Hospital Consolidation Continues, Contributing to Higher Prices and Spending

It is well established that hospital consolidation, which occurs when hospitals or their affiliated health systems purchase independent hospitals and merge with other health systems, increases hospital prices[1,2,3,4,5,6,7,8] and contributes to higher overall health care spending[9,10,11,12] without improvements in quality.[13,14,15]

Despite their adverse impacts, hospital consolidations have continued rapidly since the late 1990s.[16]

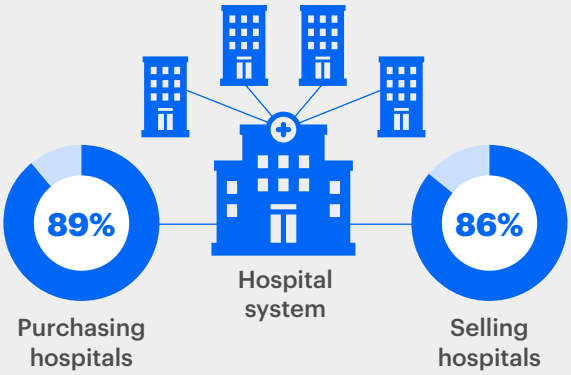
An estimated 1,164 hospital mergers occurred between 2002 and 2020, leaving fewer than 5,000 general acute care hospitals in the U.S., according to prior research.[17]

New research shows that 479 hospital mergers, acquisitions, and other consolidations or ownership changes occurred between 2016 and 2024.[18]

Recent Hospital Merger Activity

Among the hospital mergers and acquisitions where previously separate hospitals or hospital systems were recorded as the buyer and the seller, respectively, between 2016 and 2024:[19]

- **89%** of purchasing hospitals and **86%** of selling hospitals were **already part of a multi-hospital system**, compared to 76% of all hospitals nationally.[20]



Among the purchasing hospitals:

67% were privately owned not-for-profit hospitals[21] – which are exempt from federal income taxes and some state and local taxes[22] – compared to 49% of all hospitals nationally.[23]

67% were 340B covered entities[24] – which receive significant financial benefit through manufacturer discounts on outpatient drugs[25] – compared to 43% of hospitals nationally.[26]

60% were teaching hospitals[27] – which benefit from both direct and indirect federal payments supporting graduate medical education[28] – compared to 23% of all hospitals nationally.[29]

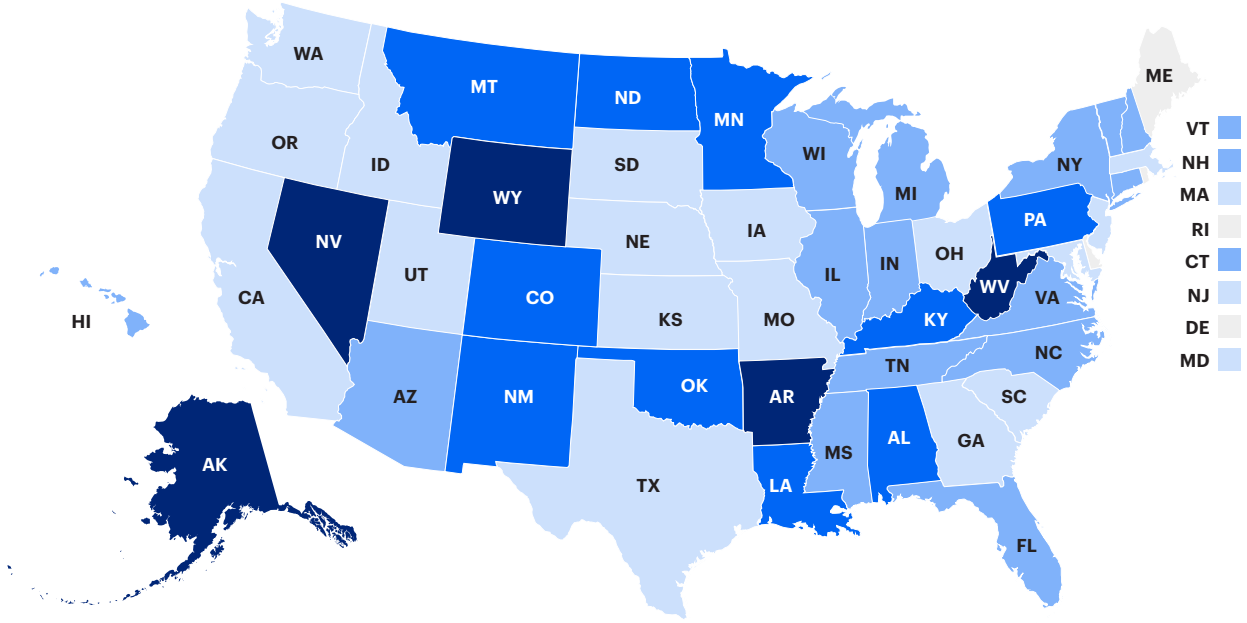
The scale of hospital consolidation highlights the ongoing potential for anticompetitive hospital practices to increase prices, drive higher spending, and harm patients and consumers.

Growth of Health Systems

Hospital consolidation has fueled the continued growth of large health systems. Between 2016 and 2023:[30]

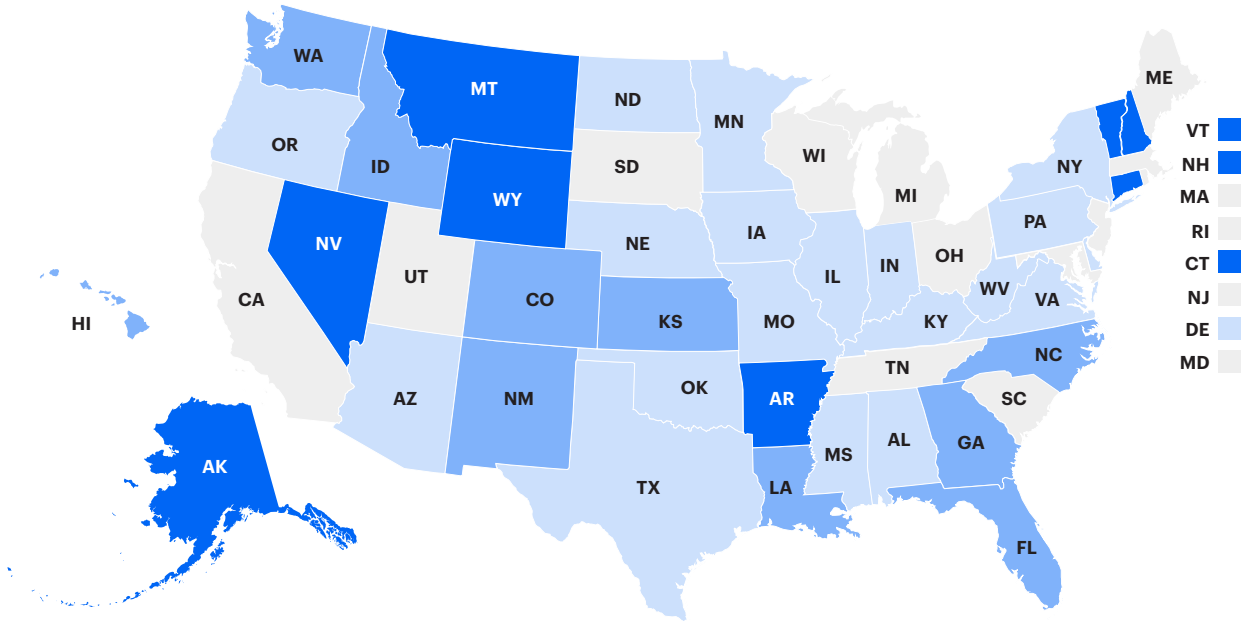
The share of hospitals that are part of a health system increased from 68% to 76% nationally, and the number of system-affiliated hospitals:

Increased by 30% or more in 5 states. Increased by 20% to 30% in 10 states. Increased by 10% to 20% in 15 states. Increased by up to 10% in 17 states. Remained unchanged or decreased in 3 states.



The share of hospital beds in system-affiliated hospitals increased from 89% to 94% nationally, and the number of system-affiliated hospital beds:

Increased by 10% or more in 8 states. Increased by 5% to 10% in 10 states. Increased up to 5% in 19 states. Remained unchanged or decreased in 13 states.



The share of revenue that went to system-affiliated hospitals increased from 93% to 97% nationally, and system-affiliated hospital revenue increased in all states.

Methodology

Hospital Consolidation Transactions

Avalere Health leveraged CMS's Hospital Change of Ownership (CHOW) dataset to identify consolidation events in the period from 2016 (the first year for which data are available) through 2024 and provide key insights into hospital and health system characteristics for buyers and sellers. The Q4 2024 CHOW Report was used. The CHOW dataset includes information on hospital acquisitions/mergers and changes in ownership with quarterly updates. Transactions recorded in the CHOW data include mergers and acquisitions, changes of ownership, and events where two or more hospitals consolidate into a new hospital or system. Buying and selling hospitals in these transactions may have matching or differing CMS Certification Numbers (CCNs). Transactions between hospitals with matching CCNs are included in the CHOW dataset because they can represent a change in the underlying legal entity or controlling interest of the hospital. The CCN serves as a constant identifier for the provider agreement between the hospital and the Medicare program, not for the ownership entity itself.

Certain data elements are not available for a small subset of hospitals included within the CHOW file. In most instances, this is because the hospital is not an acute care hospital. Where possible, Avalere Health identified missing data for these hospitals from other sources such as CMS Medicare Cost Reports. However, certain data elements, including teaching status and DSH percentage, are not consistently reported in cost reports for non-acute care hospitals. Inpatient Prospective Payment System (IPPS) Impact Files from respective years associated with the consolidation event were used to gather information on rural/urban classification, teaching status, and DSH percentage. For each year, the correction notice impact file was used. A smaller number of assessed hospitals were not included within IPPS impact files. For these hospitals, data from the cost reports were used to determine rural/urban classification and bed counts. CMS Medicare Cost Report data available annually through 2022 was used to identify the number of beds and discharges for the long-term care hospitals.

Avalere Health identified the system affiliation of the buyer and seller for the year of transaction by leveraging data from the AHRQ Compendia for 2016 through 2023. For transactions in 2017, 2019, and 2024, affiliation information was used from the 2016, 2018, and 2023 Compendia, respectively. Avalere Health used hospital linkage files released with the compendia to assign hospitals to health systems, matching on CCN.

Avalere Health gathered information on hospital city, zip code, hospital type (e.g., acute care hospital, critical access hospital), and hospital ownership using hospital general information files from the respective years associated with the consolidation event. Hospital general information files were only available beginning in 2018. For consolidation events in 2016 and 2017, data from hospital cost reports were used to determine hospital city, zip code, hospital type, and ownership type. Hospital general information files are released quarterly. For each year, the first quarter update was used.

Health Systems Growth Nationally Among Acute Care Hospitals

Avalere Health identified state-level trends in the share of acute care hospitals affiliated with a health system in 2016 and in 2023. Avalere Health examined the number of hospitals, beds, discharges, and total patient revenue by affiliation (i.e., independent vs. system-affiliated).

2016 and 2023 AHRQ Compendia were used to identify hospitals by state and their affiliations. The AHRQ defines health systems as having "at least one hospital and at least one group of physicians that provides comprehensive care (including primary and specialty care) who are connected with each other and with the hospital through common ownership or joint management,"[31] in addition to having at least one non-federal acute care hospital, at least 50 physicians, and at least 10 primary care physicians. The AHRQ assigns hospitals to health systems based on data from the American Hospital Association and IQVIA.

For 2023 data on beds, discharges, and total revenue, Avalere Health utilized the 2023 AHRQ Compendium. (For some hospitals, the AHRQ Compendium amount for 2023 appears to show the 2022 cost report data.) For the 2016 analysis, Avalere Health referred to the 2016 Medicare Cost Report for these data. As a result, 2016 results are limited to hospitals which appear in both the AHRQ Compendium and the Cost Report. (2024 revenue figures were not yet available at the time of this report.) 173 hospitals listed in the 2016 Compendium were not available in the 2016 Cost Report and were excluded from these counts. Many of these are subsidiary hospitals. 27 are independent and 146 have a health system affiliation in the Compendium.

Limitations of the CHOW Database

The Provider Enrollment, Chain, and Ownership System (PECOS) is the primary data source for the CHOW dataset.[32] PECOS is an electronic Medicare enrollment system and a national data repository for individual and organizational providers who are enrolled or enrolling in Medicare. The primary purpose of PECOS data is to support Medicare's provider enrollment process and monitor fraud and abuse rather than to comprehensively and accurately identify complex hospital corporate structures, including ownership.[33] Data included in PECOS has several limitations.[34] PECOS relies on self-reported data that is difficult to verify, does not capture the full hierarchy of ownership entities, and often includes incomplete or inaccurate ownership information.[35] For example, many transactions in the CHOW dataset involve a buying entity that uses a limited liability company (LLC) created specifically for the transaction, which can obscure the identity of the true buyer.

Citations

1 Liu, J.L., et al., "Environmental Scan on Consolidation Trends and Impacts in Health Care Markets," Rand Health Quarterly, June 2023. https://pmc.ncbi.nlm.nih.gov/articles/PMC10273895/#:~:text=We%20found%20strong%20evidence%20that,of%20hospitals%20and%20physician%20practices

2 Brot-Goldberg, Z., et al., "Is There Too Little Antitrust Enforcement in the U.S. Hospital Sector?" American Economic Review: Insights, December 2024. https://www.aeaweb.org/articles?id=10.1257/aeri.20230340

3 Schmitt, M., "Multimarket Contact in the Hospital Industry," American Economic Journal: Economic Policy, August 2018. https://www.aeaweb.org/articles?id=10.1257/pol.20170001

4 Lewis, M.S. & Pflum, K. E., "Hospital systems and bargaining power: evidence from out-of-market acquisitions," RAND Journal of Economics, Fall 2017. https://www.jstor.org/stable/26305455?seq=1

5 Arnold, D. R. & Whaley, C. M., "Who Pays for Health Care Costs? The Effects of Health Care Prices on Wages," RAND Working Paper, July 2020. https://www.ftc.gov/system/files/documents/public_events/1567421/whaleyarnold.pdf

6 Cooper, Z., et al., "The Price Ain't Right? Hospital Prices and Health Spending on the Privately Insured," The Quarterly Journal of Economics, February 2019. https://academic.oup.com/qje/article-abstract/134/1/51/5090426?redirectedFrom=fulltext

7 Dafny, L., et al., "The price effects of cross-market mergers: theory and evidence from the hospital industry," The RAND Journal of Economics, April 2019. https://doi.org/10.1111/1756-2171.12270

8 Levinson, Z., et al., "Ten Things to Know About Consolidation in Health Care Provider Markets," KFF, April 2024. https://www.kff.org/health-costs/issue-brief/ten-things-to-know-about-consolidation-in-health-care-provider-markets/

9 Liu, J.L., et al., "Environmental Scan on Consolidation Trends and Impacts in Health Care Markets," Rand Health Quarterly, June 2023. https://pmc.ncbi.nlm.nih.gov/articles/PMC10273895/#:~:text=We%20found%20strong%20evidence%20that,of%20hospitals%20and%20physician%20practices

10 Arnold, D. R. & Whaley, C. M., "Who Pays for Health Care Costs? The Effects of Health Care Prices on Wages," RAND Working Paper, July 2020. https://www.ftc.gov/system/files/documents/public_events/1567421/whaleyarnold.pdf

11 Cooper, Z., et al., "The Price Ain't Right? Hospital Prices and Health Spending on the Privately Insured," The Quarterly Journal of Economics, February 2019. https://academic.oup.com/qje/article-abstract/134/1/51/5090426?redirectedFrom=fulltext

12 Levinson, Z., et al., "Ten Things to Know About Consolidation in Health Care Provider Markets," KFF, April 2024. https://www.kff.org/health-costs/issue-brief/ten-things-to-know-about-consolidation-in-health-care-provider-markets/

13 Liu, J.L., et al., "Environmental Scan on Consolidation Trends and Impacts in Health Care Markets," Rand Health Quarterly, June 2023. https://pmc.ncbi.nlm.nih.gov/articles/PMC10273895/#:~:text=We%20found%20strong%20evidence%20that,of%20hospitals%20and%20physician%20practices

14 Beaulieu, N. D., et al., "Changes in Quality of Care after Hospital Mergers and Acquisitions," New England Journal of Medicine, January 2020. https://www.nejm.org/doi/full/10.1056/NEJMsa1901383

15 Levinson, Z., et al., "Ten Things to Know About Consolidation in Health Care Provider Markets," KFF, April 2024. https://www.kff.org/health-costs/issue-brief/ten-things-to-know-about-consolidation-in-health-care-provider-markets/

16 Fuse Brown, E. C., et al., "The Rise Of Health Care Consolidation And What To Do About It," Health Affairs Forefront, September 2024. https://www.healthaffairs.org/content/forefront/rise-health-care-consolidation-and-do

17 Brot, Z., et al., "Is There Too Little Antitrust Enforcement in the US Hospital Sector?" American Economic Review: Insights, December 2024. https://www.aeaweb.org/articles?id=10.1257/aeri.20230340

18 Avalere Health, 2025 analysis of Centers for Medicare and Medicaid Services (CMS) Hospital Change of Ownership (CHOW) dataset to identify consolidation events and provide key insights into hospital and health system characteristics for buyers and sellers included in the data. Transactions recorded in the CHOW dataset include mergers, acquisitions, events where two or more hospitals consolidate into a new hospital or system, and other changes in ownership; these transactions include a triggering event, which indicates when a transaction must be reported to CMS. Not all data fields are complete for all reported transactions; therefore, some hospital mergers, acquisitions, and consolidations may appear as other changes of ownership in the CHOW data. Transactions included in this analysis are for the period 2016 through 2024 – the first year for which transactions are recorded in the CHOW dataset through the most recent year for which data were available at the time of analysis.

19 Avalere Health, 2025 analysis of CMS CHOW dataset. 75 of the 479 transaction events (16%) were between entities with different CMS Certification Numbers (CCNs), which are Medicare provider identification numbers assigned by CMS to healthcare facilities. 404 of the 479 transaction events (84%) were reported as occurring between entities with the same CCN. Of the 75 hospital consolidations analyzed, 65 (87%) involved at least one acute care hospital, and the remaining 10 (13%) involved critical access hospitals (CAH), long term care hospitals, cancer hospitals, rehabilitation hospitals, and/or rural emergency hospitals. Not all transacting entities reported data for all characteristics; estimates for individual hospital characteristics are calculated for those hospitals reporting data.

20 Avalere Health, 2025 analysis of 2023 AHRQ Compendium.
The 89% estimate reflects the 56 out of 63 purchasing hospitals that reported system affiliation. The remaining 12 hospitals out of the total 75 transactions did not report system affiliation. The 86% estimate reflects the 52 out of 64 selling hospitals that reported system affiliation. The remaining 11 hospitals out of the total 75 transactions did not report system affiliation.

21 Avalere Health, 2025 analysis of data from the CMS Medicare Cost Reports and the Hospital General Information Files from the year of each transaction. The 67% estimate reflects the 48 out of 72 private not-for-profit purchasing hospitals that reported ownership status. The remaining 3 out of the total 75 transactions did not provide an ownership status for the purchasing hospital. Private not-for-profit hospitals include private non-profit hospitals, church-affiliated hospitals, and other non-profit hospitals. The remaining 33% (24 of the 72 purchasing hospitals that disclosed ownership information) include government and proprietary hospitals.

22 American Hospital Association, "Fact Sheet: Nonprofit Hospitals' Tax-exempt Status," January 2025. https://www.aha.org/fact-sheets/2025-01-24-fact-sheet-nonprofit-hospitals-tax-exempt-status

23 American Hospital Association, "Fast Facts on U.S. Hospitals, 2025," Updated January 2025. Accessed June 2025. https://www.aha.org/statistics/fast-facts-us-hospitals
Data are for 2023.

24 Avalere Health, 2025 analysis of HRSA 340B Office of Pharmacy Affairs database. 340B status was recorded as status at the time of the transaction. The 67% estimate reflects the 50 out of 75 purchasing hospitals involved. 47% of transactions involved a 340B covered entity hospital purchasing a non-340B covered entity hospital.

25 Health Resources & Services Administration, "340B Drug Pricing Program," Last Updated April 2025. Accessed June 18, 2025. https://www.hrsa.gov/opa

[26] U.S. Government Accountability Office, "340B Drug Discount Program: Information about Hospitals That Received an Eligibility Exception as a Result of COVID-19," May 2023. https://www.gao.gov/assets/gao-23-106095.pdf
Data are for 2023.
American Hospital Association, "Fast Facts on U.S. Hospitals, 2025," Updated January 2025. Accessed June 2025. https://www.aha.org/statistics/fast-facts-us-hospitals
Data are for 2023.

[27] Avalere Health, 2025 analysis of data from the CMS Inpatient Prospective Payment System (IPPS) Impact Files. The 60% estimate reflects the 39 out of 65 purchasing hospitals that reported teaching status. The remaining 10 hospitals out of the total 75 transactions did not report teaching status.

[28] National Conference of State Legislatures, "Graduate Medical Education Funding," Updated January 9, 2024. Accessed June 18, 2025. https://www.ncsl.org/health/graduate-medical-education-funding

[29] American Hospital Association, "Fast Facts on U.S. Hospitals, 2025," Updated January 2025. Accessed June 2025. https://www.aha.org/statistics/fast-facts-us-hospitals
Data are for 2023.
Centers for Medicare & Medicaid Services, "Resources for Reporting Entities," Last Updated May 2025. Accessed June 2025. https://www.cms.gov/priorities/key-initiatives/open-payments/resources/reporting-entitities
The count of 2023 teaching status hospitals is based on the Open Payments Program Year 2023, Teaching Hospitals 2023 (XLSX) file accessible from the CMS Reporting Entities webpage.

[30] Avalere Health, 2025 analysis of 2016 and 2023 AHRQ Compendia. For 2023 data on beds, discharges, and total revenue, Avalere Health utilized the 2023 AHRQ Compendium. For the 2016 analysis, Avalere Health referred to the 2016 Medicare Cost Report for these data. As a result, 2016 results are limited to hospitals which appear in both the AHRQ Compendium and the Cost Report.

[31] AHRQ, "Comparative Health System Performance Initiative: Compendium of U.S. Health Systems, 2023, Technical Documentation," December 2024. https://www.ahrq.gov/sites/default/files/wysiwyg/chsp/compendium/2023-compendium-techdoc.pdf

[32] CMS, "Medicare Fee-For-Service Provider Enrollment – Hospital Change of Ownership: Data Guidance," September 2022. https://data.cms.gov/sites/default/files/2023-01/Hospital_CHOW_Data_Guidance_2022.12.30.pdf

[33] CMS, "Medicare Fee-For-Service Provider Enrollment – Hospital Change of Ownership: Data Guidance," September 2022. https://data.cms.gov/sites/default/files/2023-01/Hospital_CHOW_Data_Guidance_2022.12.30.pdf

[34] CMS, "Medicare Fee-For-Service Provider Enrollment – Hospital Change of Ownership: Data Guidance," September 2022. https://data.cms.gov/sites/default/files/2023-01/Hospital_CHOW_Data_Guidance_2022.12.30.pdf

[35] Congressional Research Service, "Hospital Ownership: Medicare Sources of Information," December 2024. https://www.congress.gov/crs_external_products/IF/PDF/IF12848/IF12848.1.pdf

November 2025