## **VIEWPOINT**

# The Potential Hazards of Hospital Consolidation Implications for Quality, Access, and Price

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Department of Surgery, Johns Hopkins School of Medicine, Baltimore, Maryland; and Department of Health Policy and Management, Johns Hopkins Bloomberg School of Public Health, Baltimore, Maryland. Hospital consolidation has increased substantially over the last 5 years, with 95 hospital mergers occurring in 2014, the highest number since 2000. Moreover, it is predicted that as many as 20% of all US hospitals will seek a merger in the next 5 years. A recent analysis of competition in 306 geographic health care markets in the United States, known as hospital referral regions, found that none of the markets are considered highly competitive, and nearly half are highly concentrated. What are the implications of these new hospital conglomerates, especially in regions where one health system dominates the medical care of a population? This Viewpoint considers the implications of the growing trend of hospital consolidation with respect to quality, access, and price.

Consolidation has some benefits. One argument in favor of large hospital mergers is that large hospital conglomerates result in increased quality control throughout the system. However, although this may be a potential benefit, most of the leading quality and safety successes in medicine (eg, implementation of the World Health Organization Surgical Safety Checklist

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and the near elimination of bloodstream infections in hospitals) have occurred in collaboratives formed by competing hospitals, rather than collaboratives within one wholly owned system. The magnitude of quality successes in these collaboratives demonstrates the influence of state hospital associations, various national groups, and other quality organizations to form partnerships around safety that do not require mass consolidation.

Another potential benefit of very large hospital systems is improved outcomes achieved by concentrating patients in high-volume centers, <sup>3</sup> although this benefit can also occur without consolidation. Large tertiary referral centers are an important component of any strong health care region, where appropriate referrals of patients with complicated cases has been the norm for decades. Better triaging of patients to the best physician to provide care for clinical problems can be addressed through interoperability of electronic health records and better transparency. In fact, health navigation technology is already empowering patients with data to find the best physician and center for particular conditions.

An important aspect of competition is that hospitals compete to win the favor of the public by marketing new models of health care. This marketplace facilitates innovation in medicine that would be diminished without competition. In a systematic review of 8 studies comparing outcomes in competitive and noncompetitive marketplaces, competition was associated with improved quality, particularly lower patient mortality. Thus, some research does not support the contention that consolidation (and reduced competition) improves patient outcomes.

The proliferation of large hospital systems in low-competition marketplaces may fail to improve outcomes and also could encourage greater health care utilization. A 2012 study of California hospitals over a 17-year period found that hospital mergers were associated with increased utilization among patients with heart disease, specifically a 3.7% increase in bypass surgery and angioplasty and a 1.7% to 3.9% increase in inpatient mortality.<sup>5</sup> The author hypothesized that infrastructure consolidation required some patients to travel farther for care, resulting in more intensive pro-

cedures and higher mortality. In addition to changes in infrastructure, financial incentives may also explain why hospital consolidation can lead to greater utilization. Hospitals that own expensive equipment, such as radiation machines, are more likely to refer patients for in-system treatment over other treatment options. The magnifi-

cation of this practice in larger systems may result in more suboptimal care and overtreatment. Given the recent unprecedented increase in consolidation, these trends could increase spending faster than the research community can evaluate the effects on increased utilization.

Conglomerate chain hospitals may also make decisions about the care offerings for a large number of patients, begging the question: how much power should one corporation wield? For example, US Oncology, a health care corporation of cancer practices, claims to serve 750 000 patients with cancer in the United States each year. 7 Consider, for example, if a hospital system decides that its physicians can only use one medication or operation to treat a given condition system-wide, will patients be informed about the other options? Without competition, some hospitals may be incentivized to focus on the most profitable services rather than maintain the infrastructure for the full range of services. This is especially important when multiple treatment options that range in invasiveness and cost are available for the same condition.

Corresponding Author: Martin A. Makary, MD, MPH, Johns Hopkins University School of Medicine, Halsted 610, 600 N Wolfe St, Baltimore, MD 21287 (mmakary1@jhmi.edu). There is also risk to a population if a monopoly hospital system within a market fails, similar to when a large bank fails. For instance, when large banks failed in 2008, communities had no part in their failure, yet an enormous government bailout was initiated because of the argument that the failed management strategies of the large business should be rescued for the sake of the population. If a large hospital system with regional monopoly power fails, the population's health would likely worsen, and the people in the region may even have to pay for a bailout of the hospital system. The threat is even greater in rural areas where one hospital system is the only source of medical care. <sup>8</sup> If a singularly owned hospital system is "too big to fail," then patients can be left with no viable medical services within reach if the system fails.

Hospital mergers also may result in increased prices, further burdening an increasingly unaffordable health care system. Four studies that evaluated the association between mergers and medical prices have demonstrated that price increases ranging from 20% to 45% occur following consolidation. These increased costs further add to the burden of high-deductible insurance and increasing co-pays. An analysis of 13 insurance companies in California suggests that recent consolidation may already be affecting costs to patients. Thompson found that premiums were 1.3% lower for each competing hospital in a region, even after accounting for

general cost of living. Comparing 2 California cities, one with extensive hospital competition (Los Angeles) and one that has less competition (San Francisco), there was a 9% difference in premiums between cities. Conversely, no studies to date have demonstrated that hospital mergers result in lower costs. The trend is concerning. Monopoly power is a driver of increased prices, and in health care, those prices are already overburdening patients, taxpayers, and US businesses.

Despite a few successful litigation efforts by the Federal Trade Commission, the trend of hospital consolidation and integration seems poised to continue. With the current most substantial consolidation of health care in US history, the concerning implications of the trend of hospital consolidation on quality, access, and price must be carefully considered. However, unlike banks that became too big to fail, 85% of US hospitals pay no taxes because they are designated as nonprofit organizations serving a public good. Hospitals can set prices that are ultimately passed on to others in the form of escalating insurance deductibles and taxes. The good work of integrated hospitals should continue to create networks of coordinated care, while at the same time, physicians and patients should insist that hospitals compete on transparent prices and quality outcomes. Achieving this goal is an important prerequisite to a functional health care system.

#### ARTICLE INFORMATION

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