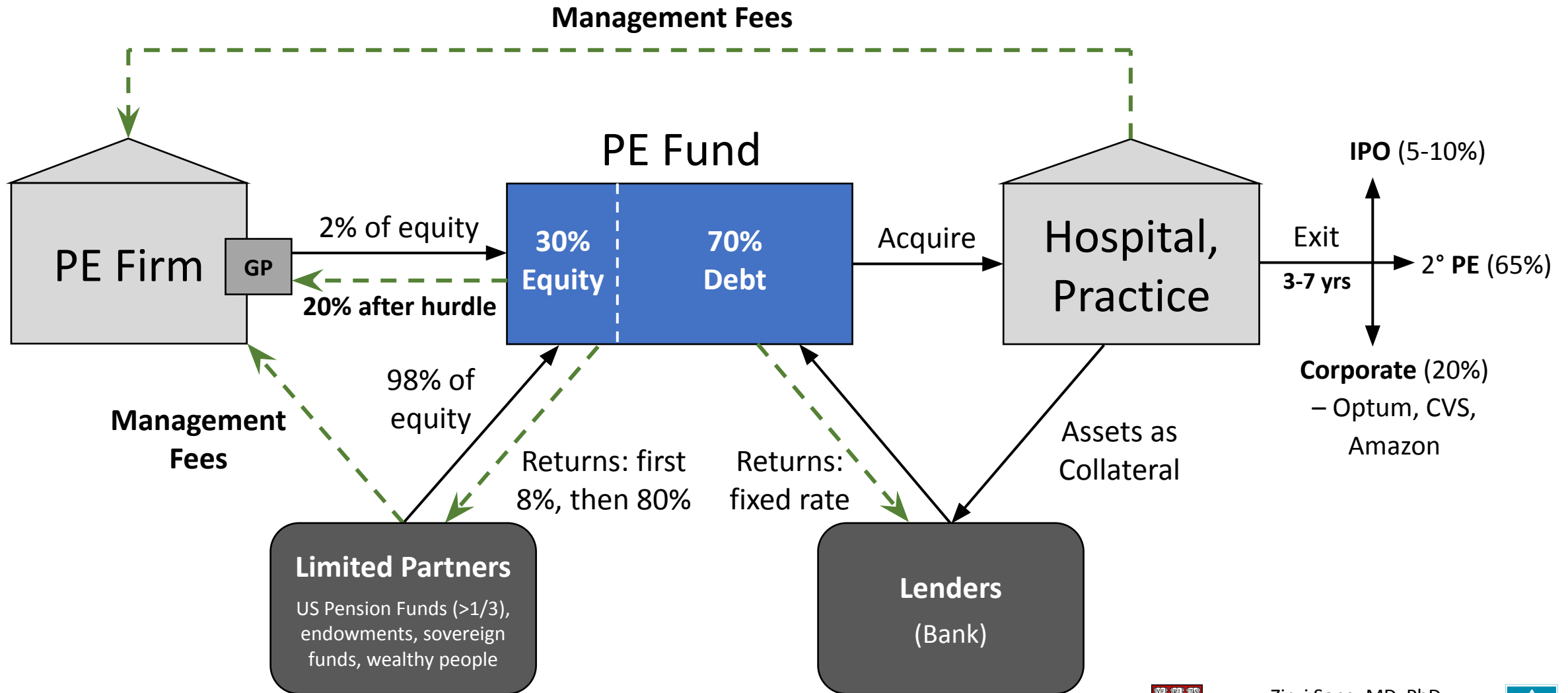


# Private Equity Acquisitions of Hospitals & Nursing Homes

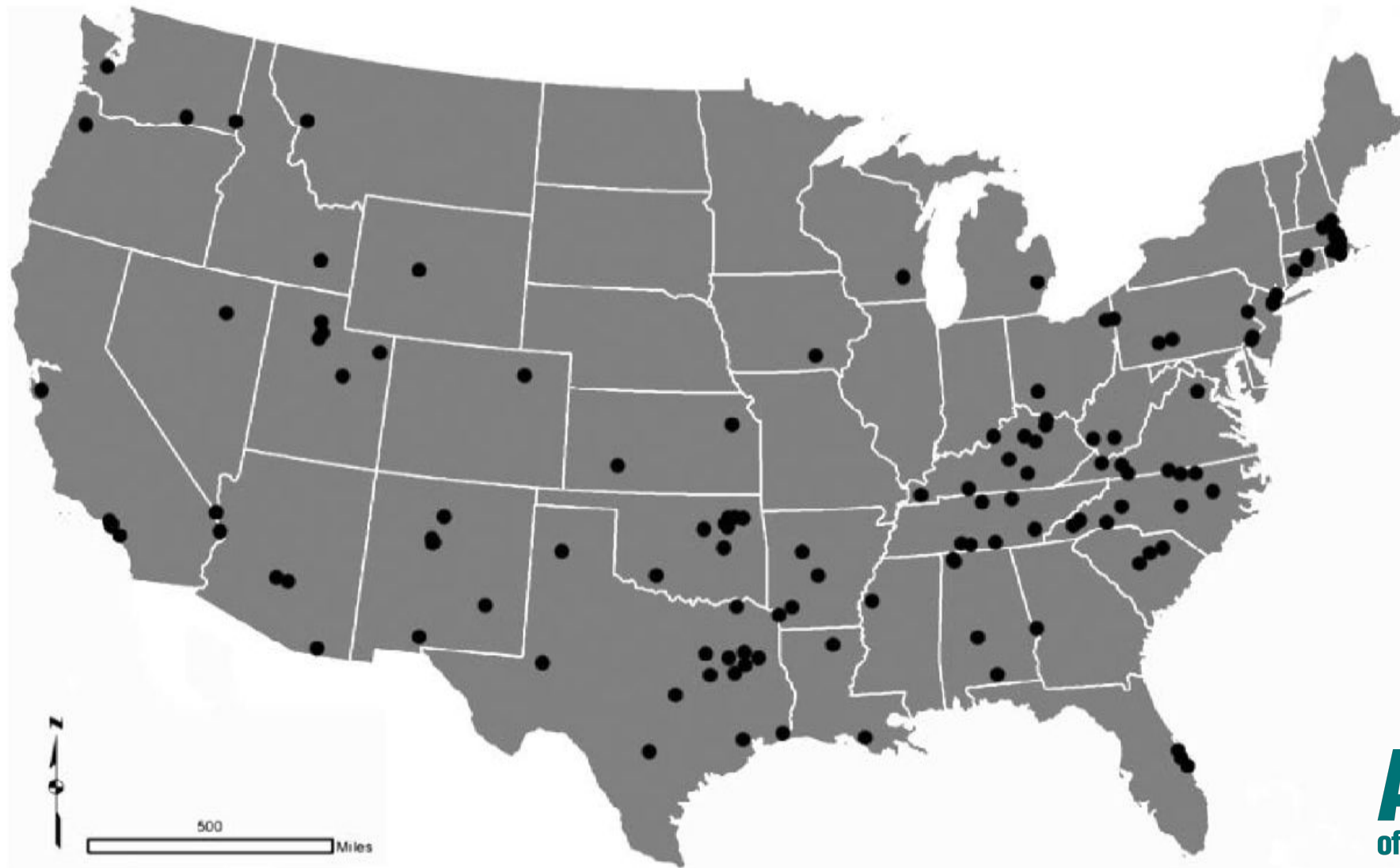
NIHCM Webinar  
June 6, 2023

Zirui Song, MD, PhD

# Classic Model of a Private Equity Acquisition



# Private Equity Acquisitions of Hospitals



# Changes in Hospital Income, Use, and Quality Associated With Private Equity Acquisition

Figure. Total Charge to Cost Ratios Before and After Private Equity Acquisition

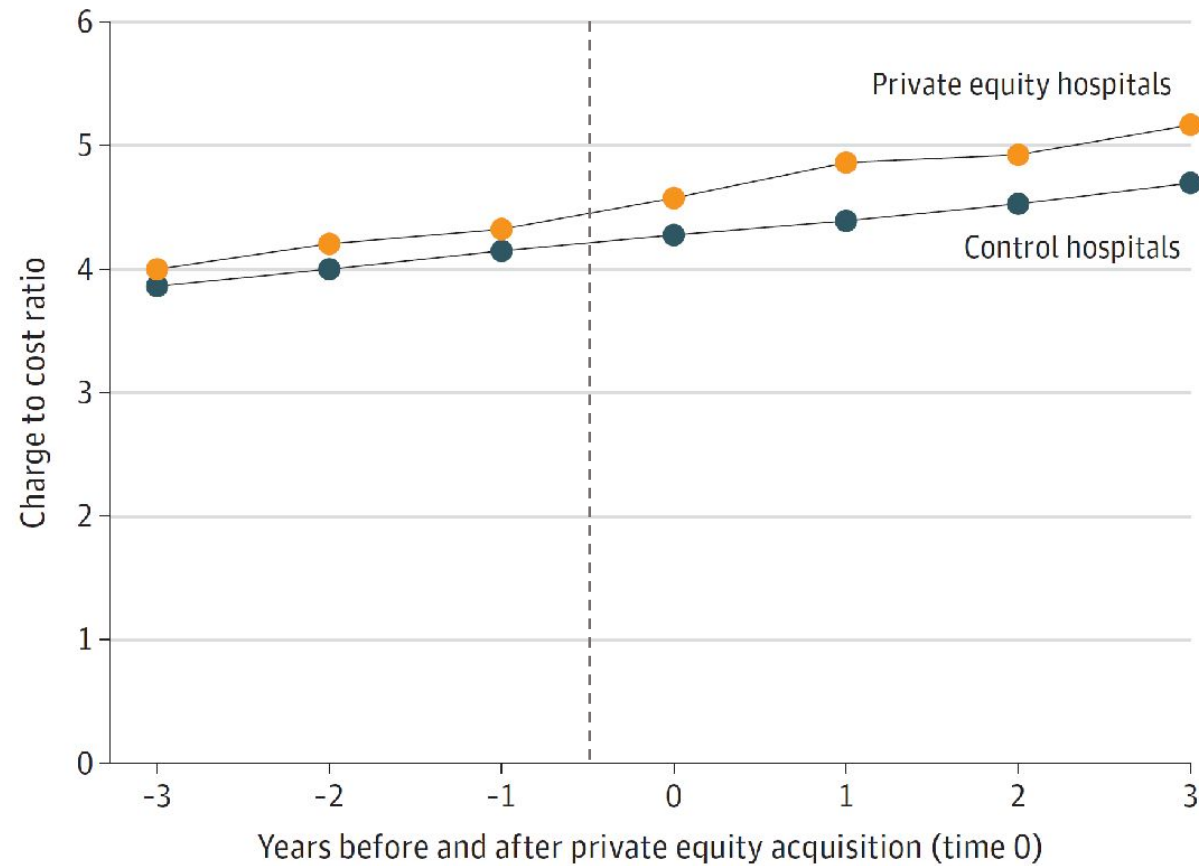


Table 2. Changes in Hospital Income and Use Measures After Private Equity Acquisition

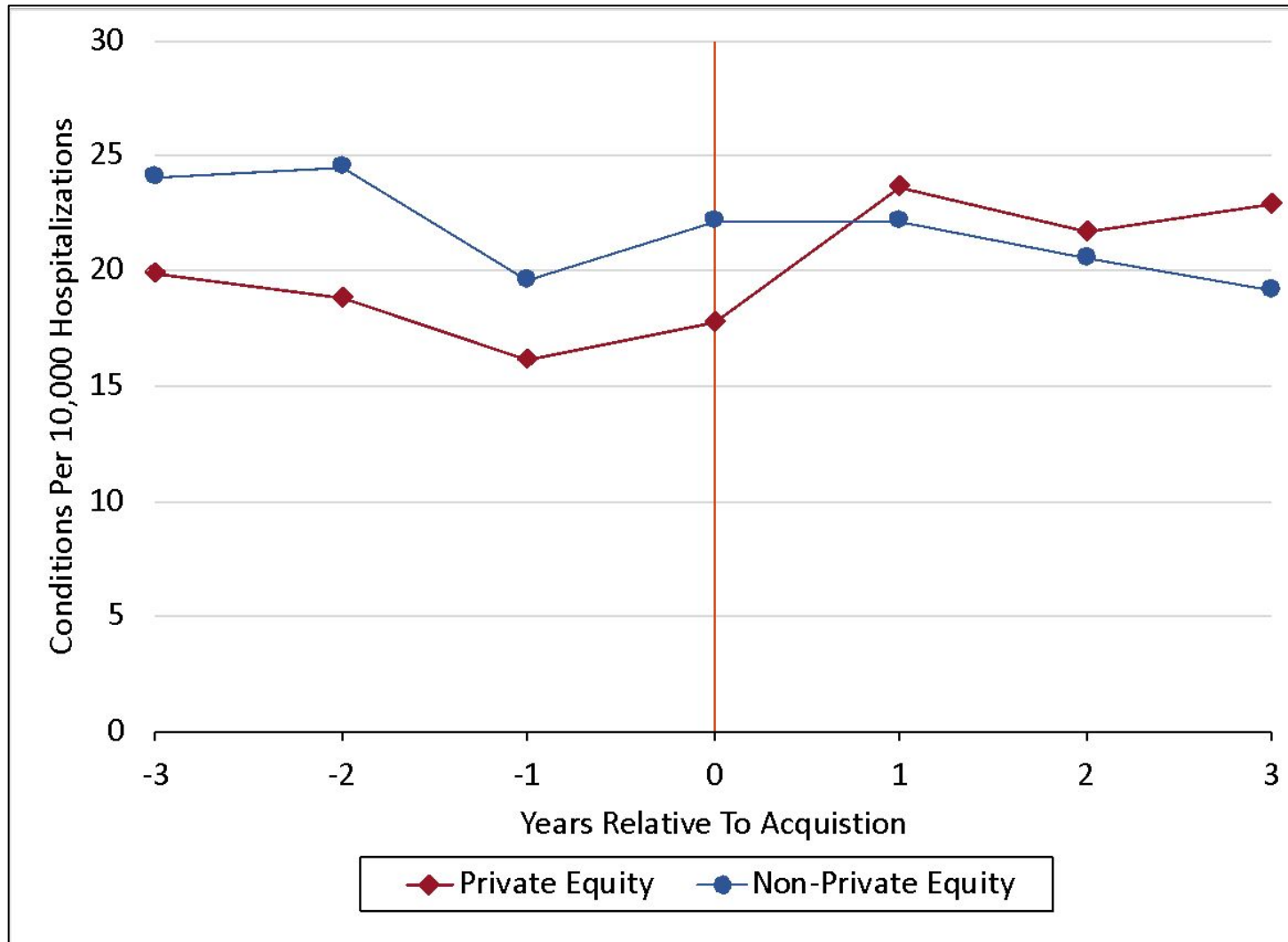
Measure	Hospitals						Differential change			
	Acquired hospitals (n = 204)			Control hospitals (n = 532)			Unadjusted, No. <sup>a</sup>	Adjusted, No. (%) [95% CI] <sup>b</sup>	P value	Corrected P value <sup>c</sup>
	Before private equity	After private equity	Change	Before private equity	After private equity	Change				
Net income per y, \$	8 527 119	12 861 680	4 334 561	7 655 125	10 092 820	2 437 695	1 896 866	2 302 391 (27.0) [956 660 to 3 648 123]	.001	.009
Total charge per inpatient day, \$	5789	7766	1978	5583	6928	1345	633	407 (7.0) [296 to 518]	<.001	<.001
Emergency charge to cost ratio	3.81	5.52	1.71	4.00	5.03	1.02	0.69	0.61 (16.0) [0.48 to 0.73]	<.001	<.001
Total charge to cost ratio	4.17	5.02	0.85	3.90	4.38	0.48	0.37	0.31 (7.4) [0.26 to 0.37]	<.001	<.001
Case mix index	1.42	1.47	0.05	1.36	1.41	0.05	0.00	0.02 (1.4) [0.01 to 0.02]	.001	.007
Medicare's share of discharges, %	40.3	36.8	-3.5	39.1	37.1	-2.0	-1.56	-0.96 (-2.4) [-1.45 to -0.46]	<.001	.002
Medicaid's share of discharges, %	13.2	12.2	-1.0	15.2	14.3	-0.9	-0.07	-0.16 (-1.2) [-0.86 to 0.53]	.64	>.99
Total discharges per y, No.	8948	9181	233	8504	8353	-151	384	98 (1.1) [-54 to 250]	.21	>.99

Table 3. Changes in Hospital Performance on Quality Measures After Private Equity Acquisition<sup>a</sup>

Measure	Hospitals						Differential change			
	Acquired hospitals (n = 179)			Control hospitals (n = 404)			Unadjusted <sup>b</sup>	Adjusted, No. (%) [95% CI] <sup>c</sup>	P value	Corrected P value <sup>d</sup>
	Before private equity	After private equity	Change	Before private equity	After private equity	Change				
Heart failure <sup>e</sup>	75.2	93.6	18.4	76.7	89.4	12.7	5.7	1.3 (1.7) [-0.2 to 2.7]	.08	.92
Acute myocardial infarction <sup>f</sup>	89.3	97.5	8.2	89.8	93.6	3.8	4.4	3.3 (3.7) [1.6 to 5.0]	<.001	.002
Pneumonia <sup>g</sup>	73.7	95.4	21.7	77.2	91.4	14.2	7.5	2.9 (3.9) [1.8 to 3.9]	<.001	<.001

# Hospital-Acquired Conditions (Adverse Events)

## CMS Hospital-Acquired Conditions (HACs) – Composite

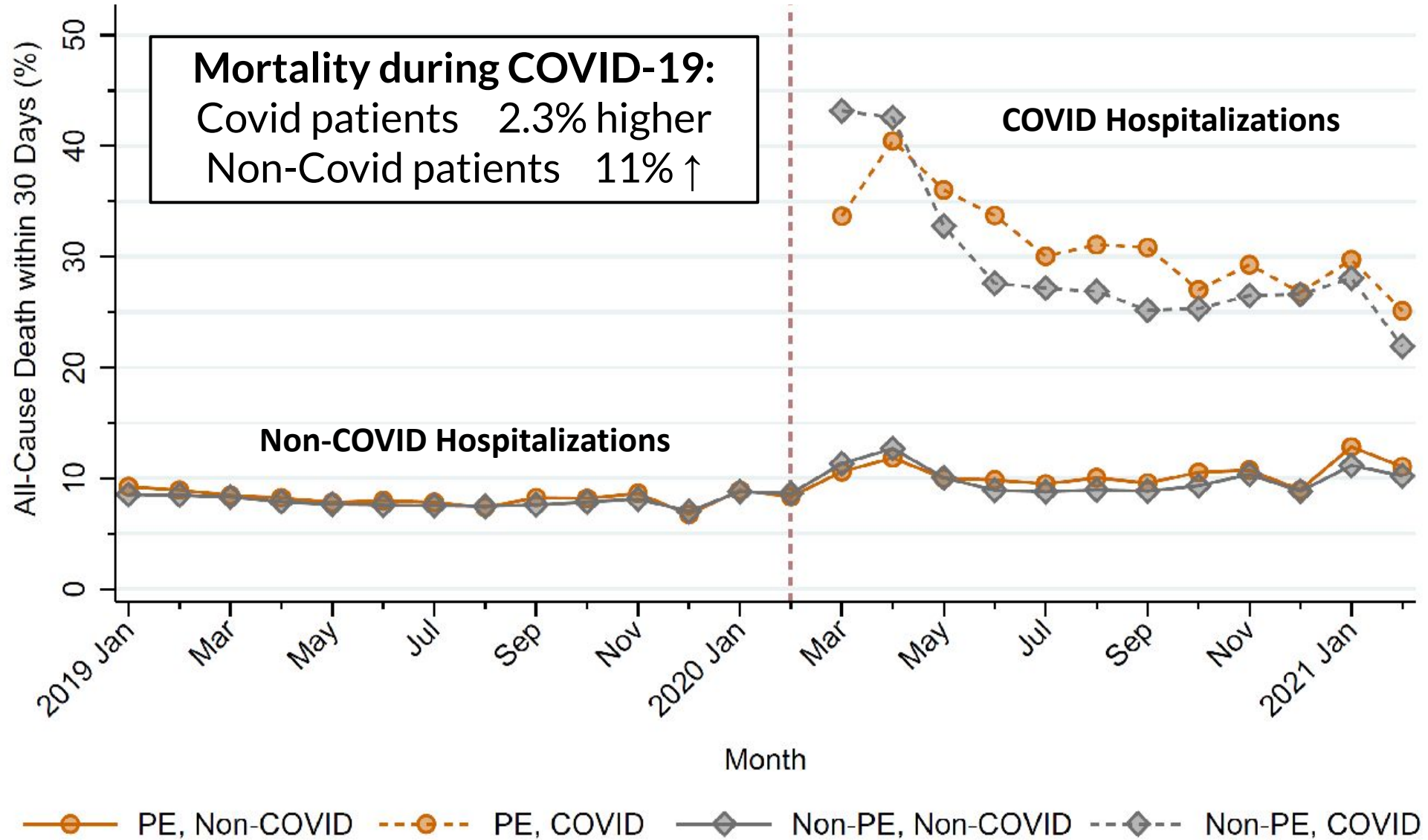


**Relative to controls, PE acquisitions increased:**

Composite HACs	25%
Falls	23%
Central line infections	41%
Sepsis mortality	5%
Other mortality	mixed

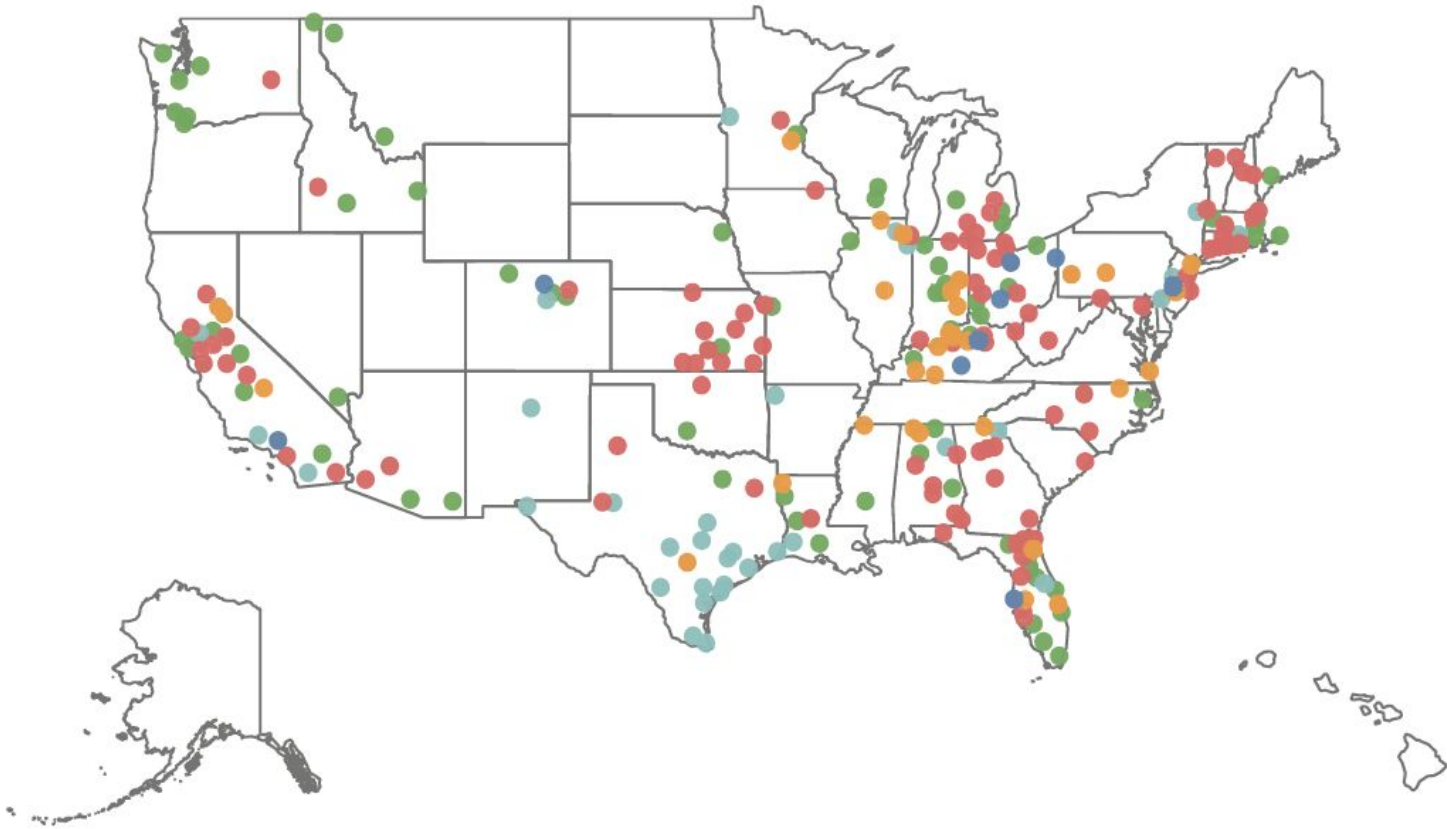


# Mortality During COVID-19 Pandemic





# Private Equity Acquisitions of Nursing Homes

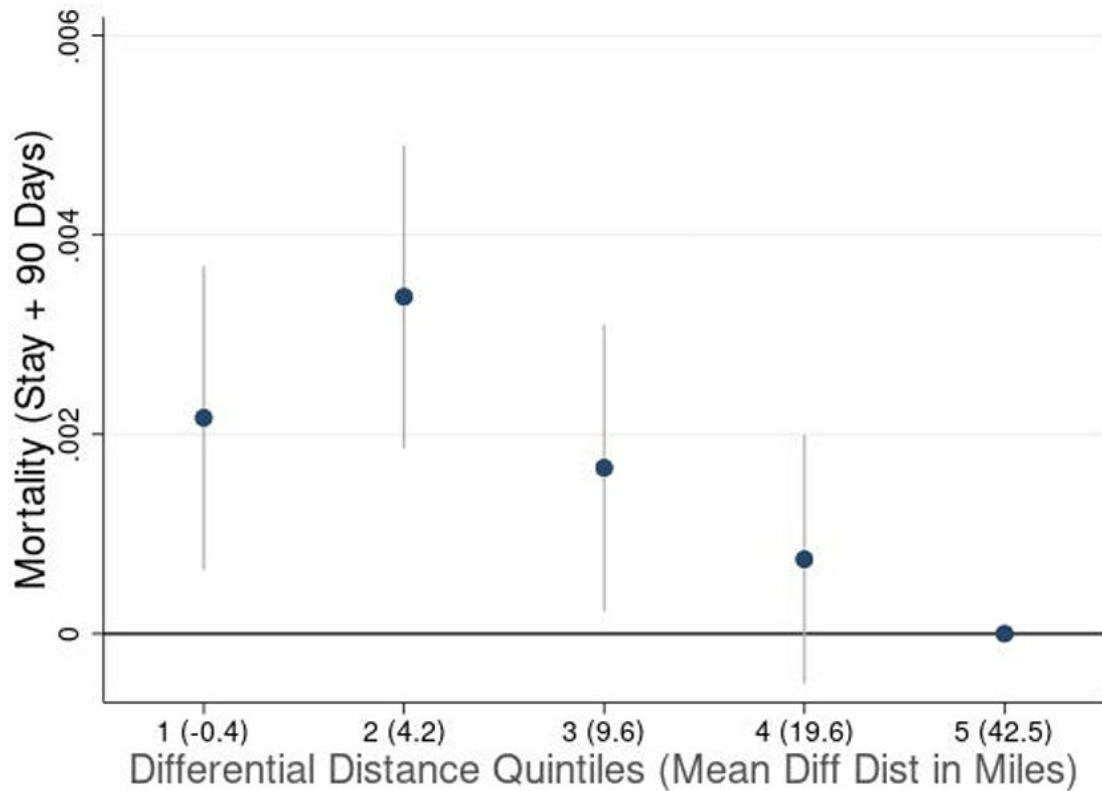


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Health Forum**

**Relative to controls, PE  
acquisitions increased:**

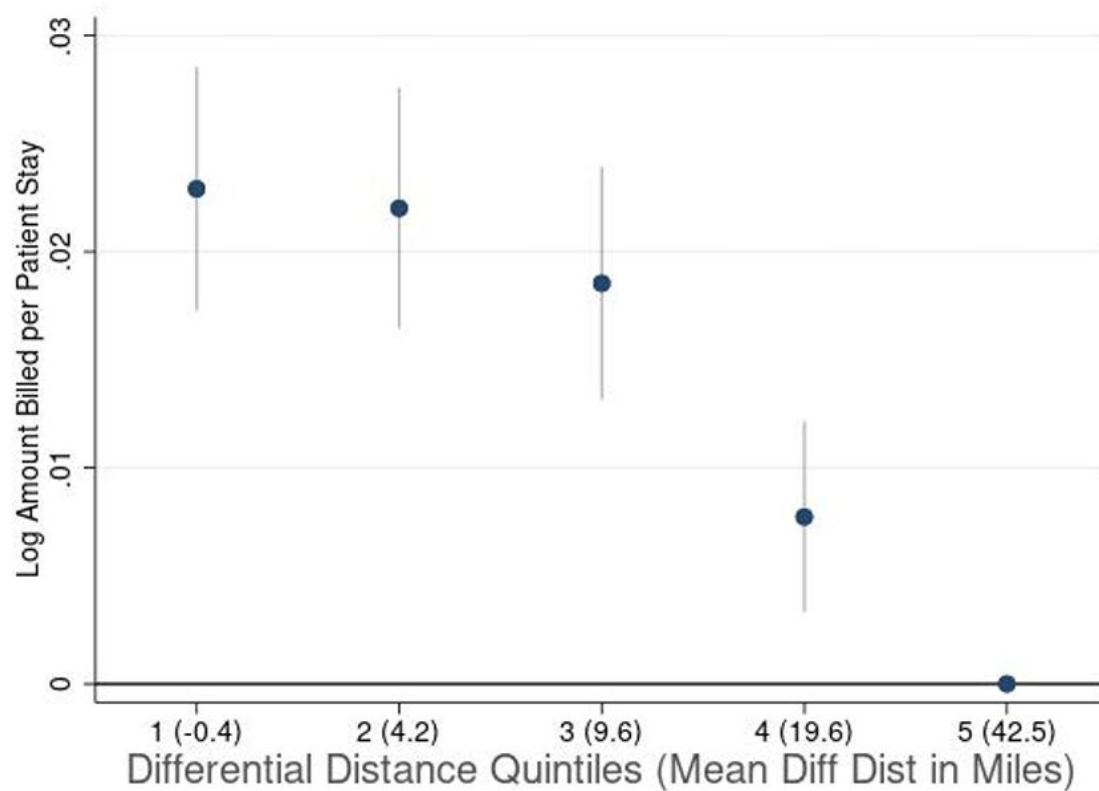
ED visits	11%
Hospitalizations	9%
Medicare spending	4%

Mortality 10% ↑

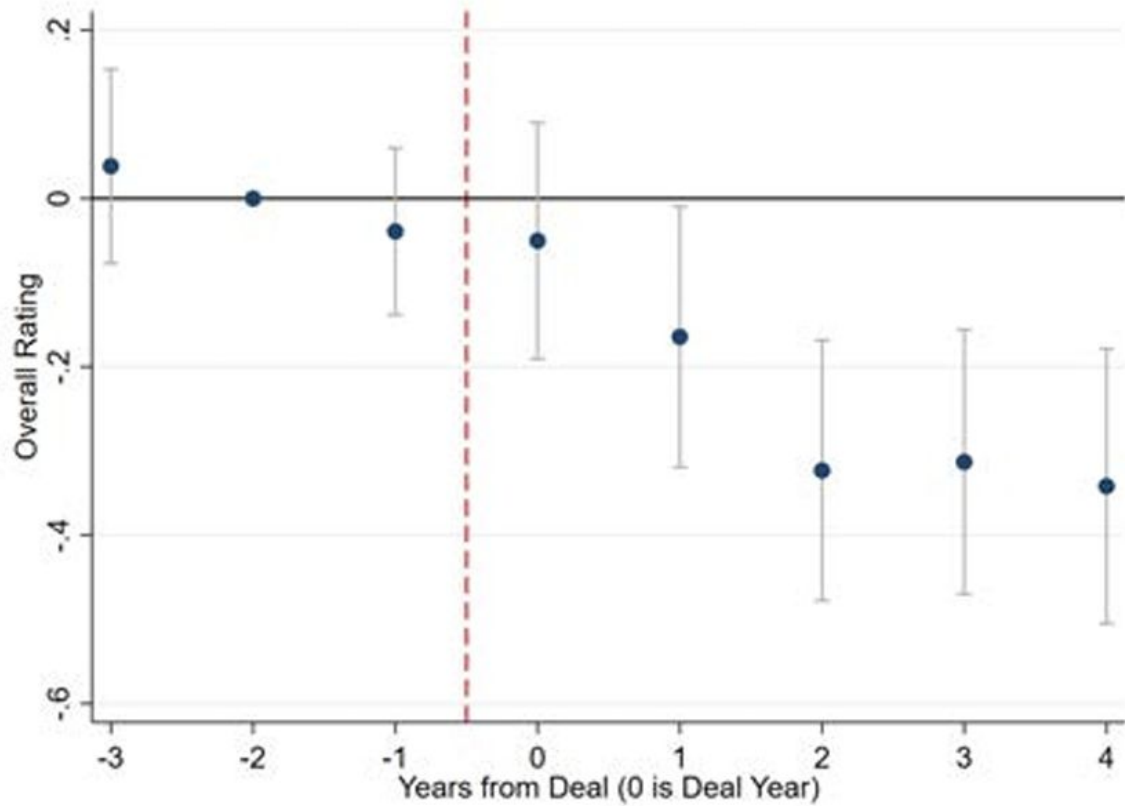


A: Mortality (Stay + 90 Days)

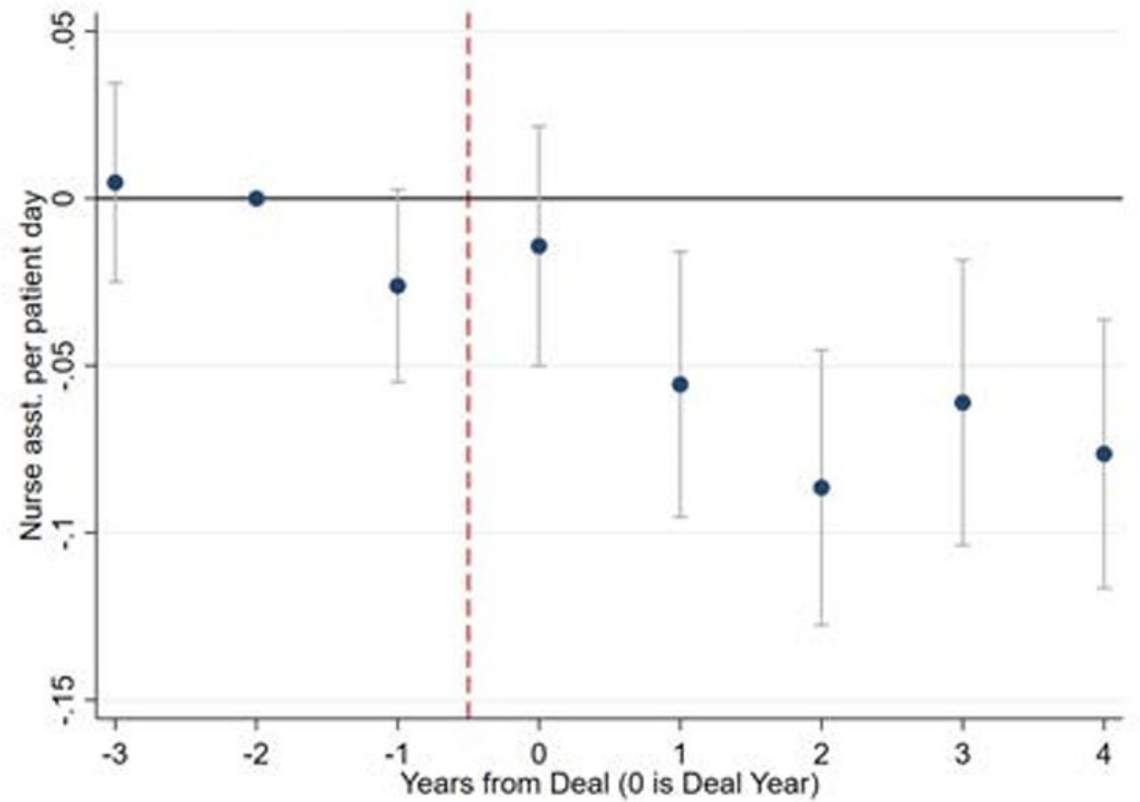
Taxpayer spending 11% ↑



B: Log Amount Billed per Patient Stay



B: Overall Rating



D: Nurse Asst. per Patient Day