



Implications for Beneficiary Travel Time if Financially-Vulnerable Critical Access Hospitals Close

Victoria A. Freeman, RN, DrPH; Randy K. Randolph, MRP;
George Pink, PhD; Mark Holmes, PhD

This brief is part of a series of three briefs that provides information for policy makers and stakeholders as policy changes for Critical Access Hospitals (CAHs) are considered. This one focuses on potential increases in beneficiary travel distance if financially-vulnerable CAHs close. The others focus on the projected financial impact that a reduction in Medicare payments might have on CAHs, and on the rural-urban differences in inpatient costs and use among Medicare beneficiaries.

BACKGROUND

Policy makers have recently focused on the relative locations of Critical Access Hospitals (CAHs), whether changes are needed to current mileage requirements and the impact changes would have on how Medicare pays for services in smaller, low-volume hospitals. CAHs can have no more than 25 beds and must be 1) at least 15 miles by secondary road or mountainous terrain OR 2) 35 miles by primary road from the nearest hospital OR 3) declared a “necessary provider” by the state’s governor. Unlike traditional hospitals that are paid under the Prospective Payment System (PPS), Medicare pays CAHs based on each hospital’s reported costs. Each CAH receives 101%¹ of its Medicare allowable costs for outpatient, inpatient, laboratory and therapy services, as well as post-acute care in the hospital’s swing beds.

KEY FINDINGS

If a group of financially-vulnerable CAHs were to close, then the average resident in affected ZIP code areas would experience notable changes in travel time to a new hospital. Closures could also affect the constellation of health care services that are available and impose other limits on access related to insurance restrictions, provider credentialing, or network agreements. These limits to access are beyond the scope of this report but merit further study.

- Residents would have to travel an average of 7.9 miles farther to access a hospital. Residents in 39% of affected ZIP code areas would experience a driving distance increase of less than 5 miles. The distance would increase between 5 and 10 miles for 31% of ZIP codes. For another 31% of ZIP code areas, the increased driving distance would be 10 miles or more.
- The new nearest hospital would not be a CAH for the majority of affected ZIP code areas.
- The new nearest hospital for residents in 70% of affected ZIP codes areas would be located in a different county than the original nearest hospital. Eleven percent of ZIP code areas would now be nearest a hospital in another state.

In the course of these policy discussions, policy makers should consider the possible impact on beneficiary access and travel time. Major changes in the CAH program could impact the viability of some rural hospitals and increase the risk for hospital closure. If a hospital closes, where can patients served by that hospital get needed care? To measure the potential impact of hospital closure on health care beneficiaries, we examine three questions: 1) how far is it to the new nearest hospital, 2) what kind of hospital is it, and 3) where is the new nearest hospital located?

METHODS

We identified 93 financially-vulnerable CAHs² that might close due to change in eligibility or reimbursement. We compared the driving distance from

1. Currently reduced to 99% under sequestration as part of the Budget Control Act of 2011.

2. For this brief, Critical Access Hospitals with an average total margin of negative 5% or worse over the last five years were defined as “financially vulnerable”.

the center of each zip code area in the United States to the nearest short-term acute care hospital twice: under the current status (Status Quo) and if the 93 financially-vulnerable CAHs were to close (With Closures). We also compared the types and locations of hospitals under the status quo and with hospital closures.

RESULTS

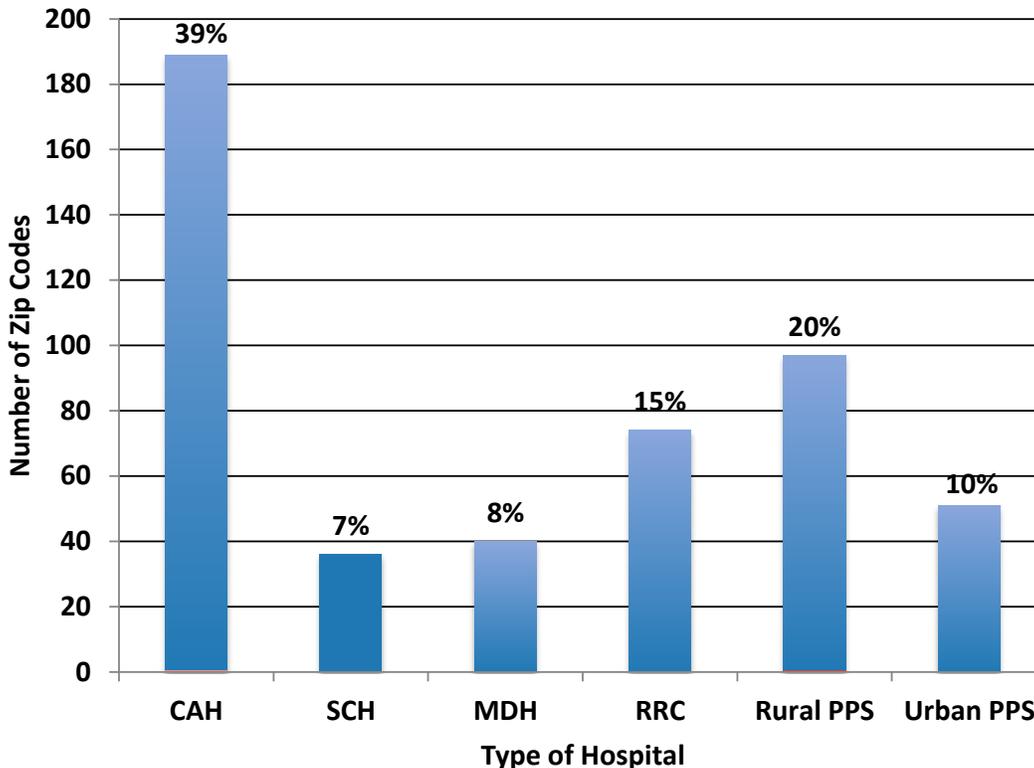
If the 93 vulnerable hospitals we identified were to close, the distance to the nearest hospital would change for 490 ZIP codes with a population of 1.4 million. Residents in these ZIP code areas could face an increase in mean driving distance to the nearest hospital of 7.9 miles (from 9.9 miles under the Status Quo to 17.8 miles if the nearest hospital closes), or an 80% increase (Table 1). The change in distance would range from just over zero miles (a beneficiary might now travel to Town B rather than Town A but the distance to each is virtually the same) to 38.4 miles. In 177 ZIP code areas (36%), the distance to the new nearest hospital would more than double.

Table 1: Distance to Nearest Hospital Before and After Closure of Vulnerable Hospitals in Affected ZIP Codes

	Status Quo	With Closures	Change in Miles
Mean miles	9.9	17.8	7.9
Median miles	9.4	16.6	6.6
Range	0.1 to 46.7	2.1 to 52.0	0 to 38.4

For 39% of affected ZIP code areas, the new nearest hospital would be a CAH (Figure 1). Rural PPS hospitals would now be the nearest for 20% of ZIP code areas. Rural Referral Centers (RRCs) and urban PPS hospitals, both likely to be larger hospitals, would now be closest for 15% and 10%, respectively. Sole Community Hospitals (SCHs) and Medicare Dependent Hospitals (MDHs)³ would make up the remaining 15%.

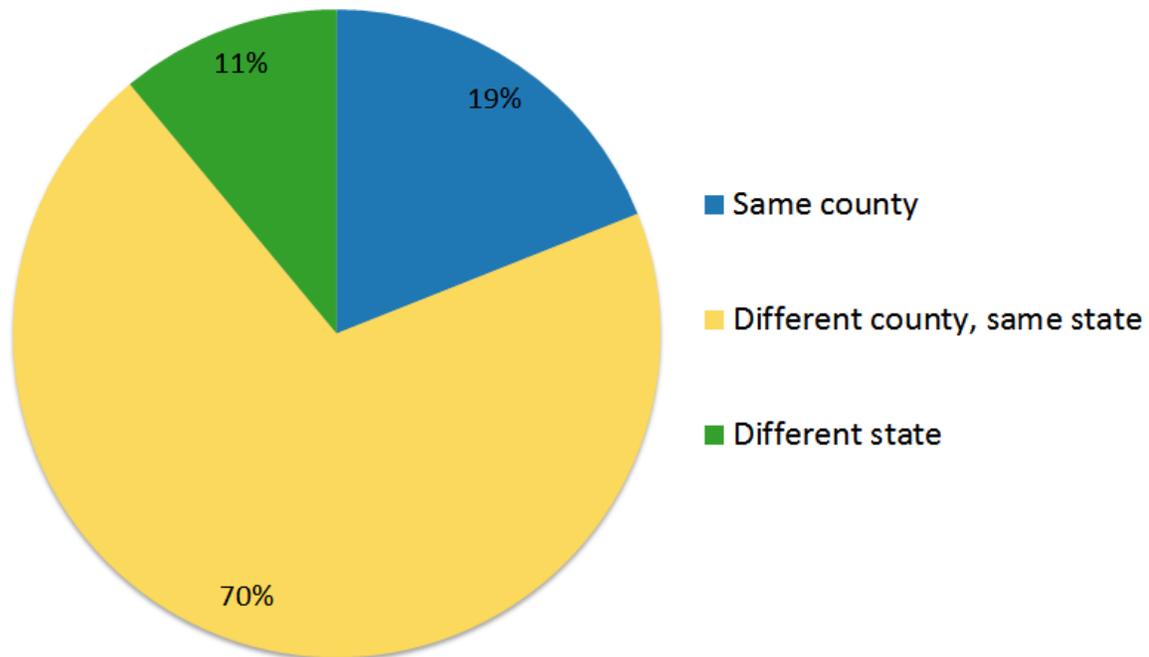
Figure 1: Type of New Nearest Hospital for Affected ZIP Code Areas



3. Data used in these analyses were collected before discontinuation of the Medicare Dependent Hospital (MDH) program on 9-30-2013. The current payment status of the 40 MDHs is not known.

Another way of looking at implications for beneficiary travel time is shown in Figure 2. The majority of the new nearest hospitals would be in a different county than the old hospital. Eleven percent would not only be in a different county but also in a different state.

Figure 2: Location of New Nearest Hospital Compared to Old Nearest Hospital



DISCUSSION

If financially-vulnerable CAHs closed because of changes to the CAH program, many residents would experience negative effects. Some residents would face small increases in driving distance to the nearest hospital, but some would have to travel much farther. Longer travel distances could also lead to erosion of access. Residents having to use a different hospital may find a different array and quality of available health care services than what they had before. For rural residents whose nearest hospital is in another state, access may be difficult due to provider credentialing, network membership, or Medicaid participation of the hospital.

This brief focuses on changes to travel distance if hospitals close and assumes that residents of a ZIP code area all travel to the same nearest hospital for health care. A more complete picture would involve consideration of additional data. For example, analyzing health care claims for patients served by vulnerable rural hospitals would help describe care provided at the vulnerable hospitals versus at the new nearest hospitals, which may be larger and offer more services. Future studies should also weigh how hospital closures affect changes in availability of services, including access to a primary care provider, costs to patients and insurers, and the impact on the local economy.

This study was funded through cooperative agreement U1GRH07633, Rapid Response to Requests for Rural Data Analysis and Issue Specific Rural Research Studies, with the Federal Office of Rural Health Policy, Health Resources and Services Administration, U.S. Department of Health and Human Services. The conclusions and opinions expressed in this paper are the authors' alone; no endorsement by the University of North Carolina, ORHP, or other sources of information is intended or should be inferred.