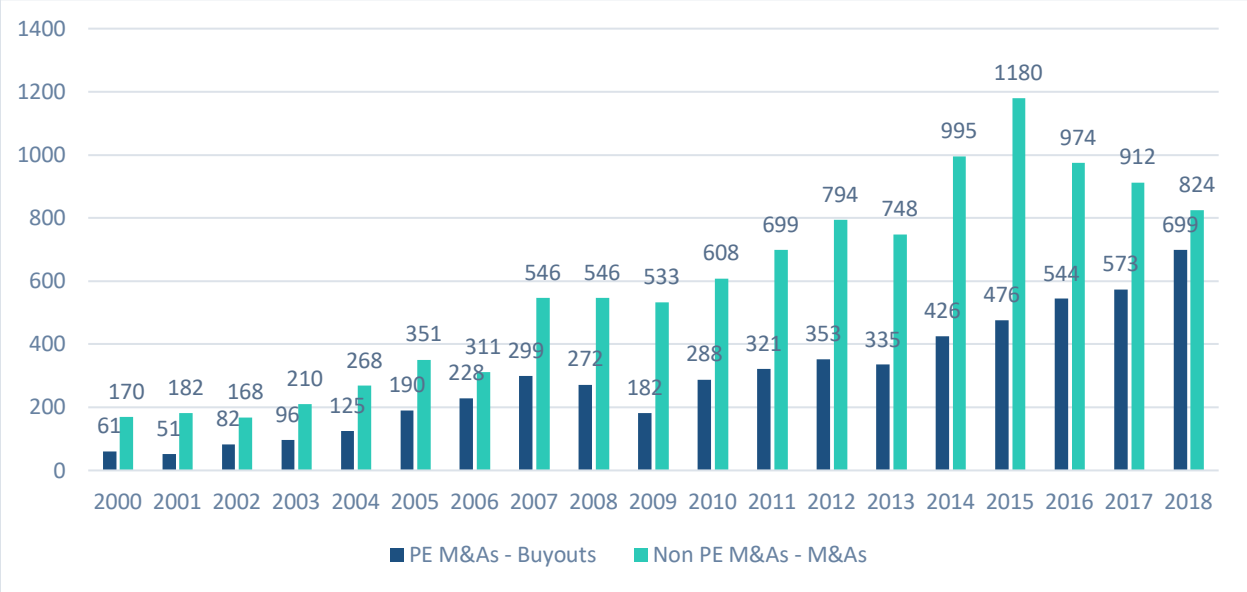
PE firms use the 'buy-and-build' strategy, developed earlier by for-profit corporations, in which they establish a 'platform' by buying out one enterprise and then adding on and rolling up a series of similar enterprises into one entity. The platform carries all of the debt This has the advantage of lowering the 'blended' total cost of the platform company (as acquisitions are small) and increasing the size of returns as the profits from the sale of this company are higher than if the PE firm had initially purchased one large entity. This strategy also allows PE firms to escape regulatory oversight by the Federal Trade Commission because any one acquisition typically has fallen below the size threshold ($50 million in 2001, $63.4 million in 2010, $76.3 million in 2015, $92 million in 2021) set by the Hart-Scott-Rodino (HSR) standard that triggers an antitrust review (Foley and Lardner 2021). And because PE firms often acquire hospitals or other healthcare services in dispersed localities, they are typically not viewed as creating anti-competitive conditions in any one market.

Thus, PE firms have played a leading role in hospital consolidation and concentration.[10] While early corporate actors adopted the M&A strategy, and in recent years the entire industry has embraced M&As in order to increase patient volume, revenues, and market power, PE firms as a group have played a dominant role in this process. Since 2000, private equity M&As in health care have grown at four times the rate of non-private equity M&A. By 2018, private equity represented 46 percent of all M&As in this sector, despite representing only a minority of actors in the industry.

FIGURE 2

[10] These terms are related but defined differently. Consolidation refers to the extent to which entities are combined into one ownership structure; concentration is the extent to which a few firms dominate a particular market and thereby gain market or monopoly power. The former allows organizations to reduce costs through scale economies while increasing revenues via a larger patient base. The latter allows firms to charge higher prices to patients or suppress wages for workers.

Number of Private Equity M&A Buyouts Compared to Non-PE M&As: 2000- 2018



*Source: Appelbaum and Batt 2020: 17 (PitchBook data).

Private Equity's Role in Hospital Consolidation and Destabilization: 1995-2011[11]

Three hospital systems illustrate how private equity buyouts affected the consolidation and destabilization of hospital systems in the 2000s: Hospital Corporation of America, Vanguard Health System, and Community Health Systems.

Hospital Corporation of America

HCA stands out as the most financially successful PE hospital system investment. HCA was bought out in 2006 by a group of PE investors (Bain Capital, KKR, Merrill Lynch Global PE, Bank of America) with the participation of Frist family members, in one of the largest leveraged buyouts in history. The PE consortium paid $4.5 billion in equity for the $21.6 billion buyout (using 80 percent debt) and took it private. HCA had already accumulated $29 billion in debt, so the total enterprise value was $33 billion. Four years later, and following the Great Recession, which had dampened financial performance and expansion, the investors sought to exit their involvement. They launched an IPO in 2010 that failed (analysts blame the company's debt level at the time). Having failed to extract returns via an IPO, the PE partners put additional debt on the company in order to pay themselves and their investors dividends of $4.25 billion (in three tranches in 2010) – virtually covering their initial equity investment while HCA's debt level remained high at $28.2 billion – almost 10 times its cash flow at the time. Nonetheless, HCA launched a successful IPO in 2011 and raised $3.8 billion, with undisclosed amounts going to the PE owners (Bain Capital, KKR, North Cove Partners), who also retained 75 percent ownership of the

[11] This section draws on the more detailed account of private equity in hospitals found in Appelbaum and Batt (2020:21-41).

company's stock. At the 2011 buyout, the system consisted of 162 hospitals and 104 freestanding surgery centers with 41,000 beds in 20 states and the UK.

In February 2012, HCA underwent another dividend recapitalization – worth $1.15 billion – returning undisclosed amounts to the three PE firms and the Frist family. In 2012, HCA also spent $1.5 billion to buy back shares of stock and boost stock price. As of Novembe2012, industry analysts estimated that the company had paid out a total of $9 billion in dividends and share repurchases between 2006 and 2012 (Appelbaum and Batt 2014:227-232). In 2013, the company launched a second IPO worth $1.4 billion. In October 2014, HCA established a $1 billion stock buyback program – repurchasing Bain Capital shares for $558 million, as well as KKR and Merrill Lynch shares. As of June 2016, its enterprise value was $64.2 billion while its debt was $31.5 billion. In August 2016, it issued $1.2 billion in junk bonds. It has been applauded as one of the most profitable systems in recent years.

These profits have come at a cost, according to academic studies, independent investigations, and union reports (by the National Nurses United, NNU, and the Service Employees International Union, SEIU). HCA has relied heavily on cost cutting, leading to understaffing, poor patient care, and instructions to doctors to turn away ER patients. A 2012 academic study found that the HCA had lower full-time equivalent staff and lower capital investments in fixed assets than did comparable publicly traded hospitals (McCue and Thompson 2012). Nurses have filed individual and class action lawsuits alleging understaffing (Appelbaum and Batt 2014: 231). A Sunlight Foundation study using Medicare data for 2008 and 2010 found that HCA owned eight of the 15 worst hospitals for bedsores among 545 profit-making hospitals nationwide (Creswell and Abelson 2012). In 2019, HCA had 29 percent lower staffing levels relative to comparable publicly traded hospitals, according to a study by the Institute for Policy Studies (Collins and Ocampo 2021).

HCA's revenue generation also has been linked to fraudulent billing of Medicare and other insurance providers, even in recent years. In 2012, HCA paid $16.5 million to settle claims that two of its subsidiaries violated False Claims and anti-kickback laws by providing financial benefits in exchange for patient referrals. In 2013, a Missouri state judge ordered HCA to pay a Kansas City charitable foundation $162 million and undergo extensive auditing after finding the for-profit hospital operator broke key agreements regarding charity care and capital expenditures in its billion-dollar purchase of hospitals from Health Midwest in 2002. In 2014, an HCA trauma center was the subject of Florida lawsuits charging that it had the highest rates, on average, of any trauma facility in state.

Two recent conflicts further illustrate the ways in which legacy business strategies, developed over decades, continue to negatively affect employee and patient care outcomes. The first concerns the Mission Health System in Western North Carolina, which HCA acquired in 2019. HCA already owned two other hospitals in the region, and the state Attorney General approved the sale only after HCA agreed to a series of conditions to maintain services over a ten-year period. In the first year alone, a barrage of patient complaints surfaced: poor quality care, unsanitary conditions, broken or missing equipment, higher prices, the closure of satellite facilities, and lack of available staff and doctors. The nurses, meanwhile, began a union campaign, citing chronic understaffing and stress, and by September, 2020,

won an election to represent 1,800 nurses (Mensik 2020; Durr 2021). In August, 2021, Western North Carolina residents filed a class action anti-trust law suit alleging that HCA's practices have led to anti-competitive conditions, lower quality care, and higher prices (Patel 2021).

The second incident involves an HCA-owned San Francisco hospital -- Good Samaritan. In June, 2021, the Centers for Medicare and Medicaid Services issued a 'Notice of Termination' against the hospital based on a scathing 65-page report that identified "serious, systemic, and recurring issues" that have jeopardized the lives and safety of patients (Nguyen, Bott, and Villarreal 2021).

In sum, HCA represents the most profitable example of private equity ownership of a hospital system in the 2000s. And while the primary PE firms exited their investments all together by 2014, the Frist Family retained roughly 20 percent ownership in HCA. According to the *Forbes* list of billionaires, the family's net worth doubled during the pandemic year of March 2020 to March 2021 – from $7.5 billion to $15.6 billion, the highest wealth gains of the 27 U.S. billionaires whose wealth comes from the health care sector (Collins and Ocampo 2021).

Most other private equity forays into hospital ownership have not been as lucrative as the HCA case, but nonetheless have allowed PE firms to extract millions from their hospital systems, especially via leveraged buyouts, the use of dividend recapitalizations, the sell-off of assets, and horse-trading of hospitals from one PE firm to another. Three cases illustrate these patterns.

Vanguard Health Systems

Vanguard began in 1997 as an investor-owned private corporation based in Nashville, Tennessee. Morgan Stanley Capital Partners provided the initial financing through a growth expansion investment of $1.5 billion. Vanguard's business model is to buy up bankrupt or near-bankrupt non-profit community hospitals, convert them to for-profit hospitals, and consolidate them into investor-owned systems. Its leading founder was Charles Martin, who previously had worked for HCA, where he gained experience taking over poorly performing hospitals and turning them into for-profit chains. Between 1998 and 2004, Vanguard grew through a series of leveraged buyouts, acquiring some 14 hospitals and Medical Centers, a surgery center, and an HMO in four states. It had $1.78 billion in annual sales and a net income of $40.1 million. In 2004, Blackstone acquired two-thirds ownership in Vanguard in an LBO worth $1.75 billion (60 percent debt). Morgan Stanley held 18 percent ownership, and the management team, 16 percent.

In 2010 and 2011, it went on an acquisition spree, presumably in anticipation of the passage of the ACA, spending $425 million in five LBOs, including the $365 million buyout of the Detroit Medical Center. By 2011, Vanguard owned and operated 26 hospitals in five states plus two surgery centers and three insurance plans. In the same period, it took out loans to pay dividends to itself and acquire new properties – including loans of $1.175 billion in 2010 and $750 million in 2011 – with half of the latter going to the PE partners. Total debt rose to $2.73 billion. Finally, in October 2013, Blackstone sold Vanguard to Tenet Hospital Systems, while retaining a 38 percent share in the system. The secondary LBO was valued at $1.8 billion, and the post-buyout valuation of Vanguard was $4.3 billion. Since then,

Tenet's management of the DMC has been the source of major complaints and investigations into poor care, unsanitary conditions, and understaffing.

Community Health Systems[12]

Returning to CHS, recall that the private equity firm Forstmann Little & Company had exited the hospital system in 2004; but it continued to operate using the private equity business model, including the use of leveraged buyouts to add-on smaller healthcare companies and loading CHS with dangerous amounts of debt. In 2007, CHS acquired hospital system Triad for $5.1 billion plus the assumption of $1.7 billion of debt. With this acquisition, CHS nearly doubled its number of hospitals to 130 (Francis 2007). Then, in 2013, CHS made a bid to take publicly traded Health Management Associates (HMA) private in a leveraged buyout. HMA – with 15 percent of its stock owned by PE firm Glenview Capital Management – was struggling financially and facing litigation when CHS made an offer to buy it. The offer valued HMA at about $7.5 billion, including $3.7 billion in assumed debt. The LBO increased this debt burden by an unspecified amount. When the deal closed, CHS operated 206 hospitals with 31,000 beds in 29 states. While HCA, with 162 hospitals, remained the biggest for-profit US hospital chain by revenue, CHS was the chain with the largest number of hospitals (Pettypiece and Armour 2013; de la Merced 2013).

In June 2015, about a year after the HMA deal closed, CHS' total long-term liabilities had increased dramatically to 19.7 billion and its debt/equity ratio had nearly tripled since 2000 to 401.5 percent (PitchBook 2015). Unable to meet its debt obligations out of current income, CHS began divesting facilities to pay down debt and avoid default (Dickson 2015). Its share price, which had risen following the merger to $65 a share in July 2015, fell to $13.96 in February 2016 and continued to slide. In April 2016, it spun off 38 hospitals to Quorum Health Corporation, yielding about $1.2 billion in net proceeds to CHS, which the healthcare system uses to reduce its massive debt (Barkholz 2016b). Quorum, however, was loaded with roughly $1 billion in debt, which it needed to raise and pay off on its own. Almost immediately, Quorum began selling off hospitals. In the three years following its spinoff from CHS, Quorum sold 11 rural hospitals, introducing uncertainty and instability into those health care markets. The sale of these hospitals yielded $86.5 million in net proceeds to Quorum, nearly all of which was used to pay down debt and none going to improve the quality of care. By March 2019, Quorum's hospital count had fallen to 27, and the rural chain announced its intention to shed another nine (Ellison 2019a).

Divesting the Quorum hospitals was not sufficient to return CHS to financial stability. Following the divestiture, the hospital system wrote down $1.43 billion, consistent with the diminished value of its hospitals and assets (Barkholz 2016a). CHS ended 2016 with a net loss of $1.7 billion and announced a sale of eight hospitals to (PE-owned) Steward Health Care and a plan to sell a total of 25 hospitals to further trim its debt load (Ellison 2017). It held $13.88 billion in longterm debt at the end of 2017, continued to sell off hospitals, and reduced debt somewhat to $13.39 billion by mid-2019. CHS stock

[12] For a more detailed account, see Appelbaum and Batt (2020: 38-34).

sold for $1.91 per share in August, 2019, its lowest ever. It continued to sell off hospitals, and by 2020, was down to 84 in 16 states (from over 200 in 2015) (Ellison 2019b).

What happened to the former CHS hospitals? By 2020, *before* the pandemic, most were closed, bankrupt, or losing money. Of the 53 hospitals CHS sold off between 2017 and 2019, only 11 had positive operating margins, according to their available public reports. Four had been closed; six had declared bankruptcy, and 38 had operating losses. This poor financial stability left them in particularly poor condition for confronting the Covid-19 pandemic.

Private Equity Acquisitions since 2010: Further Consolidation and Destabilization

While many private equity firms exited their hospital investments after 2011, three private equity firms exemplify renewed interest in hospitals since 2010: Cerberus Capital Management (Steward Health Care), Leonard Green (Prospect Medical), and Apollo Global Management (LifePoint).

Steward Health Care[13]

Cerberus Capital Management formed Steward Health Care in 2010 when it acquired Caritas Christi – the largest community-based health care system in New England, with six hospitals employing 10,000 workers and serving more than half a million patients annually. Cerberus acquired the six hospitals and affiliated units in a $420 million leveraged buyout plus assumed debt and pension liabilities of $475 million that valued the healthcare system at $895 million (PitchBook 2016). Steward quickly added-on five more acute care community hospitals in 2011 and 2012, two of which it acquired from PE-owned Essent Healthcare. By 2012, Steward was a $1.8 billion company, with 17,000 employees (making it the third largest employer in Massachusetts); it cared for 1.2 million patients annually (Mohl 2012).

Because Cerberus was converting the nonprofit Caritas Christi into a for-profit system, the Massachusetts Attorney General required that certain conditions be met, including that Cerberus invest $400 million in upgrading the hospitals' infrastructure. Cerberus funded the system's operating losses as well as its infrastructure expenditures and the acquisition of additional hospitals by monetizing some of Steward's assets via sale-leaseback deals for its medical office buildings and by having the health care system load up on junk bonds and other debt. In its 2015 report, the AG noted that, "The solvency position of the system declined as debt increased, while operating losses and pension fund charges eroded equity." (Massachusetts Office of the Attorney General 2015). Nonetheless, Cerberus had met the stipulations for investment in infrastructure and was released from AG oversight thereafter.

Within a year, Cerberus sold off most of its hospitals' property for $1.25 billion to the REIT, Medical Properties Trust, which took a 5 percent ($50 million) equity stake in Steward. The hospitals assumed the long-term costs of inflated leases, substantially reducing their net revenues. Cerberus used the sale proceeds to pay itself and its investors almost $500 million in dividends, pay down debt, and launch a massive debt-driven acquisition strategy – buying out 27 hospitals in 9 states in three years between

[13] For a detailed examination of Cerberus strategies at Steward Health System over a 10-year period, see La France, Batt, and Appelbaum (2021).

2016 and 2019. MPT also entered into sale-lease-back arrangements in these deals, which substantially funded the additional buyouts.

Prospect Medical Holdings

Prospect Medical Group was founded by a group of California physicians in 1996, expanded to include additional medical groups and a Health Maintenance Organization (HMO). In 2007, it acquired ProMed Health Care Administrators, increasing HMO members to some 80,000. At that time is also acquired Alta Hospital System, LLC, with four community-based hospitals in southern California, which became the platform for its hospital division. Alta started out in 1998 as an eight-hospital network of community hospitals in Los Angeles, created by a hospital marketing executive, David Topper. Topper gained a $3 million investment from private equity firm Kline Hawkes and financed the rest of the $34 million purchase price through debt. A young employee of the firm, Sam Lee, oversaw the Alta investment, and by 2001, quit the PE firm to become a 50-50 co-president with Topper. Their business model combined intense cost cutting with maximum, and often fraudulent, billing. According to a former company CFO, Alta's hospitals, "… were sort of war-zone hospitals. They were very, very dirt cheap in every respect" (Elkind 2020). Lee and Topper were able to sell Alta to Prospect Medical based on inflated estimates of forthcoming profits, which Prospect's auditors caught only after the company had agreed to pay off Alta's debt and pay $50 million to both Lee and Topper. Prospect defaulted on its loans, leading to millions in lender penalties, and was delisted on the American Stock Exchange.

Nonetheless, Lee became CEO of Prospect by consolidating power and ousting Prospect's 74-year-old founder. His management of the company led to ongoing litigation, with dozens of lawsuits over unpaid vendor bills, broken contracts, and unpaid compensation of fired executives. It acquired one more LA hospital before attracting private equity firm Leonard Green (LG) to acquire it in a leveraged buyout worth $363 million in December 2010. Leonard Green acquired a 61.3 percent stake, with Topper owning 14.9 percent and Lee, 20.2 percent. LG partners controlled the board while Lee ran operations as CEO with a $2 million annual salary. Within two years, Leonard Green received two rounds of dividends worth $188 million (financed with junk bonds), thereby almost matching its initial investment of $205 million (Elkind 2020).

LifePoint Health

LifePoint Health exemplifies the kind of horse-trading of hospitals that PE firms have engaged in. Private equity firms have traded among each another for more than 20 years. LifePoint is a system formed through the mergers of Essent Healthcare, RegionalCare Hospital Partners, Capella Healthcare, and LifePoint Health. Essent Healthcare was founded in 1999 as a for-profit hospital with private equity growth capital from Thomas Cressey Equity Partners. In 2004, it received additional PE backing from Cressey & Co and Vestar Capital Partners; and in 2007, $120 million in a leveraged recapitalization from GE Capital.

In 2011, Warburg Pincus private equity firm acquired the Essent hospitals in a $250 million LBO and merged them into its platform, RegionalCare Hospital Partners, which it had set up in 2009 through a

$300 million LBO. Essent had three hospitals and RegionalCare, four – all targeting non-urban small hospitals. Just two years later, in 2013, Apollo Global Management bought out RegionalCare (renamed RCCH Healthcare Partners) in an LBO worth $800 million. Apollo then went on to buy out Capella Healthcare in 2016 from REIT Medical Properties Trust for $550 million – and merge it into RCCH. Then, in 2018, Apollo bought out LifePoint Health for $5.6 billion and merged it with RCCH Partners, renaming the system LifePoint Health. LifePoint had been founded in 1999 as a for-profit chain with 23 rural community hospitals in nine states – a spinoff of Columbia/HCA when it had to unload hospitals in order to pay its fraud settlements with the federal government.

These mergers created a LifePoint national chain of 53,000 employees in some 25 hospitals, 35 outpatient centers, and 50 affiliated post-acute care centers located in small towns in 29 states across the country.

As has occurred with HCA, CHS, and other for-profit and PE-owned chains, Apollo has bought out hospitals in the same or nearby markets and consolidated them into one system. A recent example is Riverton, Wyoming, a working-class town, where LifePoint owned the only hospital in town (Riverton hospital). When Apollo bought out LifePoint in 2018, it sold 10 of the hospitals, including Riverton, to the REIT, Medical Properties Trust, in a sale-leaseback deal worth $700 million (Berryman 2019). Now Riverton pays rent on property it used to own, undermining net revenues. Under Apollo's ownership, LifePoint also merged the Riverton hospital with another LifePoint hospital 30 miles away, and then started consolidating services. Despite criticism from Wyoming's Republican senators and governor, who said consolidation was not part of the original deal, Apollo has continued with its plan. Local residents also point to poor quality service, the absence of adequate physician coverage, and lack of trained staff at the hospital – in one case leading to the death of a patient by another psychiatric patient. The need for air ambulances has also quadrupled – from 155 in 2014 to 937 in 2019 (two-thirds of air ambulances are owned by private equity firms and charge tens of thousands of dollars for one trip).[14] Local residents have mobilized to raise funds to build another local hospital -– securing a $40 million low-interest loan from the Agriculture Department despite LifePoint's lobbying heavily against it (Spegele 2021).

Since the 2018 buyout of LifePoint, Apollo has continued its aggressive acquisition drive with a June 2021 buyout of Kindred Health, which itself employs 24,000 people in 62 long-term care hospitals, 25 inpatient rehabilitation centers, 100 acute rehabilitation centers, and two behavioral health centers (Kacik 2021). The new chain includes 89 hospitals, 50 post-acute providers, 35 outpatient clinics, and 125 rehabilitation facilities in 30 states. In the same month, Apollo engaged in yet another round of financial engineering in which it sold LifePoint to itself – that is, from its PE Fund VIII to its Fund IX, which had closed in 2017 with a record $24.7 billion. Apollo sold LifePoint for $2.6 billion to Fund IX after having invested about $975 million in the hospital chain since 2013,thereby netting about $1 billion for itself and its investors. The advisory boards of both funds approved the deal (Willmer 2021b).

[14] See the section below on air ambulances and surprise medical billing.

Third Phase: How Private Equity Helps Dismantle Local Healthcare Systems

In what we describe as the third stage of financialization, private equity investors are contributing to the dismantling of local healthcare systems. That is, rather than viewing health care as a holistic system to provide patient care, financial investors view it as a bundle of assets to be dissected, broken up, recombined, and bought and sold to extract value. Whether or not the process leads to quality health care is secondary. They deconstruct hospitals and patient services (property, emergency services, trauma, burn units, surgi-care, neonatal care, mental illness, radiology, anesthesiology, etc.) into saleable and tradeable components –allowing them to choose which services they want to invest in based on a risk-return calculation of future profits (Bryan and Rafferty 2014)[15].

In some ways, the DRG standardized payment system introduced in the 1980s, along with commercial insurance companies, set a platform for these types of calculations, with prices based on level of complexity of care needed for particular procedures. But healthcare systems remained largely intact, with hospitals as the central node in a local healthcare network of providers. And while traditional fee-for-service systems provided insufficient coordination across various specialties, doctors and related healthcare professionals were, nonetheless, affiliated with or employed by a local hospital-based system.

Since passage of the Affordable Care Act in 2010, health care providers have recognized the need for even greater care coordination across local providers in order to improve quality and efficiency, for example, through proactive approaches to population health management. This holistic approach requires flexible or holistic funding (often cross subsidization) and long-time horizons – to handle multiple or inter-related problems that may have physical, mental, behavioral, or social dimensions.

In this context, however, private equity and other financial actors are going in the opposite direction – dismantling the provision of patient-centered healthcare when it is more important than ever. This contrasts with the PE hospital strategy of the 1990s and 2000s that focused on buying out and accumulating hospitals as well as other local ancillary services, and later selling them intact (as in HCA, CHS, and others discussed above).

Now, PE firms are applying financial analysis to determine which parts of health care have the potential for high short-term returns – leading to the break-up of organizations into value-added pieces – or a supply chain concept – in which different actors capture different parts of patient care to extract value.

[15] Researchers Bryan and Rafferty push this argument further. They argue that investors have applied the "logic of derivatives" to health care by deconstructing healthcare services into saleable and tradeable components to be sold to investors based on their quantified risk (2014). While capital is traditionally expressed as the ownership of an asset, a derivative is a form of capital that owns the performance of that asset, but not necessarily the asset itself. This calculation relies on commodifying risk; rather than trading an asset based on its price, trading is based on the likelihood of whether the price of the asset will go up or down in the future. In health insurance markets, payments can be used as an underlying asset for asset-backed securities (ABS), with prices based on the risk of the individual defaulting on their payments. Bundling these securities together (securitization) in a diversified portfolio minimizes total risk.

Private equity firms identify, buy out, and peel-off valuable units of local systems. They then re-organize these local units into regional or national chains through which they may gain economies of scale but more importantly gain market power to negotiate higher payments from insurance companies or to apply greater influence on public policy and legislation at the local, state, or federal level. This re-organization also shifts the attention, and sometimes autonomy, of health care professionals, who become employees of large, non-local corporations. They need to pay attention to the rules set down by the corporation rather than the voices of community residents or local providers.

Financially stressed hospital systems have facilitated this process by increasingly outsourcing not only ancillary units (dietary, environmental services), but core medical services (emergency rooms, radiology, anesthesiology). This may lead to perverse outcomes – lower hospital revenues as well as lower quality care, while PE firms extract resources for themselves and their investors – resources that *flow out of the healthcare sector rather than being plowed back into the sector to improve services and patient care*.

Since 2010, then, most private equity investing has shifted away from hospitals, where the PE business model did not work well (with a few exceptions like HCA). For those PE firms that continue to own hospitals, however, they have expanded the PE playbook to include strategies to break up hospitals into their component parts. In particular, they rely heavily on separating hospital real estate from health care operations and selling off the hospital property to monetize these assets and use the proceeds to finance additional acquisitions and pay themselves large dividends (Brynestad and Fourie 2020). This overlooked strategy undermines the financial stability of the health care operating company, which must then pay rent on property it once owned. PE firms have made extensive use of these sale-leaseback arrangements in other sectors, especially retail and nursing homes; but in the 1990s and 2000s, they were not common in PE-owned hospitals such as HCA, CHS, and others discussed above. The use of sale-leasebacks for PE-owned hospitals has become increasingly important in the 2010s.

In the sections below, we illustrate how this financial re-conceptualization of healthcare leads to two contradictory movements: the fragmentation of local healthcare systems into saleable parts and the consolidation of those parts into national corporations that owe allegiance to the corporate center and profit making – not to the local healthcare system serving patient needs.

Dismantling Hospital Systems: Selling off Property at Patients' Expense

In the break-up of hospitals into property and operating parts, Real Estate Investment Trusts (REITS) have played a critical role. While historically hospitals have owned their own property as a financial cushion, financial analysts have identified medical properties as yielding higher returns for investors if they are separated from healthcare operations and sold. The financial argument is that cash-strapped hospital systems can monetize their real estate and make better use of the cash from the sale for 'margin generating activities' – for example, to invest in needed medical technologies or new acquisitions – outpatient clinics, ambulatory care, or additional hospitals. Health care providers may be 'freed up' from managing property, which may be more effectively handled by REITS and their property management companies.

The demand for access to medical properties, however, comes from outside investors, especially REITS eager to expand their empires. According to an industry analyst promoting REITS investments, investors valued health care REITS at 19.6x cash flow multiples in 2015, while publicly traded hospitals had multiples of only 8.9x (Wong-Hammond 2015). At the time, two REITS had just bought out PE-owned hospital systems, allowing the PE firms to exit with large profits: Medical Properties Trust (MPT) bought out the 13-hospital Capella Healthcare, from PE firm, GTCR Golden Rauner; and Ventas REITS bought out Ardent Health Services from WCAS for $1.83 billion. Ventas immediately split the hospital real estate from Ardent Health Services, which it sold to another PE firm, Equity Group Investments, for $475 Million (Ventas kept a 9.9% share). Because the real estate alone was priced at 14x rent (compared to the hospital rate of 12x), investors' cash-on-cash return to its shareholders was an additional $0.17 per dollar. For the hospital, the return on other investments, such as medical equipment, was as much as 20 percent – cementing the argument that from a strictly shareholder return perspective, the deal was financially preferable for all parties (Wong-Hammond 2015). At the time, the Ardent deal was twice the size of any other deal made by Ventas, that had primarily focused on senior living and used the Ardent deal to move into hospital properties. In 2015, a different REIT, Medical Properties Trust, bought out Capella Healthcare, which it sold a year later to Apollo Global Management for $550 million.

Moreover, some PE buyouts of hospitals appear to be 'pure real estate plays,' as in the case of Hahnemann Hospital, a safety-net hospital in downtown Philadelphia. Under the ownership of Tenet Healthcare, which did little to invest or maintain the facility, its financials suffered. Tenet sold it in 2018 to a PE firm (Paladin) and a Chicago real estate PE firm, which pledged to turn around the hospital. By June 2019, however, the PE firms filed for Hahnemann's bankruptcy and by September, closed the hospital. Notably, they separated and retained ownership of the hospital's valuable real estate, which was excluded from the bankruptcy. Public and city officials viewed the deal as a PE strategy to take over valuable city center real estate – nearly six acres and the largest contiguous space in the city – and sell it off for expensive condos and office buildings. In March 2020, city officials tried to negotiate use of the hospital for Covid-19 patients during the pandemic, but the owner's offer was almost $1 million per month in rent for the 500 beds – something the city couldn't afford. Just months later, in July 2020, the property went up for sale: one building sold for almost $10 million, and the rest has remained vacant as of April 2021 (D'Mello 2020; Cramer 2020; Adelman 2021).

More recently two hospital systems illustrate the new model for private equity to extract wealth from its hospital systems by partnering with REITS to finance buyout deals and to allow the private equity general partners to exit with the requisite outsized returns: Steward Health Care and Prospect Medical.

Steward Health Care

Recall that Steward sold off the property of its Massachusetts hospitals to Medical Properties Trust for $1.25 billion in order to pay itself dividends and launch a national buying spree. It began with the acquisition of eight hospitals in Ohio, Pennsylvania, and Florida, purchased at a discount for $311.9 million from the failing CHS system, which was selling off large numbers of hospitals to pay down its debt and avoid bankruptcy.

While CHS had retained ownership of the hospital properties, Steward immediately sold them off to Medical Properties Trust for $301.3 million, which means that MPT essentially financed the eight-hospital purchase and implies that the hospitals' operations were only worth $10.6 million (Brynestad and Fourie 2020; Medical Properties Trust 2020). The sale-leaseback also undermined the hospitals' financial stability. Illustrative is the case of Easton Hospital in Easton, PA, where the hospital had owned its own real estate since its founding in 1890. Then in 2020, when the Covid-19 pandemic hit, Cerberus announced that Easton Hospital was financially at risk and would have to be closed unless the governor granted it federal bailout funds of $8 million per month. To prevent a greater public health catastrophe, the governor complied (Batt and Appelbaum 2020). In 2017, Cerberus moved on to strike a deal with PE firm TPG to buy IASIS Healthcare – a chain of 18 hospitals strewn across Utah, Arizona, Colorado, Texas, Arkansas, and Louisiana. TPG had acquired IASIS in a 2004 leveraged buyout worth $1.484 billion and had failed in two attempts to exit the company: a sale in 2012 and an IPO in 2015. TPG wanted out as it had more than recouped its original investment via dividend recapitalizations. MPT provided 78 percent of the $1.51 billion deal in exchange for acquiring the real estate of nine IASIS hospitals and issuing mortgages for two others. MPT also invested additional equity in Steward, resulting in a 9.9 percent stake in the hospital system (Medical Properties Trust, Inc. 2017:10-k). In 2018, Medical Properties Trust leased additional properties to Steward and acquired five others, leading MPT to own a total of $4.052 billion worth of Steward-related real estate as of December 31, 2019 (Brynestad and Fourie 2020; Medical Properties Trust, Inc. 2020: 10-k).

With the IASIS deal, Cerberus almost doubled the size of the Steward system, but also absorbed a system loaded with debt by the previous PE owners – a debt level estimated at 6.5 times its earnings.

By this time, Steward's Massachusetts hospitals were also in deep trouble – the worst financial performers of any system in the state, with higher-than-average rates of patient falls, hospital acquired infections, and patient readmissions, according to Massachusetts state data

Having more than recouped its investments, however, Cerberus was ready to exit, and turned to a novel strategy. In May 2020, it transferred ownership to a group of Steward's doctors, led by its CEO Ralph de la Torre, in exchange for a note that paid regular interest to Cerberus and that could be converted back to equity – ensuring that Cerberus would gain whether the system did well or not. In January 2021, Steward borrowed $335 from Medical Properties Trust to buy the Cerberus' note; and in May 2021, Cerberus exited Steward completely. Only a month later, Steward went on to buy out another five hospitals in Florida – this time from Tenet Healthcare – for $1.1 billion. As part of the deal, Medical Properties Trust acquired the real estate underneath the hospitals for $900 million (Paavola 2021b).

Cerberus had originally invested an estimated $253.4 million. Cerberus and its investors received more than $700 million from the 2016 sale-leaseback deal and another $335 million from the sale of the hospital chain to the Steward physicians, financed by a loan from the Medical Properties Trust. Subtracting Cerberus total expenditure on Steward yields a profit of more than $700 million (Willmer 2021a, and author private correspondence with Willmer). Cerberus could not have done this without the critical role played by the REIT, Medical Properties Trust.

Prospect Medical Holdings

Returning to the Prospect Medical story, by 2019, it had expanded rapidly through debt-financed M&As, to include 20 hospitals and 165 clinics scattered across the US in Texas, Connecticut, Rhode Island, New Jersey, and Pennsylvania. In the meantime, its legacy of poor management practices and broken agreements have continued. When Prospect purchased the Texas hospital in 2012, it was profitable and garnered high federal quality ratings. But Lee, who took over control from LA headquarters, ran through four CEOs in four years, lost doctor referrals, drove finances into the red, and closed the hospital by 2019 – laying off 1,000 workers and selling off its property to a hotel chain to recoup losses. It pledged to spend $52 million on improvements and keep its New Jersey hospital open for five years; but in 2020, Prospect threatened to close the hospital, leading the state to issue a $15 million grant (Elkind 2020).

Between 2013 and the present, several lawsuits and government investigations have charged Prospect with improper Medicare billing and fraud, leading to penalties estimated in the tens of millions of dollars. More importantly, state health inspectors have repeatedly uncovered unsanitary conditions at its hospitals – lack of infection control and sterility in surgical rooms, broken refrigeration systems that caused a corpse in the morgue to decompose, inoperable elevators, leaky rain-soaked ceilings with tiles falling on patients, bedbugs, mold growth on walls, and at least three patient deaths due to inadequate staffing. The Joint Commission on Hospital Accreditation denied accreditation at Prospect's Waterbury, CT hospital after they found 42 violations of quality standards in December 2019 – leading to $24 million in penalties. The Centers for Medicare and Medicaid annual quality of care rankings have put all but one of Prospect's hospitals in the bottom 17 percent of all US hospitals. And since 2010, government inspectors have deemed Prospect facilities to pose "immediate jeopardy" to their patients, a situation the US Department of Health and Human Services (HHS) defines as having caused, or is likely to cause, "serious injury, harm, impairment or death" (Elkind 2020).

In the meantime, Leonard Green began searching for exit options, attempting two sales – each for an estimated $1 billion – in 2015 and again in 2018. They failed due to Prospect Medical's poor financials – declining revenues, lowered credit ratings, excessive debt, and an EBITDA margin of 10.8 percent in 2015 and 0.6 percent in 2018. In response, Prospect issued a $1.31 billion dividend recapitalization to refinance existing debt, reduce the underfunded pension liability in Rhode Island hospitals that it had promised to cover, and pay a dividend to the PE partners and investors. The resulting dividend of $457 million, along with the management and transaction fees charged by the PE firm, yielded an estimated $658.4 million to Leonard Green Partners and its investors (PitchBook 2020, PESP 2020).

To further reduce its debt load, Prospect turned to Medical Properties Trust in August 2019, and sold off its hospital real estate in California, Connecticut, and Pennsylvania for $1.386 billion – essentially replacing debt payments with rent payments. A year later, despite this capital influx, Prospect's liabilities still exceeded its total assets by $1.06 billion, according to a September 2020 financial analysis by an independent accounting firm commissioned by the Rhode Island AG (PYA 2021). Leonard Green agreed to sell its 60 percent stake to Lee and Topper for $12 million, to be paid by Prospect Medical, plus its assumption of $1.3 billion in lease obligations.

The sale to Lee and Topper, however, required approval from the Rhode Island Attorney General, who placed conditions on the sale in order to ensure that the Prospect-owned hospitals would be financially viable. The state had already sunk $20 million into the Leonard Green fund that owns Prospect. In the spring, 2021, the Rhode Island AG stated that it would approve the sale on condition that Leonard Green put $120-150 million in escrow to cover the two safety-net hospitals – given that Leonard Green had extracted millions in dividends while the hospitals had been losing $1 million per month and were financially distressed. Leonard Green refused and threatened to shut down the hospitals (Gagosz 2021). After a series of negotiations, the state AG reduced the required escrow to $80 million, while also requiring that Leonard Green make a financial commitment of $34.8 million before transferring ownership and that Prospect Medical make a capital investment of at least $72 million to the hospitals between 2020 and 2026 (Deveraux 2021).

Dismantling Local Health Care by Targeting Niche Markets

The shift in private equity targets from hospitals to more lucrative niche markets is evident in quantitative data on trends in deal transactions. Between 2013 and 2018, only 8 percent of PE healthcare investments were in the hospital segment of the industry compared to 30 percent in the outpatient services segment, with an additional 9 percent in 'other healthcare services' that include small physician specialty practices. PE firms also invested substantially in the following segments: healthcare technology systems (17 percent of all investments in 2013-2018), devices and supplies (17 percent), and pharma and biotech (15 percent) (Appelbaum and Batt 2020:19).

More recently, PE firms have moved into other physician specialties – dermatology, ob-gyn, dental practice management, case management, ophthalmology, and orthopedics – as well as behavioral health, home healthcare, and hospice care. And the pandemic experience is leading to a surge of PE and VC investments in health IT, artificial intelligence applied to healthcare, and telemedicine – all important inputs into hospital-based systems. Below we illustrate this process using examples from emergency rooms, air ambulances, and revenue cycle management (aka bill collecting).

Emergency Department Services and Surprise Billing[16]

As PE firms promise their investors 'outsized returns,' they need to maximize revenues – hence, 'outsized bills.' Surprise medical billing has become a serious problem for people who need to seek emergency room (ER) or other hospital services – even for those who think they are covered by their insurance policies. The hidden actors are leading private equity firms. Two private equity firms have led the way in creating national physician staffing firms that manage emergency departments that hospitals have outsourced. KKR owns Envision Health (with 70,000 employees) while Blackstone owns TeamHealth (with 20,000 employees); and together they have cornered over 30 percent of the market for outsourced ER staffing. They began by establishing a platform and buying up small physician practices to supply hospitalist services to hospitals in the 2000s. As hospitals sought to cut costs

[16] For a detailed examination of surprise medical billing and the role of PE in this process, see Appelbaum and Batt (2020: 54-76).

through outsourcing, PE firms saw the opportunity to build out their physician staffing companies and contract with hospitals to run their emergency departments. The result: a rapid increase in surprise medical bills. Research by Yale health economists found that charges for patient care nearly doubled when EmCare (Envision's ER staffing arm) took over emergency departments – compared to the charges billed by previous physician groups. TeamHealth, by contrast, used the threat of sending high out-of-network surprise bills for ER doctors' services to an insurance company's covered patients to gain high fees from the company as in-network doctors (Cooper, Morton, and Shekita 2018).

Surprise medical bills arise from the fact that outsourced ER departments (or other outsourced critical services) are not covered by the insurance contracts that hospitals have negotiated. As a result, patients may receive unexpected and unreasonably high medical bills because the 'out-of-network' doctors are free to charge whatever they want. Because PE firms promise investors outsized returns, they need outsized billing to accomplish this. And the PE-owned staffing companies have led the way in the fight to prevent Congress from reining in surprise medical billing practices. PE firms spent at least $54 million in 2019 alone to lobby against congressional legislation that would curb surprise medical bills (Appelbaum and Batt 2020:68-73). In December 2020, Congress finally passed a bill that prohibits surprise billing. It will go into effect on January 1, 2022, when surprise bills to patients will be banned. But it allows disputes between insurance companies and medical providers to be referred to arbitration, which may allow PE-owned staffing companies and others to be reimbursed beyond in-network rates. The bill's inclusion of arbitration for adjudicating conflicting claims may raise healthcare costs due to new administrative costs associated with arbitration or because arbitrators award prices higher than the median in-network charge that would have been paid. Nonetheless, given that the law requires arbitrators to begin negotiations using the median in-network charges, the expectation is that the new law will hold down charges paid to out-of-network providers (Adler et al. 2021).

Air ambulance services also engage in surprise medical billing; and two of the three largest providers—Global Medical Response and Air Methods – are owned by PE firms KKR and American Securities. According to the most authoritative study to date, published by the Brookings Institution,

> "… two private equity firms, who together make up 64% of the Medicare market, had a standardized average charge of $48,250 (7.2 times what Medicare would have paid) … markedly higher than the $28,800 (4.3 times what Medicare would have paid) standardized average charge for the same service by air ambulance carriers …." (Adler, Hannick, and Lee 2020).

The recent legislation banning surprise medical bills also applies to air ambulance companies, but surprisingly, not to ground ambulances.

Air ambulance surprise billing has a disproportionate impact on those living in small towns and rural locations as their hospitals have closed at disproportionately high rates in the last decade. As hospital systems have consolidated, they often close the less profitable hospitals in rural communities, and when emergencies hit – a car accident, a heart attack – patients may little choice but to take an air ambulance

to save their lives. The case of the Riverton, Wyoming hospital owned by Apollo (described above), is illustrative.

Revenue Cycle Management (RCM): Collecting Medical Debt17:

Revenue cycle management companies have become increasingly popular among private equity firms. These companies manage the full cycle of patient billing and are the ones that hound patients if their bills are unpaid – including those accumulated as a result of the surprise medical billing by PE-owned companies. Unpaid medical bills – also referred to as hospital uncompensated or unreimbursed care – have grown substantially in recent years as wages at the bottom half of the income distribution have stagnated and those who have accessed insurance through the insurance exchange markets set up by the ACA face very high deductibles (Tozzi and Tracer 2018). Employers have also increased the deductibles in their health insurance plans – even for higher income employees.

As a result, many families face substantial medical debt, which is an important contributor to 58.5 percent of personal bankruptcies, according to a study of bankruptcy filings between 2013 and 2016 (Himmelstein, Lawless, Thorne, Foohey and Woolhandler 2019). Since 2015, uncompensated hospital care has grown at about 3 percent annually (Kacik 2019); and hospitals have responded by outsourcing bill collection to third party vendors with more efficient and updated IT and automated billing systems. Hospital demand for RCM outsourcing rose by 86 percent between 2015 and 2018, albeit from a low level. Those with full RCM projects grew from 11 to 18 percent in that period. The global RCM market was expected to grow from $11.7 billion in 2017 to $23 billion by 2023 (LaPointe 2019).

RCM has been an attractive market for private equity because of the increased market demand for their services and because many PE firms have already invested in health IT. Extending IT innovations to the RCM segment is relatively straightforward. PE firms also can tie RCM services into a range of IT and data-based services for each hospital system. And hospital demand is growing. Private equity's involvement in bill collecting, however, dates to the 2000s, when two PE-owned hospital systems took the lead: HCA subsidiary, Parallon, and Tenet Healthcare subsidiary, Conifer Health Solutions. In 2018, the largest RCM company was Parallon, with 3,926 contracts and 16,500 full time employees; second in size is nThrive (Pamplona Capital) with 1,565 total contracts and 3,048 full time employees. The next largest 18 companies have between 100 to 1,500 contracts each. Other leading PE firms active in this segment include Blackstone, The Gores Group, Thomas H. Partners, Vista Equity, Waud Capital Partners, and Warburg Pinchus. These companies have relied on the classic PE leveraged debt financing coupled with the platform buy-and-build model to grow aggressively and consolidate services.

The RCM market is relatively new, and the risks are uncertain. PE firms claim they provide more efficient billing systems at lower cost so that hospitals can focus on patient care. But available research has found high levels of provider dissatisfaction, with one-third of health providers in a 2019 survey

[17] Appelbaum and Batt provide a detailed analysis of private equity in the RCM market segment (2020: 76-93).

saying they would not purchase their vendor's RCM outsourcing services again (LaPointe 2019). From 2017 to 2019, Pamplona-owned nThrive saw a 13-point decrease in satisfaction rates, with health providers complaining that if the RCM company underperformed, there were few consequences. Provides also complain of 'cookie cutter' approaches and clunky operating systems. Recent research also shows limited evidence that RCM vendors actually improve upon patient payment recovery rates, with some studies showing longer repayment cycles than with in-house RCM operations

The Federal Communications Commission (FCC) has been investigating RCM companies for their aggressive tactics. Complaints to the FCC have increased; and between 2010 and 2014, lawsuits claiming that RCM and other collections agencies were violating the Telephone Consumer Protection Act (TCPA) increased by 560 percent. In August 2015, the FCC ruled that the decades-old TCPA does apply to calls by bill collectors to cell phones, and not just landlines. This ruling means that debt collectors must get consumers' express consent before autodialing a cellphone. They are allowed one wrong number call to a cell phone. Substantial financial penalties accompany violations of the TCPA (Kutscher 2015).

RCM may also be ripe for disruption by VC investments in so-called 'fintech' (financial technology) start-ups. Some of these financial technology start-ups have taken note of ballooning medical debt and are devising new ways to make it easy for patients to pay off medical debts. These VC investors are betting on a solution that resembles the buy-now-pay-later deals offered to retail consumers and lets patients pay for healthcare via small monthly payments over a period of months or years (Temkin 2021). This payment approach, which bypasses bill collectors altogether and makes large medical bills more affordable, has the potential to make the most profitable part of revenue cycle management obsolete. Like RCM, the fintech companies make money by buying medical debt owed to hospitals or other health providers at 75 cents on the dollar and collect the debt at 100 cents on the dollar. They can afford to offer patients interest-free payment plans.

In sum, PE firms are on the forefront of the outsourced RCM segment in healthcare, pushing it toward consolidation. They have been involved in aggressive billing collection practices, including violating debt collection laws, suing low-income patients, and offering potentially exploitive medical loans. Recent investigations suggest PE-owned companies discontinue their most egregious practices once they come to light. Health care stakeholders must continue to track PE involvement, as well as the RCM segment more generally, to protect vulnerable patients from exploitive practices.

Conclusion: Financial Penetration into Health Care

In Part III of this paper, we have analyzed the historical evolution of financial actors and investors as they moved into the healthcare sector. We illustrate the processes through which they penetrated healthcare organizations using financial tactics that previously had not been used by this sector. We detail the array of business strategies and financial tactics they used to gain influence, market power, and extract wealth from healthcare organizations for themselves. We also identify the ways in which their financial tactics have often led to problematic outcomes. These include cost-cutting strategies that undermine patient care and the well-being of employees as well as revenue-enhancing strategies such

as up-coding, the use of unnecessary procedures, and fraudulent billing to increase their profits at the expense of taxpayers and patients. We also show how private equity buyouts have especially led to destabilization of hospital finances through the heavy use of debt, and more recently, the dismantling of local healthcare systems at a time when care coordination and integration are most needed.

While at first blush it appears that financialization in health care was a product of private equity's penetration of the sector since the 2000s, our evidence points to a deeper, more continuous history. The for-profit corporations of the 1960s through the 1990s created a template for making profits that included: reliance on government reimbursements, rapid growth through acquisitions, cost-cutting, and fraudulent or near-fraudulent billing practices. They learned from the corporate raiders and buyout specialists of the 1980s, and soon began to integrate those tactics into healthcare organizations. The corporate phase of profit-making gave way to a second phase and provided a platform for more sophisticated finance experts in private equity firms to take over local hospital systems and extract higher profits through the extensive use of debt and other financial engineering tactics. These strategies were financially successful in a small number of cases, however, because hospital operating margins are thin, and the financial skills of PE partners were insufficient to cope with the complex challenges of running a hospital that provides high-quality care at reasonable costs. While some private equity firms have continued to own and operate hospitals (often at great cost to their financial stability and patient care), most have moved into what we refer to as third-phase activities – buying up higher margin healthcare services and reorganizing them into regional or national corporations, with the result that they are separated from local systems.

Conclusion: How Financial Logic Changes the Meaning of Health Care

Financialization in health care is a process that has unfolded over five decades. It began with attempts to re-conceptualize health care from a charitable service or a public good to a market of goods and services to be bought and sold. The market logic appealed to many who saw healthcare costs rising rapidly and viewed the logic of competitive markets as a solution. The market solution never worked, however, because third party payers – governments and commercial insurance companies – continued to set prices based on various criteria that changed over time. Medicare and Medicaid reimbursements, which typically provided over 50 percent of funding and thus set overall industry standards, were subject to political contest in Washington and therefore often changed arbitrarily or unexpectedly.

The market logic led politicians to allow Medicare and Medicaid funding of for-profit enterprises for the first time beginning in the 1960s. The logic increasingly shaped the thinking of healthcare providers. The proportion of state and local public hospitals shrank as the proportion of for-profit ones grew, although not necessarily in the same localities. Investors with little or no healthcare knowledge sought out opportunities to make easy money in markets that were not characterized by competition – small towns, rural areas in the south and west where the healthcare infrastructure was underdeveloped. Third party funding created opportunities for financial entrepreneurs to create for-profit systems with monopoly power – the opposite of what was intended. The market logic didn't work its magic.

Nonprofit hospital systems continued to dominate the landscape but increasingly faced a context in which health care was viewed as a commodity and for-profit activities were viewed positively. Since the 1980s, the federal government has attempted to get out of the healthcare 'business' by reducing the rate of growth of reimbursements and forcing a market logic to emerge. Nonprofits copied the merger and acquisition expansion strategies of their for-profit counterparts. The federal government helped nonprofits adopt a market logic by allowing them to establish for-profit tax-exempt subsidiaries at the end of the 1990s – opening the floodgates to entrepreneurial financial strategies and venture capital start-ups.

In the 1990s, a financial logic began to emerge in the sector that went beyond a market logic. Whereas the market logic still valued productive enterprises as the source of profits, the financial logic views productive enterprises only in terms of the value of their assets and how they can be monetized. The financial logic for business activities in the economy more generally grew as a result of several forces: The deregulation of the banking system, the growth of shareholder primacy as a value, the expansion of private pools of unregulated capital, and the development of financial tools and innovative tactics.

In this study, we document how the for-profit healthcare enterprises have shaped the context in which nonprofits operate and also provided the platforms for new financial actors, particularly private equity firms, which introduced a financial logic into healthcare operations especially from the 2000s on. PE firms make money and extract value from healthcare organizations almost entirely through financial activities, regardless of their impact on healthcare organizations or patient care. They use third party reimbursements that their portfolio healthcare companies receive as a vehicle to extract cash for themselves and their investors. In this sense, they represent the most advanced form of financialization in the healthcare sector.

In the evolution of financialization in this sector, the logic of healthcare organizations as long-term care-giving entities is giving way to a financial logic that views any organization as a set of assets to be bought, reconfigured, and sold in the short run to extract wealth for investors. Financial analysis is applied to each healthcare activity to establish a risk-reward profile used to determine whether to invest in a given activity, and if so, how much to pay. Patient care becomes a secondary – not a primary – mission of the organization.

Financialization, however, is an ongoing process with many dimensions. The evidence in this research points to a range of variation in financial strategies – from some that are used to support the operations of hospital providers to those that detract from them. For-profit and private equity owned systems also use a range of different financial strategies and tactics – some more detrimental to long-term stability and patient care than others. In the meantime, the healthcare field attracts people who want to dedicate themselves to providing high quality care and saving lives. They are often caught in the middle of organizations in which the financial logic is putting pressure on, or marginalizng, the caregiving logic of healthcare. The evidence in this paper provides a cautionary note. It suggests that as the process of financialization continues to expand in this sector, the costs of healthcare will continue to grow even as the financial stability of hospitals and the dedication to patient care declines.

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Appendix

Appendix 1 (to accompany Table 2.2)		
Sources - Top Financial Performers among Nonprofit Hospitals		
	Total Net Revenue	**Non-Operating Net Income**
AdventHealth	https://emma.msrb.org/ER1124971-ER880270-ER1280912.pdf	https://emma.msrb.org/ES1354565-ES1055939-ES1461349.pdf
Adventist Health	https://emma.msrb.org/ES1143091-ES894267-ES1295542.pdf	https://emma.msrb.org/ER1322381-ER1030494-ER1437457.pdf
Advocate Aurora HC	https://emma.msrb.org/ES1116466-ES872977-ES1274264.pdf	https://emma.msrb.org/P21443145-ES1064800-ES1471182.pdf
Allina Health	https://emma.msrb.org/ES1120839-ES876446-ES1277719.pdf	https://emma.msrb.org/ES1360401-ES1060020-ES1465801.pdf
Ascension	https://emma.msrb.org/ER1085752-ER849223-ER1250440.pdf	https://emma.msrb.org/ER1255079-ER980803-ER1382453.pdf
Atrium Health	https://emma.msrb.org/P21455373-P21129680-P21541904.pdf	https://emma.msrb.org/ER1236517-ER967295-ER1368207.pdf
Aurora Health Care	https://emma.msrb.org/ER1135700-ES883455-ES1284735.pdf	
Banner Health	https://emma.msrb.org/ES1128393-ES875695-ES1284275.pdf	https://emma.msrb.org/ES1363454-ES1062316-ES1468378.pdf
Baptist Health South Florida	https://emma.msrb.org/ER1107304-ER865986-ER1266669.pdf	https://emma.msrb.org/ES1333311-ES1040178-ES1443467.pdf
BayCare Health System	https://emma.msrb.org/SS1380286-SS1074732-SS1481998.pdf	https://emma.msrb.org/ES1024510-ES801415-ES1202755.pdf
Baylor Scott and White Health	https://emma.msrb.org/ES1068647-ES834388-ES1235442.pdf	https://emma.msrb.org/ES1324877-ES1033980-ES1436500.pdf
Baystate Health	https://emma.msrb.org/ES1087579-ES849621-ES1250801.pdf	https://emma.msrb.org/ER1301108-ER1014364-ER1419653.pdf
Beaumont Health	https://emma.msrb.org/ES1114005-ES870992-ES1272296.pdf	https://emma.msrb.org/ES1114005-ES870992-ES1272296.pdf
Beth Israel Lahey Health	https://emma.msrb.org/ES1112794-ES868705-ES1271472.pdf	https://emma.msrb.org/ES1247694-ES975534-ES1376670.pdf
BJC HealthCare	https://emma.msrb.org/ES1111800-ES869471-ES1270757.pdf	https://emma.msrb.org/ES1350189-ES1052610-ES1457343.pdf
Bon Secours	https://emma.msrb.org/ES1069584-ES835165-ES1236193.pdf	https://emma.msrb.org/ES1215354-ES949071-ES1349892.pdf
Bon Secours Mercy	https://emma.msrb.org/ES1148649-ES892728-ES1299936.pdf	https://emma.msrb.org/ES1368855-ES1066383-ES1472902.pdf
Catholic Health Intiatives[7]	https://emma.msrb.org/ES1045457-ES817141-ES1218467.pdf	https://emma.msrb.org/ER1174240-ES939612-ES1340420.pdf

Cedars-Sinai Medical Center	https://emma.msrb.org/EP1026489-EP795323-EP1196850.pdf	https://emma.msrb.org/ES1324957-ES1034045-ES1436570.pdf
Children's Hospital of Phili. (CHOP)*	https://emma.msrb.org/ES1058163-ES826345-ES1227488.pdf	https://emma.msrb.org/ES1312844-ES1025728-ES1427638.pdf
Christus Health	https://emma.msrb.org/ER1098034-ER859145-ER1259830.pdf	https://emma.msrb.org/ES1329081-ES1036958-ES1439815.pdf
Cleveland Clinic	https://emma.msrb.org/ER1192695-ES881769-ES1283042.pdf	https://emma.msrb.org/ER1315703-ER1025167-ER1431578.pdf
CommonSpirit Health	https://emma.msrb.org/ER1088027-ER851511-ER1252154.pdf	https://emma.msrb.org/ER1155405-ER903577-ER1304062.pdf
Duke University Health	https://emma.msrb.org/ES1105081-ES863635-ES1264749.pdf	https://corporate.dukehealth.org/sites/default/files/2019-12/FY19%20Duke%20University%20Health%20System%20Inc%20and%20Affiliates%20AFS.PDF
Froedtert Health	https://emma.msrb.org/ES1048803-ES819630-ES1220878.pdf	https://emma.msrb.org/ER1263174-ER986517-ER1388673.pdf
Geisinger	https://emma.msrb.org/ER1085946-ER849825-ER1250566.pdf	https://emma.msrb.org/EP1039502-EP805253-EP1206822.pdf
Hackensack Meridian	https://emma.msrb.org/ER1132735-ER886465-ER1287110.pdf	https://emma.msrb.org/RE1326109-RE1033290-RE1440594.pdf
Hartford HealthCare	https://emma.msrb.org/ES1101618-ES852319-ES1253469.pdf	https://emma.msrb.org/ES1335000-ES1038959-ES1444707.pdf
HealthPartners	https://emma.msrb.org/EP1029642-EP797714-EP1199264.pdf	https://emma.msrb.org/RE1332132-RE1037543-RE1445176.pdf
Henry Ford Health System	https://emma.msrb.org/ES1138670-ES890983-ES1292281.pdf	https://emma.msrb.org/ES1362431-ES1061585-ES1467552.pdf
Highmark Health	https://www.highmarkhealth.org/annualreport2017/financials/performance.shtml	https://www.highmarkhealth.org/annualreport2018/financials/performance.shtml
Hospital Sisters	https://emma.msrb.org/ER1090971-ER853820-ER1254444.pdf	https://emma.msrb.org/ES1328215-ES1036319-ES1439108.pdf
Houston Methodist	https://emma.msrb.org/SS1392312-ER883858-ER1284534.pdf	https://emma.msrb.org/SS1392346-SS1069110-SS1475883.pdf
Indiana University Health	https://emma.msrb.org/ES1108850-ES866934-ES1268105.pdf	https://emma.msrb.org/ER1317089-ER1026280-ER1432770.pdf
Inova Health System	https://emma.msrb.org/ES1125400-ES880333-ES1281621.pdf	https://emma.msrb.org/ER1317555-ER1026622-ER1433158.pdf
Intermountain Healthcare	https://emma.msrb.org/ES1117844-ES874135-ES1275411.pdf	https://emma.msrb.org/ER1317621-ER1026676-ER1433220.pdf
Johns Hopkins Health System	https://emma.msrb.org/ER1087169-ER850882-ER1251550.pdf	https://emma.msrb.org/ER1258025-ER982953-ER1384823.pdf

Kaiser Permanente	https://emma.msrb.org/ER1254302-ES867542-ES1268773.pdf	https://emma.msrb.org/ES1348708-ES1051506-ES1456069.pdf
Lehigh Valley Health	https://emma.msrb.org/ER1090339-ER853358-ER1253953.pdf	https://emma.msrb.org/ES1327916-ES1036122-ES1438891.pdf
M Health Fairview	https://emma.msrb.org/ES1143434-ES894550-ES1295815.pdf	https://emma.msrb.org/RE1330501-RE1036439-RE1443988.pdf
Mass General Brigham	https://emma.msrb.org/ER1120300-ER876298-ER1276932.pdf	https://emma.msrb.org/ER1302287-ER1015227-ER1420594.pdf
Mayo Clinic	https://emma.msrb.org/ES1107379-ES865682-ES1266809.pdf	https://emma.msrb.org/ES1353624-ES1055284-ES1460596.pdf
McLaren Health Care	https://emma.msrb.org/ES1093043-ES853949-ES1255089.pdf	https://emma.msrb.org/ER1302970-ER1015782-ER1421211.pdf
MedStar Health	https://emma.msrb.org/ES1053086-ES822679-ES1223870.pdf	https://emma.msrb.org/ES1310878-ES1024368-ES1426207.pdf
Memorial Hermann Health System	https://emma.msrb.org/EP1027395-EP795957-EP1197475.pdf	https://emma.msrb.org/ER1259419-ER984019-ER1386002.pdf
MemorialCare	https://emma.msrb.org/ES1057302-ES825732-ES1226888.pdf	https://emma.msrb.org/ER1267143-ER989388-ER1391764.pdf
Montefiore Medical Center	https://emma.msrb.org/ES1025504-ES802202-ES1203557.pdf	https://emma.msrb.org/ER1223747-ER957797-ER1358769.pdf
NewYork-Presbyterian Hospital	https://emma.msrb.org/ER1133321-ER886839-ER1287478.pdf	https://emma.msrb.org/RE1344308-RE1046055-RE1454385.pdf
NorthShore University HealthSystem	https://emma.msrb.org/ER1124550-ER879904-ER1280541.pdf	https://emma.msrb.org/ER1291200-ER1006819-ER1411185.pdf
Northwell Health	https://emma.msrb.org/ES1147372-ES897722-ES1298982.pdf	https://emma.msrb.org/SS1372759-SS1069234-SS1476011.pdf
Northwestern Medicine	https://emma.msrb.org/ES1072630-ES837532-ES1238602.pdf	https://emma.msrb.org/ER1281810-ER999874-ER1403301.pdf
Novant Health	https://emma.msrb.org/ES1131182-ES885062-ES1286354.pdf	https://emma.msrb.org/ES1367154-ES1065133-ES1471550.pdf
New York Health and Hospitals Corp.	https://emma.msrb.org/ER1167323-ER912530-ER1312995.pdf	https://emma.msrb.org/ES1325071-ES1034137-ES1436674.pdf
NYU Langone Hospitals	https://emma.msrb.org/ES1086815-ES849016-ES1250196.pdf	https://emma.msrb.org/ER1302501-ER1011925-ER1417019.pdf
Ochsner Medical Center	https://emma.msrb.org/ES1145856-ES896507-ES1297753.pdf	https://emma.msrb.org/SS1372917-SS1069351-SS1476150.pdf
OhioHealth	https://emma.msrb.org/ER1090210-ER853250-ER1253848.pdf	https://emma.msrb.org/ER1263005-ER986163-ER1388294.pdf

Orlando Health	https://emma.msrb.org/ER1123600-ER879122-ER1279769.pdf	https://emma.msrb.org/ES1351151-ES1053338-ES1458224.pdf
OSF HealthCare	https://emma.msrb.org/ES1109203-ES867186-ES1268355.pdf	https://emma.msrb.org/ES1109203-ES867186-ES1268354.pdf
PeaceHealth	https://emma.msrb.org/ES1049059-ES819848-ES1221088.pdf	https://emma.msrb.org/ES1325539-ES1034459-ES1437039.pdf
Presbyterian Healthcare Services	https://emma.msrb.org/ES1142369-ES893731-ES1295014.pdf	https://emma.msrb.org/RE1334838-RE1039418-RE1447247.pdf
Presence Health	https://emma.msrb.org/ER1058481-ER829087-ER1230058.pdf	
ProMedica	https://emma.msrb.org/ES1138038-ES890491-ES1291797.pdf	https://emma.msrb.org/RE1332996-RE1038168-RE1445868.pdf
Providence St. Joseph Health	https://emma.msrb.org/ES1152368-ES901214-ES1302428.pdf	https://emma.msrb.org/ES1358372-ES1058503-ES1464144.pdf
Rush Health	https://emma.msrb.org/EP1027058-EP795748-EP1197268.pdf	https://emma.msrb.org/ES1316433-ES1028152-ES1430255.pdf
Sanford Health	https://emma.msrb.org/ES1052607-ES822290-ES1223499.pdf	https://emma.msrb.org/SS1372671-SS1069173-SS1475946.pdf
Scripps Health	https://emma.msrb.org/ER1111663-ER869488-ER1270235.pdf	https://emma.msrb.org/ER1285457-ER1002515-ER1406210.pdf
Sentara Healthcare	https://emma.msrb.org/ES1136973-ES889632-ES1290951.pdf	https://emma.msrb.org/SS1383471-SS1077032-SS1484543.pdf
Sharp HealthCare	https://emma.msrb.org/ER1108691-ER867113-ER1267805.pdf	https://emma.msrb.org/ER1296857-ER1011261-ER1416214.pdf
Sis. of Charity Leavenworth (SCL) Health	https://emma.msrb.org/ER1130338-ER884606-ER1285290.pdf	https://emma.msrb.org/RE1338838-RE1042150-RE1450180.pdf
Spectrum Health	https://emma.msrb.org/ER1080521-ER845896-ER1246655.pdf	https://emma.msrb.org/ES1301409-ES1018160-ES1419654.pdf
SSM Health	https://emma.msrb.org/ES1152225-ES883301-ES1284574.pdf	https://emma.msrb.org/ES1365932-ES1064220-ES1470495.pdf
Stanford Health Care	https://emma.msrb.org/ER1104081-ER863445-ER1264145.pdf	https://emma.msrb.org/ER1288315-ER1004595-ER1408535.pdf
Sutter Health	https://emma.msrb.org/ES1118090-ES874316-ES1275593.pdf	https://emma.msrb.org/ES1358401-ES1058527-ES1464168.pdf
Texas Children's Hospital	https://emma.msrb.org/ER1111938-ER869722-ER1270466.pdf	https://emma.msrb.org/ER1285284-ER1002368-ER1406042.pdf
Texas Health Resources	https://emma.msrb.org/ES1148751-ES898747-ES1299995.pdf	https://emma.msrb.org/SS1374925-SS1070890-SS1477853.pdf
Trinity Health	https://emma.msrb.org/ER1178318-EP796502-EP1198009.pdf	https://emma.msrb.org/ER1273009-ER993686-ER1396560.pdf

UnityPoint Health	https://emma.msrb.org/ES1146838-EP798032-ES1298482.pdf	https://emma.msrb.org/SS1374341-SS1069126-SS1477353.pdf
University Hospitals	https://emma.msrb.org/EP1029399-EP797595-EP1199105.pdf	https://emma.msrb.org/RE1335074-RE1039588-RE1447426.pdf
University of California Health	https://finreports.universityofcalifornia.edu/index.php?file=med_ctr/16-17/Med-Centers-16-17-report.pdf	https://finreports.universityofcalifornia.edu/index.php?file=med_ctr/18-19/Med-Centers-18-19-report.pdf
U. of Chicago Medicine	https://www.uchicagomedicine.org/-/media/pdfs/adult-pdfs/about-us/financial-information/2017-audited.pdf	https://www.uchicagomedicine.org/-/media/pdfs/adult-pdfs/about-us/financial-information/2019-audited.pdf
University of Colorado	https://emma.msrb.org/ES1065134-ES831503-ES1232597.pdf	https://emma.msrb.org/ES1313195-ER982781-ER1384642.pdf
U. of Maryland Med System	https://emma.msrb.org/EP1027377-EP795941-EP1197460.pdf	https://emma.msrb.org/RE1363665-ES1028596-ES1430754.pdf
U. of PA Health System (Penn Medicine)	https://emma.msrb.org/ER1089424-ER852601-ER1253221.pdf	https://emma.msrb.org/ER1257422-ER982531-ER1384349.pdf
U. of Pitt. Med Ctr (UPMC)*^	https://emma.msrb.org/ER1080085-ER845589-ER1246352.pdf	https://emma.msrb.org/ES1353604-ES1055271-ES1460582.pdf
Wake Forest Baptist Health	https://emma.msrb.org/EP1028089-EP796554-EP1198064.pdf	https://emma.msrb.org/ES1328713-ES1036699-ES1439527.pdf
WellStar Heath System	https://emma.msrb.org/ES1057997-ES826204-ES1227347.pdf	https://emma.msrb.org/ER1274897-ER995087-ER1398122.pdf