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VIEWPOINT: PEER-REVIEWED ARTICLE

How Should We Assess Quality of Health Care Services in Organizations Owned by Private Equity Firms?

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Abstract

This article assesses research on private equity ownership's influence on health care quality. A review of several prominent studies supports the conclusion that private equity ownership does not have a universally positive or negative effect. Past research has found that providers backed by private equity generally have mixed quality outcomes post acquisition, depending on the sector and measures evaluated. This article outlines ways in which research findings are misconstrued and cautions against drawing conclusions from a narrow sample of literature about private equity based on studies in one sector.

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Private Equity in Health Care

Over the past decade, private equity (PE) firms have invested hundreds of billions of dollars across the US health care system.[1] The rise of PE in health care has coincided with heightened scrutiny of its influence by academics, policy makers, and politicians. Critics view PE's emphasis on maximizing returns through cutting costs and negotiating higher payments as inevitably leading to unaffordable and lower-quality care.[2] Workshops like the Federal Trade Commission's March 2024 event often take a highly critical view of PE,[3] admonishing the entire investment class for a perceived decline in quality following buyouts of hospitals, nursing homes, and various other providers. Empirical evidence offers some nuance for making these assessments, with studies showing equivalent or improved outcomes after PE firms obtain an ownership stake, depending on the sector.[4] Specifically, proponents of PE's growing role point to its success at providing access to capital, streamlining operations, and turning around underperforming entities through financial discipline and better management practices.

This article assesses research on private equity ownership's influence on health care quality and cautions against drawing conclusions from a narrow sample of literature about private equity based on studies in one sector.

Looking Closer at Outcomes

A recent meta-analysis of PE in health care shows why reductively labeling these investments as "good" or "bad" would be misguided. In Borsa et al's exhaustive review, nearly one-third of the studies focused on nursing homes, with hospitals and dermatology together composing another third.[5] That nursing homes make up a disproportionate share of the research on PE should immediately caution against reaching any broad conclusions. Although nursing homes play an essential role in the health care system, they may not reflect what would happen in sectors like surgery or anesthesiology. Borsa et al found that, of 8 studies evaluating health outcomes, only the 3 studies on nursing homes found any harmful effect of PE.[5] In other health care settings, PE was associated with no or moderate improvements in health outcomes,[5] a finding somewhat at odds with the prevailing narrative that PE is always and everywhere bad for patients.

Borsa et al also distinguish "quality" from other outcomes, defining quality "as any measure included on an established, specialty specific evaluation instrument, or more general measures such as staffing per patient day or appointment availability" or readmissions.[5] Under this definition, 27 studies included in the review evaluated quality, with 21 finding at least some harm and 12 finding at least some benefit. By a nearly two-to-one margin, then, a cursory review of the literature would once again suggest that PE is decidedly bad for patients. A closer look, however, reveals that benchmarks like facility staffing could be better viewed as imperfect proxies for more direct measures of health outcomes like mortality. Although one might argue that a better staffed facility is likely to be a higher quality one, relying solely on this measure to assess the impact of a PE investment would be akin to judging the quality of a basketball team solely by the number of players on its roster; basketball teams are ultimately judged by the number of games they win, just as health outcomes serve as the final say on a health care provider's effectiveness. With only one article in the review finding "harmful" quality that ultimately translated into "harmful" outcomes,[6] the practical relevance of these quality measures—at least beyond nursing homes—remains unclear.

Because patients may find it difficult to assess, or even observe, their quality of care, PE firms may instead invest in improving more salient measures of quality, such as recommendation, satisfaction, or experience scores. By these measures, 4 studies in Borsa et al's review found negative effects on patient experience in nursing homes and hospitals following PE acquisition,[7,8,9,10] whereas Gandhi et al provide evidence that only after the Centers for Medicare and Medicaid Services introduced a 5-star rating system did PE-backed nursing homes divert resources toward the measures being evaluated.[11] A patient's experience and quality of care can also be influenced by physician burnout. While PE firms may decrease burnout by reducing financial uncertainty and providing managerial support, they could also exacerbate it by restricting physician autonomy and increasing patient caseloads.[12] For these alternative measures, more data-driven analysis is needed before making any definitive conclusions about the impact of PE on quality.

Critiques

An ostensibly clear case of care deteriorating at PE-backed providers comes from a recent, award-winning[13] study of hospital-acquired conditions.[14] The article attracted considerable media interest, with profiles in the *New York Times*[15] and commentary in the *Washington Post*.[16] Regulators and politicians took notice as well: Congresswoman Katie Porter, for instance, posted on X that, "Shocking no one—when private equity firms

take over hospitals, the quality of care decreases. Every Californian should receive the health care they need and deserve, regardless of who owns their hospital."[17] This outsize media attention stands in contrast to the nuanced findings in the article, however, and illustrates the need to remain circumspect about the broader conclusions one can draw from such research.

First, the article's main finding, and the one mentioned most prominently in headlines and politicians' social media posts, is a 25.4% increase in hospital-acquired conditions following a PE acquisition.[14] At baseline, such hospital-acquired conditions, like a patient fall or bloodline infection, are exceedingly rare, making up 0.2% of all hospitalizations.[14] Placed in this context, the reported increase in such conditions relative to the number of hospitalizations at PE-acquired hospitals of 4.6/10 000 would lead to 2.3 more adverse events each year at a typical hospital with 5000 annual hospitalizations. Although the headlines report an alarming surge in hospital-acquired conditions, the risk of contracting one at a PE-owned hospital was 0.01% higher than at similar facilities in the control group.[14]

Second, the article uses different econometric methods for the main results and those in the supplement. When using the Callaway and Sant'Anna method for estimating difference-in-differences with multiple time periods in supplement eTable 13, the overall increase in hospital-acquired conditions in PE hospitals falls by a third, to 3.0/10 000, and 2 of the 12 hospital-acquired conditions flip to a statistically insignificant reduction.[14] More fundamentally, PE-acquired hospitals had a lower rate of adverse events to begin with and therefore had less room for improvement, but the article's statistical model assumes that PE-backed hospitals would have experienced the same drop in hospital-acquired conditions as the comparison group had it not been for the change in ownership. For example, falls and trauma at PE hospitals remained constant at 6.8/10 000 post acquisition but fell from 8.7/10 000 to 6.9/10 000 at the control hospitals.[14] Through the lens of the article's difference-in-differences research design, the relative lack of improvement at PE hospitals is interpreted as a 27.3% decline in quality even though their rate stayed constant at 6.8/10 000—in fact, it remained slightly better than the comparison group's post-acquisition rate of 6.9/10 000. Taken to an extreme, even a PE-backed hospital with no hospital-acquired conditions whatsoever would be viewed as having caused quality to decline when, in reality, the differential trends at PE and non-PE hospitals are due to non-PE hospitals approaching the superior performance of PE-acquired hospitals, rather than to PE-acquired hospitals suddenly providing worse care themselves.

Third, economic incentives that would motivate PE owners to allow hospital-acquired conditions to increase are not readily apparent. The article states that "the diagnoses underlying hospital-acquired conditions are not used in the assignment of a diagnosis related group and cannot be used to increase diagnosis related group severity (payment); worse performance on these conditions results in Medicare payment reductions."[14] Such penalties would seem to suggest that PE owners have a strong incentive to reduce hospital-acquired conditions, while competing incentives that could hypothetically lead to lower quality of care, such as cutting costs through mass layoffs and lax safety protocols, are alluded to in the discussion rather than tested directly in the analysis.

Fourth, the study found that more consequential outcomes, like mortality and readmission, either improved or remained the same at PE-acquired hospitals. The 0.2

percentage point reduction in inpatient mortality at PE hospitals, for instance, is described as "small" even though its magnitude is 4 times larger than the 0.05 percentage point increase (4.6/10 000) in hospital-acquired conditions at PE hospitals highlighted as the article's key point, more than offsetting all the negative effects. And, as with the meta-analysis discussed above, the increase in adverse events did not translate into worse downstream outcomes. If anything, a causal interpretation of the article's estimates would imply that PE owners get 5 fewer deaths in exchange for every additional hospital-acquired condition, a seemingly desirable trade-off any policy maker would be happy to accept.

Finally, only 17 hospitals contributed data for the full 3 years before and after a PE acquisition. Even taken at face value, results driven primarily by 17 hospitals can provide only so much insight into the broader impact of PE, calling into question the article's more general conclusion that "[t]hese findings heighten concerns about the implications of private equity on health care delivery."[14]

Next Research Steps

Despite a steady stream of research over the past decade on PE's impact on health care, many questions remain unanswered. The first relates to the underlying market characteristics that explain how a PE owner might influence a provider's quality of care. For instance, why is PE seemingly bad for nursing homes on some measures of quality[5] but good for their COVID response?[11] More broadly, why is PE typically bad for nursing homes but neutral for hospitals and good for fertility clinics?[6,18,19] Moreover, do the objectives and business practices of PE firms differ from other ownership arrangements, such as large retailers like CVS Health or Amazon? With research suggesting that even nonprofit providers may behave similarly to those backed by PE firms,[20,21] policy makers concerned about the quality of care provided by PE-owned facilities may be better served by directly targeting specific aspects associated with worse health outcomes through regulations and standards and then applying them universally to all types of owners. Such a strategy has already been successfully used to promote ownership transparency[22] and end noncompete agreements[23] throughout large swaths of the health care system—business practices commonly used by, but not unique to, PE firms.

Finally, how do PE investments connect to the overarching objectives of the US health care system? Policy makers have sought to restrain spending for years, but, in our experience, PE investors tend to be criticized for cutting costs, even when cuts do not lead to worse outcomes. Similarly, some routinely call for expanding access to care but then become dismayed when PE-backed providers increase their volume, often portraying this increase as wasteful and unnecessary or requiring a shift to nonphysician clinicians. In this case, large institutional investors are generally responding to policies and regulations that favor efficiency and consolidation, with PE's widespread investment in health care being a symptom of these broader trends rather than their cause. In addition, it remains unclear how PE-backed health care systems perform in terms of equity (eg, by race, ethnicity, gender, geography) or how the incentives for PE might promote or hinder advancing these objectives.[1]

Research on PE in health care has so far shown that its impact depends on the setting (eg, specialty, facility) and outcomes measured. Due to PE firms' wide range of investment styles and strategies, as well as the unique challenges and needs of providers as varied as nursing homes, dental practices, and surgical centers, studies focused narrowly on one specific sector cannot serve as a sound basis for policy

makers, journalists, and some fellow academics to make sweeping statements about PE influence in US health care.

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