The Corporatization of Medicine: Opportunities and Concerns

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Acknowledgements

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Agenda

- Consolidation Overview
- Private Equity: An Overview
- Evidence

Merger Waves

- Periods with high merger and acquisition activity
- There have been seven major merger waves in the in the US
- These periods are characterized by cyclic activity—that is, high levels of mergers followed by periods of relatively fewer deals
- These waves occurred between 1897-1904, 1916-1929, 1965-1969, 1984-1989, 1991-1999, 2003-2007, and 2011-present
- Why do they happen?

Merger Wave Causes Are Due To "Shocks"

- **Economic Shocks**
  - Economic expansion that motivates companies to expand to meet the rapidly growing aggregate demand in the economy
- **Regulatory Shocks**
  - Occurs through deregulation that may have prevented previous corporate combinations
- **Technological Shocks**
  - Major changes in existing industries can create new and fragmented industries
  - Firms do not have the time to adapt quickly and thus, increase their adaptation speed by acquiring
- **Other reason(s)**: When a company's shares are priced above their fair value, the organizations can capitalize on this by going through an acquisition in which they buy targets with overvalued shares
- All these shocks do not singularly bring on a merger wave, but in combination, followed by large amounts of capital liquidity are necessary for a merger wave to take hold

Strategy: Motivations to Consolidate

- Growth!
- Healthcare organizations seeking to expand are faced with 2 strategies for growth:
  - Through internal or de novo growth
  - Through mergers and acquisitions
- Internal growth:
  - May be slow and an uncertain process
  - Organizations are at risk of competitors rapidly taking a large market share and any competitive advantages are dissipated by the actions of the competitor
- The only solution is to acquire another organization that has established facilities, resources, and services in place

Horizontal Integration

- 2 hospitals merge
- Why?
- Responses to the rise of managed care
- Cost pressures
- Why should we care?
- Hospitals that have or acquire market power are able to charge higher prices on a permanent basis.
  - 100% pass-through to consumers
  - Mixed evidence on quality improvement
  - Example: Summit-Alta Bates (Bay Area): 28-44% price increases due to merger
  - Little evidence that synergies and efficiencies are created—if so—so what difference does it make?

Vertical Integration

- Acquisition involves acquisition of firms that are closer to the source of supply or to the ultimate consumer
  - Think of a hospital or an insurer acquiring a physician practice
- Vertical Merger Guidelines ("Guidelines") issued on June 30, 2020 (and later withdrawn)

Foreclosure

- An insurance company might acquire a single or multi-specialty physician group that, pre-merger, contracted with the Insurance Company's competitors to offer them discounted in-network rates. This transaction may be anticompetitive if the Insurance Company, post-merger, has
  1. the ability to exclude the Physician Group (or facilities that are part of it) from its competitors' insurance networks and;
  2. the incentive to do so, perhaps because a substantial number of employers who purchase insurance plans for their employees view the Insurance Company's plans as the next best option to gain access to the Physician Group.
- How could this example be problematic?

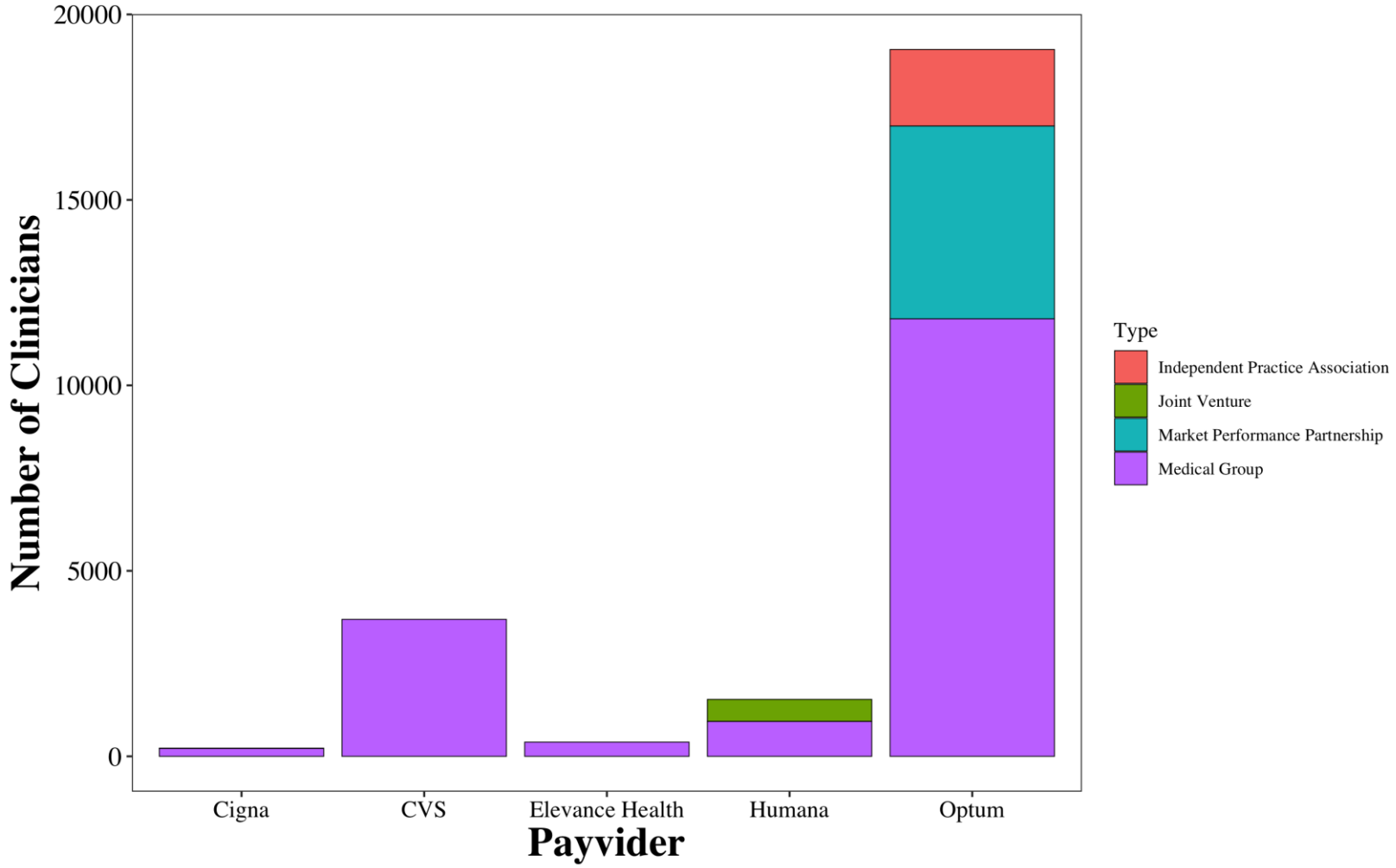
Raising Rivals Cost

- The Insurance Company again acquires the Physician Group, but rather than excluding the Physician Group from its competitors' networks, it requires them to demand higher reimbursement rates.
- This raises the cost for the Insurance Company's rivals to build viable insurance networks and may result in the Insurance Company winning customer accounts from employers.

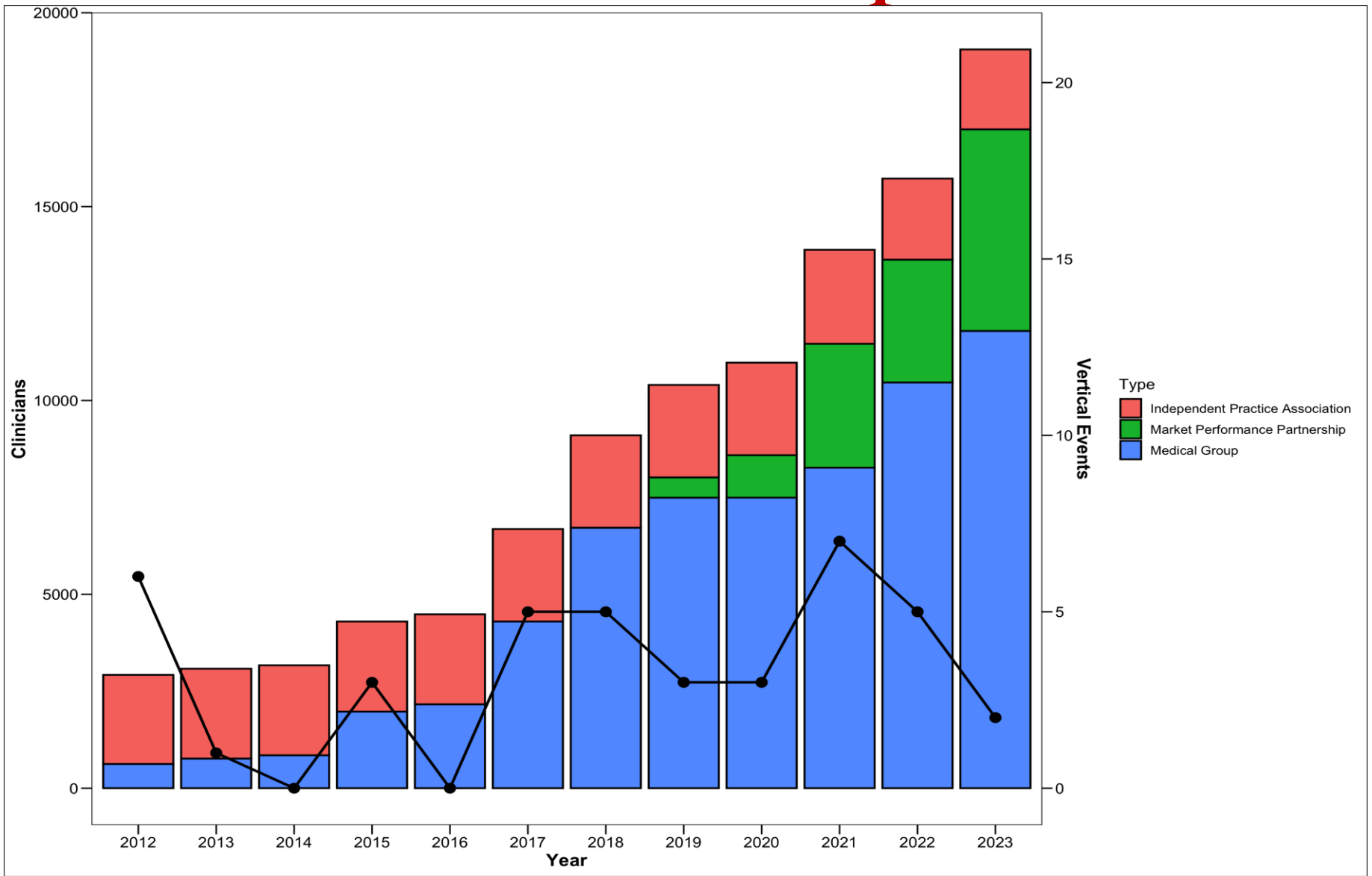
Other Anticompetitive Harms and Benefits

- If the Physician Group continues to be included in rival insurers' plans, it would get access to reimbursement rate information or innovative new approaches that could improperly advantage its Insurance Company parent

Number of Employed/Affiliated Providers, by Payvider (2023)



UnitedHealthcare and Optum



Common Themes from Qualitative Interviews with Physicians and Payvider Executives

- Leverage
- Difficulty of being independent
- Failure of non-profit healthcare (as it relates to containing healthcare cost)
- Movement towards Value-based care
- MA and Risk Adjustment
  - Concentration of skill and investment in coding among top insurers
- Data
- Frustrated enrollees
- Payers vs. private equity vs. health systems
- Physician ownership and autonomy
- Challenges in raising capital
- Negative experiences with hospital management

Any evidence?

- Lack of empirical evidence now
- Looking ahead it is important to examine:
  1. Patient care quality and cost in payvider models
  2. The "upcoding" of MA beneficiaries (pending)
  3. The frequency of patients switching to payvider plans
     a) Rival plans to payvider plan
     b) Traditional Medicare to payvider MA plan
  4. Price impact between rival plans and vertically integrated medical groups
  5. Provider experiences in these emerging models (e.g., physician turnover)

Private Equity

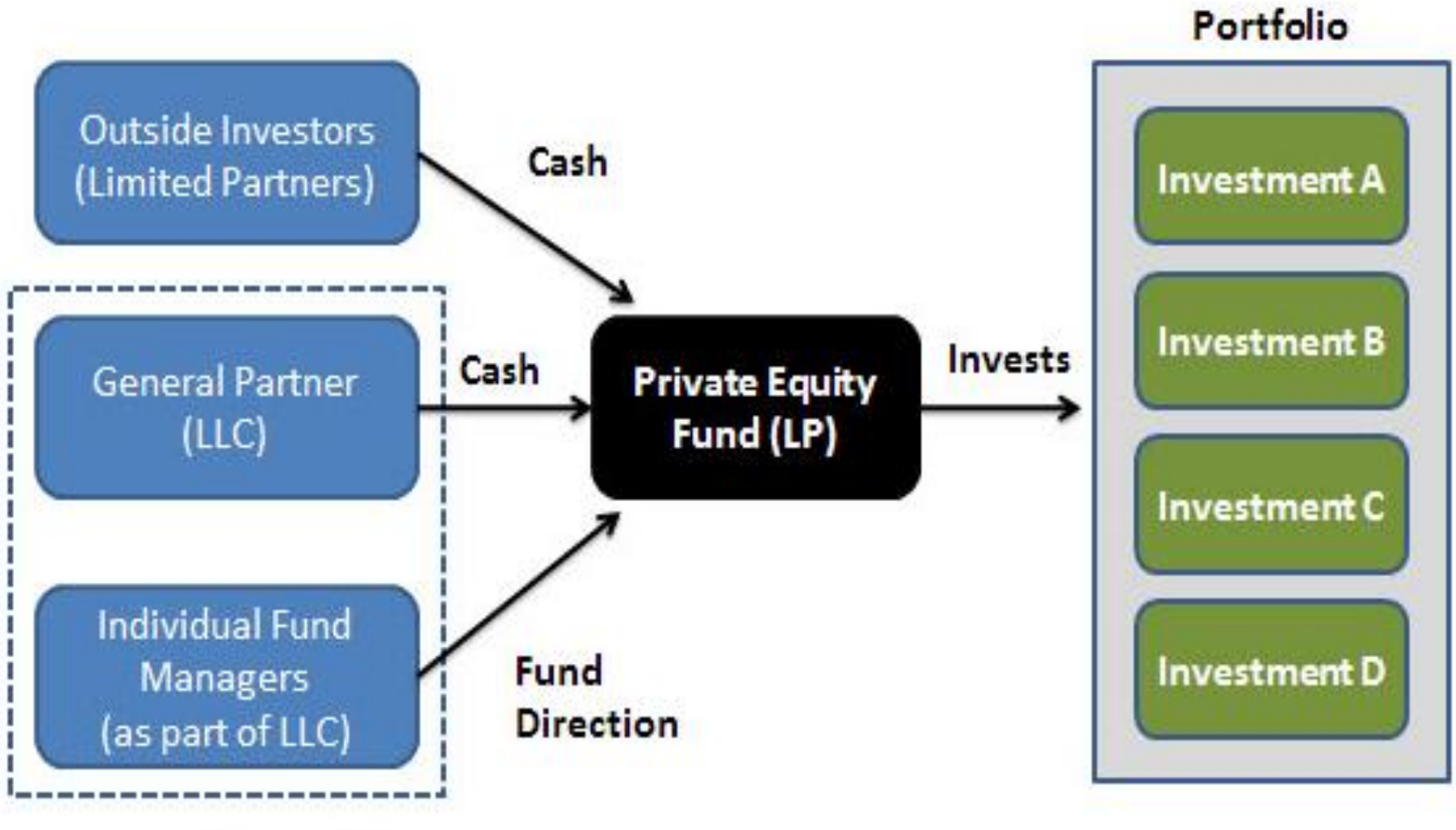
- Private investors that invest capital in private companies
- Receive controlling equity stake that is not tradeable on a public stock exchange
- How does it work?

PE Goals

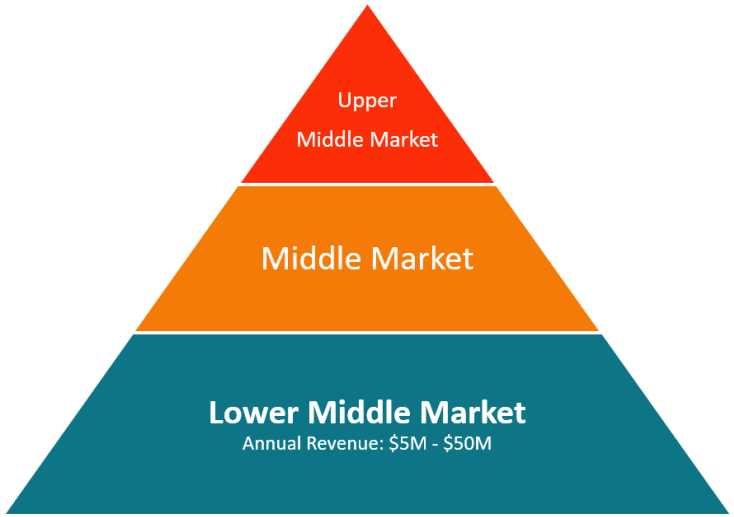
- Control majority of economic and voting interest
- Restructure financial, governance, and operational characteristics to increase profit
- Sell in 3 to 7 years
- ROI of around 20%

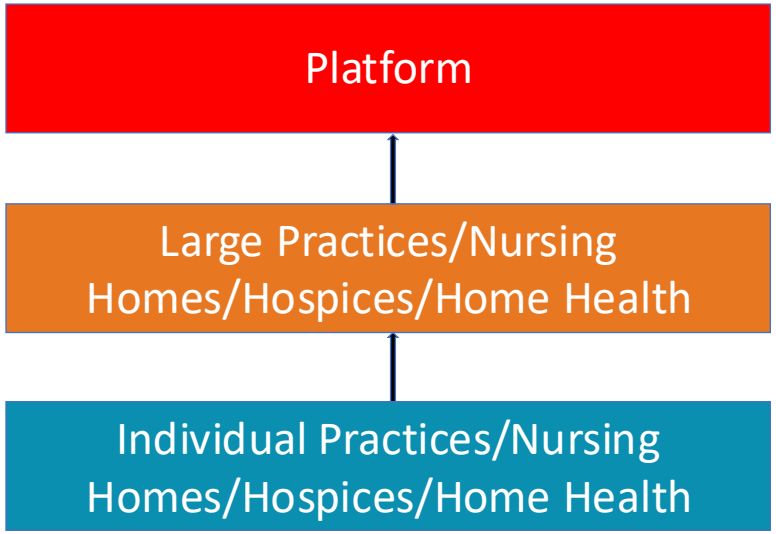
Private Equity Structure

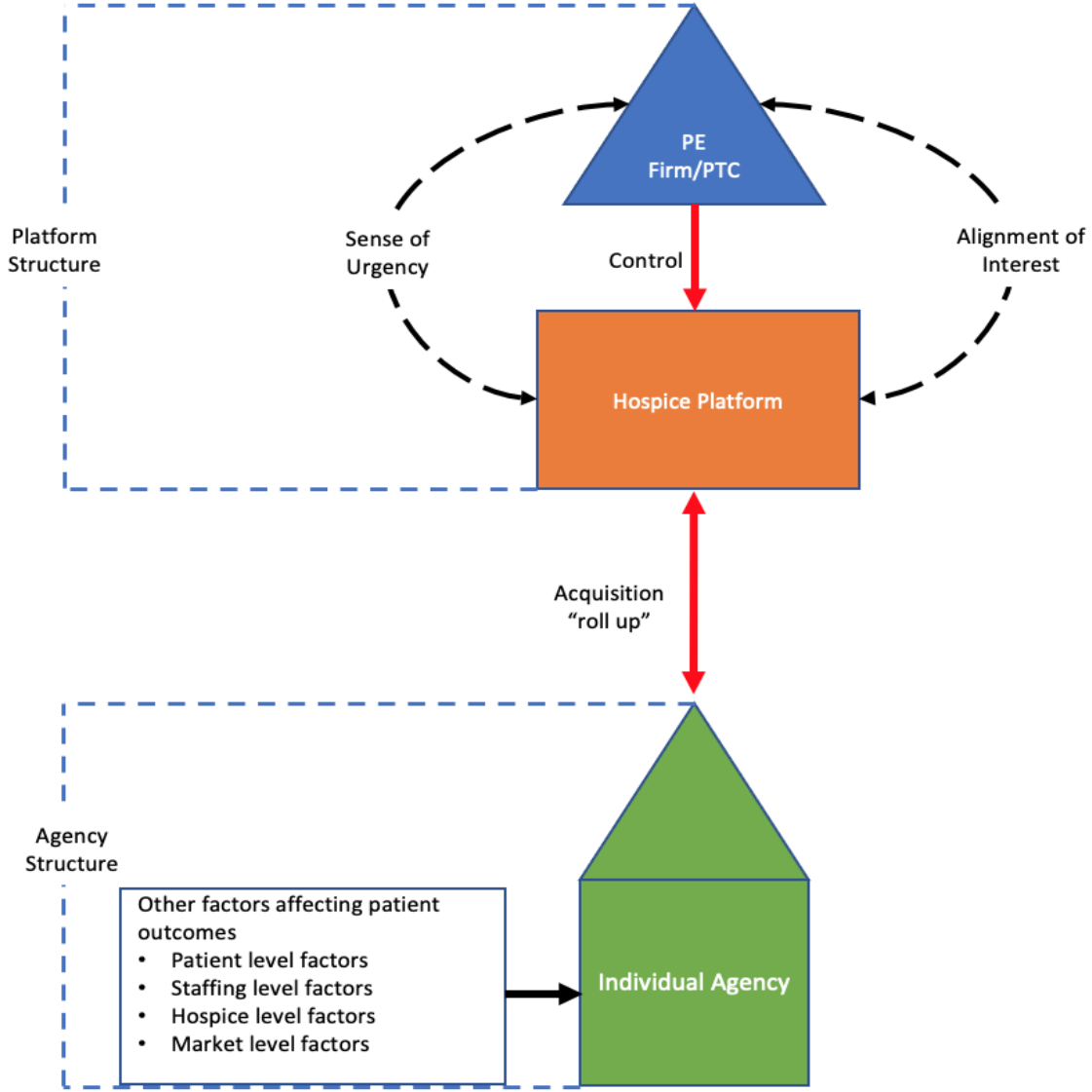
What Does Each Party Bring to the Table?



PE Markets

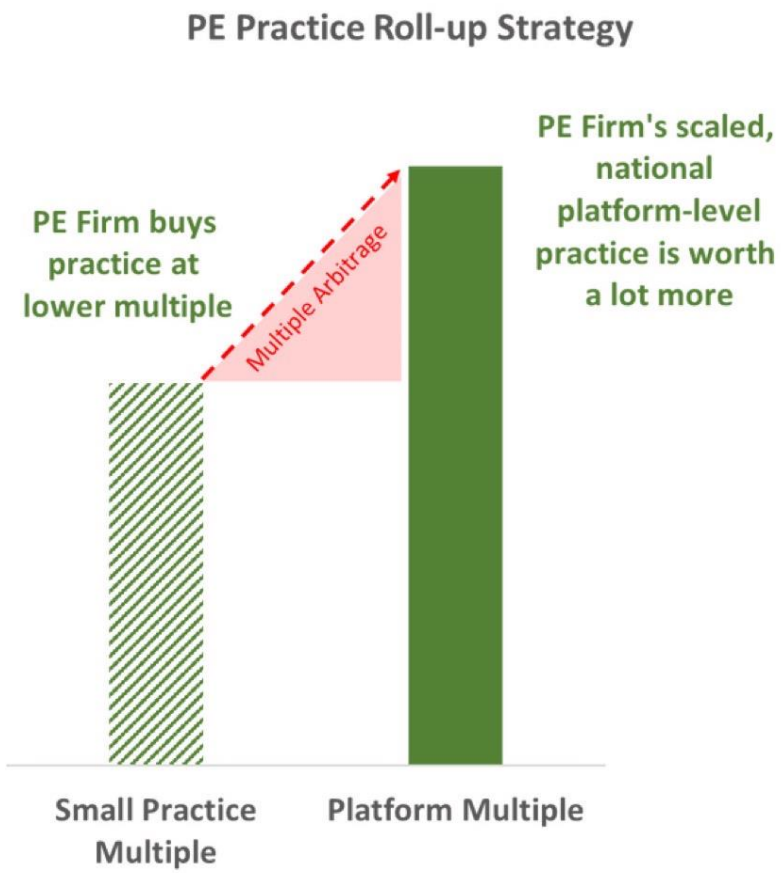

Upper
Middle Market
Middle Market
Lower Middle Market
Annual Revenue: $5M - $50M


Platform
Large Practices/Nursing Homes/Hospices/Home Health
Individual Practices/Nursing Homes/Hospices/Home Health

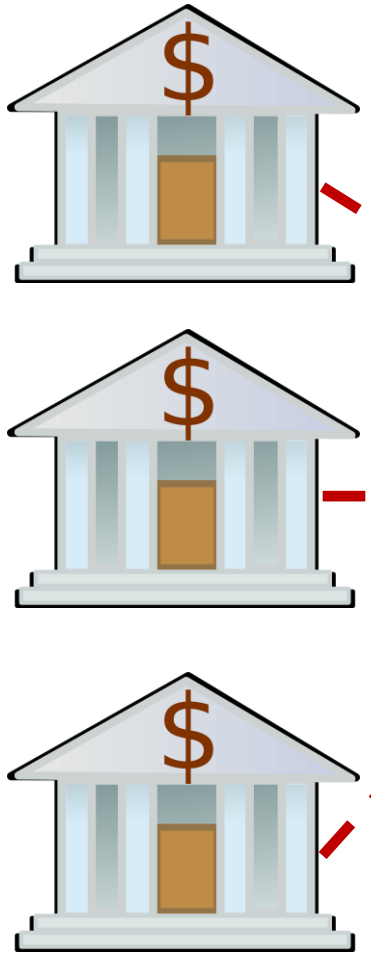

PE
Firm/PTC
Platform
Structure
Sense of
Urgency
Control
Alignment of
Interest
Hospice Platform
Acquisition
"roll up"
Agency
Structure
Other factors affecting patient outcomes
• Patient level factors
• Staffing level factors
• Hospice level factors
• Market level factors
Individual Agency

Roll-up Acquisitions

- EBITDA (earnings before interest, taxes, depreciation, and amortization)
  - proxy for operating cash flow
- PE focuses on fragmented markets to consolidate
- Generally, acquires a "platform practice" first
  - PE firms usually pay 8 to 12 times EBITDA for a platform practice
  - Uses the platform practice to recruit new clinicians and acquire smaller practices
  - Smaller practices 2 to 4 times EBITDA
  - Smaller practice now becomes the value of the platform practice



How Are Deals Financed?



Lender(s)

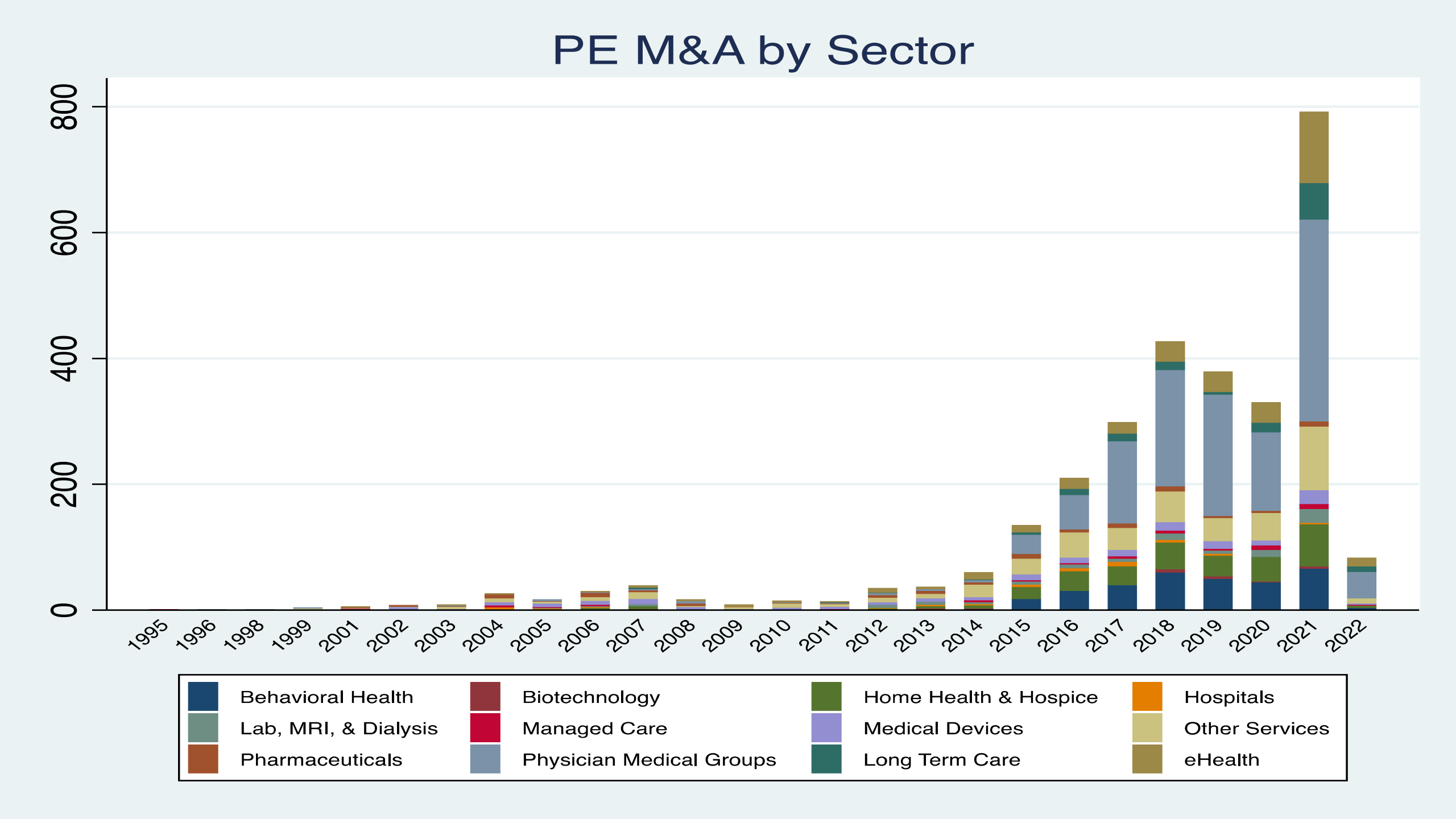
Investment Bank (Arranger)

Target's Valuation:	$1.0 B
Private Equity's Equity:	$500 M
Capital Needed to Raise:	$500 M
Target Sold:	$2.0 B
Returned to Lender(s):	$500 M
Private Equity's Profit:	$1.5 B

Private Equity Firm (Sponsor)

Target for Acquisition


PRIVATE EQUITY FIRM
PHYSICIAN OWNER
OWNS AND FUNDS THE PHYSICIAN PRACTICE MANAGEMENT COMPANY.
NON-CLINICAL ASSETS ARE TRANSFERRED TO THE MANAGEMENT COMPANY. MANAGEMENT COMPANY EMPLOYS NON-MEDICAL STAFF.
MANAGEMENT SERVICES ORGANIZATION (MSO)
PRACTICE (PC)
MANAGEMENT COMPANY PROVIDES MANAGEMENT SERVICES TO PHYSICIAN PRACTICE. PC PAYS THE MSO A MANAGEMENT FEE.

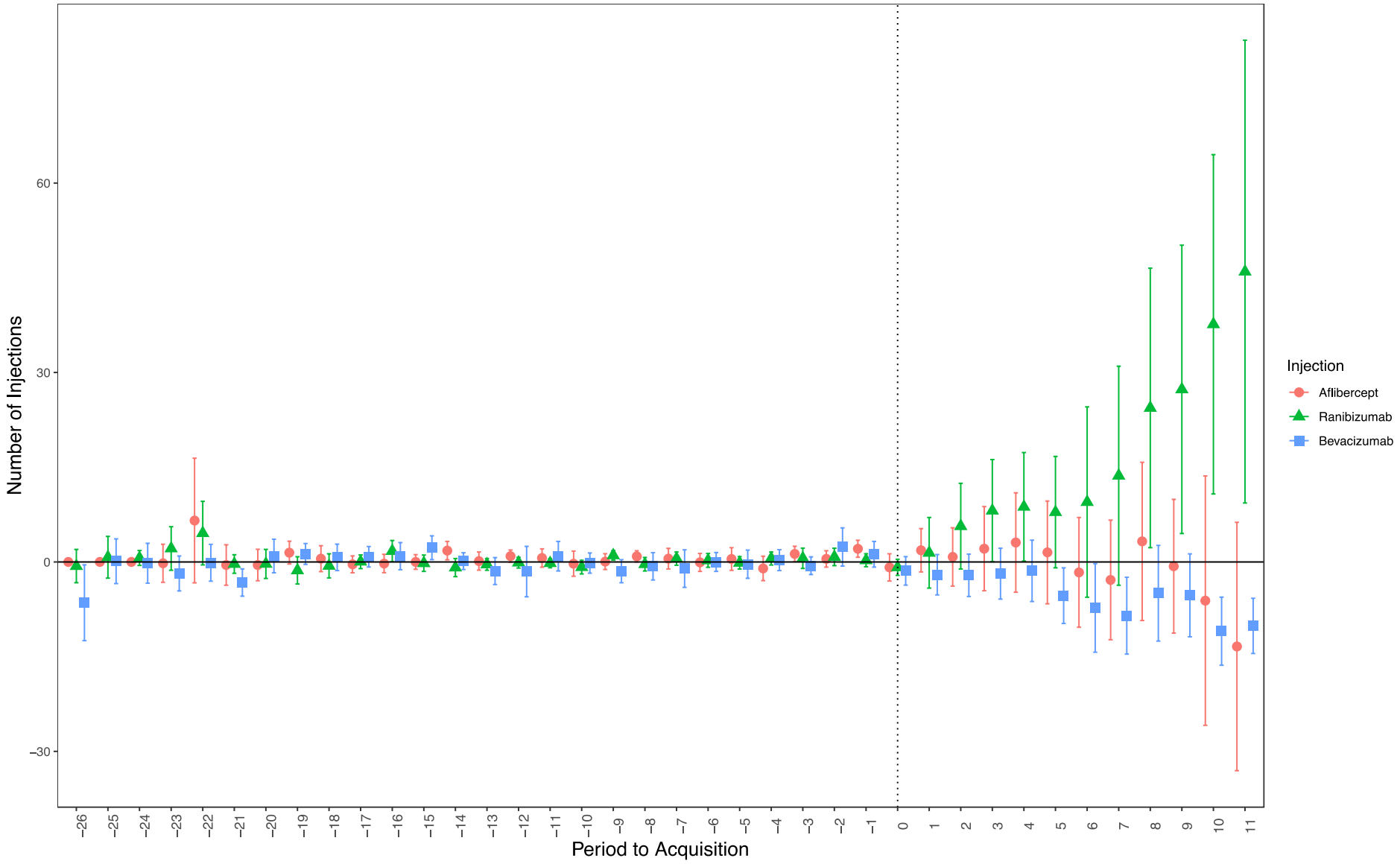

PE M&A by Sector
0
200
400
600
800
1995
1996
1998
1999
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014
2015
2016
2017
2018
2019
2020
2021
2022
Behavioral Health
Biotechnology
Home Health & Hospice
Hospitals
Lab, MRI, & Dialysis
Managed Care
Medical Devices
Other Services
Pharmaceuticals
Physician Medical Groups
Long Term Care
eHealth

Why are physicians selling their practices?

- Infusion of capital
- Administrative relief
- Standardization and knowledge transfer
- Improve market share against competitors
- More autonomy than selling to hospital or health plan
- Share in profits after PE firm sells (the "second bite of the apple")
- Improve payment with health plans
- Increase marketing budget to gain more self-pay patients
- Financial synergy
- Operational efficiency

Controversy

- **Young physicians** may work for decades at an income level discounted from preacquisition levels
  - They face significant buy-ins to profit from second sale
  - High turnover
- **Market failures and loopholes**
  - Surprise billing
  - Led to the No Surprise Billing Act
  - Medicare's payment for physician-administered drugs under Part B is tied to a percentage of the drug's average sales price
    - Incentives for physicians to prescribe the more expensive drug among competing options
  - Ophthalmology drugs to treat wet macular degeneration are very expensive and comprise of 15% of Part B's total costs
- **Stealth Consolidation**
  - Hart-Scott-Rodino Act mandates that all mergers and acquisitions must be reported to the federal government if the deal value is above $119.5 M
  - Anti-trust concerns
- **Increased risks of overutilization, overbilling, or upcoding**
- **Replacement of physicians with advanced practitioners**


Number of Injections
60
30
0
−30
−26
−25
−24
−23
−22
−21
−20
−19
−18
−17
−16
−15
−14
−13
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−11
−10
−9
−8
−7
−6
−5
−4
−3
−2
−1
0
1
2
3
4
5
6
7
8
9
10
11
Period to Acquisition
Injection
Aflibercept
Ranibizumab
Bevacizumab

Evidence

- Dermatology
- Anesthesiology
- Neonatology
- Hospice
- Nursing Homes

ORGANIZATION OF CARE

By Robert Tyler Braun, Amelia M. Bond, Yuting Qian, Manyao Zhang, and Lawrence P. Casalino

Private Equity In Dermatology: Effect On Price, Utilization, And Spending

DOI: 10.1377/hlthaff.2020.02062
HEALTH AFFAIRS 40, NO. 5 (2021): 727–735

ABSTRACT **Private equity firms have increasingly acquired physician practices, and particularly dermatology practices. Analyzing commercial claims from the Health Care Cost Institute (2012–17), we used a difference-in-differences design within an event study framework to estimate the prevalence of private equity acquisitions and their impact on dermatologist prices, spending, utilization, and volume of patients. By 2017 one in eleven dermatologists practiced in a private equity–owned practice, and private equity–owned practices employed four advanced practitioners for every ten dermatologists compared with three for non–private equity practices. Private equity firms targeted their acquisitions at larger practices that saw more commercially insured patients compared with practices that were never acquired by private equity firms. The volume of patients per private equity dermatologist ranged from 4.7 percent to 17.0 percent higher than the volume per non–private equity dermatologist up to nine quarters after acquisition. At 1.5 years after acquisition, prices paid to private equity dermatologists for routine medical visits were 3–5 percent higher than those paid to non–private equity dermatologists. There was no significant consistent impact on dermatology spending or use of biopsies, lesion destruction, or Mohs surgery. Policy makers and dermatology practice leaders may want to track the rapidly evolving phenomenon of private equity acquisitions.**

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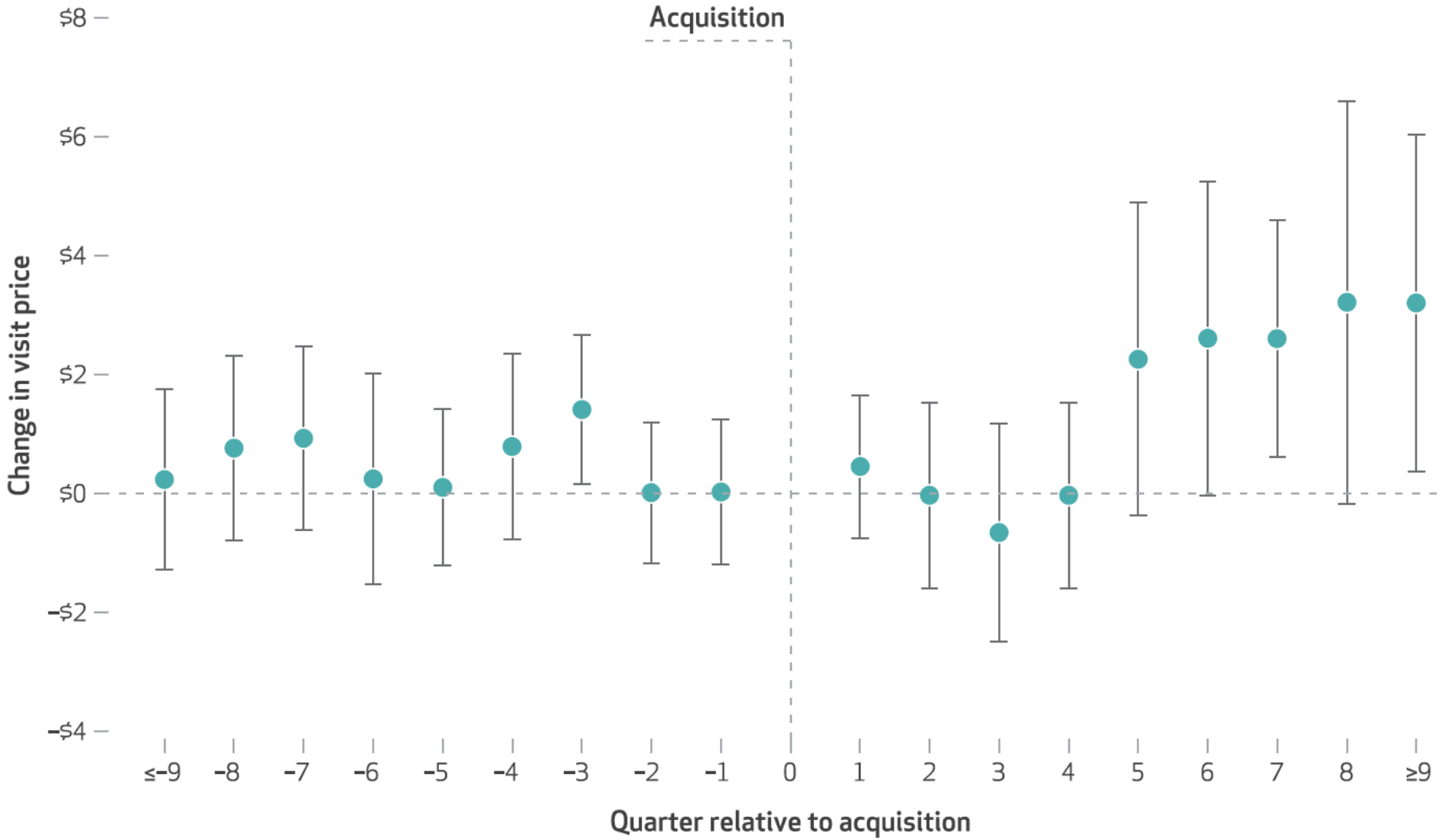
Lawrence P. Casalino is the Livingston Farrand Professor and chief of the Division of Health Policy and Economics, Department of Population Health Sciences, Weill Cornell Medicine.

EXHIBIT 4

Effect of private equity acquisition on the price of a routine dermatology office visit, by quarter, 2012–17



SOURCE Authors' analysis of Health Care Cost Institute data from 2012–17. **NOTE** Bars represent 95% confidence intervals.

JAMA Internal Medicine | Original Investigation

Association of Physician Management Companies and Private Equity Investment With Commercial Health Care Prices Paid to Anesthesia Practitioners

Ambar La Forgia, PhD; Amelia M. Bond, PhD; Robert Tyler Braun, PhD; Leah Z. Yao, BS; Klaus Kjaer, MD, MBA; Manyao Zhang, MA; Lawrence P. Casalino, MD, PhD

IMPORTANCE Physician management companies (PMCs), often backed by private equity (PE), are increasingly providing staffing and management services to health care facilities, yet little is known of their influence on prices.

OBJECTIVE To study changes in prices paid to practitioners (anesthesiologists and certified registered nurse anesthetists) before and after an outpatient facility contracted with a PMC.

DESIGN, SETTING, AND PARTICIPANTS This retrospective cohort study used difference-in-differences methods to compare price changes before and after a facility contracted with a PMC with facilities that did not and to compare differences between PMCs with and without PE investment. Commercial claims data (2012-2017) from 3 large national insurers in the Health Care Cost Institute database were combined with a novel data set of PMC facility contracts to identify prices paid to anesthesia practitioners in hospital outpatient departments and ambulatory surgery centers. The cohort included 2992 facilities that never contracted with a PMC and 672 facilities that contracted with a PMC between 2012 and 2017, collectively representing 2 255 933 anesthesia claims.

EXPOSURES Temporal variation in facility-level exposure to PMC contracts for anesthesia services.

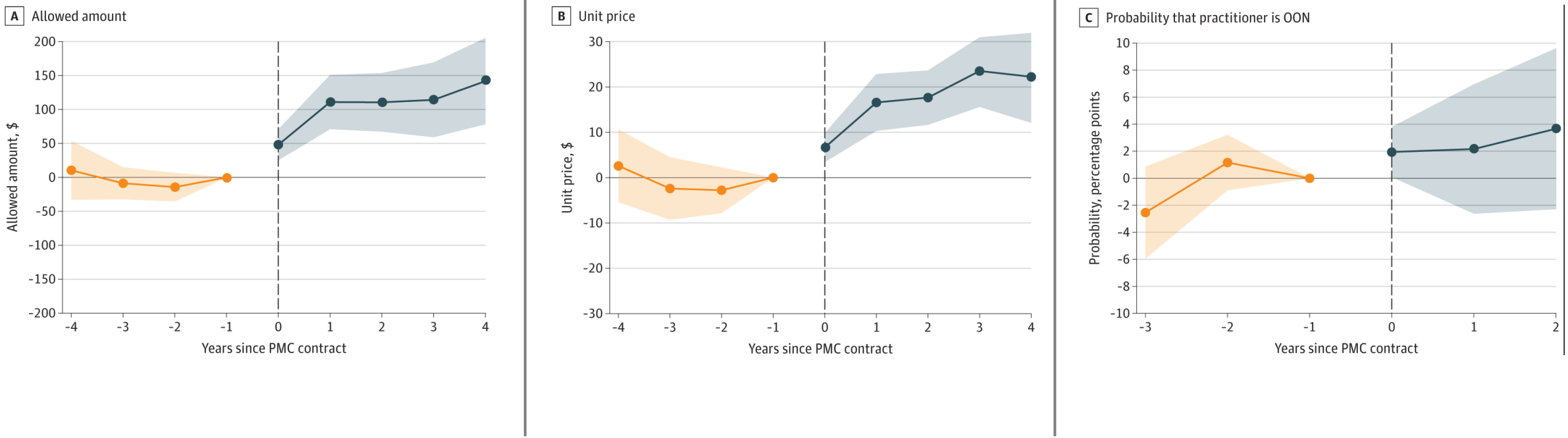
MAIN OUTCOMES AND MEASURES Main outcomes were (1) allowed amounts and the unit price (allowed amounts standardized per unit of service) paid to anesthesia practitioners; and (2) the probability that a practitioner was out of network.

RESULTS From before to after the PMC contract period, allowed amounts increased by 16.5% (+$116.39; 95% CI, $76.11 to $156.67; $P < .001$), and the unit price increased by 18.7% (+$18.79; 95% CI, $12.73 to $24.84; $P < .001$) in PMC facilities relative to non-PMC facilities. Results did not show evidence that anesthesia practitioners were moved out of network (+2.25; 95% CI, −2.56 to 7.06; $P < .36$). In subsample analyses, PMCs without PE investment increased allowed amounts by 12.9% (+$89.88; 95% CI, $42.07 to $137.69; $P < .001$), while PE-backed PMCs (representing half of the PMCs in the sample) increased allowed amounts by 26.0% ($187.06; 95% CI, $133.59 to $240.52; $P < .001$). Similar price increases were observed for unit prices.

CONCLUSIONS AND RELEVANCE In this cohort study, prices paid to anesthesia practitioners increased after hospital outpatient departments and ambulatory surgery centers contracted with a PMC and were substantially higher if the PMC received PE investment. This research provides insights into the role of corporate ownership in health care relevant to policy makers, payers, practitioners, and patients.

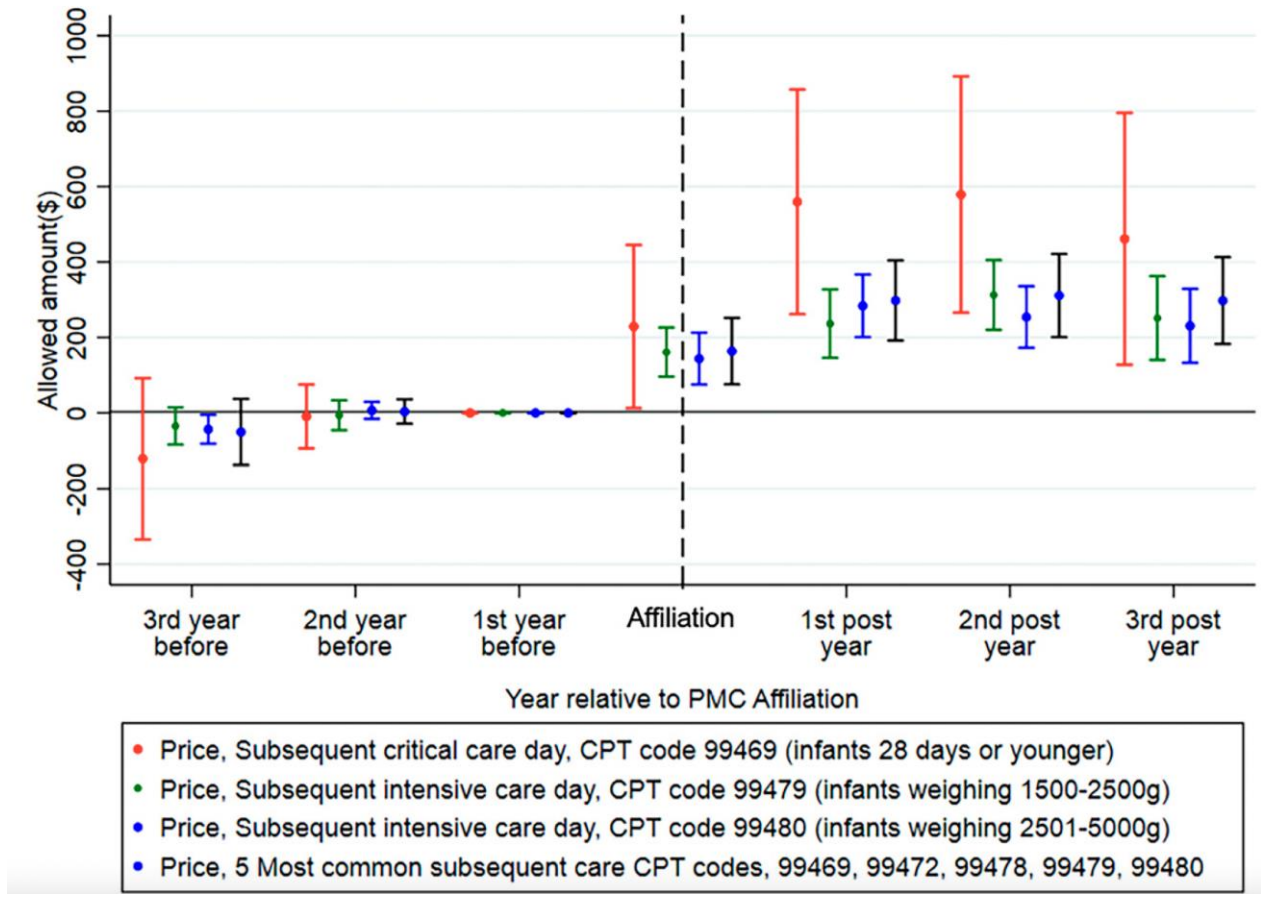
Invited Commentary
Multimedia
Supplemental content

Author Affiliations: Department of Health Policy and Management, Mailman School of Public Health, Columbia University, New York, New York (La Forgia); Division of Health Policy and Economics,


A
Allowed amount
Allowed amount, $
200
150
100
50
0
-50
-100
-150
-200
-4
-3
-2
-1
0
1
2
3
4
Years since PMC contract
B
Unit price
Unit price, $
30
20
10
0
-10
-20
-30
-4
-3
-2
-1
0
1
2
3
4
Years since PMC contract
C
Probability that practitioner is OON
Probability, percentage points
10
8
6
4
2
0
-2
-4
-6
-8
-10
-3
-2
-1
0
1
2
Years since PMC contract

Physician Management Companies and Neonatology Prices, Utilization, and Clinical Outcomes

Jiani Yu, PhD,[a] Robert Tyler Braun, PhD,[a] Amelia S. Bond, PhD,[a] Ambar M. La Forgia, PhD,[b] Arindam RoyChoudhury, PhD,[a] Manyao Zhang, MS,[a] Jin Kim, MS,[a] Lawrence P. Casalino, MD, PhD[a]


Allowed amount($)
-400
-200
0
200
400
600
800
1000
3rd year before
2nd year before
1st year before
Affiliation
1st post year
2nd post year
3rd post year
Year relative to PMC Affiliation
Price, Subsequent critical care day, CPT code 99469 (infants 28 days or younger)
Price, Subsequent intensive care day, CPT code 99479 (infants weighing 1500-2500g)
Price, Subsequent intensive care day, CPT code 99480 (infants weighing 2501-5000g)
Price, 5 Most common subsequent care CPT codes, 99469, 99472, 99478, 99479, 99480

Research Letter | Health Care Policy and Law

May 3, 2021

Acquisitions of Hospice Agencies by Private Equity Firms and Publicly Traded Corporations

Robert Tyler Braun, PhD[1]; David G. Stevenson, PhD[2,3]; Mark Aaron Unruh, PhD[1]

» Author Affiliations | Article Information

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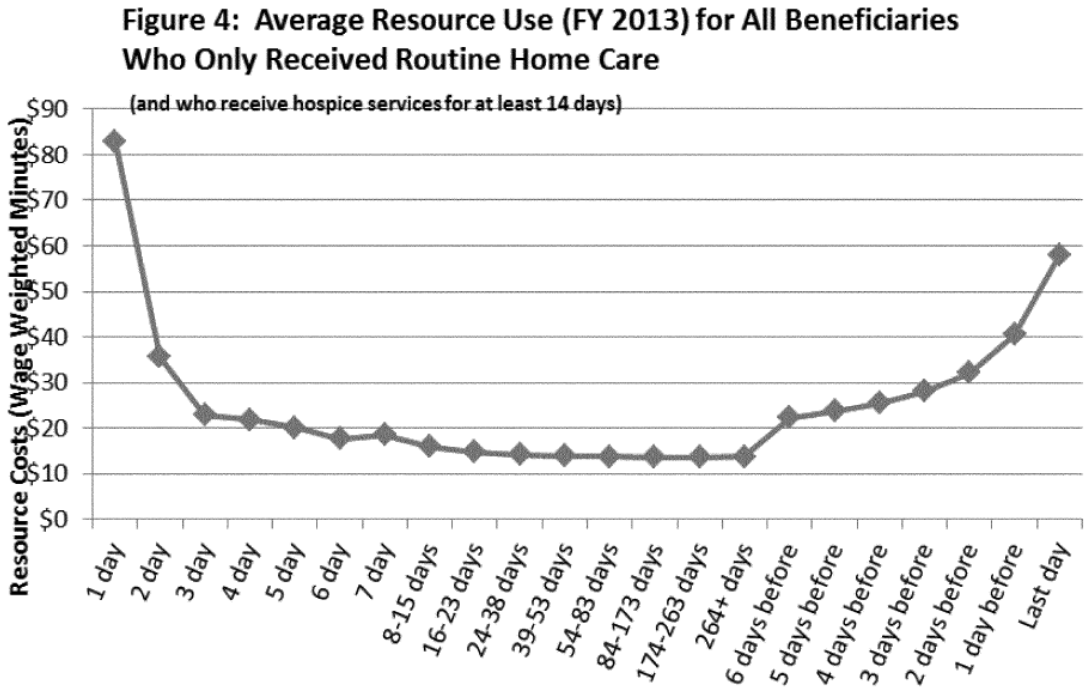
Introduction: Basics of hospice Medicare reimbursement structure

- Per diem rate for each beneficiary, irrespective of the actual services provided on a given day
- Levels of care:
  - Routine Home Care
  - Continuous Home Care
  - Inpatient Respite Care
  - General Respite Care
- U-shaped pattern of utilization



Medicare Program; FY 2016 Hospice Wage Index and Payment Rate Update and Hospice Quality Reporting Requirements; Final Rule

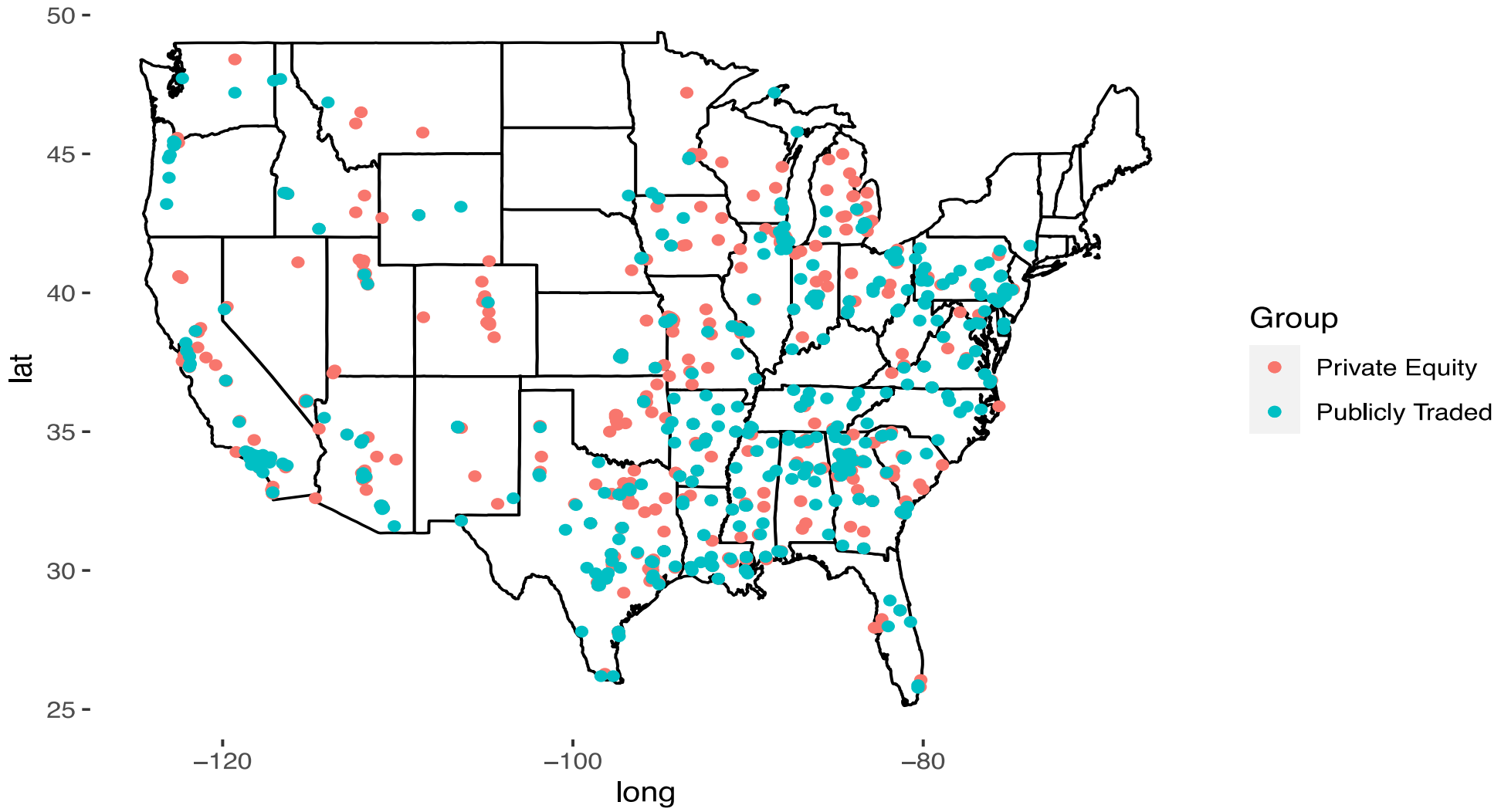
Hospice Profit Levers

- Profit-maximization
- Divest after extracting profit or maximize profit in the short term
- How to maximize profit?
  - Increasing net service revenue
    - Strengthening referral ties
    - Selectively targeting more profitable patients that require less complex care and are associated with longer lengths of stay
  - Decreasing operating costs
    - Cutting nursing wage costs
- What could this lead to?

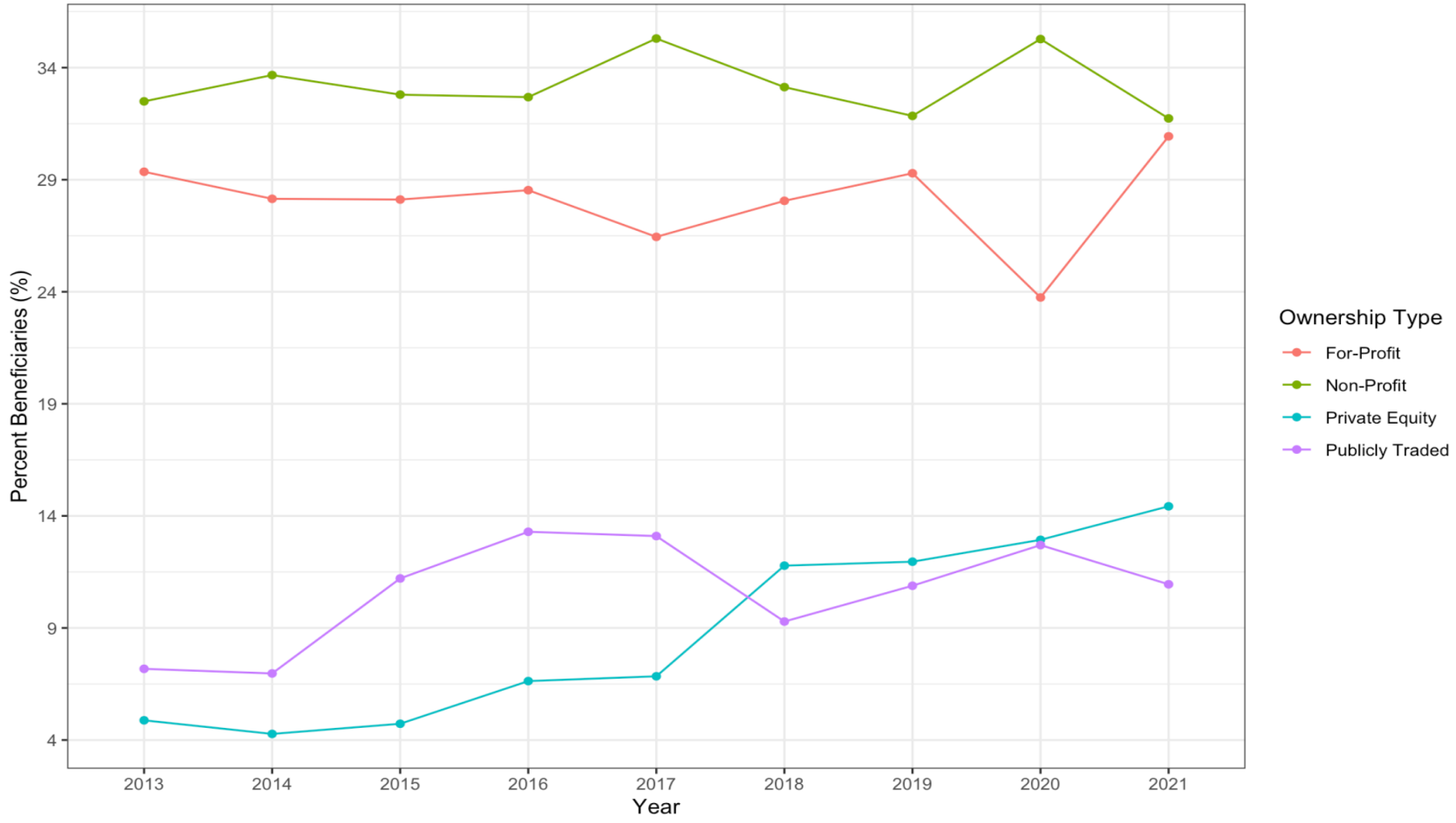
Introduction: Institutional Investors in Hospice Care

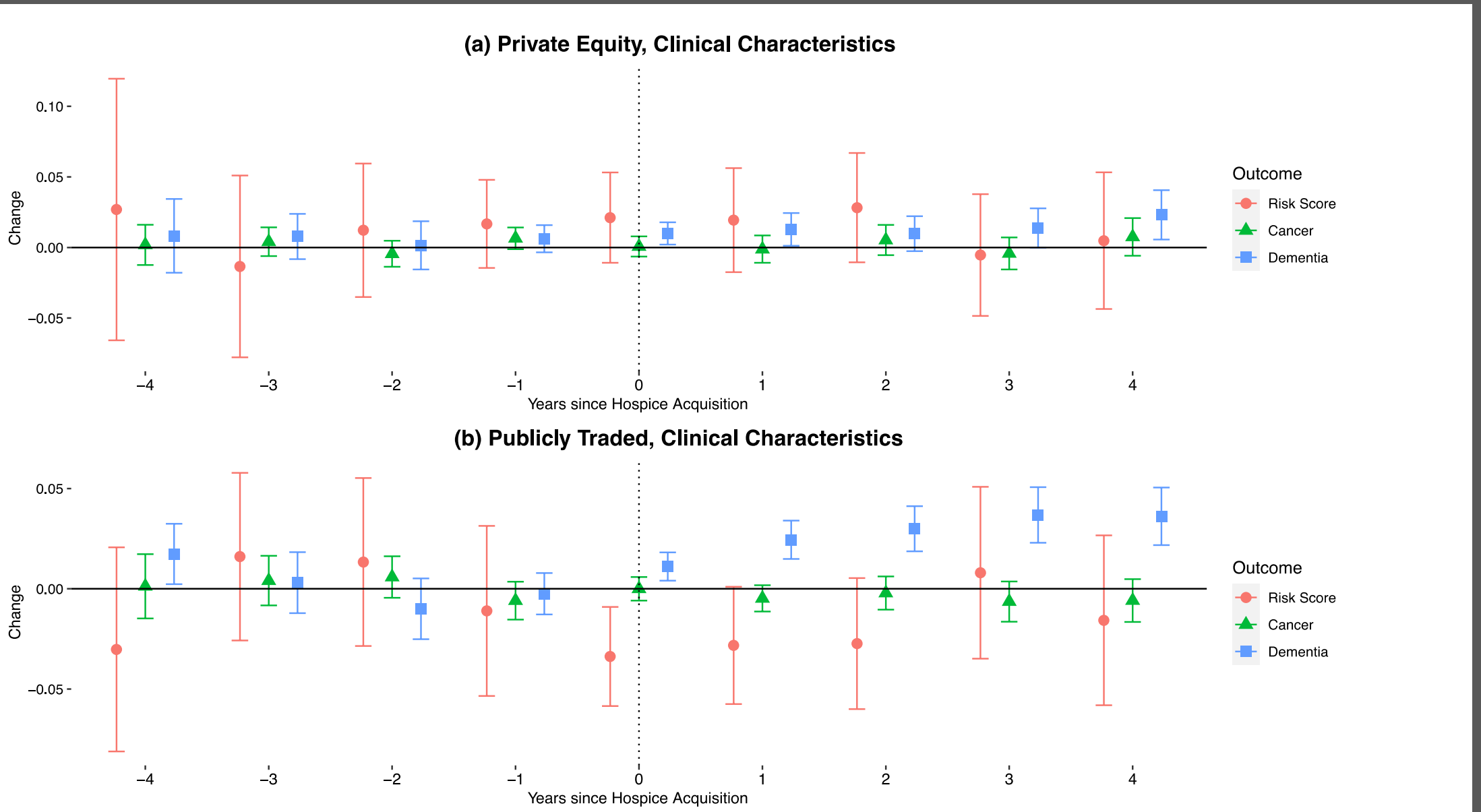
- Hospices are appealing to institutional investors due to the stable Medicare payments, relatively easy market entry, and minimal capital requirements
- Benefits (?): economies of scale through clinical standardization, quality improvement, and integrated systems, thereby enhancing care and profitability while reducing clinicians' administrative burdens
- Cons (?): prioritize short-term, above-market returns, potentially affecting patient care by reducing operational cost and selectively enrolling and targeting those requiring less complex care and longer hospice stays, such as dementia patients and nursing home residents
- For-profits tend to provide more care to patients with a clinical condition of ADRD and to fewer cancer patients relative to non-profits
    - ADRD patients tend to have longer lengths of stay
- For-profits and non-profits provide hospice in different places of care (i.e., personal home, nursing home, assisted living, etc.)
    - Referral ties tend to be different

Prevalence of Hospice Agencies Acquired by Private Equity Firms and Publicly Traded Corporations in 2021



Percent of Medicare Fee-for-Service Beneficiaries Who Received Care From Hospice Agencies Owned by Private Equity Firms and Publicly Traded Corporations, 2013-2021




(a) Private Equity, Clinical Characteristics
0.10
0.05
0.00
−0.05
Change
−4
−3
−2
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0
1
2
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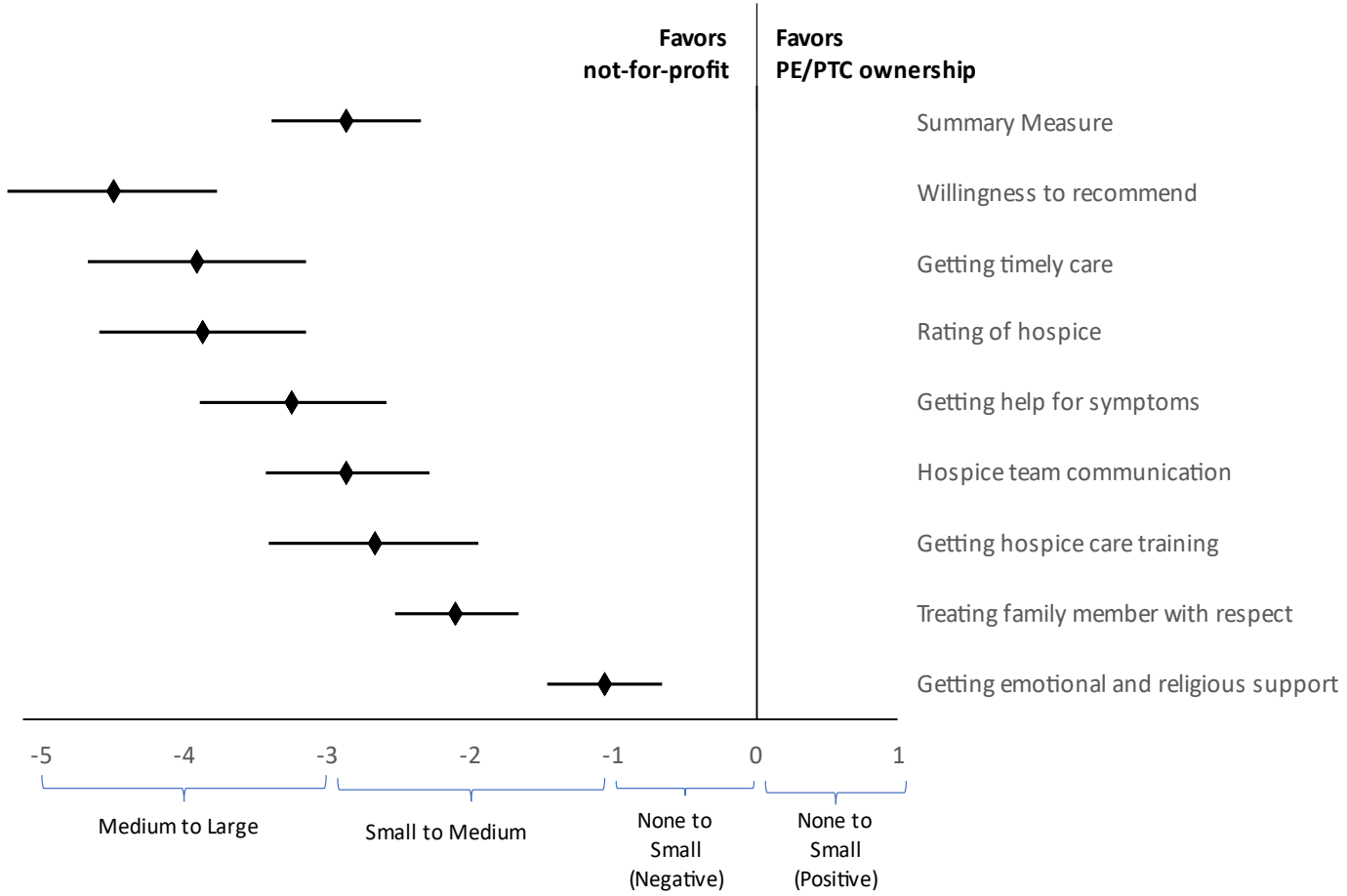
4
Years since Hospice Acquisition
Outcome
Risk Score
Cancer
Dementia
(b) Publicly Traded, Clinical Characteristics
0.05
0.00
−0.05
Change
−4
−3
−2
−1
0
1
2
3
4
Years since Hospice Acquisition
Outcome
Risk Score
Cancer
Dementia

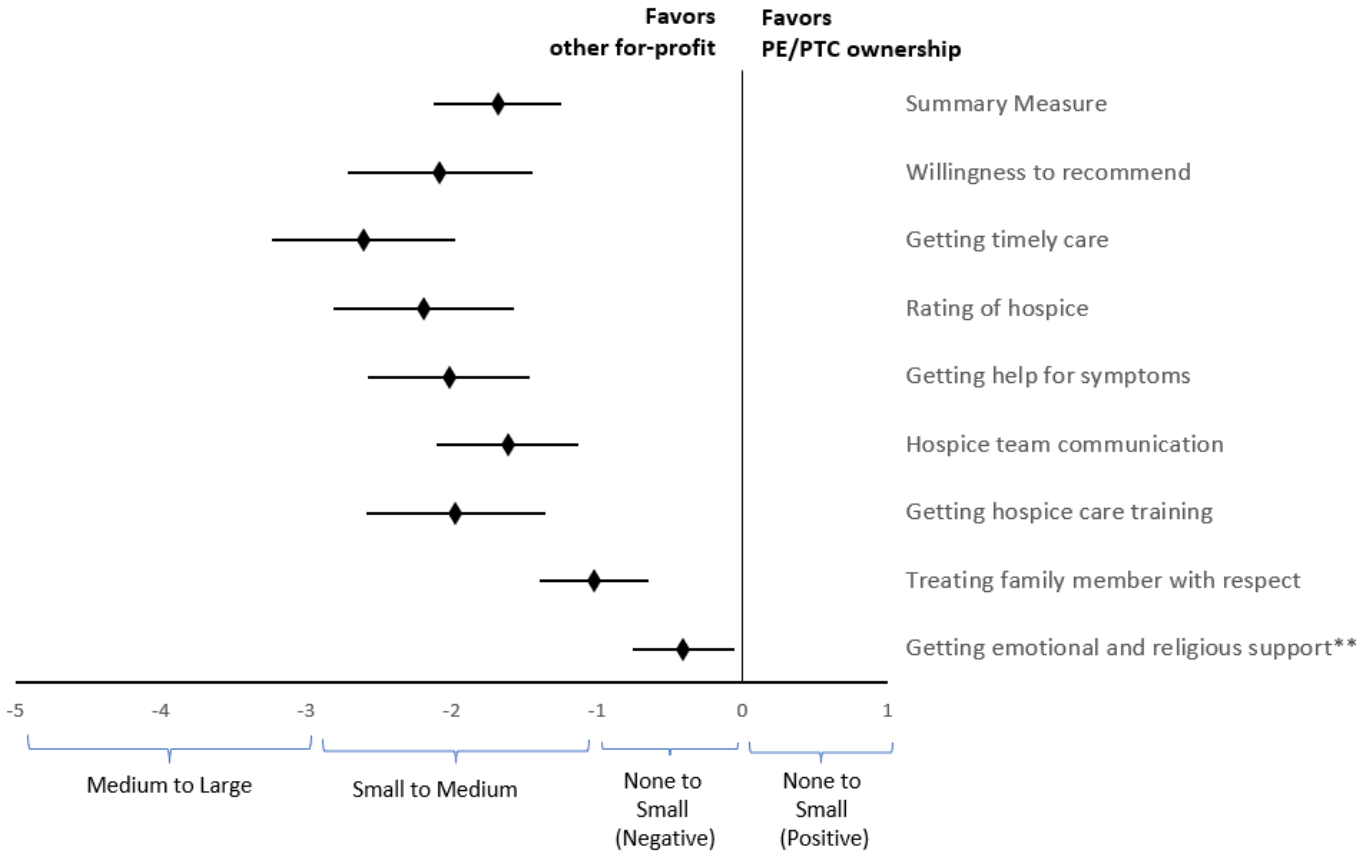
Adjusted Differences in Caregiver Reported Hospice Quality Between Private Equity/Public Traded Corporation Owned Hospices and Not-for-Profit Hospices

Measures	Estimate (95%CI)
Summary Measure	-2.86 (-3.38 to -2.34)
Willingness to recommend	-4.50 (-5.23 to -3.77)
Getting timely care	-3.91 (-4.67 to -3.15)
Rating of hospice	-3.87 (-4.59 to -3.15)
Getting help for symptoms	-3.87 (-4.59 to -3.15)
Hospice team communication	-2.86 (-3.44 to -2.29)
Getting hospice care training	-2.68 (-3.42 to -1.93)
Treating family member with respect	-2.10 (-2.53 to -1.67)
Getting emotional and religious support	-1.06 (-1.45 to -0.66)



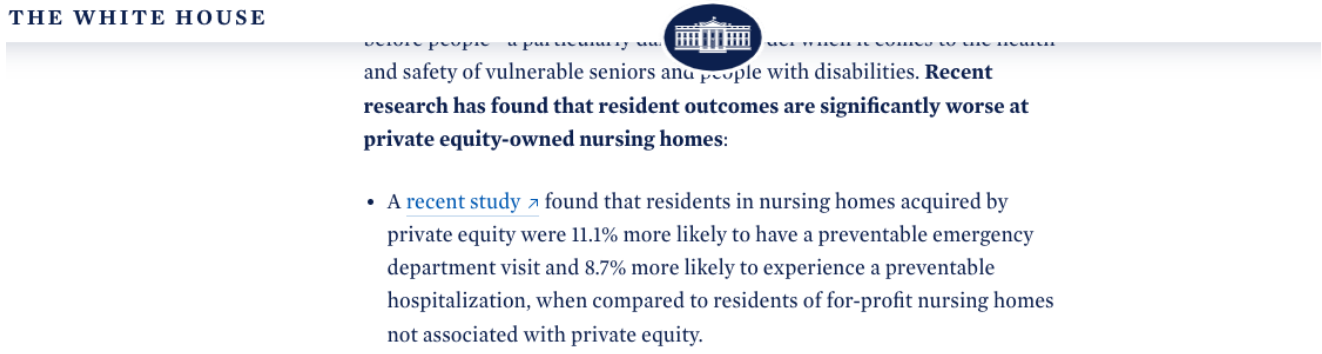
Adjusted Differences in Caregiver Reported Hospice Quality Between Private Equity/Public Traded Corporation Owned Hospices and Non-PE/PTC for-profit Hospices

Measures	Estimate (95%CI)
Summary Measure	-1.68 (-2.12 to -1.24)
Willingness to recommend	-2.08 (-2.72 to -1.44)
Getting timely care	-2.19 (-2.81 to -1.57)
Rating of hospice	-2.61 (-3.24 to -1.98)
Getting help for symptoms	-1.97 (-2.58 to -1.36)
Hospice team communication	-1.61 (-2.10 to -1.13)
Getting hospice care training	-2.02 (-2.57 to -1.46)
Treating family member with respect	-1.02 (-1.40 to -0.65)
Getting emotional and religious support	-0.40 (-0.75 to -0.053)



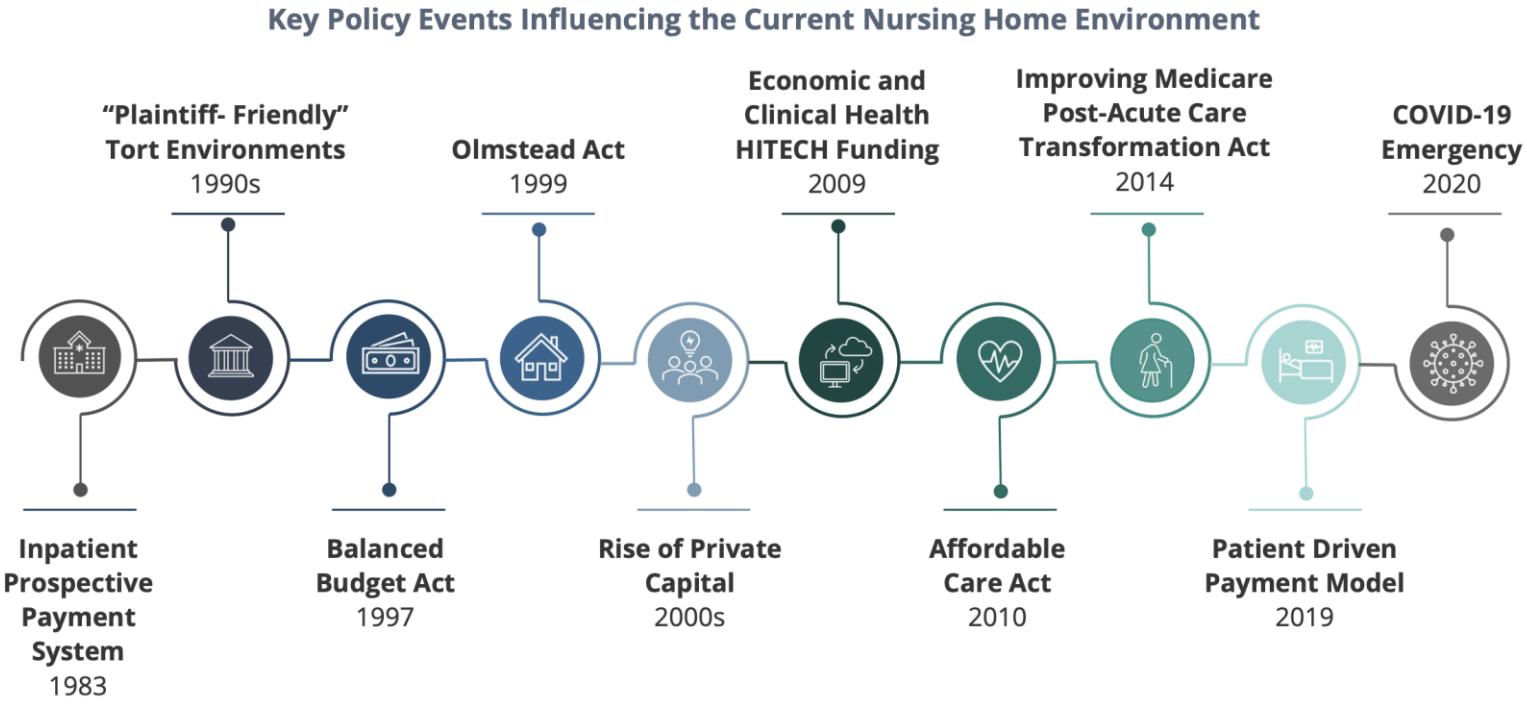
“As Wall Street firms take over more nursing homes, the quality in those homes has gone down and costs have gone up. That ends on my watch.”

-Joe Biden, President of the United States at the State of the Union



Nursing Homes—Why institutional investment got involved

Nursing Homes—How did we get here?



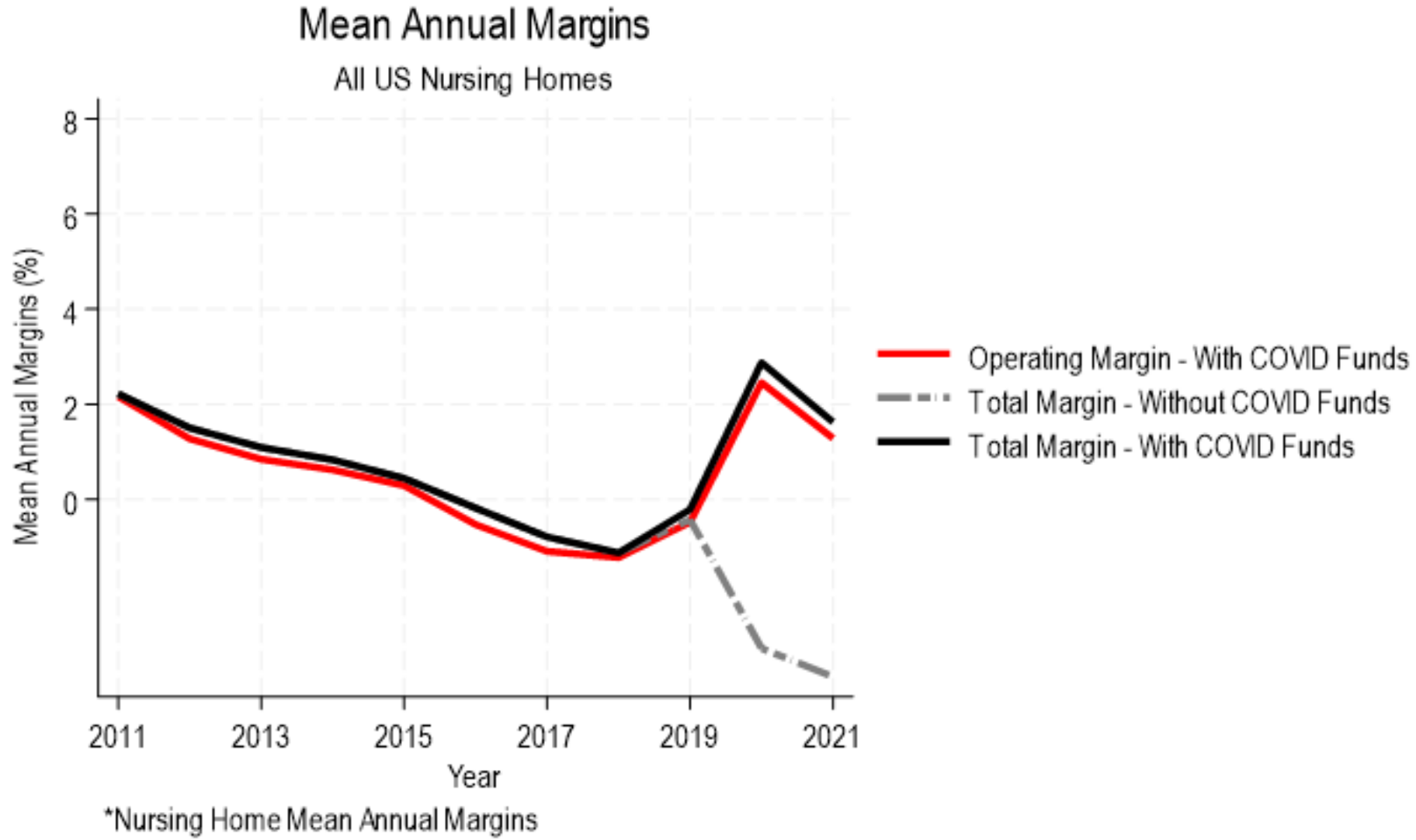
ATI Advisory Services: Key Characteristics of U.S. Nursing Homes – A Databook , June 2022

What makes nursing homes different from other healthcare settings?

- Only Medicaid long-term care benefit that federal law requires state Medicaid programs to offer
- Only care environment in which healthcare dollars (through Medicaid) fund housing
- More than half of their revenue from federal and state government sources (Medicare via fee-for-service (FFS) and Medicare Advantage, and Medicaid) and deliver medical and long-term care benefits within the same building

Challenges

- Increasingly serving a more complex patient population
- Battling increasing hiring and retention costs
- Struggling amidst an increasingly tighter reimbursement environment


Mean Annual Margins
All US Nursing Homes
Mean Annual Margins (%)
8
6
4
2
0
2011
2013
2015
2017
2019
2021
Year
Operating Margin - With COVID Funds
Total Margin - Without COVID Funds
Total Margin - With COVID Funds
*Nursing Home Mean Annual Margins

Capital Options

- Banks
- Tax-exempt bonds (non-profits)
- HUD 232 loans
  - Often lender of last resort
  - Slow, laborious process
- Institutional investment: Private equity and Real Estate Investment trusts (REITs)
- What is a nursing home to do with poor government policy, declining reimbursements, and a more complex case-mix?

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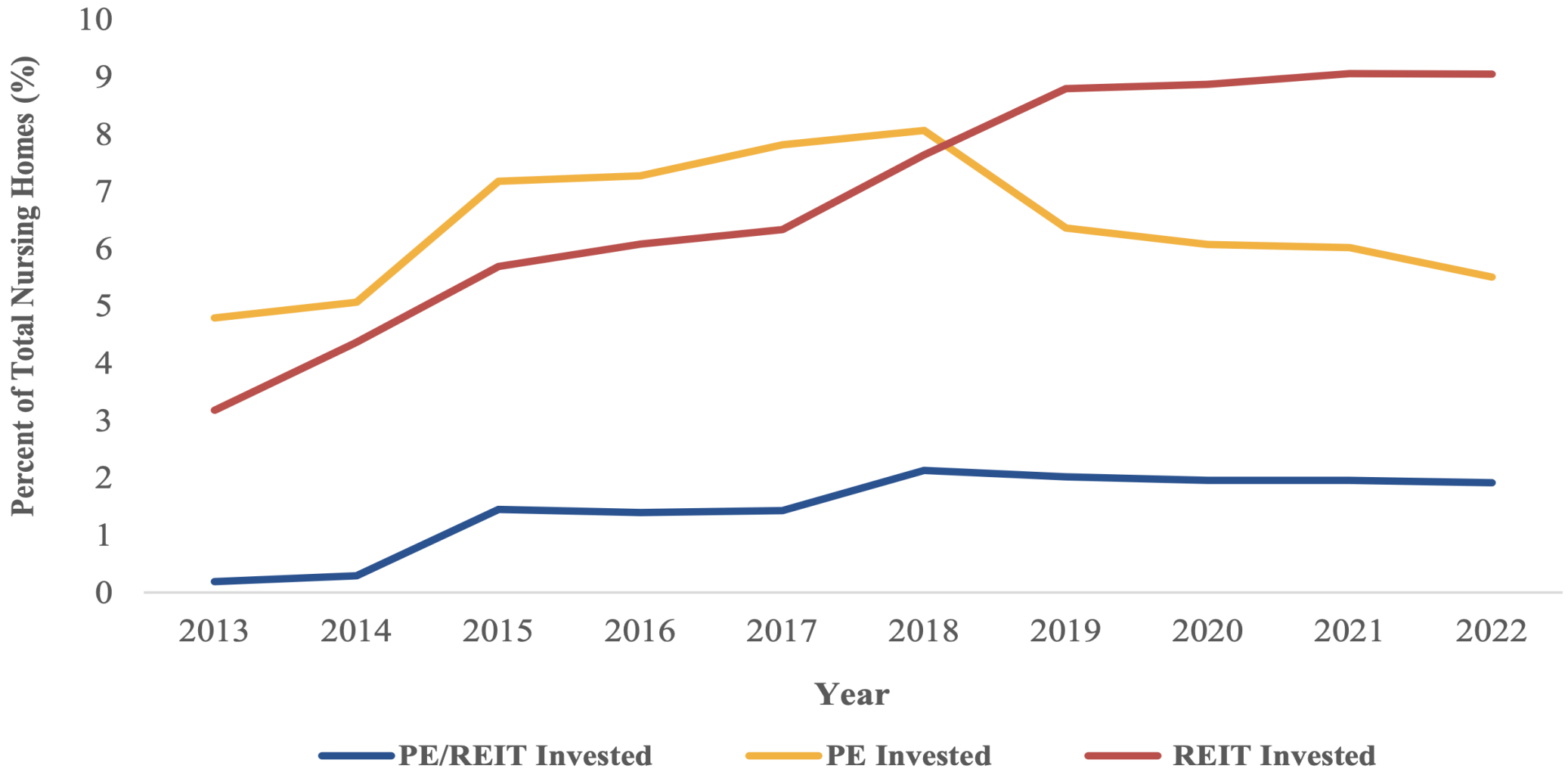
RESEARCH BRIEF

November 13, 2023

TRENDS IN OWNERSHIP STRUCTURES OF U.S. NURSING HOMES AND THE RELATIONSHIP WITH FACILITY TRAITS AND QUALITY OF CARE (2013-2022)

Exhibit 1: PE, REIT, and PE/REIT Invested Facilities by Year, 2013-2022



*Data sourced from CASPER, S&P Capital IQ, and Irving Levin Associates Health Care M&A Transaction Data. Categories are not mutually exclusive, meaning that PE/REIT facilities (where there is joint PE and REIT investment) are also counted in the PE and REIT categories.

JAMA Health Forum

Original Investigation

Association of Private Equity Investment in US Nursing Homes With the Quality and Cost of Care for Long-Stay Residents

Robert Tyler Braun, PhD; Hye-Young Jung, PhD; Lawrence P. Casalino, MD, PhD; Zachary Myslinski, MD; Mark Aaron Unruh, PhD

Abstract

IMPORTANCE Private equity firms have been acquiring US nursing homes; an estimated 5% of US nursing homes are owned by private equity firms.

OBJECTIVE To examine the association of private equity acquisition of nursing homes with the quality and cost of care for long-stay residents.

DESIGN, SETTING, AND PARTICIPANTS In this cohort study of 302 private equity nursing homes with 9632 residents and 9562 other for-profit homes with 249 771 residents, a novel national database of private equity nursing home acquisitions was merged with Medicare claims and Minimum Data Set assessments for the period from 2012 to 2018. Changes in outcomes for residents in private equity–acquired nursing homes were compared with changes for residents in other for-profit nursing homes. Analyses were performed from March 25 to June 23, 2021.

EXPOSURE Private equity acquisitions of 302 nursing homes between 2013 and 2017.

MAIN OUTCOMES AND MEASURES This study used difference-in-differences analysis to examine the association of private equity acquisition of nursing homes with outcomes. Primary outcomes were quarterly measures of emergency department visits and hospitalizations for ambulatory care–sensitive (ACS) conditions and total quarterly Medicare costs. Antipsychotic use, pressure ulcers, and severe pain were examined in secondary analyses.

Key Points

Question Is private equity acquisition of nursing homes associated with the quality or cost of care for long-stay nursing home residents?

Findings In this cohort study with difference-in-differences analysis of 9864 US nursing homes, including 9632 residents in 302 nursing homes acquired by private equity firms and 249 771 residents in 9562 other for-profit nursing homes without private equity ownership, private equity acquisition of nursing homes was associated with higher costs and increases in emergency department visits and hospitalizations for ambulatory sensitive conditions.

Meaning This study suggests that more stringent oversight and reporting on private equity ownership of nursing homes may be warranted.

Locations of Nursing Homes Acquired by Private Equity Firms, 2013-2017

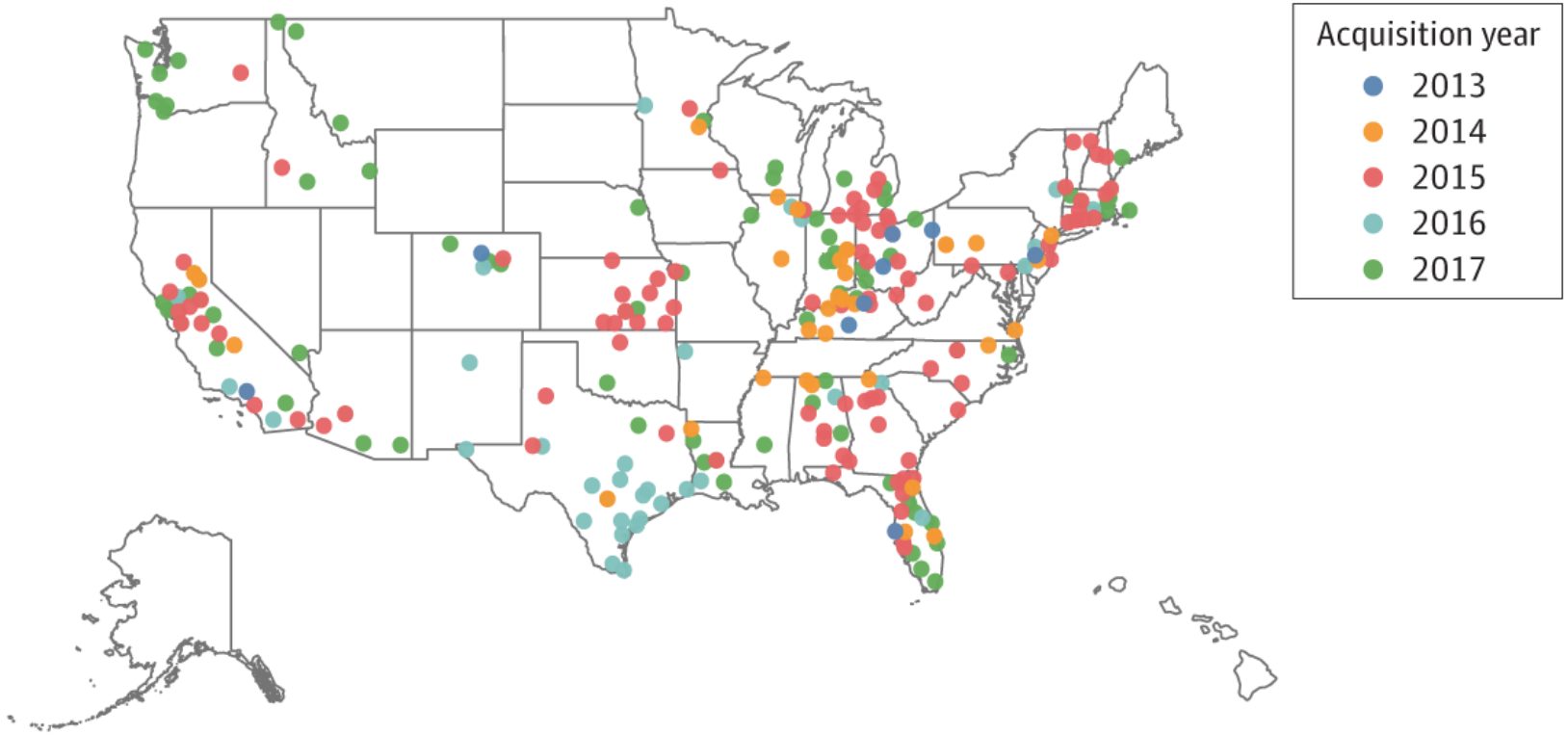


Table 2. Changes in Quality and Costs for Long-Stay Nursing Home Residents After PE Firm Acquisition Compared With For-Profit Nursing Homes Without PE Firm Ownership[a]

Outcome	Pooled sample, 2012-2018, No. (%)[b]	Preacquisition period, 2012				Postacquisition period, 2018			Differential change				Relative change, %[c]
		All	PE	For-profit	Unadjusted difference	PE	Non-PE	Unadjusted difference	Unadjusted (95% CI)	*P* value	Adjusted (95% CI)	*P* value	
Quality measures													
Emergency department visit (n = 2 383 491)	336 072 (14.1)	15.3	15.3	15.3	0	20.1	18.1	2.0	2.0 (1.0 to 4.0)	.01	1.7 (0.3 to 3.0)	.02	11.1
Hospitalization (n = 2 383 491)	412 344 (17.3)	11.5	10.4	11.5	−1.1	14.6	14.5	0.1	1.2 (0.01 to 2.3)	.04	1.0 (0.2 to 1.1)	.003	8.7
Cost measure													
Total costs (n = 2 383 491), mean (SD), $	8050.00 (9.90)	6972.04 (39.60)	7066.26 (208.72)	6968.43 (40.30)	97.83 (212.60)	8818.60 (126.30)	8626.75 (24.84)	191.85 (28.72)	94.02 (−392.42 to 580.50)	.85	270.37 (41.53 to 499.20)	.02	3.9

Abbreviation: PE, private equity.

[a] Linear regressions were used for estimation. All models included the following covariates: age group (65-69, 70-74, 75-79, 80-84, and ≥85 years), race and ethnicity (Black, White, other non-White race [Asian, Hispanic, North American Native, and other]), sex, dual eligibility for Medicare and Medicaid, indicators for 66 chronic and disabling conditions used for risk adjustment (see eTable 2 in the Supplement for a list of the chronic conditions), activities of daily living score at initial assessment (range, 1-28, where a higher score indicates a greater need for assistance with activities of daily living)), and severe cognitive impairment (scores >3 on the 4-point Cognitive Function Scale). Nursing home characteristics included occupancy rate, an indicator for multifacility affiliation, total number of beds, and terciles of the distributions of the percentage of patients covered by Medicare and the percentage covered by Medicaid. Other covariates included fixed effects for quarter, year, nursing home, Hospital Referral Region, and Hospital Referral Region interaction with year. The unit of analysis is at the resident-quarter level. Standard errors were adjusted for clustering at the level of the nursing home.

[b] The pooled sample consists of all resident observations from 2012 to 2018.

[c] Relative changes were derived from the sample by dividing the adjusted estimates for all outcomes by the unadjusted mean of the outcomes in the preacquisition period (2012).

By Amanda C. Chen, Robert J. Skinner, Robert Tyler Braun, R. Tamara Konetzka, David G. Stevenson, and David C. Grabowski

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New CMS Nursing Home Ownership Data: Major Gaps And Discrepancies

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ABSTRACT **Nursing home ownership has become increasingly complicated, partly because of the growth of facilities owned by institutional investors such as private equity (PE) firms and real estate investment trusts (REITs). Although the ownership transparency and accountability of nursing homes have historically been poor, the Biden administration's nursing home reform plans released in 2022 included a series of data releases on ownership. However, our evaluation of the newly released data identified several gaps: One-third of PE and fewer than one-fifth of REIT investments identified in the proprietary Irving Levin Associates and S&P Capital IQ investment data were present in Centers for Medicare and Medicaid Services (CMS) publicly available ownership data. Similarly, we obtained different results when searching for the ten top common owners of nursing homes using CMS data and facility survey reports of chain ownership. Finally, ownership percentages were missing in the CMS data for 82.40 percent of owners in the top ten chains and 55.21 percent of owners across all US facilities. Although the new data represent an important step forward, we highlight additional steps to ensure that the data are timely, accurate, and responsive. Transparent ownership data are fundamental to understanding the adequacy of public payments to provide patient care, enable policy makers to make timely decisions, and evaluate nursing home quality.**

Discussion

- Private equity is a growing player across the healthcare sector
- The jury is still out on their advantages and disadvantages
- Physician practices
  - Prices paid (the negotiated rate between practice and insurer) increase after private equity acquisition
  - Quality and utilization of care is mixed after private equity acquisition
  - Increased use of advanced practitioners
- What is the value being created? From the physician and patient perspectives?
- Long-term care
  - Increase ownership transparency and set federal certification criteria for ownership (In Progress)
  - Require greater financial transparency and accuracy

Dr. Braun's Final Thought

- Include policies that incorporate capital market dynamics—policymaking focused on a small percentage of the industry (private equity) can unintentionally sever access to capital

Thank you!

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