

CHAPTER

10

**Provider consolidation:
The role of Medicare policy**

Provider consolidation: The role of Medicare policy

Chapter summary

Consolidation in the health care industry has at least four important implications for the Medicare program. First, horizontal hospital consolidation can contribute to higher commercial prices and therefore contribute to the growing gap between the prices paid by Medicare and those paid by commercial insurers. In addition, high commercial prices can induce higher hospital costs and, in turn, pressure the Medicare program to increase its prices. Second, horizontal consolidation of physician practices can result in higher commercial prices, causing a gap between commercial and Medicare prices for physician visits, which could put pressure on Medicare to increase physician prices. Third, physician–hospital vertical consolidation can also result in higher costs for Medicare and commercial insurers. Fourth, there is a strong interest in consolidating provider services and responsibility for annual spending into one integrated entity such as a Medicare Advantage (MA) plan or an accountable care organization (ACO). Many individuals in the policy and provider communities expect these vertically integrated entities will bring down costs and improve quality by aligning incentives of providers and insurers. However, generating taxpayer savings from ACOs and MA plans has proved more difficult than expected.

This chapter is divided into two sections. The first discusses the current level of provider consolidation and how provider consolidation can affect prices. The following three types of provider consolidation are discussed:

In this chapter

- Introduction
- Hospital consolidation has increased for decades
- Physician practices are consolidating and vertically merging with hospitals and health systems
- Effects of horizontal and vertical provider consolidation
- Possible benefits of provider consolidation
- Provider and insurer vertical consolidation
- Medicare policy response
- Conclusion

- **Horizontal hospital consolidation**—in which hospitals consolidate into larger systems
- **Horizontal physician consolidation**—in which physicians consolidate into larger groups
- **Vertical consolidation**—in which hospital systems acquire physician practices. Vertical consolidation can also result in greater horizontal consolidation when a collection of unaffiliated group practices is brought into one hospital-based group practice.

The second part of the chapter discusses vertical consolidation of provider functions and insurer functions by ACOs or MA plans, which can occur when insurers acquire providers, providers acquire insurers, or providers take on some cost-of-care risk through an ACO. The objective of the second part of the chapter is to discuss how the potential benefits of provider–insurer consolidation can occur without increasing costs for taxpayers and beneficiaries.

Provider consolidation

Providers have many arguments for consolidation, including economies of scale, consolidating services into centers of excellence, access to capital, improved coordination, relieving physicians of practice management duties and regulatory burdens, elimination of duplicative services through common electronic medical records, and improved quality of care. However, the literature fails to find strong evidence that financial consolidation consistently leads to lower costs or higher quality (Burns et al. 2013, Gaynor and Town 2012b, Gaynor et al. 2017). While some integrated entities report strong cost or quality performance, in other cases, systems may financially integrate for the tangible financial benefits of market power and Medicare facility fees rather than a cultural commitment to affordable integrated care.

Hospital consolidation has been occurring for the past 30 years. The resulting market power has contributed to a growing divergence between the prices Medicare pays hospitals and the prices commercial insurers pay. While commercial prices vary widely by individual hospital and individual insurer, on average, commercial prices average about 50 percent higher than hospital costs and often far more than 50 percent above Medicare prices (Cooper et al. 2015, Health Care Cost Institute 2014, Medicare Payment Advisory Commission 2014a, Selden et al. 2015). This trend is driven by two factors: Medicare has restrained prices in recent years, while commercial payers have increased their prices faster than economy-wide inflation (Health Care Cost Institute 2015). Even in recent years when hospital employees’ wage growth has slowed and uncompensated care costs have declined, hospitals

have generally continued to obtain material rate increases (e.g., 3 percent to 5 percent) from commercial insurers (Health Care Cost Institute 2016, Health Care Cost Institute 2015). The result is that hospitals' all-payer profit margins reached a 30-year high in 2014, averaging 7.3 percent nationwide (Medicare Payment Advisory Commission 2016).

Physician horizontal consolidation can also lead to higher prices. Commercial prices tend to be higher in more concentrated markets and tend to increase after physicians integrate with hospitals (Capps et al. 2015, Neprash et al. 2015). In this chapter, we also show that providers with larger shares within a given market tend to receive higher prices than others in the market.

Vertical physician–hospital consolidation increases both commercial and Medicare prices paid for physician services. Commercial physician prices can increase because of the market power of the hospitals owning the practices. Medicare prices increase as the program pays a physician fee and a hospital facility fee for an office visit that would have been paid only a physician fee if the visit had been provided in a freestanding physician office. Specifically, the Commission estimated that in 2009 and 2015, the Medicare program spent \$1.0 billion more and \$1.6 billion more, respectively, than it would have if prices for evaluation and management (E&M) office visits in hospital outpatient departments (HOPDs) were the same as freestanding office prices (Medicare Payment Advisory Commission 2017). Similarly, in 2015, beneficiaries paid about \$400 million in higher cost sharing for E&M visits because of the higher facility fees. In 2015, the Congress moved partially toward equalizing prices between new off-campus HOPDs and physician offices. However, on-campus HOPDs as well as existing off-campus HOPDs continue to receive the higher HOPD facility fees under the Bipartisan Budget Act of 2015.

Provider–insurer consolidation

The effect of insurer–provider consolidation on costs and competitiveness with traditional insurers is less clear. Some vertically integrated organizations have been profitable and have strong reputations (e.g., Scott and White, Kaiser), but in other cases, integrated entities with strong reputations (e.g., Mayo Clinic) have divested their insurance organizations. In the case of Medicare, there is a growing movement of patients into MA plans, some of which integrate care of patients in a group- or staff-model HMO and some of which contract with providers. There is a lack of evidence that integrated entities provide lower MA premiums to MA beneficiaries. On average across integrated and nonintegrated plans, Medicare has been unable to capture savings from the MA model. In 2017, risk-adjusted program spending

per MA beneficiary is expected to exceed risk-adjusted program spending per fee-for-service (FFS) beneficiary by about 4 percent on average (Medicare Payment Advisory Commission 2017).

Policy implications

Policymakers need to balance a widespread desire for more clinically integrated and coordinated care with concerns over the influence of consolidation on the cost of care. At least three responses to consolidation could be considered:

Response to horizontal consolidation—Restrain Medicare prices rather than follow increases in commercial prices

Consolidation of physician practices and hospitals can lead to market power and higher commercial prices. For many years, the Commission has recommended that the Congress restrain Medicare updates rather than follow the rise in commercial prices. This approach is possible because administered prices allow the Medicare program to be insulated (to a degree) from physicians' and hospitals' market power. The Medicare program's restraint of provider prices in turn restrains the cost of Medicare for taxpayers and beneficiaries. For example, from 2007 to 2016, the cost of Part A, Part B, and Part D benefits per FFS beneficiary increased by about 23 percent. By comparison, employer-sponsored HMO and preferred provider organization commercial premiums grew by about 50 percent over the same period (Kaiser Family Foundation and Health Research & Educational Trust 2016). If FFS Medicare had followed commercial pricing, Medicare costs would have been substantially higher.

Response to vertical provider consolidation—Site-neutral pricing

Administered prices do not insulate the Medicare program from all of the extra costs of vertical consolidation. Under current law, Medicare pays more for services when provided by on-campus hospital-owned physician practices than for services provided by independent physicians. The Commission has made recommendations in the past to set payment rates for hospital-based outpatient E&M services and selected other physician services equal to prices paid for the same services in physician offices. By establishing payments that are truly "site neutral," Medicare could be further insulated from the cost of physician-hospital consolidation. Integration that improves care and generates efficiencies would still occur, but consolidation that was driven primarily by capturing new facility fees would not. The Commission reiterated our past site-neutral recommendations in our March 2017 report, affirming the Commission's support for moving toward site-neutral pricing (Medicare Payment Advisory Commission 2017).

Response to consolidation of provider and insurance functions—Have MA plans, ACOs, and FFS compete on a level playing field

Finally, to gain the potential advantages of making providers more accountable for cost and quality without increasing costs to taxpayers, the program could move toward a level playing field across payment models. On average, Medicare currently pays more for beneficiaries in MA plans than for those in FFS. However, as we reported in June 2014, MA, traditional FFS, and ACOs all have the potential to be the low-cost option in some markets. Given that no one model is dominant, one policy option is to make program contributions financially neutral among MA, traditional FFS, and ACOs. Such a policy would create competition on a level playing field, and market forces would then illuminate the model that is most efficient given particular market conditions. Clinically integrated MA plans and ACOs that are more efficient than traditional FFS would still gain market share, but plans that can compete with FFS only when subsidized by the taxpayer would lose market share. By paying for outcomes and not corporate structure, Medicare would create incentives for organizations to continually develop more efficient delivery systems. In contrast, once Medicare pays more for a particular corporate structure, there is a disincentive to innovate into new more efficient models. ■

Introduction

The health care sector has been consolidating for decades. Consolidation includes horizontal mergers of providers—in which hospitals consolidate into larger systems or physicians consolidate into larger practices. Because consolidated hospital systems and group practices are rarely broken up, horizontal consolidation tends to ratchet up over time. There has also been a recent increase in vertical provider consolidation—in which physician practices are acquired by hospital systems. We have found that Medicare payment policy encourages vertical integration, and vertical integration in turn increases Medicare program costs. The first half of this chapter discusses horizontal and vertical provider consolidation.

The second half of the chapter discusses vertical provider–insurer consolidation—in which providers acquire an insurer (or take accountability for annual spending) or an insurer acquires a provider. Such acquisitions are premised on the idea that efficiencies can be gained by giving provider organizations greater responsibility for annual costs of care and the quality of care. However, Medicare still must be vigilant in how Medicare Advantage (MA) plans and accountable care organizations (ACOs) are compensated to avoid increasing costs for taxpayers and beneficiaries.

Hospital consolidation has increased for decades

Hospital markets are highly consolidated. In 2012, a single hospital system accounted for a majority of Medicare discharges in 146 of 391 metropolitan areas. In each of 65 small metropolitan areas (e.g., Cheyenne, WY; St. Cloud, MN), a single system accounted for 100 percent of discharges (American Hospital Association 2015, Centers for Medicare & Medicaid Services 2014). Data from 2015 suggest the merger trend is continuing, with Irving Levin reporting 265 hospitals involved in transactions in 2015 (Irving Levin Associates Inc. 2016). The Federal Trade Commission (FTC) uses the Herfindahl–Hirschman Index (HHI; the sum of the squared market shares of hospital systems in a market) as an indicator of whether there is enough consolidation in a market to generate market power. In 1990, the FTC benchmark (HHI > 2,500) suggested that 65 percent of markets were deemed “highly concentrated,” with a risk of higher prices, and that figure rose to 77 percent by 2006 (Gaynor et al. 2014). By 2012, 84 percent of metropolitan areas met the FTC definition of

highly concentrated (American Hospital Association 2015, Centers for Medicare & Medicaid Services 2014).

Provider consolidation has continued in part because private insurers and antitrust regulators have few tools to stop horizontal and vertical consolidation. The FTC has challenged some mergers and won a few cases in recent years. However, most examples of horizontal and vertical consolidation in recent decades were unchallenged or not successfully challenged by the FTC (Gaynor et al. 2014). In addition, some consolidation happens naturally as poorer financial performers close and better performers expand existing operations. The result is that many “markets are already highly concentrated, so there does have to be some concern about exactly how effective antitrust enforcement can be” (Gaynor 2011). We are not aware of any discussions to unwind a material number of past hospital mergers. Therefore, consolidation and the resulting market power are likely to be ongoing features of the health care market. It may be time to shift from thinking primarily about how to limit horizontal hospital consolidation and focus on how Medicare should function in markets where hospitals already have substantial market power.

Physician practices are consolidating and vertically merging with hospitals and health systems

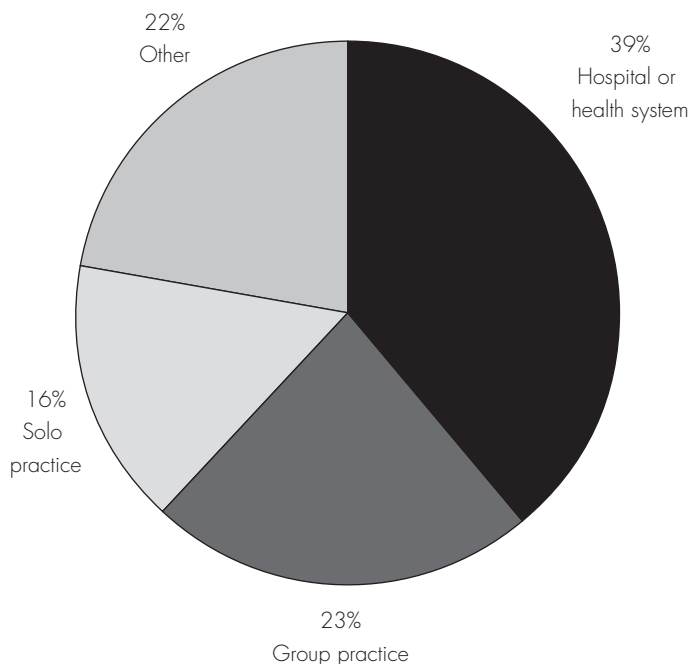
To evaluate the degree to which physician practices have consolidated and integrated with hospitals, we examined 2012 and 2014 data on the degree to which physicians are practicing in groups and joining hospital and health systems. We found the following:

- Physicians are often joining larger groups, hospitals, and health systems. However, they often do not move the location of their practice.
- While consolidation continues, small practices still provide a large share of Medicare services. Specifically, more than half of Medicare physician spending in 2014 was for physicians working in practices of five or fewer physicians.
- Financial incentives are in place for continued consolidation.

To determine what share of physicians were part of group practices, hospitals, or health systems, we used the SK&A

**FIGURE
10-1**

About 40 percent of physicians in SK&A database reported hospital or health system affiliation, 2014



Note: "Other" category includes independent practice associations; physicians working in group practices for which the group practice ID is missing; and physicians reporting they work with other physicians at their practice site, but who do not report a group practice identifier. Those in the group practice category do not report hospital or health system affiliation. The number of physicians in the analysis is 594,871.

Source: SK&A Office-Based Physician Database.

commercial database of physicians (see online Appendix 10-A, available at <http://www.medpac.gov>, for details). It contains physician names and national provider identifiers (NPIs), addresses, contact information, specialties, hospital and health system affiliations, and practice affiliations, among other variables. It is updated semi-annually through calls to practices and Internet research. The SK&A database was originally constructed for companies that made direct marketing visits to office-based physicians. Studies of its completeness have found substantive overlap with the American Medical Association Physician Masterfile and the National Plan and Provider Enumeration System file that contains records of all physicians who have an NPI (Gresenz et al. 2013). The SK&A database has been used in other health services research applications (Baker et al. 2015, Baker et al. 2014a, Capps et al. 2015, Kenney et al. 2014, Polsky et al. 2015).

Using a hierarchy of physician affiliation that assigns each physician to a discrete category (see online Appendix 10-A, available at <http://www.medpac.gov>), we find that 39 percent of physicians were affiliated with a health system or hospital, 23 percent were affiliated with a group practice (but not with a health system or hospital), 16 percent were solo practitioners, and 22 percent were categorized as "other" in the SK&A database in 2014 (Figure 10-1).

Physician affiliation varies by specialty, with over half of cardiologists and 35 percent of orthopedists reporting hospital or health system affiliation in 2014 (Table 10-1). The high shares of cardiologists and emergency medicine physicians reporting hospital or health system affiliation also tracks with reported merger and acquisition trends for these specialties (Barkholz 2015, Sanger-Katz 2015).

The data show trends consistent with both horizontal and vertical integration. The share of SK&A physicians reporting hospital or health system affiliation grew 7 percent per year from 2012 through 2014 (from 34 percent to 39 percent). Other data sources show a comparable trend over the same period (Kane and Emmons 2015).

Physicians are also more likely to work in larger practices in 2014 than they were five years prior. Across all locations of group practices, the share of physicians working in practices with more than 50 physicians grew between 2009 and 2014 from 16 percent to 22 percent. However, when physicians identified how many other physicians they work with in their specific practice location, the number was unchanged between 2009 and 2014 (data not shown). Physicians are part of larger organizations, but the number of physicians they work with in their immediate practice has remained constant. In other words, the data are indicative of financial consolidation (between practices or between practices and hospitals or health systems), but do not show that it resulted in physicians physically merging their practice locations.

Physician affiliation for SK&A Medicare-billing physicians

Using the NPIs, we matched the SK&A Office-Based Physician Database to the 2014 Medicare noninstitutional Part B claims at the line-item level (after excluding group billing and nonphysician claims). Seventy percent of the physician NPIs could be matched to a physician record in the SK&A database (corresponding to 84 percent of Medicare claim line items and 84 percent of Medicare spending).

**TABLE
10-1****Physician affiliation varied by specialty, 2014**

	Primary care	Cardiology	Emergency medicine	Orthopedic surgery	OB-GYN
Total number of physicians	190,221	23,711	19,163	23,219	26,746
Share, by type of affiliation:					
Hospital and/or health system	40%	53%	50%	35%	38%
Group practice	21	23	22	37	28
Solo practice	19	10	4	11	14
Other	20	14	24	17	20

Note: OB-GYN (obstetrician/gynecologist). "Other" category includes independent practice associations; physicians working in group practices for which the group practice ID is missing; and physicians working at a location with other physicians, but who do not report a group practice identifier. Primary care specialties include family practice, gerontology, internal medicine, general practitioner, or pediatrics.

Source: SK&A Office-Based Physician Database.

The Medicare-billing physicians without a corresponding SK&A record were disproportionately likely either to be in hospital-based specialties (radiologists, pathologists, and anesthesiologists) or to have a specialty of internal medicine but work in a hospital-based capacity (for example, as a hospitalist or intensivist).

Of the physicians who billed Medicare and could be found in the SK&A, 39 percent of physicians reported hospital or health system affiliation, 24 percent reported a group practice (and not hospital or health system affiliation) and 16 percent reported working in a solo practice. This

distribution is comparable with those of the total universe of physicians in the SK&A database (Table 10-2).

A large share of Medicare spending is still delivered by physicians in unaffiliated group practices

In 2014, 24 percent of Medicare-billing physicians were in unaffiliated group practices, but they accounted for a significantly larger share of Medicare spending (31 percent) (Figure 10-2, p. 298). This difference is due in large part to the types of specialties that account for

**TABLE
10-2****Distribution of Medicare-billing physicians was similar to all physicians with an SK&A record, 2014**

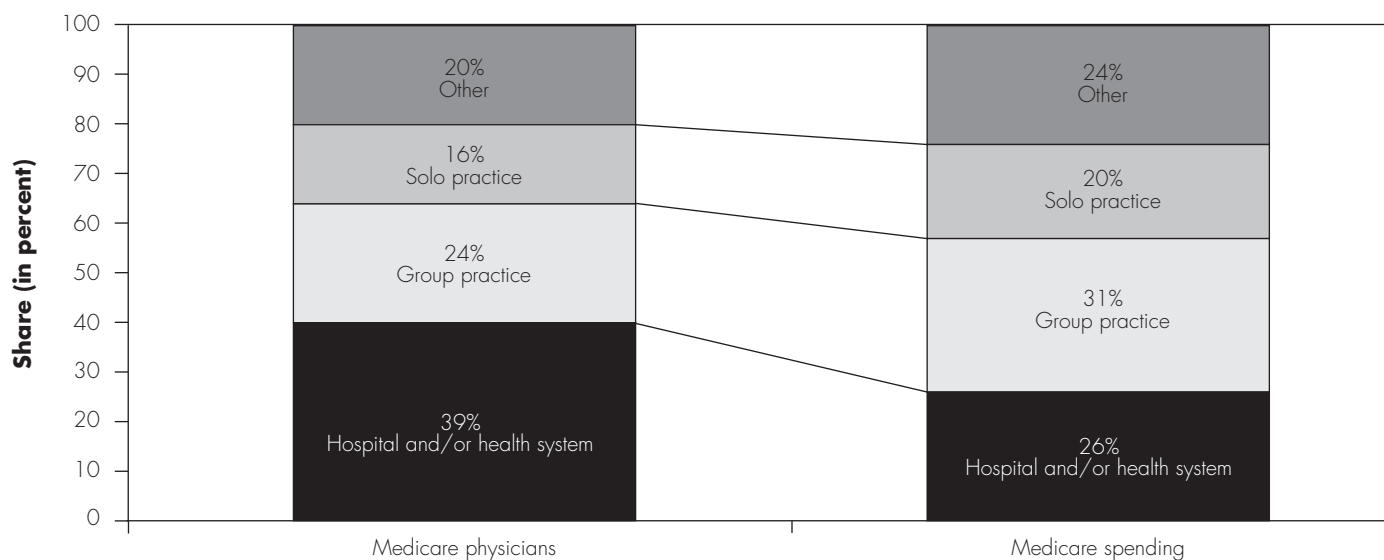
	Medicare-billing physicians	All physicians with an SK&A record
Number of Medicare-billing physicians with an SK&A record	462,195	N/A
Share, by type of affiliation:		
Hospital and/or health system	39%	39%
Group practice	24	23
Solo practice	16	16
Other	20	22
Number of physicians in Medicare claims with no SK&A record	192,373	N/A

Note: N/A (not applicable). The percentage distribution for Medicare-billing physicians is only for the 70 percent of physicians that could be matched from SK&A to Medicare claims. Percentages may not sum to 100 due to rounding.

Source: Medicare 2014 Part B Geographic Variation Database noninstitutional claim line file and the SK&A Office-Based Physician Database.

FIGURE 10-2

Physicians in unaffiliated group practices accounted for the largest share of Medicare spending, 2014



Note: Seventy percent of Medicare physicians could be matched to an SK&A record and account for 84 percent of Medicare spending. “Other” category includes independent practice associations; physicians working in group practices for which the group practice ID is missing; and physicians reporting they work with other physicians at their practice site, but who do not report a group practice identifier. Those in the group practice category do not report hospital or health system affiliation. Percentages may not sum to 100 due to rounding.

Source: Medicare 2014 Part B Geographic Variation Database noninstitutional claim line file, SK&A Office-Based Physician Database.

a significant part of Medicare spending. For example, ophthalmologists and orthopedists have a large share of their revenue that is Medicare, and both specialties are more likely to be in unaffiliated group practices (and less likely to report hospital and health system ownership). Therefore, unaffiliated group practices account for a disproportionate share of Medicare spending.

A similar phenomenon occurs with respect to practice size. Over half of Medicare spending is billed by physicians working in a practice with five or fewer physicians. While a large share of Medicare physician services is provided by small or unaffiliated practices, the financial incentives are clearly aligned for more consolidation in the future.

Motivations for horizontal and vertical consolidation

Providers have many arguments in favor of consolidation. These include economies of scale, consolidating services into centers of excellence, access to capital, improved coordination, relieving physicians of practice management duties and regulatory burdens, elimination of duplicative services through common electronic medical records,

and improved quality of care. Also, some hospitals may acquire practices to secure referrals and admissions. However, the literature finds weak evidence that financial consolidation consistently leads to lower cost or higher quality (Burns et al. 2013, Gaynor and Town 2012b, Gaynor et al. 2017).

While early integration of providers before the start of the Medicare program may have been motivated by culture and philosophy, some of the more recent consolidation may be motivated by financial incentives in Medicare’s payment system. For example, the culture of the group practice may have led long-standing physician groups such as the Mayo Clinic and the Billings Clinic to develop vertically integrated organizations. Given examples of these long-standing vertically and horizontally integrated entities, there may be a belief that financially integrated multispecialty groups will better coordinate care and improve outcomes. This assumption could in turn lead to calls for robust financial incentives for providers to integrate into larger systems with a common medical record. However, it may be easier to replicate the corporate structure of integrated organizations such as

the Mayo Clinic than to replicate the culture of such organizations. For example, it is not clear that incentives for financial integration lead to clinical integration. Burns and colleagues state that “many hospitals actually operate the ‘groups’ as dispersed collections of solo and partnership practices where the only things that really change post-acquisition are the nameplates on the door and the source of the physicians’ and the office staff’s W-2s” (Burns et al. 2013). Similarly, the FTC recently challenged St. Luke’s Hospital’s acquisition of a group practice in Idaho; it argued that the hospital already owned a physician practice and this additional acquisition would create a dominant physician practice under the hospital umbrella. In other words, the transaction would cause vertical and horizontal consolidation. The FTC presented an internal document obtained from the physicians listing “fundamental reasons” why the physician practice should integrate with the hospital. The reasons listed included “control market share,” “facility fee for Medicare,” and “one competition compared to two.” The FTC argued that the physicians’ notes did not list capital improvements or quality improvements as reasons for the merger (United States District Court for the District of Idaho 2013). In contrast, the physician group publicly stated the primary reason they wanted to be acquired was to “provide the best possible health care to the community.” They further stated that consolidation was needed to “participate in the transition to value-based, integrated care.” The court ruled that the “plaintiffs established a prima facie case that the merger will probably lead to anticompetitive effects in that market,” and further stated that St. Luke’s did “not demonstrate that efficiencies resulting from the merger would have a positive effect on competition.” The court ordered St. Luke’s to unwind the vertical merger (United States District Court for the District of Idaho 2015).

What incentives will create “good integration” but not “bad consolidation?”

The arguments in the St. Luke’s case reflect the long-standing policy dilemma of wanting to encourage a certain culture of coordinated care but having limited levers to ensure that legal consolidation will improve care processes and not just increase prices. It is difficult to know whether financial consolidation really will lead to more coordinated care and whether the value of that care coordination outweighs the risk of higher prices. This uncertainty has traditionally led the Commission to recommend paying for outcomes (cost and quality) rather than for organizational structure (e.g., vertical consolidation or MA legal structure). By paying for good outcomes—rather

than corporate structure—organizations will have an incentive to organize in ways that deliver good outcomes. If clinical integration leads to better outcomes, then paying for outcomes would be a greater incentive for true clinical integration than tying payment to financial integration.

Effects of horizontal and vertical provider consolidation

There has been a long-standing belief that physician–hospital integration into larger systems would improve quality of care, but evidence also exists that the market power achieved through financial consolidation can lead to higher costs for payers (Berenson et al. 2016, Christianson et al. 2014, Crosson and Tollen 2010, Gaynor and Town 2012b). We first review the literature below on how horizontal consolidation can lead to higher prices paid to hospitals and the uncertainty regarding whether horizontal consolidation has offsetting benefits. Second, we show that physician practices with larger market shares receive higher prices for physician office visits. Third, we review how vertical physician–hospital consolidation can lead to higher prices paid by both commercial insurers and Medicare.

Horizontal hospital consolidation increases prices paid by commercial insurers

The literature generally finds that horizontal hospital consolidation leads to higher inpatient prices. Gaynor and colleagues summarize the findings: “Mergers between rival hospitals are likely to raise the price of inpatient care and these effects are larger in concentrated markets. The estimated magnitudes are heterogeneous and differ across market settings, hospitals, and insurers” (Gaynor et al. 2014).¹ While the magnitude of the price increase associated with consolidation varies, the direction is consistently upward, which will make the costs of private insurance more expensive (Town et al. 2007). Some insurers have suggested they could counter the hospitals’ market power if they consolidate. However, greater insurer concentration may not lead to lower premiums because of higher profits remaining with the insurer (Trish and Herring 2015).

Horizontal consolidation of hospitals has contributed to a growing divergence between the prices Medicare pays hospitals and the prices commercial insurers pay. While commercial prices vary widely by individual hospital

and individual insurer, on average, commercial prices average about 50 percent higher than average hospital costs and are often far more than 50 percent above Medicare prices (Cooper et al. 2015, Health Care Cost Institute 2014, Medicare Payment Advisory Commission 2014a, Selden et al. 2015). For example, Selden and colleagues found that average private prices were 75 percent higher than Medicare prices in 2012; Aetna and Blue Cross of California paid hospitals prices that were often 200 percent of Medicare's rate for inpatient care and 300 percent of Medicare's rate for outpatient services in California in 2014 (California Department of Insurance 2014a, California Department of Insurance 2014b). This trend is driven by two factors: Medicare has restrained growth in prices in recent years, while commercial payers increased their prices faster than economy-wide inflation (Health Care Cost Institute 2015). Even in recent years when hospital employees' wage growth has slowed and uncompensated care costs have declined, hospitals have generally continued to obtain material rate increases (e.g., 3 percent to 5 percent) from commercial insurers (Health Care Cost Institute 2016, Health Care Cost Institute 2015, Health Care Cost Institute 2014). The result is that hospital all-payer profit margins reached a 30-year high of 7.3 percent in 2014 and were still 7.1 percent in 2015 (Medicare Payment Advisory Commission 2017). High profits on non-Medicare patients can lead to higher hospital costs, resulting in pressure to increase Medicare prices to meet those costs (Frakt 2015a, Medicare Payment Advisory Commission 2016, White and Wu 2014).

Another indicator of a lack of price competition among hospitals is the significant heterogeneity in hospital prices. For example, if one provider is paid four or six times the price paid to another provider for the same service, it indicates that some markets are not price competitive. Truven Health Marketscan data from commercial insurers show that fees received by hospitals vary widely for identical services. In our own examination of commercial insurance prices for two common emergency room services, we found that prices for a typical emergency department emergency department (ED) visit (Current Procedural Terminology (CPT) 99284) in 2013 varied by a factor of over four, with 10 percent of hospitals receiving an average of less than \$275 and 10 percent receiving an average of over \$1,311 for an in-network ED visit. Head computed tomography (CT) scans (CPT 70450) varied by a factor of six, with 10 percent of hospitals receiving less than \$236 and 10 percent receiving more than \$1,472 for an in-network CT (Medicare Payment Advisory

Commission 2016). The wide variation in prices that we and others have found suggests the market is not bringing prices down to a uniform competitive level (Cooper et al. 2015, Reinhardt 2012). In summary, hospital markets are consolidated, which can lead to high prices and prices that vary wildly from provider to provider and market to market.

Horizontal and vertical physician consolidation increases prices paid for physician services

The Commission reported that 2015 Medicare prices for physician office visits were below the average commercial rates for preferred provider organizations (PPOs) (Medicare Payment Advisory Commission 2017). While average Medicare prices have tended to be lower than commercial prices, commercial prices for physician services have varied widely (Medicare Payment Advisory Commission 2011). In 2011, we reported that average prices paid by commercial insurers were more than 50 percent above Medicare in some markets and were below Medicare in other markets. In addition to wide variation across markets, commercial prices for mid-level office visits varied by up to 100 percent in a single market (Medicare Payment Advisory Commission 2011). Our examination of data (shown below) on providers' market power and commercial prices found that prices paid to physicians without market power are often close to Medicare prices, but physicians with market power receive substantially higher prices. This variance raises the question of whether continued horizontal and vertical consolidation of physician practices (and the associated higher commercial prices) could eventually reduce physicians' interest in taking on new Medicare patients.

The literature on physician prices

The literature on private insurer prices suggests that providers' market share and hospital affiliations can affect the prices they receive. Recent studies have shown that prices tended to be higher in markets where physicians are consolidated into larger practices (Baker et al. 2014b, Clemens and Gottlieb 2017). Interviews with insurers and providers support the hypothesis that consolidation leads to higher prices (Berenson et al. 2010). Other studies have shown that vertical consolidation of physicians with hospitals has also led to higher prices. For example, Capps and colleagues examined claims from 6.4 million people from a large private insurer (Capps et al. 2015). They found that the share of physician billings from practices owned by hospital systems increased between

2007 and 2013 from 16.9 percent to 26.5 percent and that consolidation with a hospital was associated with an average 14 percent increase in commercial prices. Only about a quarter of the increase was due to hospitals charging facility fees after acquiring the practice; the rest of the increase was due to the hospital-acquired practices negotiating higher prices after being acquired by a hospital. In a similar study, Neprash and colleagues examined claims from 7.4 million privately insured individuals in the Truven private insurer database (Neprash et al. 2015). That analysis found the share of physician billings for facility fees from hospital-owned practices increased between 2008 and 2012 from 18 percent to 21.3 percent and that outpatient prices increased faster in markets where there was more physician–hospital consolidation. Neprash and colleagues did not find any reduction in inpatient volume that would offset the higher outpatient costs.

Data used to examine within-market price variation

We examined 2013 data from the Health Care Cost Institute (HCCI) to gain additional insights into the factors driving variation in prices within markets. Two hypotheses are consistent with the findings of the Baker, Clemens, Neprash, and Capps studies. First, we hypothesized that physician groups with larger market shares receive higher commercial prices for evaluation and management (E&M) services than others in their market. Second, we hypothesized that physician groups affiliated with hospitals receive higher commercial prices for E&M services than other physician practices in their market. To test these hypotheses, we created a data set that included information on the market share of entities bargaining on behalf of physicians, data on hospital affiliations, and data on prices for E&M visits in 235 core-based statistical areas (CBSAs).

We created “bargaining units” based on information collected by SK&A. We aggregated NPIs for providers that SK&A reported as being in a group practice or an independent practice association (IPA) and used 2012 and 2013 SK&A data to determine whether the physicians were affiliated with a hospital. We then examined the bargaining unit’s share of all E&M visits in the market as well as market shares for selected specialties (i.e., dermatology, cardiology, and orthopedics). Market share is defined as a bargaining unit’s share of all E&M visits in a specified geographic area, or CBSA, relative to all commercial E&M visits billed to insurers in our database for that CBSA. The principle being tested is that if the

practice holds a large share of the insurers’ business, it is able to negotiate a higher price.

Our claims data in each CBSA are from HCCI, which provides de-identified 2013 data on approximately 40 million individuals who are under 65 years of age with employer-sponsored insurance from Aetna, Humana, and UnitedHealthcare (Health Care Cost Institute 2014). We limited the data set to CBSAs in which the three insurers paid at least 2,000 E&M claims and to bargaining units that received payments for at least 200 E&M claims (to create stability in prices). The price of each E&M visit is broken down into the insurer’s payment for the physician service and a facility fee that the insurer also paid to a hospital outpatient department for the visit. However, we found that these insurers rarely paid facility fees for E&M visits. To maintain data confidentiality, HCCI masked individual provider and insurer payment rates but allowed us to obtain the average payment rate per relative value unit in the CBSA and the average payment rate received by each bargaining unit in 2013. That further allowed us to determine whether bargaining units with large market shares or hospital affiliations received higher prices.

One important limitation is that we could match only 65 percent of HCCI claims to an SK&A provider number. That means that some providers could have been affiliated with a group or a hospital but showed up in our data as independent physicians. Thus, our category of small independent practices with less than 10 percent market share could actually have been a mix of independent practices and practices that were affiliated with a hospital or a group, but we did not have the linking data. Therefore, our findings could overstate the prices received by independent practices and understate the effect of market power on prices.

Consolidation and vertical consolidation associated with higher physician prices

Hospital-owned practices are paid higher prices, which is consistent with Neprash and colleagues and Capps and colleagues (Table 10-3, p. 302). In addition, practices with larger market shares are paid higher prices. For example, independent practices whose E&M visits composed over 30 percent of the visits provided by the three insurers received \$148 on average for an E&M office visit, 40 percent higher than the average price received by the practices with the smallest market shares. The average price received by the smallest practices (those physicians that we could not match to a large practice, IPA, or a hospital) was about equal to Medicare’s national average

**TABLE
10-3**

Practices with larger market shares received higher prices for E&M visits, 2013

Type of physician practice ownership and market share of E&M visits	Number of bargaining units	Mean number of E&M visits	Mean physician fee for a mid-level E&M visit (CPT 99214)	Physician price relative to Medicare	Total price per RVU relative to others in the CBSA
Not hospital owned					
Market share of E&M visits					
Less than 10%	4,281	620	\$105	100%	93%
10% to 30%	80	2,548	128	122	104
Over 30%	9	1,469	148	141	106
Hospital owned					
Market share of E&M visits					
Less than 10%	741	1,939	123	117	104
10% to 30%	159	4,476	134	128	112
Over 30%	55	7,328	145	138	111
All bargaining units	5,325	1,020	110	105	95*

Note: E&M (evaluation and management), CBSA (core-based statistical area), CPT (Current Procedural Terminology), RVU (relative value unit). We examined prices for 5,325 bargaining units located in 235 CBSAs. The bargaining units had to have at least 200 E&M visits and the CBSA needed to have at least 2,000 E&M visits in our data set to be included in our analysis. Total prices include the physician fee and the facility fee when a facility fee was paid. We find that facility fees are rarely paid for E&M visits by the three insurers in the Health Care Cost Institute (HCCI) database so that an average facility fee per E&M visit by itself is not meaningful.

*Among all bargaining units, the unweighted mean price received for E&M visits is 95 percent of the weighted mean price in the market. The unweighted average can be less than 100 percent because the large practices tend to get higher rates than the smaller practices.

Source: MedPAC analysis of HCCI claims data and SK&A Office-Based Physician Database.

rate.² To focus on market power, we examined within-market variation. We found that a hospital-owned practice with a 30 percent or greater market share had prices per E&M relative value unit (RVU) equal to 111 percent of the unweighted average prices of other practices in its market. These findings suggest that market power has two effects. First, it allows dominant providers to increase the price they negotiate with insurers. Second, the high prices negotiated by a market’s dominant provider could help smaller practices also negotiate somewhat higher prices. Insurers are expected to pay smaller practices prices that are lower than the dominant provider in the market but higher than prices in a perfectly competitive market. While some spillover of pricing power to smaller practices is expected, the within-market variation in prices for E&M visits indicates that no single “market price” exists in a given CBSA.

Similar to Capps and colleagues, we find that facility fees for E&M visits were rarely paid in 2013, even for hospital-

owned practices. For example, for practices identified as hospital owned, 68 percent did not receive material facility fees for E&M visits. For those that received fees, they were often paid infrequently and averaged \$13 per visit, suggesting that in many cases at least one of the insurers did not pay the facility fee. Taken together, this information suggests that the Medicare program is lagging behind the private sector’s efforts to limit facility fees.

To disentangle the effects of hospital ownership and market share, we used two multivariate models (Table 10-4). In these models, the dependent variable is the bargaining unit’s price per E&M visit RVU (including the facility fee) relative to others in the same market.³ In the first model, we tested just the market share of overall E&M volume on price. In the second model, we added variables indicating the market shares of cardiologist E&M visits, orthopedic E&M visits, and dermatology E&M visits. Our reasoning was that a specialty practice can obtain higher rates due to its market share of the specialty rather than its share of

**TABLE
10-4**

Market share and hospital ownership increase prices for E&M visits

Practice characteristic	Regression coefficients	
	Basic model	Expanded model
Constant	0.93**	0.91**
Market share of E&M RVUs	0.44**	0.41**
Hospital affiliated	0.10**	0.08**
Cardiology practice		0.02
Cardiology practice × cardiology market share		0.22**
Orthopedic practice		0.04*
Orthopedic practice × orthopedic market share		0.22
Dermatology practice		-0.02
Dermatology practice × dermatology market share		0.24*
Other non-primary care practice		0.04**

Note: E&M (evaluation and management), RVU (relative value unit). The dependent variable in the regressions is the total average payment (by insurers and patients) per RVU to the bargaining unit relative to the average in the core-based statistical area (CBSA). Coefficients reflect the difference from a small primary care practice that is not affiliated with a hospital. Primary care practices are the omitted category in the expanded model. The regression results are ordinary least squares with the standard errors adjusted for clustering on the CBSA. The basic model (which includes only overall market share of E&M RVUs and hospital affiliation) explains 9 percent of the variance in relative prices and the expanded model explains 11 percent of the variance. The expanded model includes dichotomous variables indicating whether the bargaining unit is one of the three types of specialty practices evaluated. If the bargaining unit is a specialty practice, the expanded model also includes that practice's market share of E&M RVUs in the practice's specialty. The data set consists of prices negotiated by 5,325 bargaining units in 235 CBSAs.

*Significant at the $p < 0.05$ level.
**Significant at the $p < 0.01$ level.

Source: MedPAC analysis of Health Care Cost Institute claims data and SK&A Office-Based Physician Database.

all E&M visits. For example, in the expanded model, the constant coefficient of 0.91 suggests that a solo practitioner in the market received 91 percent of what others received on average. The regression suggests that for each 10 percent increase in market share, the prices received increased by 4.1 percent of the average price received by other practices in the market. It also suggests that hospital-affiliated practices received 8 percent more, all else equal. Finally, our analysis suggests that specialists can receive higher prices by having a large market share of their specialty rather than a large market share of all E&M RVUs. For example, for cardiologists, each 10 percent share of the cardiac market was associated with a 2.2 percent increase in commercial prices relative to others in the CBSA. This potential for higher E&M prices in specialty practices with market power likely further reduces the incentive for medical students to choose primary care practice. Finally, multispecialty and other types of practices received 4 percent higher prices for E&M services in addition to the effect of their market share.

Limitations to our examination of within-market analysis of HCCI data

There are several limitations to our model. First, our model is dependent on using SK&A data to aggregate providers into groups and to indicate hospital ownership of the practice. To the extent there are errors or omissions in consolidation reported by SK&A, our results may be biased toward underestimating the effects of consolidation. In addition, our data were not able to identify hospitals and their level of market power; therefore, we cannot distinguish among differing degrees of hospital market power. CBSA-level data are used, but because each CBSA has been de-identified, we do not know insurers' market power in their respective CBSAs. Finally, we examine only E&M visits. There could be different market dynamics for other services. For example, facility fees may be more common for other services. We also have only data on payments through claims; there could be other payments such as ACO incentive payments. The model explains about 10 percent of the variation in

prices within a market, which implies that other factors such as location, reputation, bargaining ability, and individual anomalies in the negotiating process can affect commercial prices.

Hospital prices and vertical consolidation

While the effect of vertical consolidation on prices paid to physicians is clear, it is less clear how vertical consolidation affects hospital prices. A recent study by Baker and colleagues found that hospital ownership of physician practices can lead to higher hospital prices, suggesting that hospitals gain bargaining power by acquiring physician practices (Baker et al. 2015). But comparable studies found that vertical consolidation did not affect hospital prices (Ciliberto and Dranove 2006, Neprash et al. 2015). Therefore, while it appears that physician prices increase with vertical consolidation, the literature is not clear on whether vertical consolidation results in higher hospital prices.

Possible benefits of provider consolidation

In some cases, hospitals have argued for financial integration by stating it will allow for improved care coordination and better quality of care (Burns et al. 2013). For example, the reputation for high-quality care from long-standing vertically and horizontally integrated organizations such as the Mayo Clinic has led some to call for expansion of the integrated multispecialty group practice model. The complicating factor is that while the quality of the Mayo model appears high, it is the dominant integrated group in its main market and has high prices that appear to offset any financial savings from care coordination on volume, resulting in high annual costs of insurance.⁴ In addition, it may be difficult to replicate the culture and outcomes of organizations such as the Mayo Clinic, which has been operating as a large multispecialty group practice for over 100 years. While a strong culture of integrated and coordinated care may foster better outcomes and result in financial consolidation, it is less clear that financial consolidation of physicians and hospitals under one corporate umbrella will foster coordinated care or result in improved efficiency.

Researchers are often skeptical that consolidation is a necessary or sufficient condition for high-quality care or low costs of care (Frakt 2015b, Gaynor and Town 2012a, Tsai and Jha 2014). For example, studies of hospital

mergers have failed to show benefits from horizontal consolidation, when looking at mortality from heart attacks and stroke (Ho and Hamilton 2000, Kessler and McClellan 2000). Similarly, a recent study of physician groups found that small groups tended to have fewer preventable admissions (Casalino et al. 2014). However, others have emphasized how consolidating some complex surgeries in one location could improve outcomes (Cutler and Sahni 2013). In addition to quality effects, some studies of data from the 1980s and 1990s have argued that consolidation can reduce hospital costs (Spang et al. 2001). However, these savings appear to be limited to cases in which one hospital closes as opposed to having merged with a system (Cutler and Scott Morton 2013, Dranove and Lindrooth 2003). In general, the literature suggests that the benefits of hospital consolidation hinges on hospitals closing and concentrating services at a single high-volume location.

Another possible benefit often mentioned is the ability of larger organized groups to take on responsibility for quality and costs in either an ACO arrangement or a capitated MA-type arrangement. For example, in the 1990s, some contended that physicians and hospitals needed to consolidate to align incentives and prepare for risk-based contracting (Cuellar and Gertler 2006). The assumption was that a loose affiliation of physicians would not have an incentive to lower volume (and reduce their own income) to earn a bonus for a large group of physicians. Independent physicians in an ACO would suffer the full cost of reduced use at their practice and earn only a fraction of any shared savings. An ACO built around employed physicians or a single group practice could alleviate the “tragedy of the commons” problem (in which individuals acting independently according to their own self-interest behave contrary to the common good of all) and ease contracting with payers. However, there is little empirical evidence that consolidation is necessary for ACO formation or even correlated with ACO growth (Neprash et al. 2017). The key question is whether possible benefits of integrated organizations’ care coordination and contracting abilities outweigh the risk of higher costs associated with market power.

Vertical consolidation increases prices paid by Medicare and commercial insurers

The Commission and the Government Accountability Office have documented how vertical consolidation of physicians and hospitals can lead to shifting the billing for physician services from physician offices to higher

cost outpatient sites of care (Government Accountability Office 2015, Medicare Payment Advisory Commission 2014b, Medicare Payment Advisory Commission 2013, Medicare Payment Advisory Commission 2012). Among other effects, the shift in care setting increases Medicare program spending and beneficiary cost-sharing liability because Medicare payment rates for the same or similar services are generally higher in hospital outpatient departments (HOPDs) than in freestanding offices. For example, we estimate that the Medicare program spent \$1.0 billion more in 2009 and \$1.6 billion more in 2015 than it would have if prices for E&M office visits in HOPDs were the same as freestanding office prices. Analogously, beneficiaries' cost sharing was \$260 million higher in 2009 and \$400 million higher in 2015 than it would have been because of the higher prices paid in HOPD settings.⁵

To address the increased spending that results when billing for services shifts from freestanding offices to HOPDs, the Commission recommended adjusting hospital outpatient payment rates so that Medicare payment for E&M office visits is equal in freestanding physician offices and HOPDs (Medicare Payment Advisory Commission 2012). The Commission also recommended adjusting hospital outpatient payment rates for a set of other services so that payment rates are equal or more closely aligned across these two settings (Medicare Payment Advisory Commission 2014b). In 2015, the Congress moved partially toward the Commission's recommendations by equalizing rates between new off-campus HOPDs and physician offices. However, on-campus HOPDs as well as existing off-campus HOPDs will continue to receive the higher HOPD facility fees under the Bipartisan Budget Act of 2015. This policy could encourage hospitals to add practices on the main hospital campus or build new "micro-hospitals" that allow colocated physician practices to bill hospital facility fees.

Provider and insurer vertical consolidation

There is a long-standing expectation that integration of multispecialty group practices with insurers will create greater care coordination, better outcomes, and reduced costs. This belief is sometimes represented as a desire to replicate the existing HMOs that are centered on a multispecialty group practice. A description of the policy environment in 1973 stated: "Enthusiasm for HMOs

is now widespread. A casual reader of the literature could be forgiven for believing that the answers to the healthcare 'crisis' were known and the problem was one of implementation" (Newhouse 1973). More than 40 years later, giving integrated groups of providers full capitation risk is still seen as a primary way to solve the Medicare program's financial difficulties. However, generating taxpayer savings from the MA plans (and ACOs) has been more difficult than it appeared at first.

In recent years, there has been rapid growth in MA plan enrollment and in assignment of patients to ACOs that, in some cases, also take downside risk for the overall cost of care. The expansion of MA plans and ACOs has increased insurer and provider group interest in being able to manage both the clinical and financial aspects of population health. This hope may have led to some of the insurer-provider consolidations in recent years. For example:

- In 2013, the Baylor Health Care System merged with Scott and White, which owns an insurance company. This is an example of horizontal consolidation across hospital systems and vertical consolidation of an insurer with an integrated provider system.
- United Healthcare acquired Monarch HealthCare, a group of 2,300 physicians in southern California in 2011.
- WellPoint, a national Blue Cross plan, acquired CareMore, an integrated insurer with physician practices, in 2011.
- DaVita (a dialysis company) acquired Healthcare Partners in 2012 and the Everett Clinic in 2015. While not a traditional insurer-provider model, the acquisitions allow DaVita to enter into models for accepting overall cost-of-care risk.

It is not clear whether the new systems will be able to bend the cost curve and be commercially successful. Earlier attempts to replicate the success of long-standing group-model HMOs have not always been successful. For example, in 2000, the Mayo Clinic Health System integrated HMO products as part of their system that included physicians, hospitals, and insurance products. But Mayo later closed its HMO business, suggesting they did not see sufficient value in the consolidation of provider and insurance functions. In 2010, Humana bought Concerta, which employs providers, but sold the firm

in 2015 (Herman 2015). More recently, both Tenet and Catholic Health Initiatives announced in 2016 that they would divest their insurance operations (Denver Post 2016, Rice 2016).

Effects of integrating provider and insurer functions

The long-standing belief that fully integrated HMOs would generate efficiencies received some support in the 1980s when a randomized trial compared costs of a group-model HMO and high-deductible plans with the costs of “free care” for those in an indemnity insurance plan that paid providers’ full charges. The HMO and high-deductible plans had fewer hospital days and 25 percent to 30 percent lower overall costs than the indemnity plan (Newhouse 1993). Outcomes were not consistently better or worse for patients in the HMO model relative to the free care or high-deductible plans. Thirty years later, indemnity insurance has faded away, but the sentiment in favor of group- and staff-model HMOs is still strong among some in the health policy community. For example, a group of health policy leaders evaluating payment reform options concluded that fully integrated models have greater ability to “force transformational thinking,” optimize infrastructure investment, reduce the incentive for volume, and expedite community engagement (Berenson et al. 2016).

Some may argue that the subset of HMOs that have integrated physician groups within the MA plan or are larger or older HMOs will have the best quality and cost performance (Ayanian et al. 2013).⁶ Examinations of consolidated insurer and provider functions in MA plans found that the 17 percent of MA plans that owned providers had slightly higher quality metrics but also slightly higher premiums on average than nonintegrated plans (Frakt et al. 2013, Johnson et al. 2017). No differences in benefits were observed. However, another study suggested that exchange plans with integrated providers have modestly lower premiums than national insurers and Blue Cross affiliates, but have higher premiums than nonintegrated organizations that traditionally provided managed care for Medicaid enrollees, such as Molina (La Forgia et al. 2017). Burns and colleagues, in their broad 2013 review of the literature of horizontally and vertically integrated delivery models, concluded “there continues to be an extremely thin evidentiary basis for recommending any particular approach” (Burns et al. 2013).

Our own examination of Medicare program spending finds MA plans cost the Medicare program slightly more than fee-for-service (FFS) in some markets and less than FFS in markets where MA benchmarks are set low relative to FFS costs (Medicare Payment Advisory Commission 2016). On average, risk-adjusted spending per MA beneficiary is expected to be about 4 percent higher than for FFS beneficiaries in 2017, though not because MA is inherently less efficient than FFS (Medicare Payment Advisory Commission 2017). MA HMOs can reduce use of certain services and can generate program savings in certain markets (Medicare Payment Advisory Commission 2016, Newhouse and McGuire 2014). Since some MA plans may be able to generate efficiencies, the lack of program savings from MA may be due to the benchmarks (adjusted for quality bonuses) being set too high, coupled with a lack of price competition among insurers to drive down MA bids (Song et al. 2012). The Song study suggests that a marginal increase in an MA plan’s benchmark will cause a marginal increase in the MA plan’s bid. This relation suggests that, when benchmarks are set too high, the bidding process is not efficient enough to bring bids down to the level that would be achieved in a highly competitive market.

ACOs are another mechanism for giving provider groups accountability for overall costs and quality of care without generating large increases in administrative costs. To date, the data show that ACOs have been a roughly break-even proposition for the taxpayer. CMS data suggest savings from ACOs were more than fully offset by bonuses paid to ACOs. However, McWilliams used a different counterfactual methodology and concluded that the Medicare program savings from the ACOs slightly exceeded bonuses paid out to the ACOs (McWilliams et al. 2016). Using either analysis, we can conclude that the ACO program has operated at close to the break-even point, with the program generating savings in some markets and losing in other markets. The small savings from ACOs could reflect how elimination of unnecessary services can reduce costs in high-use markets, but reducing use through improved care coordination in a typical market is often more difficult than it first appears (Dale et al. 2016, Nelson 2012).

While no one model dominates nationally, it may be that different models can be successful in certain markets. The Commission compared the cost of MA, ACO, and traditional FFS models in a series of markets and found that each model was the low-cost method of care in at least one market (Medicare Payment Advisory Commission

**TABLE
10-5**

Summary of the benefits and costs of consolidation

Type of consolidation	Potential benefits	Cost concerns
Horizontal hospital consolidation	<ul style="list-style-type: none"> • Elimination of duplicative capacity • Centers of excellence 	<ul style="list-style-type: none"> • Higher commercial prices • Pressure for higher Medicare prices
Horizontal physician consolidation	<ul style="list-style-type: none"> • Economies of scale • Peer review 	<ul style="list-style-type: none"> • Higher commercial prices • Pressure for higher Medicare prices
Physician–hospital consolidation	<ul style="list-style-type: none"> • Greater coordination of care • Ability to take capitation risk 	<ul style="list-style-type: none"> • Facility fees for Medicare • Higher commercial prices
Provider–insurer consolidation	<ul style="list-style-type: none"> • Lower incentive for volume • Coordinated capital costs • Greater coordination 	<ul style="list-style-type: none"> • There is no evidence that integrated plans offer lower premiums or greater benefits than other Medicare Advantage plans. Across all types of Medicare Advantage plans, taxpayer spending has traditionally been higher than for fee-for-service Medicare.

Source: MedPAC analysis of the literature.

2015). This finding suggests there may not be one model that is universally better, but it may be better to create a system where models compete and the best model for a particular market is allowed to emerge.

Incentives for consolidations and their effects

Providers have clear financial incentives for more consolidation in physician and hospital markets. Horizontal consolidation increases prices paid for physician and hospital services. Vertical consolidation increases Medicare and commercial prices for physician services. Given these financial incentives, the strong history of consolidation should not be surprising. There are two risks for the Medicare program. First, a growing divergence of Medicare and commercial prices could eventually put pressure on beneficiaries’ access to care and pressure the Medicare program to increase its rates. Second, market forces may make it less attractive for medical students to choose primary care careers. Specialists not only benefit from a fee schedule that rewards procedures but also benefit from higher commercial E&M fees to the extent that they have a dominant specialty group in their market.

The literature supports the tension between a desire for integrated care and the effect of consolidation on prices.

On the one hand, some expect consolidation to improve coordination and eliminate duplicative capital spending. On the other hand, consolidation could result in higher commercial prices for hospital and physician services. Vertical consolidation can also result in higher Medicare payments for physician services. A summary of these tensions is shown in Table 10-5.

Medicare policy response

For more than 30 years, there has been a discussion about the potential benefits of consolidation (e.g., economies of scale, care coordination, elimination of unnecessary services, increased incentives to control volume) and the costs of consolidation (e.g., market power, higher prices). For most of those 30 years, consolidation was slow. However, it has accelerated in recent years, resulting in horizontally consolidated and vertically integrated markets, raising the issue of how Medicare should respond.

Because hospital markets and many physician markets are already highly consolidated, the question is not one of preventing consolidation but, rather, a question of how to work within a market that is consolidated. There are

several policy options for working within consolidated markets, which are discussed in the following sections.

Response to horizontal provider consolidation: Restrain Medicare prices rather than follow increases in commercial prices

Consolidation of hospitals and physicians can lead to market power and higher commercial prices. High revenues from commercial payers can lead to higher hospital costs and, in turn, pressure to increase Medicare prices. However, the Commission has historically recommended that the Congress restrain Medicare updates rather than follow the rise in commercial prices and costs. Such restraint is possible because administered prices allow the Medicare program to be insulated (to a degree) from hospital market power. This restraint in Medicare price increases resulted in substantial savings for taxpayers and beneficiaries. For example, from 2007 to 2016, per beneficiary Medicare Part A, Part B, and Part D costs increased by about 23 percent.⁷ By comparison, employer-sponsored HMO and PPO commercial premiums grew by about 50 percent over the same period (Kaiser Family Foundation and Health Research & Educational Trust 2016). Our own analysis of national health accounts and two past studies suggest that commercial insurance costs have risen faster than Medicare for decades, but the gap in growth rates has accelerated in recent years (Boccuti and Moon 2003, Centers for Medicare & Medicaid Services 2016, Cubanski and Neuman 2016). If FFS Medicare had followed commercial pricing, Medicare costs would be substantially higher.⁸

However, as the gap between Medicare and commercial prices grows, it may become harder for Medicare to restrain growth in provider prices. In the near term, the commercial/Medicare price gap does not appear to put Medicare beneficiaries' access at risk. In 2017, hospitals' Medicare payments are still higher than hospitals' marginal costs, and most hospitals have excess capacity to serve Medicare patients. With respect to physician prices, Medicare prices for office visits are still competitive with commercial prices paid to practices without market power. This is reflected in surveys that show Medicare patients do not currently have any more trouble than private patients in obtaining a new physician (Medicare Payment Advisory Commission 2017). However, in the long term, growing provider consolidation and a growing gap in prices could be problematic. In the end, Medicare beneficiaries' access to care may depend on restraint of commercial prices to

limit the divergence between those prices and Medicare's for physician and hospital services.

Response to vertical consolidation: Site-neutral pricing

Administered prices do not insulate the Medicare program from all of the extra costs of vertical consolidation. Under current law, Medicare pays more for services provided by hospital-owned physician practices that are considered part of the hospital's outpatient department. The Commission has made recommendations in the past to set payment rates for HOPD E&M services and selected other physician services equal to rates paid for visits in physician offices. By creating "site-neutral" payments, the Medicare program could be further insulated from the cost of physician-hospital consolidation. Clinical consolidation that improves care and generates efficiencies would still occur, but purely financial integration that was driven primarily by efforts to capture Medicare facility fees would not. In 2017, the Commission reiterated its past recommendations on site-neutral pricing.

Response to consolidation of provider and insurance functions: Have MA plans, ACOs, and FFS compete on a level playing field

We have found that MA, traditional FFS, and ACOs all have the potential to be the low-cost option in some markets. Because more than one model may have a role in the Medicare program, the Commission has discussed synchronizing payment rates among MA, traditional FFS, and ACOs. This equalization would create competition on a level playing field, and market forces would then illuminate which model is most efficient given particular market conditions. Integrated systems that are more efficient than FFS would still gain market share, but plans that could compete with FFS only when subsidized by the taxpayer would lose market share. Leveling the playing field will be a key component to obtaining the potential benefits of integrated delivery models without increasing costs to taxpayers.

An alternative to leveling the playing field is to try to differentiate between good integration and bad consolidation and then pay for structure and process correlated with good integration. For this differentiation to be operationalized, CMS or the Congress would have to determine what defines good integration and what characteristics are correlated with this type of integration. Then CMS could create payment incentives for consolidated entities with the characteristics deemed good.

For example, if the policy community assumed that fully integrated organizations that took on capitated risk and integrated physicians and hospitals into a single electronic medical record had better outcomes, Medicare could pay more to organizations with that integrated legal structure and that type of information technology system. However, the risk is that some organizations would just adopt a legal structure dictated in the CMS payment formula to receive the higher payment without changing clinical practice. In addition, the organizations would have a disincentive to adopt innovations that were not consistent with the CMS payments for specific types of structure or process. This risk can be avoided by paying directly for better outcomes. By paying for outcomes, organizations would have an incentive to adopt the most efficient delivery models for their markets and to continually improve their delivery systems. Innovative improvements would be rewarded.

Conclusion

In general, the policy options in this chapter would pay more for better outcomes but not pay more for having a certain corporate structure. For example, rather than paying more to a hospital system just for placing a physician practice under its corporate umbrella, the program would reward systems that truly coordinate care in ways that reduce cost and improve quality. A two-sided risk ACO model could be such a system. Similarly, Medicare could move away from paying more for an organization with an MA plan (that may just pay FFS anyway) to rewarding only MA plans that either lower program cost or improve quality. In the end, payment should depend more on the quality and efficiency of care provided by an organization's clinicians than the ability of an organization's legal staff to optimize its corporate structure in ways that increase Medicare payments. ■

Endnotes

- 1 The hospital industry generally disputes the relationship between market concentration and prices (see, for example, the American Hospital Association–commissioned study conducted by Charles River Associates of hospital consolidation, mergers, and acquisitions at http://www.advancinghealthinamerica.org/wp-content/uploads/2014/08/Hospital-Merger-Full-Report_1.25.17.pdf).
- 2 The HCCI data in Table 10-3 (p. 302) come from 235 CBSAs served by 3 large private insurers. The identity of each CBSA is masked, and we do not know whether they are representative of Medicare markets with average rates. Therefore, some of the difference between the \$105 average Medicare rate for an E&M office visit and the \$110 average paid by these insurers could in part be due to the geographic focus of the insurers in the HCCI database. Also, the \$110 is an unweighted average, while the weighted average price for an E&M office visit is \$118 (data not shown). The weighted average is higher than the unweighted average because larger practices tend to receive higher prices. To see whether the HCCI data are representative of private-payer rates, we compared the \$118 average HCCI price with MarketScan data. MarketScan data, which are gathered from a different group of health plans, report a weighted average rate of \$116 per E&M visit in 2013, suggesting the HCCI commercial E&M prices are reasonable. Further, certain bonus payments are not included in the Medicare or commercial rates. Omitted bonuses include primary care bonus payments paid by Medicare and quality and/or efficiency bonuses paid by private plans to physicians. Given these data limitations, we focus in Table 10-3 on relative prices, given each provider's bargaining power. These are differences in a single market for a common set of insurers. It is also possible that the \$105 is an overestimate of average prices received by small independent practices if the SK&A data fail to identify associations of some physicians with larger practices.
- 3 Both models approximate the relationship between market share and prices using a linear model; the underlying assumption is that a 1 percent change in market share consistently results in an X percent change in relative prices, all else equal. We also examined other models with quadratic terms, dichotomous variables for distinct levels of market power, and log transformations of prices as the dependent variable. The alternative models yielded similar results. Given the similarity in results, we kept the linear model because of its simple, intuitive interpretation. However, the results are only a reasonable approximation for bargaining units with market shares similar to the population of observations in this study.
- 4 The Mayo Clinic has a strong reputation for quality, and its hospitals consistently score well on various types of quality metrics. However, it also appears to negotiate high prices. The potential savings from care coordination and potentially lower service use does not appear to be large enough to offset the high prices. Data on expected costs in 2016 from the Minnesota Health Insurance Exchange suggest the influence of the Mayo Clinic on health care costs in Rochester. Specifically, the exchange's 2016 Medica Applause Silver plan had expected annual costs that were 20 percent higher for a 50-year-old male in Rochester than for an identical person on the same plan in St. Paul (MNSure 2016). While the 2017 exchange plans are not exactly comparable in Rochester and St. Paul, the rate for the lowest cost silver plan in Rochester has annual expected costs that were 28 percent higher than the low-cost silver plan in St. Paul with an identical deductible. The result is a higher cost of insurance in Rochester for the insured and for taxpayers who subsidize the exchange plans.
- 5 To obtain these results, we used the volume of E&M visits in outpatient prospective payment system (OPPS) hospitals, OPPS prices in 2014, and physician fee schedule prices in 2014.
- 6 An earlier study had suggested that payment incentives for physicians within a plan can affect costs, with the lowest cost being achieved when small groups of physicians personally accept some capitation risk (Kralewski et al. 2000).
- 7 The 23 percent growth rate in Medicare FFS costs is the cumulative growth in the CMS actuary's estimated cost of the Part A and Part B benefits and the Commission's estimates of the cost of Part D premiums and reinsurance from 2007 to 2016. FFS cost growth would be about 2 percentage points lower (down to 21 percent) if we had accounted for the effect of the sequester. The Medicare FFS growth rate was also not adjusted for improvements in the Part D benefit that included a shrinking of the donut hole. The employer-sponsored HMO premiums grew by 53 percent and PPO premiums by 47 percent, despite rapidly increasing deductibles (Kaiser Family Foundation and Health Research & Educational Trust 2016). While deductibles grew rapidly for both employer-sponsored HMOs and PPOs, they tended to grow fastest for PPOs, possibly explaining why PPO premiums grew at a slightly slower rate than HMO premiums. Neither rate of change adjusts for changes in the demographics of individuals with Medicare FFS or employer-sponsored insurance. We note that the average age of Medicare FFS beneficiaries declined by 0.3 years over this period.
- 8 Several recent studies suggest that without constraint of Medicare prices, commercial prices would have risen even faster. These studies suggest that restraint of Medicare prices can slightly reduce commercial cost growth (Clemens and Gottlieb 2017, Frakt 2014, White 2013).

References

- American Hospital Association. 2015. *2014 AHA annual survey*. Washington, DC: AHA.
- Ayanian, J. Z., B. E. Landon, A. M. Zaslavsky, et al. 2013. Medicare beneficiaries more likely to receive appropriate ambulatory services in HMOs than in traditional Medicare. *Health Affairs* 32, no. 7 (July): 1228–1235.
- Baker, L. C., M. K. Bundorf, and D. P. Kessler. 2015. Does health plan generosity enhance hospital market power? *Journal of Health Economics* 44 (December): 54–62.
- Baker, L. C., M. K. Bundorf, and D. P. Kessler. 2014a. Vertical integration: Hospital ownership of physician practices is associated with higher prices and spending. *Health Affairs* 33, no. 5 (May): 756–763.
- Baker, L. C., M. K. Bundorf, A. B. Royalty, et al. 2014b. Physician practice competition and prices paid by private insurers for office visits. *Journal of the American Medical Association* 312, no. 16 (October 22–29): 1653–1662.
- Barkholz, D. 2015. Herding hospital docs: Staffing firms buy MD groups. *Modern Healthcare*, December 12.
- Berenson, R. A., S. F. Delbanco, S. Guterman, et al. 2016. *Refining the framework for payment reform*. Washington, DC: Robert Wood Johnson Foundation/Urban Institute.
- Berenson, R. A., P. B. Ginsburg, and N. Kemper. 2010. Unchecked provider clout in California foreshadows challenges to health reform. *Health Affairs* 29, no. 4 (April): 699–705.
- Boccuti, C., and M. Moon. 2003. Comparing Medicare and private insurers: Growth rates in spending over three decades. *Health Affairs* 22, no. 2 (March–April): 230–237.
- Burns, L. R., J. C. Goldsmith, and A. Sen. 2013. Horizontal and vertical integration of physicians: A tale of two tails. *Advances in Health Care Management* 15: 39–117.
- California Department of Insurance. 2014a. Aetna Life Insurance Company rate filing. https://interactive.web.insurance.ca.gov/apex/f?p=102:9:0::NO::P9_RATE_FILINGS_ID,P9_COMPANY_NAME,P9_REFERRING_PAGE_NUM:8347,%5CAetna%20Life%20Insurance%20Company%5C4&cs=1EC2866C2258A4653FBF2AB75773F8514.
- California Department of Insurance. 2014b. Blue Shield of California Life & Health Insurance Company rate filing. https://interactive.web.insurance.ca.gov/apex/f?p=102:9:0::NO::P9_RATE_FILINGS_ID,P9_COMPANY_NAME,P9_REFERRING_PAGE_NUM:8948,%5CBlue%20Shield%20of%20California%20Life%20%26%20Health%20Insurance%20Company%5C4&cs=19EB00AA77FC6C786F771ED7A07590A6F.
- Capps, C., D. Dranove, and C. Ody. 2015. *The effect of hospital acquisitions of physician practices on prices and spending*. Working paper. Evanston, IL: Institute for Policy Research, Northwestern University.
- Casalino, L. P., M. F. Pesko, A. M. Ryan, et al. 2014. Small primary care physician practices have low rates of preventable hospital admissions. *Health Affairs* 33, no. 9 (September): 1680–1688.
- Centers for Medicare & Medicaid Services, Department of Health and Human Services. 2016. National health expenditures, 2015 historical data. <http://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/NationalHealthExpendData/NationalHealthAccountsHistorical.html>.
- Centers for Medicare & Medicaid Services, Department of Health and Human Services. 2014. Public Use File. https://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/Medicare-Geographic-Variation/GV_PUF.html.
- Christianson, J. B., C. S. Carlin, and L. H. Warrick. 2014. The dynamics of community health care consolidation: Acquisition of physician practices. *Milbank Quarterly* 92, no. 3 (September): 542–567.
- Ciliberto, F., and D. Dranove. 2006. The effect of physician–hospital affiliations on hospital prices in California. *Journal of Health Economics* 25, no. 1 (January): 29–38.
- Clemens, J., and J. Gottlieb. 2017. In the shadow of a giant: Medicare’s influence on private physician payments. *Journal of Political Economy* 125, no. 1 (February): 1–39.
- Cooper, Z., S. V. Craig, M. Gaynor, et al. 2015. *That price ain’t right? Hospital prices and health spending on the privately insured*. National Bureau of Economic Research working paper no. 21815. Cambridge, MA: NBER.
- Crosson, F. J., and L. A. Tollen. 2010. *Partners in health: How physicians and hospitals can be accountable together*. Hoboken, NJ: John Wiley & Sons, Inc.

- Cubanski, J., and T. Neuman. 2016. *The facts on Medicare spending and finance*. Issue brief. Menlo Park, CA: Kaiser Family Foundation.
- Cuellar, A. E., and P. J. Gertler. 2006. Strategic integration of hospitals and physicians. *Journal of Health Economics* 25, no. 1 (January): 1–28.
- Cutler, D. M., and N. R. Sahn. 2013. If slow rate of health care spending growth persists, projections may be off by \$770 billion. *Health Affairs* 32, no. 5 (May): 841–850.
- Cutler, D. M., and F. Scott Morton. 2013. Hospitals, market share, and consolidation. *Journal of the American Medical Association* 310, no. 18 (November 13): 1964–1970.
- Dale, S. B., A. Ghosh, D. N. Peikes, et al. 2016. Two-year costs and quality in the Comprehensive Primary Care Initiative. *New England Journal of Medicine* 374, no. 24 (June 16): 2345–2356.
- Denver Post. 2016. Catholic Health Initiatives retreats from health-insurance foray. *Denver Post*, December 15.
- Dranove, D., and R. Lindrooth. 2003. Hospital consolidation and costs: Another look at the evidence. *Journal of Health Economics* 22, no. 6 (November): 983–997.
- Frakt, A. 2015a. Hospitals are wrong about shifting costs to private insurers. *New York Times*, March 23.
- Frakt, A. B. 2015b. Hospital consolidation isn't the key to lowering costs and raising quality. *Journal of American Medical Association* 313, no. 4 (January 27): 345.
- Frakt, A. B. 2014. The end of hospital cost shifting and the quest for hospital productivity. *Health Services Research* 49, no. 1 (February): 1–10.
- Frakt, A. B., S. D. Pizer, and R. Feldman. 2013. Plan-provider integration, premiums, and quality in the Medicare Advantage market. *Health Services Research* 48, no. 6 Pt 1 (December): 1996–2013.
- Gaynor, M. 2011. Health care industry consolidation. Testimony of Martin Gaynor, E. J. Barone Professor of Economics and Health Policy, Carnegie Mellon University, before the Committee on Ways and Means, Health Subcommittee, U.S. House of Representatives, September 9. http://waysandmeans.house.gov/UploadedFiles/Gaynor_Testimony_9-9-11_Final.pdf.
- Gaynor, M., K. Ho, and R. Town. 2014. *The industrial organization of health care markets*. NBER working paper no. 19800. Cambridge, MA: National Bureau of Economic Research.
- Gaynor, M., F. Mostashari, and P. B. Ginsburg. 2017. Making health care markets work: Competition policy for health care. *Journal of the American Medical Association* (Published online March 2).
- Gaynor, M., and R. Town. 2012a. Competition in health care markets. In *Handbook of Health Economics*, vol. 2. T. McGuire, M. Pauly, and P. Pita Boras, eds. Amsterdam: Elsevier.
- Gaynor, M., and R. Town. 2012b. *The impact of hospital consolidation—Update*. The Synthesis Project, policy brief no. 9. Princeton, NJ: Robert Wood Johnson Foundation.
- Government Accountability Office. 2015. *Medicare: Increasing hospital physician consolidation highlights need for payment reform*. GAO-16-189. Washington, DC: GAO.
- Gresenz, C. R., D. I. Auerbach, and F. Duarte. 2013. Opportunities and challenges in supply-side simulation: Physician-based models. *Health Services Research* 48, no. 2 (April): 696–712.
- Health Care Cost Institute. 2016. *2015 health care cost and utilization report*. Washington, DC: HCCI.
- Health Care Cost Institute. 2015. *2014 health care cost and utilization report*. Washington, DC: HCCI.
- Health Care Cost Institute. 2014. *2013 health care cost and utilization report*. Washington, DC: HCCI.
- Herman, B. 2015. Humana to sell Concentra for \$1 billion. *Modern Healthcare*, March 23.
- Ho, V., and B. H. Hamilton. 2000. Hospital mergers and acquisitions: Does market consolidation harm patients? *Journal of Health Economics* 19, no. 5 (September): 767–791.
- Irving Levin Associates Inc. 2016. *The health care services acquisition report: 22nd edition*. Norwalk, CT: Irving Levin Associates Inc.
- Johnson, G., Z. M. Lyon, and A. Frakt. 2017. Provider-offered Medicare Advantage plans: Recent growth and care quality. *Health Affairs* 36, no. 3 (March 1): 539–547.
- Kaiser Family Foundation and Health Research & Educational Trust. 2016. *Employer health benefits: 2016 annual survey*. Menlo Park, CA: Kaiser Family Foundation/HRET.
- Kane, C. K., and D. W. Emmons. 2015. *Updated data on physician practice arrangements: Inching towards hospital ownership*. American Medical Association Policy Research Perspectives. Chicago, IL: AMA.

- Kennedy, G. M., B. Saloner, N. Anderson, et al. 2014. *Access to care for low-income Medicaid and privately insured adults in 2012 in the National Health Interview Survey: A context for findings from a new audit study*. Washington, DC: The Urban Institute. <http://www.urban.org/publications/413089.html>.
- Kessler, D. P., and M. B. McClellan. 2000. Is hospital competition socially wasteful? *The Quarterly Journal of Economics* 115, no. 2: 577–615.
- Kralewski, J. E., E. C. Rich, R. Feldman, et al. 2000. The effects of medical group practice and physician payment methods on costs of care. *Health Services Research* 35, no. 3 (August): 591–613.
- La Forgia, A., J. Maeda, and J. Banthin. 2017. Are integrated plan providers associated with lower premiums on the health insurance marketplaces? *Medical Care Research and Review* (published online February 1).
- McWilliams, J. M., L. A. Hatfield, M. E. Chernew, et al. 2016. Early performance of accountable care organizations in Medicare. *New England Journal of Medicine* 374, no. 24 (June 16): 2357–2366.
- Medicare Payment Advisory Commission. 2017. *Report to the Congress: Medicare payment policy*. Washington, DC: MedPAC.
- Medicare Payment Advisory Commission. 2016. *Report to the Congress: Medicare payment policy*. Washington, DC: MedPAC.
- Medicare Payment Advisory Commission. 2015. *Report to the Congress: Medicare and the health care delivery system*. Washington, DC: MedPAC.
- Medicare Payment Advisory Commission. 2014a. *A data book: Health care spending and the Medicare program*. Washington, DC: MedPAC.
- Medicare Payment Advisory Commission. 2014b. *Report to the Congress: Medicare payment policy*. Washington, DC: MedPAC.
- Medicare Payment Advisory Commission. 2013. *Report to the Congress: Medicare payment policy*. Washington, DC: MedPAC.
- Medicare Payment Advisory Commission. 2012. *Report to the Congress: Medicare payment policy*. Washington, DC: MedPAC.
- Medicare Payment Advisory Commission. 2011. *Report to the Congress: Medicare and the health care delivery system*. Washington, DC: MedPAC.
- MNSure. 2016. Shop and compare. Plans offered on MNSure. <https://www.mnsure.org/shop-compare/index.jsp>.
- Nelson, L. 2012. *Lessons from Medicare's demonstration projects on disease management and care coordination*. Working paper 2012–01. Washington, DC: Congressional Budget Office.
- Neprash, H. T., M. Chernew, and J. M. McWilliams. 2017. Little evidence exists to support the expectation that providers would consolidate to enter new payment models. *Health Affairs* 36, no. 2 (February): 346–354.
- Neprash, H. T., M. E. Chernew, A. L. Hicks, et al. 2015. Association of financial integration between physicians and hospitals with commercial health care prices. *JAMA Internal Medicine* 175, no. 12 (December): 1932–1939.
- Newhouse, J. 1993. *Free for all? Lessons from the RAND health insurance experiment*. Cambridge, MA: Harvard University Press.
- Newhouse, J. 1973. The economics of group practice. *Journal of Human Resources* 8, no. 1: 37–56.
- Newhouse, J. P., and T. G. McGuire. 2014. How successful is Medicare Advantage? *Milbank Quarterly* 92, no. 2 (June): 351–394.
- Polsky, D., M. Richards, S. Basseyn, et al. 2015. Appointment availability after increases in Medicaid payments for primary care. *New England Journal of Medicine* 372, no. 6 (February 5): 537–545.
- Reinhardt, U. 2012. Divide et impera: Protecting the growth of health care incomes (COSTS). *Health Economics* 21, no. 1 (January): 41–54.
- Rice, S. 2016. Tenet announces intent to drop health plan business in 2017. *Dallas Morning News*, October 31.
- Sanger-Katz, M. 2015. When hospitals buy doctor's offices, and patient fees soar. *New York Times*, February 6.
- Selden, T. M., Z. Karaca, P. Keenan, et al. 2015. The growing difference between public and private payment rates for inpatient hospital care. *Health Affairs* 34, no. 12 (December 1): 2147–2150.
- Song, Z., M. B. Landrum, and M. E. Chernew. 2012. Competitive bidding in Medicare: Who benefits from competition? *American Journal of Managed Care* 18, no. 9 (September): 546–552.
- Spang, H. R., G. J. Bazzoli, and R. J. Arnould. 2001. Hospital mergers and savings for consumers: Exploring new evidence. *Health Affairs* 20, no. 4 (July–August): 150–158.
- Town, R. J., D. R. Wholey, R. D. Feldman, et al. 2007. Hospital consolidation and racial/income disparities in health insurance coverage. *Health Affairs* 26, no. 4 (July–August): 1170–1180.

Trish, E. E., and B. J. Herring. 2015. How do health insurer market concentration and bargaining power with hospitals affect health insurance premiums? *Journal of Health Economics* 42 (July): 104–114.

Tsai, T. C., and A. K. Jha. 2014. Hospital consolidation, competition, and quality: Is bigger necessarily better? *Journal of the American Medical Association* 312, no. 1 (July 2): 29–30.

United States District Court for the District of Idaho. 2015. Saint Alphonsus Medical Center-Nampa, Inc. et al. v. St. Luke’s Health System, Ltd. et al. (No. 14–35173). Opinion. <https://www.ftc.gov/system/files/documents/cases/150210stlukeopinion.pdf>.

United States District Court for the District of Idaho. 2013. Saint Alphonsus Medical Center-Nampa, Inc. et al. v. St. Luke’s Health System, Ltd. and St. Luke’s Regional Medical Center, Ltd. (case no. 1:12-cv-00560-BLW). Federal Trade Commission and State of Idaho v. St. Luke’s Health System, Ltd. and Saltzer Medical Group, P.A. (case no. 1:13-cv-00116-BLW). Plaintiff’s amended corrected proposed findings of fact and conclusions of law (public version). <https://www.ftc.gov/system/files/documents/cases/131105stlukefoc.pdf>.

White, C. 2013. Contrary to cost-shift theory, lower Medicare hospital payment rates for inpatient care lead to lower private payment rates. *Health Affairs* 32, no. 5 (May): 935–943.

White, C., and V. Y. Wu. 2014. How do hospitals cope with sustained slow growth in Medicare prices? *Health Services Research* 49, no. 1 (February): 11–31.