Findings Brief
NC Rural Health Research Program
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The First Year of Rural Emergency Hospitals: REHs Serve Relatively Disadvantaged Counties

Young Kim, MSPH; Julie Perry; Kristie Thompson, MA; George Pink, PhD

BACKGROUND

Between January 2010 and December 2023, there were 146 rural hospital closures and conversions (hereafter referred to as closures).[1] To address concern over closure of rural hospitals, a new provider type, the Rural Emergency Hospital (REH), was created under the Consolidated Appropriations Act, 2021.[2] The REH designation provides an opportunity for eligible hospitals to preserve access to emergency department (ED) services and outpatient services in rural communities that are no longer able to support inpatient hospital services.

On January 1, 2023, the Centers for Medicare & Medicaid Services (CMS) began accepting applications from hospitals to convert to the REH designation. Hospitals must meet specified criteria to be eligible to convert to an REH – they must be: 1) located in a county (or equivalent unit of local government) that is in a rural area defined using the Office of Management and Budget (OMB) designation of non-metropolitan statistical areas (MSA), and 2) either a Critical Access Hospital (CAH) or a rural hospital with no more than 50 beds that was open on December 27, 2020.[3]

During calendar year 2023, 20 hospitals converted to the REH designation and one closed, resulting in 19 open REHs at the end of 2023.[4] In this brief, we: 1) describe socio-economic, race and ethnicity, and health status and access characteristics of the communities served by REHs, and 2) compare characteristics of counties served by REHs to counties that experienced a recent rural hospital closure and to all other rural counties. This is a preliminary look at the types of communities with hospitals that decided to convert to an REH. A financial analysis will be produced in a subsequent brief once Medicare Cost Report data are complete for all hospitals.

METHODS

We included all REHs registered in CMS Quality, Certification & Oversight Reports (QCOR) and/or hospitals that provided a CMS approval letter stating that the hospital was approved for REH conversion between January 1, 2023 – December 31, 2023.

KEY FINDINGS

- Sixteen of the 19 hospitals that converted to an Rural Emergency Hospital (REH) open at the end of 2023 were in the South.
- Various hospital types converted to REHs in 2023: seven were Sole Community Hospitals (SCHs), six were Critical Access Hospitals (CAHs), four were Prospective Payment System (PPS) hospitals, and two were Medicare Dependent Hospitals (MDHs).
- Counties with REH conversions were relatively challenged, showing highest median rates of poverty (16.3% versus 13.4% in counties with a rural hospital closure, and 13.0% in all other rural counties), uninsured individuals (19.4% versus 13.0% in counties with a rural hospital closure, and 13.1% in all other rural counties), and people in poor or fair health (25.8% versus 21.7% in counties with a rural hospital closure, and 20.4% in all other rural counties).
- Counties with a REH conversion also faced health care access challenges, with fewer primary care and mental health providers and higher emergency department visit rates among Medicare beneficiaries.

We selected 16 indicators from the 2022 County Health Rankings and two indicators from the 2021-2022 Area Health Resource File to describe counties where hospitals converted to REHs. The indicators were organized in three categories: 1) socio-economic – population size, median household income, percent unemployed, percent in poverty, percent with high school completion, and percent rural residents; 2) race and ethnicity – American Indian & Alaska Native, Asian, Native Hawaiian/Other Pacific Islander, Hispanic, Non-Hispanic Black, and Non-Hispanic White; and 3) health status and access – percent poor or fair health, premature deaths per 100,000 population, percent uninsured adults, population per primary care physician, population per mental health provider, and ED visits per 1,000 Medicare fee for service (FFS) beneficiaries. Definitions, sources, and years of the indicators are provided in Appendix 2.

We identified 2,654 rural counties using the guidance of the non-metro county lists provided in the Federal Office of Rural Health Policy (FORHP) data files, including the Metropolitan counties that fall under the exception due to outlying counties that do not have any urbanized area population.[5] Since one reason Congress created the REH designation was to respond to the rural hospital closure crisis,[6] we divided the total number of rural counties into three groups to compare communities with REH to communities with rural hospital closures and all other rural communities. There were 19 counties with an REH, 35 with a rural hospital closure or conversion between 2020-23, and 3) 2,600 other rural counties. We examined the medians of the socio-economic, race and ethnicity, and health status and access indicators for each group.

RESULTS

At the end of 2023, 16 of the 19 hospitals that converted to an REH in 2023 were in the South. More specifically, there were four REHs in Texas, three in Mississippi, three in Oklahoma, two in Arkansas, two in Georgia, and one in each of Kansas, Louisiana, Michigan, New Mexico, and Tennessee. Before conversion to REH, seven were Sole Community Hospitals, six were Critical Access Hospitals, four were Prospective Payment System only hospitals, and two were Medicare Dependent Hospitals. Appendix 1 provides descriptive information for all REHs open at the end of 2023.

Figure 1 shows the medians of three characteristics of counties with an REH, counties with a recent rural hospital closure, and all other rural counties. The counties with an REH had the highest median rates of poverty (16.3%), uninsured (19.4%), and people in poor or fair health (25.8%).

Figure 1. Medians of Three Characteristics of Counties with a Rural Emergency Hospital, a Recent Rural Hospital Closure, and All other Rural Counties

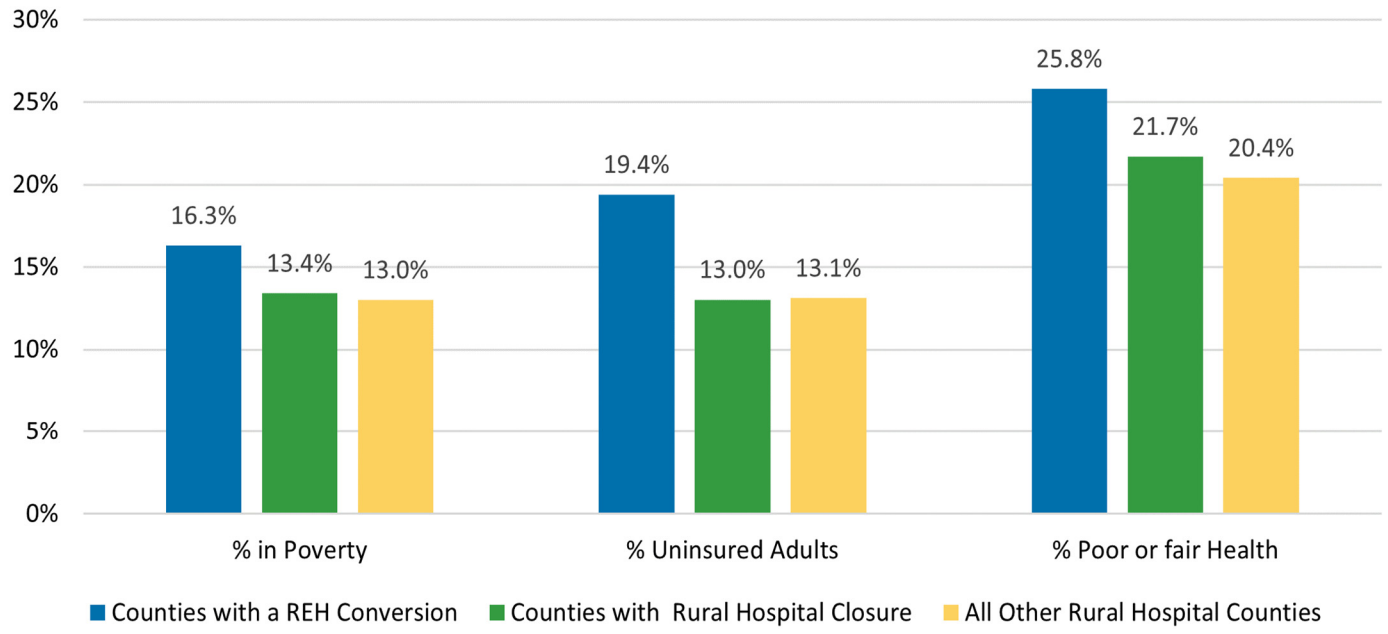

Table 1 shows the medians of characteristics for counties with an REH, counties that experienced a recent rural hospital closure, and all other rural counties.

Table 1. Characteristics of Counties with an REH Conversion

	Counties with REH Conversion (median) n=19	Counties with Rural Hospital Closure (median) n=35	Other Rural Counties (median) n=2,600
Socio-economic characteristics:			
Population[a]	19,875	25,453	20,241
Median household income[a]	$46,495	$51,488	$53,764
% Unemployment[a]	6.5%	6.9%	6.4%
% in Poverty[b]	16.3%	13.4%	13.0%
% High school completion[a]	82.6%	88.2%	88.4%
% Rural[a]	72.8%	58.9%	66.0%
Race and ethnicity:			
% American Indian & Alaska Native[a]	0.9%	0.5%	0.8%
% Asian[a]	0.5%	0.6%	0.7%
% Non-Hispanic Black[a]	2.7%	2.7%	1.6%
% Native Hawaiian/Other Pacific Islander[a]	0.1%	0.1%	0.1%
% Hispanic[a]	6.1%	4.2%	4.2%
% non-Hispanic White[a]	67.7%	88.7%	85.0%
Health status and access:			
% Poor or fair health[a]	25.8%	21.7%	20.4%
Premature deaths[a,c]	10,590	9,114	8,748
% Uninsured adults[a]	19.4%	13.0%	13.1%
Ratio of population to primary care physicians[a]	3,004	2,543	2,178
Ratio of population to mental health providers[a]	1,326	962	897
ED visits per 1,000 Medicare FFS[b]	639	591	565

[a] Data from County Health Rankings: University of Wisconsin Population Health Institute. County Health Rankings 2022
[b] Data from Area Health Resource File: U.S. Department of Health and Human Services. 2021-2022
[c] Premature Death is a measure of premature mortality. It represents the years of life lost due to a resident dying before age 75 per 100,000 people. Data are suppressed if the number of premature deaths is less than 20 or if population ratio falls below 2,000.[7]

Socio-economic characteristics

Counties with REHs had populations ranging from 3,611 to 60,848 persons. Household income ranged from $32,683 to $78,330; unemployment from 3.3% to 18.4%; percent in poverty from 8.7% to 30.8%; high school completion from 75.7% to 91.2%; and the percent of rural residents ranged from 24.5% to 100.0%.

Counties with an REH had the lowest median population, household income, and percentage of high school graduates. The REH counties also had the highest median percentage of people in poverty (16.3%) and percentage of rural residents (72.8%). On all socio-economic indicators except unemployment rate, counties with an REH had less favorable values. Compared to other counties, counties with an REH conversion had smaller median populations (by 5,578 people), lower median household incomes ($4,993 less); higher median poverty rates (2.9 percentage points higher), and lower median high school graduation rates (5.6 percentage points lower). In addition, counties with an REH had a higher median percentage of rural residents (13.9 percentage points higher than in counties with a rural hospital closure).

Race and ethnicity characteristics

The counties with REHs had populations ranging from 0.3% to 11.6% American Indian & Alaska Native, 0.2% to 2.2% Asian, 0.0% to 2.2% Native Hawaiian/Other Pacific Islander, 0.9% to 78.6% Hispanic, and 0.3% to 84.6% non-Hispanic Black, 13.4% to 94.4% non-Hispanic White.

Counties with an REH had the highest median percentage of Hispanic people and the lowest median percentage of non-Hispanic White people. Comparing Hispanic and non-Hispanic White medians among counties with an REH to counties with a recent rural hospital closure shows that the median Hispanic population was 1.9 percentage points higher in counties with an REH and the median non-Hispanic White population was 21.0 percentage points lower.

Health status and access characteristics

The counties with REHs had populations ranging from 19.1% to 32.9% with poor or fair health, 5,874 to 15,153 premature deaths per 100,000 population, 9.0% to 25.8% uninsured, 1,627 to 8,824 population per primary care provider, 64 to 19,875 population per mental health provider, and 429 to 774 ED visits per 1,000 Medicare FFS beneficiaries.

Counties with an REH had the highest median percentages of: population with poor or fair health (25.8%), premature deaths per 100,000 population (10,590), percentage of uninsured adults (19.4%), population per primary care physician (1 provider per 3,004 residents), population per mental health provider (1 provider per 1,326 residents), and ED visits per 1,000 Medicare FFS visits (639 visits per 1,000 Medicare FFS Beneficiaries).

On all health status and access indicators, counties with an REH had less favorable values. Comparing medians, counties with an REH had 1,476 more premature deaths per 100,000 population, 461 more population per primary care physician, 364 more population per mental health provider, 48 more ED visits per 1,000 Medicare FFS beneficiaries, and a difference in percentage points of 4.1 higher in poor health and 6.4 higher in uninsured adults.

DISCUSSION

The purpose of this brief is to compare socioeconomic, race and ethnicity, and health status and access characteristics of the counties served by REHs to those of counties that experienced a recent rural hospital closure and to all other rural counties. The study found that counties with REHs have populations that are relatively:

- Smaller, poorer, less educated, and more rural
- More Hispanic and less non-Hispanic White
- Less healthy, more likely to die prematurely, and uninsured
- Had fewer primary care and mental health providers per population, and
- Had higher ED visits per 1,000 Medicare FFS beneficiaries.

Caution is warranted in interpretation of this analysis because of the small number of counties with REHs and counties that experienced rural hospital closures. In addition, the county-level data may not provide a full picture of the communities served by REHs. Nevertheless, the study provides some preliminary insights into the communities served by the first hospitals to convert to REH. Comparing the characteristics of rural counties, counties with REH conversion were generally more challenged compared to counties that experienced hospital closure and compared to other rural counties where hospitals have not experienced REH conversion or hospital closure.

CONCLUSIONS

REHs were established to respond to rural hospital closures and to help rural communities preserve access to emergency health care and outpatient services, and thus promote health equity for those living in rural communities by making it easier to access needed services.[6] Our early findings of the 19 REHs open at the end of 2023 suggest that the counties they serve may be more challenged than other rural counties. As rollout of the REH program continues, rural health advocates and policy makers should monitor REHs and whether they are meeting the needs of the rural communities they serve.

REFERENCES AND NOTES

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APPENDICES

Appendix 1. Rural Emergency Hospitals Open at the End of 2023

Hospital	Address	City	State	Zip	Previous Medicare Payment	REH Participation Date
Eureka Springs Hospital	24 Norris St	Eureka Springs	AR	72632	CAH	12/01/2023
Panola Medical Center	303 Medical Center Dr	Batesville	MS	38606	PPS	11/01/2023
Harper County Community Hospital	1003 Us Highway 64 N	Buffalo	OK	73834	CAH	10/01/2023
South Central Kansas Medical Center	6401 Patterson Pkwy	Arkansas City	KS	67005	SCH	9/28/2023
St. Bernards Five Rivers Medical Ctr	2801 Medical Center Dr	Pocahontas	AR	72455	SCH	9/01/2023
Guadalupe County Hospital	117 Camino De Vida, #100	Santa Rosa	NM	88435	SCH	9/01/2023
Assumption Community Hospital	135 Highway 402	Napoleonville	LA	70390	CAH	8/03/2023
Sturgis Hospital	916 Myrtle Ave	Sturgis	MI	49091	PPS	7/06/2023
Blue Ridge Medical Center	2855 Old Highway 5 N	Blue Ridge	GA	30513	MDH	7/01/2023
Stillwater Medical-Blackwell	710 S 13th St	Blackwell	OK	74631	SCH	7/01/2023
Tristar Ashland City Medical Center	313 North Main St	Ashland City	TN	37015	CAH	7/01/2023
St. Luke's Health - Memorial Hospital - San Augustine	511 Hospital St	San Augustine	TX	75972	CAH	6/20/2023
Jefferson County Hospital	870 S Main St	Fayette	MS	39069	PPS	6/01/2023
Stillwater Medical - Perry	501 N 14th St	Perry	OK	73077	SCH	4/01/2023
Anson General Hospital	101 Avenue J	Anson	TX	79501	MDH	3/27/2023
Alliance Healthcare System	1430 Highway 4 E	Holly Springs	MS	38635	SCH	3/16/2023
Falls Community Hospital and Clinic	322 Coleman St	Marlin	TX	76661	SCH	2/08/2023
Irwin County Hospital	710 N Irwin Ave	Ocilla	GA	31774	PPS	2/01/2023
Crosbyton Clinic Hospital	710 West Main St	Crosbyton	TX	79322	CAH	1/30/2023

Source: North Carolina Rural Health Research Program, Cecil G. Sheps Center for Health Services Research, UNC-CH. https://www.shepscenter.unc.edu/programs-projects/rural-health/rural-emergency-hospitals/

Appendix 2. Definition, Source, and Year of Study Indicators

Indicator	Definition	Source[a, b]	Years
Population	Number of people in the county	County Health Rankings	2022
Median Household Income	The income where half of households in a county earn more and half of households earn less	County Health Rankings	2022
Unemployment	Percentage of population ages 16 and older unemployed but seeking work	County Health Rankings	2022
Poverty	The Census Bureau uses a set of dollar value thresholds that vary by family size and composition to determine who is in poverty.	Area Health Resource Files	2021-2022
% High School Completion	Percentage of adults ages 25 and over with a high school diploma or equivalent	County Health Rankings	2022
% Rural	Percentage of rural classification within the county	County Health Rankings	2022
% American Indian & Alaska Native	Percentage of American Indian & Alaska Native in the county	County Health Rankings	2022
% Asian	Percentage of Asian in the county	County Health Rankings	2022
% Non-Hispanic Black	Percentage of Non-Hispanic Black in the county	County Health Rankings	2022
% Native Hawaiian/Other Pacific Islander	Percentage of Native Hawaiian/Other Pacific Islander in the county	County Health Rankings	2022
% Hispanic	Percentage of Hispanic in the county	County Health Rankings	2022
% Non-Hispanic White	Percentage of Non-Hispanic White in the county	County Health Rankings	2022
% Poor or Fair Health	Percentage of adults reporting fair or poor health (age-adjusted)	County Health Rankings	2022
Premature death	Years of potential life lost before age 75 per 100,000 population (age-adjusted)	County Health Rankings	2022
Uninsured (Adults)	Percentage of population under age 65 without health insurance	County Health Rankings	2022
Ratio of Population to Primary Care Physician	Value reported for each county is a ratio of population: # number of providers	County Health Rankings	2022
Ratio of population to mental health provider	Value reported for each county is a ratio of population: # number of providers	County Health Rankings	2022
ED visits per 1,000 Medicare FFS	Medicare Beneficiary Emergency Department (ED) Visits is the total count of inpatient or hospital outpatient emergency department visits. ED Visits per 1,000 Medicare Beneficiaries is the rate per 1,000 beneficiaries of inpatient or hospital outpatient emergency department visits.	Area Health Resource Files	2021-2022

[a] County Health Rankings (CHR) data was from 2022 CHR SAS Analytic Data which was downloaded from: https://www.countyhealthrankings.org/explore-health-rankings/rankings-data-documentation.

[b] Area Health Resource Files data was from 2021-2022 County Level Data (SAS format) which was download from: https://data.hrsa.gov/data/download?data=AHRF#AHRF.

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