EXECUTIVE SUMMARY

There are two types of integration for firms to pursue when merging with or acquiring other firms. Horizontal consolidation occurs when one entity acquires or merges with another entity at the same level in an industry. An example of horizontal integration in health care would be two hospitals merging with one another. Vertical consolidation occurs when one entity acquires or merges with another entity at a different level of industry. In health care, an example of vertical consolidation would be a hospital or health system acquiring a physician practice.

Firms’ market shares are a critical metric in the assessment of the competitive effects of mergers and acquisitions. In general, firms with larger market shares may be more able to engage in anticompetitive conduct. Market concentration can be measured by calculating the Herfindahl-Hirschman Index (HHI), which is a useful indicator of market power and serves as a signal of the likely impact of a merger on competition. The Department of Justice (DOJ) and the Federal Trade Commission (FTC) use the HHI as an aid in assessing the potential for anticompetitive effects of proposed horizontal mergers. They may also consider market shares and market concentration in the evaluation of vertical mergers. Over half (55 percent) of US health care markets experienced an increase in concentration between 2013 and 2017.

Consolidation in health care is under increased scrutiny by antitrust authorities and state regulators. At the federal level, the FTC is tasked with reviewing mergers involving hospitals and physicians. While a handful of mergers have been blocked in recent years, health care markets continue to become more consolidated. A challenge arises because such transactions mostly fall under the threshold required for FTC/DOJ notification and review. Thus, they can proceed without antitrust scrutiny that could otherwise assess and weigh their benefits and harms.

Hospital and hospital-physician mergers are shown to increase health care prices and spending. The impact of hospital and hospital-physician mergers on the quality of health care and patient outcomes is limited and inconclusive at this time. The American Medical Association (AMA) has robust policy and guidelines on hospital and hospital-physician mergers and acquisitions. In accordance with Policy D-215.984, the Council will continue to review and report back to the House of Delegates any new data that become available, especially with regards to the impact of these mergers on health care prices and quality of care.

This report is the first in a series on this and related topics. Potential future topics may include physician satisfaction and burnout associated with mergers, acquisitions, and consolidation; antitrust issues; hurdles physicians face when starting a private practice; quality of care; and impacts on patient outcomes and mortality.
At the 2022 Annual Meeting, the House of Delegates adopted Policy D-215.984, “Health System Consolidation,” which was sponsored by the Private Practice Physicians Section. Policy D-215.984 asks the American Medical Association (AMA) to (1) “study nationwide health system and hospital consolidation for the benefit of patients and physicians who face an existential threat from health care consolidation,” and (2) “regularly review and report back on these issues to keep the House of Delegates apprised on relevant changes that may impact the practice of medicine, with the first report no later than A-23.” This report, which is presented for the information of the House of Delegates, summarizes hospital and hospital-physician group merger and acquisition activity, including background and trends on hospital and hospital-physician group consolidation. This is the first report of a series the Council will be working on addressing this and related topics.

The Council notes that this report specifically addresses hospital and hospital-physician group consolidation, regardless of ownership model. Further information on the corporate practice of medicine and private equity investment in health care can be found in CMS Report 2-I-22, which is before the House at this meeting. A primary purpose of this report is to provide background and baseline knowledge for upcoming reports on this topic. A glossary of common terms and abbreviations can be found in Appendix A.

BACKGROUND

Horizontal and Vertical Integration

There are two types of integration for firms to pursue when merging with or acquiring other firms. Horizontal consolidation occurs when one entity acquires or merges with another entity at the same level in an industry. An example of horizontal integration in health care would be two hospitals merging with one another. Vertical consolidation occurs when one entity acquires or merges with another entity at a different level of industry. In health care, an example of vertical consolidation would be a hospital or health system acquiring a physician practice.

A critical question is whether mergers and acquisitions are beneficial or harmful to society. Theoretically, both types of integration can result in both benefits and harms. Horizontal integration can lead to economies of scale, which could reduce the cost of production and lower prices, but it can also lead to the exercise of market power and increase prices or lower quality. Horizontal integration could also lead to potential loss of physician autonomy. Vertical integration between physicians and hospitals has several potential benefits, including improved care coordination, improved alignment of provider incentives through the “internalization” of externalities, less duplication of services, and economies of scale for administrative functions such as deployment of health records, which reduce prices or improve quality. However, vertical integration could also hurt merging parties’ competitors by inhibiting them from accessing needed supplies for production or raising their costs. Moreover, Medicare billing practices could make
hospital-based outpatient care more expensive than that based in a physician office. In these cases, vertical integration could lead to higher prices or spending. In short, each type of integration could lead to different outcomes and could have different impacts on price, quality, and/or spending.

**Market Definition, Market Shares, and the Herfindahl-Hirschman Index (HHI)**

Firms’ market shares are a critical metric in the assessment of the competitive effects of mergers and acquisitions. In general, firms with larger market shares may be more able to engage in anticompetitive conduct. One way to assess the level of market competition is by determining the level of market concentration. Market concentration can be measured by calculating the HHI, which is a useful indicator of market power and serves as a signal of the likely impact of a merger on competition. The Department of Justice (DOJ) and the Federal Trade Commission (FTC) use the HHI as an aid in assessing the potential for anticompetitive effects of proposed horizontal mergers. They may also consider market shares and market concentration in the evaluation of vertical mergers. The HHI is the sum of the squared market shares for all firms in a market. As an example, a market with 4 firms that each held 25 percent of the market share would have an HHI of 2,500. The largest value HHI can reach is 10,000, indicating a monopoly, where one entity holds the entire market share. A higher HHI indicates greater concentration and suggests lower market competition.1

Health care markets are generally considered to be local, as health care consumers need to travel to obtain care. Studies typically define hospital geographic markets as metropolitan statistical areas (MSAs). Markets that are very large (e.g., New York, Chicago), can be defined as smaller parts of those MSAs called metropolitan divisions. The HHI is calculated for each MSA. Using data from 2013, 2016, and 2017, one study found that in 95 percent of MSA-level markets in the United States, at least one hospital (or hospital system) had a market share of 30 percent or greater in those years. Seventy-two percent of markets had one hospital (or hospital system) with a share of 50 percent or more in 2016 and 2017. Additionally, in 40 percent of markets, a single hospital (or hospital system) had a market share of 70 percent or more in 2016 and 2017.2 Over half (55 percent) of markets experienced an increase in concentration between 2013 and 2017. In 17 percent of markets, the HHI equaled 10,000 in both of those years, indicating a monopoly. In 2017, the average HHI across markets was 3,853 and 92 percent of markets were considered highly concentrated.3 It is crucial to note that the study cited here considers the potential weakness with HHI calculation and looked only at comparable hospitals within a market when calculating market concentration. The study specifically outlines this when explaining the data and methods used in calculating HHI for these markets.

**Changes in Practice Ownership and Physician Employment**

The COVID-19 pandemic put tremendous strain on the health care industry, particularly on smaller practices. With smaller practices finding it difficult to continue to operate independently, larger health systems had an opportunity to acquire them. The Coronavirus Aid, Relief, and Economic Security Act and the Paycheck Protection Program and Health Care Enhancement Act allocated $175 billion for grants to providers that were partly intended to make up for revenue lost due to coronavirus, but analysis shows that the first $50 billion in grants were not targeted to providers most vulnerable to revenue losses.4 The resulting economic pressure on physicians could potentially lead to more mergers or closing of private practices, resulting in physicians then seeking employment within a hospital or health system.

However, changes in physician practice arrangements were already underway prior to the COVID-19 pandemic. According to the AMA’s 2020 Physician Practice Benchmark Survey, almost 40
percent of physicians worked directly for a hospital or for a practice that was at least partially owned by a hospital or health system—up from 29 percent in 2012. In 2020, 50.2 percent of physicians were employed, compared to 41.8 percent in 2012, and 44 percent had an ownership stake in their practice—lower than the 53.2 percent who were owners in 2012. In fact, 2020 was the first year in which less than half (49.1 percent) of physicians worked in practices that were wholly owned by physicians (i.e., private practice). This percentage includes the physicians who are private practice owners (38.4 percent of all physicians), the employed physicians who work for them (8.2 percent), and the physicians who are on contract with the practice (2.5 percent). As the number of physicians in private practice has fallen, the share of physicians who work directly for a hospital or for a practice at least partially owned by a hospital or health system has increased.

Antitrust Enforcement and Regulation

Consolidation in health care is under increased scrutiny by antitrust authorities and state regulators. At the federal level, the FTC is tasked with reviewing mergers involving hospitals and physicians. While a handful of mergers have been blocked in recent years, health care markets continue to become more consolidated. The FTC cites several constraints on their ability to enforce antitrust laws in the health care sector. Most notably, the FTC and DOJ antitrust division budgets have remained flat, even as the pace of mergers has increased. It is important to note that vertical integration is a particular challenge to regulate. For example, this would include a hospital or health system acquiring a physician practice. A challenge arises because such transactions mostly fall under the threshold required for FTC/DOJ notification and review. Thus, they can proceed without antitrust scrutiny that could otherwise assess and weigh their benefits and harms. Another noted challenge is the inability of the FTC to enforce antitrust rules on non-profit hospitals (although it can review mergers that involve a non-profit hospital). In 2019, 66 percent of hospital and health system mergers and acquisitions involved a non-profit entity purchasing another non-profit entity, putting these transactions out of the scope of FTC review.

In 2013, the FTC and state of Idaho sued St Luke’s Health System and Saltzer Medical Group for violating the Clayton Act and state antitrust laws. The complaint alleged anticompetitive effects in the primary care market. According to the complaint, the combination of St. Luke’s and Saltzer would give it the market power to demand higher rates for health care services provided by primary care physicians in Nampa, Idaho and surrounding areas, leading to higher costs for health care consumers. The district court did note that they believed that St. Luke’s and Saltzer genuinely intended to move towards a better health care system, but ultimately found that the “huge market share” of the post-merger entity “creates a substantial risk of anticompetitive price increases” in the primary care market in Nampa, Idaho, where the facilities are located. The ruling was appealed and upheld in 2015, resulting in the unwinding of the merger of these two entities.

States play a significant role in regulating hospital markets. States have their own antitrust laws, and state attorneys general and other regulators have access to the local market level data needed to oversee and challenge proposed mergers in their states. In addition to challenging hospital mergers outright, state strategies to address consolidation include all-payer rate setting for hospitals (Maryland, Pennsylvania, and Vermont) and the Massachusetts Health Policy Commission.

Summary of Recent Transactions

The 2021 Health Care Services Acquisition Report highlights hospital merger and acquisition activities for the past five years. Hospital merger and acquisition activity dropped off in 2020 as the coronavirus pandemic swept the United States and hospitals’ finances were ravaged as a result. Sixty-five of the 79 hospital merger and acquisition deals announced in 2020 were United States-
only targets that were not involved in bankruptcy proceedings. These deals covered 119 hospitals and 15,996 beds. The total acquired revenue figure for 2020 was nearly $16.4 billion. Full details on all hospital and health system mergers and acquisitions can be found in the 2021 Health Care Services Acquisition Report (Twenty-Seventh Edition). The table below shows notable hospital transactions in the United States in 2020:

<table>
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<th>Notable US Hospital Transactions, 2020</th>
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<tr>
<td><strong>Acquirer</strong></td>
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<tr>
<td>Novant Health</td>
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<td>Prime Healthcare Services</td>
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<td>Banner Health</td>
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<tr>
<td>Carle</td>
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<tr>
<td>Orlando Health</td>
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<tr>
<td>Chan Soon-Shiong Family Foundation</td>
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<tr>
<td>LCMC Health</td>
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<td>Iron Stone Real Estate Partners</td>
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The table below shows the largest physician medical group transactions from 2016-2020:

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<th>Notable US Physician Medical Group Transactions, 2020</th>
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<tbody>
<tr>
<td><strong>Acquirer</strong></td>
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<td>KKR &amp; Co. L.P.</td>
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<tr>
<td>Envision Healthcare Holdings, Inc.</td>
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<tr>
<td>The Blackstone Group</td>
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<td>West Street Capital Partners VII</td>
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<td>Summit Partners</td>
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<td>Ares Management L.P.</td>
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<td>Aspen Dental Management, Inc.</td>
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Impacts on Health Care Price and Quality

Previous studies show that both horizontal and vertical integration impact the price of health care. However, research on the impact of hospital and hospital-physician consolidation on quality of care is limited and inconclusive. Research suggests that horizontal and vertical integration among providers is associated with higher health care prices paid by private insurers. In Medicare, payment policies protect Medicare from increased prices due to horizontal consolidation but have led to higher Medicare costs in the case of vertical integration.

In the case of horizontal integration, the 2020 Medicare Payment Advisory Commission reviewed published research on hospital consolidation and concluded that the “preponderance of evidence suggests that hospital consolidation leads to higher prices.” An analysis of data from employer-sponsored coverage found that hospitals that do not have any competitors within a 15-mile radius have prices that are 12 percent higher than hospitals in markets with four or more competitors. Furthermore, a separate analysis of hospital mergers over a 5-year period found that mergers of two hospitals within five miles of one another resulted in an average price increase of 6.2 percent and that price increases continued in the two years following the merger.

There is evidence that prices increase even when hospitals merge with other hospitals in different geographic markets. One analysis found that prices at hospitals acquired by out-of-market systems increased by about 17 percent more than unacquired, stand-alone hospitals. One reason for rising prices following mergers is that larger hospital systems can influence the dynamics of negotiations with insurers and shift volume to higher cost facilities. For example, hospital systems with significant bargaining power may require that insurers include all hospitals in their system in a provider network. This can lead to higher cost hospitals being in a provider network when there are lower cost hospitals nearby. In one recent antitrust case in California, the Sutter Health system was accused of violating antitrust laws by using its market power to illegally drive up prices. In the settlement, Sutter Health agreed to stop requiring that all of its hospitals be included in an insurer’s network and also agreed to pay additional damages.

Vertical integration between hospitals and physicians can also raise prices or spending. A study analyzing highly concentrated markets in California found that an increase in the share of physicians in practices owned by a hospital was associated with a 12 percent increase in premiums for private plans sold in the state’s Affordable Care Act Marketplace. Additionally, a study conducted to examine Medicare beneficiaries’ pattern of health care utilization found that “patients are more likely to choose a high-cost, low-quality hospital when their physician is owned by that hospital.” In May 2022, Health Affairs published a study on the price effects of vertical integration and joint contracting in Massachusetts. This study found that vertical integration and joint contracting led to price increases from 2013 to 2017, from 2.1 percent to 12.0 percent for primary care physicians and from 0.7 percent to 6.0 percent for specialists, with the greatest increases seen in large health systems.

Studies examining the impact of consolidation on quality of care have produced mixed results. Some studies have shown that quality does not improve, or even gets worse, after vertical integration and others have shown modest improvements. One study of 15 integrated delivery networks found no evidence that hospitals in these systems provide better clinical quality or safety scores than competitors. Another study found that larger hospital-based provider groups had higher per beneficiary Medicare spending and higher readmission rates than smaller groups. However, one other study found that vertical integration had a limited positive effect on a small subset of quality measures. Regarding horizontal consolidation, studies have shown that quality may decrease in highly concentrated markets. One study found that risk-adjusted one-year mortality for heart
attacks in Medicare patients was 4.4 percent higher in more highly concentrated hospital markets compared to less concentrated markets. A study published in 2020 followed hospitals for three years after a merger and compared outcome measures with a control group of hospitals that had no change in ownership. The analysis found that scores for 30-day readmissions and mortality rates among patients discharged from a hospital did not improve in the hospitals that merged, when compared to the control group. Given the differences in these results, it is imperative for these systems to continue to collect data and monitor potential impacts of consolidation on the quality of care. In sum, although previous research generally finds that horizontal and vertical integration among providers is associated with higher health care prices, the net effect of such integration on quality is yet unknown.

AMA POLICY AND ADVOCACY

The Council reviewed relevant AMA policy and highlights Policy H-215.960, established by Council on Medical Service Report 7-A-19: (a) health care entity mergers should be examined individually, taking into account case-specific variables of market power and patient needs; (b) the AMA strongly supports and encourages competition in all health care markets; (c) the AMA supports rigorous review and scrutiny of proposed mergers to determine their effects on patients and providers; (d) antitrust relief for physicians remains a top AMA priority; and (e) close monitoring of health care markets is a key aspect of AMA antitrust activity.

The AMA has long been a strong advocate for competitive health care markets and antitrust relief for physicians and maintains that health care markets should be sufficiently competitive to allow physicians to have adequate choices and practice options. AMA efforts to obtain antitrust relief for physicians, maximize their practice options, and protect patient-physician relationships include legislative advocacy, advocacy at the FTC and DOJ, and the creation of practical physician resources. Furthermore, the AMA has pursued alternative solutions that promote competition and choice, including: eliminating state certificate of need laws; repealing the ban on physician-owned hospitals; reducing the administrative burden to enable physicians to compete with hospitals; and achieving meaningful price transparency (Policy H-215.960).

In addition, the AMA strongly advocates that Congress repeal limits to the whole hospital exception of the Stark physician self-referral law, which essentially bans physician ownership of hospitals and places restrictions on expansions of already existing physician-led hospitals. Repealing this ban would allow new entrants into hospital markets, thereby increasing competition. The AMA firmly believes that physician-owned hospitals should be allowed to compete equally with other hospitals, and that the federal ban restricts competition and choice (Policy D-215.995).

In the event of a hospital or health system merger, acquisition, consolidation or affiliation, the AMA believes a joint committee with merging medical staffs should be established to resolve at least the following issues: (a) medical staff representation on the board of directors; (b) clinical services to be offered by the institutions; (c) process for approving and amending medical staff bylaws; (d) physicians are encouraged and expected to work with others to deliver effective, efficient, and appropriate care; (e) a mechanism is provided for the open and transparent sharing of clinical and business information by all parties to improve care; and (f) a clinical information system infrastructure exists that allows capture and reporting of key clinical quality and efficient performance data for all participants and accountability across the system to those measures (Policy H-215.969).
DISCUSSION

While it is recognized that most hospital markets are highly concentrated and do not function as well as they could, or should, it is also recognized that hospital markets are local, and states play a significant role in regulating them. States have their own antitrust laws, and state attorneys general and other regulators have better access to the local market-level data needed to oversee and challenge proposed mergers in their states. States can take on mergers themselves or join federal antitrust efforts.

Consistent with Policy D-215.984, the Council will continue to monitor trends in health system consolidation and the impact on physicians and their patients, using additional data when available. As previously noted in CMS Report 7-A-19, the Council remains concerned regarding the potential negative consequences for physicians and patients in highly concentrated hospital markets (such as increased prices, reduced choice, and fewer physician practice options). In addition to reviewing the current literature, the Council received input from AMA antitrust experts during the development of this report, and notes that AMA staff are readily available to assist and advise AMA members and state medical associations with questions or concerns about physician-hospital relations or hospital consolidation. Nonetheless, the Council believes it is not possible to actively oppose all future hospital mergers. Attempting to address hospital mergers in the same manner the AMA has addressed major health insurance mergers would require enormous resources and may alienate AMA members who work for hospitals and health systems.

While previous studies suggest that hospital and hospital-physician consolidation is associated with higher health care prices, the impact on quality of care is still unknown. The economic pressures facing physicians were exacerbated by the COVID-19 pandemic and could result in continued mergers—both horizontal and vertical. Struggling private practices may find it beneficial to join with other private practices to form a larger practice (horizontal integration) or be acquired by a hospital or health system (vertical integration).

CONCLUSION

Hospital and hospital-physician mergers are shown to increase health care prices and spending. Nonetheless, the impact of hospital and hospital-physician mergers on the quality of health care and patient outcomes is limited and inconclusive at this time. The AMA has robust policy and guidelines on hospital and hospital-physician mergers and acquisitions. In accordance with Policy D-215.984, the Council will continue to review and report back to the House of Delegates as any new data become available, especially with respect to the impact of these mergers on health care prices and quality of care. The Council’s review could include monitoring relevant FTC-DOJ mergers to determine trends and better understand the impact of these mergers on hospitals, health systems, and physician groups.

This report represents the first in a series on health system consolidation and related topics. Potential future report topics may include physician satisfaction and burnout associated with mergers, acquisitions, and consolidation; anti-trust issues; hurdles physicians face when starting a private practice either within a hospital employment or non-employed setting before and after a hospital merger; quality of care; and impacts on patient outcomes and mortality.
REFERENCES


2 Ibid.

3 Ibid.


6 Ibid.


8 Schwartz, Supra note 4.

9 Schwartz, Supra note 4.


13 Ibid.

14 Ibid.

15 Ibid.

16 Schwartz, Supra note 4.

17 Schwartz, Supra note 4.

18 Curto, Supra note 7.

19 Schwartz, Supra note 4.
APPENDIX A

Glossary of Terms

**Antitrust** – The regulation of the concentration of economic power, particularly in regard to monopolies and other anticompetitive practices. Antitrust laws exist as both federal and state statutes.

**Department of Justice (DOJ)** – A federal executive department of the United States government. Specific Antitrust Division housed within the Department whose mission is to promote economic competition through enforcing and providing guidance on antitrust laws and principles. The DOJ Antitrust Division works closely with the Federal Trade Commission (FTC) to review potential mergers and acquisitions.

**Federal Trade Commission (FTC)** – An independent agency of the United States government whose principal mission is the enforcement of civil U.S. antitrust law and the promotion of consumer protection. These laws promote vigorous competition and protect consumers from anticompetitive mergers and business practices. The FTC shares jurisdiction over federal civil antitrust enforcement with the DOJ Antitrust Division.

**Herfindahl-Hirschman Index (HHI)** – A commonly accepted measure of market concentration calculated by squaring the market share of each firm competing in the market and then summing the resulting numbers. HHI calculations of 10,000 indicate a monopoly.

**Horizontal Integration** – A business strategy in which one company acquires or merges with another that operates at the same level in an industry. An example in health care would be two hospitals merging or two physician practices merging.

**Integration vs. Consolidation** – Closely related, but not synonymous. Consolidation typically refers to mergers and acquisitions. Consolidation does not necessarily imply integration. Integration means firms are truly integrating their operations, for the purpose of aligning and creating efficiency.

**Metropolitan Statistical Area (MSA)** – A core area containing a substantial population nucleus, together with adjacent communities having a high degree of economic and social integration with that core. MSAs are determined with the U.S. Census and are one way to define geographic markets when calculating the HHI. Particularly large MSAs (i.e., New York City, Chicago, Los Angeles, etc.) are further broken down into submarkets.

**Vertical Integration** – The combination in one company of two or more stages of production normally operated by separate companies. An example in health care: hospitals can buy physician groups or health systems can form drug companies.