# Lessons Learned from Efforts to Support Vulnerable Critical Access and Other Rural Hospitals

John Gale, MS; Celia Jewell, RN, MPH; Karen Pearson, MLIS, MA

## INTRODUCTION

National attention on the financial vulnerability of Critical Access Hospitals (CAHs) and rural hospitals and their risk of closure is not a new phenomenon. Rural hospitals have long struggled with chronic workforce shortages, high operating and staffing costs, inadequate reimbursement, operational and regulatory issues, and the diverse demographics of rural communities.[1,2] CAHs and rural hospitals are also challenged to adapt to an evolving health care environment with a declining need for inpatient beds, increasing competition by non-hospital and non-traditional providers, changing care paradigms, and a growing adoption of value-based payment models.[3-5]

There is an extensive history of efforts to support small rural hospitals in response to prior waves of closures, dating from 1973 to the present. These policy responses included Montana's Medical Assistance Facility program and other state limited-service models, the seven-state Essential Access Community Hospital/Rural Primary Care Hospital demonstration, the Medicare Rural Hospital Flexibility (Flex) Program and CAH designation, and the Frontier Community Health Integration Program demonstration.[6-9] Other policy solutions have focused on the development of alternative models of care such as Colorado's Community Clinic and Emergency Centers, the Kansas Primary Medical Center, the Rural Emergency Hospital designation, and Frontier Extended Stay Clinic (FESC) demonstration.[10-12] States have also explored payment reform options including Maryland and Pennsylvania's global budget initiatives and Vermont's state Accountable Care Organization.[13-15] Many of these efforts have their roots in past demonstrations, alternative models, and payment reform initiatives.

This paper summarizes state and federal programs, demonstrations, and models to support CAHs and other rural hospitals. Grouped by program characteristics, the summaries provide lessons learned to inform current policy discussions, describe the trends driving the various waves of rural hospital closures, and explore trends likely to impact CAHs and other rural hospitals in the foreseeable future.

## METHODOLOGY

To identify lessons learned from past state and federal rural hospital support demonstrations and initiatives, the Flex Monitoring Team (FMT) study team collected and reviewed a wide range of source documents, including evaluation reports produced for state and federal sponsors of these demonstrations, reports to Congress, reports and studies conducted by rural health research centers funded by the Federal Office of Rural Health Policy (FORHP), peer-reviewed literature, and grey literature produced by foundations, consulting groups, and state and national government agencies. We further reviewed the literature to identify the trends impacting the stability and viability of rural systems of care.

## TRENDS IMPACTING CRITICAL ACCESS AND OTHER RURAL HOSPITALS

The United States has endured periodic waves of rural hospital closures. One hundred ninety-nine rural hospitals have closed since 2005 (as of September 1, 2023) which included 101 complete closures, ten rural emergency hospital (REH) conversions, and 88 converted closures (i.e., facilities that no longer provide inpatient care but provide other services such as primary, skilled, or long-term care).[16] Four hundred fifty-three rural hospitals are estimated to be at risk of closure, with more than 200 at immediate risk of closure.[17-20] The challenges to CAH and rural hospital financial viability include:

- ***Chronic workforce shortages*** – In the wake of the COVID-19 pandemic, rural providers report critical shortages of physicians, registered nurses and other essential staff impacting rural hospitals, primary care clinics, nursing homes, and emergency medical services.[21-26]
- ***Ongoing financial vulnerability of rural hospitals*** – The root of this problem is driven by the mismatch between Medicare, Medicaid, and commercial insurance payment policies and the long-term financing needs of rural hospitals.[27] The reliance on fee-for-service reimbursement does not adequately cover fixed costs. It further skews the mix of services provided by hospitals by driving them to deliver high-margin, lower-value specialty services rather than high-value, low-margin services that contribute to long-term patient wellness (i.e., primary care, behavioral health, wellness and prevention, chronic care management, and public health). Additional financial challenges identified by CAH administrators include rising rates of uncompensated care, a failure to expand Medicaid in 10 states, patient bypass behavior that reduces hospital revenues, and the growth of high deductible health plans.[28-29]
- ***Declining need for inpatient hospital beds*** – Improvements in technology and medical care have enabled many services to be provided in less restrictive ambulatory and outpatient settings (e.g., surgical, orthopedic, and gastroenterology centers). This trend has been exacerbated by the continued transition of care from hospitals to the community and homes.[30-34] Evolving trends include hospital at home models, growth in virtual services through telehealth, and expansion of preventive and wellness services. By 2030, hospital inpatient revenues are projected to be 35 percent lower than 2020 and the demand for hospital beds will be 44 percent lower due to these changing service trends.[34] Some experts estimate that the American health care system will have 1.6 times the number of inpatient beds needed in 2030 and that many of these beds will be of the wrong type (e.g., acute inpatient care versus transitional or long-term care).[35]
- ***Increased competition by non-hospital and non-traditional competitors*** – Non-hospital providers (e.g., ambulatory surgery centers or urgent care clinics) compete for "profitable" services and commercially insured patients and pull business away from rural hospitals.[36] Nonmedical technology companies (e.g., Google, Apple, and Amazon), retail corporations (e.g., Walmart), and pharmacy chains (e.g., CVS) are also entering the health care market and developing competing services, including primary care clinics and telehealth services.[33] These trends may further destabilize rural systems of care.
- ***Growth of Medicare Advantage, managed care, and value-based payment models*** – These payment models are designed to improve consumer engagement and quality of care while lowering the overall cost of care, typically by reducing inpatient care and increasing use of outpatient, preventive, home, and virtual care.[30,34] In 2023, 51 percent of the eligible Medicare population was enrolled in a Medicare Advantage plan.[37] These models may not always be suitable as they often include additional quality reporting and cost control requirements that are burdensome for rural providers.

- ***An increased focus on containing health care costs*** – In 2020, U.S. health care spending accounted for 19.7 percent of the gross domestic product.[38] Although this rate of growth is expected to moderate, the overall level of spending remains problematic.[39-42] The Medicare program, state Medicaid programs, and commercial health insurers are struggling to control health care costs.[39-42] To combat rising premiums, commercial payers are shifting a higher portion of cost to patients through high deductible health plans.[43-44] Studies show that large percentages of non-elderly households do not have the resources to meet the out-of-pocket cost requirements of their health plans thereby further straining vulnerable rural hospitals.[45] Common strategies to control health care costs (e.g., reducing and/or capping payment rates, reducing the rate of cost growth, relying on contracted provider panels, promoting price transparency, and fostering competition) have a disparate impact on rural providers given their higher fixed costs, low patient volumes, and reliance on enhanced payment methodologies (e.g., CAHs and rural health clinics).[46-48]
- ***Greater pressure to address health equity and health disparities*** – Rural racial/ethnic minorities experience greater rates of health disparities (i.e., preventable differences in disease, injury, violence, or opportunities to achieve health) than non-Hispanic whites.[49] Rural non-Hispanic Black and American Indian/Alaskan Native adults were more likely to report having fair or poor health as well as multiple chronic conditions than their non-Hispanic white peers. Hispanic adults were also more likely to report having fair or poor health. Rural non-Hispanic Black adults had the highest risk for obesity and severe obesity. LGBTQ+ (lesbian, gay, bisexual, transgender, queer/questioning, and others) populations also suffer from greater rates of health disparities.[50] Rural LGBTQ+ populations face substantial barriers to care due to persistent internalized stigma compounded by stigma from health care providers. Rural lesbian and bisexual women experience greater odds for physical health conditions (e.g., asthma, chronic obstructive pulmonary disease, hepatitis, heart disease, and sexually transmitted infections) and lower odds of having health insurance compared to heterosexual women. Greater recognition of the health disparities impacting rural racial/ethnic minorities and LGBTQ+ populations will challenge CAHs and other rural providers to moderate the disparities experienced by the vulnerable populations they serve, thereby reducing the health equity gap.[51]

As will be demonstrated in the following discussions, the threat of rural hospital closures is not a new phenomenon. Since the early 1970s, rural hospitals have endured multiple waves of closures. In response, state and federal policy efforts have focused on stabilizing small rural hospitals by "right sizing" these facilities (by discouraging the provision of services that are difficult to sustain in low-volume facilities), increasing networking relationships between hospitals, and improving hospital reimbursement under Medicare through cost-based reimbursement. These programs and policies, however, have not directly addressed the other trends impacting rural hospitals including workforce challenges, increased competition, hospital bypass, and growth in managed care and value-based payment models. We will explore policy options to address these issues in the conclusion of this paper.

## HISTORY OF THE LIMITED-SERVICE HOSPITAL MODEL IN RESPONSE TO RURAL HOSPITAL CLOSURES

Efforts to stem the closure of rural hospitals focused on creating "limited-service" hospital models through payment reform, regulatory relief, and reductions in services that cannot be sustained in rural communities.[2] A limited number of models focused on alternative care models to serve rural areas that could no longer sustain a viable rural hospital. As will be demonstrated, many of these early efforts informed subsequent rural hospital support programs and provided a foundation for the Medicare Rural Hospital Flexibility Program and CAHs.

***The Origins of the Limited-Service Hospital:*** The concept of a "limited-service" hospital was developed in 1973 as the U.S. Department of Health, Education, and Welfare (DHEW)* sought to address concerns that the Medicare Conditions of Participation (COPs) for registered nursing supervisory requirements were too onerous and expensive for small rural hospitals.[52-53] Recognizing that the loss of small rural hospitals that could not meet the COPs would deny access to hospital care for Medicare beneficiaries, DHEW commissioned a study to explore solutions to this problem. A consulting firm, Arthur D. Little, Inc. drafted a set of participation standards for a new type of Medicare provider called a limited-service rural hospital. These standards provided relief from staffing requirements in exchange for limitations on the services that these facilities would provide.[52] The goal was to ensure access to hospital care at an acceptable level of quality. Target hospitals for the limited-service rural hospital model were small, isolated hospitals that met the following criteria:

- 50 beds or fewer
- Located in an isolated rural area (more than 30 minutes driving time from another hospital)
- Willing to limit services in a manner commensurate with the capabilities of staff and facilities

The proposed standard generated resistance from stakeholders concerned about the creation of a "double quality standard" for small rural hospitals.[52-52] Faced with this opposition; the authors did not recommend the adoption of a national limited-service rural hospital model. Rather, they recommended that DHEW adopt a role of "stimulating, facilitating, supporting, and granting permission" for state initiatives to address the problems of small rural hospitals by:

- Encouraging states to develop their own limited-service rural hospital models
- Seeking regulatory changes to enable a senior licensed practical nurse to assume some of the roles of a registered nurse
- Encouraging Professional Standards and Review Organizations (the predecessors of today's Quality Improvement Organizations) to address the limitations of services as a key concept in developing a rational system of health services in rural areas
- Supporting states that develop limited-service rural hospital models by developing training programs for hospital staff and surveyors and encouraging affiliations with larger hospitals[52-53]

The study set the stage for future experiments with limited-service hospitals by defining the role of the states in developing models to meet their needs, establishing the concept of the limited-service rural hospital model, and using a 30-minute driving time to identify "isolated" facilities. The study further established a tradeoff between

* DHEW was the predecessor to the current U.S. Department of Health and Human Services (DHHS).

regulatory relief and limitations on service capacity as a way of supporting small rural hospitals while assuring patient safety and quality of services. Future limited-service hospital initiatives, including the Medicare Rural Hospital Flexibility Program, would build on these concepts and wrestle with the proper balance between the regulatory relief to be offered to small hospitals and the development of mechanisms to establish and monitor the limitations on services.[2,54]

***Expansion of State Limited-Service Hospital Models:*** The limited-service hospital model received little attention during the 1970s and early 1980s. However, a growing number of hospital closures, declining rural economies, and the implementation of fixed-rate prospective payments for Medicare in 1983 rekindled interest in the model as a solution to the problems of rural health care delivery systems. From the mid-1980s through the mid-1990s[55], states explored the creation of limited-service hospital models, alternative regulatory standards, and alternative models for delivering essential health care services in rural areas. California[54,56], Florida[54], Kentucky[54], Minnesota[54,57], Montana[54,58], Texas[54,59], Washington[54,60], and Wyoming[54] pioneered the limited-service hospital. Colorado[54], New York[54,61], and Wisconsin[54,62-63] focused on non-hospital services, networking, and simplified regulatory systems.

The most successful of these efforts was Montana's Medical Assistance Facility (MAF) program. Created by the Montana Legislature with input from the Montana Hospital Association, MAF was designed to meet the needs of Montana's small, isolated rural hospitals. MAF was the only state limited-service hospital model to obtain a federal waiver of the Medicare COPs that allowed the participating facilities to receive Medicare and Medicaid reimbursement. The waiver was granted in December 1990 and extended through 1993. As of December 1992, five hospitals had converted to MAF status.[54,58] Among the features of MAF that influenced the later state and federal rural hospital support models were:

- Using a 96-hour length of stay limitation as a proxy to define the service limitations of the model
- Requiring qualifying facilities to be located 35 miles or more from another hospital
- Allowing MAFs to temporarily close if no patients were admitted to the facility
- Reducing staffing requirements
- Expanding use of mid-level practitioners
- Requiring MAFs to maintain a quality assurance program that included routine reviews of patient utilization and its policies

Federal approval of MAF provided legitimacy to the model.[2,53,58] This legitimacy encouraged Florida[54], Kentucky[54] Minnesota[54,57], Texas[55-59], and Wyoming[54] to develop their own models based on the MAF model. California and Washington pushed forward with their own models.[54,56,60]

California's Alternative Rural Hospital Model (ARHM) was based on a modular approach that allowed rural hospitals to offer a mix of services needed by their communities within the context of available capacity and resources.[54,56] The key element of the ARHM model was to define service limitations by identifying the essential services to be offered by all facilities and allowing individual facilities to establish optional services that could be offered based on their resources and capacity.

Washington's Rural Health care Facilities (RHCF) program focused on developing networking relationships among rural providers and created a category of limited-service facilities that were required to provide core services including 24-hour emergency care, inpatient and outpatient care, laboratory and radiology services, low-risk maternal and newborn care, and necessary support services.[54,60] Optional services could be provided directly or through networking arrangements. RHCFs were required to have referral arrangements for more intensive inpatient care and specialty services. The networking features of the RHCF model were designed to impose a rational framework over the delivery of health services in rural areas.

***Alternative State Efforts to Support Rural Delivery Systems:*** A limited number of states undertook programs to support rural hospitals and delivery systems that were not focused on creating limited-service hospitals. Instead, they focused on simplifying licensing and certification standards, developing networks to support rural providers and expand service capacity, and developing alternative delivery models for communities that could no longer support a traditional inpatient hospital.

Wisconsin's Rural Medical Center (RMC) model was intended to provide regulatory relief to encourage integration of community-based services under a single administrative structure while allowing hospitals to offer a range of services, including inpatient and outpatient care, home health, hospice, long-term care, and physician services.[62-63] The focus was on dismantling barriers to the integration of services by eliminating duplicative and conflicting regulations and by eliminating the need for independent licensure and certification surveys for each service. The challenge inherent in this model was to develop a process that would be accepted by the requisite state and federal agencies. Wisconsin obtained external funding to implement the model, but progress was halted by the implementation of the Medicare Rural Hospital Flexibility Program and the Critical Access Hospital designation.

New York's Rural Health Network Demonstration encouraged development of a cooperative networking structure among rural providers into which different models might fit.[2,54,61] These networks were intended to support providers and expand service capacity in rural communities. This emphasis carried over to New York's subsequent Essential Access Community Hospital/Rural Primary Care Hospital program in which its established networking initiative was prominently featured.[61,64]

Colorado's Community Clinic and Emergency Center (CCEC) model was an ambulatory model that allowed patients to be kept overnight for observation if the facility elected to establish inpatient beds. Although CCECs were offered the option of maintaining up to six beds, the inpatient side of the model was never developed nor was it presented to rural hospitals as an alternative to closure.[2,54] The program was originally designed as a licensure category for clinics offering services to patients under Colorado's state medically indigent program which limited reimbursement to licensed providers. As of the early 1990s, approximately 61 CCECs were in operation in Colorado, 49 of which were in rural areas.[2,54] Many were also certified as Rural Health Clinics (RHCs) or Federally Qualified Health Centers which enabled them to receive Medicare reimbursement. None of these 49 CCECs offered inpatient services.

Central to these initiatives was the recognition that small rural hospitals and clinics play a critical role in maintaining access to services for rural residents. These state efforts provided a foundation for the federal rural hospital demonstrations and programs that were implemented in the mid-1990s and later. These

demonstrations and programs included the Essential Access Community Hospital/Rural Primary Care Hospital demonstration, the Critical Access Hospital designation and the Medicare Rural Hospital Flexibility Program, and the Frontier Extended State Clinic demonstration.

### *Evolution of a National Limited-Service Hospital Program*

The Essential Access Community Hospital/Rural Primary Care Hospital (EACH/RPCH) demonstration was implemented by the Centers for Medicare and Medicaid Services (CMS) in response to the concerns about continuing rural hospital closures. EACH/RPCH was enacted under the Omnibus Reconciliation Act of 1989 as a multi-state limited-service hospital demonstration project. Twenty-one states applied for the program and grants were awarded to seven states† in 1991.[64-69] As a multi-state demonstration, EACH/RPCH provided an opportunity to evaluate the limited-service model across seven geographically diverse states. State experience with EACH/RPCH informed the development and implementation of the Medicare Rural Hospital Flexibility Program at the state level.

A core difference between MAF and EACH/RPCH involved the latter's emphasis on the formation of rural health networks between RPCHs and supporting EACHs.[64-69] Participating states received grant awards in 1991, 1992, and 1994 to implement the program, encourage formation of rural health networks, and support the conversion of rural hospitals to RPCH and EACH status. Although the formation of a rural health network was not mandatory, RPCHs and EACHs participating in networks were expected to maintain written agreements detailing the provision of support to the RPCHs. In support of the RPCHs, EACHs were expected to accept patient transfers, provide emergency transport and support, offer staffing privileges to RPCH medical staff, and share data and information. In exchange, EACHs received enhanced Medicare reimbursement.[64-69] The following characteristics carried over from EACH/RPCH to the implementation of the Medicare Rural Hospital Flexibility Program:

- Development of a limited-service hospital with referral linkages to larger hospitals
- Implementation of at least one rural health network
- Provision of grant funding to support states and hospitals to assist hospital conversions and systems of care development
- Program responsibility resided primarily in state offices of rural health or a related entity
- Use of advisory committees to support state level programming
- Engagement of hospital associations to support program development, dissemination of program information, technical assistance, and hospital buy-in[64-69]

By the mid-1990s, an accelerating wave of hospital closures created a demand for a national solution. In response, the Balanced Budget Act of 1997 (BBA 1997) created the Medicare Rural Hospital Flexibility (Flex) Program and the Critical Access Hospital designation.[70] The Flex Program established grant funding to assist states with supporting rural hospitals and their conversion to CAH status. It also tasked CMS, formerly known as the Health Care Financing Administration, with establishing criteria to identify and approve State Flex Programs eligible for participation. Additionally, BBA 1997 contained a provision to allow Flex Program grant funding to support rural emergency medical services. The Flex Program was available to any state with hospitals eligible for

† California, Colorado, Kansas, New York, North Carolina, South Dakota, and West Virginia

CAH conversion. As part of their applications, state applicants were required to provide CMS with the following assurances:

- It had developed a state rural health plan for the creation of one or more rural health networks, promote regionalization of health services within the state, and improve access to hospitals and other health services for rural residents of the state
- Its rural health plan was developed in consultation with the state hospital association, rural hospitals, and the State Office of Rural Health
- Its designation process included a method for identifying eligible facilities as well as a process by which it would designate certain facilities as "necessary providers"
- It had designated, or was in the process of designating, rural hospitals as CAHs[71-72]

Upon approval by the appropriate CMS Regional Office, a state became eligible to designate CAHs and to apply for Flex grant funding from FORHP.

The following were the criteria for CAH designation established by CMS:

- Located in a rural area and over 35 miles (or 15 miles under mountainous conditions or in areas with only secondary roads) from another hospital or be certified by the state as being a necessary provider of health care services
- Provide 24-hour emergency care
- Have no more than 15 acute beds and 10 swing beds provided that no more than 15 acute beds are in use at any given time (the number of allowable acute care beds increased to 25 in 2003)
- Provide inpatient care not to exceed a 96-hour length of stay (later changed to a 96-hour average length of stay)
- Operate a quality assessment and performance improvement program and follow appropriate procedures for utilization and service[70]

West Virginia was the first state to receive CMS approval to implement the Medicare Rural Hospital Flexibility Program in February 1998.[71-72] On December 1, 1998, a Maine hospital was the first hospital that had not previously been designated as either a MAF or RPCH to receive its CAH designation.[71-72] Over time, Congress passed numerous legislative actions to improve the incentives for CAH conversion, address limitations of the BBA 1997, and expand the program to a wider range of hospitals.[55]

***Helping Critical Access Hospitals Cope with the Evolving Health Care Environment:*** Despite the support provided by the Flex Program, CAHs have continued to struggle with financial challenges as well as adapt to the changing health care environment including the growth in advanced payment models and accountable care organizations, increased demands for public reporting of quality data under Medicare, state Medicaid programs, and commercial payers. An important aspect of the Flex Program is its grant program that provides funding for activities beyond stabilizing inpatient services. This allows for a broader scope of activities that focus on CAHs as a foundation for health care services while recognizing their changing needs. The Flex Program has become a resource and planning base, administered at the state level, to meet local health care needs. This flexibility provides a process by which rural health policy can adapt to evolving needs.

Over time, FORHP modified the program guidance to address issues beyond the economic stability of participating hospitals, including quality improvement, service development, and community and population health improvement. FORHP further modified the Flex Program guidelines to emphasize approaches to improving and organizing local services that have a demonstrated evidence base.

## DEVELOPMENT OF ALTERNATIVE DELIVERY MODELS

The Flex Program provides an important source of support for the 1,362 CAHs in operation in 45 states as of July 2023.[73] Despite the program modifications to increase the attractiveness of CAH designation to small hospitals, it became clear that the CAH designation did not fit the needs of all communities. Similarly, it could not eliminate the risk of closure for every CAH. CMS and select states explored options to create alternative non-hospital delivery models or rural support programs.

The CMS Frontier Extended State Clinic (FESC) demonstration was a three-year demonstration implemented in 2010 to allow remote clinics to treat patients for extended periods, including overnight stays, than are entailed in routine physician visits.[74-76] FESC was designed to support communities that could not sustain a hospital and experienced issues that could obstruct immediate transport to an inpatient facility. A FESC had to be located at least 75 miles from the nearest acute care hospital or CAH or was inaccessible by public road. Four clinics in Alaska participated in the demonstration. The first FESCs became operational in April 2010. The demonstration ended in April 2013. Based on the report to Congress,[75] the availability of FESC services:

- Improved patients' experience of care and the ability to monitor and observe potential emergency care cases in local communities
- Reduced Medicare spending for emergency transfers and hospitalizations, but the cost of building and maintaining extended stay capacity to achieve and maintain Medicare certification requirements outweighed the savings

The report to Congress concluded that the provision of extended stay services was not sustainable under Medicare fee-for-service reimbursement due to limited volume and high start-up and maintenance costs.[76]

The Kansas Primary Health Center (PHC) was developed as an alternative to an inpatient hospital for communities that could no longer sustain their current delivery infrastructure.[11-12,77] This model was developed by the Kansas Hospital Association's Rural Health Visioning Task Force and was driven by the closure of seven Kansas hospitals since 2010 and the fact that 37 Kansas hospitals had fewer than two overnight patients in 2019.[78] The PHC was designed to serve as a bridge between clinics and hospitals by providing emergency and primary care services on a 24 hour per day, seven days per week basis with no inpatient stays. The model had two tracks – one open 12 hours per day and one open 24 hours per day. Core PHC services included: primary care, including prenatal care; urgent care; emergency care; emergent and non-emergent transportation; observation (part of transitional care); outpatient and ambulatory services; minor procedures; ancillary services to support primary care; care coordination, chronic disease management and other approaches to population health; and telemedicine. Optional services included rehabilitative services, subacute care (transitional care), behavioral health, oral health, specialty care (via telemedicine or visiting specialists on site), and other services needed within a reasonable distance (must be consistent with documented community need). These services could be provided under the payment model if not available locally. The PCH model assumed the development of networking relationships and the ability to regionalize services.

The model was evaluated on paper but not in practice. The paper test focused on the operations of five rural hospitals in 2015. The results suggested that 70-75% of patients served in traditional hospitals could be served in the PCH model and that more could be served by PCHs with transitional care. The payment methodology included fixed payments tied to an inclusive budget, encounter payments for non-participating payers, encounter

payments that reflect fixed payments from participating providers, grants, and value-based incentive payments.[11] The Rural Emergency Hospital (REH) model developed under the Consolidated Appropriations Act of 2021 is similar to the PCH model.[78]

The CMS Frontier Community Health Integration Program (FCHIP) was authorized by the Medicare Improvements for Patients and Providers Act of 2008 as a three-year demonstration of community health integration models in designated frontier counties.[79] The goal was to test new models for the delivery of health care services and better integrate the delivery of acute care, extended care, and other health care services for Medicare and Medicaid beneficiaries residing in very sparsely populated areas. The initial demonstration ran from August 1, 2016 through July 31, 2019 with 10 participating CAHs. Under the Consolidated Appropriations Act of 2021, the demonstration was renewed for five years beginning on July 1, 2021. Only hospitals participating in the original demonstration were eligible for the extended demonstration and six elected to do so at the start of the extended demonstration.

The FCHIP model was originally designed to align all frontier health care services by means of a single set of frontier health care service delivery regulations and an integrated reimbursement system. The demonstration implemented a more limited version involving the following payment waivers:

- Waived the 35-mile requirements, so CAHs could be reimbursed at 101 percent of costs of Part B ambulance services, instead of being paid at the Medicare ambulance fee schedule rate
- Allowed CAHs to increase inpatient bed capacity from 25 up to 35 beds with the restriction that the extra beds could only be used to provide skilled nursing or nursing facility care
- Reimbursed CAHs at 101 percent of reasonable costs for providing telehealth services when serving as the originating site (and as distant telehealth under the extended demonstration)

In March 2014, the Georgia Department of Health, State Office of Rural Health implemented the Rural Hospital Stabilization Program (RHSP) which finished its seventh year of funding on August 31, 2023.[80-81] The goal was to support the development of an integrated "Hub and Spoke" model to prevent the over-utilization of emergency departments (EDs) as primary care access points. The intent of the model was to use technology to treat patients in the most appropriate setting to relieve cost pressures on rural hospital EDs. As stated in the initial November 2017 pilot program report, the program sought to establish community partnerships to ensure that each patient was receiving the "Right Care, at the Right Time, and in the Right Setting." Based on the December 2019 comprehensive report of the Rural Hospital Stabilization Program[64] and October 31, 2022 addendum,[80-81] the following are preliminary findings:

- No participating hospitals closed, although the complexity of the environment made it difficult to determine causality
- Eighty-three percent of implemented projects were still in place
- Care coordination projects were assessed to be most impactful by participants and telemedicine projects to be least impactful
- Grantees reported that all projects were completed by the end of the project period, and all but one project continued to perform as intended, meeting all original objectives
- Grantees also reported that ongoing projects were self-sustainable after termination of funding
- Phase Five grantees also reported that improvements made through the RHSP resulted in a better overall relationship with their respective communities and an increased level of confidence and utilization in the services provided

The Consolidated Appropriations Act of 2021 established the Rural Emergency Hospital (REH) designation as an alternative model for rural hospitals at risk of closure. The REH designation allows CAHs and other rural hospitals of less than 50 beds to avoid closure and provide essential services for the communities they serve.[67] REH conversion allows facilities to provide emergency services, observation care, and additional medical and health outpatient services, if elected by the REH, that do not exceed an annual per patient average of 24 hours. Hospitals were eligible to convert to REH status beginning January 1, 2023. As of August 25, 2023, 10 hospitals have converted to REH status.[16] On November 1, 2022, CMS finalized the REH COPs and payment rates. REHs must:[82-83]

- Maintain a 24/7 ED to provide emergency services
- Have a transfer agreement in place with a Level I or Level II trauma center
- Maintain a data-driven quality assessment and performance improvement program
- Provide emergency, laboratory, radiologic, discharge planning, and pharmaceutical services appropriate to patients' needs

REH emergency services and other medical and health services will be reimbursed at appropriate Medicare outpatient PPS rates plus 5 percent. The monthly REH add-on payment in 2023 was established at $272,866. The add-on payments are to be adjusted in future years using the hospital market basket.[‡]

## DEVELOPMENT OF VALUE-BASED PAYMENT, GLOBAL BUDGET, AND ADVANCED PAYMENT MODELS

Given the mismatch between rural hospital reimbursement methodologies and the needs of rural hospitals, states and CMS have experimented with value-based payment models and accountable care organizations (ACOs) in Vermont, global budgets in Maryland and Pennsylvania; and, more recently, the Community Health Access and Rural Transformation (CHART) Model. The goals of these efforts are to develop alternative payment models to moderate the negative impacts of fee-for-service payment methods, align payment methodologies to achieve improvements in quality and spending targets, and encourage rural hospitals to invest in initiatives to address the social determinants of health, improve population health, and reduce utilization of expensive health care services.

The Vermont All-Payer ACO is a multi-year advanced payment model (APM) demonstration that sought to shift care in Vermont from fee-for-service to population-based payments. This APM established state-level standards for both statewide and ACO-level health outcomes, relying on three targets for success: (1) Five year all-payer and Medicare financial growth; (2) Health outcomes and quality of care targets; and (3) ACO scale targets (i.e., the percentage of residents included in the model).[84] The Vermont ACO works with OneCare Vermont, the only ACO in the state and shares risk within the Medicare ACO portion of the model. Participation is voluntary for providers and commercial third-party payers. The primary challenge for rural providers is their ability to take on risk in the model.

[‡] The add-on payment was calculated as 1/12 of the excess of the payment amount CAHs received in 2019 over what Medicare would have paid these hospitals under the inpatient, outpatient, and skilled nursing facility prospective payment systems during the same year, divided by the total number of CAHs in 2019.

Based on the December 2022 evaluation report,[85] the COVID-19 public health emergency and a cyberattack on the University of Vermont Health Network in October 2020 had a negative impact on the results of the ACO model. Most hospitals participated in the Medicaid ACO, while half of eligible hospitals participated in the Medicare ACO. Most CAHs opted not to participate in the Medicare ACO initiative as the organizational financial reserves required for the Medicare ACO initiative were a barrier to participation. Despite the interest in moving to population-based payments, Medicare payments to hospitals remain primarily fee-for-service.

Maryland and Pennsylvania have implemented global budgets. The Maryland All-Payer Model was implemented in January 2014 to shift Maryland's hospital payment structure to an all-payer, annual, global hospital budget that encompassed inpatient and outpatient services. The model was built on Maryland's existing all-payer hospital rate-setting system, which had been in place since the 1970s. The model ended in December 2018 and was succeeded in January 2019 by Maryland's Total Cost of Care Model. Findings from the final evaluation report of the All-Payer Model[86] included:

- Hospitals' implementation of new strategies (e.g., care coordination, discharge planning, social work staffing, patient care transition programs, and systematic use of patient care plans) produced changes in care delivery at the hospital and clinician levels
- The model reduced total hospital expenditures for Medicare beneficiaries without shifting costs to other parts of the health care system outside of the global budgets
- Commercial plan members had slower growth in total hospital expenditures; however, growth in overall expenditures did not slow among commercial plan members
- Medicare payments for inpatient hospital services did not change as changes in utilization was offset by increases in payment per inpatient admission
- Participants operated within their global budgets without adverse effects on their financial status
- Two factors (hospital-employed physicians and targeted patient education) were associated with improvements in hospital financial and patient care performance

The Pennsylvania Rural Health Model (PARHM) sought to test whether care delivery transformation in conjunction with all-payer (Medicare, Medicaid, and commercial payers) hospital global budgets would increase rural Pennsylvanians' access to high-quality care and improve their health; reduce the growth of hospital expenditures across Medicare and other payers; improve the financial viability of rural hospitals and their health outcomes; and maintain access to care for Pennsylvania's rural residents. The PARHM performance period began on January 1, 2017, and is expected to end on December 31, 2024. Under the demonstration, the state agreed to meet the following targets: (1) Payer and rural hospital participation scale targets; (2) Financial targets; and (3) Population health, access, and quality targets. As the model is still underway, the findings from the second-year evaluation report[87] for 2019-2020 should be considered preliminary:

- Eight CAHs and eight PPS hospitals are participating in the demonstration
- Payer participation and the percentage of patient revenue global budgets increased in 2020
- Transformation plans addressed rural health disparities and high costs through chronic disease management, improved care coordination, and potentially avoidable utilization reduction
- Hospitals made progress on transformation activities, including providing patient and staff education, assessing patient social needs, developing registries of high-risk patients, and implementing new post-discharge follow-up processes

- Transformation barriers included lack of upfront funds and limited staff capacity during the COVID-19 pandemic
- Payments to CAHs were reconciled to their cost base which reduces the impact of the global budgets on their performance
- The model reportedly helped some participating hospitals attain greater financial stability
- Some commercial payers voiced concerns about the administrative burden of adapting to global budget methodology changes

The most recent CMS demonstration was the Community Health Access and Rural Transformation (CHART) Model which was designed to support rural communities in transforming their health care delivery systems by leveraging innovative financial arrangements and providing operational and regulatory flexibilities. CHART sought to:

- Increase financial stability for rural providers through payment models that provide up-front investments and predictable, capitated payments that pay for quality and patient outcomes
- Reduce regulatory burden by providing waivers that increase operational and regulatory flexibility for rural providers
- Enhance access to health care services by ensuring rural providers remain financially sustainable and can offer additional services such as those that address social determinants of health including food and housing[88]

In the fall of 2021, CMS awarded cooperative agreements under the CHART Community Transformation Track to the University of Alabama at Birmingham, the South Dakota Department of Social Services, the Texas Health and Human Services Commission, and the Washington State Health Care Authority.[88] These organizations were to be responsible for working with participating hospitals and state Medicaid agencies to drive local delivery system redesign by leading the development and implementation of Transformation Plans with their community partners.

The CHART model experienced a rocky implementation schedule with less interest in participation by states and rural hospitals than expected.[89-92] The primary concern expressed by hospital leaders involved the inability of many rural hospitals to participate in risk sharing arrangements, a theme that was echoed in the Vermont ACO and the PARHM. CMS also eliminated the CHART ACO track in February 2022 and extended the application deadlines for the Community Transformation Track. Despite efforts by CMS to assist in this process, the four states were unsuccessful in recruiting hospitals to participate. Due to the lack of hospital participation and based on the feedback from CHART stakeholders, CMS ended the program on September 30, 2023.[93]

***Challenges of Recent Payment Demonstrations:*** While the Maryland, Pennsylvania, and Vermont models have been important efforts to realign payment methodologies, it is not clear that these initiatives are addressing the underlying reimbursement and cost issues threatening the viability of rural hospitals – the higher fixed costs of providing services in rural hospitals, the continued reliance on fee for service payment methodologies, and the challenge of operating low volume facilities. The failure of the CHART Model to gain traction highlights the fact that many small rural hospitals are unable or unwilling to absorb financial risk for the provision of services.

The evaluation reports for the Maryland, Pennsylvania, and Vermont initiatives documented that these initiatives achieved some of their intended benefits. They did so, however, at the expense of administrative complexity. Each of these demonstrations had its own unique features that influenced its operations. Maryland's long history with its all-payer hospital rate-setting system supported its global budget model. Maryland also has few small rural hospitals. Participation in the PARHM and the Vermont ACO is voluntary for hospitals which suggests that only those hospitals with a reasonable expectation of success are likely to participate. At the same time, CAHs in PARHM still reconcile to their costs at the end of each year which likely reduces desired changes in behavior among these hospitals. Participation in Vermont's Medicare ACO among CAHs remains low and Medicare payments to hospitals in Vermont remain primarily fee-for-service based.

While global budgets and other advanced payment models hold promise, it is difficult to implement these models on a state-by-state basis, particularly in those states that do not have a history of managing health care and hospital costs as Maryland did. These models reaffirmed the importance of investing in basic elements of quality care including chronic care management, care coordination, discharge planning, social work staffing, patient care transition programs, and systematic use of patient care plans. These models further demonstrated the challenge of incorporating hospitals with enhanced payment arrangements, such as cost-based reimbursement, into global budgets and other advanced payment models as hospitals with these payment arrangements are reluctant to give up the benefits of their enhanced reimbursement.

One final concern is that these initiatives fail to address one of the major financial issues experienced by rural hospitals, which is the higher fixed costs of providing services. This may be a function of the models used. Global budgets, for example, are typically used in other industrial countries to limit or reduce payments to hospitals. The same is true for value-based care programs and accountable care organizations. Their goals are not to explicitly mitigate shortfalls in payment or prevent closure of vulnerable rural hospitals. While it is true that some rural hospitals benefit under these payment initiatives, it is not true that all rural hospitals do so. These interventions are efforts to mitigate foundational flaws in the American health care system but do not represent the level of systematic reform necessary to strengthen rural delivery systems across the country. Appropriate payment methodologies are needed to address the higher fixed costs of providing services in rural communities and to maintain response capacity during natural disasters and environmental or public health emergencies as will be discussed in the following sections.

## LEARNING FROM THE PAST: RECOMMENDATIONS TO SUPPORT VULNERABLE RURAL HOSPITALS

As discussed earlier, America's rural health delivery system has endured multiple waves of rural hospital closures. Until recently, the primary policy response has been state and federal initiatives to support limited-service hospitals. The underlying principle for all state and federal limited-service models has involved the trade-off between enhanced volume-appropriate reimbursement and regulatory relief in exchange for limitations on the range of services to be provided by these hospitals. The phrase "right sizing" appears throughout the literature for these models as they were intended to rationalize the service mix of rural hospitals by minimizing the incentives to provide services that were not financially viable in low-volume hospitals and could not be delivered with appropriate quality. The reliance of fee-for-service reimbursement systems encourages CAHs and other rural hospitals to deliver more acute "sick" care services and fails to incentivize hospitals to focus on keeping patients well. Value-based payment and/or managed care systems can also be a challenge, particularly if these systems are not required to pay CAHs under volume-appropriate cost-based reimbursement model while simultaneously expecting these facilities to reduce "unnecessary" admissions and ED visits.

***Developing Principles for a Sustainable Rural Health System:*** One of the primary challenges to supporting CAHs and other small rural hospitals is that policymakers and rural advocates do not have a clear vision for the future of rural hospitals and sustainable delivery systems. The diversity of rural communities and hospitals argues against the development of a one size fits all model that can be applied in all rural communities. As such, organizing principles are needed to guide efforts to support rural hospitals and to develop models that best meet the needs of diverse rural communities.

As part of its work to support rural hospitals and the development of the Primary Health Center model, the Kansas Hospital Association's (KHA's) Rural Health Visioning Task Force identified the following set of principles for a sustainable rural health delivery system:[94]

- Focus on prevention, primary care, chronic disease management, emergency services and other essential services to improve the health of the population served
- Provide access to essential health services within a reasonable distance and time frame
- Encourage collaborative local and regional solutions for service provision and governance
- Continue to pursue the highest standards of quality and patient safety
- Promote cost and operational efficiencies and provide value in the provision of local and regional services
- Embrace the use of technology to expand access and patient participation in his/her care
- Be reimbursed and financed fairly by federal, state, and local resources, private payers, and patients such that the health of the population can be improved

These principles can serve as a foundation for discussions on the future of rural hospitals and can be modified as needed to reflect the evolving rural health care environment.

The ***importance of community engagement*** is an important lesson learned from past efforts to support rural systems of care, particularly given the low utilization rates of rural services and the high rates of bypass experienced by rural hospitals.[94-95] As rural hospitals evolve given the challenges described earlier, rural residents will need to cope with different ways of accessing health services using developing technology and care models. Efforts to involve community leaders in decisions about their local delivery systems and the services offered are important lessons learned from past efforts to support rural hospitals. For example, the Flex Program required hospitals interested in CAH conversion to engage community members in the decision process. Some hospitals struggled with the conversion process as some opponents described CAHs as "band-aid" stations. KHA's principles for a sustainable rural health system reinforce the importance of community engagement as did the requirements outlined in its Primary Health Center model. Hospitals interested in converting to REH status might experience similar challenges. Engaging communities in making decisions about their health care can help to reduce the loss of community input and control, mitigate bypass behavior, and improve engagement in efforts to improve population health and health equity.

***Networking partnerships*** between health providers has also been an important element of many efforts to rationalize the delivery of rural health care services. The EACH/RPCH and Flex programs as well as state-level efforts in Georgia, New York, and Washington have concentrated on efforts to create partnerships and networks to improve and manage the delivery of rural health services. The Flex Program required potential State Flex Programs to develop rural health plans that focused on the creation of one or more rural health networks, promoted regionalization of health services within the state, and improved access to hospitals and other health

services for rural residents of the state. Unfortunately, funding was not provided to implement these rural health plans nor was any authority provided to implement and enforce these plans. As a result, state rural health plans became a regulatory burden to overcome rather than a useful tool to improve rural delivery systems.

The Georgia Rural Hospital Stabilization Program has explicit expectations that their hub and spoke model will result in better delivery of local and regional health services. The KHA also reinforced the value of collaborative local and regional solutions for service provision and governance in its principles for sustainable rural delivery systems.[78] Networking and partnerships between regional hospitals and systems of care as well as community networking with local providers can be an important strategy to support the delivery of efficient care targeting local needs. The challenge is that these efforts rarely contain either regulatory or funding strategies to encourage meaningful networking strategies that rationalize the delivery of services on a regional basis and minimize unnecessary competition and duplication of services. A handful of states such as Florida, Minnesota, and Texas have implemented efforts to regionalize services.[95] Texas, for example, funded Regional Health Partnerships under a Medicaid 1115 waiver which were required to develop regional health plans to improve regional access, quality, cost-effectiveness, and collaboration. CAHs and rural delivery systems would benefit from incentives and/or demonstrations to encourage regional collaboration. Given recent concerns about the closure of obstetrical (OB) units by rural hospitals,[96-97] regionalization of rural OB units with pre- and post-natal care provided at local hospitals might provide an option to maintain delivery services in rural communities.

Another key observation from past demonstrations is that most ***focus on the delivery of acute care health services with a low emphasis on population health and the social determinants of health***. While models such as CHART and PARHM contain some language focused on health care transformation, they are insufficient by themselves to address the underlying challenges of rural health care delivery and improving the health of rural Americans. As a result, there is a need for new and innovative demonstrations to support the viability and stability of rural delivery systems and improve the health of rural residents served by those delivery systems. This could be accomplished by merging concepts from existing efforts to support rural health with demonstrations that support broader efforts to improve population health and mitigate the impact of the social determinants of health.

Past efforts to support rural hospitals have failed to acknowledge that ***not all CAHs and rural hospitals are alike***. There are substantial differences between the over 1,300 CAHs and the communities they serve. As a result, no one demonstration or funding models is appropriate to the needs of all CAHs.[95,98-99] As previously discussed, the CHART model is not a good fit for many small rural hospitals that struggle with the challenge of absorbing risk, and it remains to be seen how many rural hospitals will elect to convert to an REH. Already, some facilities are struggling with the decision to convert due to the tradeoff between the additional facility payments compared to the loss of inpatient capacity.[100] CMS demonstrations such as FCHIP recognize the unique needs of small hospitals located in isolated frontier communities. Other demonstrations and models would be well served by allowing sufficient flexibility to tailor initiatives to the unique needs of relevant subsets of the participating hospitals.

Yet another lesson learned is the ***need for a clear focus on the intended goals of initiatives to support small hospitals and rural health systems***. As can be seen from the trends described earlier in this paper, rural hospitals are facing a complex and evolving operating environment. Many past efforts to support rural hospitals have focused primarily on enhanced payment for traditional inpatient, outpatient, and swing beds services and less on the essential services such as primary care, behavioral health, chronic care management, population health, wellness, prevention, and public health services that can make a greater contribution to the health of rural

populations than specialty and inpatient care.[95] The fee-for-service model, even with enhanced payment rates, is a challenge for small rural hospitals. New models of care should focus on transforming rural delivery systems to provide the services that can be delivered efficiently and make the greatest contribution to the health of rural residents.[95] At the same time, community members must be more engaged in decisions about the health services they need and will use.[95] Shifting to a new model of care, such as an REH, is not necessarily a direct path to a sustainable rural delivery system, if not understood and embraced by rural residents, particularly if they are already bypassing the existing facility that the REH replaces.

Past efforts to support rural hospitals have highlighted the need to ***develop new reimbursement models for CAHs and other rural providers***. As discussed earlier, current reimbursement methodologies fail to meet the needs of CAHs and other rural hospitals and contribute to ongoing concerns about closure. Specifically, a reliance on a fee-for-service payment system encourages providers to provide more "sick" care and does not encourage efforts to mitigate the social determinants of health and to focus on keeping patients well. At the same time, current payment policies do not acknowledge the higher fixed and variable costs associated with providing services in low-volume rural facilities. Except for the recent payment methodology developed for REHs, current payment policies also do not compensate hospitals for the standby capacity involved with operating emergency and other critical services.[95,98] CAHs and other rural hospitals would benefit from similar payment reform. The development of hybrid payment policies appropriate for the needs of CAHs and other small rural providers deserve careful consideration by federal and state policymakers.

CAHs and other rural hospitals continue to struggle with the costs and administrative complexity for the mix of services provided. This highlights the need for ***regulatory flexibility and relief***. Expanding use of technology and telehealth services exacerbates this problem. Past efforts to support rural hospitals have attempted to address this issue. New delivery models add to this burden by creating another licensure category for hospitals to consider. For example, the REH, which may be an appropriate model for some communities, required states to create a new licensure category and CMS to create new regulations and COPs to support these models. At the same time, communities may struggle to embrace the REH model as it does not fit community members' ideas about what a hospital should be. Regulatory flexibility such as that provided by California's AHRM designation would be one option to support CAHs and other rural hospitals that may not be prepared to convert to an REH. The goal would be to allow them to maintain swing beds and other services and surge capacity while controlling costs when inpatient demand is low. Wisconsin's RMC model would provide an opportunity to simplify the regulatory burden associated with the provision of multiple services, thereby reducing costs and administrative complexity.

## THE NEED FOR A NEW RURAL HOSPITAL MODEL

As has been discussed in this briefing paper, traditional rural hospital support programs and models may no longer be adequate to reduce rural hospital closures and adequately address the needs of rural communities. This is particularly true given the change and complexity inherent in the current health care environment. Growth in the use of telehealth, artificial intelligence, and other technologies; changing clinical paradigms that no longer rely on inpatient beds; growing demands for cost control; value-based and managed care payment models; an upheaval in the competitive marketplace driven by the entry of retail providers and technology companies; and ongoing workforce shortage have the capacity to disrupt rural delivery systems. The absence of new models of care for CAHs and other rural hospitals and a glide path to assist these facilities in transitioning to these new models of care have the capacity to significantly upend rural delivery systems in a way that will dramatically harm the health of rural residents and the economies of rural communities. This paper is intended to set the stage for those discussions.

***Developing a Primary Care and Long-Term Care-Oriented Rural Hospital Model:*** KHA's first principle with its focus on essential services to improve the health of populations served is reinforced by similar recommendations from the American Hospital Association's Task Force on Ensuring Access in Vulnerable Communities[10] which expanded the list of essential services to include primary care, psychiatric and substance use treatment, emergency care and observation, pre- and postnatal care, transportation, diagnostic services, home care, and oral health services. Efforts to re-imagine CAHs and rural hospitals should focus on the delivery of these essential services proven to contribute to improvements in health. Recent studies have projected that every 10 additional primary care physicians per 100,000 people is associated with a 51.5-day increase in life expectancy, compared to a 19.2-day increase for 10 additional specialists.[101-102]

At the same time, discussion of new rural hospital models should also include the need for post-acute and long-term care services given the aging of rural America. A lower percentage of rural counties have post-acute care and long-term care services than urban counties, even when hospital swing beds are included in the comparison.[103] As of 2018, slightly over 10 percent of rural counties did not have a nursing home, compared to slightly under 4 percent of urban counties. Although the topic does not receive the same level of attention as rural hospital closures, 472 nursing homes in 400 rural counties closed between 2008 and 2018.[103-105]

These suggestions align with the original thrust of the Flex Program, EACH/RPCH, and state limited-service models to "right size" rural hospitals and realign the services to better target the needs of rural communities. Re-Imagining CAHs to focus on comprehensive primary care and long-term care services and supports will require careful consideration of payment and regulatory reform as well as workforce issues to support the development and implementation of an appropriate model for this transition. Payment reform solutions may include hybrid capitation/fixed payment models combined with traditional fee-for-service payments to support the efforts of CAHs and other rural hospitals to address population health, social determinants of health, and health equity issues as well as reduce the emphasis on inpatient care.

Regulatory reform would be helpful to reduce the administrative burden on small rural facilities related to survey requirements and Medicare COPs. California's ARHM model and Wisconsin's Rural Medical Center concept can inform efforts to provide rural hospitals with the flexibility to configure their services to best meet local needs with lower regulatory barriers.

Workforce shortages will also challenge the efforts to implement new rural hospital models and traditional supply-oriented policy solutions are unlikely to address hospital needs in the immediate future. Future efforts to support rural hospitals and implement a primary and long-term care services model would benefit from efforts to assist hospitals in more effectively using key scarce resources by:

- Expanding the use of team-based care and team nursing models
- Exploring new staffing types such as community health workers
- Using telehealth, AI, and evidence-based clinical guidelines to expand access to care, transform clinical paradigms, and improve provider productivity
- Using telehealth technology to improve productivity and reduce the emphasis on 15-minute visits, particularly for chronic care management

CAHs and other rural hospitals are facing challenging times. Hospital bypass is a challenge for many CAHs which suggests a strong disconnect between the desire to retain local health services and the need to support those services through utilization and/or community funding. CAHs also face competition from for-profit vendors, technology companies, and retail pharmacies that are developing virtual delivery systems, primary care clinics, and other services that may further destabilize rural systems of care. Within this fast-moving environment, CAHs struggle with chronic workforce shortages, higher costs, and a declining need for inpatient beds. This paper clearly lays out the need for the development of new and innovative demonstrations to support the viability and stability of rural delivery systems, improve the health of rural residents served by those delivery systems, and target the diverse needs of CAHs. This could be accomplished by merging concepts from existing efforts to support rural health with demonstrations that support broader efforts to improve population health and mitigate the impact of the social determinants of health.

One potential model would involve the development of payment policies that build on and incentivize the use of the Prevention Institute's Accountable Communities for Health (ACH) models in rural communities to create county-level "Rural Community Health Improvement Systems" (RCHIS).[106] The ACH model has been implemented in rural communities in California, Vermont, and Minnesota, among others. The RCHIS model would be:

- Overseen by lead organization that brings together partnerships of relevant "health-producing" organizations
- Funded through a community-based health improvement budget with funds from federal, state, and private-sector sources
- Linked to better-resourced larger hospitals to increase the flow of resources and improve care coordination and continuity for rural residents
- Required to submit a rural health transformation plan (similar to those required in the CHART and PARHM initiatives) to CMS for funding
- Empowered to make decisions locally
- Accountable for achieving short and intermediate-term measures (reported by race and ethnicity) established in the rural transformation plan

Under this proposed model, an all-payer global budget for preventive care, primary care, inpatient care, and long-term care services would be embedded within the overall community-based health improvement budget (similar to the global budgets implemented in Maryland and Pennsylvania).

A model of this sort would address the points raised earlier in this section by enabling an RCHIS to refocus community health delivery systems on improving health by concentrating on primary care, other essential services, population health, and the social determinants of health to truly transform local delivery systems. It would also directly engage rural communities in the development of a local delivery system that meets their needs and restore an element of community control.

Given the complexity of the rural health care environment, changing care delivery models that rely less on inpatient beds and more on technology, the changing expectations of health care consumers, and the importance of the essential services to improving the health of rural residents, policymakers and rural advocates would benefit from development of an agreed upon set of principles to guide the development of interventions to support the development and transformation of rural systems of care.

## CONCLUSION AND NEXT STEPS

This briefing paper will serve as the source document to generate discussion among the expert panel of rural hospital, population health, and rural advocates that will be convened for the second phase of this study. Upon the completion of the work of the expert panel, a shorter brief will summarize the panel's assessments of the lessons learned, their suggestions for the development of a preliminary set of guiding principles, and their recommendations for future efforts to support CAHs, other rural hospitals, and rural communities.

For more information on this report, please contact John Gale, john.gale@maine.edu.

This report was completed by the Flex Monitoring Team with funding from the Federal Office of Rural Health Policy (FORHP), Health Resources and Services Administration (HRSA), U.S. Department of Health and Human Services (HHS), under PHS Grant No. U27RH01080. The information, conclusions and opinions expressed in this document are those of the authors and no endorsement by FORHP, HRSA, or HHS is intended or should be inferred.

## REFERENCES


1. Bipartisan Policy Center. *The impact of COVID-19 on the rural health care landscape: Opportunities and challenges.* 2022 May. Accessed August 31, 2023. https://bipartisanpolicy.org/download/?file=/wp-content/uploads/2022/05/BPC-Medicare-Rural-EmerHsp_R02.pdf
2. Wellever A, Rosenberg S. *Alternative models for organizing and delivering health care services in rural areas: A taxonomy of model types.* National Rural Health Association;1993. Vol 1.
3. American Hospital Association. *Rural report: Challenges facing rural communities and the roadmap to ensure local access to high-quality , affordable care*. 2019. Accessed August 31, 2023. https://www.aha.org/system/files/2019-02/rural-report-2019.pdf
4. American Hospital Association. *Rural hospital closures threaten access: Solutions to preserve care in local communities.* AHA;2022 September. Accessed August 31, 2023. https://www.aha.org/system/files/media/file/2022/09/rural-hospital-closures-threaten-access-report.pdf
5. United States Government Accountability Office. *Rural hospital closures: Number and characteristics of affected hospitals and contributing factors.* GAO;2018 August. GAO 18-634. Accessed August 31, 2023. https://www.gao.gov/assets/gao-18-634.pdf
6. Alpha Center. *Alternative models for delivering essential health care services in rural areas: Summary report of an invitational workshop held January 17-19, 1990*. Alpha Center;1990.
7. Jagger SF, United States Government Accountability Office. *Montana's medical assistance facilities* GAO;1995 October 2. GAO/HEHS-96-12r; B-259614 Accessed August 31, 2023. https://www.gao.gov/assets/hehs-96-12r.pdf
8. McCloskey A, Luehrs J. *State initiatives to improve rural health care*. 1990. Accessed August 31, 2023.
9. Office of Technology Assessment. *Health care in rural America*. US Government Printing Office; 1990.
10. American Hospital Association. *Task force on ensuring access in vulnerable communities*. AHA; 2016 November 29. Accessed August 31, 2023. https://www.aha.org/system/files/content/16/ensuring-access-taskforce-report.pdf
11. Kansas Hospital Association, Rural Health Visioning Technical Advisory Group. *New rural model: Primary health center - test findings*. 2016 May. Accessed December 30, 2022. https://www.kha-net.org/CriticalIssues/AccessToCare/RuralIssues/Resources/d133467.aspx?type=view
12. Kansas Hospital Education and Research Foundation. *Transforming rural health care: The primary health center model*. KHERF;2019 February. Accessed February 12, 2023.
13. Firth M. *Chips policy brief: Saving rural hospitals - will changing payment methods help?* University of Washington Center for Health Innovation and Policy Science;2019 November. Accessed February 11, 2023.
14. Murphy KM, Hughes LS, Conway P. *A path to sustain rural hospitals. JAMA.* Mar 27 2018;319(12):1193-1194. doi: 10.1001/jama.2018.2967
15. Roberts ET, Hatfield LA, McWilliams JM, Chernew ME, Done N, Gerovich S, et al. Changes in hospital utilization three years into Maryland's global budget program for rural hospitals. *Health Aff (Millwood)*. Apr 2018;37(4):644-653. doi: 10.1377/hlthaff.2018.0 112
16. University of North Carolina Rural Health Research Program. *Rural hospital closures: 199 Rural hospital closures and conversions since January 2005*. September 1, 2023. https://www.shepscenter.unc.edu/programs-projects/rural-health/rural-hospital-closures/. Accessed September 19, 2023.
17. Chartis Group. *Crises collide the COVID-19 pandemic and the stability of the rural health safety net.* Chartis Group;2021. Accessed February 11, 2023. https://www.chartis.com/sites/default/files/documents/COVID%20and%20the%20Stability%20of%20the%20Rural%20Health%20Safety%20Net.pdf
18. Frieden J. *200 rural hospitals at risk of closing in the next few years, study finds*. MedPage Today. 2022. April 22. Accessed February 11, 2023. https://www.medpagetoday.com/practicemanagement/reimbursement/98374
19. Pink G, Gurzenda S, Thompson K, Howard A. *Characteristics of rural hospitals eligible for conversion to rural emergency hospitals and three rural hospitals considering conversion.* North Carolina Rural Health Research and Policy Analysis Center;2022 December. Accessed February 12, 2023. https://www.ruralhealthresearch.org/publications/1561
20. Center for Health care Quality and Payment Reform. *Rural hospitals at risk of closing*. CHQPR; n.d. Accessed February 11, 2023. https://ruralhospitals.chqpr.org/downloads/Rural_Hospitals_at_Risk_of_Closing.pdf
21. Bolton A. *Rural ambulance services at risk as volunteers age and expenses mount*. NPR. 2021. July 5. https://www.npr.org/sections/health-shots/2021/07/05/1012418938/rural-ambulance-services-at-risk-as-volunteers-age-and-expenses-mount
22. King N, Pigman M, Huling B, Hanson B. *EMS services in rural America: Challenges and opportunities.* National Rural Health Association; 2018 May 11. Accessed February 11, 2023. https://www.ruralhealth.us/NRHA/media/Emerge_NRHA/Advocacy/Policy%20documents/05-11-18-NRHA-Policy-EMS.pdf
23. Kumar P, Lurie E, Parthasarathy R. *Building the US public health workforce of the future*. McKinsey & Company;2022 February. Accessed February 11, 2023. https://www.mckinsey.com/industries/public-and-social-sector/our-insights/building-the-us-public-health-workforce-of-the-future
24. Oster NV, Patterson DG, Skillman SM, Frogner BK. *COVID-19 and the rural health workforce: The impact of federal pandemic funding to address workforce needs*. University of Washington, Center for Health Workforce Studies;2022. Accessed February 11, 2023. https://familymedicine.uw.edu/chws/publications/covid-19-and-the-rural-health-workforce-the-impact-of-federal-pandemic-funding-to-address-workforce-needs/
25. Sablick T. *The rural nursing shortage*. Federal Reserve Bank of Richmond;2022. Accessed February 11, 2023. https://www.richmondfed.org/-/media/RichmondFedOrg/publications/research/econ_focus/2022/q1/feature1.pdf
26. Wright A. *Rural hospitals can't find the nurses they need to fight COVID*. September 1, 2021. Accessed February 11, 2023. https://www.pewtrusts.org/en/research-and-analysis/blogs/stateline/2021/09/01/rural-hospitals-cant-find-the-nurses-they-need-to-fight-covid

27. Thomas S, Thompson K, Knocke K, G. P. *Health system challenges for critical access hospitals: Findings from a national survey of CAH executives.* University of North Carolina Cecil B. Sheps Center;2021 February. Accessed February 11, 2023. https://www.shepscenter.unc.edu/download/22078/
28. Gebreyes K DA, Davis S, Shukla M, & Rush B. *Breaking the cost curve.* 2021. February 9. Accessed February 11, 2023. https://www2.deloitte.com/us/en/insights/industry/health-care/future-health-care-spending.html
29. Kaiser Family Foundation. *Status of state Medicaid expansion decisions: Interactive map*. September 22, 2023. Accessed September 20, 2023. https://www.kff.org/medicaid/issue-brief/status-of-state-medicaid-expansion-decisions-interactive-map/
30. Prevost T, Skillrud I, Gerhardt W, Mukherjee D. *The potential for rapid consolidation of health systems: How can hospitals use M&A to innovate for the future?* Deloitte Center for Health Solutions;2020. Accessed February 11, 2023. https://www2.deloitte.com/content/dam/insights/us/articles/6616_CHS_Great-consolidation-refresh/6616_CHS_Great-consolidation-refresh.pdf
31. Singhal S, Radha M, Vinjamoori N. *The next frontier of care delivery in health care*. McKinsey & Company;2022 March 24. Accessed February 11, 2023. https://www.mckinsey.com/industries/health care-systems-and-services/our-insights/the-next-frontier-of-care-delivery-in-health care
32. VenDenBoom L. *10 health care industry trends to watch in 2022*. hc1. 2021. December 10. Accessed February 11, 2023. https://www.hc1.com/blog/10-health care-trends-2022
33. Zimlichman E, Nicklin W, Aggarwal R, Bates D. Health care 2030: The coming transformation. *NEJM Catalyst*. 2021. doi: 10.1056/CAT.20.0569.
34. Gerhardt W, Arora A. *Hospital revenue trends: Outpatient, home, virtual, and other care settings are becoming more common.* Deloitte Insights. 2020. February 21. Accessed February 11, 2023. https://www2.deloitte.com/us/en/insights/industry/health-care/outpatient-virtual-health-care-trends.html
35. Javanmardian M, Tomczyk T, Bach B, Doria S. *Health care supply will be right sized. How health care supply can better fit demand.* Oliver Wyman Health Innovation Journal. 2020;4:24-30.
36. Frakt AB. The rural hospital problem. *JAMA*. Jun 18 2019;321(23):2271-2272. doi: 10.1001/jama.2019.7377
37. Ochieng N, Biniek J, Freed M, Damico A, Neuman T. *Medicare Advantage in 2023: Enrollment update and key trends*. August 9, 2023. Accessed August 28, 2023. https://www.kff.org/medicare/issue-brief/medicare-advantage-in-2023-enrollment-update-and-key-trends/
38. Centers for Medicare and Medicaid Services (2021, December 1). *National Health Expenditure Data - National Health Expenditures 2020 Highlights*. Accessed: September 1, 202. https://www.cms.gov/files/document/highlights.pdf
39. Centers for Medicare and Medicaid Services. *National Health Expenditure Projections – 2022-2031. Forecast Summary*. n.d. Accessed: September 1, 2023. https://www.cms.gov/files/document/nhe-projections-forecast-summary.pdf
40. Blumenthal D, Fowler E, Nuzum R. *Predictions and prescriptions for health care in 2021, To the Point (blog), Commonwealth Fund*. February 4, 2021. Accessed August 31, 2023. https://doi.org/10.26099/9sxc-jj64
41. Hut N. *Health care spending projections for the next decade reflect an expectation of steadying trends post-pandemic. Health care Financial Management Association*. 2022. March 30. Accessed October 4, 2023. https://www.hfma.org/finance-and-business-strategy/health care-business-trends/health care-spending-projections-for-the-next-decade-reflect-an-e/
42. Aron-Dine A, Hayes K, Broaddus M. *With need rising, Medicaid Is at risk for cuts. Center on Budget and Policy Priorities*. 2020 July. Accessed October 4, 2023. https://www.cbpp.org/sites/default/files/atoms/files/7-22-20health.pdf
43. Manatt Health, The Robert Wood Johnson Foundation. *The Manatt State Cost Containment Update: Accountability and Consumer Affordability*. October 5, 2021. Accessed August 31, 2023. https://www.manatt.com/Manatt/media/Media/Images/Newsletters/The-Manatt-State-Cost-Containment-Update-PDF-10-04-2021-v2.pdf
44. Chernew, C, Cutler, D, & Shah, S. *Reducing health care spending: What tools can states leverage?* 2021 August 18. Accessed August 31, 2023. https://www.commonwealthfund.org/publications/fund-reports/2021/aug/reducing-health-care-spending-what-tools-can-states-leverage
45. Young G, Rae M, Claxton G, Wager E, Krutika A. *How many people have enough money to afford private insurance cost sharing?* 2022 March 10. Accessed August 31, 2023. https://www.healthsystemtracker.org/brief/many-households-do-not-have-enough-money-to-pay-cost-sharing-in-typical-private-health-plans/
46. Starner, T. *Here's why health care costs will be volatile in 2022 and beyond*. 2021 November 22. Accessed August 31, 2023. https://hrexecutive.com/heres-why-health care-costs-will-be-volatile-in-2022-and-beyond/
47. Walker, E. *Eight reasons for rising health care costs*. 2022 July 8. Accessed August 31, 2022. https://www.peoplekeep.com/blog/eight-reasons-for-rising-health-care-costs
48. Chernew M, Dafny L, Pany M. *A proposal to cap provider prices and price growth in the commercial health-care market*. 2020 March. Accessed August 31, 2023. https://www.hamiltonproject.org/assets/files/CDP_PP_WEB_FINAL.pdf
49. James CV, Moonesinghe R, Wilson-Frederick SM, Hall JE, Penman-Aguilar A, Bouye K. Racial/ethnic health disparities among rural adults — United States, 2012–2015. MMWR Surveill Summ 2017;66 (No. SS-23):1–9. DOI: http://dx.doi.org/10.15585/mmwr.ss6623a1
50. Morgan E, Lancaster K, Phosri Y, Ricks J, Dyar C. *Sexual minorities are not a homogeneous population: health disparity differences based on residence in rural versus urban settings*. Rural and Remote Health 2023; 23: 8052. https://doi.org/10.22605/RRH8052
51. Johnson, S. *States have large racial disparities in health care equity, study finds*. November 18, 2021. Accessed August 31, 2023. https://www.usnews.com/news/best-states/articles/2021-11-18/study-minorities-suffer-from-racial-health-care-gap-across-u-s
52. Arthur D. Little, Inc. *Study of special certification standards for limited-service rural hospitals*. Final report. Arthur D. Little, Inc.;1974. C-74840. Accessed February 11, 2023.

53. Christianson JB, Moscovice IS, Wellever AL, Wingert TD. Institutional alternatives to the rural hospital. *Health Care Financ Rev*. Spring 1990;11(3):87-97.
54. Wellever AL, Rosenberg S. *Alternative models for organizing and delivering health care services in rural areas. State-sponsored alternative models: The state government perspective*. National Rural Health Association;1993. Volume 2. Accessed February 11, 2023.
55. Gale, JA. Twenty-five years of the Medicare Rural Hospital Flexibility Program: The past as prologue. *J Rural Health*. 2023; 39: 691–701. https://doi.org/10.1111/jrh.12754
56. Princeton University. *Collaborative Opportunities between rural health facilities and government*. 1990. Accessed August 31, 2023. https://www.princeton.edu/~ota/disk2/1990/9022/902210.PDF
57. Habte L, Stadick M, Roepke L. *The need for alternative licensing for rural Minnesota hospitals*. Minnesota Department of Health, Community Health Services Division, Office of Rural Health and Primary Care;1996.
58. U.S. Department of Health and Human Services, Office of the Inspector General. *Medical assistance facilities. A demonstration program to provide access to health care in frontier communities* Office of the Inspector General;1993 July. OEI-04-92-00731. Accessed February 13, 2023. https://oig.hhs.gov/oei/reports/oei-04-92-00731.pdf
59. McGuire CC, Walker M, Cantieri CH. *Rural hospitals models for Texas*. Health Care Options for Rural Communities;1993. Accessed
60. Washington Health Care Commission. *A report to the legislature on rural health care in the state of Washington*. The Commission;1989. Accessed February 12, 2023.
61. New York Office of Rural Health. *Rural health network demonstration model.* New York Department of Health;1994. Accessed
62. Rural Wisconsin Health Cooperative. *Supporting the proposed rural medical center legislation*. 1995. August 8. Accessed February 12, 2023. https://www.rwhc.com//papers/rmc.html
63. Rural Wisconsin Health Cooperative. *Rural medical centers, update 2/29/96*. 1996. February 29. Accessed February 12, 2023. https://www.rwhc.com/papers/rmc_2_96.html
64. Felt S, Wright G. *Developing rural health networks under the each/rpch program: Interim report of the evaluation of the essential access community hospital rural primary care hospital program*. Mathematica Policy Research I;1993. Accessed February 11, 2023. https://www.mathematica.org/~/media/publications/PDFs/health/EACH_interimrpt.pdf
65. Campion DM. *The next generation of limited-service rural hospitals*. Alpha Center;1995. Accessed
66. Campion DM, Dickey DF. Lessons from the essential access community hospital program for rural health network development. *J Rural Health*. Winter 1995;11(1):32-9. doi: 10.1111/j.1748-0361.1995.tb00394.x
67. Wright GE, Wellever A, Felt S. *Options for the next generation of limited-service rural hospitals: Background paper*. Mathematica Policy Research, Inc.;1994. Accessed February 11, 2023.
68. Felt S, Wright G. *Diversity in states' early implementation of the EACH program*. Mathematica Policy Research, Inc. ;1992. MPR 8026-001. Accessed February 11, 2023. https://www.mathematica.org/-/media/publications/pdfs/health/each_diversity.pdf
69. Felt S, Wright G, Wellever A. *EACH program evaluation: State site visit reports on early implementation*. Mathematica Policy Research, Inc.;1992. Accessed February 11, 2023.
70. U.S. Congress. *H.R.2015 - Balanced Budget Act of 1997*. August 5, 1997. Public Law No: 105-33. Accessed February 13, 2023. https://www.congress.gov/bill/105th-congress/house-bill/2015/text
71. Coburn A, Hartley D, Gale J. *State implementation of the rural hospital flexibility program: The first-year experience*. Rural Hospital Flexibility Program Tracking Project;2000. Rural Hospital Flexibility Program Tracking Project Year One Report. Accessed February 12, 2023.
72. Coburn AF. *The evolving state role in the implementation of the rural hospital flexibility program*. Rural Hospital Flexibility Program Tracking Project;2001. Rural Hospital Flexibility Program Tracking Project Year Two Report. Accessed February 12, 2023.
73. Flex Monitoring Team. *Historical CAH data – July 2023*. Accessed August 31, 2023. https://www.flexmonitoring.org/historical-cah-data-0
74. U.S. Congress. *H.R.1 - Medicare Prescription Drug, Improvement, and Modernization Act of 2003*. 2003 December 8. Public Law No: 108-173. Accessed February 13, 2023. https://www.congress.gov/bill/108th-congress/house-bill/1/text
75. Burwell SM. *Evaluation of the Medicare frontier extended stay clinic demonstration: Report to Congress*. US Department of Health and Human Services;2014. Accessed January 12, 2023. https://innovation.cms.gov/files/reports/mfescd-rtc.pdf
76. Centers for Medicare & Medicaid Services. *Frontier extended stay clinic demonstration*. September 12, 2022. Accessed August 31, 2023. https://innovation.cms.gov/innovation-models/frontier-extended-stay-clinic
77. Kansas Hospital Association, Kansas Hospital Education and Research Foundation. *Rural issues*. KHA;2019 October. Accessed August 31, 2023. https://www.khanet.org/CriticalIssues/AccessToCare/RuralIssues/
78. Kansas Legislature. Minutes for HB2261 - Committee on Health and Human Services - *Enacting the rural emergency hospital act to provide for the licensure of rural emergency hospitals.* February 16, 2021. Accessed August 31, 2023. http://www.kslegislature.org/li_2022/b2021_22/measures/minutes/agenda_item_202102101253555001
79. Centers for Medicare & Medicaid Services. *Frontier community health integration project demonstration.* 2022. September 27. Accessed February 12, 2023. https://innovation.cms.gov/innovation-models/frontier-community-health-integration-project-demonstration
80. State Office of Rural Health, Georgia Department of Community Health. *The rural hospital stabilization program: A comprehensive report.* Georgia Department of Community Health;2019 December. Accessed February 11, 2023. https://dch.georgia.gov/divisionsoffices/state-office-rural-health/rural-hospital-stabilization-program/rhs-reports
81. State Office of Rural Health, Georgia Department of Community Health. *The rural hospital stabilization program: A comprehensive report. Addendum 1: Rural hospital stabilization grant program, phase five*. Georgia Department of Community Health;2022 November. Accessed February 12, 2023. https://dch.georgia.gov/document/document/rhs-phase-5-comprehensive-report-addendum-nov-2022/download

82. RHIHub. *Rural emergency hospitals*. web page. 2022. October 21. Accessed February 12, 2023. https://www.ruralhealthinfo.org/topics/rural-emergency-hospitals
83. Federal Register.gov. *Medicare program: Hospital outpatient prospective payment and ambulatory surgical center payment systems and quality reporting programs; organ acquisition; rural emergency hospitals: Payment policies, conditions of participation, provider enrollment, physician self-referral; new service category for hospital outpatient department prior authorization process; overall hospital quality star rating; COVID-19*. A Rule by the Centers for Medicare & Medicaid Services. Federal Register. 2022. November 23. Accessed February 12, 2023. https://www.federalregister.gov/d/2022-23918
84. Centers for Medicare & Medicaid Services. *Vermont all-payer accountable care organization model.* 2023. January 5. Accessed February 12, 2023. https://innovation.cms.gov/innovation-models/vermont-all-payer-aco-model
85. NORC at the University of Chicago. *Evaluation of the Vermont all-payer accountable care organization model*. NORC;2022 December. Second Evaluation Report. Accessed February 12, 2023. https://innovation.cms.gov/data-and-reports/2023/vtapm-2nd-eval-full-report
86. Haber S, Beil H, Morrison M, Greenwaldz L, Perry R, Jiang L, et al. *Evaluation of the Maryland all-payer model*. RTI;2019 November. Volume I: Final Report. Accessed February 13, 2023. https://downloads.cms.gov/files/md-allpayer-finalevalrpt.pdf
87. NORC at the University of Chicago. *The Pennsylvania rural health model (PARHM)*. NORC;2022 June. Second Annual Evaluation Report. Accessed February 12, 2023. https://innovation.cms.gov/data-and-reports/2022/parhm-ar2
88. Centers for Medicare & Medicaid Services. *CHART model*. web page. CMS. 2022. November 23. Accessed August 31, 2023. https://innovation.cms.gov/innovation-models/chart-model
89. American Hospital Association. *Future of rural health care task force. Final recommendations*. May 2021. Accessed August 12, 2023. https://www.aha.org/system/files/media/file/2021/05/final-recommendations-future-of-rural-health-care-task-force-may-2021.pdf
90. Borumand S. *Washington Medicaid innovation. Profiling rural regions for CHART expansion*. Harvard Kennedy School, Mossavar-Rahmani Center for Business & Government;2022 June. M-RCBG Associate Working Paper Series No. 188. Accessed February 12, 2023. https://www.hks.harvard.edu/sites/default/files/centers/mrcbg/files/188_AWP_final.pdf
91. Karle A, Coakley Stowe E. *CHART model community transformation track: Value proposition for states*. State Health and Value Strategies;2020 December 11. Accessed February 12, 2023. https://www.shvs.org/chart-model-community-transformation-track-value-proposition-for-states/
92. Miller HD. *Why the CMS CHART model will hurt rural hospitals*. Center for Health care Quality and Payment Reform;2020 October. Accessed February 12, 2023. https://chqpr.org/downloads/Problems_With_CMS_CHART_Model.pdf
93. Center for Health care Quality and Payment Reform. *Rural hospitals at risk of closing*. CHQPR;n.d. Accessed September 21, 2023. https://ruralhospitals.chqpr.org/downloads/Rural_Hospitals_at_Risk_of_Closing.pdf
94. Kansas Hospital Association, Rural Health Visioning Technical Advisory Group. *Principles for a sustainable rural health delivery system*. November 13, 2013. Accessed August 31, 2023. https://www.kha-net.org/CriticalIssues/AccessToCare/RuralIssues/Resources/116726.aspx
95. Gale J, Knudson A, Popet S. *Rebuilding the foundation of rural community health after COVID-19*. September 17, 2020. Accessed February 12, 2023. https://www.themedicalcareblog.com/covid-19-impact-rural-community-health/
96. Torjussen, M. *Expectant mothers face long drives as another rural Maine hospital discontinues its OB services*. 2023 March 31. Accessed August 31, 2023. https://www.wmtw.com/article/expectant-mothers-face-long-drives-as-another-rural-maine-hospital-discontinues-its-ob-services/43471419
97. US General Accounting Office. *Maternal health: Availability of hospital-based obstetric care in rural areas*. 2022 October 19. Accessed August 31, 2023. https://www.gao.gov/products/gao-23-105515
98. Center for Health care Quality and Payment Reform. *The two different types of hospitals in the U.S.* . CHQPR; n.d. Accessed August 31, 2023. https://chqpr.org/downloads/Two_Types_of_Hospitals_in_US.pdf
99. Javanmardian M, Tomczyk T, Bach B, Doria S. Health care supply will be right sized. How health care supply can better fit demand *Oliver Wyman Health Innovation Journal*. 2020;4:24-30.
100. Baumgaertner E, Hanson MA. *Rural hospital's excruciating choice: $3.2 million a year or inpatient care?* NY Times. 2022. December 9. Accessed August 31, 2023. https://www.nytimes.com/2022/12/09/health/rural-hospital-closures.html
101. Basu S, Berkowitz SA, Phillips RL, Bitton A, Landon BE, Phillips RS. Association of primary care physician supply with population mortality in the United States, 2005-2015. *JAMA Intern Med*. 2019;179(4):506-514. doi: 10.1001/jamainternmed.2018.7624
102. Johnson DW. *Cracks in the foundation — 5 structural defects are undermining nonprofit health care*. February 31, 2022. Accessed August 31, 2023. https://www.hfma.org/cost-effectiveness-of-health/cracks-in-the-foundation-5-structural-defects-are-undermining-n/
103. Sharma H, Bin Abdul Baten R, Ullrich F, MacKinney AC, Mueller KJ. *Trends in nursing home closures in nonmetropolitan and metropolitan counties in the United States, 2008-2018*. RUPRI Center for Rural Health Policy Analysis;2021 February. Rural Policy Brief No. 2021-1. Accessed October 4, 2023. https://rupri.public-health.uiowa.edu/publications/policybriefs/2021/Rural%20NH%20Closure.pdf
104. Leys, *T. Rural nursing home operators say new staff rules would cause more closures*. 2023 September 14. Accessed September 21, 2023. https://www.npr.org/sections/health-shots/2023/09/14/1199317652/rural-nursing-home-workforce-closures-staffing-minimums
105. Leys, T. Wave of rural nursing home closures grows amid staffing crunch. 2023 January 25. Accessed September 21, 2023. https://kffhealthnews.org/news/article/wave-of-rural-nursing-home-closures-grows-amid-staffing-crunch/
106. Shortell SM, Fulton BD, Comfort LN. *Improving the health of rural Americans*. Health Affairs Blog. 2021. October 13. Accessed August 31, 2023. https://www.healthaffairs.org/do/10.1377/forefront.20211007.974893/full/