Provider Market Power in the U.S. Health Care Industry:
Assessing its Impact and Looking Ahead
1: INTRODUCTION

1.1: Time to Rein in Unsustainable Growth in Health Care Costs

In this tough economic time and following the passage of Affordable Care Act (ACA) and the Supreme Court’s decision to uphold most of it, many health care stakeholders have taken on the challenge of reducing health care costs with renewed vigor.

Patients, purchasers, health plans, providers, and policymakers all agree today’s health care system does not consistently provide value – high-quality care delivered efficiently at an affordable cost. Perhaps the most difficult challenge to achieving value is lowering costs or at least slowing their growth. Most experts believe the current rate of growth is unsustainable and the ACA’s planned expansion of health insurance coverage could exacerbate this problem.

Today, health care expenditures account for nearly all projected structural deficits at the federal level1-2 and for a major – if not the major - component of state budget outlays each year.3 Despite a slowdown in health care spending in 2009 and 2010, recent projections by the Congressional Budget Office show spending on health care services will increase to 20% of Gross Domestic Product (GDP) by 2020.

This has implications that extend beyond health care. The debt to GDP ratio in the U.S. is already high. Continued borrowing will result in higher long-term interest rates and negatively affect the competitiveness of U.S. industry and the country’s long-term economic growth. Equally important, employers tend to pass higher health insurance costs on to employees in the form of lower wages, reduced health care benefits, or reductions in employment. Thus, excessive growth in health care expenditures has serious economic consequences for the country, with the ultimate burden falling on individuals and their families.4

Some might counter these concerns by noting that the health care sector has been an engine of economic growth and job creation. Data from recent research by the RAND Corporation can be used to estimate that every new job added in the health care sector results in 0.85 fewer jobs on average in the rest of the economy.5 For every job created, the costs of running this health care system grow and eventually result in layoffs in other sectors unable to manage the growing burden of the cost of health insurance premiums for employees. As Baicker and Chandra point out in a recent New England Journal of Medicine, it may be that continued growth in the health care sector represents at best a “wildly inefficient jobs program.”6

1.2: The Link between Provider Consolidation and Rising Costs

Catalyst for Payment Reform (CPR) is an independent, nonprofit organization working to promote high-value health care in the U.S by catalyzing improvements in how we pay for health care services. While setting high expectations for the quality of care, CPR identifies and coordinates workable payment reforms, tracks our nation’s progress in this area, and promotes alignment between public and private sector strategies. This work has led CPR directly to examining the effect of provider consolidation7 on rising health care costs.

While there are many factors that affect health care costs, among health care economists there is broad agreement that provider consolidation is a major driver, and it associated with significant payment variation across and within markets for both hospital and physician services.8 This fact does not receive a lot of attention in policy discussions and or in general public discourse, but with aspects of the ACA encouraging even more
provider consolidation to align incentives and foster clinical integration, it is critical that people understand the potential effect of consolidation on health care costs.

With that in mind, CPR commissioned this paper and began gathering critical insights by convening a discussion of policy and industry experts on this topic in Washington D.C. In large part, the paper focuses on hospital and hospital system consolidation, because that’s where most of the available data and research exists. There is also physician consolidation, but little data exists on its extent and impact. And there is insurer consolidation as well, but the best available literature on this phenomenon shows that it generally contributes to lower costs by giving insurers more clout in negotiations with providers.

In short, consolidation in the health care sector is ubiquitous. And despite its potential benefits, there is also fear – based on well-documented historical trends – that unless it is carefully managed, massing provider market power will lead to even higher prices and revenues.

This paper analyzes the historic effect of provider consolidation and outlines steps that can foster a more balanced, competitive marketplace, one that enhances quality without driving untenable costs. The paper is organized as follows:

- The primary drivers of health care expenditures (Section 2)
- Consolidation in the health care provider market, including analysis of the reasons and of its effect on health expenditure growth, hospital operating efficiency, and quality of care (Section 3)
- Options for countering the negative effects of provider consolidation, including market-based, public-private, and regulatory approaches (Section 4)
- Mechanisms for monitoring the extent and impact of provider consolidation, with the goal of a more informed discussion among both policymakers and the general public (Section 5)

2: THE PRIMARY DRIVERS OF HIGH HEALTH CARE SPENDING IN THE U.S.

- Per capita health care spending in the U.S. is nearly twice that of most other industrialized nations with no evidence of a corresponding increase in quality.
- The reasons for excessive spending are complex, but multiple expert analyses indicate that two of the major drivers in the last few years are increased utilization of outpatient services and higher unit prices for all health care services.
- Numerous studies have linked increased utilization and higher unit prices to the increased consolidation and market power of both for-profit and nonprofit hospitals.

2.1: What Drives Cost Increases

Health spending in the United States has consistently been nearly twice as high as that of other industrialized countries, with broad consensus that the increased spending has failed to deliver a corresponding increase in quality, as measured by any number of widely accepted assessments.

Certainly one reason the U.S. spends more on health care is because it has a higher standard of living and higher per capita wealth than most other nations. Many studies show that even when controlling for differences in per capita income, the U.S. is a significant outlier in terms of health expenditures per capita.

The consulting firm McKinsey and Company performed an analysis that found of the $2.5 trillion spent on health care in the U.S., $1.9 trillion of spending is to be expected based on our relative wealth, while $572 billion – 23% – is higher than expected. According to the McKinsey analysis, the increase is not attributable to greater use of services or a greater prevalence of high-cost diseases in the U.S. Rather, it appears to result from a number of factors, including:

- A more expensive mix of drugs;
- Considerably higher prescription drug costs;
- Higher physician incomes;
• Higher administrative costs due to the complexities of our diverse, public and private financing system
• Greater use of specialists (versus primary care physicians);
• Higher unit prices; and
• Skyrocketing use of outpatient services as technology and payment incentives shifting use away from inpatient settings.

According to McKinsey, outpatient services, including physician services, are the biggest factor in cost increases not explained by per capita income (Chart 1). In the late 1980s and 1990s, movement of procedures from inpatient to outpatient settings, particularly for surgeries, was celebrated as a shift to a lower cost setting of care. Unfortunately, the shift was accompanied by an overall increase in the volume of outpatient procedures that more than offset any savings.

**Chart 1 – Total Spending by Category and Estimated Spending According to Wealth, 2009**

Equally important, in recent years numerous studies have shown that the increase in unit prices – defined here as the cost of hospital and physician services, including medications – in both inpatient and outpatient settings is the single biggest driver of health spending increases. Recently released data from the Health Care Cost Institute (HCCI) also show that increased unit prices continue to be a driver of rising health care costs. The HCCI report showed that while utilization of services for this population was generally down, mirroring the trend for the entire population, the increase in per capita expenditures was driven primarily by increases in unit prices, not by the utilization or intensity of services.

HCCI research indicates that increases in per capita spending was driven primarily by increases in unit prices, not the utilization or intensity of services.
In analyzing the factors responsible for the relatively modest growth in national expenditures in 2009, Martin et al (2011) separated spending increases into price, intensity and quantity. Their analysis showed that prices accounted for more than 60% of the increase in overall spending. The authors also found that while the proportion of health spending growth due to prices varies over time, it has been growing steadily since 2001 (Chart 2).

Studies on hospital pricing from the Massachusetts Attorney General in 2010 and 2011 also identified price increases as the most important factor driving health care expenditure increases (Chart 3).

For inpatient services, over the two-year period 2007-2008 and 2008-2009, the shift to more expensive providers and service mix changes largely offset declines in patient volumes, leaving prices to explain nearly all of the increase in expenditures. For outpatient services, prices accounted for 75% of the change in expenditures over two years.
Based on these and other studies, it appears that price increases are 1.5 to 3 times more important than other factors in explaining rising health expenditures.\(^{17,18}\) Moreover, there is evidence that higher prices lead to oversupply of some equipment and capital, inefficient use of service capacity, and increased volumes.

For example, Paul Ginsburg has shown that outpatient providers are able to price their services at high levels and still be quite profitable, despite operating at only 50 to 60% of capacity.\(^{19}\) Evidence of high prices driving utilization comes from the Medicare Payment Advisory Commission (MedPAC), which reports that high prices may explain, in part, the growth in imaging services in the 2000-2008 period.\(^{20}\)

2.2: The Role of Provider Concentration on Higher Unit Prices and Outpatient Utilization

Although a number of factors can drive unit prices and utilization higher, increasing provider concentration and the stronger provider negotiating leverage that results appear to be major factors.\(^{21}\) Research (as described in Section 3) clearly demonstrates enhanced provider market power drives prices and revenues higher, as the rate of price increase in consolidated hospital markets typically exceeds the underlying cost contributors, such as drugs or medical equipment.\(^{22}\)

Despite different public images, both nonprofit and for-profit hospitals seem to pursue this price-elevating behavior.\(^{23}\) Since the early 1990s, hospital consolidation has taken place at about an equal rate for both nonprofit and for-profit hospitals. In the context of many antitrust cases, a number of judges have differentiated between the likely behaviors of nonprofit vs. for-profit merged entities, speculating that nonprofit hospitals would refrain from exercising their market power or that if they did raise prices they would use the extra revenue for more mission-oriented activities.\(^{24}\)

A number of studies failed to find any significant differences in pricing behavior between nonprofit and for-profit hospitals post merger.\(^{25}\) For example, Capps et al. (2010) examined seven years of data on California hospitals and found no evidence of any such differences.\(^{26}\)

Moreover, the evidence shows that consolidated nonprofit health systems tend to spend their negotiated earnings increases not on mission-oriented work, but on business-augmentation strategies and service enhancements. This includes purchases of new equipment or new medical technology that some evidence indicates may be more of a strategy to attract physicians, increase market share, and drive additional patient volumes than it is a means to improve care quality or efficiency. And in fact, investment in new equipment and medical technology among nonprofit hospitals is another major contributor to rising health care expenditures in the U.S. The primary motivation for this activity appears to be a highly regressive form of non-price competition.\(^{27}\)

As Havighurst and Richman argue in their treatise on the dangers of monopoly power concentrated in nonprofit health care systems:

> “Managers of nonprofit firms...may intrinsically have incentives to build larger empires to enhance their self-esteem in the community and to justify increased perquisites for themselves and their physicians. Such empire building is most easily accomplished by obtaining market power and using it to generate surpluses with which to further entrench and extend the firm’s dominance.”\(^{46,48}\)

Perhaps most importantly, evidence from the Massachusetts Attorney General reports showed that prices for health care services are uncorrelated with either quality or costs. Instead, they are correlated with relative levels of consolidation and market power – and prominent nonprofit medical centers were most responsible for exercising their leverage to obtain these higher prices. Some insurers, such as the Tufts Health Plan, attempted to resist price increases by Partners HealthCare, a large system that includes Massachusetts General Hospital, and tried to assemble networks with Boston’s other hospitals. The report found that Partners launched an aggressive marketing campaign that triggered threats by many of Tufts’ corporate customers to switch insurers.\(^{29}\)
Finally, hospitals with enough negotiating leverage to shift costs to private payers tend to have highly negative Medicare margins (i.e., costs much higher than Medicare payment levels). Hospitals facing dominant insurers managed to keep costs lower and maintained substantial Medicare margins. The conclusion of MedPAC and others is that large and consolidated systems yielding substantial market power negotiate higher private-sector prices, rather than making a rigorous effort to control costs.

3: THE EFFECT OF PROVIDER CONSOLIDATION ON HEALTH EXPENDITURE GROWTH, HOSPITAL OPERATING EFFICIENCY AND QUALITY OF CARE

- The evidence is clear that for complex reasons, including revenue protection, hospital concentration has increased to monopolistic levels in many medical service areas.
- Accelerated vertical merging is a more recent trend among hospitals and physicians, both for specialty and primary care.
- Private insurers also have consolidated, and this too may increase premiums in certain circumstances, but research demonstrates concentration among payers often has a dampening effect on price increases.
- Theoretically, provider consolidation can result in improved efficiencies and clinical integration, but to date, the evidence indicates consolidation has yielded only price increases, with little improvement in either operating efficiency or quality outcomes.
- The conclusion is that these trends are clearly driven by a significant imbalance between a highly-concentrated provider market and a splintered payer market.

3.0: The Evidence for Hospital Consolidation

Given the clear evidence that higher unit prices are a major driver of health care cost increases, and that large and consolidated systems yielding substantial market power negotiate higher prices, it is critical to establish that there has, in fact, been an inordinate amount of provider consolidation.

The evidence here is also clear. Over the last 20 years, hospital capacity in the United States has become highly concentrated as hospitals have steadily shifted away from independent status and merged with other competing facilities or integrated with multi-hospital systems.

The Herfindahl-Hirschman Index (HHI) is widely employed as a measure of market structure. The HHI is the sum of squared market shares in the market (usually in a Metropolitan Statistical Area or “MSA”). The index increases as market shares are more concentrated among a small number of hospitals. It reaches its maximum value of 10,000 for a monopoly (the square of the monopolist’s market share of 100 percent), and reaches a minimum value when the market is equally divided. The Department of Justice (DOJ) and Federal Trade Commission (FTC) guidelines define a market as “highly-concentrated” if the HHI exceeds 2,500. Chart 4 shows there was a wave of hospital mergers in the mid-1990s with HHIs ticking up rapidly.

Chart 4 – Hospital Concentration increased rapidly in the mid-1990s

![Chart 4 – Hospital Concentration increased rapidly in the mid-1990s](image)
Consolidation activity slowed around 2001, but there appears to have been an increase in mergers in recent years as shown in Chart 5. Merger activity has been national in scope. However, increased merger activity was particularly rapid in the southern part of the U.S.32

Chart 5 – More Recent Hospital Merger Activity

Table 1 presents the HHI for hospitals for various years from 1987 to 2006. The table is further evidence of increasing concentration in hospital markets. From 1987 to 2006 the HHI increased from 2,340, just under the FTC and DOJ recently updated threshold for classifying a market as “highly concentrated” to 3,261, a change of more than 900 points.33

This rate of increase in a specific market would be comparable to a movement over time from five equally sized hospitals (a market with a HHI of 2,000) consolidating into four (a HHI of 2,500) and then ultimately three (a HHI of 3,333).

Table 1 – Hospital Market Concentration in the U.S., 1987-200634

<table>
<thead>
<tr>
<th>Year</th>
<th>Mean HHI</th>
<th>Change</th>
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<tbody>
<tr>
<td>1987</td>
<td>2,340</td>
<td>—</td>
</tr>
<tr>
<td>1992</td>
<td>2,440</td>
<td>100</td>
</tr>
<tr>
<td>1997</td>
<td>2,983</td>
<td>543</td>
</tr>
<tr>
<td>2002</td>
<td>3,236</td>
<td>253</td>
</tr>
<tr>
<td>2006</td>
<td>3,261</td>
<td>25</td>
</tr>
</tbody>
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* Source: American Hospital Association. Data are for U.S. Metropolitan Statistical Areas with population < 3 million.
  
  b Herfindahl-Hirschmann Index. Means weighted by MSA population.
  
  c Total change from the previous year in the table.