Healthcare in Rural America: Is it Accessible?

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On my honor as a University student, I have neither given nor received unauthorized aid on this assignment as defined by the Honor Guidelines for Thesis-Related Assignments.

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Introduction

Healthcare in America is a constant topic of discussion, with rural residents increasingly facing difficulties in access and quality of healthcare compared to their urban counterparts. This research is crucial as rural residents have a shorter average life expectancy, higher maternal mortality rates, and over 60% of rural residents have to travel 30+ miles for specialty care (Jolly, 2019). With these disparities growing, it is necessary to understand the root causes of this issue, which will be analyzed throughout this paper. My research will explore the current state of healthcare and what factors contribute to the inaccessibility of healthcare in the rural United States. This paper will highlight how rural access to healthcare is currently insufficient, the unequal distribution of physicians across the U.S., and a portion focusing on neurological healthcare to highlight the need for specialty physicians. This paper will utilize the term rural as defined by the United States Census Bureau, which makes its determinations based on population thresholds, density, distance, and land use. In the United States, 97% of the country's land mass is classified as rural, with it consisting of only 19.3% of the population (Bureau, n.d.-b). The theoretical framework employed in this writing is the Relational View (Leonelli 2019, 2020) which states that data, evidence, and ideas only make sense within the context of how they are made and used. This applies in the case where I am reviewing data to ensure the scope of the research acquired in the study directly correlates with the conclusions I draw from it. The research revealed throughout the paper will aid in drawing sufficient conclusions about healthcare in rural America, in hopes that solutions will arise.

The current state of rural healthcare

Healthcare access in America is a complex system that is deeply ingrained into our society. There are constant discussions surrounding the cost and accessibility of healthcare for all U.S. residents. However, it is important to mention that the United States is lacking in its accessibility to healthcare for those living in rural areas specifically. Although the term "rural" can be interpreted in various ways, this paper will adopt the definition outlined by the United States Census Bureau and the consideration that 1 in 5 Americans live in rural areas (Bureau, n.d.-b). This section will explore the current state of healthcare in rural America.

Healthcare issues affect the lives of Americans every day, and while those living in both rural and urban areas may be affected by the same problems, those in rural areas are a more vulnerable population. Residents living in rural areas are often met with substantially more difficulties than their urban counterparts: economic disadvantages, poorer health, and geographic inaccessibility are just some of the reasons healthcare is harder to access in rural areas. As of 2022, a fifth of the population in rural areas is over the age of 65, this is compared to urban areas where only 16% of the population is over 65 (STLPR, 2022). With a more increased elderly population, it would be expected for healthcare to be more prevalent and accessible in those areas, however, that is not proving to be the case. With age comes an increasing number of health issues; nonetheless, researchers have begun to explore how rural living impacts overall health before the age of 65. Americans living in rural areas are more likely to die prematurely from the leading causes of death such as heart disease, cancer, lung disease, and stroke (*Health in Rural America*, n.d.). These patterns can be attributed to a lack of resources throughout one's lifetime, living in rural areas.

Financial barriers

A primary barrier to care in rural areas is the financial burden. Residents in rural communities have lower median incomes on average and are more likely to be uninsured. With approximately 13.3% of individuals in rural areas living in families with incomes below the official poverty thresholds, it's understandable why achieving a higher quality of care becomes increasingly difficult (Bureau, n.d.-a). The introduction of the Affordable Care Act significantly reduced uninsured rates in rural areas, from 23.7% in 2010 to 16% in 2019 (*Access to Affordable Care in Rural America*, 2021). This decline translates to millions of Americans now insured thus providing them with the means to receive necessary care; however, millions still suffer and affordability is not synonymous with accessibility. The Kaiser Family Foundation (KFF) is a non-profit organization that acts as an independent source for health policy research and polling, and they frequently update their publications to include recent polling data, with the most recent update on March 01, 2024. Therefore, I feel confident in utilizing the data from their foundation to make my case. According to the data from the KFF, a salary generally considered sufficient to comfortably afford healthcare in the United States is around $40,000 to $90,000 per year, with variants based on race, age, and gender disparities (Lopes et al., 2024). However, with 31.3% of Americans making below $50,000 in 2023 (Tierney, 2024), we can conclude that a significant number of Americans, especially those in rural areas, are still struggling to afford healthcare today. The inability to comfortably afford healthcare can result in financial hardship if healthcare is required, but also hesitancy when seeking healthcare may be necessary. The fear of medical bills is a common limitation for individuals and families seeking healthcare, therefore, their needs often go untreated, contributing to the increasing mortality rate in rural regions.

Increasing distances and hospital closures

An additional factor to consider when looking into rural healthcare is the geographic aspect and the issues spatial accessibility can pose. In rural areas, having direct access to a hospital or urgent care can prove more difficult than in urban areas. An issue that arises in the case of a medical emergency, residents in rural areas of the United States often have to rely on urgent care as the nearest hospital emergency room can be significantly farther away. As reported by a study in 2018, according to a Pew Center analysis which samples 10,000 individuals, rural residents live an average of 10.5 miles from the nearest hospital, compared with 5.6 miles for people in suburban areas and 4.4 miles for those in urban areas (Lam et al., 2018). Lam et al. determined the rural distance of 10.5 miles roughly translates to 17 minutes, however, the study failed to measure how proximity to a hospital translates to better outcomes, as it did not account for the quality or available services at each facility. These are factors that critically influence patient outcomes and need to be considered when drawing conclusions between distance and positive health outcomes. This resource conducted an in-depth analysis thus providing concrete measurements of the distance between residents and their nearest hospital in various communities. However, additional studies need to be conducted to determine the overall impact of these findings. Furthermore, as the study is from 2018, I would be interested in whether or not current data would reveal either longer or shorter distances and travel times due to rural development.

An additional aspect of studying hospitals in rural areas is observing hospital closures. Hospitals and medical centers in rural areas face several barriers that urban hospitals do not, including provider shortages and financial difficulties. The U.S. Government and Accountability Office tracked hospital closures from 2012 to 2018, when approximately 100 hospitals closed.

This resulted in patients having to travel an additional 20 miles to receive inpatient care and an additional 40 miles to receive specialized treatment (U.S. GAO, 2024). This can result in an increasing financial burden on those looking for care. With limited public transit in rural areas, accessing healthcare can be nearly impossible. This also presents an issue in the event of a medical emergency, with most medical emergencies being a race against the clock, waiting for an ambulance or having to travel an extensive amount of time can be fatal. An argument can be made that since rural areas are less populated, there is less need for hospitals, however, lower population density does not negate the need for the residents who live there to have immediate access to quality healthcare when necessary. Therefore, an effort should be made to ensure that there is a hospital or quality healthcare system within an accessible distance to all individuals.

Impact

When observing healthcare in rural America, it is necessary to analyze the impact the lack of accessible healthcare has on people over time and in the instance of a healthcare emergency. A study conducted using data from the US Centers for Disease Control and Prevention Wide-Ranging Online Data for Epidemiologic Research database from 1999 to 2019 measured rural-urban differences in age-adjusted mortality rates (AAMRs)(Cross et al., 2021). The study revealed that from 1999 to 2019, rural areas had the highest AAMRs with age and gender distinctions. Subsequently, higher prevalence of chronic disease, socioeconomic disparities, and geographic and environmental factors are exacerbated by the inaccessibility of healthcare.This correlates with the fact the mortality rate for people ages 25 to 54 climbed from a 6% difference in 1999 to a 43% difference by 2019 (News, n.d.) further supporting the nationwide decline in healthcare.

The unequal distribution of physicians across America

The presence of physicians across the United States is wildly unequal, with fewer physicians present in rural areas compared to urban ones. As a result, healthcare is less accessible in those regions, and higher rates of chronic disease, injury, and mortality are observed. Physicians of all specialties gravitate towards urban areas when deciding where to live and work and this inequity impacts both the health and economy of rural communities.

Rural communities face not only a shortage of physicians but also a crucial lack of medical specialists, which threatens both the health and economic stability of these regions. A study conducted in 2020 surveyed 1,947 rural counties and found that 1,825 counties had at least one physician. Although that comes out to 94% of the counties studied with a physician, 122 counties remain without at least one physician in this study alone, which is significant enough to raise concerns (Barreto et al., 2021). Additionally, this statistic does not differentiate specialties, therefore, the one physician recorded could practice a specialty not sufficient for the whole county. Specialties including emergency medicine, cardiology, psychology, and OB/GYN were found in less abundance in rural regions than primary care physicians. With family medicine being the specialty most present in rural counties, Barreto introduces discussions on whether family physicians should be trained with a broader scope to cover some of the needs unmet by the lack of specialties in rural areas. The gap between access to specialties outside of primary care has become increasingly concerning with potential harm to rural residents and the economy. Training family physicians in additional specialties such as obstetrics or dermatology will expand their patient pool, which will yield benefits for rural residents as well as the community overall. Barreto et al. (2021), indicates how rural hospitals and clinics contribute the economic vitality in rural counties. It is estimated that each physician providing obstetric care contributes

over $1 million dollars to the community; an average of 17.1 jobs emerge with each physician hired as well as an increased patient population which generates more revenue. The study pulled information from the 2019 American Medical Association Masterfile data, Rural-Urban Continuum Codes, and the Census Bureau to conduct statistical analyses further supporting the claim that there is an unequal distribution of physicians.

Common motivations for physicians choosing rural practices include compensation, patient needs, and a desire to reside in a location similar to their childhood. When looking into possible resolutions for this discrepancy, one publication presents medical education as an opportunity to influence physicians to meet the needs of rural communities. “Educational intervention described as influencing practice location or intention to practice in underserved areas aligned with four categories: preferential admissions criteria, undergraduate training in underserved areas, postgraduate training in underserved areas, and financial incentives” (Elma et al., 2022, Page 6). Ideas such as telehealth, an increased presence of nurse practitioners, and financial incentives have been deployed to tackle this issue, however, there has been no significant impact that we can deem these methods as successful. Therefore, this study constructed a six-stage framework using information from database searches to draw the conclusion that early educational interventions can influence physician practice location. By placing medical students in positions that serve in rural areas, they may be more inclined to complete their residencies and work in rural areas when provided the opportunity. As mentioned in the studies, incentives such as financial decisions or admission preferences may sway students to complete their training in a rural area, and that exposure may incline students to work there as opposed to students who have solely trained in urban areas. These are simply a few of the options that need to be explored to increase the distribution of physicians across the country.

Specialty healthcare - Neurology

Physician dispersion is significantly lacking across the rural regions of America. Although primary care physicians are the most abundant, in the case that a patient needs access to a specialty physician, they may be faced with a challenge. Specialties including cardiology, psychology, and OB/GYN are a few of the underprovided specialties in these areas. Neurology is also an underprovided specialty, and its inaccessibility can have dire consequences.

There are significantly fewer physicians in rural areas than in urban areas, and the specialty of neurology is no exception. In 2010, a study was conducted of 15,063 board-certified neurologists and found 99.55% were practicing in metropolitan regions and their surrounding areas (nonmetropolitan), leaving 0.458% practicing in rural areas (Curtis et al., 2020). This study highlighted the drastic maldistribution of neurologists, further supporting the need to determine the cause of this maldistribution and to determine ways to overcome it. Despite the prevalence of neurologists drastically differing, the prevalence of neurological conditions does not. Over 1 in 3 people are affected by neurological conditions worldwide (World Health Organization, n.d., 2024), the most prevalent in the U.S. include stroke, Alzheimer's disease, and migraine. With neurological disorders so common, it is crucial to provide rural communities with the same access to neurological healthcare as urban communities. A similar study conducted in 2015 identified 13,627 neurologists who provided office-based services to Medicare beneficiaries. The study performed a comparative quantitative analysis between data retrieved from Medicare data and from the American Academy of Neurology (AAN) membership dataset. They determined the average density of neurologists was 22.3 per 100,000 Medicare beneficiaries (Lin et al., 2021). With both studies published in the Neurology Journals, I am confident in the assumption that this data reveals an increase in neurologists in rural areas between 2010-2015. However, the

numbers remain drastically lower than those in urban areas, thus requiring further analysis to determine how we can increase the prevalence of neurologists in rural areas.

The focus of my paper uses research and data to make determinations about the state of our healthcare system and how it can be improved. The Relational View (Leonelli 2019, 2020) states that data, evidence, and ideas only make sense within the context of how they are made and used. When analyzing sources, it is crucial to understand the scope the studies were conducted in to ensure the proper conclusions are being drawn. This applies in cases such as reviewing the studies provided by the American Academy of Neurology. The study referenced in the previous paragraph uses data provided by Medicare beneficiaries, however, Medicare is a federal health insurance program specifically for anyone 65 and older. Therefore, the study's findings on neurological providers are limited to Medicare beneficiaries, excluding those below 65. As the Relational View supports, it is necessary to understand the study's limitations to avoid making broad conclusions when in reality, the data provided only applies to those 65 and older.

Conclusion

This paper emphasized how healthcare access is limited in rural areas compared to urban ones and the contributing factors. Hospital closures, financial barriers, and physician shortages all contribute to the increasing inaccessibility of healthcare in rural America. With the increase in hospital closures, residents are having to travel significantly longer distances to access emergency care or healthcare overall. The average resident in rural America earns less than the average resident in urban America, and the increasing burden of healthcare costs places an additional strain on families, thus creating another barrier to access. Additionally, the unequal distribution of physicians across America makes it increasingly difficult for people to receive the specific care they may need. Specialties such as neurology are sparsely present, thus requiring

residents to travel significant distances, adding to the difficulty in accessing healthcare. It is crucial to recognize these disparities as they have several consequences. Mortality rates in rural areas are higher and still growing as a result of worsening population health, which can be attributed to the limited access to health care in rural regions due to the reasons outlined in the paper. From here, it is necessary to devise a plan to tackle these disparities; as a society we ought to explore the root causes of these issues and evolve our current solutions to ensure that everyone across the country has equal access to the healthcare they need.

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