

Antitrust Applied: Hospital Consolidation Concerns and Solutions

Statement before the Committee on the Judiciary
Subcommittee on Competition Policy, Antitrust, and Consumer Rights
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by

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Summary of Statement

- Health care is a very large and important sector of our economy. Not only is the health care sector nearly 1/5th of the economy, it has a critical impact on our health and wellbeing.
- Hospitals account for over 31 percent of total health spending and nearly 5.6 percent of gross domestic product (GDP). This makes hospitals one of the largest industries in the entire economy.
- By contrast, physician services constitute approximately 20 percent of health spending and 3.6 percent of GDP, pharmaceuticals account for 9.7 percent of health spending and 1.7 percent of GDP, and health insurance is 6.3 percent of health spending and approximately 1 percent of GDP.
- The U.S. health care system is based on markets. The system will work only as well as the markets that underpin it.
- These markets do not function as well as they could, or should. Prices are high and rising, there are egregious pricing practices, quality is suboptimal, and the sector is sluggish and unresponsive, in contrast to the innovation and dynamism which characterize much of the rest of our economy.
- Lack of competition has a lot to do with these problems.
- There has been a great deal of consolidation in health care. There have been nearly 1,600 hospital mergers in the past twenty years, with over 450 since 2012. The result is that the majority of local areas are now dominated by one large, powerful health system, e.g., Boston (Partners), Pittsburgh (UPMC), and San Francisco (Sutter).
- There were nearly 31,000 physician practice acquisitions by hospitals from 2008-2012, and over 33 percent of all physicians are now in hospital owned practices.
- Extensive research evidence shows that consolidation between close competitors leads to substantial price increases for hospitals, insurers, and physicians, without offsetting gains in improved quality or enhanced efficiency. Further, recent evidence shows that mergers between hospitals not in the same geographic area can also lead to increases in price. Just as seriously, if not more, evidence shows that patient quality of care suffers from lack of competition. Last, competition affects the form of payment – hospitals with fewer competitors negotiate more favorable forms of payment and reject those they dislike. This poses a serious challenge for payment reform.
- Research evidence shows not-for-profit hospitals exploit market power just as much as for-profits.

- It is also possible that hospital mergers lead to, or enhance monopsony power in labor markets. This can depress wages below the efficient level, distort hiring decisions, and in the long run, harm incentives for investment in human capital. Recent evidence shows impacts of hospital mergers consistent with these concerns.
- There are also concerns about anticompetitive conduct. Firms who have acquired market power have an incentive to maintain or enhance it.
 - Some dominant health systems have been using restrictive contracts with insurers to try to hamper the free flow of patients to competitors, thereby harming competition and enhancing their market power.
 - There are extensive reports of health systems engaging in “data blocking” – impeding the flow of patient information to providers outside the system. This has the potential to harm competition by making it more difficult for patients to switch providers.

Now that most hospital markets are dominated by one large health system, there is considerable potential for this kind of conduct seriously harming competition.

- This is causing serious harm to patients and to the health care system as a whole.
- Policies are needed to support and promote competition in health care markets. This includes ending distortions that unintentionally incentivize consolidation, and policies to strengthen choice and competition.
- These include:
 - End policies that unintentionally incentivize consolidation.
 - End policies that hamper new competitors and impede competition.
 - Focus and strengthen antitrust enforcement. In particular:
 - * Give the DOJ and FTC the resources they need to be effective, not just to do more enforcement in existing areas, but to be able to proactively invest to address new and developing issues.
 - * Permit the FTC to enforce against anticompetitive actions by not-for-profits.
 - * Require simple reporting of small transactions that fall below the Hart-Scott-Rodino reporting requirements, so that the enforcement agencies can track physician practice mergers and hospital acquisitions of physician practices.
 - * Adopt legislation to reform and strengthen the antitrust laws, so the antitrust enforcement agencies will be better able to prevent and deter harmful mergers and conduct.
 - Create a public, national health care database on spending, utilization, prices, and ownership so government, employers, and consumers have access to accurate and complete information about health care costs.

Statement

Chair Klobuchar, Ranking Member Lee, and Members of the Subcommittee, thank you for holding a hearing on this vitally important topic and for giving me the opportunity to testify in front of you today.

1 My Background

I am an economist who has been studying the health care sector, and specifically health care markets and competition, for nearly 40 years. I am a Professor of Economics and Public Policy at the Heinz College of Public Policy at Carnegie Mellon University in Pittsburgh. I served as the Director of the Bureau of Economics at the Federal Trade Commission during 2013-2014, during which time I was involved in the many health care matters that came before the Commission. I also serve the Commonwealth of Pennsylvania as a member of the Pennsylvania Health Care Cost Containment Council and served as Co-Chair of its Working Group on Shoppable Health Care.

Much of my research is directly relevant to the topic of this hearing. My project with colleagues Zack Cooper, Stuart Craig, and John Van Reenen exploits newly available data on nearly 90 million individuals with private, employer sponsored health insurance nationwide to examine variation in health care spending and prices for the privately insured ([Cooper et al., 2019](#)). One of our key findings is that hospitals that have fewer potential competitors nearby have substantially higher prices. For example, monopoly hospitals' prices are on average 12 percent higher than hospitals with 3 or more potential competitors nearby. The prices of hospitals who have one other nearby potential competitor are on average 7.3 percent higher. We also examine all hospital mergers in the United States over a five year period, and find that the average merger between two nearby hospitals (5 miles or closer) leads to a price increase of 6 percent. Further, our evidence shows that prices continue to rise for at least two years after the merger. Last, we find that hospitals that face fewer competitors can negotiate more favorable forms of payments, and resist those they dislike – a serious issue for payment reform.

My paper with William Vogt ([Gaynor and Vogt, 2003](#)) examines the impact of a merger to near monopoly between hospitals. We find that the merger would led to substantial prices increases (up to 53 percent) by the merging hospitals, and the hospitals' not-for-profit status would not have restrained price increases. In work with Carol Propper and Rodrigo Moreno-Serra and with Stephan Seiler, we examine the impact of a reform of the English National Health Service (NHS) designed in create patient choice and enhance competition among hospitals. Prices are set administratively in the NHS, so competition is over quality or other non-price dimensions of service. We find that after the reform, hospitals that had more nearby competitors improved their quality (reduced patient mortality) more than hospitals that had few competitors near them ([Gaynor et al., 2013](#)), and that patients exercised more choice due to the reform and hospitals responded to that by improving their quality ([Gaynor](#)

[et al., 2016](#)).

My papers with Katherine Ho and Robert Town, “The Industrial Organization of Health Care Market,” ([Gaynor et al., 2015](#)), with Robert Town, “Competition in Health Care Markets,” ([Gaynor and Town, 2012a](#)), and “The Impact of Hospital Consolidation: Update” ([Gaynor and Town, 2012b](#)) are also relevant to the topic of this hearing. In those papers my co-authors and I review the research evidence on health care markets and competition. We find that there is extensive evidence that competition leads to lower prices, and often improves quality, whereas consolidation between close competitors does the opposite.

My recent policy brief with Zack Cooper ([Cooper and Gaynor, 2021](#)) is directly relevant to the topic of this hearing. In this policy brief we identify problems that are impeding the effective functioning of health care markets and propose a number of simple, actionable policies to address the problem. I have also provided detailed analysis and actionable proposals in a recent piece for the Hamilton Project ([Gaynor, 2020](#)) and in pieces with Farzad Mostashari and Paul Ginsburg ([Gaynor et al., 2017a,b](#)).

It is also notable that there is a great deal of overlap between the analysis and recommendations in these pieces and recent reports by the Departments of Health and Human Services, Treasury, and Labor ([Azar et al., 2018](#)), Center for American Progress ([Gee and Gurwitz, 2018](#)), and the American Enterprise Institute and the Brookings Institution ([Aaron et al., 2019](#)).

2 Introduction

Health care is a very large and important industry. Health care spending is now over \$3.8 trillion (\$11,582 per person) and accounts for 17.7 percent of national income (measured as gross domestic product; GDP) – nearly one-fifth of the entire U.S. economy and larger than the entire economy of France ([Martin et al., 2021](#)). Hospital services are a large part of the U.S. economy. In 2019, hospital care alone accounted for 31.4 percent (almost one-third) of total health spending and 5.6 percent of GDP – approximately the same size as the entire information sector or retail trade sector, and larger than the construction or transportation sectors. By comparison, physician services comprise 20.3 percent of health spending and 3.6 percent of GDP ([Martin et al., 2021](#)), pharmaceuticals account for 9.7 percent of health spending and 1.7 percent of GDP, and health insurance is 6.3 percent of health spending and approximately 1 percent of GDP. The share of the economy accounted for by these sectors has risen dramatically over the last 30 years. In 1980, hospitals and physicians accounted for 3.6% and 1.7% of U.S. GDP, respectively, while the net cost of health insurance in 1980 was 0.34% ([Martin et al., 2011](#)).

Of course, health care is important not only because of its size. Health care services can save lives or dramatically affect the quality of life, thereby substantially improving well being and productivity.

As a consequence, the functioning of the health care sector is vitally important. A well functioning health care sector is an asset to the economy and improves quality of life for the citizenry. By the same token, problems in the health care sector act as a drag on the economy and impose a burden on individuals.

The U.S. health care system is based on markets. The vast majority of health care is privately provided (with some exceptions, such as public hospitals, the Veterans Administration, and the Indian Health Service) and over half of health care is privately financed (Martin et al., 2021). As a consequence, the health care system will only work as well as the markets that underpin it. If those markets function poorly, then we will get health care that's not as good as it could be and that costs more than it should. Moreover, attempts at reform, no matter how important or clever, will not prove successful if they are built on top of dysfunctional markets.

There is widespread agreement that these markets do not work as well as they could, or should. Prices are high and rising (Rosenthal, 2017; National Academy of Social Insurance, 2015; New York State Health Foundation, 2016; White, 2017; Kronick and Neyaz, 2019; White and Whaley, 2019), they vary in seemingly incoherent ways, there are egregious pricing practices (Cooper and Scott Morton, 2016; Rosenthal, 2017; Garmon and Chartock, 2017; Kliff, 2019; Cooper et al., 2020), there are serious concerns about the quality of care (Institute of Medicine, 2001; Kohn et al., 1999; Kessler and McClellan, 2000), and the system is sluggish and unresponsive, lacking the innovation and dynamism that characterize much of the rest of our economy (Cutler, 2010; Chin et al., 2015; Herzlinger, 2006).

One of the reasons for this is lack of competition. The research evidence shows that hospitals that face less competition charge higher prices to private payers, without accompanying gains in efficiency or quality. Moreover, the evidence also shows that lack of competition can cause serious harm to the quality of care received by patients, even substantially increasing the risk of death.

It's important to recognize that the burden of higher provider prices falls on individuals, not insurers or employers. Health care is not like commodity products, such as milk or gasoline. If the price of milk or gasoline goes up, consumers experience directly when they purchase these products. However, even though individuals with private employer provided health insurance pay a small portion of provider fees directly out of their own pockets, they end up paying for increased prices in the end. Insurers facing higher provider prices increase their premiums to employers. Employers then pass those increased premiums on to their workers, either in the form of lower wages (or smaller wage increases) or reduced benefits (greater premium sharing, greater cost sharing, or less extensive coverage) (Gruber, 1994; Bhattacharya and Bundorf, 2005; Baicker and Chandra, 2006; Emanuel and Fuchs, 2008; Baicker and Chandra, 2006; Currie and Madrian, 2000; Anand, 2017). Employers may also respond to these increases in their costs of employing workers by reducing workers' hours or the number of workers. A recent study (Arnold and Whaley, 2020) finds that "hospital mergers lead to a \$521 increase in hospital prices, a \$579 increase in hospital spending among

the privately insured population and a ... \$638 reduction in wages.”

The burden of private health care spending on U.S. households has been growing, so much so that it’s taking up a larger and larger share of household spending and exceeding increases in pay for many workers. Figure 1 illustrates this. Workers’ contributions to health insurance premiums grew 259 percent from 1999 to 2018, while wages grew by only 68 percent ([Henry J. Kaiser Family Foundation, 2020](#)). Figure 2 illustrates that middle class families’ spending on health care has increased 25 percent since 2007, crowding out spending on other goods and services, including food, housing, and clothing. Health insurance fringe benefits for workers, chief among which is health care, increased as a share of workers’ total compensation over this same period, growing from 12 to 14.5 percent, while wages stayed flat (see [Monaco and Pierce, 2015](#), Table 1).

As documented below, there has been a tremendous amount of consolidation among hospitals. It’s important to be clear that consolidation can be either beneficial or harmful. Consolidation can bring efficiencies – it can reduce inefficient duplication of services, allow firms to combine to achieve efficient size, or facilitate investment in quality or efficiency improvements. Successful firms may also expand by acquiring others. If firms get larger by being better at giving consumers what they want or driving down costs so their goods are cheaper, that’s a good thing (big does not equal bad), so long as they don’t engage in actions to then attempt to limit competition. On the other hand, consolidation can reduce competition and enhance market power and thereby lead to increased prices or reduced quality. Moreover, firms that have acquired market power have strong incentives to maintain or enhance it. This leads to the potential for anticompetitive conduct by firms that have acquired dominant positions through consolidation.

3 Consolidation

There has been a tremendous amount of consolidation in the health care industry over the last 20 years. A recent paper by [Fulton \(2017\)](#) documents these trends and shows high and increasing concentration in U.S. hospital, physician, and insurance markets. Figure 5 illustrates these trends from 2010 to 2016, using the Herfindahl-Hirschman Index (HHI) measure of market concentration.¹

The American Hospital Association documents 1,577 hospital mergers from 1998 to 2017, with 456 occurring over the five years from 2013 to 2017. Figure 3 illustrates the number of mergers and the number of hospitals involved in these transactions from 1998 to 2017. A trade publication documents an additional 261 announced hospital mergers from 2018-2020 ([Kaufman Hall, 2021](#)).

¹The HHI is equal to the sum of firms’ market shares. It reaches a maximum of 10,000 when there is only one firm in the market. It gets smaller the more equal are firms’ market shares and the more firms there are in the market.

While some of these mergers may have little or no impact on competition, many include mergers between close competitors, especially given that hospital markets are already highly concentrated. Figure 4 shows that almost half of the hospital mergers occurring from 2010 to 2012 were between hospitals in the same area.² Further, as indicated below, recent evidence indicates that even mergers between hospitals in different may lead to higher prices.

As a result of this consolidation, the majority of hospital markets are highly concentrated, and many areas of the country are dominated by one or two large hospital systems with no close competitors (Cutler and Scott Morton, 2013; Fulton, 2017).³ This includes places like Boston (Partners), Cleveland (Cleveland Clinic and University Hospital), Pittsburgh (UPMC), and San Francisco (Sutter). Mergers that eliminate close competitors cause direct harm to competition. In addition, once a firm has obtained a dominant position it has an incentive to maintain or enhance it, including by engaging in anticompetitive practices.

Moreover, there have been a very large number of acquisitions of physician practices by hospitals. In 2006, 28 percent of primary physicians were employed by hospitals. By 2016, that number had risen to 44 percent (Fulton, 2017). The American Medical Association reports that 33 percent of all physicians were employed by hospitals in 2016, and less than half own their own practice (Kane, 2017). Fulton (2017) finds that increased concentration in primary care physician markets is associated with practices being owned by hospitals. Venkatesh (2019) documents nearly 31,000 physician practice acquisitions by hospitals from 2008-2012, and that over 55 percent of physicians are in hospital owned practices.

It's important to note that the vast majority of physician practice mergers and many hospital acquisitions of physician practices are not reported to the federal antitrust enforcement agencies, because these transactions are too small to fall under the Hart-Scott-Rodino reporting guidelines (Capps et al., 2017).⁴ Consideration should be given to adopting simple, streamlined reporting requirements for smaller transactions so that the enforcement agencies are able to properly track them and consider whether any are of concern.

There are a number of possible motivations for hospital mergers. Among these are an attempt to increase market power, and thereby enhance negotiating positions with private insurers, a desire to reduce costs, a desire to enhance quality, a desire to enhance coordination or integration of care, reactions to the mergers of rival hospitals or of insurers, an attempt to achieve protection against an uncertain environment, and spending excess cash.

²The areas used are Core Based Statistical Areas. For a definition see (p. A-15 in U.S. Census Bureau, 2012)

³Fulton (2017) reports that 90 percent of Metropolitan Statistical Areas (MSAs) were highly concentrated for hospitals. The U.S. antitrust enforcement agencies define an HHI of 2,500 or above as “highly concentrated” (Federal Trade Commission and Department of Justice, 1992). My co-authors Zack Cooper, Stuart Craig, John Van Reenen, and I have calculated that the largest health system has over 50 percent of the market in 62 percent of areas in the country (commuting zones).

⁴Wollmann (2018) shows that a change in the Hart-Scott-Rodino reporting thresholds led to many transactions not being reported to the agencies, and therefore for most of those transactions to escape antitrust scrutiny.

In addition to the foregoing reasons, Medicare payment policy creates an incentive for physician practices to be owned by hospitals, since Medicare pays providers substantially more⁵ for the same physician service if the practice is owned by a hospital than if it's independent (Forlines, 2018; Dranove and Ody, 2019).

Separately, the federal 340b program creates incentives for consolidation between some hospitals and physician practices. The 340b program permits eligible hospitals to purchase drugs for their patients at a substantial discount. It can therefore be very profitable to hospitals and physician practices for hospitals to own physician practices that provide a lot of physician administered drugs to their patients, since the hospital obtains the drugs at a substantial discount through the 340b program, and both the discount and the revenues are captured by the combined hospital-physician practice. Desai and McWilliams (2018) show the 340b program is associated with substantially more physician practices in certain specialties being owned by hospitals.

4 Evidence on the Impacts of Consolidation

There is now a considerable body of scientific research evidence on the impacts of hospital consolidation (see Gaynor et al., 2015; Tsai and Jha, 2014; Gaynor and Town, 2012a,b; Dranove and Satterthwaite, 2000; Gaynor and Vogt, 2000; Vogt and Town, 2006, for reviews of the evidence).

4.1 Impacts on Prices

4.1.1 Hospital Mergers

There are many studies of hospital mergers. These studies look at many different mergers in different places in different time periods, and find substantial increases in price resulting from mergers in concentrated markets (e.g., Town and Vistnes, 2001; Krishnan, 2001; Vita and Sacher, 2001; Gaynor and Vogt, 2003; Capps et al., 2003; Capps and Dranove, 2004; Dafny, 2009; Haas-Wilson and Garmon, 2011; Tenn, 2011; Thompson, 2011; Gowrisankaran et al., 2015). Price increases on the order of 20 or 30 percent are common, with some increases as high as 65 percent.⁶

These results make sense. Hospitals' negotiations with insurers determine prices and whether they are in an insurer's provider network. Insurers want to build a provider network

⁵It can be more than twice as much, e.g. <https://www.siteneutral.org/wp-content/uploads/2019/02/116th-Congress-Site-Neutral-House.pdf>.

⁶These include estimates of price increases of 64.9 percent due to the Evanston Northwestern-Highland Park merger in the Chicago area, 44.2 percent due to the Sutter-Summit merger in the San Francisco Bay area, and 65.3 percent due to the merger of Cape Fear and New Hanover hospitals in Wilmington, North Carolina.

that employers (and consumers) will value. If two hospitals are viewed as good alternatives to each other by consumers (close substitutes), then the insurer can substitute one for the other with little loss to the value of their product, and therefore each hospital’s bargaining leverage is limited. If one hospital declines to join the network, customers will be “almost as happy” with access to the other. If the two hospitals merge, the insurer will now lose substantial value if they offer a network without the merged entity (if there are no other hospitals viewed as good alternatives by consumers). The merger therefore generates bargaining leverage and hospitals can negotiate a price increase.

Overall, these studies consistently show that when hospital consolidation is between close competitors it raises prices, and by substantial amounts. Consolidated hospitals that are able to charge higher prices due to reduced competition are able to do so on an ongoing basis, making this a permanent rather than a transitory problem. Moreover, there is no difference between not-for-profit and for-profit hospitals in the extent to which they raise prices due to increased market power.

There is also more recent evidence that mergers between hospitals that are not near to each other can lead to price increases. Quite a few hospital mergers are between hospitals that are not in the same area (see Figure 4). Many employers have locations with employees in a number of geographic areas. These employers will most likely prefer insurance plans with provider networks that cover their employees in all of these locations. An insurance plan thus has an incentive to have a provider network that covers the multiple locations of employers. It is therefore costly for that insurer to lose a hospital system that has hospitals in multiple locations – their network would become less attractive. This means that a merger between hospitals in these different locations can increase their bargaining power, and hence their prices.

There are two recent papers find evidence that such mergers lead to significant hospital price increases. [Lewis and Pflum \(2017\)](#) find that such mergers lead to price increases of 17 percent. [Dafny et al. \(2019\)](#) find that mergers between hospitals in different markets in the same state (but not in different states) lead to price increases of 10 percent.

Understanding the competitive effects of cross-market hospital mergers is an important area for further investigation, and determining appropriate policy responses ([Brand and Rosenbaum, 2019](#)).

4.1.2 Hospital Acquisitions of Physician Practices

Studies that examine the impacts of hospital acquisitions of physician practices find that such acquisitions result in significantly higher prices and more spending ([Capps et al., 2018](#); [Neprash et al., 2015](#); [Baker et al., 2014](#); [Robinson and Miller, 2014](#)). For example, [Capps et al. \(2018\)](#) find that hospital acquisitions of physician practices led to prices increasing by an average of 14 percent and patient spending increasing by 4.9 percent.

4.2 Impacts on Quality

Just as important, if not more, than impacts on prices are impacts on the quality of care. The quality of health care can have profound impacts on patients' lives, including their probability of survival.

4.2.1 Hospital Mergers

A number of studies have found that patient health outcomes are substantially worse at hospitals in more concentrated markets, where those hospitals face less potential competition.

Studies of markets with administered prices (e.g., Medicare) find that less competition leads to worse quality. One of the most striking results is from [Kessler and McClellan \(2000\)](#), who find that risk-adjusted one year mortality for Medicare heart attack (acute myocardial infarction, or AMI) patients is significantly higher in more concentrated markets.⁷ In particular, patients in the most concentrated markets had mortality probabilities 1.46 points higher than those in the least concentrated markets (this constitutes a 4.4% difference) as of 1991. This is an extremely large difference – it amounts to over 2,000 fewer (statistical) deaths in the least concentrated vs. most concentrated markets.

There are similar results from studies of the English National Health Service (NHS). The NHS adopted a set of reforms in 2006 that were intended to increase patient choice and hospital competition, and introduced administered prices for hospitals based on patient diagnoses (analogous to the Medicare Prospective Payment System). Two recent studies examine the impacts of this reform ([Cooper et al., 2011](#); [Gaynor et al., 2013](#)) and find that, following the reform, risk-adjusted mortality from heart attacks fell more at hospitals in less concentrated markets than at hospitals in more concentrated markets. [Gaynor et al. \(2013\)](#) also look at mortality from all causes and find that patients fared worse at hospitals in more consolidated markets.

Studies of markets where prices are market determined (e.g., markets for those with private health insurance) find that consolidation can lead to lower quality, although some studies go the other way. In my opinion the strongest scientific studies find that quality is lower where there's less competition. For example, [Romano and Balan \(2011\)](#) find that the merger of Evanston Northwestern and Highland Park hospitals had no effect on some quality indicators, while it harmed others. [Capps \(2005\)](#) finds that hospital mergers in New York state had no impacts on many quality indicators, but led to increases in mortality for patients suffering from heart attacks and from failure. [Hayford \(2012\)](#) finds that hospital mergers in California led to substantially increased mortality rates for patients with heart disease. [Cutler et al. \(2010\)](#) find that the removal of barriers to entry led to increased market shares for low mortality rate CABG surgeons in Pennsylvania. [Haas et al. \(2018\)](#)

⁷Concentrated markets have fewer competitors or are dominated by a small number of competitors, e.g., one large hospital.

find that system expansions (such as those due to merger or acquisition) can pose significant patient safety risks. [Short and Ho \(2019\)](#) find that hospital market concentration is strongly negatively associated with multiple measures of patient satisfaction.

4.2.2 Hospital Acquisitions of Physician Practices

Research on the effects of hospital ownership of physician practices does not find evidence of improved quality. [McWilliams et al. \(2013\)](#) find that larger hospital owned physician practices have higher readmission rates and perform no better than smaller practices on process based measures of quality. ([Scott et al., 2018](#)) find no improvement in quality of care at hospitals that acquired physician practices compared to those that did not. [Koch et al. \(2020\)](#) do not find significant effects of hospital ownership of physician practices on Medicare patients' health outcomes. [Short and Ho \(2019\)](#) also find a limited effect of hospital ownership of physician practices on Medicare quality measures, but find that increased market concentration is strongly associated with reduced quality. Further, the testimony of Dr. Kenneth Kizer in a recent physician practice merger case (Federal Trade Commission and State of Idaho v. St. Luke's Health System, Ltd, and Saltzer Medical Group, P.A.) documents that clinical integration is achieved with many different forms of organization, i.e., that consolidation isn't necessary to achieve the benefits of clinical integration.⁸

4.2.3 Patient Referrals

There has been concern about the possible impact of hospital ownership of physician practices on where those physicians refer their patients, and whether that is in the patients' best interests ([Mathews and Evans, 2018](#)). A number of studies have found that patient referrals are substantially altered by hospital acquisition of a physician practice. ([Brot-Goldberg and de Vaan, 2018](#)) find that if primary care physicians in Massachusetts are in a practice owned by a health system they are substantially more likely to refer to an orthopedist within the health system that owns the practice. They also estimate that this is largely due to anti-competitive steering. ([Venkatesh, 2019](#)) examines Medicare data and finds a 9-fold increase in the probability that a physician refers to a hospital once their practice is acquired by the hospital. Hospital divestiture of a practice has the opposite effect (Figure 6). A study by [Walden \(2017\)](#) also employs Medicare data and finds that hospital acquisitions of physician practices "increases referrals to specialists employed by the acquirer by 52 percent after acquisition", and reduces referrals to specialists employed by competitors by 7 percent. [Whaley et al. \(2021\)](#) find evidence of a substantial shift of referrals to hospitals as a result of hospital ownership of physician practices, and [Young et al. \(2021\)](#) find that hospital acquisitions of physician practices led to increases in inappropriate referrals for diagnostic imaging.

⁸<https://www.ftc.gov/system/files/documents/cases/131021stlukedemokizer.pdf>

4.2.4 Labor Market Impacts, Monopsony Power

It is also possible that health care consolidation can have impacts on labor markets. Consolidation that causes competitive harm in the output market does not necessarily cause harm to competition in the input market (monopsony power is the term for market power in buying inputs). For example, two local grocery stores may merge to monopoly in an area, but they purchase frozen food items on a national market with lots of competition. Conversely, it is possible that a merger may have no harm to competition in the output market, but cause competitive harm in an input market. For example, consider two coal mines located in the same area that merge. Coal is sold on a national market, so the merger will not cause competitive harm. However, if the coal mines are the largest (or only) employers in the area, then the merger will cause harm to competition in the labor market.

In the case of health care, however, both the output market for health care services and the input market for labor are local. As a consequence, a merger that causes harm to competition in the market for health care services has nontrivial potential to harm competition in the labor market. The extent to which such a merger will cause labor market harms depends on the alternatives that workers have in terms of the types of other jobs available and where they are located. Nonspecialized workers, such as custodians, food service workers, and security guards are less likely to be affected by a merger, since their skills are readily transferable to other employers in other sectors.⁹ Workers who have specialized skills that are not readily transferable to other employers in other sectors are more likely to be harmed. For example, consider a town with two hospitals, a large automobile assembly plant, and multiple retail and service establishments. If the two hospitals merge to monopoly, hospital custodians and security guards will have alternatives at the assembly plant or at the retail or service establishments. As a consequence, competition for these workers may be little affected by the merger. Nurses and medical technicians, however, have nowhere else to turn in the local market, so there will be substantial harm to competition for health care workers.

There are a number of papers that have demonstrated the presence of monopsony power in the market for nurses (see e.g., [Sullivan, 1989](#); [Currie et al., 2005](#); [Staiger et al., 2010](#)). These papers demonstrate that hospitals possess and exercise monopsony power in the market for nurses. They do not, however, provide direct evidence on the impacts of consolidation. A recent paper, however, looks directly at the impacts of hospital mergers on workers' wages. [Prager and Schmitt \(2021\)](#) look at the impacts of 84 hospital mergers nationally between 2000 and 2010. They find that hospital mergers that resulted in large increases in concentration substantially reduced wage growth for workers with industry specific skills, but not for unskilled workers. They find that "Following such mergers, annual wage growth is 1.1 percentage points slower for skilled non-health professionals and 1.7 percentage points slower for nursing and pharmacy workers than in markets without mergers." This suggests that hospital mergers can harm competition in the labor market for workers with skills specific to

⁹However, even workers with readily transferable skills can be harmed by a merger if the merged firm is the dominant employer overall in an area.

the hospital industry.

The impacts of consolidation on labor markets (and input markets generally) is an area where study is needed to understand the nature of the impacts of consolidation and evidence of those effects. Moreover, antitrust authorities need to know to what extent merger enforcement focused on output markets addresses potential input market competitive harms, and to what extent input markets require a separate focus. Further, if the agencies are to pursue enforcement in this area they need to develop economic and legal approaches to this issue.

4.3 Impacts on Costs, Coordination, Quality

It is plausible that consolidation between hospital, physician practices or insurers, in a number of combinations, could reduce costs, increase care coordination, or enhance efficiency. There may be gains from operating at a larger scale, eliminating wasteful duplication, improved communications, enhanced incentives for mutually beneficial investments, etc. However, it is important to realize that consolidation is not integration. Acquiring another firm changes ownership, but in and of itself does nothing to achieve integration. Integration, if it happens, is a long process that occurs after acquisition.

While the intuition, and the rhetoric, surrounding consolidation, has been positive, the reality is less encouraging. The evidence on the effects of consolidation is mixed, but it's safe to say that it does not show overall gains from consolidation (Neprash and McWilliams, 2019). Merged hospitals, insurers, physician practices, or integrated systems are not systematically less costly, higher quality, or more effective than independent firms (see Burns and Muller, 2008; Burns et al., 2015; Goldsmith et al., 2015; Burns et al., 2013; McWilliams et al., 2013; Tsai and Jha, 2014).

For example, Burns et al. (2015) find no evidence that hospital systems are lower cost, Goldsmith et al. (2015) find no evidence that integrated delivery systems perform better than independents, Koch et al. (2018) find higher Medicare expenditures for cardiology practices in consolidated markets, and McWilliams et al. (2013) find higher Medicare expenditures for large hospital-based practices. In contrast, Schmitt (2017) finds evidence of significant cost savings (4-7 percent) due to hospital mergers, with the exception of mergers of hospital in the same market (and thereby likely competitors). Gaynor et al. (2021) examine the merger of two large hospital chains. They find that the acquisition led to adoption of a new electronic medical record system, and similarity of management practices, but neither the profitability of the acquired hospitals or the acquiring hospitals increased, nor did patient outcomes improve. Beaulieu et al. (2020) report that "Hospital acquisition by another hospital or hospital system was associated with modestly worse patient experiences and no significant changes in readmission or mortality rates. Effects on process measures of quality were inconclusive."

After more than 3 decades of extensive consolidation in health care, it seems likely that the promised gains from consolidation would have materialized by now if they were truly there.

5 Anticompetitive Conduct

Firms that acquire a dominant market position usually wish to keep it. The incentive to maintain or enhance a dominant position can be beneficial when it leads the firm to deliver value to consumers in order to keep or gain their business. This can result in lower prices, higher quality, better service, or enhanced innovation. There may also be strong incentives for such firms to engage in anticompetitive practices in order to disadvantage competitors or make it difficult for new products or firms to enter the market and compete.

There are prominent instances of firms in the health care industry engaging in what appear to be anticompetitive tactics. [Cooper et al. \(2019\)](#) find that hospitals with fewer potential competitors are more likely to negotiate contracts with insurers that have payment forms that are more favorable to them (e.g., fee for service) and reject payment forms they dislike (e.g., DRG based payment). While this is not an anticompetitive practice, it suggests that hospitals with market power are able to negotiate contracts with insurers that contain anticompetitive elements. This indeed is the issue in some recent antitrust cases. These cases revolve around the use of restrictive clauses in hospital contracts with insurers.¹⁰

These clauses prevent insurers from using methods to direct their enrollees to less costly or better hospitals. One of these methods is called tiering - a practice where enrollees pay less out of their own pockets for care received from providers in a more favorable group (“tier”), and pay more if they see a provider in a less favorable tier. Insurers use tiering to give enrollees incentives to obtain care at less costly or higher quality providers. This system thus gives providers an incentive to do the things it takes to be in the more favorable tier, and is a way to promote competition. Another method is steering - enrollees are directed to providers who are preferred, due to lower costs or higher quality. Steering also promotes competition - providers have incentives to agree to lower prices or provide better quality or service in order to be in the preferred group. A third method employed by insurers is transparency – providing enrollees with information about the costs or quality of care at different providers. The intent is to provide enrollees with the information they need to choose the right provider, and by doing so to give providers incentives to compete on those factors.

In both of the antitrust suits mentioned above, the health systems had negotiated clauses in their contracts with insurers which prohibited the insurers from using any of these methods to try to direct patients to lower cost or better providers. The clauses prohibiting the use of these methods are called “anti-tiering,” “anti-steering,” and “gag” clauses. The concern with the use of these restrictive clauses is that they harm competition by preventing insurers from using methods that provide incentives to providers to compete to attract patients. The lawsuit by the DOJ against Carolinas Health System was settled, with the health system

¹⁰United States and the State of North Carolina v. The Charlotte-Mecklenburg Hospital Authority, d/b/a Carolinas Healthcare System, <https://www.justice.gov/atr/case/us-and-state-north-carolina-v-c-harlotte-mecklenburg-hospital-authority-dba-carolinas>; People of the State of California Ex Rel. Xavier Becerra v. Sutter Health, <https://oag.ca.gov/news/press-releases/attorney-general-becerra-sues-sutter-health-anti-competitive-practices-increase>

agreeing not to use these restrictive clauses.¹¹ The California Attorney General’s lawsuit against Sutter Health System was also settled, with a similar outcome.¹²

At present there is no systematic evidence on the extent to which anti-tiering, anti-steering, and gag clauses are being employed by health systems in their contracts with insurers, nor analysis of their impacts. This is an area which needs investigation to document the extent of the practice and its impacts.

Another practice that raises concerns is “data blocking” (Savage et al., 2019). Data blocking is a practice in which health systems impede or prevent the flow of patients’ clinical data to providers outside their system. It also refers to a practice by electronic medical record (EMR) providers to impede the flow of data to rival EMR systems via lack of compatibility. Data blocking by providers makes it more difficult for patients to go to rival providers, locking them in, since their medical information doesn’t go with them. Reducing patient mobility across providers harms competition and benefits incumbents. While there are extensive reports of data blocking, there isn’t systematic evidence on the extent of the practice, or on its impacts. Study is needed to understand the nature of data blocking, and the extent to which it leads to harm to competition or to efficiencies.

6 Policies to Make Health Care Markets Work

As I have discussed, hospital consolidation, and hospital acquisitions of physician practices, have not delivered on lower costs, improved coordination of care, or enhanced quality. What has happened is that consolidation between close competitors has reduced competition, leading to higher prices and harming quality. Perhaps even worse, reduced competition tends to preserve the status quo in health care by protecting existing firms and making it more difficult for new firms to enter markets and succeed. This leads to excessive rigidity and resistance to change, as opposed to the innovation and dynamism that we need in health care.

In spite of these problems, there are a few simple things that can be done to support and enhance competition in health care markets.

6.1 Reform Policies that Unintentionally Harm Competition

- There are a number of federal and state policies that have the unintended effect of encouraging consolidation or limiting competition. These policies can be reformed to remove these unintended negative effects.

¹¹<https://www.justice.gov/atr/case-document/file/1111581/download>.

¹²<https://oag.ca.gov/news/press-releases/attorney-general-becerra-secures-preliminary-approval-settlement-sutter-health>.

- One key set of actions is to end federal payment policies that unintentionally provide incentives for consolidation. Reforming these policies to put an end to incentives that artificially encourage consolidation will help preserve independent competitors and competition.
- Another set of things that can be done to reduce unintended incentives to consolidate is to reduce administrative burdens that generate more costs than benefits. One example of these is quality reporting. Multiple entities: Medicare, Medicaid, multiple private insurers require provider reporting of a large set of quality measures. Coordination among payers could reduce administrative burden and thereby reduce incentives to consolidate.
- Some states have regulations that unintentionally make it difficult for new firms to enter or artificially alter the negotiating positions of providers and payers. These include certificate of need laws, any willing provider laws, scope of practice laws, and licensing board decisions. Negative impacts of these laws can particularly affect residents of rural areas, where access to alternative suppliers (e.g., via telehealth and appropriate services from nurse practitioners or pharmacists) is particularly scarce. States should examine these laws and practices to make sure they are narrowly tailored to benefit the public and do not unintentionally protect incumbents and harm competition.
- This also applies to state certificate of public advantage legislation. These laws, when passed, shield merging parties from federal antitrust scrutiny and impose state supervision. If certificates of public advantage continue to be issued, omitting provisions that exempt merging parties from antitrust scrutiny will help to preserve competition.¹³

6.1.1 Strengthen Antitrust Enforcement

- Antitrust enforcement in health care by federal and state governments, both horizontal and vertical, needs to be continued and enhanced. Approximately one-half of the merger challenges brought by the FTC from 2010-2018 were in health care [Wilson \(2019\)](#).
 - There is widespread agreement that the FTC and the Antitrust Division of the DOJ need substantially more resources.¹⁴ If we expect the antitrust enforcement agencies to do more in health care without reducing their efforts in the rest of the economy, then they will need more resources. The demands on the agencies

¹³The FTC is currently conducting a study of certificates of public advantage, <https://www.ftc.gov/news-events/press-releases/2019/10/ftc-study-impact-copas>.

¹⁴See for example, the Competition and Antitrust Law Enforcement Reform Act of 2021 introduced by Senator Amy Klobuchar, which incorporates substantial increases in the agencies' budgets https://www.klobuchar.senate.gov/public/_cache/files/e/1/e171ac94-edaf-42bc-95ba-85c985a89200/375AF2AE A4F2AF97FB96DBC6A2A839F9.si121191.pdf.

- have risen in terms of number of merger filings, while their inflation adjusted appropriations have declined (see Figure 7). The decline in resources relative to demands not only makes it hard for the agencies to address antitrust issues as they arise, it makes it extremely difficult for them to allocate the necessary resources to proactively invest in important new and developing areas.
- In addition, at present the FTC is prohibited from enforcing against anticompetitive conduct by not-for-profit firms (FTC Act, Section 45(a)(2), Section 44). This prevents the FTC from investigating possible anticompetitive conduct in the hospital sector, since the majority of hospitals are not-for-profit. While the DOJ can investigate anticompetitive conduct by not-for-profits, this leaves the country with only one of its antitrust enforcement agencies (and the one with the greatest expertise in health care) able to address this important issue. Removing these restrictions on the FTC will enable it to function to the full extent of its capabilities to protect competition and consumers in health care markets.
 - Requiring parties in small transactions to report in a simple, streamlined way will enable the agencies to track the many small transactions in health care involving physician practices (both horizontal and vertical) that at present are not reported and many of which escape antitrust scrutiny.
 - Even with the preponderance of evidence concerning the competitive harms of mergers between hospital that are close competitors, the FTC has faced substantial difficulties in court, even when it appears to be an “open and shut” case.¹⁵ Moreover, these cases require extraordinary expenditure of resources, straining the abilities of the agencies to address other, equally pressing, matters. Legislation to strengthen the antitrust laws, as in the Competition and Antitrust Law Enforcement Reform Act of 2021 cited above, will do a great deal to help improve competition in health care markets by strengthening the antitrust enforcement agencies’ positions in dealing with harmful health care mergers, and serving to deter harmful mergers.
 - Have the FTC and DOJ issue revised guidelines for antitrust enforcement in health care. These guidelines provide important guidance to firms and courts about the nature of competition, harms to competition, and efficiencies in health care. The guidelines were issued in 1996.¹⁶ Much has changed since that time, and a refreshed and revived set of health care guidelines can help market participants, courts, and the agencies.
 - Health care consolidation has the potential to harm competition not only in the market for health care services (output), but in labor markets (input). There is some recent evidence demonstrating that mergers that result in large increases in

¹⁵https://www.ftc.gov/system/files/documents/public_statements/1520570/slaughter_-_hospital_speech_5-14-19.pdf

¹⁶<https://www.justice.gov/atr/page/file/1197731/download>

concentration adversely affect wage growth for workers with skills specific to the hospital industry. While this is welcome evidence, more investigation and study is required to learn more about the impacts of health care consolidation on labor markets and to develop antitrust theories and evidence.

6.2 Improve Information About Health Care Markets

- At present there are no national, publicly available data on total U.S. health care costs and utilization, prices for specific services or providers, or health care ownership arrangements. Data and information are now as vital a part of our national infrastructure as are our bridges and roads. It's time to invest in a national health care data warehouse that brings together private and public data to inform employers, policymakers, and consumers. This information would be vitally important to the Department of Health and Human Services, States, employers, consumers, and the antitrust agencies.

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Figure 1: Growth in Health Insurance Premiums, Deductibles, Wages, and Inflation (Source: Kaiser Family Foundation)

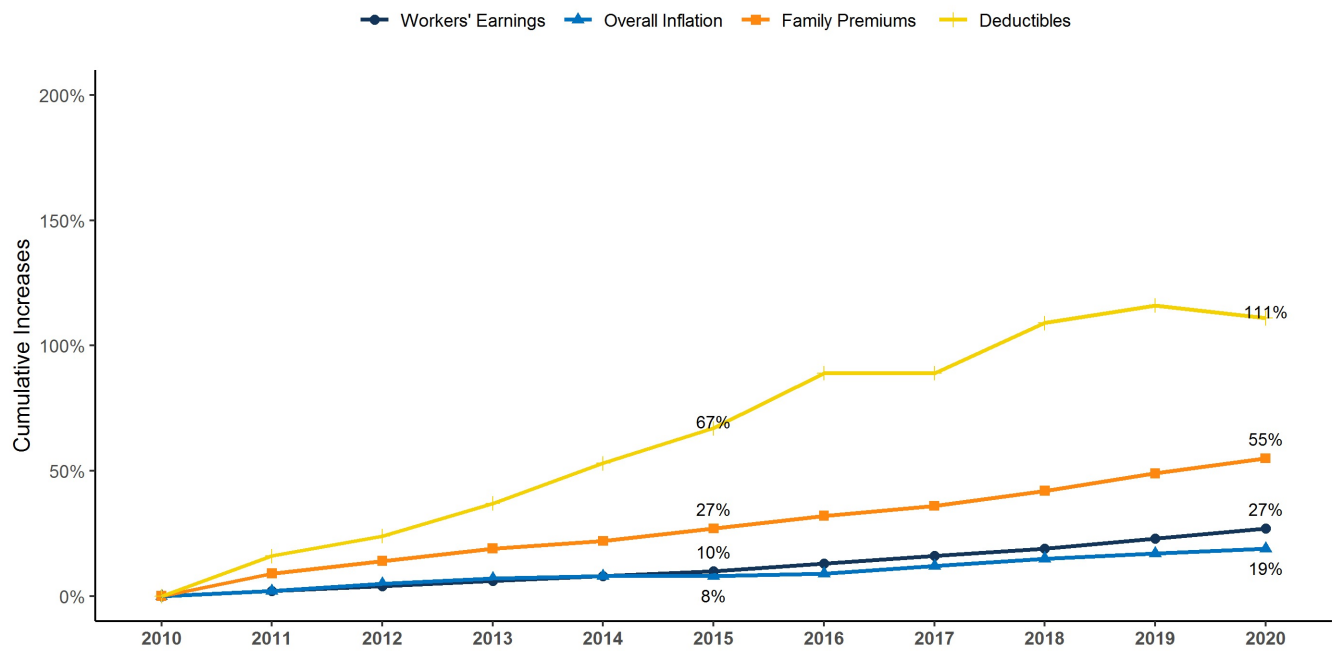
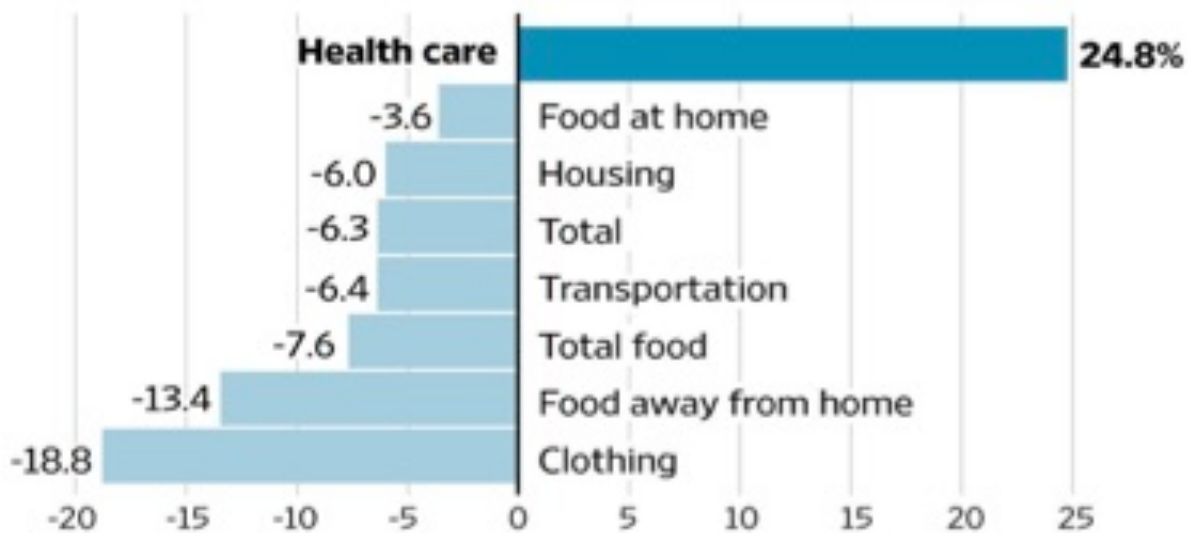


Figure 2: Change in Household Spending on Health Care and Other Basics

A Bigger Bite

Middle-class families' spending on health care has increased 25% since 2007. Other basic needs, such as clothing and food, have decreased.

Percent change in middle-income households' spending on basic needs (2007 to 2014)



Sources: Brookings Institution analysis of Consumer Expenditure Survey, Labor Department
THE WALL STREET JOURNAL.

Figure 3: Number of Hospital Mergers, 1998-2017 (Source: American Hospital Association)

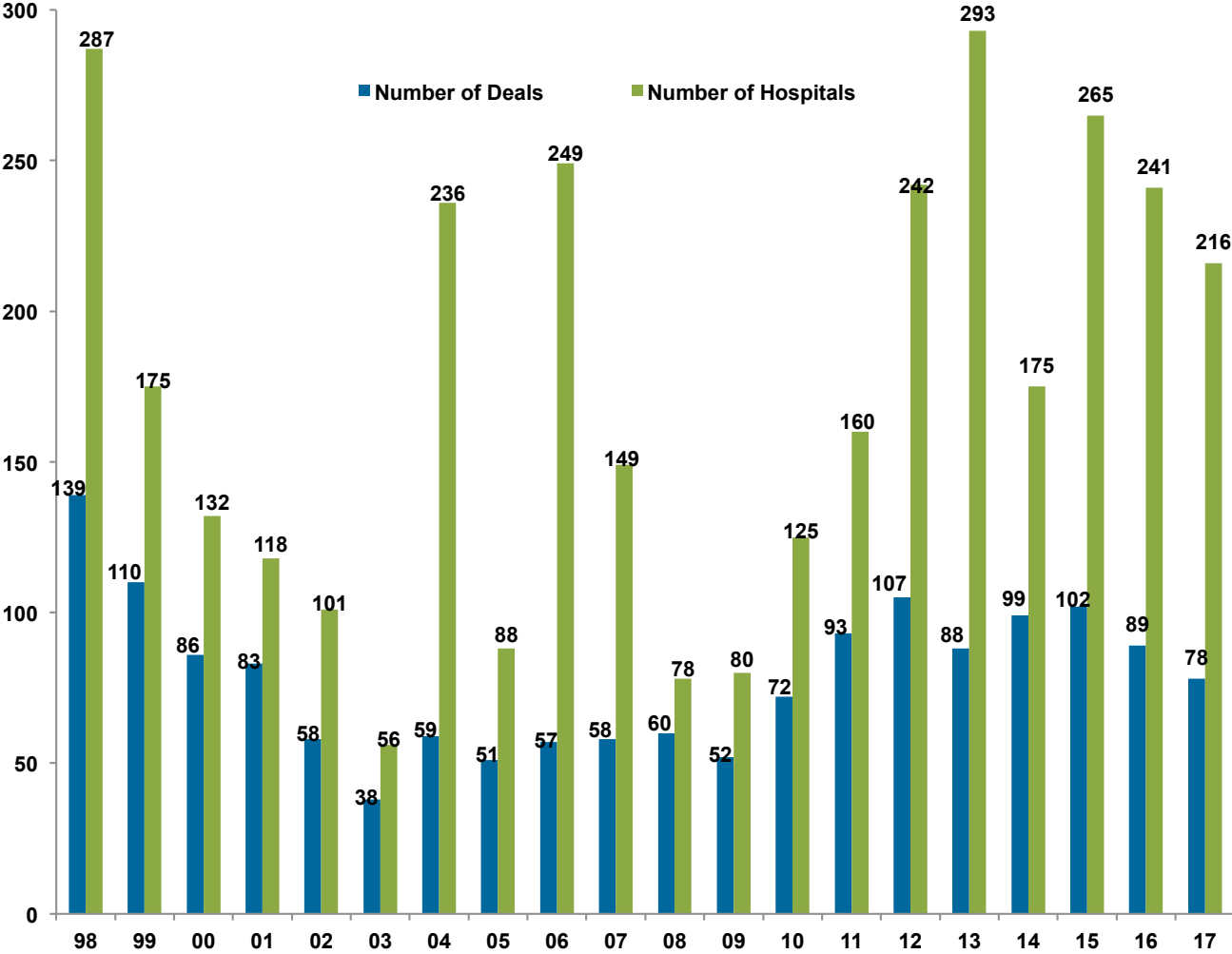


Figure 4: Percent of Mergers Between Hospitals in Same Area, 2010-2012 (Source: [Dafny et al., 2019](#))

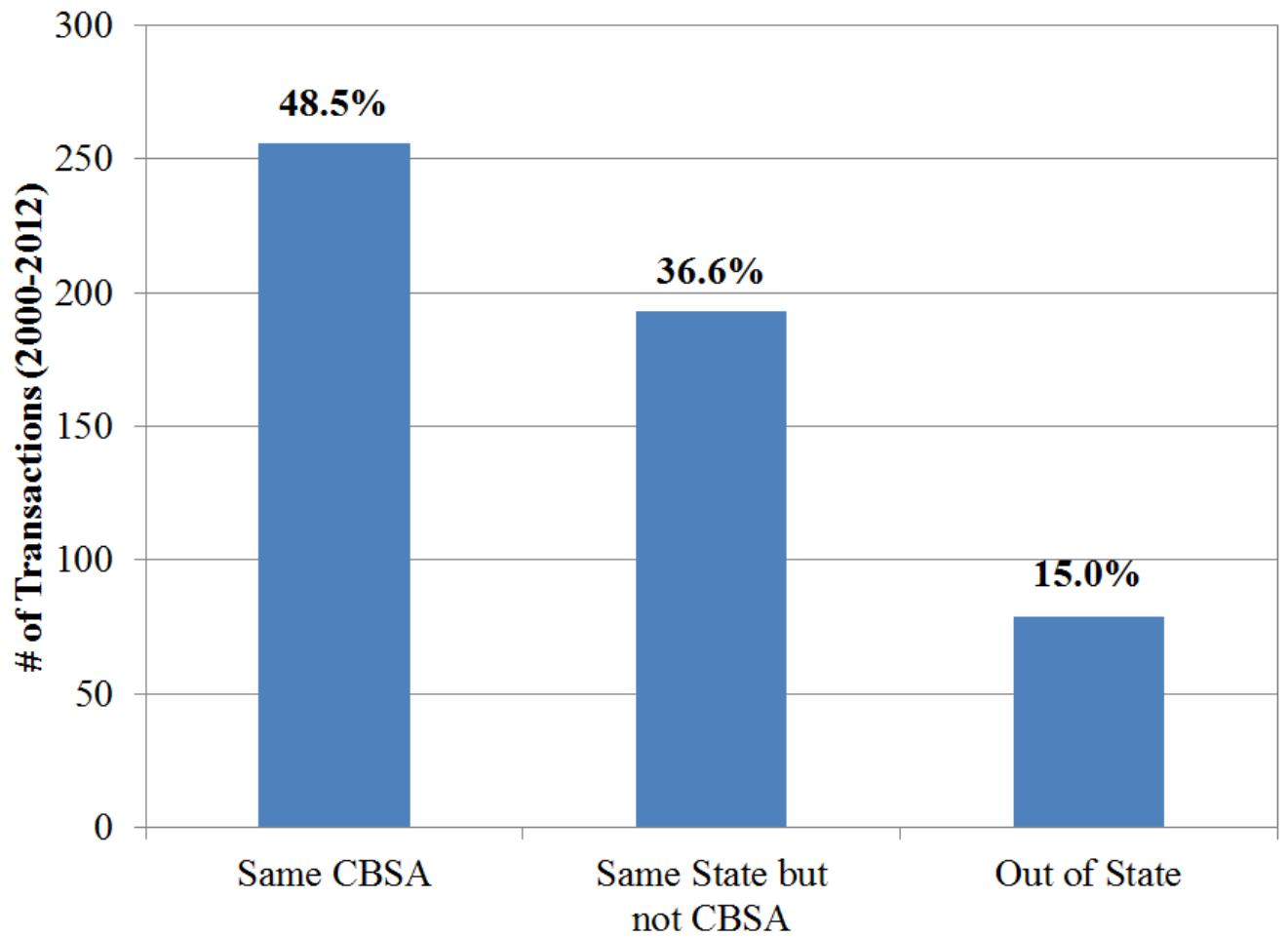


Figure 5: Market Concentration (HHI) for hospitals, physicians, and insurers, 2010-2016
(Source: [Fulton \(2017\)](#))

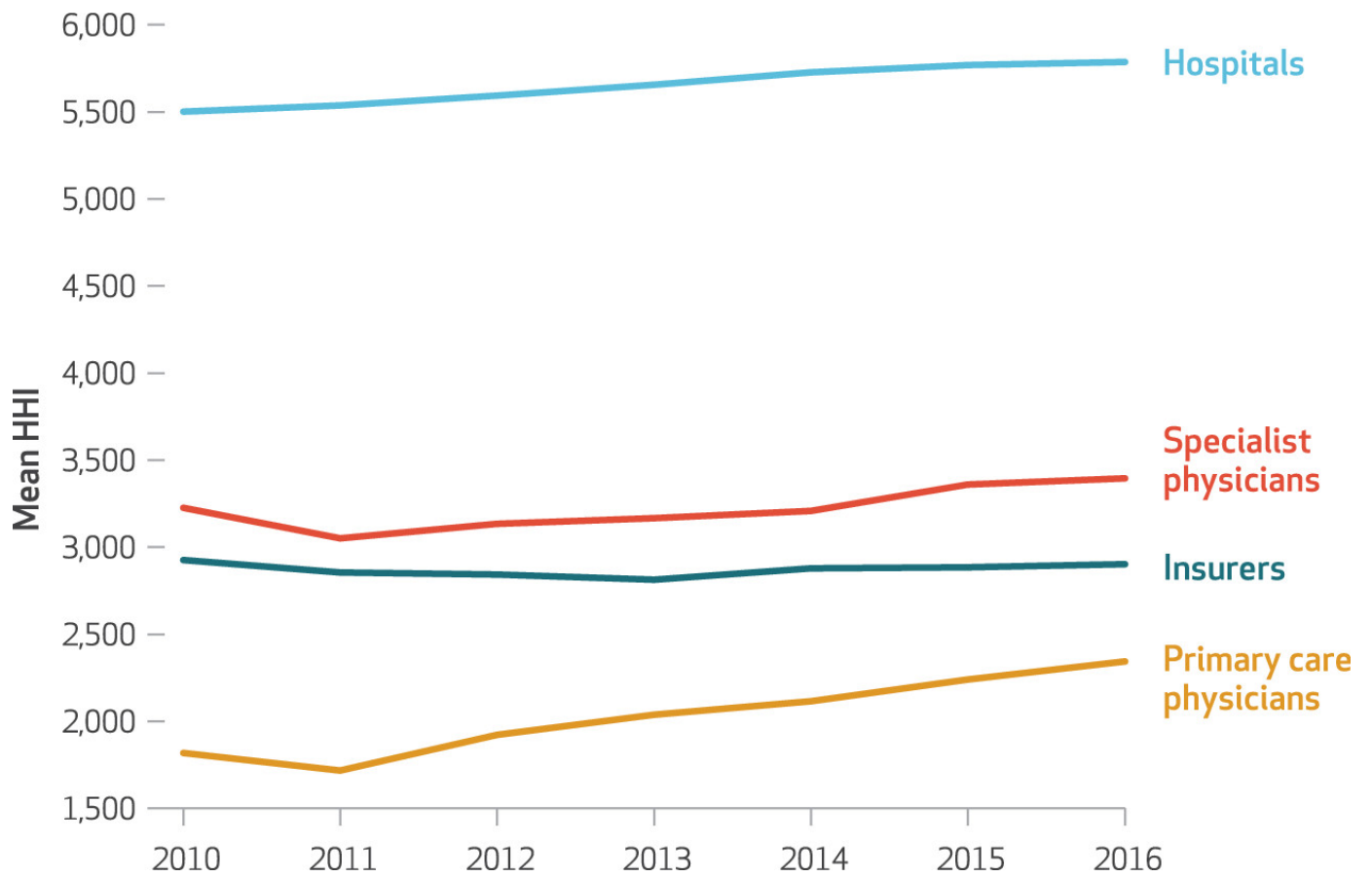


Figure 6: Effects on Physician Referrals of Hospital Practice Acquisitions and Divestitures (Sources: Venkatesh, 2019; Mathews and Evans, 2018)

Probability of referrals to hospital employer before and after hospitals acquire or divest doctors

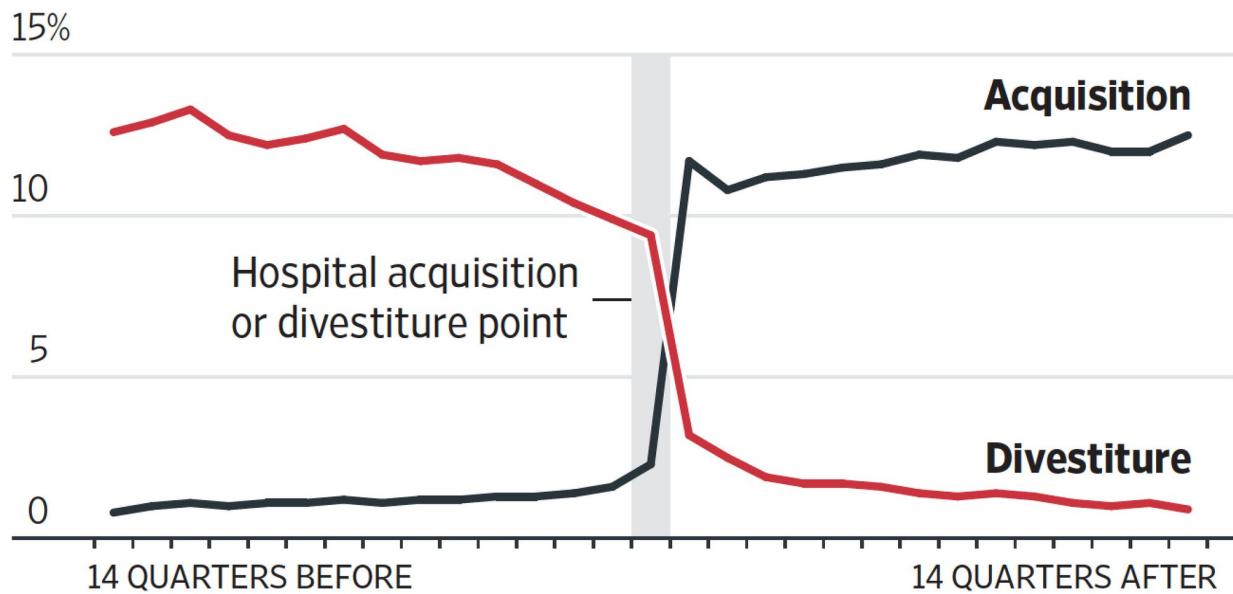


Figure 7: DOJ, FTC Appropriations vs. Merger Filings, 2010-2016
(Source: Courtesy Michael Kades, Washington Center for Equitable Growth, <https://equitablegrowth.org/presentation-merger-enforcement-statistics/>)

