C H A P T E R 1

Mandated report: Rural emergency hospitals

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Chapter summary

Since 1983, when Medicare moved from paying hospitals on the basis of their costs to prospectively determined rates, policymakers have sought ways to financially support rural hospitals, which may be the sole provider of hospital care in their communities. Historically, Medicare's support for rural hospitals has focused on making inpatient services more profitable. However, inpatient volume has declined dramatically over the past 40 years, especially at rural hospitals. Such declines diminish the impact of Medicare's inpatient-centric support of hospitals and, in the 2010s, contributed to an increase in rural hospital closures.

This situation led the Congress to create the new rural emergency hospital (REH) designation in the Consolidated Appropriations Act, 2021 (CAA). As an REH, a hospital will:

- not furnish inpatient care;
- have an emergency department that is staffed 24/7;
- be paid fixed monthly payments from Medicare of approximately \$270,000 in 2023 (which amounts to \$3.2 million per year);
- be paid 105 percent of standard outpatient prospective payment system rates for emergency and outpatient services; and

In this chapter

- Evolution of Medicare's support for rural hospitals
- Adjusting payment policy to acknowledge the dramatic shift away from inpatient care in rural areas
- Medicare's support for rural hospitals has reduced closures
- Rural emergency hospitals: Which hospitals are converting?

meet other criteria (e.g., have a transfer agreement with a Level I or II trauma center).

The CAA requires the Commission to report annually on payments to REHs, beginning in March 2024. Because this program began in 2023, complete REH claims data are not yet available. Therefore, this chapter provides context on the evolution of Medicare's support for rural hospitals, gives background on the REH designation and the hospitals that have converted to REHs, and describes our 2023 site visits to (prospective) REHs to understand their experiences and decision-making processes.

In 2023, 21 hospitals converted to REHs, 6 of which were critical access hospitals and 15 of which were paid based on prospective payment systems. Before converting, these hospitals often furnished a low (and declining) volume of inpatient care, received enhanced payments from Medicare (through costbased payments or other special payments), were located relatively close to other hospitals, and had financial difficulties. The REH designation has been seen as a way for many communities that cannot support a full-service hospital to overcome financial difficulties and retain local access to emergency and outpatient services.

Rural communities have to balance issues of travel time, quality of care, and cost of care when determining whether their local hospital should become an REH. Because of the difficult decision such a choice presents to communities, the newness of the program, and other issues, the Commission contends that the modest number of hospitals that have transitioned to date does not indicate an immediate need to revise the fundamental parameters of the REH designation. Instead, the Commission will continue to monitor the new REH designation, including analyzing REH claims data when they become available, and consider possible modifications in the future. ■

Mandate to review payments to rural emergency hospitals

MEDPAC REVIEW OF PAYMENTS TO RURAL EMERGENCY HOSPITALS.—Each report submitted by the Medicare Payment Advisory Commission under section 1805(b)(1)(C) of the Social Security

Act (42 U.S.C. 1395b-6(b)(1)(C)) (beginning with 2024), shall include a review of payments to rural emergency hospitals under section 1834(x), as added by subsection (a). ■

Evolution of Medicare's support for rural hospitals

From the beginning of the program until 1983, Medicare paid hospitals based on their costs. Costbased payments encouraged long hospital stays, and Medicare hospital spending grew rapidly. From 1967 to 1983, Medicare hospital spending increased more than 10-fold, from \$3 billion to \$37 billion (Office of Inspector General 2001). To constrain costs, the Congress passed the Tax Equity and Fiscal Responsibility Act of 1982 (TEFRA). TEFRA contained some limits on how fast hospitals' cost-based payments could grow and required the Secretary of the Department of Health and Human Services to develop a plan for an inpatient prospective payment system (IPPS) for hospitals. The hospital industry objected to the TEFRA limits on cost growth, and the Congress continued to be concerned about costbased payments fueling the growth in Medicare spending (Quinn 2014). As a result, the Congress enacted an IPPS in 1983. The IPPS set prospective payment rates for acute care hospital services to encourage hospitals to reduce the costs of inpatient stays. Hospitals could profit under the new IPPS by reducing their costs per admission, such as by shortening patients' length of stay. As hospitals' cost growth per admission declined (and hospital profits increased), the Medicare program was able to slow growth in payment rates per admission and generate savings for the taxpayer (Prospective Payment Assessment Commission 1995b).

However, some rural advocates and policymakers were concerned that the IPPS might put undue financial

pressure on small rural hospitals, so they sought ways to financially support these hospitals. Historically, most rural hospital revenues were generated from inpatient services, with inpatient care revenue being seven times that of hospital outpatient care revenue in 1980 (Prospective Payment Assessment Commission 1995a). Because hospitals' financial viability was dependent on inpatient revenue, much of the financial support targeted at rural hospitals in the 1980s focused on ways to increase Medicare inpatient payments above standard IPPS rates.

The Congress enacted a series of inpatient-centric Medicare programs to support rural hospitals, including sole community hospitals (SCHs) in 1983, Medicare-dependent hospitals (MDHs) in 1989, critical access hospitals (CAHs) in 1997, and low-volume hospitals (LVHs) in 2005. By 2018, over 95 percent of rural hospitals were CAHs, MDHs, or SCHs, or they qualified as LVHs and received above-standard Medicare inpatient rates (Medicare Payment Advisory Commission 2021b).² Some rural hospitals qualify for more than one of these programs, receiving an LVH adjustment while also receiving special payment rates through their designation as an SCH or MDH.

The Commission has recommended financial support for necessary providers that have high costs due to factors outside of their control, such as supporting isolated providers with low patient volume (Medicare Payment Advisory Commission 2018, Medicare Payment Advisory Commission 2001). Special payments to provide this financial support should be empirically determined, narrowly targeted, and not duplicative of other payment adjustments (Medicare Payment Advisory Commission 2012).

Declining inpatient volume at rural hospitals diminishes impact of Medicare's inpatient-centric supports

Inpatient volume has declined dramatically over the past 40 years, reducing the effectiveness of Medicare's inpatient-centric supports. Between 1983 and 2021, national Medicare inpatient fee-for-service (FFS) days per capita declined by 70 percent (Medicare Payment Advisory Commission 2023b, Prospective Payment Assessment Commission 1995a). Not only has the aggregate volume of all hospital admissions declined dramatically, but rural hospitals' share of those admissions has also declined relative to urban hospitals. For example, even over the relatively short period from 2016 to 2022, rural hospitals' share of acute inpatient FFS admissions fell from 12.5 percent to 11.3 percent, whereas urban hospitals' share increased by a commensurate amount.

Occupancy is particularly low in the smallest rural hospitals (e.g., CAHs). By 2022, CAHs had an average daily census of seven occupied beds. Among the smallest 300 CAHs, the average daily census (combining acute inpatient, post-acute swing bed care, and observation patients) was fewer than 3 patients. Despite the small number of patients, hospitals were historically required to maintain an inpatient department to participate in the Medicare program as a hospital.

Reasons for the declining share of admissions in rural hospitals relative to urban hospitals

Rural hospitals' share of all inpatient admissions is declining while urban hospitals' share is increasing for multiple reasons. First, a portion of the decline reflects changes in technology. Forty years ago, rural heart attack and stroke patients may have been treated locally at a rural hospital. Today, heart attack patients are commonly transported to facilities that offer angioplasty and cardiac surgery. Even the smallest rural hospitals frequently have a helicopter pad outside of their hospital to facilitate these transfers. Similarly, a stroke patient who might have been treated locally 40 years ago may now be transported to a larger hospital that has a stroke center. Admissions that bypass local hospitals due to technological change are seen as contributing to an "unavoidable" increase in bypass rates because it is impractical to expect small

rural hospitals to maintain high-cost technologies or specialized staff (e.g., a cardiac catheterization lab) to treat very few cases. However, bypassing the local hospital is not always unavoidable. In 2018, rural FFS Medicare beneficiaries bypassed their local hospital for about one-third of inpatient admissions even when services were available locally (Knudson et al. 2020). Declining inpatient care nationally, technological changes, and beneficiaries increasingly choosing to bypass their local hospital have all reduced rural inpatient volumes.

Effect of declining inpatient volumes

Declining volume may raise concerns about the quality of services, especially in the smallest hospitals. Researchers have long found a relationship between volume and outcomes for some types of surgeries (Birkmeyer et al. 2002, Finks et al. 2011, Halm et al. 2002, Luft et al. 1979, Vogel et al. 2010).³ Even for the types of admissions common in small rural hospitals (e.g., pneumonia, congestive heart failure), some research indicates that low-volume rural hospitals tend to have worse outcomes than higher-volume rural and urban hospitals (Joynt et al. 2015, Joynt et al. 2013, Medicare Payment Advisory Commission 2012, Moscovice and Casey 2011, Silber et al. 2010). This literature suggests that there may be quality benefits to merging the inpatient services of two small hospitals that are close to each other when both are struggling because of very low volumes (e.g., 2 hospitals 15 miles from each other that each have an average daily census of 4). However, combining inpatient services into one hospital would be politically difficult, and communities would need to balance concerns about quality of care, reduced competition, increased travel times, and the costs to taxpayers of maintaining excess capacity.⁴

Declining inpatient volumes can also materially affect hospitals' financial stability and can ultimately lead to hospitals closing. For example, we examined changes in inpatient volume at the 40 rural hospitals that closed between 2015 and 2019. In the decade prior to closure (2005 to 2014), total (all-payer) inpatient admissions at these 40 hospitals fell by an average of 54 percent. In comparison, over the same period, hospitals that remained open saw total (all-payer) inpatient admissions decline by 3 percent (among

urban hospitals), 19 percent (among rural micropolitan hospitals), and 32 percent (among other rural hospitals). Among the closed hospitals, we found that inpatient admissions declined across a broad range of service lines, and the decline was not attributable to overall population change: Over the same period, the population of the counties in which these hospitals were located declined by an average of only 1 percent (Medicare Payment Advisory Commission 2021b).⁵

Even relatively high payment rates from FFS Medicare are often insufficient to offset the financial effects of declining inpatient volumes. For example, the chief executive officer of a hospital that received special payments under Medicare (as an SCH and LVH) chose to convert to a rural emergency hospital (REH) because the number of inpatients to which that special rate applied reached a point that was too low to remain profitable financially (Medsphere 2023).

The continuing decline in inpatient volume among rural hospitals and an increase in rural hospital closures in the latter half of the 2010s-even though nearly all rural hospitals received enhanced Medicare payment rates-led some stakeholders (including the Commission) to suggest the need for a new model of supporting rural hospitals. Rather than focusing on increasing the profitability of the (dwindling) volume of inpatient care, the new model would focus on making emergency care financially viable and resilient to declining inpatient volumes.

Adjusting payment policy to acknowledge the dramatic shift away from inpatient care in rural areas

In 2018, the Commission recommended that Medicare create a new category of hospital: an outpatientonly facility with a 24/7 emergency department (ED). Rather than being paid on a purely FFS basis, the new outpatient-only hospitals would receive a fixed monthly payment to help support the hospitals' standby costs of maintaining an ED plus PPS rates for each outpatient service. Medicare's total spending per hospital-including the fixed payment-was expected to be similar to the cost of providing cost-based payments to a CAH. By having Medicare cover a large

share of hospitals' ED standby costs, isolated rural communities could preserve emergency access, even if the area's low population density resulted in limited patient volumes. In return for receiving a fixed monthly payment from the Medicare program, the hospital would guarantee 24/7 access to emergency services for Medicare beneficiaries.

Consistent with the Commission's recommendation, the Congress created the REH designation in the Consolidated Appropriations Act, 2021 (CAA). As an REH, a hospital will:

- not furnish inpatient care;
- have an ED that is staffed 24/7;
- be paid fixed monthly payments from Medicare of about \$270,000 in 2023 (which amounts to approximately \$3.2 million per year);⁶
- be paid 105 percent of standard outpatient prospective payment system (OPPS) rates for emergency and outpatient services provided to Medicare FFS beneficiaries and standard rates for other services; and
- meet other criteria (e.g., have a transfer agreement with a Level I or II trauma center).

Becoming an REH is voluntary, meaning hospitals can choose whether or not they want to transition to an REH. Hospitals eligible to transition to an REH are those that, as of December 27, 2020, were a CAH or a PPS hospital with 50 or fewer beds in a rural county.⁷

Hospitals that choose to convert to REHs are allowed to convert back to full-service hospitals, although REHs that want to convert back to CAHs will need to be located a specified distance from the next-nearest hospital-more than 35 miles from the next-nearest hospital or more than 15 miles away in mountainous areas or areas where only secondary roads are available. In 2013, the Office of Inspector General found that nearly two-thirds of all CAHs would not meet this distance requirement (Office of Inspector General 2013). Most of the CAHs that would not have met the distance requirement were "necessary provider" CAHs, which did not have to meet the distance requirement when they were initially certified.⁸

REHs are required to offer ED and observation care.⁹ REHs must maintain an annual average per patient length of stay of 24 hours or less. Thus, any particular beneficiary is able to stay in observation care at an REH for more than 24 hours, but the REH's average must be 24 hours or less across all their patients. For example, if an REH had 1,000 ED visits that averaged 3 hours a visit and 200 observation stays that averaged 2 days a stay, the hospital would have an average length of stay of 10.5 hours and meet the REH length-of-stay requirement.¹⁰

REHs can also choose to offer a broad range of outpatient services. All services that are paid under the OPPS when furnished in an OPPS hospital can, with the exception of acute inpatient services, be provided by REHs. REHs can also furnish other services that are not paid through the OPPS, such as ambulance services.

REHs are also exempt from certain site-neutral payment policies. The Bipartisan Budget Act of 2015 lowered the payment rate for certain offcampus outpatient departments in order to make Medicare's total payment (physician fee schedule plus OPPS payments) for services rendered in these settings similar to the total if the service had been performed in a clinician's office. However, these lower payment rates do not apply to REHs, so they receive 105 percent of the full OPPS rates. In addition, REHs' provider-based rural health clinics are able to retain their grandfathered status, which results in substantially higher payment rates than if the rural health clinics were subject to the national statutory payment limit for rural health clinics.

The monthly fixed payments that REHs receive are updated annually by the increase in the hospital market basket. This predictable increase in revenue stands in contrast to the declining volume that many rural hospitals have experienced and makes transitioning to an REH more attractive to hospitals to the extent that their inpatient volumes (and associated revenues) continue to decline. The fixed payments also benefit hospitals in areas with increasing Medicare Advantage (MA) penetration because the fixed payments are made directly from the federal government to hospitals. REHs are therefore not reliant on MA plans matching high FFS rates, which anecdotal reports suggest sometimes does not occur.

(See the text box for more information about how REH payments affect the MA program, p. 498.)

The fixed payments that REHs receive are also allowed to be used flexibly. For example, some hospitals may choose to spend the funding on expanding telehealth services, while others might spend it on supporting an ambulance service. This flexibility promotes local control over the funding and accounts for the heterogeneity of needs across rural communities.

Beneficiary cost sharing for services furnished by REHs will be lower than or similar to their cost sharing before hospitals converted. Cost sharing for REH services is based on standard OPPS rates. If an REH was previously a PPS hospital, beneficiary cost sharing will be similar to the amount that beneficiaries paid before the conversion.¹¹ However, if an REH was previously a CAH, beneficiary cost sharing will decrease substantially because beneficiary cost sharing at CAHs is based on 20 percent of charges (not costs) and can far exceed cost sharing under the OPPS. For example, the Office of Inspector General has found that for 10 outpatient services that were frequently provided at CAHs, beneficiaries paid between 2 and 6 times the amount in coinsurance that they would have for the same services at hospitals paid under the OPPS (Office of Inspector General 2014).

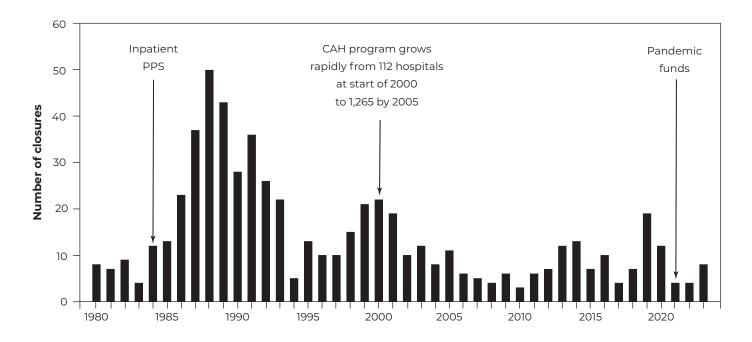
Medicare's support for rural hospitals has reduced closures

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Rural hospitals are not homogeneous. They range from tertiary care hospitals with revenue of \$1 billion to small facilities with \$5 million total annual revenue. Large rural facilities often have pricing power and economies of scale that allow them to generate allpayer profit margins that are comparable with those of urban hospitals (Maxwell et al. 2020, Pink et al. 2013, Thomas et al. 2015). In contrast, the smallest hospitals lack economies of scale, and if their patient volumes fall far enough, they may close.¹²

Though not all closures are negative and other metrics may also be important markers of financial health, the rate of closures often drives interest in changing or enhancing support for rural hospitals. Thus, we track

Number of rural hospital closures by year, 1980-2023



Note: PPS (prospective payment system), CAH (critical access hospital). All counties that are not part of a metropolitan statistical area are considered rural, including micropolitan areas. A micropolitan area contains an urban core of at least 10,000 individuals (but less than 50,000). Other rural areas do not contain a city of at least 10,000. The Commission measures closures in each fiscal year starting in October in order to align closures with changes in payment rates. Earlier work by the Office of Inspector General and the Government Accountability Office measured closures using calendar years.

Source: MedPAC analysis of hospitals participating in Medicare and past reports by the Office of Inspector General and the Government Accountability Office (Government Accountability Office 2018, Government Accountability Office 1991, Medicare Payment Advisory Commission 2023a, Medicare Payment Advisory Commission 2021a, Medicare Payment Advisory Commission 2020a, Medicare Payment Advisory Commission 2020b, Medicare Payment Advisory Commission 2019, Medicare Payment Advisory Commission 2006, Office of Inspector General 2003, Office of Inspector General 1991, Office of Inspector General 1990).

the history of closures from the few years immediately preceding the implementation of the IPPS in 1983 to show that Medicare's special payments to rural hospitals have reduced closures. We also discuss why some rural closures continue to occur despite substantial federal support.

After the IPPS was implemented in October 1983, the number of rural hospital closures increased. Special rural payment policies enacted in the 1980s and 1990s increased payments to rural hospitals and reduced closures. For example, the CAH program (which provides cost-based payments for inpatient, outpatient, and post-acute swing bed services) was enacted in 1997 and grew rapidly from 2000 to 2005, when the

program expanded from 112 hospitals (5 percent of rural hospitals) to 1,265 hospitals (over 50 percent of rural hospitals). In the years after this rapid growth, rural hospital closures declined (Figure 15-1).

However, some rural hospitals continued to close because substantial declines in volume resulted in unsustainably high costs per service. For example, by 2021, CAHs' average costs for post-acute care had increased to \$2,400 per day, more than five times the cost that competing skilled nursing facilities incurred to furnish the same service (i.e., \$440 per day). Even with FFS Medicare paying the high cost of caring for its patients, some CAHs closed because they had difficulty

Rural emergency hospital payments and Medicare Advantage benchmarks

MS bases payments to Medicare Advantage (MA) plans partially on county-level feefor-service (FFS) spending per beneficiary. Like nearly all other FFS payments, rural emergency hospitals' (REHs') enhanced FFS outpatient prospective payment rates will be incorporated into county-level benchmarks. While the data are not yet available, we expect that MA plans will pay rates similar to FFS rates for outpatient hospital services

REHs also received fixed monthly payments equal to an annual total of \$3.2 million per REH in 2023. However, unlike the payments for furnishing services, we do not expect MA plans to match the fixed payments coming directly from Medicare for multiple reasons. First, especially for MA plans with few enrollees who use REHs, the extra payments that MA plans would need to make to match Medicare's fixed payments would be very high per service, and coordinating extra payments across

multiple MA plans whose enrollees use REHs would be administratively complex. Second, MA plans have an incentive to reduce their spending in order to bid lower so that they can offer extra benefits to beneficiaries and attract more beneficiaries to enroll. Third, we are unaware of any requirements mandating that MA plans match Medicare's fixed payments. And, fourth, in conversations with the first group of hospitals that have converted to REHs, we have not heard of any MA plans paying REHs fixed payments similar to those being paid by the Medicare program.

Excluding REH fixed payments from MA benchmarks would also promote equity between FFS and MA because plans would not be paid (through higher benchmarks) for doing something they are not expected to do (i.e., match the fixed payments to REHs). Therefore, policymakers may want to consider clarifying that REHs' fixed payments should be excluded from MA benchmarks in the future.

obtaining large enough payments from commercial insurers, Medicaid, and MA plans to cover the costs of care for those patients and for patients without insurance (Medicare Payment Advisory Commission 2021b). These other payers may not be willing to pay CAHs at rates that are equal to or above Medicare's cost-based rates when alternative providers are willing to provide care for far lower rates.

As a result of these shifting dynamics, the slowdown in rural hospital closures that occurred after the expansion of the CAH program was temporary. Around 2013, the number of closures began to increase again and continued at elevated levels through 2020 (Figure 15-1, p. 497). From 2013 to 2020, an average of 10.5 rural hospitals closed per year.

In 2021 and 2022, rural hospital closures slowed to four per year as hospitals received pandemic relief funds that were greater than the additional costs associated

with the pandemic. After those funds stopped flowing in 2023, the rate of rural closures increased to eight. Those 8 closures are still below the long-run annual average of 14 from 1980 to 2023.

Rural emergency hospitals: Which hospitals are converting?

Because the main goal of the new REH designation was to maintain access to emergency care, we analyzed why the eight rural hospitals that closed in 2023 did so instead of converting to REHs. We identified several reasons:

Two hospitals are considering reopening as REHs, but they did not have time to convert prior to closure.

- One hospital became an outpatient facility of another hospital with a 24/7 ED but cannot convert to an REH because the state has not yet put REH regulations in place.¹³
- One hospital converted to an outpatient department of a neighboring hospital owned by the same hospital system.
- One hospital is less than two miles from another CAH.
- Three hospitals have more than 50 beds (making them ineligible to convert to REHs); 2 of these hospitals are in the process of reopening as fullservice hospitals.

These findings suggest that the new REH designation will not prevent all rural hospital closures, and that might not always be undesirable. For example, subsidizing an REH that is two miles from a CAH is likely not an efficient use of taxpayer funding. It may make sense to consolidate inpatient volume in one facility when two nearby hospitals are both struggling with low volumes, given that low volumes can raise quality and cost concerns. Nevertheless, some stakeholders have highlighted potential issues that could be addressed in the future to allow a larger number of hospitals to convert to REHs, including state-level issues (e.g., state licensing and Medicaid payments) and federal-level issues (e.g., allowing all CAHs to revert back to CAH status and allowing REHs to participate in the 340B program) (Walters et al. 2023).

While the new REH designation did not prevent all closures, we expect that the program will keep the number of rural hospital closures below the annual average of 14 closures per year from 1980 to 2023. In 2023, the program likely prevented several closures, as is indicated by the historical volume trends and other characteristics of the 21 hospitals that have already converted to REHs.

Characteristics of rural emergency hospitals

In 2023, 21 hospitals converted to REHs. 14 Six of these hospitals had been CAHs, and the remaining 15 had been paid based on PPS rates (Table 15-1, p. 500). Prior to converting, all but one of the hospitals received cost-based payments as CAHs or qualified as LVHs (and received an average add-on of 24 percent to IPPS rates in 2022). 15 Seven hospitals also qualified as SCHs and three qualified as MDHs. (SCHs and MDHs receive inpatient payments based partially on their historical costs in addition to any applicable LVH adjustment.)

The 21 REHs tended to be located relatively close to other general acute care hospitals-on average, 15 to 35 miles away (Table 15-1, p. 500). Of the 21 REHs, 5 were located less than 15 miles from the next-nearest hospital, 14 were located between 15 miles and 35 miles from the next-nearest hospital, and 2 were more than 35 miles from the next-nearest hospital.

In the decade prior to converting to REHs, the volume of inpatient care furnished at these 21 hospitals declined substantially. On average, from 2011 to 2021, total (all-payer) inpatient admissions declined by 55 percent (Table 15-1, p. 500). 16 Overall population declines appear to explain a small share of the decline in admissions. From 2011 to 2021, the median population decline in the counties in which REHs were located was 4 percent (data not shown). This finding is consistent with our previous research on rural hospital closures that found that the secular declines in inpatient hospital use and rural beneficiaries bypassing their local hospitals were more important factors in explaining declining inpatient admissions among rural hospitals that subsequently closed (Medicare Payment Advisory Commission 2021b).

By 2021, these hospitals averaged 377 total (allpayer) inpatient admissions during the year-about 1 admission per day. Commenting on the decline in inpatient admissions, one local leader of a rural hospital that converted to an REH said that "critical access hospitals across the country have been finding it hard to survive . . . you end up having a hospital that you have to staff for inpatient services, and you literally don't have inpatient services" (KY3 2023).

Choosing to no longer offer inpatient services is undoubtedly a difficult decision for many rural hospitals and communities. However, our analyses suggest that the hospitals that chose to convert to REHs were furnishing only a modest amount of inpatient care before converting, and many were located within a reasonable distance of another hospital.

Before converting to REHs, the volume of outpatient care furnished at these 21 hospitals was also declining,

Most hospitals had special FFS Medicare rates, were near other hospitals, and had low inpatient volume before converting to rural emergency hospitals

Count of REHs	Hospital type (before REH conversion)	Special Medicare FFS payments (before REH conversion)	Miles to nearest general acute care hospital	Total (all-payer) inpatient admissions		
				2011	2021	Percent change
1	CAH	CAH	15–35	77	0	-100%
2	CAH	CAH	>35	259	7	-97
3	CAH	CAH	<15	85	11	-87
4	PPS	LVH	15–35	399	70	-82
5	PPS	LVH, MDH	15–35	327	96	-71
6	CAH	CAH	15–35	216	103	-52
7	CAH	CAH	15–35	366	107	-71
8	PPS	LVH, SCH	>35	210	118	-44
9	CAH	CAH	<15	286	130	-55
10	PPS	LVH, SCH	15–35	639	139	-78
11	PPS	LVH, SCH	15–35	390	216	-45
12	PPS	LVH, MDH	15–35	630	335	-47
13	PPS	LVH, SCH	15–35	612	342	-44
14	PPS	LVH, SCH	<15	908	458	-50
15	PPS	LVH	<15	1,630	492	-70
16	PPS	LVH, SCH	15–35	1,624	551	-66
17	PPS	None	<15	1,865	676	-64
18	PPS	LVH, MDH	15–35	1,853	786	-58
19	PPS	LVH, SCH	15–35	815	820	1
20	PPS	LVH	15–35	1,687	887	-47
21	PPS	LVH	15–35	2,679	1,581	-41
	Average		15–35	836	377	-55

Note: REH (rural emergency hospital), FFS (fee-for-service), CAH (critical access hospital), PPS (prospective payment system), LVH (low-volume hospital), MDH (Medicare-dependent hospital), SCH (sole community hospital).

Source: MedPAC analysis of cost reports; Provider Enrollment, Chain, and Ownership System data; provider-specific files; and Quality, Certification and Oversight Reports data.

but at a slower rate than inpatient care. We do not have total (all-payer) data for outpatient visits, so we relied on Medicare FFS data to measure changes in outpatient volume. From 2012 to 2022, the volume of FFS outpatient visits declined at about half the rate of FFS inpatient volume. The change over time in outpatient volume was also less consistent. Six hospitals had flat or increasing FFS outpatient volume before conversion, but the rest experienced declines, some of which were substantial.

Outpatient visits can include a variety of services, such as clinic visits, outpatient surgeries, and ED visits. 17 In 2022, these 21 hospitals averaged about 4,200 outpatient visits for Medicare FFS beneficiaries, or about 11 outpatient visits per day. In the same year, these 21 hospitals furnished an average of about 720 Medicare FFS emergency department visits, or about 2 visits a day. These figures do not include beneficiaries enrolled in MA, individuals with other types of insurance (e.g., commercial, Medicaid), or those without insurance.

Hospitals were generally unprofitable before converting to REHs. In 2022, the median total (allpayer) margin of the 21 hospitals that transitioned to REHs was -11 percent. However, not all hospitals were under equal financial strain before converting. Of the 21 hospitals, 17 hospitals had negative total profit margins, 2 hospitals had a small profit margin, and 2 hospitals had substantial profit margins. The two hospitals with substantial margins were CAHs, furnished virtually no inpatient care, and were part of larger hospital chains. Their margins were higher in 2021 and 2022 than in preceding years, suggesting that the coronavirus pandemic and the associated relief funds could have contributed to their relatively high total margins.

REHs were disproportionately located in the South. Of the 21 REHs, 19 were located in the Southeast or Southwest, with Texas having the highest number of REHs in one state. REHs also varied in terms of their ownership structure and whether they were part of a system. Ten REHs were owned by a governmental entity (e.g., a local hospital district), while 6 were nonprofits and 5 were for profit. Twelve REHs were part of a system, while 9 were not.

Our examination of hospitals that closed or converted to REHs makes it clear that rural hospitals often have unique circumstances and localized patterns of health care delivery. While almost all hospitals that converted to REHs experienced large declines in inpatient admissions prior to converting, their changes in outpatient volume varied substantially. Some REHs are relatively isolated providers that are likely essential for emergency access, but others are closer to alternative sources of care. Most REHs appeared to have converted because of significant financial stress, but a few may have done so because it is a more financially advantageous model for them. Nevertheless, the ability to convert to an REH serves as an option for most rural communities to maintain emergency services even if they cannot support a fullservice hospital. Given the hospitals that have chosen to convert, the REH designation appears to be a more efficient and effective method for preserving emergency access than trying to subsidize largely empty inpatient departments in these communities.

Site visits with hospitals transitioning to rural emergency hospitals

Because only a limited number of hospitals have converted to date and claims data are not yet available, we spoke with a range of REH stakeholders (including researchers, hospital administrators, and rural hospital advocates) and conducted site visits to hospitals that were in the process of transitioning to REHs in order to gain additional qualitative context about hospitals that are considering converting.

In the summer of 2023, Commission staff conducted telephone and on-site interviews with three hospitals that had converted to REHs or were in the process of converting. For the site visits, we toured the facilities and spoke with representatives of those facilities, representatives of a nearby hospital (who might be impacted by a conversion), a local emergency medical services provider, and community leaders. We aimed to better understand why the hospitals chose to convert to REHs, how they planned to operate as REHs, and how their communities reacted to the proposed transition.

Representatives from all the hospitals that converted or were in the process of converting to REHs said their facilities would have closed without the new REH designation. The hospitals had been consistently losing money over several years, except for the years when the hospitals received substantial federal funding during the coronavirus pandemic. The financial losses persisted despite hospitals limiting expenses, reducing unprofitable service lines (e.g., obstetrics and behavioral health), adding financially profitable service lines (e.g., imaging), receiving financial support from state and local organizations (e.g., dedicated local sales tax revenues and charitable donations), and receiving enhanced FFS Medicare payment rates (e.g., LVH and MDH payments).

Hospital representatives cited several factors that drove their financial difficulties, including increasing staff wages, local residents increasingly bypassing their hospitals for more distant hospitals, and the negative financial impacts of expanding MA penetration (e.g., increased denials and reduced payment rates).

The hospitals we visited all had a full-service hospital within 35 miles of their facility. Nonetheless, the loss of inpatient beds was the most prominent concern among the local residents and clinicians, even for a hospital that had an average daily inpatient census of less than two patients (from all payers). Because of the low volume of inpatient care furnished at these hospitals, nearby full-service hospitals will be able

to successfully absorb those cases. The concerns about losing inpatient services focused on patient convenience (as some patients will be required to travel farther to receive inpatient care), additional burden on local emergency medical service providers (as longer ambulance transports might be needed), disruptions of long-established care patterns of local clinicians (who are used to admitting and rounding on their patients locally), and a generalized concern about regional bed capacity for high-acuity patients. While the hospitals that are transitioning to REHs treated relatively few high-acuity inpatients, representatives noted that securing transfers to tertiary hospitals that are often 30 miles to 60 miles away has become increasingly difficult, and some believed that rural hospitals could alleviate the limited capacity of these hospitals by caring for less-acute patients at their hospitals.

When the hospitals convert to REHs, representatives said they would reduce costs in some areas but expand service offerings in others. Multiple representatives said they would be able to reduce nursing costs by reducing reliance on contract nursing or by not filling open positions. Reducing nursing costs is possible because these hospitals had to maintain a certain level of nurse staffing to support their low-volume inpatient departments. After they transition, they will no longer need to maintain nursing staff for that purpose, and representatives said that furnishing outpatient care is less nurse intensive. In contrast, some representatives said they were planning on using some of the additional fixed payments from Medicare to expand outpatient services, make capital improvements to

their facilities, enhance emergency room staffing, and offer other services that they thought the community needed but that were currently unavailable (e.g., transportation services). The variety of ways in which hospital representatives planned on using the monthly payments from Medicare highlights one of the key differences between the REH model and traditional FFS payments: Local hospitals and communities have substantial discretion to decide which services are most needed.

Ongoing monitoring of REHs

The new REH designation's focus on maintaining access to emergency and outpatient care represents a substantial departure from Medicare's historical approach to supporting rural hospitals. Rural communities will have to balance issues of travel time, quality of care, and cost of care when determining whether to close their inpatient departments. Because of the difficult decision that such a choice presents to communities, the newness of the program, and other issues (e.g., lack of state regulations), the modest number of hospitals that have transitioned to date does not imply a need to substantially revise the fundamental parameters of the REH designation. Instead, the Commission will continue to monitor the volume of hospitals that transition to REHs, speak with representatives of rural hospitals that are considering converting, and analyze data to inform any future policy considerations. As part of that ongoing monitoring, the Commission will consider possible modifications to the REH designation in the future. ■

Endnotes

- These models are "inpatient centric" in that they all require hospitals to maintain inpatient services. In addition, most of the supplemental payments to CAHs, MDHs, and SCHs go to increasing acute inpatient and post-acute swing bed payments. CAHs receive cost-based outpatient payments, and SCHs receive a 7.1 percent increase to outpatient prospective payment system rates; however, a large share of supplemental federal payments for these providers are for inpatients. LVH adjustments apply only to inpatient payments.
- 2 For a full description of these special payments, see the Commission's June 2021 report to the Congress.
- One exception to the volume-outcomes relationship is a study that found 30-day mortality rates were similar for CAHs and larger hospitals for appendectomy, cholecystectomy, colectomy, and hernia repair. CAHs had slightly higher readmission rates but lower reported complications. The combination of fewer complications and higher readmission rates may reflect less complete coding in CAHs (Ibrahim et al. 2016).
- Communities' desires to maintain their local hospital can make merger negotiations difficult. For example, we talked with an administrator of a hospital in a small community. He and the administrator of the neighboring town's hospital agreed to merge their two hospitals. Both hospitals were struggling with aging facilities and low patient volumes. But the merger never materialized. The boards of the two hospitals could not agree on which community would gain the new merged hospital, so the communities continued to operate two separate hospitals.
- We used FFS claims to examine whether the decline was due to specific service lines or occurred across multiple service lines. For each of the seven most common diagnosis related groups at the closed hospitals (pneumonia, heart failure, chronic obstructive pulmonary disease, nutritional and metabolic disorders, esophagitis and digestive disorders, kidney and urinary tract infections, and septicemia), we found that volume declined by between 40 percent and 84 percent from 2005 to 2014.
- In 2023, REHs received \$272,866 per month less a 2 percent sequestration adjustment, which nets out to \$267,409 per month or approximately \$3.2 million per year.
- For the purpose of REH eligibility, a rural county is one that is not in a metropolitan statistical area as delineated by the Office of Management and Budget. Hospitals are also eligible if they had 50 or fewer beds and were treated

- as rural pursuant to 1886(d)(8)(E) (which allows hospitals in metropolitan statistical areas to reclassify as rural if they meet specified criteria that include location in areas that states have declared rural).
- Prior to 2006, states could exempt a CAH from this distance requirement by designating it as a "necessary provider." Effective January 1, 2006, the Medicare Prescription Drug, Improvement, and Modernization Act prohibited the creation of new necessary-provider CAHs but allowed existing ones to retain their necessary-provider designations permanently. Because states can no longer create new necessary-provider CAHs, REHs that try to revert back to CAHs might be unable to do so.
- Observation care includes ongoing short-term treatment, assessment, and reassessment before a decision can be made regarding whether patients require further treatment as hospital inpatients or can be discharged from the hospital. Observation services are commonly ordered for patients who present to the ED and require a significant period of treatment or monitoring for a clinician to make a decision about a patient's admission or discharge. In most cases, the decision about whether to discharge or admit the patient after resolving the reason for observation care can be made in less than 48 hours, and usually in less than 24 hours. Only in rare cases do reasonable and necessary outpatient observation services span more than 48 hours (Centers for Medicare & Medicaid Services 2020).
- 10 This average length of stay is calculated as ((1,000 visits × 3 hours per visit) + (200 visits × 48 hours per visit)) / (1,000 visits + 200 visits).
- 11 Beneficiary cost sharing for REH services is based on standard OPPS rates-i.e., cost sharing is based on 100 percent of OPPS rates, not the 105 percent rate that REHs are paid.
- 12 Some larger rural hospitals may also close due to volume declines or other reasons.
- 13 According to the National Conference of State Legislatures, only 15 states have currently enacted laws enabling REH licensure (National Conference of State Legislatures 2023). Other states have different licensure pathways for REHs. For example, Georgia has not passed a law specifically pertaining to REH licensure but has a preexisting licensure process for freestanding EDs.

- 14 The count of REHs is based on the most recent Provider Enrollment, Chain, and Ownership System data and Quality, Certification and Oversight Reports data as of December 30, 2023. One hospital included in the count of REHs closed after converting to an REH. Hospital leaders cited their inability to pay a \$13 million mortgage debt, which was incurred prior to converting to an REH, as a key reason for closing (Kayser 2023).
- 15 The hospital that was not a CAH and did not qualify as an LVH was located within 15 miles of another PPS hospital. In 2022, one criterion to qualify as an LVH was to be located more than 15 road miles from the nearest Subsection (d) hospital.
- 16 We observed similar declines in inpatient admissions when looking only at Medicare patients (data not shown).
- 17 The data do not include visits at rural health clinics owned by the hospitals.

References

Birkmeyer, J. D., A. E. Siewers, E. V. Finlayson, et al. 2002. Hospital volume and surgical mortality in the United States. New England Journal of Medicine 346, no. 15 (April 11): 1128-1137.

Centers for Medicare & Medicaid Services, Department of Health and Human Services. 2020. Medicare benefit policy manual chapter 6: Hospital services covered under Part B. https:// www.cms.gov/regulations-and-guidance/guidance/manuals/ downloads/bp102c06.pdf.

Finks, J. F., N. H. Osborne, and J. D. Birkmeyer. 2011. Trends in hospital volume and operative mortality for high-risk surgery. New England Journal of Medicine 364, no. 22 (June 2): 2128-2137.

Government Accountability Office. 2018. Rural hospital closures: Number and characteristics of affected hospitals and contributing factors. GAO-18-634. Washington, DC: GAO.

Government Accountability Office. 1991. Rural hospitals: Federal efforts should target areas where closures would threaten access to care. HRD-91-41. February. https://www.gao.gov/assets/hrd-91-41.pdf.

Halm, E. A., C. Lee, and M. R. Chassin. 2002. Is volume related to outcome in health care? A systematic review and methodologic critique of the literature. Annals of Internal Medicine 137, no. 6 (September 17): 511-520.

Ibrahim, A. M., T. G. Hughes, J. R. Thumma, et al. 2016. Association of hospital critical access status with surgical outcomes and expenditures among Medicare beneficiaries. JAMA 315, no. 19 (May 17): 2095-2103.

Joynt, K. E., P. Chatterjee, E. J. Orav, et al. 2015. Hospital closures had no measurable impact on local hospitalization rates or mortality rates, 2003-11. Health Affairs 34, no. 5 (May): 765-772.

Joynt, K. E., E. J. Orav, and A. K. Jha. 2013. Mortality rates for Medicare beneficiaries admitted to critical access and noncritical access hospitals, 2002-2010. Journal of the American Medical Association 309, no. 13 (April 3): 1379-1387.

Kayser, A. 2023. Texas hospital to close. October 6. https://www.beckershospitalreview.com/finance/texashospital-to-close.html.

Knudson, A., S. Popat, W. Hu, et al., Department of Health and Human Services. 2020. Understanding rural hospital bypass among Medicare fee-for-service (FFS) beneficiaries in 2018. Data highlight, no. 19. Baltimore, MD: CMS.

KY3. 2023. Eureka Springs, Ark., hospital transitions to rural emergency to survive. KY3, October 24. https://www.ky3. com/2023/10/24/eureka-springs-ark-hospital-transitionsrural-emergency-survive/.

Luft, H. S., J. P. Bunker, and A. C. Enthoven. 1979. Should operations be regionalized? The empirical relation between surgical volume and mortality. New England Journal of Medicine 301, no. 25 (December 20): 1364-1369.

Maxwell, A., H. A. Howard, and G. H. Pink. 2020. 2016-18 profitability of urban and rural hospitals by Medicare payment classification: NC Rural Health Research Program. April.

Medicare Payment Advisory Commission. 2023a. A data book: Health care spending and the Medicare program. Washington, DC: MedPAC. https://www.medpac.gov/wp-content/ uploads/2023/07/July2023_MedPAC_DataBook_SEC.pdf.

Medicare Payment Advisory Commission. 2023b. Report to the Congress: Medicare payment policy. Washington, DC: MedPAC.

Medicare Payment Advisory Commission. 2021a. A data book: Health care spending and the Medicare program. Washington, DC: MedPAC.

Medicare Payment Advisory Commission. 2021b. Report to the Congress: Medicare and the health care delivery system. Washington, DC: MedPAC.

Medicare Payment Advisory Commission. 2020a. A data book: Health care spending and the Medicare program. Washington, DC: MedPAC.

Medicare Payment Advisory Commission. 2020b. Report to the Congress: Medicare payment policy. Washington, DC: MedPAC.

Medicare Payment Advisory Commission. 2019. A data book: Health care spending and the Medicare program. Washington, DC: MedPAC.

Medicare Payment Advisory Commission. 2018. Report to the Congress: Medicare and the health care delivery system. Washington, DC: MedPAC.

Medicare Payment Advisory Commission. 2012. Report to the Congress: Medicare and the health care delivery system. Washington, DC: MedPAC.

Medicare Payment Advisory Commission. 2006. Report to the Congress: Medicare payment policy. Washington, DC: MedPAC.

Medicare Payment Advisory Commission. 2001. Report to the Congress: Medicare in rural America. Washington, DC: MedPAC.

Medsphere. 2023. For whom does rural emergency hospital status make sense? Interview with Christina Campos. https:// chartlogic.wistia.com/medias/wgim8voge6.

Moscovice, I. S., and M. M. Casey. 2011. Quality of care in critical access hospitals. Journal of the American Medical Association 306, no. 15 (October 19): 1653; author reply 1654-1655.

National Conference of State Legislatures. 2023. Rural emergency hospitals. https://www.ncsl.org/health/rural-emergencyhospitals.

Office of Inspector General, Department of Health and Human Services. 2014. Medicare beneficiaries paid nearly half of the costs for outpatient services at critical access hospitals. OEI-05-12-00085. Washington, DC: OIG.

Office of Inspector General, Department of Health and Human Services. 2013. Most critical access hospitals would not meet the location requirements if required to re-enroll in Medicare. OEI-05-12-00080. Washington, DC: OIG.

Office of Inspector General, Department of Health and Human Services. 2003. Trends in rural hospital closure 1990-2000. OEI-04-02-00610. Washington, DC: OIG.

Office of Inspector General, Department of Health and Human Services. 2001. Medicare hospital prospective payment system: How DRG rates are calculated and updated. OEI-09-00-00200. Washington, DC: OIG. https://oig.hhs.gov/oei/reports/oei-09-00-00200.pdf.

Office of Inspector General, Department of Health and Human Services. 1991. Hospital closure: 1989. OEI-04-90-02440. Washington, DC: OIG.

Office of Inspector General, Department of Health and Human Services. 1990. Hospital closure: 1988. OEI-04-89-01810. Washington, DC: OIG.

Pink, G. H., V. Freeman, R. Randolph, et al. 2013. Profitability of rural hospitals. Findings brief. Chapel Hill, NC: North Carolina Rural Health Research Program. August. https:// www.shepscenter.unc.edu/wp-content/uploads/2014/08/ MergersAcquisitionsAugust2014.pdf.

Prospective Payment Assessment Commission. 1995a. Report and recommendations to the Congress. Washington, DC: ProPAC.

Prospective Payment Assessment Commission. 1995b. Report to the Congress: Medicare and the American health care system. Intramural report June. Washington, DC: ProPAC.

Quinn, K. 2014. After the revolution: DRGs at age 30. Annals of Internal Medicine 160, no. 6 (March 18): 426-429.

Silber, J. H., P. R. Rosenbaum, T. J. Brachet, et al. 2010. The Hospital Compare mortality model and the volume-outcome relationship. Health Services Research 45, no. 5, pt. 1 (October): 1148-1167.

Thomas, S. R., B. G. Kaufman, R. K. Randolph, et al. 2015. A comparison of closed rural hospitals and perceived impact. Findings brief. Chapel Hill, NC: North Carolina Rural Health Research and Policy Analysis Center, Cecil G. Sheps Center for Health Services Research, University of North Carolina at Chapel Hill.

Vogel, T. R., V. Y. Dombrovskiy, and A. M. Graham. 2010. Carotid artery stenting in the nation: The influence of hospital and physician volume on outcomes. Vascular and Endovascular Surgery 44, no. 2 (February): 89-94.

Walters, J., A. M. Anna, T. Dorff, et al. 2023. Early learnings from the Rural Health Redesign Center and its rural emergency hospital technical assistance center. Harrisburg, PA: Rural Health Redesign Center. October 24. https://www.rhrco.org/_files/ugd/861f85_ 1de507b3570e42b7a8ff5a772490c4c8.pdf?index=true.