By Yang Wang, Jared Perkins, Christopher M. Whaley, and Ge Bai

Sharp Rise In Urban Hospitals With Rural Status In Medicare, 2017–23

DOI: 10.1377/hlthaff.2025.00019
HEALTH AFFAIRS 44,
NO. 8 (2025): 963–969

Yang Wang, Johns Hopkins University, Baltimore, Maryland.

Jared Perkins, Brown University, Providence, Rhode Island.

Christopher M. Whaley, Brown University.

Ge Bai (gbai@jhu.edu), Johns Hopkins University.

ABSTRACT In 2016, in response to two federal court decisions, the Centers for Medicare and Medicaid Services began allowing geographically urban hospitals to be dually classified as both rural and urban simultaneously. This dual classification enables hospitals to use urban wage indexes for calculating Medicare reimbursements, while also benefiting from Medicare policies solely intended to support rural health. Using Medicare cost reports and impact files, we documented a substantial increase in administratively rural hospitals in the US, driven by the dual classification of existing hospitals located in urban areas, which rose from 3 in 2017 to 425 in 2023, with prevalence varying by state. More than three-quarters of dually classified hospitals were nonprofit, including many large academic medical centers in metropolitan areas. Congress should ensure that federal programs supporting rural health are directed solely to geographically rural hospitals.

More than sixty million Americans live in rural areas, where residents tend to be older and less healthy and to have limited access to health care relative to those in urban areas.[1] To improve access to care for rural residents, Congress established the Federal Office of Rural Health Policy in 1981 and has since implemented various policies to encourage the establishment and support the financial viability of rural hospitals.[2,3] For example, only hospitals that the Centers for Medicare and Medicaid Services (CMS) has classified as rural for payment purposes (hereafter, administratively rural hospitals) can apply for and obtain sole community hospital status, rural referral center status, and Medicare-dependent small rural hospital status, which confer more generous reimbursement rates from the Medicare program than standard payments under the inpatient prospective payment system.[4–6] The purposes and criteria for these designations are summarized in online appendix A1.[7] Administratively rural hospitals also face lower thresholds for eligibility in the 340B Drug Pricing Program.[8] In addition, they receive 30 percent more graduate medical education slots and, by extension, more funding from the federal government via direct graduate medical education and indirect medical education payments.[9]

In 1999, Congress granted geographically urban hospitals the option to self-classify as administratively rural under Section 1886(d)(8)(E) of the Social Security Amendments of 1965.[10] Through rulemaking, CMS prohibited hospitals that took this option from simultaneously benefiting from administratively rural policies and using another pathway—the Medicare Geographic Classification Review Board—to reclassify them back to their original urban designation for the purposes of urban wage indexes (which are generally higher than rural ones) and an urban-only add-on to Medicare capital disproportionate share hospital payments for greater Medicare inpatient prospective payment system reimbursement.[11–13] However, in April 2016, CMS revised its regulations to allow geographically urban hospitals to be dually classi-

fied as urban and rural simultaneously, regardless of geographic location, by leveraging the interaction between two distinct reclassification pathways: so-called Section 401 reclassification under 42 CFR Sect. 412.103 and the Medicare Geographic Classification Review Board.[14]

This rule change stemmed from two federal appellate court decisions: *Geisinger Community Medical Center v. Secretary* (2015) and *Lawrence + Memorial Hospital v. Burwell* (2016).[15,16] Among other justifications, the courts found CMS's prior prohibition on dual classification to be inconsistent with the statutory language in Section 401 of the Medicare, Medicaid, and SCHIP Balanced Budget Refinement Act of 1999,[10] which requires that hospitals reclassified as rural be treated as such for all purposes, including further reclassification through the Medicare Geographic Classification Review Board. This rule change had significant implications: Geographically urban hospitals that are dually classified as administratively rural are assigned urban wage indexes for calculating Medicare inpatient prospective payment system reimbursements while also taking advantage of Medicare policies solely intended to support rural health.

Dual classification is a two-step process. First, a geographically urban hospital obtains rural status (often by becoming an rural referral center) by using the mechanism under 42 CFR Sect. 412.103,[17] also known as Section 401 reclassification. Under this regulation, hospitals typically obtain rural referral center status by having at least 275 beds (see appendix A1 for more details).[7] This constitutes the first reclassification, from urban to rural. Subsequently, the hospital uses the Medicare Geographic Classification Review Board to become urban for wage index and payment purposes, while legally retaining its administrative rural designation. This is the second reclassification, completing the dual-classification process.

Dual classification allows geographically urban hospitals to receive Medicare benefits designated for rural hospitals, for which they would otherwise generally not be eligible (including potential eligibility for sole community hospital, rural referral center, and Medicare-dependent small rural hospital status; lower eligibility standards for participation in the 340B Drug Discount Program; and increased graduate medical education slots), and benefits intended for urban hospitals (such as an urban wage index and other Medicare payments).

Because of the relatively recent nature of the dual-classification rule change, there has been little research on this topic. In this study, we aimed to provide the first academic evidence on the evolution and prevalence of administratively rural hospitals, and particularly those located in urban areas and dually classified.

Study Data And Methods

DATA AND MEASUREMENT We used data from CMS's Medicare cost reports that were compiled and processed by the RAND Hospital Data as of February 2025.[18,19] All Medicare-certified hospitals, consisting of government, nonprofit, and for-profit ownership types, are required to file cost reports. We focused on general acute care hospitals during the 2013–23 period, with 2013 occurring three years before CMS's change in regulation and 2023 being the most recent year with available data. We excluded critical access hospitals, as they are reimbursed by the Medicare program on a cost basis and are therefore not subject to wage index changes.[20]

Geographically rural or urban hospitals were identified by their location in Metropolitan Statistical Areas.[21] Administratively rural or urban hospitals were identified by their reported classification status at year end (Cost Report Worksheet S-2, line 27). The Medicare program uses this classification to determine eligibility for various programs to support rural health. Dually classified hospitals—geographically urban hospitals that are dually classified as administratively rural—were identified using a reported indicator in their CMS impact files, prepared annually by CMS to estimate the payment impacts of policy changes on providers. These hospitals have both high urban wage indexes and potential access to rural health–targeted programs.

ANALYSIS To assess changes in administratively rural hospitals over time, we first plotted the proportion of these hospitals among all hospitals during the period 2013–23. We then examined their composition over time, categorized by dual-classification status (dually classified versus not). To account for differences in hospital size, we repeated the above analysis for the number of beds. We also examined the trends for geographically urban hospitals to determine whether they experienced any changes during the same period.

Next, for each state in 2023, we calculated the proportion of dually classified hospitals by the number of hospitals and by the number of beds, respectively, among all administratively rural hospitals. We then created a heat map to visualize the state-level variations in the prevalence of dually classified hospitals among administratively rural hospitals. We repeated this analysis using the number of beds. We also examined the ownership types of dually classified hospitals in 2023. For illustration purposes, we listed the top twenty hospitals with the highest net patient

revenue (Cost Report Worksheet G-3, line 3), along with their name, city, state, ownership, teaching status, and bed size.

LIMITATIONS We acknowledge several limitations. The cost report data used in this study were based on hospitals' administrative records, which might be subject to potential reporting inaccuracies. Also, this study, limited by its descriptive nature, did not examine the factors influencing geographically urban hospitals' dual-classification decisions. The magnitude of the direct and indirect financial benefits these hospitals receive, as well as the impacts of these benefits on rural health care delivery, access, and outcomes, were beyond the scope of our analysis and represent a promising area for future investigation.

Study Results

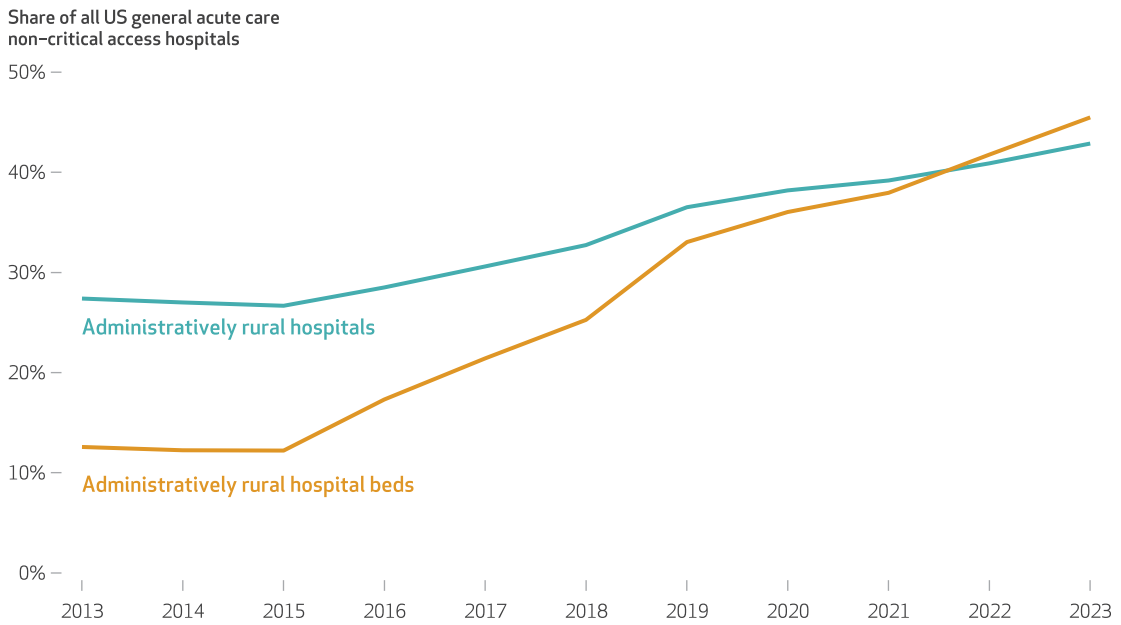
Nationwide, the share of administratively rural hospitals among all general acute care non–critical access hospitals increased from 27 percent (932 of 3,401) in 2013 to 43 percent (1,266 of 2,953) in 2023 (exhibit 1). Meanwhile, the share of administratively rural hospital beds increased dramatically, from only 13 percent (80,557 of 640,143) in 2013 to 45 percent (268,262 of 589,655) in 2023, suggesting that the new administratively rural hospitals are disproportionately larger. In the meantime, the proportion of geographically urban hospitals among all general acute care hospitals remained consistent, at 75 percent (89 percent of beds) in 2013 and 76 percent (91 percent of beds) in 2023. The number of beds in geographically urban hospitals also remained stable (571,443 in 2013 to 538,246 in 2023) (data not shown).

Appendix exhibit A2 demonstrates that the key driver of the growth in administratively rural hospitals was dually classified hospitals, which first occurred in 2017 (only three hospitals) and increased consistently, reaching a total of 425 in 2023.[7] Exhibit 2 illustrates this phenomenon measured by hospital beds. Bed size from dually classified hospitals increased sharply from 372 (less than 1 percent of all administratively rural hospital beds) in 2017 to 162,319 (61 percent of all administratively rural hospital beds) in 2023. In contrast, both the number of geographically urban hospitals (from 2,543 to 2,258) and their bed size (from 571,443 to 538,246) changed little from 2013 to 2023 (data not shown).

Appendix exhibit A3 shows wide state-level variations in the proportion of dually classified hospitals among administratively rural hospi-

EXHIBIT 1

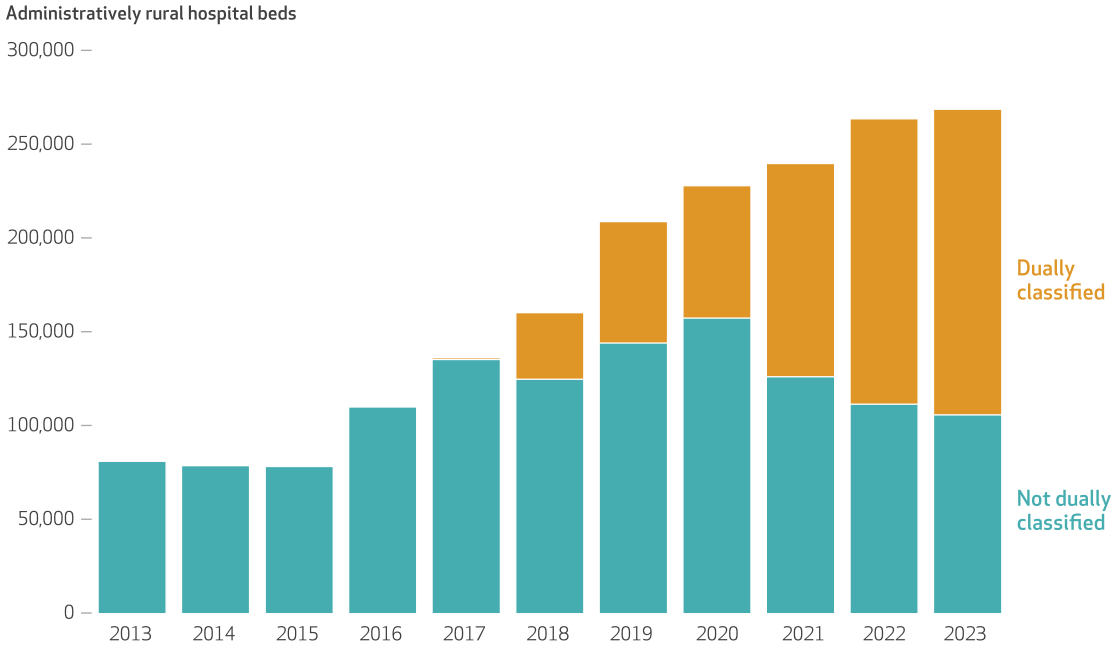
Number and bed capacity of administratively rural hospitals as a percent of all US general acute care non–critical access hospitals, 2013–23



SOURCE Authors' analysis of data from Medicare cost reports compiled by RAND Hospital Data and the Centers for Medicare and Medicaid Services (CMS) impact files. **NOTES** Administratively rural hospitals (those classified by CMS as rural for payment purposes) increased from 932 (80,557 beds) in 2013 to 1,266 (268,262 beds) in 2023. There were 3,401 (640,143 beds) general acute care non–critical access hospitals in 2013 and 2,953 (589,655 beds) in 2023, among which 75% (89% of beds) were geographically urban hospitals in 2013, and 76% (91% of beds) in 2023.

EXHIBIT 2

Number of administratively rural hospital beds in the US, by dual-classification status, 2013–23



SOURCE Authors' analysis of data from Medicare cost reports compiled by RAND Hospital Data and the Centers for Medicare and Medicaid Services impact files. Administratively rural hospitals are defined in the exhibit 1 notes. Dual classification entails geographically urban hospitals to be dually classified as both rural and urban simultaneously.

tals.[7] Dually classified hospitals were most prevalent in states on the East Coast, such as Connecticut (84 percent), Massachusetts (81 percent), Florida (59 percent), Pennsylvania (58 percent), and New York (54 percent), and states in the West, such as Idaho (67 percent) and California (66 percent). In contrast, they were much less common among most states in central and southern parts of the US. In particular, the states of Alaska, Maryland, Montana, Nebraska, Nevada, Vermont, and Wyoming had no dually classified hospitals. Analysis of the number of beds shows a similar pattern (exhibit 3). Connecticut, Idaho, Massachusetts, and Pennsylvania had the highest proportion of dually classified hospital beds, accounting for 95 percent, 93 percent, 84 percent, and 82 percent of their administratively rural hospital beds, respectively.

In 2023, among the 425 dually classified hospitals, 322 (76 percent) were nonprofit, 52 (12 percent) were for profit, and 51 (12 percent) were government hospitals, accounting for 75 percent, 9 percent, and 16 percent of beds, respectively (data not shown). Exhibit 4 lists the top twenty dually classified hospitals with the highest net patient revenue in 2023. Among them, fifteen were nonprofit, and five were government hospitals; all were teaching hospitals, with at least 432 beds and $2.9 billion in net patient revenue. All of them were geographically urban hospitals, mostly in large metropolitan areas such as New York City; Los Angeles, California; Philadelphia, Pennsylvania; and San Francisco, California.

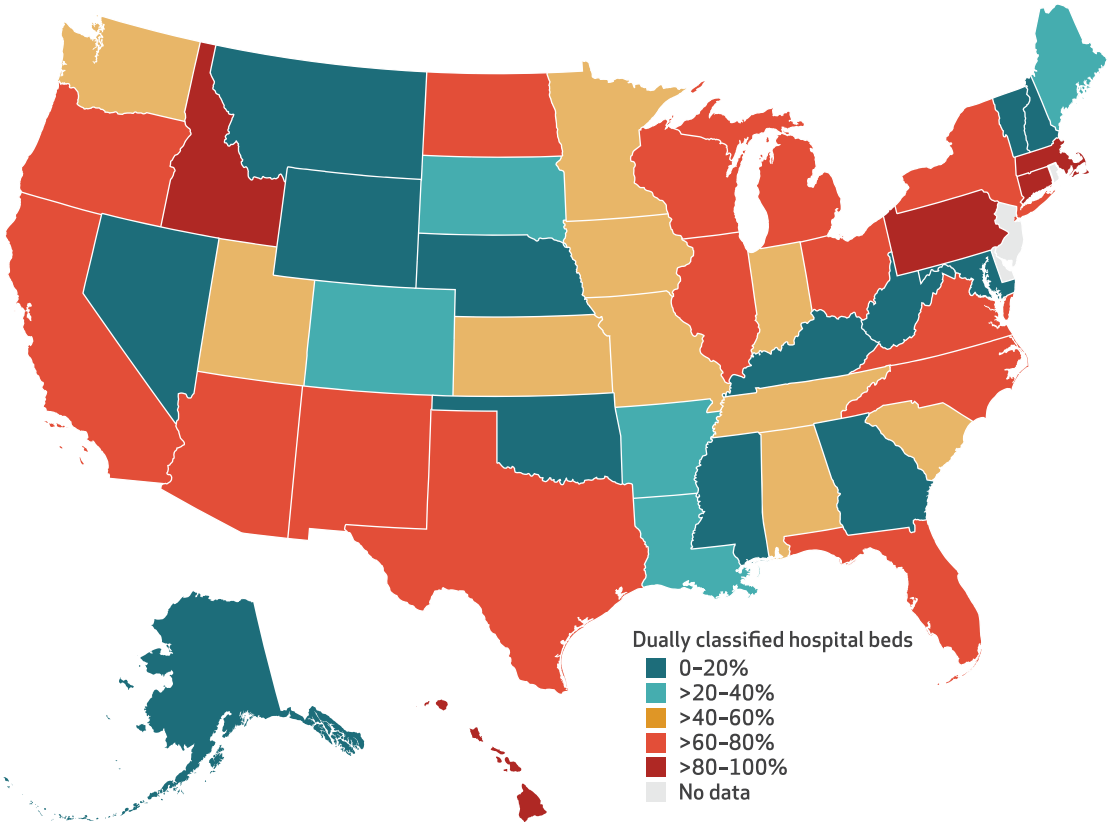
Discussion

We documented a substantial increase in administratively rural hospitals in the US during the period 2013–23. Although they accounted for only 13 percent of hospital beds in 2013, this figure rose to 45 percent in 2023, driven by the dual classification of existing hospitals located in urban areas. The number of dually classified hospitals increased from 3 in 2017 to 425 in 2023. They include many large academic medical centers in metropolitan areas. These results demonstrate urban hospitals' natural responses to evolving regulations on rural and urban dual classification, which currently allows hospitals to access both urban and rural benefits simultaneously.

In the absence of intervention from lawmakers, more geographically urban hospitals are likely to obtain dual classification, which will potentially increase Medicare spending on them. A relevant example of a well-intentioned policy

EXHIBIT 3

Proportion of dually classified hospital beds among all administratively rural hospital beds in the US, by state, 2023



SOURCE Authors' analysis of data from Medicare cost reports compiled by RAND Hospital Data and the Centers for Medicare and Medicaid Services impact files. **NOTES** The proportion of dually classified hospital beds among all administratively rural non–critical access hospital beds nationwide was 61% (162,319 of 268,262) in 2023. Dual classification is defined in the exhibit 2 notes; administratively rural hospitals are defined in the exhibit 1 notes.

that has grown is the 340B program. Initially designed to support community health clinics that provide care for low-income populations, it expanded immensely after federal policy changes that relaxed eligibility restrictions.[22] Concerningly, dually classified hospitals now have easier participation in the 340B program through needing to meet the rural disproportionate share hospital adjustment percentage of 8 percent compared with an 11.75 percent threshold for urban hospitals, effectively meaning that these hospitals can serve a lower number of low-income patients to qualify.[8]

Meanwhile, many geographically rural hospitals face substantial financial challenges and a high risk for closure.[23,24] To ensure adequate care access for rural populations, the federal government has been designing various regulations and programs to support rural health.[25] To the extent that federal subsidies continue to play a critical role in the financial viability of geographically rural hospitals and other providers, it is essential to ensure that limited federal resources intended for rural health are directed to those hospitals. This approach would enhance the efficiency of federal rural health efforts and improve accountability to taxpayers. Therefore, Congress should consider ensuring that all federal programs intended to improve rural health are directed to geographically rural hospitals, not to dually classified geographically urban hospitals.

Conclusion

A rapid rise in administratively rural hospitals, largely driven by the dual classification of hospitals located in urban areas, can potentially divert federal resources from geographically rural hospitals. To preserve the integrity and effectiveness of rural health policy, Congress should direct federal support to geographically rural hospitals, where it is most needed. ■

EXHIBIT 4

The top 20 dually classified US hospitals with the highest net patient revenue, 2023

Hospital name	City	State	Ownership	Beds	Patient revenue (millions $US)
NewYork Presbyterian Hospital	New York	NY	Nonprofit	2,850	9,310
Cleveland Clinic Hospital	Cleveland	OH	Nonprofit	1,288	6,961
Adventhealth Orlando	Orlando	FL	Nonprofit	2,787	6,233
UCSF Medical Center	San Francisco	CA	Government	887	6,146
Cedars-Sinai Medical Center	Los Angeles	CA	Nonprofit	908	4,342
Duke University Hospital	Durham	NC	Nonprofit	1,079	4,027
Massachusetts General Hospital	Boston	MA	Nonprofit	997	3,880
Strong Memorial Hospital	Rochester	NY	Nonprofit	749	3,726
Mayo Clinic Hospital Rochester	Rochester	MN	Government	1,154	3,701
Hospital of the University of Pennsylvania	Philadelphia	PA	Nonprofit	1,011	3,691
Montefiore Medical Center	Bronx	NY	Nonprofit	1,444	3,662
Yale-New Haven Hospital	New Haven	CT	Nonprofit	1,340	3,629
Orlando Health	Orlando	FL	Nonprofit	1,467	3,386
Medical University of South Carolina	Charleston	SC	Government	932	3,281
University of North Carolina Hospital	Chapel Hill	NC	Government	809	3,168
Long Island Jewish Medical Center	New Hyde Park	NY	Nonprofit	1,153	3,150
University of Wisconsin Hospitals and Clinics	Madison	WI	Government	671	3,029
Lehigh Valley	Allentown	PA	Nonprofit	1,216	3,020
Memorial Hermann Texas Medical Center	Houston	TX	Nonprofit	1,137	2,988
Mount Sinai Health System-Beth Israel	New York	NY	Nonprofit	432	2,946

SOURCE Authors' analysis of data from Medicare cost reports compiled by RAND Hospital Data and the Centers for Medicare and Medicaid Services impact files. **NOTES** Hospitals are listed in order of patient revenue, highest to lowest, in the top 20. Hospitals' net patient revenues were identified from Medicare Cost Report Worksheet G-3, line 3. All hospitals in this list were teaching hospitals. Dual classification is defined in the exhibit 2 notes.

All authors are supported by Arnold Ventures. Christopher Whaley is also supported by PatientRightsAdvocate.org. The authors thank Yuchen Wang for her research assistance. To access the authors' disclosures, click on the Details tab of the article online.

NOTES

1 Government Accountability Office. Why health care is harder to access in rural America. WatchBlog [blog on the Internet]. 2023 May 16 [cited 2025 Jun 20]. Available from: https://www.gao.gov/blog/why-health-care-harder-access-rural-america

2 Health Resources and Services Administration. Federal Office of Rural Health Policy [Internet]. Rockville (MD): HRSA; [last reviewed 2023 Oct; cited 2025 Jun 20]. Available from: https://www.hrsa.gov/about/organization/bureaus/forhp

3 Omnibus Budget Reconciliation Act of 1987, Pub. L. No. 100-203, 101 Stat. 1330 (Dec. 22, 1987).

4 Special treatment: sole community hospitals, 42 C.F.R. Sect. 412.92 (1985).

5 Special treatment: referral centers, 42 C.F.R. Sect. 412.96 (1985).

6 Special treatment: Medicare-dependent, small rural hospitals, 42 C.F.R. Sect. 412.108 (1990).

7 To access the appendix, click on the Details tab of the article online.

8 Health Resources and Services Administration. 340B Drug Pricing Program [Internet]. Rockville (MD): HRSA; [last reviewed 2025 Apr; cited 2025 Jun 20]. Available from: https://www.hrsa.gov/opa

9 Longenecker R, Rodefeld L. Rural track program funding: an erosion in definitions of rural places requires new action [Internet]. Overland Park (KS): National Rural Health Association; 2022 Dec [cited 2025 Jun 20]. Available from: https://www.ruralhealth.us/getmedia/f71ebd3b-543e-424e-8b7e-885d7c9d2a2f/NRHA-Policy-Paper-final-Rural-Reclassified-Hospitals-and-RTPs_1.pdf

10 HR3075—Medicare, Medicaid, and SCHIP Balanced Budget Refinement Act of 1999. 106th Congress, 1st session (1999).

11 Health Care Financing Administration. Medicare program; provisions of the Balanced Budget Refinement Act of 1999; hospital inpatient payments and rates and costs of graduate medical education. Fed Regist. 2000;65(148):47026–54.

12 Centers for Medicare and Medicaid Services. Disproportionate share hospital (DSH) [Internet]. Baltimore (MD): CMS; [last modified 2025 Apr 24; cited 2025 Jun 20]. Available from: https://www.cms.gov/medicare/payment/prospective-payment-systems/acute-inpatient-pps/disproportionate-share-

hospital-dsh
13 Criteria for an individual hospital seeking redesignation to another rural area or an urban area, 42 C.F.R. Sect. 412.230(a)(5)(iii) (1990).
14 Centers for Medicare and Medicaid Services. Medicare Geographic Classification Review Board [Internet]. Baltimore (MD): CMS; [last modified 2025 Apr 29; cited 2025 Jun 20]. Available from: https://www.cms.gov/medicare/regulations-guidance/geographic-classification-review-board
15 *Geisinger Community Medical Center v. Secretary, United States Department of Health and Human Services*, 794 F.3d 383 (3d Cir. 2015).
16 *Lawrence + Memorial Hospital v. Burwell*, No. 15-164, 2016 WL 423702 (2d Cir. Feb. 4, 2015).
17 Special treatment: hospitals located in urban areas and that apply for reclassification as rural, 42 C.F.R. Sect. 412.103 (2000).
18 Centers for Medicare and Medicaid Services. Cost reports [Internet]. Baltimore (MD): CMS; [last modified 2025 Apr 18; cited 2025 Jun 20]. Available from: https://www.cms.gov/data-research/statistics-trends-and-reports/cost-reports
19 RAND. RAND Hospital Data [home page on the Internet]. Santa Monica (CA): RAND; c 1994–2025 [cited 2025 Jun 20]. Available from: https://www.hospitaldatasets.org/
20 Centers for Medicare and Medicaid Services. Critical access hospitals [Internet]. Baltimore (MD): CMS; [last modified 2024 Dec 30; cited 2025 Jun 20]. Available from: https://www.cms.gov/medicare/health-safety-standards/certification-compliance/critical-access-hospitals
21 American Hospital Association. Fast facts: U.S. rural hospitals [Internet]. Chicago (IL): AHA; c 2023 [cited 2025 Jun 20]. Available from: https://www.aha.org/system/files/media/file/2023/12/Fast-Fact-on-US-Rural-Hospitals-2023-Infographic.pdf
22 Robinson JC, Whaley C, Dhruva SS. Hospital prices for physician-administered drugs for patients with private insurance. N Engl J Med. 2024;390(4):338–45.
23 Bai G, Yehia F, Chen W, Anderson GF. Varying trends in the financial viability of US rural hospitals, 2011–17. Health Aff (Millwood). 2020; 39(6):942–8.
24 McCarthy S, Moore D, Smedley WA, Crowley BM, Stephens SW, Griffin RL, et al. Impact of rural hospital closures on health-care access. J Surg Res. 2021;258:170–8.
25 Centers for Medicare and Medicaid Services. Rural health resources [Internet]. Baltimore (MD): CMS; [last modified 2024 Sep 10; cited 2025 Jun 20]. Available from: https://www.cms.gov/priorities/health-equity/rural-health/resources