

**TESTIMONY OF LEEMORE S. DAFNY, Ph.D**

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**Before the**

**House Committee on Energy and Commerce**

**Subcommittee on Oversight and Investigations**

**On**

**“Health Care Industry Consolidation: What is Happening, Why it Matters,  
and What Public Agencies Might Want to Do About It”**

February 14, 2018

## **Introduction**

Chairman Harper, Ranking Member Degette, and Members of the Subcommittee, I thank you for the opportunity to testify before you today on the subject of health care industry consolidation. My name is Leemore Dafny, and I am an academic health economist with longstanding research interests in competition and consolidation across a range of healthcare sectors. I am currently the Bruce V. Rauner Professor of Business Administration at the Harvard Business School and the JFK School of Government. Previously, I held faculty positions at the Kellogg School of Management at Northwestern University, and I was the Deputy Director for Healthcare and Antitrust in the Bureau of Economics at the Federal Trade Commission. I serve on the Panel of Health Advisers to the Congressional Budget Office, and as a board member of not-for-profit research organizations including the American Society of Health Economists and the Health Care Cost Institute.

As you are aware, we have seen – and I believe we will continue to see - consolidation within and across a vast array of healthcare sectors, including hospitals, physician practices, health insurers, pharmaceutical companies, and outpatient facilities. There is a substantial academic literature that finds horizontal mergers of competing health care providers tends to raise prices, and very limited evidence to suggest there are offsetting benefits to patients in the form of improved quality. Economists, myself included, also find that less competition among health insurers tends to raise premiums. We have less extensive evidence on non-horizontal mergers in healthcare, that is mergers across providers or firms in different geographies or service categories, but the evidence we have to date also finds systematic price and spending increases, in particular after hospital systems acquire additional hospitals in the same state, and after hospitals acquire physician practices. In a nutshell, research to date suggests that consolidation in the health care industry, on average, has not yielded benefits to consumers. Yet I expect we'll continue to see more consolidation.

What drives consolidation is the expectation of a reward for the merging parties and their stakeholders. Those rewards are not likely to fall dramatically without some action. I see four primary rewards for consolidation. First, merging parties often improve their bargaining position – be it hospitals negotiating with insurers or pharmaceutical benefit managers (PBMs) negotiating with pharmaceutical companies – and that enhanced bargaining position can enable the merging parties to raise prices and to spend the extra funds on either margin or mission (if they are so inclined). Second, merging parties often believe that scale economies will produce cost savings, again fueling margin or mission. Third, there are reimbursement rules and programs implemented by the Centers for Medicare and Medicaid Services (CMS) that reward certain kinds of consolidation. Fourth, many merging parties believe common ownership will produce “integrated care,” which will enable them to realize synergies across the many products and services that patients require.

As I note in my written testimony, there isn’t much evidence to support the beliefs regarding scale economies or integrated care, although of course every potential transaction needs to be evaluated on its own merits. Merging for a better bargaining position, or to game loopholes created by CMS, is not value-creating and often reduces value.

There are a steps Congress can take to promote competition in healthcare markets, which may in fact involve consolidation, but only of the “value-creating” variety. First, given the large public interest in the healthcare sector, I believe it is a worthwhile investment to create public databases containing information about the ownership and financial links among different health care providers, and net commercial prices for their services. This database could form the basis for regularly scheduled reports and public hearings on industry consolidation and its effects. My counterparts with expertise on the pharmaceutical industry can advise on a similar transparency effort with respect to prescription drugs. Second, additional funds could be appropriated to the federal enforcement agencies and earmarked for enforcement-focused research in this sector. Third, CMS could develop alternatives to its current policies, potentially reducing the benefits for consolidation that has already been consummated. Fourth, and most aggressive, Congress

could provide financial incentives, or impose regulatory requirements, for employers to utilize or develop so-called “private exchanges” where employees can shop for their preferred healthplans and make choices that reflect their own preferences. Data from the public exchanges suggest consumers are more price-sensitive, and more willing to select narrow-network plans, than are employers. These preferences exert pressure on providers and healthplans to develop lower-cost health care solutions, and can therefore reduce the incentive for anticompetitive upstream mergers or practices. If consumers won’t pay for a higher-priced product that doesn’t offer greater value to warrant the price increase, the incentive to merge so as to raise price will be diminished.

Health care consolidation is widespread and likely to continue. The usual checks in place to impede anticompetitive consolidation are muted in most healthcare sectors. Downstream consumers are often price inelastic, partly due to the presence and design of health insurance plans and to the circumstances under which they seek and make decisions about medical care. Barriers to entry are often high and sometimes created or supported by government institutions, such as state certificate of need laws. And antitrust enforcers face legal hurdles in challenging incremental acquisitions that collectively increase the market power of acquirers, or in unwinding transactions after they have been consummated. In short, we cannot rely on the market and on antitrust enforcement to “correct” consolidation that does not deliver benefits to consumers. Healthcare is poised to capture 1 in 5 dollars of the U.S. economy by 2020. To borrow from the medical vernacular, “watchful waiting” is not – in my opinion – the wisest approach to pursue. Sometimes a surgical intervention, coupled with close monitoring and adjustments as the disease progresses, is necessary.

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### **I. Preface: defining consolidation and the scope of the healthcare sector**

In the testimony that follows, I use the term “consolidation” to describe combinations of previously independent entities, i.e., mergers and acquisitions (M&A). One could use “consolidation” to refer to increases in the “concentration” of an industry, e.g. as measured by the sum of squared market shares (known as the Herfindahl-Hirschman, or HHI). There are both structural and non-structural sources of consolidation. Structural changes arise from a change in the number and market share of participants (i.e., from a change in industry *structure*). Non-structural changes arise from growing (or shrinking) market shares of industry participants, holding ownership and the number of participants constant. Non-structural increases in concentration may occur, for example, if an incumbent introduces a superior product or service and customers flock to that firm and abandon others. In the interest of simplicity, I will use the term “consolidation” to refer to structurally-induced changes in concentration – specifically those generated by M&A.

The health care sector consists of a large set of industries, subdivided into the following categories in the National Health Expenditures Data: Hospital Care, Professional Services, Other Health, Residential, and

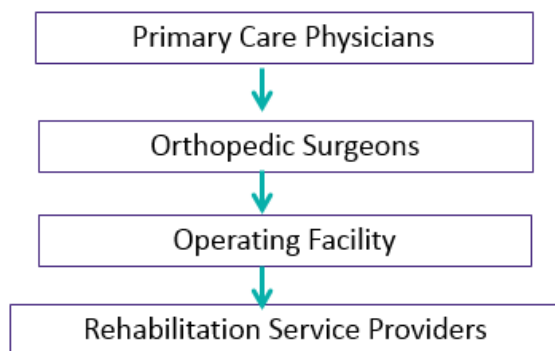
Personal Care; Home Health Care; Nursing Care Facilities/Continuing Care Retirement Communities; Retail Outlet Sales of Medical Products (prescription drugs, durable medical equipment, other non-durable medical products); Government Administration; Net Cost of Health Insurance; Government Public Health Activities; and Investment in Research and Structures/Equipment. In the testimony that follows, I focus on three of these sectors in particular: Hospital Care (32.4 percent of 2016 expenditures); Professional Services (26.4 percent); and Health Insurance (6.6 percent).<sup>1</sup>

## II. The facts: where consolidation has occurred, and what we know about its effects

Below, I summarize the data and academic research on consolidation among healthcare providers and insurers. I subdivide my discussion into two categories: *horizontal* and *non-horizontal* consolidation.

Figure 1, which depicts a simplified chain of production for one particular output of the health care sector – orthopedic surgeries - provides the intuition for this division.

**Figure 1. Vertical Chain of Production for Orthopedic Surgery**



Combinations of market participants within the same “level” of the chain are typically labeled “horizontal”; combinations up and down the chain of production are “vertical.” Many healthcare markets also have a geographic element, and traditionally, the “horizontal” label is attached only to combinations in the same relevant market, e.g. a merger of two orthopedic physician practices located in the same

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<sup>1</sup> Centers for Medicare and Medicaid Services. NHE Fact Sheet. Retrieved from <https://www.cms.gov/research-statistics-data-and-systems/statistics-trends-and-reports/nationalhealthexpenddata/nhe-fact-sheet.html>

neighborhood. Of course, combinations may have both horizontal and vertical elements (e.g., if a hospital acquires multiple physician practices and all parties are in the same geographic area), or they may fall outside these characterizations entirely (e.g., conglomerates). Given that the preponderance of data and research on consolidation has emphasized horizontal consolidation, I begin with this category, and then move to facts on non-horizontal consolidation.

## **II.A Horizontal Consolidation**

### *II.A.1 Hospitals*

Most data and research on health care consolidation focuses on the hospital industry, as it is sizeable (over 5 percent of GDP, when both outpatient and inpatient services are included) and – relative to other sectors – researchers have good access to data thanks to annual surveys conducted by the American Hospital Association (AHA) and to mandatory reporting through the Health Care Provider Cost Reporting Information System (HCRIS), maintained by the Centers for Medicare and Medicaid Services.

According to the AHA, the total number of hospital mergers and acquisitions (M&A) announced over the period 1998-2015 was 1,412, for an annual average of 78 transactions.<sup>2</sup> The pace of activity has followed a shallow U trend, with rapid activity in the late 1990s-2001, a nadir of 38 deals in 2003, and a resurgence of activity following the passage of the Affordable Care Act. In 2015, 102 deals involving 265 hospitals were announced.<sup>3</sup> According to one recent analysis of AHA data, 90 percent of Metropolitan Statistical Areas would be characterized as “highly concentrated” per the *Horizontal Merger Guidelines* jointly issued by the DOJ and FTC (i.e., HHI above 2,500).<sup>4</sup>

There is a substantial body of academic research on the effects of horizontal mergers of general acute care hospitals in the U.S., and on the effects of hospital market competition in the U.S. and abroad

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<sup>2</sup> American Hospital Association. 2016 Chart Book. Retrieved from <https://www.aha.org/dataset/2018-01-17-2016-chartbook>

<sup>3</sup> These data do not distinguish among the type of hospital (e.g., general acute care, specialty, long-term care, etc.).

<sup>4</sup> Fulton, B. (2017). Health Care Market Concentration Trends in the United States: Evidence and Policy Responses. *Health Affairs*, September 2017, 36:9.

(particularly the U.K.).<sup>5</sup> This research finds that mergers of competing hospitals leads to higher prices (for commercially-insured patients). There is limited evidence of quality improvements associated with mergers, where quality is measured by mortality, patient safety indicators, readmissions, and complication rates. Studies also find evidence of lower quality in more concentrated hospital markets, both here and abroad. Professor Martin Gaynor, who joins me on this panel today, has published comprehensive analyses of the data and evidence on hospital consolidation and its effects and can speak authoritatively on this body of research.

## II.A.2 *Physicians*

Relative to the acute care hospital industry, there are fewer studies of physician markets. Most analysts subdivide these markets by specific specialties (e.g., cardiology) or groups of specialties (e.g., internists, general practitioners, and family medicine practitioners are often labeled “adult primary care” providers). The geographic market boundaries for services offered by highly-specialized practitioners (e.g., transplant surgeons) are generally larger than the boundaries for services offered by less-specialized practitioners (e.g., pediatricians).

There has been a marked increase in the proportion of physicians who are employed rather than owners of their own practices. The rise in employment likely reflects consolidation within physician markets, as most of the investors/employers are hospitals, and the hospital sector is more concentrated than most physician markets. In 1983, 76 percent of physicians reported owning their own practices; this figure stood at 47 percent in 2016.<sup>6</sup>

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<sup>5</sup> Gaynor, M., Ho, K., and Town, R.J. (2015). The Industrial Organization of Health-Care Markets. *Journal of Economic Literature*, 53(2), 235-284; Vogt, W. & Town, R. (2006). How has hospital consolidation affected the price and quality of hospital care? *Robert Wood Johnson Foundation Synthesis Report* No. 9; Gaynor, M., & Town, R. (2012). The impact of hospital consolidation. *Robert Wood Johnson Foundation Synthesis Report Update*.

<sup>6</sup> American Medical Association Wire. For first time, physician practice owners are not the majority. Retrieved from <https://wire.ama-assn.org/practice-management/first-time-physician-practice-owners-are-not-majority>



A recent study of physician markets – defined by specialty and geographic area - finds 22 percent of these markets were highly concentrated, with HHIs in excess of 2,500.<sup>7</sup> This study also found that most changes in physician practice size derived from small acquisitions, characterized as a ‘whale eats krill’ rather than ‘shark eats shark.’ The authors observe these acquisitions are generally “too small to trigger Hart-Scott-Rodino notifications and are also too small to be presumptively anticompetitive under the *Horizontal Merger Guidelines*.”

Studies of physician markets find that concentration is associated with higher commercial prices.<sup>8</sup> One such study examined commercially-insured prices for 10 types of office visits in 10 specialties. The researchers found higher price levels and price growth in more concentrated markets.<sup>9</sup>

### II.A.3 *Health Insurers*

I have written extensively on competition in health insurance markets. My most recent summary of economic evidence on this sector appears in a paper entitled “Evaluating the Impact Of Health Insurance Industry Consolidation: Learning from Experience,” attached as Exhibit 1 and paraphrased here. The paper documents the high and rising national market shares of the four largest commercial health insurers: the various Blue Cross and Blue Shield affiliates<sup>10</sup> (accounting for an estimated 52 percent of insured lives in 2014); United (13 percent); Aetna (11 percent); and Cigna (6 percent). Between 2006 and 2014, the sum of the market shares for these four insurers (the “four firm concentration ratio”) increased from 74 percent to 83 percent. By comparison, the four-firm concentration ratio for the airline industry in 2014

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<sup>7</sup> Capps, C., Dranove, D., & Ody, C. (2017) Physician Practice Consolidation Driven by Small Acquisitions, So Antitrust Agencies Have Few Tools To Intervene. *Health Affairs*. The authors use a sample of commercial insurance claims data from states accounting for 12 percent of the U.S. population. They define markets for services delivered by 9 specialties to residents in metropolitan statistical areas. Geographic market boundaries are defined so as to satisfy an “outflow” floor of 20 percent, i.e. no more than 20 percent of patients seeking the services of a given specialty seek providers outside the market.

<sup>8</sup> Baker, L.C., Bundorf, M.K., Royalty, A.B., & Levin, Z. (2014). Physician practice competition and prices paid by private insurers for office visits. *JAMA*, 2014;312(16):1653–62; Sun, E., & Baker, L.C. (2015). Concentration in orthopedic markets was associated with a 7 percent increase in physician fees for total knee replacements. *Health Affairs (Millwood)*; 34(6):916–21; Dunn, A., Shapiro, A.H. (2014). Do physicians possess market power? *Journal of Law and Economics*, 57(1):159–93.

<sup>9</sup> Baker et al, *ibid*

<sup>10</sup> I group these affiliates together because they have exclusive territory arrangements that impede competition among them, except in a small number of geographic markets.

was 62 percent. I also document an increase in the national four-firm concentration ratio for Medicare Advantage plans, from 57 percent in 2007 to 61 percent in 2015.<sup>11</sup>

Studies of insurance consolidation have examined the impact on both insurance premiums (i.e., the “output” side), and on provider prices (i.e., the “input” side). I begin by summarizing the research on the output side. Several studies document lower insurance premiums in areas with more insurers. These studies span a variety of segments, including the public health insurance marketplaces, the large-group market (self-insured and fully insured plans combined), and Medicare Advantage.<sup>12</sup>

The best available evidence on the impact of insurance consolidation comes from what are known as “event studies” or “merger retrospectives.” There are two studies that fall in this category. One, which I coauthored, examines the impacts of a mega-merger in 1999 (Aetna-Prudential) on large-group premiums in 139 distinct geographic markets.<sup>13</sup> We find that premiums increased more in areas with greater pre-merger market overlap. Moreover, the premium increase was not limited to the merging insurers; where the merging firms had substantial overlap, rival insurers raised premiums as well.

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<sup>11</sup> These national figures do not necessarily reflect the degree of concentration in insurance markets that are relevant to consumers. Many health plans have a significant local, but not national, presence—Kaiser Permanente, Intermountain, and Geisinger among them. Although “Blue Cross and Blue Shield” consists of many separate insurance companies, most areas include only one. The degree of competition in any product and geographic market depends on the market participants and the characteristics of the products they offer. The American Medical Association’s annual reports containing detailed market share information for the top two insurers show that concentration is higher within metropolitan statistical areas (MSAs), on average, than in the nation as a whole. Moreover, this concentration appears to be increasing over time.

<sup>12</sup> Sheingold, S., Nguyen, N., & Chappel, A. (2015). Competition and Choice in the Health Insurance Marketplaces, 2014–2015: Impact on Premiums. Washington, D.C.: U.S. Department of Health and Human Services. ASPE Issue Brief. Retrieved from <http://aspe.hhs.gov/basic-report/competition-and-choice-health-insurance-marketplaces-2014-2015-impact-premiums>; Song, Z., Landrum, M. B., & Chernew, M. E. (2012). Competitive Bidding in Medicare: Who Benefits from Competition? *American Journal of Managed Care*, 18(9):546–52.; Dafny, L., Gruber, J., & Ody, C. (2015). More Insurers, Lower Premiums: Evidence from Initial Pricing in the Health Insurance Marketplaces. *American Journal of Health Economics*, (1):53–81. One recent study suggests premiums for fully-insured employers are lower where insurer concentration is lower, but premiums for self-insured employers are higher; Trish, E. E., & Herring, B.J. (2015). How Do Health Insurer Market Concentration and Bargaining Power with Hospitals Affect Health Insurance Premiums? *Journal of Health Economics*, 42:104–14.

<sup>13</sup> Dafny, L., Duggan, M., & Ramanarayanan, S. (2012). Paying a Premium on Your Premium? Consolidation in the U.S. Health Insurance Industry. *American Economic Review*, 102(2):1161–85.

A second study examined the impact of the 2008 merger of Sierra Health and UnitedHealth on small-group premiums in two Nevada markets. As compared with control cities in the South and West, small-group premiums in these markets increased by 13.7 percent the year following the merger.<sup>14</sup>

Turning to the research on the relationship between insurance consolidation and input prices, several studies find hospital prices paid on behalf of commercially-insured patients are lower when insurance market concentration is higher. This relationship also holds when researchers study changes over time: in markets that are becoming more concentrated, there is slower growth in hospital prices. Finally, the study of the Aetna-Prudential merger also finds post-merger reductions in wage growth of health care professionals in geographic markets where the merging parties had greater pre-merger overlap. However, if provider price reductions are not ultimately passed through in the form of lower insurance premiums and out-of-pocket payments, they will not benefit consumers. (Even if price reductions are realized and passed through, if they are achieved as a result of monopsonization of health care markets, consumers may experience an offsetting harm.)

Sections II.A.1 - II.A.3 above highlight consolidation in a select set of health care subsectors.

Consolidation is not limited to these sectors, however. There are a number of other subsectors in which consolidation has been documented – ranging from dialysis facilities to generic drug manufacturers to pharmaceutical benefit managers.

## **II.B. Non-horizontal Consolidation**

There is comparatively little evidence on non-horizontal consolidation, both due to data shortages and to the difficulty in grouping together the myriad types of transactions that fall into this broad category.

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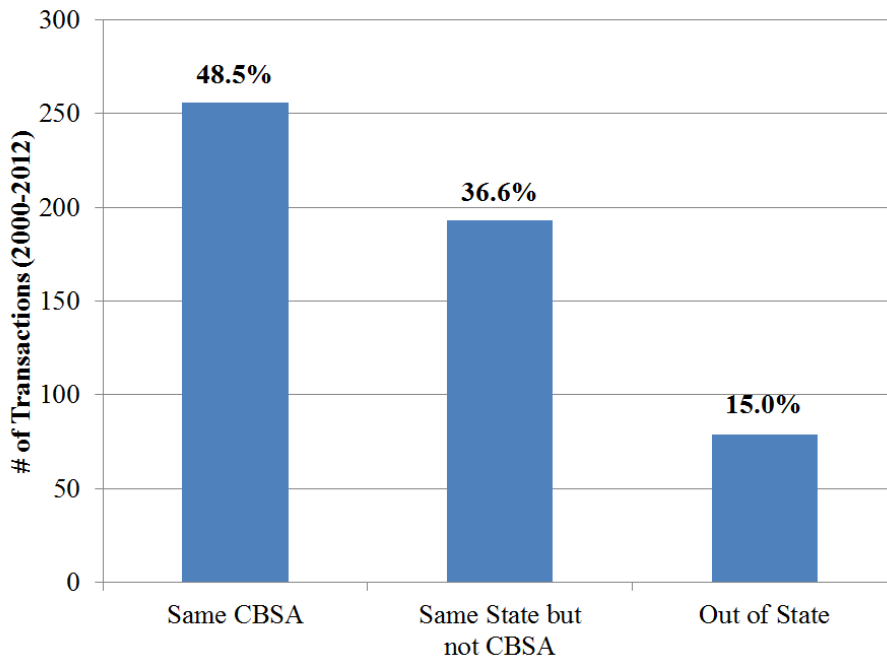
<sup>14</sup> Guardado et al., *ibid*

Below, I summarize the evidence on the two types of non-horizontal consolidation studied by academic health economists.

### II.B.1 “Cross-market” Hospital Consolidation

Much of the hospital M&A in recent years has occurred across geographies rather than within the same geographic market. Figure 2 below presents data from a study I coauthored on these “cross-market” mergers.<sup>15</sup> The figure shows that of 528 general acute care hospital mergers occurring between 2000 and 2012, more than half did not involve any overlap of the merging parties within the same metropolitan area. More than a third of the transactions involved within-state combinations, and 15 percent involved parties without any hospitals in the same states.

**Figure 2. Vertical Chain of Production for Orthopedic Surgery**



Notes: Based on 528 general acute care hospital mergers reported by Irving Levin over 2000-2012. CBSA= Core-Based Statistical Area.

<sup>15</sup> Dafny, L., Ho, V., & Lee, R. (2017). The Price Effects of Cross-Market Hospital Mergers. *NBER Working Paper* 22106

Source: Dafny, Ho, and Lee (2017). “The Price Effects of Cross-Market Hospital Mergers,” NBER Working Paper 22106

My coauthors and I find that hospitals gaining system members in-state (but not in the same geographic market) experience price increases (for commercially-insured patients) of 7-10 percent relative to a similar group of control hospitals, while hospitals gaining system members out-of-state exhibit no statistically significant changes in price. Another study finds independent hospitals acquired by systems lacking another hospital within 45 minutes of the target hospital raise the price of the target by 17-18 percent.<sup>16</sup>

Last, a recently published study finds cost reductions among hospitals acquired by an out-of-market system, using a variety of market definitions (e.g., county, or “hospital referral region”).<sup>17</sup> Taken together, the research suggests cross-market hospital mergers are profitable endeavors for the merging parties. There is no published research on the effects of cross-market hospital mergers on the quality or range of services offered to patients.

## II.B.2 *Hospital-Physician Consolidation*

Vertical integration of hospitals and physician practices has increased substantially in recent years. For example, one recent study finds that 10 percent of physicians were acquired by a hospital over the period 2007 to 2013, increasing the percentage of physicians in hospital-owned practices by 50 percent.<sup>18</sup> A second study, based on survey data from the AHA also finds an increase of over 50 percent in the market share of fully integrated organizations between 2001 and 2007, from 23 to 36 percent.<sup>19</sup>

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<sup>16</sup> Lewis, M.S., and K.E. Pflum. (2016). Hospital Systems and Bargaining Power: Evidence from Out-of-Market Acquisitions. *RAND Journal of Economics* 48(3), 589-610.

<sup>17</sup> Schmitt, M. (2017). Do Hospital Mergers Reduce Costs? *Journal of Health Economics*

<sup>18</sup> Capps, C., Dranove, D., & Ody, C. (2015). The Effect of Hospital Acquisitions of Physician Practices on Prices and Spending. *The Institute for Policy Research Northwestern University Working Paper Series*

<sup>19</sup> *Ibid.*, and Baker, L., Bundorf, K., & Kessler, D. (2014). Vertical Integration: Hospital Ownership of Physician Practices is Associated with Higher Prices and Spending. *Health Affairs* 33(5): 756–63.

A spate of recent studies finds hospital-physician consolidation is followed by price increases for physician services, and in settings where price is fixed (i.e., Medicare), to increases in total spending.<sup>20</sup> There are at least two sources of the spending increases: (1) a shift to “facility-based billing,” in which hospital-based providers charge facility and professional fees for outpatient visits – which combined amount to more than the price paid for a physician visit billed independently from a hospital;<sup>21</sup> (2) an increase in prices for these physicians’ services following the acquisition of their practices.<sup>22</sup>

Finally, a recent study shows that Medicare’s 340b program has led hospitals to increase their employment of physicians in certain specialties, chiefly hematology-oncology, ophthalmology, and rheumatology.<sup>23</sup>

### **III. The reasons: why consolidation is occurring**

As compared to the foregoing discussion of consolidation trends and effects – a topic about which there is a substantial body of research available (albeit with significant gaps in certain areas), there is less research attempting to identify motivations for mergers. Thus, what follows is my personal perspective on the likely drivers of consolidation, based on the limited research available, deductive inference, press reports, merger reviews by government agencies, and discussions with industry leaders and commentators.

Fundamentally, what drives consolidation is the expectation it will yield rewards for the merging parties and their stakeholders. I divide these (perceived or actual) rewards into four categories: the ability to

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<sup>20</sup> Neprash, H.T., Chernew, M.E., Hicks, A.L., Gibson, T., & J.M. McWilliams. (2015). Association of Financial Integration Between Physicians and Hospitals with Commercial Health Care Prices. *Journal of the American Medical Association Internal Medicine* 175(12):1932–39; Robinson, J.C., & Miller, K. (2014). Total Expenditures per Patient in Hospital-Owned and Physician-Owned Physician Organizations in California. *Journal of the American Medical Association* 312(16): 1663–69; Koch, T., Wendling, B., & Wilson, N. (2017). How vertical integration affects the quantity and cost of care for Medicare beneficiaries. *Journal of Health Economics*. 52:19-32.

<sup>21</sup> Song, Z., Wallace, J., Neprash, H.T., McKellar, M.R., Chernew, M.E., & McWilliams, J. (2015). Medicare Fee Cuts and Cardiologist-Hospital Integration. *Journal of the American Medical Association Internal Medicine* 175(7): 1229–31.; Dranove, D., & Ody, C. (2016). Employed for Higher Pay? How Medicare Facility Fees Affect Hospital Employment of Physicians. *Unpublished paper*.

<sup>22</sup> Dranove, D., & Ody, C. (2016). *ibid*

<sup>23</sup> Desai, S. & McWilliams, J.M., (2018). Consequences of the 340B Drug Pricing Program. *New England Journal of Medicine*, 378:539-548

reduce competition, scale economies, benefits from insurer reimbursement policies, and care coordination. (A fifth would be empire-building, about which I have little comment but I believe it is a driver.)

As the summary of evidence in the preceding section (“the facts”) makes clear, consolidation in various healthcare sectors tends to result in higher commercial prices and/or total spending. Assuming these are profitable decisions, the additional funds gathered as a result can be allocated to profits or to other activities, such as academic research, charity care, or unprofitable service lines (e.g., “margin” or “mission”).

Because many healthcare prices are set via negotiation (as opposed to a “posted price” setting, which is common when individual purchasers are responsible for a small share of the seller’s business), one key motivation to merge is to gain *bargaining leverage* in negotiations with the relevant counterparty.

Economists have developed and tested formal models of leverage for the case of health care providers; in these models, leverage derives from the added value (“willingness to pay,” in the economists’ vernacular) that a provider (or a set of merging providers) creates for enrollees of an insurance plan that includes those providers in its network (relative to excluding the provider(s)). Studies of physician and hospital mergers show this leverage is correlated with higher private prices, controlling for a host of other factors affecting price.

When prices are posted, mergers can enable profitable price increases (or reductions in quality that is costly to produce) because purchasers have fewer alternative options. Mergers of insurers selling plans to individuals or to small groups may be motivated in part by the ability to relax competition in their respective markets.

A second driver of mergers appears to be the desire to realize *economies of scale or scope*, that is, lower costs as a result of increased organizational size. Potential sources of scale economies include bulk purchasing discounts, elimination of redundant activities (e.g., billing and collection units or corporate

headquarters), and reoptimization or reallocation of activities across sites. Although companies and boards routinely express their expectation that mergers will reduce costs, there is relatively limited evidence to suggest reductions in cost following mergers.<sup>24</sup> Notably, reductions in cost may not be passed through to consumers, and may derive from the (anticompetitive) exercise of monopsony power on the part of the merging buyers.

A third driver of consolidation – particularly hospital-physician transactions – are specific CMS reimbursement policies that increase payments or margins for merged relative to separate entities. As noted above, researchers have shown that the acquisition of physician practices has increased as a result of the higher reimbursement payments available through CMS for hospital-affiliated physicians, a payment practice often mimicked by private payers.<sup>25</sup> There is also recent evidence that CMS' reimbursement policies via the 340b program have contributed to an increase in acquisition of specialty practices by hospitals.<sup>26</sup>

A fourth driver of consolidation is the desire to integrate care across multiple organizations. There is little evidence that common ownership produces more integrated care<sup>27</sup> – let alone that this care is better or cheaper than care delivered by affiliations of providers – but merging parties often cite this motive. In addition, shifts in payment models are likely to reward the ability of organizations to generate savings through care coordination, so to the extent that joint ownership facilitates the coordination or is perceived to facilitate it, the desire to coordinate care is another driver of consolidation. That said, one recent study finds consolidation preceded the Affordable Care Act, which established a mechanism for integrated delivery organizations (i.e., Accountable Care Organizations) to reap rewards for integrated care. The

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<sup>24</sup> I am aware of two studies that have found cost reductions following hospital mergers (Schmitt, previously cited; and Dranove and Lindrooth (1988), and scores of others that have not. I know of no academic research on post-merger cost reductions in other provider settings, or in the health insurance sector.

<sup>25</sup> Dranove, D., & Ody, C. (2016). Employed for Higher Pay? How Medicare Facility Fees Affect Hospital Employment of Physicians. *Unpublished paper*;

Song, Z., Wallace, J., Neprash, H.T., McKellar, M.R., Chernew, M.E., & McWilliams, J. (2015). Medicare Fee Cuts and Cardiologist-Hospital Integration. *Journal of the American Medical Association Internal Medicine*, 175(7): 1229–31.

<sup>26</sup> Desai, S. & McWilliams, J.M. (2018). *ibid*

<sup>27</sup> Burns, L.R., & Pauly, M. (2012). Accountable Care Organizations May Have Difficulty Avoiding the Failures of Integrated Delivery Networks of the 1990s. *Health Affairs*, 31(11): 2407–15.



authors conclude “little evidence exists” to support the contention that providers have consolidated to participate in “alternative payment models.”<sup>28</sup>

#### **IV. The responses: current responses of the private and public sectors to consolidation**

The public-sector response to health care industry consolidation to date largely mirrors the public-sector response to consolidation in other sectors, with some notable exceptions arising from state-specific institutions (e.g., state departments of insurance) and legislation pertaining to Certificates of Need and Certificates of Public Advantage.

##### **IV.A. Public Sector Responses**

###### *IV.A.1 Antitrust Enforcement*

As is the case for other sectors, the federal antitrust enforcement agencies, along with the state attorneys general, investigate potentially anticompetitive mergers and acquisitions. They issue legal complaints to block or dissolve transactions they deem anticompetitive, and then litigate or negotiate consent decrees (i.e., settlements) to address their concerns. The FTC has vigorously pursued provider mergers since conducting its Hospital Merger Retrospectives Analysis in 2002-2004. The Antitrust Division of the Department of Justice has investigated numerous insurer transactions, most recently blocking two mega-mergers (Aetna-Humana and Anthem-Cigna) proposed in 2015. In both cases, federal district courts issued preliminary injunctions to block the transactions, following which the parties abandoned their deals. The healthcare sector is clearly a priority for the federal enforcement agencies, and has been declared as such by their leaders.<sup>29</sup>

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<sup>28</sup>Neprash, H.T., Chernew, M.E., & McWilliams, J.M. (2017). Little Evidence Exists To Support The Expectation That Providers Would Consolidate To Enter New Payment Models. *Health Affairs*, 36(2).

<sup>29</sup> For example: Ohlhausen, M.K. (2017). The First Wealth is Health: Protecting Competition in Healthcare Markets. *Remarks at the 2017 ABA Fall Forum*. Retrieved from: [https://www.ftc.gov/system/files/documents/public\\_statements/1275573/mko\\_fall\\_forum\\_2017.pdf](https://www.ftc.gov/system/files/documents/public_statements/1275573/mko_fall_forum_2017.pdf)

As you are aware, the federal antitrust agencies enforce federal antitrust statutes, with Section 7 of the Clayton Act the most relevant for our purposes here. Section 7 prohibits the acquisition of assets or interests where “the effect of such acquisition may be substantially to lessen competition, or to tend to create a monopoly.” The statute is narrow, and thus enforcement authorities are not in a position to block all consolidation that may harm consumers. For example, if hospitals acquire physician practices and reap increases in revenues owing to higher payments for services rendered by hospital-affiliated physicians, unless that increase in payment derives from a lessening of competition, Section 7 alone does not provide grounds for antitrust enforcers to challenge the practice.

The way in which Section 7 has been interpreted by federal enforcement authorities has also limited its scope. In particular, Section 7 has largely been interpreted by authorities to require a definition of a relevant antitrust market in which the lessening of competition will occur (or has allegedly occurred) as a result of the transaction. There are many judicial precedents and economic tools used to define relevant antitrust markets, for example the “hypothetical monopolist test,” which asserts that a market is not drawn too narrowly if a hypothetical monopolist consisting of all suppliers in the market could profitably raise price by a small, nontrivial amount. However, defining such markets can be challenging in the case of non-horizontal transactions. For example, consider the case of mergers of hospitals across geographic markets. Arguably, these hospitals are rivals to others competing for inclusion in an insurer’s network, as insurers are intermediaries between providers and patients, and patients generally face higher prices when utilizing out-of-network providers. Insurer networks typically span a broader geographic area than well-defined acute-care hospital service markets. If the enforcement authorities stipulate the broader insurer boundaries when defining a relevant antitrust market, they may face opposition when proposing narrower markets for horizontal acute-care hospital merger challenges. Recent enforcement successes spearheaded by the Federal Trade Commission (on cases often joined by state authorities) have often relied upon successfully defending these narrow market definitions. Pursuing different or broader market definitions – as may be necessary to challenge non-horizontal transactions – is a risky endeavor.

Some state enforcement agencies may be more willing to embrace this challenge and to bear the associated risk. Regardless, enforcement is a blunt and limited instrument for addressing the harms associated with consolidation in the industry to date, and consolidation yet to come.

#### IV.A.2 *State Agencies and Actions*

There are a number of state regulations, statutes, and agencies impacting health care consolidation. These include “certificate of need” (CON) laws, “certificate of public advantage” (COPA) laws, state Departments of Insurance, and agencies engaged in monitoring of the health care sector.

Empirical evidence on CON laws – which limit entry and therefore increase the degree of concentration in markets where entrants must seek a CON - finds they are associated with reductions in the quality of regulated services.<sup>30</sup>

COPA laws “allow healthcare providers to enter into cooperative agreements that might otherwise be subject to antitrust scrutiny...[so as] to reduce ‘unnecessary’ duplication of healthcare resources and control healthcare costs.”<sup>31</sup> COPAs have resurged recently and prevented the FTC from pursuing legal challenges in two recent cases: Cabell Huntington-St. Mary’s Medical Center (in West Virginia), and Mountain State Health Alliance-Wellmont Health System (in Tennessee and Virginia). In both matters, the FTC testified that the terms of the COPAs are unlikely to produce benefits that outweigh the harms likely to arise from a reduction in competition. In November 2017, the FTC announced its intention to host a public workshop to discuss empirical research on the impact of COPAs.

Both COPAs and CONs substitute regulation for competition, and as such tend to lead to higher industry concentration and consolidation.

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<sup>30</sup> Citations are included in recent testimony offered by the Federal Trade Commission before the Alaska Senate. See [https://www.ftc.gov/system/files/documents/advocacy\\_documents/statement-federal-trade-commission-alaska-senate-committee-labor-commerce-certificate-need-laws/p859900\\_ftc\\_testimony\\_before\\_alaska\\_senate\\_re\\_con\\_laws.pdf](https://www.ftc.gov/system/files/documents/advocacy_documents/statement-federal-trade-commission-alaska-senate-committee-labor-commerce-certificate-need-laws/p859900_ftc_testimony_before_alaska_senate_re_con_laws.pdf).

<sup>31</sup> FTC Staff Notice of COPA Assessment (2017), retrieved from [https://www.ftc.gov/system/files/attachments/press-releases/ftc-staff-seeks-empirical-research-public-comments-regarding-impact-certificates-public-advantage/p181200\\_copa\\_assessment\\_comment\\_notice\\_11-1-17.pdf](https://www.ftc.gov/system/files/attachments/press-releases/ftc-staff-seeks-empirical-research-public-comments-regarding-impact-certificates-public-advantage/p181200_copa_assessment_comment_notice_11-1-17.pdf)

States have also reacted to consolidation via their various regulatory bodies. Here, I describe one such body in the Massachusetts, the Massachusetts Health Policy Commission (HPC). The HPC “is charged with developing health policy to reduce overall cost growth while improving the quality of care, and monitoring the health care delivery and payment systems in Massachusetts.” It is governed by an 11-person board with a pre-specified set of expertise areas, including health care management, consumer advocacy, primary care, behavioral health, health plan administration, and health economic. Since the HPC was established, Massachusetts’ annual per capita spending growth has remained below the national average. All “material ownership changes” must be reported to the Health Policy Commission, which in turn may conduct a “Cost and Market Impact Review” of transactions it deems significant. The HPC may refer transactions generating concern to the Attorney General for further investigation. The process injects substantial transparency into the public debate over the merits of specific mergers, and enables various stakeholders to gain more insight into areas of potential benefit or concern. These stakeholders may use the information reported by the HPC to weigh in on the transactions, and in fact stakeholders have done so in a variety of venues.

#### **IV.B. Private Sector Responses**

Setting aside private antitrust challenges and weighing in on specific transactions in public hearings and through meetings with relevant state and federal antitrust officials, the primary tool at the disposal of the private sector is declining to purchase products and services whose prices exceed their perceived or actual value. A comprehensive listing of the factors contributing to muted downstream price sensitivity is beyond the scope of my testimony. Many of these factors are discussed in “Health Care Needs Real Competition,” a 2016 article I coauthored (attached as Exhibit 2). In my opinion, one of the central factors impeding an effective private-sector response to anticompetitive mergers in the U.S. is our heavy reliance on employer-sponsored insurance, together with a limited set of options ordinarily offered to employees by employers. U.S. consumers cannot easily select health plans that reflect their preferences over price, network breadth, drug formularies, and so on, so they cannot “vote with their feet.”

A second response of private consumers is “forward integration” into the healthcare sector, i.e. choosing to enter the industry rather than to purchase its services. Recent examples include the decision of several hospital systems to enter the generic drug industry, and three large employers to form a joint venture to develop and purchase health care services. These efforts are a clear signal that the healthcare industry is not satisfying the expectations and needs of even the largest buyers.

## **V. Recommendations: what else could be done?**

The suboptimal performance of the healthcare sector is a critical economic issue, and consolidation in the sector is a contributing factor. I have four specific recommendations for actions that Congress could pursue:

- (1) Create public databases containing information about the ownership and financial links among different health care providers, and net commercial prices for their services. This database could form the basis for regularly scheduled reports and public hearings on industry consolidation and its effects. I expect that a similar database for prescription drugs that could be of value; I defer to colleagues with greater expertise to weigh in on what data elements ought to be included in such a database.
  
- (2) Appropriate sufficient additional funds to the federal enforcement agencies for enforcement-focused research on healthcare consolidation. Enforcement agencies are avid consumers of such research, but they have few resources to devote to pursuing it. As academics have limited time and resources, and different foci (e.g., they may be interested in the harm wreaked by a particular action, not just in whether it violates antitrust statutes), research executed by the enforcement agencies or via grants awarded from the enforcement agencies to impartial researchers could be of substantial value to enforcers.

- (3) Explore the possibility of dismantling or revising CMS policies that are known to contribute to consolidation, such as higher payments for hospital-affiliated service provision.
- (4) Provide financial incentives, or impose regulatory requirements, for employers to utilize or develop so-called “private exchanges” where employees can shop for their preferred healthplans and make choices that reflect their own preferences. Data from the public exchanges suggest consumers are more price-sensitive, and more willing to select narrow-network plans, than are employers. These preferences exert pressure on providers and healthplans to develop lower-cost health care solutions, and can therefore reduce the incentive for anticompetitive upstream mergers or practices. If consumers refuse to pay for a higher-priced product that doesn’t offer greater value warranting the price premium, the incentive to pursue anticompetitive consolidation will be diminished.