



# Changes of Ownership of Hospital and Skilled Nursing Facilities: An Analysis of Newly-Released CMS Data

W. Pete Welch, Joel Ruhter, Arielle Bosworth, Nancy De Lew, and Benjamin D. Sommers

## KEY POINTS

- Data on health care provider ownership is an important tool in program integrity as well as a necessary input for informed policymaking to bolster competition in health care.
- This report analyzes newly-released data from the Centers for Medicare & Medicaid Services (CMS) on changes of ownership among hospitals and skilled nursing facilities (SNFs), based on information reported to CMS through the Provider Enrollment, Chain, and Ownership System (PECOS).
- Analysis of this dataset indicates that 348 hospitals and more than 3,000 skilled nursing facilities experienced a change in ownership between 2016 and 2021, with wide variation in hospital rates across states.
- Ownership changes were more common in medium and larger hospitals (compared to small hospitals), hospitals with negative profit margins, and long-term care hospitals.
- Future research can link this new dataset to other sources of information to support policymaking and research on consolidation, health care quality, and health care costs.

## BACKGROUND

Data transparency about health care provider ownership can serve important policy goals. A newly released dataset from the Centers for Medicare & Medicaid Services (CMS) – posted on April 20, 2022 – tracks changes of ownership among hospitals and skilled nursing facilities (SNFs), dating back to 2016.\* The dataset will be updated quarterly for public use. This report explores this new dataset and offers preliminary insights into how these data on ownership changes can support policies bolstering competition in health care as well as ensuring program integrity in Medicare and Medicaid.

CMS has the responsibility of minimizing fraud, waste, and abuse in the Medicare and Medicaid programs. Because individual facilities found to have improper billing practices may be part of organizational patterns of improper practices, better data on the owner and management relationships of health care facilities could improve oversight. Having credible, accurate, and up-to-date ownership information could therefore safeguard Medicare and Medicaid payments and patients.

\* Data are available as of April 20, 2022, at: [data.cms.gov](https://data.cms.gov)

Publicly-available data on ownership changes will enable researchers and policymakers to have a more detailed understanding of ownership of health care facilities and concentration of health care markets. These data can also allow regulators to better track consolidation in health care provider markets and, in the long run, support pro-competitive policies that can help reduce health care costs. A 2021 Executive Order directed the Justice Department and Federal Trade Commission to review and revise their merger guidelines,<sup>1</sup> and timely data on provider ownership may aid in this process. Health care consolidation has significant impacts on consumers, raising the importance of these issues.<sup>2</sup>

Ownership data may also be useful for tracking health care quality. For decades, ownership of SNFs has been a public policy concern.<sup>3</sup> Private equity and other private investment firms have purchased SNFs; in some cases, new owners have sold the real estate assets to another entity under their control and then released the building back to the original facility with substantial management and consulting fees. Critics contend that this has forced SNFs to cut back on quality and, arguably, made them ill equipped to respond to the Covid-19 pandemic. Academic research on the impact of ownership structure on SNF performance shows that private equity acquisition of SNFs is associated with increases in short-term mortality and shifts in resources from patient care toward non-patient care items.<sup>4</sup> Congress has also taken a recent interest in the role of private equity ownership in health care.<sup>5</sup> Understanding the impacts of different ownership types on the operation of health care facilities is important for policymakers; combining the change of ownership data from CMS with other data sources on organizational structures and ownership types may enable analyses of these important policy issues.

## DATA AND METHODS

To support provider enrollment in Medicare and basic program integrity functions such as tracking the ownership of health providers to whom it submits payments, CMS established the Provider Enrollment, Chain, and Ownership System (PECOS) in 2002.<sup>†</sup> To be paid by Medicare, providers must enroll in PECOS. When they experience a change in ownership, they must update their owner data within 30 days. The data contained in these files is self-reported to CMS by an institutional provider, and the three most prominent provider types are hospitals, SNFs, and home health agencies.<sup>‡</sup>

Starting in April of 2022, CMS will post quarterly updates showing information from the PECOS on any changes of ownership for hospitals and SNFs. For our analysis, we use the initial release of this dataset, which contains information on ownership changes starting in 2016; while partial data are available for 2022, we limit our study period to 2016-2021. While the PECOS dataset itself is not new, information on ownership changes will now be much more easily accessible by researchers and the general public through this CMS data release.

In total, three files are being released for hospitals and another three for SNFs. Separately for hospitals and SNFs, there are two keys files each for our analysis. The first file pertains to change of ownership (which we refer to in this report as a “sale,” though roughly 15 percent of hospitals transactions were mergers; the rest of hospital changes and all SNF changes were sales). The second file describes the provider’s owners, both before (“sellers”) and after (“buyers”) the sale.<sup>§</sup> In principle, each provider that was sold can be merged with the owner file, using the CMS Certification Number (CCN).

PECOS makes the distinction between “direct” owners, who have no subsidiary between them and the provider, and “indirect” owners, who have one or more level of subsidiaries between them and the provider.

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<sup>†</sup> This paper treats “facility” and “provider” as synonyms.

<sup>‡</sup> The application form has instructions for filers. <https://www.cms.gov/Medicare/CMS-Forms/CMS-Forms/CMS-Forms-Items/CMS019475>, accessed 3-30-2022.

<sup>§</sup> The third file for hospitals and SNFs pertains to the providers’ National Provider Identifiers (NPIs).

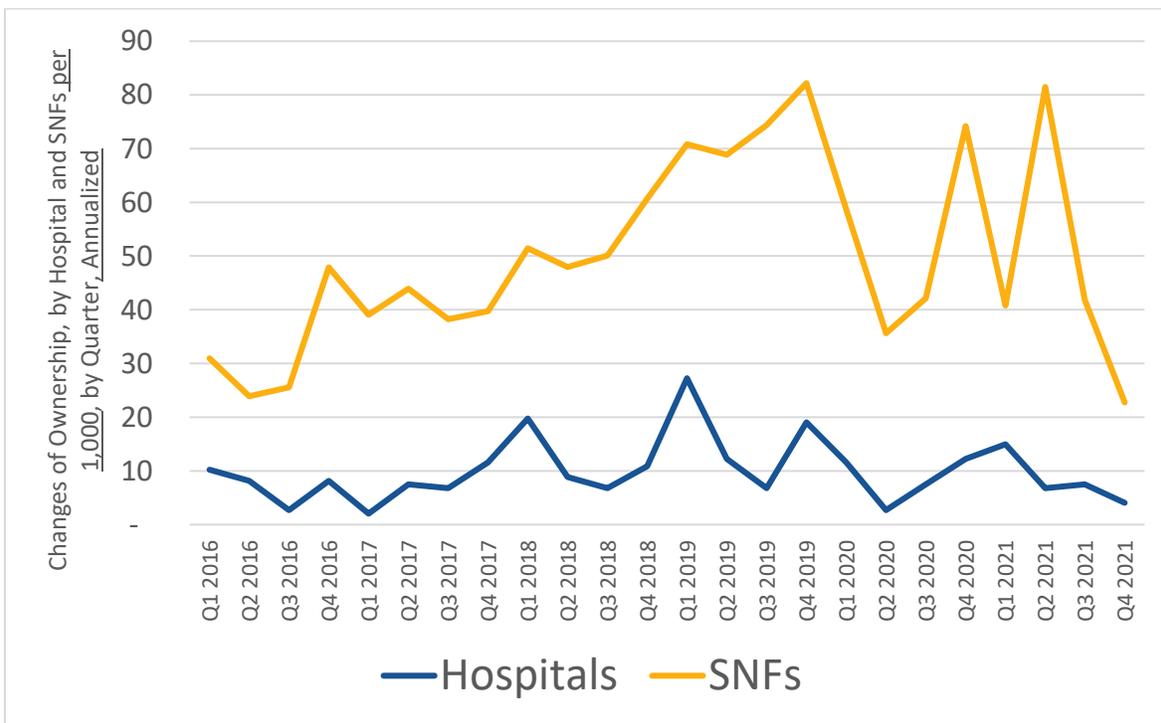
PECOS requires somewhat different information from owners that are organizations and those who are individuals. All owners with an ownership share of at least 5% must be reported (along with their ownership share), whether they are direct or indirect owners.

In this report, we provide statistics on time trends in hospital and SNF changes of ownership, and the number of organizational owners for providers experiencing ownership changes. We then explore state-level rates of hospital ownership changes and descriptive characteristics of hospitals experiencing changes of ownership, including hospital type, numbers of beds, and profitability. Denominators on the numbers of providers used in our analyses were derived from Medicare cost reports.

## RESULTS

Over the period from 2016 to 2021, 348 hospitals and 3,236 SNFs were sold.\*\* This equates to 9.8 per 1,000 hospitals per year, and 39.9 per 1,000 SNFs per year. Figure 1 presents the annualized rate of sales by quarter.\*\*

**Figure 1. Changes of Ownership, by Hospital and SNFs per 1000, by Quarter (Annualized), 2016-2021**



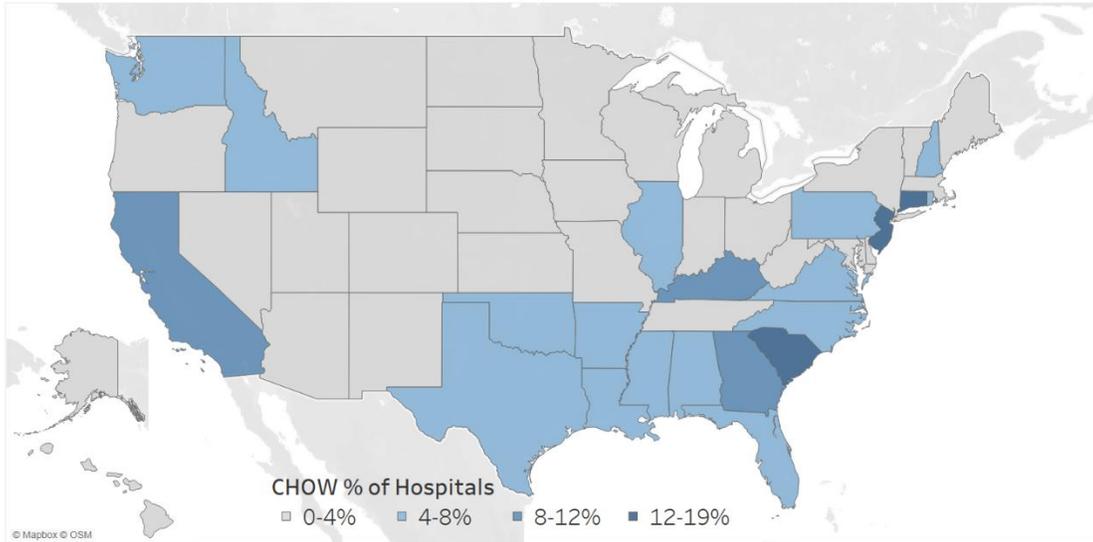
Nationally, 4.6% of hospitals were sold over the full study period. The rate at which hospitals were sold varied by state, as reported in Figure 2. South Carolina had the highest rate of hospital ownership change; of its 73

\*\* The hospital file has 489 records. However, after apparent duplicate records were removed, only 348 hospitals remained. The most common reason for removal pertains to special units within hospitals (e.g., rehabilitation). When there were two or three records with a similar CCN with the same seller and effective date, the special unit records were removed.

†† The quarterly changes of ownership change were annualized by being multiplied by 4.

hospitals, 14 (19.2%) changed ownership during this six-year period. Kentucky, New Jersey, and Connecticut also had rates above 10%. A majority of states had rates of 4% or lower.

**Figure 2. Rate of Changes of Hospital Ownership, by State, 2016-21**



Tables 1 and 2 provide information on ownership and other features for providers experiencing changes of ownership during the study period. Most hospitals and SNFs in the dataset are owned by one organization, but sometimes they are owned by individuals or by more than one organization. Table 1 summarizes the number of organizational and individual owners of entities that underwent a change of ownership; the table provides this information for the new owners (i.e. buyers). In accordance with statute and subsequent PECOS submission instructions, buyers are not required to submit data on individuals or organizations that have less than a 5% ownership interest. Therefore, the count of sales in Table 1 is lower than the totals reported at the beginning of this section.

As shown in Table 1, the vast majority of purchased hospitals (85.5%) have a single direct organizational owner, while 6.4% have multiple organizational owners but no individual owners with at least 5% interest. Less than 10% of hospitals are purchased by individual owners. On the other hand, 62.3% of purchased SNFs have a single organizational owner, while 18.2% have only individual owners.

**Table 1. Organizational vs. Individual Owners, as a Percentage of Sales, Hospitals and SNFs, 2016-2021**

Hospitals				
# of Organizational Owners	# of Individual Owners			
	0	1	2+	total
0	0.0%	3.2%	0.7%	3.9%
1	85.5%	2.8%	1.1%	89.4%
2+	6.4%	0.4%	0.0%	6.7%
Total	91.8%	6.4%	1.8%	100.0%
N=282 sales				

SNFs				
# of Organizational Owners	# of Individual Owners			
	0	1	2+	total
0	0.0%	4.9%	13.3%	18.2%
1	62.3%	2.7%	5.5%	70.4%
2+	6.9%	1.7%	2.8%	11.4%
Total	69.2%	9.3%	21.6%	100.0%
N=3,023 sales				

Note: These figures pertain the direct owners after the sale (“buyers”).

Table 2 presents rates of ownership changes among hospitals by hospital characteristics. Smaller hospitals (25 beds or fewer) were rarely sold (0.8%), compared to medium and larger hospitals. Urban hospitals were sold at higher rates than rural ones (5.6% vs. 3.3%). Hospitals with the lowest profit margins (negative 2% or worse) were sold most often, more than twice as often as those with the highest profit margins (8.3% vs. 3.0%). Long-term care hospitals were sold at substantially higher rates than other hospitals. General short-term and rehabilitation hospitals were sold at roughly the national rate, with psychiatric hospitals and other hospitals sold at substantially lower rates. Only one critical access hospital out of 1,330 was sold.

**Table 2. Rate of Changes of Hospital Ownership, by Hospital Characteristics, 2016-21**

Characteristic	Total Hospitals (A)	# Hospitals with a Change of Ownership (B)	% Hospitals with a Change of Ownership (B/A)
<b># of Beds (by quartile)</b>			
Highest (175 or more)	1,487	70	4.7%
2 <sup>nd</sup> highest (65-174)	1,467	93	6.3%
3 <sup>rd</sup> highest (26-64)	1,172	92	7.8%
Lowest (25 or fewer)	1,668	13	0.8%
<b>Hospital type</b>			
General Short	4,381	205	4.7%
Psychiatric	558	12	2.2%
Long-Term Care	347	33	9.5%
Rehabilitation	287	13	4.5%
Other	157	3	1.9%
<b>Location</b>			
Urban	3,413	190	5.6%
Rural	2,317	76	3.3%
<b>Profit Margin (by quartile)</b>			
Highest (>11%)	1,639	49	3.0%
2 <sup>nd</sup> highest (4% - 11%)	1,399	42	3.0%
3 <sup>rd</sup> highest (-2- 4%)	1,377	63	4.6%
Lowest (<-2%)	1,379	114	8.3%
<b>Critical Access Hospital (CAH)</b>			
Non-CAH	4,400	265	6.0%
CAH	1,330	1	0.1%

## DISCUSSION

In this exploratory analysis of new change of ownership data released by CMS, we find several patterns of findings on recent health care sales, mergers, and acquisitions. Overall, we find that changes of provider ownership are fairly common, even more so for SNFs than hospitals, with significant variation across states and provider types. Less profitable and medium to large hospitals were the most commonly-sold hospitals. Critical access hospitals were almost never sold (though more than 30 critical access hospitals have closed in the past two decades).<sup>6</sup> Ownership patterns also differed across SNFs and hospitals in the dataset.

These results illustrate just a handful of the basic questions that can be explored with the new CMS dataset on changes of ownership. Future research could use these data to explore a range of issues such as impacts of ownership changes on health care costs and quality, including through merging this dataset with files outside of the PECOS system, such as Medicare claims, assessments, and cost reports and the Agency for Healthcare Research and Quality (AHRQ) Compendium of Healthcare Systems. Research could explore the extent to which infection control, staffing, quality metrics, patient safety, patient satisfaction, and patient experience are

associated with the likelihood of a change in ownership and the impact of such changes. For example, are facilities with lower performance more or less likely to be sold to facilities with higher levels of performance? Does performance improve or decline after sale?

Another possible topic for future work involves “ultimate parents.” Federal statute, pertaining to certain agencies such as the Securities and Exchange Commission, generally defines an “ultimate parent” as an entity with subsidiaries but not a subsidiary of another entity. The “ultimate parent” definition and associated regulations do not technically apply to Medicare; nevertheless, the term will be used here for illustrative purposes. All Medicare providers are required under statute to identify indirect owners, including “ultimate parents,” that hold a 5% or greater ownership interest in the providers.<sup>\*\*</sup> Based on the reasonable assumption that every “ultimate parent” holds at least a 5% ownership interest in a provider—otherwise it wouldn’t ostensibly be the ultimate parent—CMS currently requires the reporting of “ultimate parents.” However, CMS cannot verify whether providers, in general, are accurately reporting “ultimate parents” or any other owners in the ownership chain; ownership data is self-reported and there is no centralized database to which CMS can compare the self-reported information.

Without validation of PECOS’ self-reported data, organizations with the same “ultimate parent” could appear to be independent. Identifying “ultimate parents” is necessary for calculating concentration and analyzing market structure. Several proprietary databases have changes of ownership that are reported in the press. A possible research strategy would use these two types of databases to determine whether an indirect owner in PECOS is an “ultimate parent” and, if not, what entity is its “ultimate parent.” Additional analyses could explore provider quality, including frequency of violations or other concerns.

Future ASPE analyses will explore the new CMS data further, including potential examination of rates of ownership change among SNFs by state and provider characteristics, and further linkages of hospital data with outside information on hospital-level and market-level characteristics.

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<sup>\*\*</sup> Social Security Act § 1124.

## REFERENCES

- <sup>1</sup> Executive Order on Promoting Competition in the American Economy <https://www.whitehouse.gov/briefing-room/presidential-actions/2021/07/09/executive-order-on-promoting-competition-in-the-american-economy/>
- <sup>2</sup> Medicare Payment Advisory Commission, “Congressional request on health care provider consolidation, Chapter 15 in “March 2020 Report to the Congress: Medicare Payment Policy.” March, 2020.
- <sup>3</sup> M Goldstein, J Silver-Greenberg, & R. Gebeloff, “Push for Profits Left Nursing Homes Struggling to Provide Care,” New York Times May 7, 2020. <https://www.nytimes.com/2020/05/07/business/coronavirus-nursing-homes.html>. Accessed 4-12-22.
- <sup>4</sup> Gupta, Atul, et al. *Does private equity investment in healthcare benefit patients? Evidence from nursing homes*. No. w28474. National Bureau of Economic Research, 2021.
- <sup>5</sup> U.S. House Committee on Ways and Means, Oversight Subcommittee. Oversight Subcommittee Hearing on Examining Private Equity’s Expanded role in the U.S. Health Care System. March 25, 2021. <https://waysandmeans.house.gov/legislation/hearings/oversight-subcommittee-hearing-examining-private-equity-s-expanded-role-us>. MedPAC published “Congressional request: Private equity and Medicare,” Chapter 3 in “Report to the Congress, Medicare and the Health Care Delivery System,” June 2021.
- <sup>6</sup> Ellison, Ayla. State by State Breakdown of 37 Critical Access Hospital Closures. Becker’s Hospital Review. March 2, 2022. <https://www.beckershospitalreview.com/care-coordination/state-by-state-breakdown-of-37-critical-access-hospital-closures.html>

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### ABOUT THE AUTHORS

**W. Pete Welch** is a Senior Analyst in the Office of Health Policy in the Office of the Assistant Secretary for Planning and Evaluation (ASPE).

**Joel Ruhter** is an Analyst in the Office of Health Policy in ASPE.

**Arielle Bosworth** is an Economist in the Office of Health Policy in ASPE.

**Nancy De Lew** is the Associate Deputy Assistant Secretary for the Office of Health Policy in ASPE.

**Benjamin D. Sommers** is the Deputy Assistant Secretary of the Office of Health Policy in the Office of Assistant Secretary for Planning and Evaluation

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