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Findings Brief
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Characteristics of Rural Hospitals Eligible for Conversion to Rural Emergency Hospitals and Three Rural Hospitals Considering Conversion

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INTRODUCTION

In a July 2021 findings brief, we estimated the number of rural hospitals that might convert to a Rural Emergency Hospital (REH).[1] At the time of the study, the only known information was the broad contours of the authorizing legislation (Consolidated Appropriations Act of 2021); the conditions of participation (CoPs) through rulemaking and sub-regulatory guidance had yet to be established by the Centers for Medicare & Medicaid Services (CMS). The study method included presentation of 2019-2020 median values of several financial and operational measures of rural hospitals eligible for conversion to REH to a group of webinar participants knowledgeable about rural hospitals.[2] The participants were asked "Given what is known about the REH model to date, what types of rural hospitals are most likely to be interested in conversion to an REH?" Based on their responses, we selected three measures to estimate the number of Critical Access Hospitals and rural hospitals with 50 beds or less that are likely to consider conversion to an REH: 1) three consecutive years of negative total margin; 2) average daily census (ADC) (acute + swing) less than three; and 3) net patient revenue less than $20 million. Using these three criteria, 68 rural hospitals were predicted to consider conversion to REHs in comparison to 1,605 hospitals not predicted to consider conversion.

The purpose of this brief is to 1) present updated 2021 data for REH-eligible hospitals, 2) compare several financial and operational measures of three rural hospitals that are on public record as having expressed interest in REH conversion to the 10th, 50th (median), and 90th percentiles for all REH-eligible hospitals, and 3) discuss factors that may ultimately determine the number of rural hospitals that convert to REHs. Publishing more recent financial information for REH-eligible hospitals provides comparative information for hospitals considering conversion to REHs, and the data for the three rural hospitals that expressed interest in conversion provide some real-life examples of hospitals that might convert to REHs.

KEY FINDINGS

- There are large differences among selected financial and operational measures for three rural hospitals that are on the record as having expressed interest in Rural Emergency Hospital (REH) conversion.
- REH conversion may attract a wider range of hospitals than we estimated in our 2021 study.
- Factors that might ultimately determine how many rural hospitals convert to REHs include the risk of financial distress and closure, the business case, community support, and consolidation.

2021 Financial Characteristics of Rural Hospitals Eligible for Conversion to REHs

Financial and statistical study data for all Critical Access Hospitals and rural hospitals with 50 beds or less were taken from publicly available CMS files. We used hospital facility and financial data reported in the CMS Healthcare Cost Report Information System (HCRIS) files for cost reports with reporting periods ending in 2021.[3] Each year, Medicare-certified provider institutions submit data regarding facility characteristics, utilization, costs and charges, Medicare settlements, and financial statements to the Medicare Administrative Contractor for the HCRIS.[4] However, in a previous brief, we discussed potential timing differences in hospital recognition of revenue versus expenses on

Medicare cost reports that could distort reported profitability in 2020 and 2021.[5] Therefore, the profitability measures reported in Tables 1 and 2 should be interpreted with caution. Definitions of the measures in Table 1 and 2 are provided in the Appendix.

Indian Health Service (IHS) hospitals were excluded because of insufficient data,[6] and cost reports with less than 360 days in reporting period were also excluded. The final sample includes 1,787 cost reports for REH-eligible hospitals. Table 1 shows the 2021 financial characteristics of rural hospitals eligible for conversion to REH.

Table 1. 2021 Characteristics of 1,787 Rural Hospitals Eligible for Conversion to REHs

Measure Type	Measure	10th percentile	Median	90th percentile
Organization	Net patient revenue	$8,676,357	$25,905,311	$80,979,239
	Have Rural Health Clinic (RHC)?	69% of REH-eligible hospitals have an RHC		
	Provide long-term care (LTC)?*	19% of REH-eligible hospitals provide LTC		
	System affiliated?	44% of REH-eligible hospitals are in a system		
	Number of acute beds	14	25	44
	Distance to next hospital	10.9	18.5	33.1
Profitability	Operating margin 2021	-7.4%	9.7%	23.7%
	Operating margin 2020	-13.2%	3.3%	17.5%
	Operating margin 2019	-15.5%	0.7%	13.7%
	Total margin 2021	-4.0%	12.2%	25.6%
	Total margin 2020	-7.4%	5.1%	18.4%
	Total margin 2019	-9.9%	2.3%	13.7%
Liquidity	Current ratio	0.7	2.1	6.0
	Days cash on hand	1.1	142.1	391.5
	Days in net accounts receivable	32.0	48.8	79.1
Inpatient	Medicare inpatient payer mix	30.8%	55.7%	85.3%
	Medicare acute inpatient cost per day	$1,921	$3,160	$5,442
	Average daily census - Skilled nursing facility (SNF) patients	0.0	1.2	4.7
	Average daily census - Acute patients	0.6	3.5	13.0
Outpatient	Outpatient revenue to total revenue	62.8%	79.7%	89.8%
	Hospital Medicare outpatient payer mix	16.2%	29.5%	47.4%
	Hospital Medicare outpatient cost to charge	0.19	0.38	0.65
Labor	Full-time equivalents (FTEs) per adjusted occupied bed	2.7	5.2	11.1
	Average salary per FTE	$51,578	$67,029	$85,620
	Salaries to net patient revenue	30.4%	44.2%	60.2%
Other financial	Average age of plant	2.4	12.5	24.2
	Patient deductions	25.0%	51.6%	72.9%
	Medicaid payer mix	4.4%	14.0%	26.9%
	Uncompensated care / operating expense	1.1%	3.3%	10.6%
Community	Percent of county age 65+ years	15.0%	19.8%	25.6%
	Percent of county in poverty	9.2%	13.8%	22.6%
	Percent of county unemployed	2.5%	3.8%	5.9%
	Percent of county that is nonwhite	2.9%	6.4%	30.9%
	Population density per square mile	3.7	26.6	86.1

*Long-term care is defined as any Skilled Nursing Facility; Nursing Facility; Other Long-Term Care provided by a hospital.

Three Rural Hospitals Considering Conversion to REH

On November 8, 2022, Becker's Hospital CFO Report published an article about three rural hospitals considering conversion to REH.[7] Table 2 shows the 2021 financial characteristics (calculated from publicly available Medicare cost reports) of the three rural hospitals considering conversion. Using criteria of less than the 10th percentile or greater than the 90th percentile as being of interest, findings are

- All three have a Rural Health Clinic, do not provide long-term care,[8] and have a 2021 operating margin less than negative nine percent.
- Two are system affiliated,[9] close to another hospital suggesting competitive pressure, and have a relatively high number of acute beds, poor profitability performance, and a low current ratio.
- One has a relatively high days in net accounts receivable, high acute + swing average daily census, low salary per FTE, high salaries to net patient revenue, low average age of plant, and in a county with relatively high population density.
- For many of the measures listed, the three hospitals are not that different from most other REH-eligible hospitals. The exception is that none of the three hospitals are Critical Access Hospitals, which is the largest group of rural hospitals.

Our 2021 findings brief used three criteria to estimate the number of Critical Access Hospitals and rural hospitals with 50 beds or less that might consider conversion to an REH. Do the hospitals in Table 2 meet the criteria?

1. *Three years negative total margin*. All three hospitals have negative total margin for two out of three of the cost report periods ending in 2019, 2020, and 2021. For Hospitals A and C, the operating and total margins are highly volatile.
2. *Average daily census (ADC) (acute + swing) less than three*. None of the three hospitals have ADC (acute + swing) less than three.
3. *Net patient revenue less than $20 million*. Two of the three hospitals have net patient revenue less than $20 million.

Therefore, none of the three hospitals meet the three criteria for predicted conversion to REH that we used in our 2021 study. This suggests that the criteria we used were too limiting, and the **REH conversion opportunity may attract a wider range of hospitals than we estimated in our 2021 study**.

What do the three hospitals have in common? In the first bullet of findings above, we state that all three hospitals have a Rural Health Clinic, do not provide long-term care, and had a 2021 operating margin less than negative nine percent. If these three criteria are applied to the 1,787 REH-eligible hospitals in the current study, we find 73 similar hospitals, 19 of which are system-owned and 54 are independent. Among the 73 hospitals meeting these alternative criteria, only seven also appear on the list of potential conversions that we estimated in our 2021 study.

Table 2. 2021 Characteristics of Three Rural Hospitals Considering Conversion to REHs

Less than 10th percentile | Greater than 90th percentile

Measure Type	Measure	Hospital A	Hospital B	Hospital C
Hospital Info	State	IA	IL	MI
	Cost report beginning date	01/01/21	10/01/2020	10/01/2020
	Cost report end date	12/31/21	09/30/2021	09/30/2021
	Medicare payment designation	Medicare-Dependent Hospital (MDH)	Medicare-Dependent Hospital (MDH)	Prospective Payment System (PPS)
Organization	Net patient revenue	$10,526,149	$79,937,651	$17,779,632
	Have Rural Health Clinic?	Yes	Yes	Yes
	Provide long-term care?*	No	No	No
	System affiliated?	Yes	Yes	No
	Number of acute beds	49	44	49
	Distance to next hospital	14.6	3.6	10.4
Profitability	Operating margin 2021	-33.0%	-9.4%	-32.4%
	Operating margin 2020	-85.4%	0.7%	17.7%
	Operating margin 2019	-66.3%	-1.9%	-24.3%
	Total margin 2021	1.0%	-1.3%	-32.4%
	Total margin 2020	-56.8%	0.6%	17.7%
	Total margin 2019	-66.3%	-1.9%	-24.3%
Liquidity	Current ratio	0.6	1.2	0.3
	Days cash on hand	25.0	164.2	Not available
	Days in net accounts receivable	48.2	71.2	148.8
Inpatient	Medicare inpatient payer mix	57.4%	53.7%	40.9%
	Medicare acute inpatient cost per day	$4,633	$4,448	$2,815
	Average daily census - SNF patients	0.0	0.0	0.0
	Average daily census - Acute patients	3.0	14.4	4.1
Outpatient	Outpatient revenue to total revenue	83.0%	76.5%	86.8%
	Hospital Medicare outpatient payer mix	35.8%	25.6%	19.7%
	Hospital Medicare outpatient cost to charge	0.42	0.41	0.47
Labor	FTEs per adjusted occupied bed	7.7	9.3	4.6
	Average salary per FTE	$49,668	$66,690	$61,548
	Salaries to net patient revenue	64.0%	47.5%	50.0%
Other financial	Average age of plant	0.5	13.1	21.0
	Patient deductions	65.6%	68.4%	57.5%
	Medicaid payer mix	21.0%	13.9%	20.9%
	Uncompensated care / operating expense	2.5%	1.1%	4.4%
Community	Percent of county age 65+ years	20.31%	21.92%	17.99%
	Percent of county in poverty	14.60%	11.60%	13.60%
	Percent of county unemployed	4.00%	5.00%	3.70%
	Percent of county that is nonwhite	6.15%	3.93%	6.32%
	Population density per square mile	69.3	40.3	122.5

*Long-term care is defined as any Skilled Nursing Facility; Nursing Facility; Other Long-Term Care provided by a hospital.

Factors that May Determine the Number of Rural Hospitals that Convert to REH

It's difficult to know what will ultimately determine the number of rural hospitals that convert to REH. There are a myriad of potential factors that might lead a rural to REH conversion or not—some may not be motivated strictly by hospital characteristics. However, based on the characteristics of these three hospitals, and what we know about financial distress and rural hospitals, here are four factors that may influence whether or not a rural hospital converts to an REH.

Risk of financial distress and closure: The REH is not designed or intended for rural hospitals that are financially viable over the long run, but rather for those at high risk of financial distress or closure. In a recent findings brief,[5] we concluded that rural hospitals faced particularly difficult challenges from the COVID-19 pandemic, and federal support funds were an important financial lifeline for many hospitals (as can be seen in the relatively better 2021 operating and total margins in Table 1). However, the long-term pressures remain—rural hospitals are vulnerable to shifts in the economy and demographics of their markets as well as to state and federal policy changes. This puts rural hospitals at higher risk of financial distress, complete closure, or conversion of the hospital to some other type of non-inpatient health care facility. For many rural hospitals that ultimately convert to REHs, the choice may have been REH or nothing.

The business case: The business case for REH conversion will differ based on whether a hospital proposes to design and develop a new physical facility or convert an existing hospital building to an REH. Under either option, the service mix and volume, operating revenue and expenses, and capital needs will determine whether conversion to REH makes business sense. Some financial effects of conversion are clear, while others may be unintended consequences of the loss of acute inpatient care.[10] The bottom line is that the REH must be financially viable and sustainable over the long run: otherwise, one unsustainable model (inpatient care) would be being replaced by another unsustainable model (REH).

Community support: For many rural communities, the local hospital is the primary employer and a source of civic pride. A proposed conversion to an REH and associated loss of inpatient care may have substantial workforce impacts and trigger strong reactions from community members and local leaders. Extensive communication with and involvement of the community may help overcome resistance to a conversion if it is deemed beneficial for meeting community needs. Unless the REH has the necessary community support, patients may vote with their feet if they have other options within a reasonable distance, and the REH model could fail.

Consolidation: Systems that own rural hospitals may look at the REH as part of a consolidation strategy – centralizing inpatient services at one hospital and converting the other to an REH. Hospital B on Table 2 is part of a system considering consolidation. The system plans to convert one hospital to an REH and keep the other as a full-service hospital.[11] In addition to consolidation, the authors have heard expressions of concern that systems might use conversion to an REH as a strategy to reduce losses from unprofitable affiliated rural hospitals.

In conclusion, although the final CMS rule has been published,[12] substantial uncertainty remains about the number of rural hospitals that will convert to REH. Each rural hospital and community face numerous problems and challenges, and these contextual factors will be at the forefront as REH conversion is considered. As we stated in our 2021 findings brief, "Ultimately, decisions about conversion to a new provider type may be driven by more than data or the immediate financial considerations."

REFERENCES AND NOTES

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6. The lack of data for IHS hospitals is a serious limitation and an issue that needs further analysis. In a 2016 report, the GAO published a report entitled "Indian Health Service Hospitals: Longstanding Challenges Warrant Focused Attention to Support Quality Care" Available at: https://www.oig.hhs.gov/oei/reports/oei-06-14-00011.asp. IHS and tribally run hospitals should be assessed to determine whether the REH would be a viable designation for them and in the best interest of the communities they serve.
7. Cass A. 3 Hospitals Mulling Rural Emergency Hospital Conversions. *Becker's Hospital CFO Report*, November 8, 2022. Available at: https://www.beckershospitalreview.com/finance/3-hospitals-mulling-rural-emergency-hospital-conversions.html.
8. Defined by whether Worksheet S-3, Part I, column 8, lines 19, 20, and/or 21 [Skilled Nursing Facility; Nursing Facility; Other Long-Term Care] are strictly positive and non-missing. Column 8 is "Total All Patients." Note that this category includes swing bed claims for SNF-level care in the swing bed setting and excludes hospitals that provide long-term care only through swing beds.
9. Defined by "Part of a chain organization (System affiliation)", S2 Part I, column 1, line 141.
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APPENDIX

Type of Measure	Measure	Description	Direction of Better Value
Profitability	Operating margin	Net patient revenue + Other revenue –Total operating expenses / Net patient revenue + Other revenue	Higher
	Total Margin	Net income / Total revenue	Higher
Liquidity	Current ratio	Current assets / Current liabilities	Higher
	Days cash on hand	Cash + Temporary investments + Investments / (Total expenses – Depreciation) / Days in period	Higher
	Days in net accounts receivable	Net patient accounts receivable / Net patient revenue / Days in period	Lower
Inpatient	Medicare inpatient payer mix	Medicare inpatient days / Total inpatient days – Nursery bed days – Nursing Facility swing bed days	N/A
	Medicare acute inpatient cost per day	Medicare acute inpatient cost / Medicare inpatient days (excl HMO)	N/A
	Average daily census – SNF beds	Inpatient swing bed Skilled Nursing Facility days / Days in period	N/A
	Average daily census – Acute beds	Inpatient acute care bed days / Days in period	N/A
Outpatient	Outpatient revenue to total revenue	Total outpatient revenue / Total patient revenue	N/A
	Hospital Medicare outpatient payer mix	Hospital Medicare outpatient charges / Hospital total outpatient charges	N/A
	Hospital Medicare outpatient cost to charge	Hospital Medicare outpatient costs / Hospital Medicare outpatient charges	N/A
Labor	FTEs per adjusted occupied bed	Number of Full-time Equivalents / (Total acute inpatient days + psychiatric days + rehabilitation days – Nursing Facility swing days – Nursery days) * [Total patient revenue/(Total inpatient revenue – Inpatient Nursing Facility revenue – Other long-term care revenue)]/ Days in period	N/A
	Average salary per FTE	Salary expense / Number of Full-time Equivalents	N/A
	Salaries to net patient revenue	Salary expense / Net patient revenue	N/A
Other	Average age of plant	Accumulated depreciation / Depreciation expense * 365/Days in period	N/A
	Patient deductions	Contractual allowances + Discounts / Gross total patient revenue	N/A
	Medicaid payer mix	Medicaid charges / Total patient charges	N/A
	Uncompensated care / operating expense	Charity care + bad debt / Total operating expenses	Lower