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Alternatives to Hospital Closure: Findings from a National Survey of CAH Executives

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BACKGROUND

Established by the Balanced Budget Act of 1997, the Critical Access Hospital (CAH) designation was created to help rural hospitals stay open by keeping essential health care services in rural areas. CAHs can have no more than 25 beds and must be: 1) at least 15 miles by secondary road or mountainous terrain OR 2) 35 miles by primary road from the nearest hospital OR 3) declared a "necessary provider" by the state's governor. Long-term financial viability can be difficult because of low patient volume, the health and socio-economic status of rural residents, higher rates of uncompensated care, and many other factors beyond hospital control.[1,2,3,4] CAHs receive cost-based reimbursement from Medicare for allowable costs for outpatient, inpatient, laboratory, and therapy services, as well as post-acute care in swing beds. However, the current reimbursement to CAHs was effectively reduced from 101% to 99% of costs due to a sequester in place since 2013.[5]

The majority of unprofitable hospitals in the U.S. are rural hospitals. In 2018, approximately 30 percent had negative total margins.[6] Between January 2010 and December 2020, 134 rural hospitals closed, and 33 percent of the hospitals were CAHs.[7] Research prior to the COVID-19 pandemic predicted that approximately 27 percent of CAHs would be at a mid-high or high risk of financial distress in 2020, which increases their risk for closure.[8]

There are many possible reasons for a hospital closure, including competition, hospital consolidation, or efficiencies of services being provided at other facilities.[9,10] In this study, a "hospital closure" occurs upon cessation of inpatient care, and we define two types of hospital closure. "Complete closure" denotes a hospital that no longer provides any health care services—the building is vacant, demolished, or converted to a non-health care use. "Converted closure" denotes a hospital that converts from inpatient care to other types of health care services, such as an urgent care clinic, a Rural Health Clinic, or long-term care facility. Complete closures are of great concern to communities with CAHs because they are often located further away from other hospitals. The median distance between a CAH and 1) the next closest hospital and 2) the next closest hospital with 100 or more acute care beds is 18.6 miles and 36.5 miles, respectively, compared to 17.1 miles and 28.9 miles, respectively, for other rural hospitals.[11] In addition, CAHs in very rural and geographically isolated areas often provide primary care as well as emergency, diagnostic, and outpatient services.[12,13]

Many small hospitals operate in areas where local infrastructure may be inadequate. Limited broadband service options and slower internet speeds are issues for rural areas, which could make it difficult for CAHs to participate in the health information exchange, hampering coordination of care.[14] Further CAHs face barriers to building or purchasing health information technology and maintaining electronic health information.[15] The attention on rural hospital closures has bolstered discussion on alternative rural models of health care delivery.

Despite the numerous challenges of operating a CAH, there is little research examining the perspectives of CAH executives on potential community health care options if the CAH were to close. This brief presents a subset of results from a national survey (see Appendix for a description of the survey method) of CAH executive perspectives on pressing challenges.

The purpose of this brief is to provide rural health policy makers with a better understanding of what CAH executives think about the viability of various alternatives to closure. The goal is for the information to assist in development of strategies and interventions to maintain CAH viability and access to health care by rural communities.

KEY FINDINGS

A survey of Critical Access Hospital (CAH) Chief Executive Officers found:

- Rural Health Clinics, Emergency or Urgent Care Centers, and Federally Qualified Health Centers were considered to be the most viable alternatives to complete closure of a CAH.
- Forty-six percent of respondents rated long-term care facilities as the least viable alternative to complete closure.

RESULTS

In total, 227 complete surveys were received. Table 1 describes the sample of survey respondents. After matching respondent data to identifiable hospital financial data, we dropped out 14 observations that we were not able to match to hospital financial data. We also removed one observation that was a duplicate and incomplete response. Since all except 38 of the responses were from CAHs, we decided to drop non-CAHs to analyze and report only CAH responses. We were left with 174 CAH responses, which is approximately 13% of CAHs.

Table 1. Critical Access Hospital Survey Respondents

Census Region	Number	Percent
Northeast	20	11%
Midwest	73	42%
South	38	22%
West	43	25%
Total	**174**	**100%**

Management Type	Number	Percent
Chief Executive Officer (CEO)	141	81%
Other Senior Management	29	17%
Other	4	2%
Total	**174**	**100%**

State (of CAH) Medicaid Expansion Status	Number	Percent
Expanded	119	68%
Did not Expand	55	32%
Total	**174**	**100%**

Ownership Status	Number	Percent
Non-government, not-for-profit	112	64%
Government, non-federal	56	32%
Investor for-profit	6	3%
Total	**174**	**100%**

System Status	Number	Percent
Not in a system	97	56%
In a system	77	44%
Total	**174**	**100%**

Alternatives to Closure

CAH executives were asked about the following alternatives to complete closure of a rural hospital.

- Rural Health Clinics (RHCs) are public, nonprofit, or for-profit health care facilities that provide primary care services for patients in rural communities. RHCs can be owned and operated as part of a hospital or nursing home, "provider-based" or owned and operated by a provider, "independent." To receive certification, they must be located in rural, underserved areas and are required to use a team approach of physicians working with non-physician providers such as nurse practitioners (NP), physician assistants (PA), and certified nurse midwives (CNM) to provide services. The clinic must be staffed at least 50% of the time with a NP, PA, or CNM. RHCs are required to provide outpatient primary care services and basic laboratory services.[16]
- Emergent / urgent care center (UCC) is a category of walk-in clinic focused on the delivery of ambulatory care in a dedicated medical facility outside of a traditional emergency department. UCCs primarily treat injuries or illnesses requiring immediate care but not serious enough to require an emergency department visit. UCCs typically have hours of operation that extend beyond that of the typical primary care practice. While they may offer a range of care including diagnostics requiring labs or x-rays, they are more likely to be staffed by family physicians than emergency physicians. They are also more likely to receive reimbursement that is more in line with primary care than emergency care.[17]
- Federally Qualified Health Centers (FQHCs) are community-based health care providers that either receive funds from the Health Resources Services Administration (HRSA) Health Center Program to provide primary care services in underserved areas or are health center "look-alikes". They must meet a stringent set of requirements from HRSA to be a health center, in addition to providing care on a sliding-fee scale based on ability to pay, and operating under a governing board that also includes patients. After meeting these requirements, they are certified by CMS to be an FQHC. FQHCs may be Community Health Centers, Migrant Health Centers, Health Care for the Homeless, and Health Centers for Residents of Public Housing.[18,19]
- Clinics (paid under Hospitals Outpatient Payment System) are the part of a hospital designed for the treatment of outpatients, people with health problems who visit the hospital for diagnosis or treatment, but do not at this time require a bed or to be admitted for overnight care. Outpatient departments offer a wide range of treatment services, diagnostic tests and minor surgical procedures.[20]

- Free-standing emergency departments (FSEDs) are facilities that are structurally separate and distinct from a hospital and provide emergency care. The American College of Emergency Physicians (ACEP) believes that any FSED facility should: 1) be available to the public 24 hours a day, seven days a week, 365 days per year; 2) be staffed by appropriately qualified emergency physicians; 3) have adequate medical and nursing personnel qualified in emergency care to meet the written emergency procedures and needs anticipated by the facility; 4) be staffed at all times by a registered nurse (RN) with a minimum requirement of current certification in advanced cardiac life support and pediatric advanced life support, and; 5) have policy agreements and procedures in place to provide effective and efficient transfer to a higher level of care if needed (i.e., catheter labs, surgery, and intensive care).[21]
- Post-acute (PAC) / rehabilitation care includes rehabilitation or palliative services that patients receive after, or in some cases instead of, a stay in an acute care hospital. Depending on the intensity of care the patient requires, treatment may include a stay in a facility, ongoing outpatient therapy, or care provided at home.[22]
- Long-term care (LTC) is a variety of services which help meet both the medical and non-medical needs of people with a chronic illness or disability who cannot care for themselves for long periods. Long-term care is focused on individualized and coordinated services that promote independence, maximize patients' quality of life, and meet patients' needs over a period of time.[23]
- Clinics (paid under the Medicare Physician Fee Schedule) are clinics where Medicare pays for physician and other health professional services based on a list of services and their payment rates, called the Medicare Physician Fee Schedule. Physician and other health professional services include office visits, surgical procedures, and a broad range of other diagnostic and therapeutic services.[24]

Table 2 shows the CAH executives' responses to a question about the viability of these services as an alternative to a hospital with inpatient services.

Table 2. Viable Alternatives to Complete Hospital Closure

Please assess the viability of the following alternatives for a rural hospital facing closure (cessation of inpatient care) but still wanting to provide health care to its community	Viable %	Somewhat Viable %	Nonviable %	Total Responses (n)
Rural Health Clinic	65.4	29.6	4.9	162
Emergent/Urgent Care Center	48.8	38.9	12.4	162
Federally Qualified Health Center	40.1	36.3	23.6	157
Clinic (paid under Hospitals Outpatient Payment System)	31.3	40.0	28.8	160
Freestanding Emergency Department[25]	30.4	32.3	37.3	161
Post-acute/Rehabilitation Care	29.6	40.7	29.6	162
Long-term Care	24.8	28.6	46.6	161
Clinic (paid under Physician Fee Schedule)	22.4	34.8	42.9	161

Table 2 also shows that the CAH executives considered the most viable alternative to a hospital with inpatient care to be RHCs, UCCs, and FQHCs. RHCs and FQHCs are considered essential safety-net providers in rural areas, but the small differences between the two may impact the perception of viability for certain rural areas. RHC certification requires, among other things, that the facility be located in a rural and medically underserved or health professional shortage area; the RHC be primarily engaged in the provision of primary care services; and that at least one nurse practitioner, physician assistant, or certified nurse midwife is employed and on-site half the time to support the physician.[26] Approximately 66 percent of survey respondent CAHs currently operate an RHC. Therefore, in most cases, as an alternative to a CAH's complete closure, RHC's would be expected to operate as independent clinics and instead of provider-based clinics, and would need to have arrangements with one or more hospitals to provide any un-offered services. Some challenges with this could include: patients of RHCs with Medicare often have difficulties accessing specialty services;[27] and, as an independent clinic, the RHC would also be subject to upper payment limits,[28] which can limit Medicare reimbursement to below the costs of delivered services.[29] Additionally, state Medicaid plans may only partially cover or not cover services provided at an RHC. These issues would need to be further examined and addressed to ensure sustainability of RHCs as an alternative to complete closure.

Fewer respondents rated Clinics (paid under Hospitals Outpatient Payment System) and FSEDs as a viable alternative. As communities react to and/or prepare for closures, providers and policymakers seek a viable alternative for emergency

services provided in a rural hospital setting. A rural free-standing emergency department (RFED), is one potential model of interest for providing emergency services in areas where hospitals have closed and left a local absence of emergency services. In 2015, legislation and policy proposals for potential RFED models were introduced, including: The Rural Emergency Hospital (The Rural Emergency Acute Care Hospital Act, S.1648, introduced in June 2015 by Sen. Grassley); The Community Outpatient Hospital (The Save Rural Hospitals Act, H.R. 3225, introduced in July 2015 by Rep. Graves and Rep. Loebsack); and (Model 1: Emergency Department and Model 2: Primary care clinic + ambulance (October 9, 2015 meeting of MedPAC).[30,31,32] In December 2020, the 2021 Consolidated Appropriations Act became law. This law (P.L. 116-260) creates a new facility called a "rural emergency hospital" (REH), which is defined as a facility that: provides emergency department (ED) and observation care and other outpatient services specified through rule making. CAHs and rural hospitals with 50 or fewer beds will be eligible to convert from acute care hospitals providing inpatient care to an REH.[33] These efforts are meant to expand reimbursement options, including Medicare, and location proximity restrictions, making the freestanding model more viable for rural.[34,35]

Respondents considered PACs, LTCs and clinics (paid under Physician Fee Schedule) to be the least viable alternatives to a hospital with inpatient care. Respondents have general concern over the sustainability of long-term care services due to high costs and dwindling census. Some mentioned eliminating long-term care services within the next year or eliminating long-term care beds in favor of acute care beds. There were also concerns over Medicaid reimbursement being inadequate to cover the costs of long-term care services. A previous study of CAHs noted that low reimbursement rates, from Medicaid in particular, in addition to issues with recruitment and retention of necessary staff were a barrier to sustaining skilled nursing or long-term care services in the hospital.[36] A lack of viable and sustainable current long-term care models for rural areas is a concern.

SUMMARY

These survey results provide some insight into which health care organizations CAH executives believe might be sustainable successors to a closed hospital: Rural Health Clinics, Emergency or Urgent Care Centers, and Federally Qualified Health Centers were considered to be the most viable. Since the survey was completed, policy makers continue to consider legislation that might enable rural free-standing emergency departments. CMS released the Community Health Access and Rural Transformation (CHART) model that "aims to continue addressing disparities by providing a way for rural communities to transform their health care delivery systems by leveraging innovative financial arrangements as well as operational and regulatory flexibilities,"[37] and the 2021 Consolidated Appropriation Act[38] "... establishes a REH designation under the Medicare program that will allow existing facilities to meet a community's need for emergency and outpatient services without having to provide inpatient care"[39] beginning in 2023.

The COVID-19 pandemic adds even more financial stress for rural hospitals. The challenges of the COVID-19 pandemic have and will continue to increase the vulnerability of rural hospitals and the rural communities they serve because:

- *Rural hospitals are more vulnerable to COVID-19*. Rural and urban acute care hospitals have lower revenue because elective procedures and some routine care are being canceled to ensure capacity for COVID-19 patients. Many also face higher expenses because of supplies, equipment, and staff required for COVID-19 patients. A hospital's ability to get through periods of diminished cash flow depends on the amount of cash, marketable securities, and other assets that can be readily converted to cash. Many rural hospitals have low cash levels and may struggle to get through the current cash crunch.[40]
- *Rural patients are more vulnerable to COVID-19*. People who are obese, live with diabetes, hypertension, asthma and other underlying health issues are more susceptible to COVID-19, and rural areas tend to have higher rates of these conditions.[41] In addition, insured patients have experienced increases in payment responsibilities since COVID-19: "Almost half of rural Americans can't pay an unexpected expense of $1,000 right away, much less deductibles and out-of-pocket medical costs that exceed those amounts. About 20 percent of rural residents say they can't find doctors who accept their insurance, which means they have to cover the entire bill."[42]

In conclusion, it is likely that concern for rural hospital viability will increase because of COVID-19. As such, developing sustainable new models and assisting fragile rural hospitals is even more urgent. More research is needed to understand how and when a hospital should consider transitioning to a new health care model/provider type. Policy makers should also consider mechanisms to develop and provide advisory technical assistance on transitioning to sustainable health care delivery options for CAHs at high risk of financial distress or other CAHs potentially facing complete closure.

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APPENDIX: METHODS

We used an advisory panel to identify critical questions, determine how best to ask them, and to construct a survey of the appropriate length. Members of the panel are below.

1. Tammy Norville, Technical Assistance Director, National Organization of State Offices of Rural Health
2. Tim Putnam, President and CEO, Margaret Mary Community Health, Batesville Indiana
3. Aaron Saude, President and CEO, Bigfork Valley Hospital, Bigfork Minnesota
4. Pat Schou, Executive Director, Illinois Critical Access Hospital Network
5. Brock Slabach, Sr. Vice-President, Member Services, National Rural Health Association
6. John Supplitt, Senior Director, AHA Constituency Sections, American Hospital Association

The method consisted of the following steps: 1) using a literature review to construct a list of current operational and financial challenges facing rural hospitals; 2) advisory panel members ranked the importance of the challenges and an iterative process was used to select the challenges to be included in the survey; 3) survey questions were written, and imported into a web-based survey using Qualtrics (Qualtrics, Provo, UT), and revised for clarification and brevity. The web-based survey required several iterations to modify questions, clarify wording, and ensure it could be answered by a majority of respondents in less than 30 minutes. Probing questions based on responses to certain drop-down or multiple-choice questions were included on several questions, and; 4) a limited amount of hospital and respondent information was solicited for analytical purposes, such as the hospital zip code and the executive level of the respondent. Qualtrics was set to anonymize survey responses to avoid inadvertently storing any personally identifiable information including IP addresses. The informed consent detailed the criteria for participation; outlined the study's funding source, purpose, use of data, and investigator contact information; identified the risks, if any; and checked for understanding. Respondents were not be able to view any survey questions or participate without first acknowledging consent.

We did not have contact information for all rural hospital executives, so potential survey respondents were contacted using five methods: 1) Prompts for the web-based survey were built into the Critical Access Hospital Measurement and Performance Assessment System (CAHMPAS). CAHMPAS users were notified about the opportunity to take the survey upon log-in. CAHMPAS is a web-based tool designed to give CAH executives, state Medicare Rural Hospital Flexibility (Flex) program coordinators, and federal staff the ability to explore the financial, quality, and community-benefit performance of CAHs. 2) the National Rural Health Association notified members and included the survey website in a regularly distributed newsletter email; 3) the National Organization of State Offices of Rural Health notified state offices of rural health and included the survey website in a regularly distributed newsletter email; 4) the Federal Office of Rural Health Policy notified selected persons and included the survey website in a communication, and; 5) the North Carolina Rural Health Research Program directly emailed several CEOs with whom they have had previous contact. We could not verify whether all rural hospital executives were exposed to the survey.

The survey opened on January 1, 2019 and closed on April 30, 2019. Respondents were asked a series of closed-ended and open-ended questions to describe their experiences and perspectives dealing with challenges associated with a variety topics, including staffing, value-based models and reimbursement, service lines, community health needs and infrastructure, and alternative models of care delivery. Online surveys, often solicited via email, have recently faced a dip in response rates due to survey spam and survey fatigue.[43] Survey research response rate trends and the possibility for self-selection bias have the potential to impact the results of this study. In total, 227 complete surveys were received. Survey responses were merged with 2018 CMS Healthcare Cost Report Information System (HCRIS) data to validate the limited amount of hospital information collected from survey respondents, such as hospital type, size, and state. Table 1 on page two describes the sample of survey respondents. After matching respondent data to identifiable hospital financial data, we dropped out 14 observations that we were not able to match to hospital financial data. We also removed one observation that was a duplicate and incomplete response. Since all but 38 observations were CAHs, we also dropped the 38 non-CAHs to analyze and report only CAH responses. We were left with 174 CAH responses which is approximately 13% of CAHs.

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