Rural Healthcare: Barriers to Access and Potential Solutions

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Abstract

This paper gives a high-level overview of the barriers to accessing rural healthcare, and potential solutions. Access to healthcare is one of the largest inequities in the United States today. According to Healthy People 2020, it appears that rural health priorities have changed very little in the last decade. Access to healthcare continues to be the most frequently identified rural health priority. Lack of healthcare access in a community affects all stages of life, prenatal to death, and medical, dental, and psychological health. Access may be inadequate due to lack of funding of lack of staffing. Access may be restricted by seasonal and natural variations or physical distance. Even in communities that have the facilities, staff, and funding, residents may find it difficult to access services due to the cost of the services, lack of education, or social isolation. Telehealth is perhaps the most important advancement that has helped, and will continue to help, bridge the gap between urban and rural community access to healthcare. Healthcare providers in rural areas must also be encouraged to practice to their full scope of practice. By utilizing resources already in place, and educating residents about the available resources, it is possible to begin chipping away at the inequitable access to healthcare that plagues rural communities.

Keywords: rural healthcare, frontier healthcare, barriers to healthcare, access to healthcare
Rural Healthcare: Barriers to Access and Potential Solutions

Access to healthcare is one of the largest inequities in the United States today. According to Healthy People 2020, rural health priorities appear to have changed very little in the last decade (HealthyPeople.gov, 2020). Access to healthcare continues to be the most frequently identified rural health priority. Lack of healthcare access in a community effects all stages of life, prenatal to death, and medical, dental, and psychological health.

Inequitable access to healthcare between rural and urban communities is evident due to the higher rate of potentially excess deaths, and premature deaths in rural Americans (King, Pigman, Huling, & Hanson, n.d.). Fifty-seven million Americans live in rural areas (HRSA, 2018), and often the only guaranteed access to health services is rural emergency medical services (EMS).

Defining Rural

The definition of rural for the purpose of federal funding depends on the defining agency. The Centers for Medicare and Medicaid Services (CMS) uses a definition based on urbanized areas and urbanized clusters – rural health clinics, for funding purposes, cannot be in an urbanized area, but can be in an urbanized cluster (Rural Health Information Hub, 2019). The FORHP uses the RUCA method to define rural areas of census tracts within OMB metropolitan and nonmetropolitan counties (Rural Health Information Hub, 2019). RUCA codes are a census-tract based classification that uses urbanized area information and commuting information (Rural Health Information Hub, 2019). The United States Department of Agriculture (USDA) bases program eligibility on the total population of a city, town, or unincorporated area (Rural Health Information Hub, 2019). Typically, a city, town, or
unincorporated area with a population less than or equal to 20,000 is considered rural by the USDA (Rural Health Information Hub, 2019).

There is also a “frontier” designation that is used by some agencies to determine funding and access to healthcare. A frontier community has a population typically less than twenty thousand and is isolated from population centers and services. The frontier definition is fluid, like the rural definition, depending on the purpose of the project being researched or funded.

**Barriers to Accessing Healthcare**

Circumstances that restrict a rural community’s access to healthcare can be categorized in four ways: funding and cost, staffing, physical access, and social isolation.

**Funding and Cost**

Limited resources are available in rural communities due to lack of funding. Federal funding for a community is determined by the definition of rural that that grant or program uses. For example, CMS provides enhanced ambulance service reimbursement in areas it designates as *super rural*, based on population density (Rural Health Information Hub, 2018). Limited federal funding for rural communities causes consumer pricing to increase. In frontier areas, the cost of care is higher due to a lower number of clients (Goins, Williams, Carter, Spencer, & Solovieva, 2006).

According to the US Census Bureau, poverty rates among rural populations were significantly higher than those same populations in urban/metro areas. Nationally, two-thirds of rural counties have poverty rates at or above the national average. Even though many rural residents are considered impoverished, many of them fall between the cracks when it comes to
getting healthcare assistance; meaning they are not poor enough to qualify for Medicaid, but cannot afford private healthcare (Goins et al., 2006). There are also limitations on basic healthcare coverage. Medicare, for example, does not cover vision care or dental care. If these are things CMS-insured patients need, the expense, with or without insurance, is going to come out of pocket (Goins et al., 2006).

Perhaps the biggest healthcare cost to the average consumer is prescription drugs. The increased prices of medications make it difficult for anyone to afford them, let alone the typical rural population. The increased prices also affect providers, making it difficult to access the drug therapies they need to treat their patients (AHA, 2020). When patients cannot afford medications, or have to choose between medications and other essentials like heat or food, they may reduce dosages or stop taking the prescribed doses because they are trying to make the prescription last longer. At this point, they are essentially self-medicating and the medications are likely not effective.

**Staffing**

There are many barriers to staffing rural healthcare facilities appropriately. Although the salaries for rural providers exceed those of urban providers (Rappleye, 2016), rural providers often have various after-hours commitments. To many providers, these after-hours commitments do not offset the increased salary. Rural providers are typically responsible for education, outreach, and emergency services.

When a facility is adequately staffed, it is often only one doctor or one nurse away from being short-staffed. Vacancies in the last three years at rural hospitals generated inpatient staffing issues in ninety-six percent of rural hospitals. Seventy-five percent of those vacancies
remained unfulfilled for over six months (Gutierrez, Moeckli, & Kaboli, 2019). This means that any movement of a staff member, whether lateral, vertical, or out of the facility completely, leaves a significant staffing shortage. A staffing shortage then leads to extra workload and after-hours commitments; both of which are unappealing for new staff.

Emergency medical services (EMS) in rural areas are often based on volunteers, rather than paid, full-time, trained personnel (King et al., n.d.). Volunteer staffing presents a new set of barriers. Volunteer recruitment and retention is often difficult because a volunteer must maintain other employment to pay his/her own financial needs. Rural communities often have a small population and many residents may work out of town. This makes it difficult to adequately staff emergency services during the daytime. When these volunteers are home on weekends, coverage remains sparse due to family and home obligations that go unmet during the work week (King et al., n.d.).

Funding for rural EMS is often inconsistent, leading to the inability to pay full-time personnel. The lack of funding then leads to the need for an entirely volunteer EMS staff. These volunteers are also responsible for their own certifications and will spend hundreds of dollars of their own money to obtain certifications and training (King et al., n.d.).

**Physical Access**

Rural communities are often established in remote locations. Rural communities also have limited budgets for infrastructure improvements. As such, the use of dirt or gravel roads, concrete or asphalt roads that are less than pristine, and the general remote nature of rural communities, a unique set of physical barriers to access are presented. (Arcury, Preisser, Gesler, M., & Powers, 2006)
In any community, there are seasonal variations in healthcare needs. Flu season makes its rounds each year. Residents of rural communities may be more susceptible to serious illness because they are unable to take off work when they are feeling ill. If they do, in fact, have the flu, then they may infect others in their workplace by not staying home. What is a potentially isolated case may lead to a more widespread community health crisis. Tourists in rural areas present another issue. Tourists may carry illnesses that would otherwise not be present in the community. These illnesses may be difficult to identify by providers, or the providers may not have the equipment necessary to treat the illness. (Bolin, Bellamy, Ferdinand, Vuong, Kash, Schulze, & Helduser, 2015)

There are also seasonal travel barriers to physically accessing rural communities. Snow, ice, flooding, and muddy roads can severely impact the ability of emergency vehicles to access the residents. In fact, access to transportation for emergency care in rural communities, both ground and air, is a major theme for rural health. There are many rural communities that are so remote they can only be accessed by boat or plane. These methods of transportation are especially susceptible to weather conditions.

Physical distance is perhaps one of the most critical physical access barriers for rural communities. In an area that may be fortunate enough to have a critical access hospital, there may only be one facility for multiple rural or frontier communities. In Grand Marais, Minnesota, the closest place for women to give birth is in Duluth, Minnesota, which is about one-hundred fifty miles away. The distance is such a barrier that women must relocate in their last trimester to be within a safe distance to the hospital when they are ready to deliver (Schroeder, 2018).
Rural communities often boast limited public transportation options. The need for access to transportation for healthcare utilization in rural communities has been the focus of several studies and reviews. A study conducted in North Carolina found that persons with a driver’s license had more health visits for chronic conditions and more regular check-ups than those without a license (Arcury et al., 2006). The same study found that persons with a friend or family member that would regularly, and dependably, take the, to appointments had more visits for chronic care. Furthermore, those who used public transportation had four more chronic care visits per year than those who did not (Arcury et al., 2006). The conclusion that can be drawn from this and similar studies is that access to transportation, and ease of access, significantly impacts the ability to access healthcare.

**Social Isolation**

There are social norms and values that are common to many rural communities, such as the strong sense of self reliance and reluctance to use formal services (Goins et al., 2006). Many people who live in rural communities will say they “just don’t like to ask for help.” These same people may simply be unaware of the resources available to help, such as healthcare assistance, insurance benefits, or transportation options.

**Potential Solutions**

As the healthcare field continues to change at a rapid pace, traditional approaches to funding and delivering care may no longer be sustainable in providing healthcare to rural communities. Some potential solutions require government intervention such as funding and legislation, while others can be influenced on an individual basis.
**Telehealth**

The implementation of telemedicine is the most important advancement in creating equitable access to healthcare. In rural communities, telehealth reduces the need to travel long distances, and allows resident primary care providers to consult with specialists that are in another location. Using telehealth has been proven to enhance the quality of care, improve health outcomes, and reduce overall healthcare costs. The full implementation of telehealth is still being pursued, but there are significant barriers that must be overcome, such as regulatory issues and potential issues accessing reliable broadband (Cheney, 2018).

A prime example of the implementation of telemedicine follows. In a rural healthcare facility, such as a critical access hospital, one provider or specialist may be able to service multiple facilities while being physically located at a central hub. They would be available for consultation via video or phone. This solution eliminates the need to fully staff on-site providers in each location. The cost of staffing a provider is also split between facilities, leading to a reduced cost for each.

**Recruiting a Healthcare Team**

Staffing shortages may be addressed by targeting specific providers, and piquing interest in working in rural health. Findings suggest that a rural upbringing and financial incentives, such as loan repayment programs, may attract providers to rural areas (Ddes, Espenschied, Roll, & Amram, 2019). Additionally, incorporating community-based health clinics and rural settings into medical school residency rotations may increase the likelihood of producing providers who later practice in these environments (Ddes et al., 2019).
Utilizing healthcare professionals to the full extent of their scope of practice will help fulfill staffing and funding needs in rural health. This team-based approach calls for bringing additional nonphysician providers into the practice, such as nurse practitioners and physicians assistants (Cheney, 2018). The successful utilization of advanced practice providers is evident in the 64% of facilities who have hired advanced practice providers to offset staffing burdens.

Community health aides (CHAs) provide healthcare in remote areas under the supervision of a physician. CHAs rely on telemedicine and other electronic communication to collaborate with the healthcare team. CHAs require relatively minimal training, but still can help care for a variety of conditions, including mental health, trauma, and chronic disease (Rural Health Information Hub, 2018). Because CHAs are less costly to employ, they can spend more facetime with the patients, as well. A program initiated in South Texas by Texas A&M utilizes CHAs to maximize access to healthcare. The program has demonstrated remarkable improvement in diabetic control, thus reducing disease complications and hospitalizations such as Diabetic Ketoacidosis (Schroeder, 2018).

There are other supportive personnel that may be utilized, as well. Similar to CHAs, there are behavioral health aides (BHAs). BHAs provide a variety of behavioral health services such as care coordination, case management, and community support (Rural Health Information Hub, 2018). Dental therapists can provide oral care for remote communities under the supervision of a dentist. Services may include education, dental therapy, and dental hygiene (Rural Health Information Hub, 2018).
Centralized Location

Providing a centralized location for healthcare services can ease the burden of providers and people who may be transporting patients to their appointments. Health resource centers may be established as a community health center, and to provide a “one-stop-shop” for healthcare needs.

Critical access hospitals (CAHs) provide critical and emergency services to the rural population. CAHs utilize telemedicine to provide care for the acutely ill. These facilities provide a potential solution to the staffing shortages, time-sensitive patient care, and low patient volume. CAHs make it possible for providers to give admitted patients high quality care. For a CAH to receive funding, it must meet all eligibility criteria described by CMS. Once CAH status is awarded, the facility receives cost-based Medicare reimbursement (AHA, 2020).

Emergency Services

Rural communities are often lacking in emergency services. As previously mentioned, some of the deficits are because of volunteer-only staffing, physical distance, and weather and seasonal variations. The building of rural emergency hospitals (REHs) under the Medicare program may provide communities with emergency and outpatient services (AHA, 2020). The emergency services would be offered twenty-four hours a day, three-hundred sixty-five days a year. The outpatient services offered would cater to the community’s specific needs. The REH facilities would not, however, provide inpatient care. Meeting these criteria would qualify the facility for enhanced reimbursement by Medicare (AHA, 2020). The next level of care would be the CAHs, which provide inpatient services.
Rural communities should provide education to residents about the importance of creating an emergency medical plan. In the event of a community crisis, natural disaster, or medical emergency, this plan should be called into action. Residents should keep emergency medical supplies, including inhalers, naloxone, and sugar packets, readily accessible. If 911 is called and EMS are dispatched, it is important to know landmarks so EMS can be directed quickly to the location. If possible, turn on a porch light or pull a vehicle out front so it is easier for EMS to locate the building. Ideally, and if someone is able, a person should come out to the end of a long driveway or meet EMS at a nearby landmark.

Conclusion

Rural health priorities have changed little over the last decade. Access to healthcare remains the highest priority, but there are significant barriers to overcome. Access may be inadequate due to lack of funding or lack of staffing. Access may be restricted by seasonal and natural variations or physical distance. Even in communities that have the facilities, staff, and funding, residents may find it difficult to access services due to the cost of the services, lack of education, or social isolation.

Telehealth is perhaps the most important advancement that has helped, and will continue to help, bridge the gap between urban and rural community access to healthcare. Healthcare providers in rural areas must also be encouraged to practice to their full scope of practice. Most solutions to barriers to access require federal funding; however, by utilizing resources already in place, and educating residents about the available resources, it is possible to begin chipping away at the inequitable access to healthcare that plagues rural communities.
Many of the solutions to inequitable access require federal funding and large budgetary shifts; however, individual members of the healthcare team can provide patients with the education and support they need to obtain access to needed healthcare services. For example, a nurse in a rural clinic may be able to refer the patient to a specialist that utilizes telemedicine services. A case manager at a critical access hospital may be able to set up free transportation to and from dialysis treatments. A pharmacy technician could educate a client about available coupons, generic alternatives, or mail order services that could make prescriptions more affordable and accessible. It is the duty of each individual provider, no matter education level of licensure, to work together and provide equitable access to healthcare for the residents of rural communities.
References


https://www.healthypeople.gov/2020/topics-objectives/topic/Access-to-Health-Services


