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Private Equity in Healthcare

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Synonyms

Costs of care; Healthcare; Patient outcomes; Private equity; Type of ownership

Description/Definition

Private equity (PE) ownership in the US healthcare industry has grown dramatically in recent decades. PE has entered all parts of the healthcare value chain, but the greatest interest and focus of research has been around its acquisition of care providers, which has over time increasingly shifted toward "buy-and-build" strategies that benefit from economies of scale by combining many small practices or care facilities. The distinct features of the healthcare industry – including high levels of government subsidy, insurance payers that separate revenue from the consumer, and the importance of trust that providers will act in consumers' interest – have led policy-makers and patient advocates to voice concern about the impacts of PE, especially in subsectors with lower levels of competition and that serve more needy or unsophisticated patients.

The PE literature more broadly has found ample evidence that PE ownership improves productivity and, at least in some cases, benefits consumers. However, this evidence is from sectors that feature little subsidy, high levels of competition, and transparent product quality. While much remains to be done and the results that exist are nuanced, the work thus far on PE in healthcare has found evidence that PE ownership leads to higher prices in a wide array of subsectors, including hospitals, nursing homes, physician staffing, and dermatology. There is mixed evidence on the quality of care, with some studies finding no effects and others finding deterioration. There is no evidence of improvement. Overall, for PE's high-powered incentives to maximize profits to improve outcomes in healthcare, it appears crucial to align owner incentives with those of patients and taxpayers.

Introduction

Private equity (PE) ownership in the US healthcare industry has grown dramatically in recent decades. While this is true in many areas of the economy, the distinct features of the healthcare industry – including high levels of government subsidy, insurance payers that separate revenue from the consumer (patient), and patients' reliance on trust that providers will act in their interest – have led policy-makers and patient advocates to voice particular concern

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about the impacts of PE ownership in this sector. Concerns have especially focused on subsectors of healthcare that struggle with lower levels of competition and serve more needy or unsophisticated patients.

Until recently, there was little work in financial economics on the impact of PE ownership in healthcare. While there is ample evidence that PE ownership improves productivity and, at least in some cases, benefits consumers, this evidence is from sectors that feature little subsidy, high levels of competition, and transparent product quality. While much remains to be done and the results that exist are nuanced, the work thus far on PE in healthcare has found evidence that in some subsectors, PE ownership can lead to lower quality of care together with higher prices. At the same time, there is also evidence that operational efficiency improves as in other industries. An important point this article wishes to stress is that incentive alignment appears crucial and likely varies across healthcare subsectors, as in some cases patients have more choice, pay more out of pocket, and are better able to observe quality than in others.

The remainder of this article describes how PE fits into the healthcare sector. Then it reviews academic research on PE in healthcare.

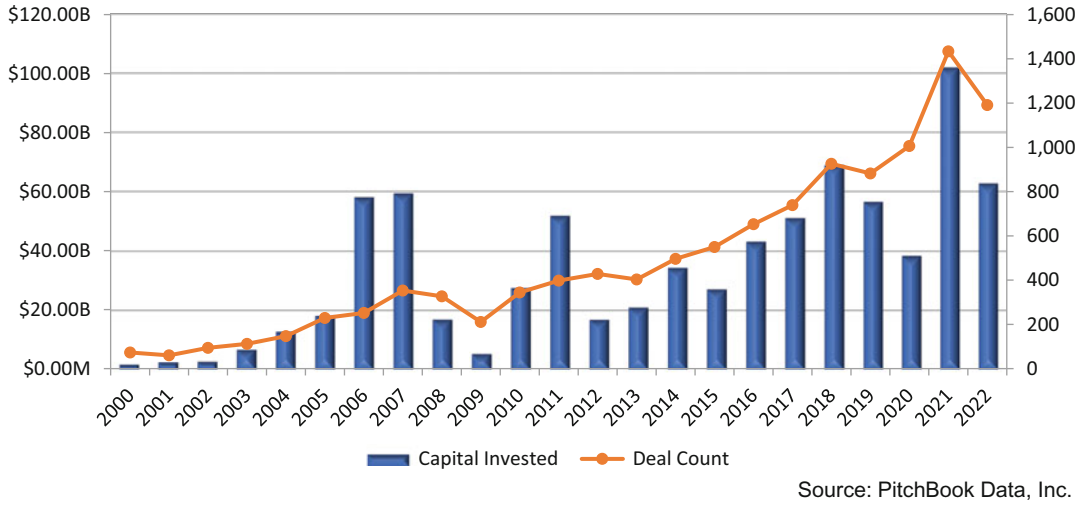
Ownership in Healthcare

The healthcare industry is one of the most important sectors in the United States, with spending in 2021 totaling 18% of GDP, which is more than the manufacturing sector and the energy sector combined. The sector includes a diverse array of players, ranging from pharmaceutical and medical device companies to insurers to patient care providers. Providers (e.g., physicians, doctors, and nurses) deliver patient care in hospitals, clinics, nursing homes, ambulatory surgical centers, mental health centers, rehabilitation facilities, hospice, and so on. Health insurers, both the public insurance programs like Medicaid and Medicare and the commercial insurance companies, cover most of the expenses.

Traditionally healthcare provider ownership in the United States was primarily divided into two types: nonprofit and for-profit. In recent decades, the for-profit side has grown substantially and sparked debate. On the one hand, there is concern that for-profits may be less inclined to put patient welfare over profits when these objectives are in conflict. On the other hand, there is concern that nonprofits under-provide charity care and exploit tax-exempt benefits, while behaving like for-profits. The literature has found inconclusive evidence. In one seminal paper, Duggan (2000) finds that nonprofit hospitals are just as responsive to financial incentives and exhibit no more altruism than their for-profit counterparts. Adelino et al. (2015) find that nonprofits exhibit similar investment responsiveness to cash flows as for-profits.

In recent years, private equity (PE) investment in healthcare has grown dramatically, becoming another new force in transforming the ownership landscape in the healthcare industry. The total PE capital invested in healthcare in the United States increased over 30-fold from 2000 to 2022, reaching $63 billion in 2022 (see Fig. 1). The number of acquisitions (deals) exhibits a clear upward trend throughout this period, increasing from about 73 deals in 2000 to 1200 deals in 2022.

Figure 2 shows the share of PE deals in different healthcare segments between 2000 and 2022. To show the shift in PE investment trend, the sample is divided into two periods 2000–2010 and 2011–2022. Over the past decade, PE has increasingly targeted the segment of clinics and outpatient services, focusing on strategies of "buy-and-build" (also called "add-ons" or "roll-ups") where they can benefit from economies of scale by combining many small practices or care facilities. Between 2011 and 2022, clinics and outpatient services account for the largest share of deals (14%), followed by enterprise systems (healthcare) (12%), biotechnology (6%), and pharmaceuticals (6%). While PE has entered all parts of the value chain described above, the greatest interest and concern has been around its acquisition of care providers, and this has also been the focus of research. Therefore, the



Private Equity in Healthcare, Fig. 1 Private equity investment in healthcare (2000–2022)

remainder of this article focuses on PE acquisitions of providers.

Drivers of PE Investment

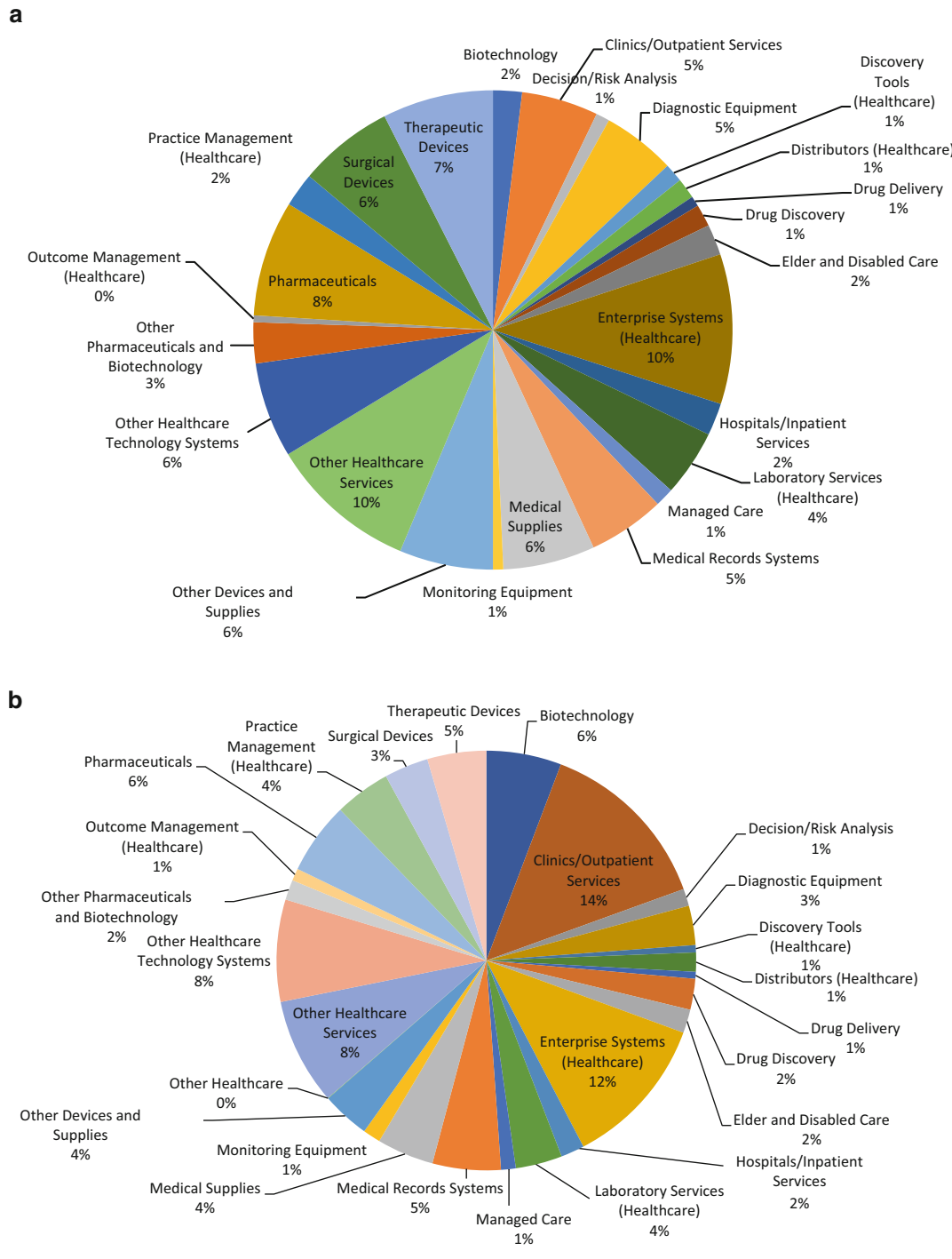
Both demand and supply side factors contribute to the surge of PE investment in healthcare. On the demand side, healthcare providers have looked to new investors and owners as they face increasing financial pressures from higher costs and lower reimbursements (Appelbaum and Batt 2020). This became more extreme among practices and hospitals that struggled with lost revenues during the COVID-19 pandemic (Bruch et al. 2020). Independent physician practices find it difficult to compete to recruit physicians against practices owned by hospitals and PE firms (Casalino et al. 2019). Providers also increasingly need capital to upgrade technologies, both for administration and medical care. As in other sectors, there are economies of scale, and thus successful practices or institutions often look to new capital to acquire other firms.

On the supply side, there has been a massive increase in inflows to PE funds since the early 2000s, which has led to greater PE penetration in essentially every sector in the economy. Healthcare is specifically attractive to PE for many reasons. First, demand for healthcare has historically been relatively immune to economic cycles. Second, an aging population is and will continue to demand more medical care. Third, healthcare markets are often fragmented geographically, as medical care is non-tradable and patients often cannot travel far away to receive it (Gondi and Song 2019). This creates opportunities for the buy-and-build strategy to consolidate market power, which could enable owners to extract higher payments from insurers. Finally, PE ownership can increase the efficiency of care delivery in some segments because it brings management expertise and capital that improve operational efficiency, leading to higher profits (Braun et al. 2020; Gupta et al. 2021).

Consequences of PE Acquisitions of Healthcare Providers

Patient Outcomes

Efforts to evaluate the impact of PE ownership on patient welfare have focused on nursing homes. This in part reflects data availability (including for outcome measures) in this subsector. However, it is important to note that impacts on nursing homes may not generalize to other sectors, as nursing homes are exceptionally reliant on government subsidy and serve particularly vulnerable populations.



Private Equity in Healthcare, Fig. 2 (**a**) Deals in different segments of healthcare (2000–2010). (**b**) Deals in different segments of healthcare (2011–2022)

Gupta et al. (2021) use detailed Medicare claims data across the United States and examine the impact of PE ownership on patient outcomes in the setting of nursing homes. They find that PE-owned facility increases 90-day mortality by about 10% for short-stay Medicare patients. The

increase in mortality seems to reflect declines in nursing staff and compliance with standards, which results from PE's incentives to cut operating costs.

Gandhi, Song, and Upadrashta (2020) study how market structure affects the impact of PE acquisitions in the nursing home sector. They find that PE has positive effects on nurse availability in more competitive markets but negative effects in concentrated markets. Earlier work from the medical field found mixed results but typically struggled with limited geographies, a short sample period, a lack of patient-level data, or a small number of deals. This includes Stevenson and Grabowski (2008), Harrington et al. (2012), Pradhan et al. (2014), Cadigan et al. (2015), and Huang and Bowblis (2019). For example, Pradhan et al. (2014) find that PE-owned nursing homes are likely to experience poorer quality of care.

Outside of nursing homes, Gondi and Song (2019) offer reasons why PE might lead to more up-charging and significant reliance on unsupervised physician assistants. Bruch et al. (2022) find no evidence of quality differences between PE-owned and non-PE-owned ambulatory surgical centers. Cerullo et al. (2022) study the association between PE acquisition of hospitals and the outcomes of Medicare patients hospitalized with acute medical conditions. They find PE acquisition has no substantial impact on the patient-level outcomes examined, including mortality rate and readmission rate. Casalino (2020) documents a growing role for PE in the ownership of obstetrician-gynecologist medical groups.

Cost of Care

Besides the impact on patient outcomes, there is a strand of the prior literature studying how PE ownership impacts the cost of care. Liu (2021) uses national commercial insurance claims data to investigate how PE buyouts of hospitals affect hospital-insurer price negotiations. He finds that PE buyouts lead to an 11% increase in healthcare spending, driven by higher prices at PE-owned hospitals and a positive price spillover to local rivals. The rise in prices is mainly driven by PE's better negotiation skills and the use of debt in financing the deal.

Another strategy by PE to raise profits is to use the out-of-network billing. Cooper et al. (2020) document that EmCare, a large physician staffing company backed by PE, takes over the management of hospital emergency departments and increases out-of-network billing prevalence by over 80%.

In the medical literature, Braun et al. (2021) focus on PE acquisition in dermatology and find that the price paid for routine patient visit in PE-owned practices is 3% higher than non-PE practices, though the total expenditures did not significantly change after buyouts.

Firm Financials

There is also evidence about how PE ownership affects various dimensions of firm financials. Cerullo et al. (2021) find that PE buyouts induce short-term acute hospitals to shift their service lines by introducing more profitable services while reducing the unprofitable ones. Zhu et al. (2020) look at the PE acquisitions of physician medical groups and find that PE-owned groups have additional pressures to increase revenue streams, direct more referrals internally, and rely on lower-cost clinicians.

Unsurprisingly, these types of behaviors lead to better financial performance. Offodile et al. (2021) document that PE ownership improves hospital profitability. On average, the difference in operating margins rose 3 percentage points between PE-backed and non-PE-backed hospitals from 2003 to 2017. The operating expenses per adjusted discharge from PE-backed hospitals declined relative to those of nonacquired hospitals within the same period. Pradhan et al. (2013) exhibit that PE-owned nursing homes have higher operating margin as well as total margin; they also report higher operating revenues and costs. However, the evidence is not all one-sided. Cadigan et al. (2015) find little impact on the financial health of nursing homes after PE buyouts. Gandhi et al. (2021) find that PE owners were more successful at preventing COVID-19 outbreaks at their facilities, in part because they had the capital to invest in stocks of personal protective equipment.

Overall, the literature on the impacts of PE ownership of healthcare providers has found nuanced results, and more work is needed. There is substantial evidence that private equity leads to at least some negative effects in the nursing home context and seems to clearly lead to higher prices across a range of healthcare subsectors.

Cross-References

- Private Equity Investments and Effects on Competitors (of the Portfolio Firm)
- Private Equity Value Creation
- Public-to-Private Transactions
- Real Effects of Private Equity Buyouts

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