# Profit Over Care: A Systematic Review of Private Equity's Impact on U.S. Nursing Homes
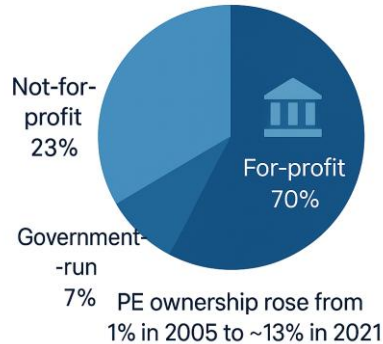
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#EHMA2025
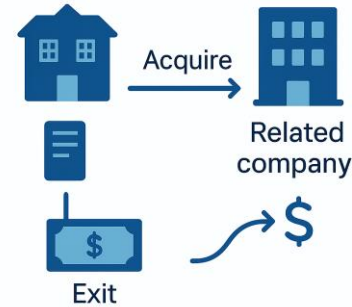
# Background

## Ownership Types



Not-for-profit 23%

For-profit 70%

Government-run 7%

PE ownership rose from 1% in 2005 to ~13% in 2021

## Growth of PE

Acquire underperforming NH

Restructure (cost-cut, reduce staff)

Increase margins

2021

## Financial Complexity

Acquire

Related company

Exit

$

## Policy Scrutiny

CMS

FTC

DOJ

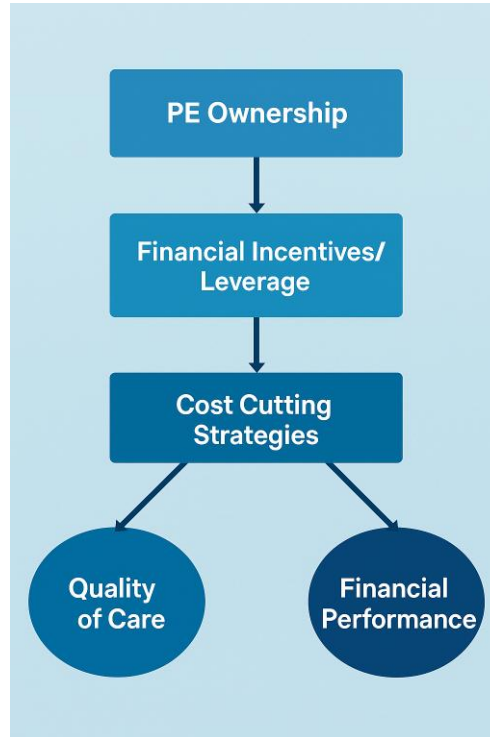Federal and state regulators are increasingly concerned

# Objective

To systematically evaluate the impact of private equity (PE) ownership on the quality of care and financial performance of nursing homes in the U.S., using agency theory and the structure-process-outcome (SPO) framework.
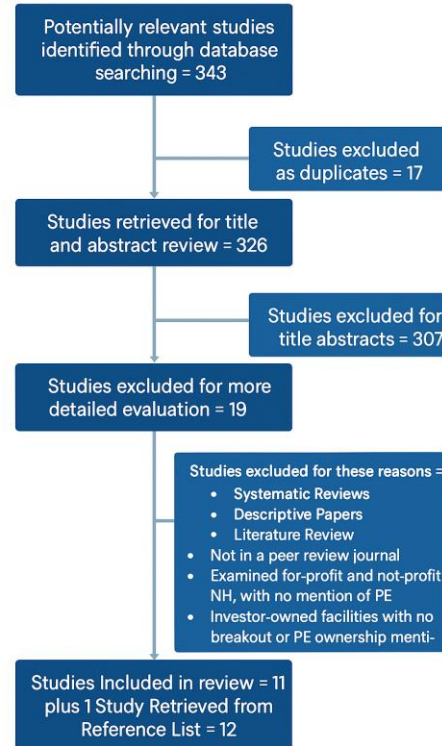
# Conceptual Framework

## Agency Theory & Donabedian (SPO)

# Methods

**Figure 2:** *Process of Literature Search*

Search Strategy:
Searched five databases: **PubMed**, **Web of Science**, **ABI/Inform**, **EconLit**, and **SSRN**.

Guided by **PRISMA 2020** guidelines and managed using **Rayyan**.

Timeframe: **2000–2024**; limited to **U.S.-based, English-language, peer-reviewed** articles.



Potentially relevant studies identified through database searching = 343

Studies excluded as duplicates = 17

Studies retrieved for title and abstract review = 326

Studies excluded for title abstracts = 307

Studies excluded for more detailed evaluation = 19

Studies excluded for these reasons =
- Systematic Reviews
- Descriptive Papers
- Literature Review
- Not in a peer review journal
- Examined for-profit and not-profit NH, with no mention of PE
- Investor-owned facilities with no breakout or PE ownership menti-

Studies Included in review = 11 plus 1 Study Retrieved from Reference List = 12

Data Extraction & Synthesis
**Three authors** independently extracted and reviewed findings on:
- Financial outcomes
- Quality of care
- Workforce effects

•Discrepancies resolved collaboratively; data organized into summary tables.

•Key variables extracted: study design, period, outcome level, comparison group, statistical method, case-mix adjustment.

# Results

## Structure

❑ Mixed evidence on staffing levels and skill mix after PE acquisition.

❑ Most studies observed **declines in CNA/LPN hours**, with some showing **minor RN increases** (e.g., Gupta et al., Bos & Harrington).

❑ Some attribute staffing trends to **industry-wide changes**, not PE-specific effects (e.g., Cadigan, Stevenson).

❑ **COVID-19 era**: PE NHs reported **lower access to critical supplies** (e.g., N95 masks).

# Results

## Process

❑ **Limited but mixed findings** on clinical processes post-acquisition.

❑ Most studies reported **no significant changes** in use of antipsychotics or other medications (e.g., Braun 2021, Huang & Bowblis).

❑ One study found **declines in pressure sore prevention and ambulation** practices (Pradhan 2014).

❑ **Some process improvements** observed (e.g., catheter use: Stevenson & Grabowski).

# Results

## Outcomes

❑ Several national-level studies report **worse resident outcomes** post-PE:
- ↑ **mortality, pain, pressure ulcers** (Gupta 2024)
- ↑ **hospitalizations & ED visits** (Braun 2021)
- ↑ **deficiencies and harm citations** (Bos & Harrington, Pradhan)

❑ Some studies showed **improvements or no significant deterioration** (e.g., Huang & Bowblis, Stevenson).

❑ **No significant COVID-19 differences** in mortality/case rates between PE and non-PE NHs (Braun 2020).

# Results

## Financial Performance

**Initial improvements** reported:
- ↑ **Operating/total margins, revenues PRD** (Pradhan, Bos & Harrington)

**Mixed or null effects in recent studies**:
- No significant profitability gains post-acquisition (Williams, Cadigan).
- ↑ **Management fees, lease costs, and interest expenses** (Gupta 2024).

**Resident-level findings**:
- ↑ **Medicare billing per stay and post-discharge** (Gupta, Braun).

PE NHs linked to ↑ **long-term debt ratios** and ↓ **liquidity** (Bos, Braun 2023).

# Discussion #1

**PE ownership often reshapes staffing**
- ↓ CNA/LPN hours, slight ↑ RN hours
- May reflect cost-cutting, not quality focus

**Process quality effects are mixed**
- Most studies show **no major change**
- Selective effects: ↓ preventive care (e.g., sore prevention), ↑ catheter use

**Resident outcomes raise concerns**
- ↑ mortality, hospitalizations, deficiencies in many studies
- Some studies report selective improvements (e.g., ↓ pain, ulcers)

# Discussion #2

**Financial gains favor PE firms**
- No consistent ↑ in facility margins
- ↑ management fees, lease payments, interest costs

**Value extraction reduces care resources**
- Related-party deals divert funds
- ↓ transparency and accountability

**Study quality varies**
- Stronger designs use IV, DiD, fixed effects
- Cross-sectional studies offer limited causal insight

# Limitations & Future Research

**Data inconsistencies across studies**
- Varied use of resident- vs. facility-level data
- Inconsistent ownership classifications (real estate vs. operations)

**Limited sample size**
- Only 12 studies included; may not capture full PE-NH landscape

**Outcome variability**
- Mixed findings in quality, cost, and workforce metrics

**Future research directions:**
- Standardize ownership definitions and data sources
- Include **resident-centered metrics** (e.g., satisfaction, QoL)
- Examine **workforce trends** (e.g., turnover, agency staffing)
- Explore effectiveness of regulatory and policy frameworks

# Managerial & Policy Implications

❑ **NH Managers:**

- For NHs, increasing staffing ratios is both a financial and quality requirement because proper staffing improves resident outcomes, which improves CMS Five-Star ratings and raises the possibility of reimbursement.

- From a managerial standpoint, prioritizing RN staffing and a balanced skill mix may lower turnover costs, enhance regulatory compliance, and minimize preventable costs associated with adverse events and hospital readmissions.

# Managerial & Policy Implications

❑ **Policymakers:**

- Policymakers should strengthen staffing regulations by enforcing minimum staffing requirements, enhancing financial transparency, linking reimbursements more closely to staffing metrics, and supporting workforce development initiatives.

- Policymakers should expand disclosure rules to require detailed reporting of ownership layers, financing structures, and management arrangements, particularly in cases involving PE or REITs.

# Conclusion

❑ PE ownership brings both **capital infusion** and **operational changes** to NHs.

❑ **Profit-driven strategies** can lead to **quality-of-care concerns** and financial strain.

❑ A **balanced approach** is needed—prioritizing **resident welfare** and **financial sustainability**.

❑ Stronger **regulatory oversight** and **transparency** are essential.

❑ Incentivizing **long-term investment** may reduce risks and promote better outcomes in the NH sector.

# THANK YOU

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Thank you
"In God we trust. All others must bring data."
W. Edwards Deming, statistician, professor, author, lecturer, and consultant

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