

# Rural health workforce development—a qualitative study of themes related to provider shortages in West Texas

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## ABSTRACT

**Introduction:** Healthcare administrators struggle to recruit healthcare providers for rural communities. Multiple hospital closures throughout the United States reflect a direct outcome of the healthcare professional shortages in rural communities. Medical facility administrators continue to scramble for ideas to recruit healthcare providers. This research was driven by the need to identify effective strategies to recruit healthcare providers to rural communities.

**Methods:** To address this gap in rural health care, four centers associated with the West Texas Area Health Education Center (AHEC) program office set out to host focus groups at regional symposiums over six months in the form of panel discussions. Each center recruited three panels consisting of hospital administrators, practicing healthcare providers, and healthcare provider students, including medical, nurse practitioner, and physician assistant students.

**Results:** The themes that emerged revolve around advantages, disadvantages, suggestions and requests, and overall strategies regarding recruitment and retention of rural providers. These findings included better pay and benefits for providers, small town lifestyles, limited preceptorships, and increased funding for medical education in rural areas.

**Conclusion:** Given the aftermath of the COVID-19 pandemic, these findings support the public health significance of the need for effective recruitment strategies to address the shortage of rural providers in West Texas and beyond.

**Keywords:** Workforce development, provider shortage, rural health, recruitment strategies

## INTRODUCTION

Rural communities and their respective healthcare systems struggle to recruit and retain healthcare providers. Approximately 20% of the United States population lives in rural communities, but only 1 out of 10 providers nationally practice in those areas.<sup>1</sup> Unfortunately, the federal government predicts that the shortage of rural health care providers will only worsen by 2025.<sup>1</sup> The Association of American Medical Colleges reports that “less than 3.4 % of U.S. physicians report an interest in

rural work”,<sup>2</sup> making it more challenging to recruit medical practitioners to rural areas.

## IMPLICATIONS OF HEALTHCARE PROVIDER SHORTAGES IN RURAL AREAS

Rural healthcare provider shortages can function as a contributing factor to poorer health outcomes. Studies have found substantially higher mortality rates in rural areas than in urban areas.<sup>3-4</sup> These higher mortality rates are often associated with a lack of access to primary care.<sup>5-6</sup> Rural areas are disproportionately affected by a lack of access to primary care, with over 90% of rural counties reporting a primary care shortage within the county.<sup>6</sup> These areas also have lower numbers of specialists, which corresponds to increased mortality rates and higher levels of preventable hospitalizations.<sup>3,7</sup>

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Furthermore, obstetric services are similarly deficient, with 45% of all rural U.S. counties offering no hospital-based obstetric services, an issue that could lead to increased infant mortality rates.<sup>8</sup>

Primary care shortages can likewise negatively impact primary care access and the increase in emergency department (ED) visits.<sup>9</sup> Rural regions of the nation have a disproportionate number of ED visits compared to urban areas. A recent study found that ED visits in rural areas increased significantly more than those in urban areas from 2005 to 2016.<sup>9</sup> Almost 20% of all ED visits occurred in rural areas, a more significant proportion than the population living in these regions.<sup>3</sup> Many of these patients are Medicaid enrollees or uninsured, representing a disadvantaged population segment. The most considerable rate of increased ED use involved rural Medicaid beneficiaries, but ED visits for rural residents without insurance also increased substantially. At the same time, those in urban areas saw a nonsignificant decrease in ED visits. The sizeable increase in ED visits in rural areas during this period is even more notable when coupled with a 5% decrease in the rural population during the same time.<sup>9</sup>

The current COVID-19 pandemic, which continues to ravage our country, has only increased awareness regarding provider shortages in rural areas. Providers remain unavailable or ill-equipped to address this most recent public health emergency. Rural areas lack public health providers, which leaves communities without proper testing, direct care, and poor reporting mechanisms that address the integral epidemiologic side of public health. Although the number of Local Health Departments in rural areas makes up half of the 2400 total health departments in the United States, they remain underfunded and understaffed.<sup>10</sup>

## **METHODS**

This exploratory study used a purposeful sampling methodology based on preselected criteria of locations in rural areas of West Texas and the role of a provider in healthcare. The researchers collected data from the Rural Provider Recruitment Symposiums, key informant interviews, voice recording in-person observations, and phone calls. After collecting the qualitative data and information from key informants, manual audio transcription

and coding occurred to divide the themes and outcomes into four broad categories: Advantages, Disadvantages, Suggestions and Requests, and Overall Strategies. All the themes and outcomes stemmed from the general sessions of the symposiums, which included presentations on the Current Rural Health Climate, Hospital Administrator Perspectives, Rural Recruitment Tips & Challenges, Medical Program Panels, Student Panels, Rural Provider Panels, and presentations from the Texas Department of State Health Services regarding Tools and Incentive Programs.

Key Informants included medical center executives and clinical leaders from Abilene, Amarillo, Odessa, and Lubbock, Texas. Researchers collected interviews from a sample size of sixty participants over seven months through in-person interviews, observations, and phone calls. Each interview was recorded via a voice recorder and transcribed. Transcriptions were then analyzed using thematic analysis to understand major themes emerging from the interviews. The interview results were then further explored at regional rural health conference symposiums in the four West Texas locations. Focus groups at each conference sought convergence with the key informant Interviews. Focus groups included physicians, family nurse practitioners, advanced practice nurses, physician assistants, physician assistant students, nurse practitioner students, and a mental health provider from rural hospitals and clinics. The panelists represented Abilene, Lubbock, Amarillo, and Odessa. Demographic data were only available for three of the four panels due to recording errors. Data were manually abstracted and transcribed by a student investigator for thematic analysis, and the results were verified and validated by two prepared doctoral investigators. Each verifier listened to panelists' recorded conversations, noting critical themes based on questions posed to the panelist and resolved disagreements concerning data validity through discussion.

## **RESULTS**

### **THEMES AND OUTCOMES FROM BIG COUNTRY AHEC SYMPOSIUM**

The Big Country AHEC Symposium occurred in Abilene, Texas. The symposium's primary outcomes and themes revolved around the four categories:

Advantages, Disadvantages, Suggestion and Requests, and Overall Strategies. From the presentations and panels, the advantages of working in rural areas amounted to the close-knit environments in rural communities, viable personal relationships with community members, and the ability to assemble community stakeholders overnight to address rural health concerns. The disadvantages of working in rural areas included resource limitations with medical equipment and records, non-compete clauses in provider contracts, lack of diverse businesses and resources, and low numbers of preceptorships for students desiring to learn more about rural healthcare.

#### **THEMES AND OUTCOMES FROM AHEC OF THE PLAINS SYMPOSIUM**

The AHEC of the Plains Symposium occurred in Lubbock, Texas. The symposium's primary outcomes and themes revolved around the four categories: Advantages, Disadvantages, Suggestions and Requests, and Overall Strategies. From the presentations and panels, the advantages of working in rural areas amounted to providers' ability to become versatile in their practices, AHEC Scholars Programs and Summer Camps for up-and-coming health professions students, and the potential to know all the members of the community in a rural area. The disadvantages of working in rural areas included a significant lack of preceptorships and hiring opportunities for students and new providers and the potential competition between rural hospitals.

#### **THEMES AND OUTCOMES FROM PERMIAN BASIN AHEC SYMPOSIUM**

The Permian Basin AHEC Symposium occurred in Odessa, Texas. The symposium's primary outcomes and themes revolve around the four categories: Advantages, Disadvantages, Suggestions and Requests, and Overall Strategies. From the presentations and panels, the advantages of working in rural areas amounted to better pay and benefits due to smaller workforce availabilities, relying on the team of healthcare to do what benefits any patient, the observance of healthy relationships in a community, and working as a "domestic missionary" in a rural area. The disadvantages of working in rural areas included the distance from more extensive healthcare

facilities, lack of specialty care systems, limitations of mental health training for rural providers, lack of preceptors due to student oversaturation, and the potential lack of career mentorship for rural providers.

In summary, the themes identified were less about monetary compensation and more about community and the quality of life in rural communities which included advantages and disadvantages of working in rural settings, and recruitment suggestions and requests. The results included critical perspectives from medical students and healthcare professionals in the discussion findings which add value since these comprise the key stakeholders concerned with provider shortages.

#### **DISCUSSION**

The importance of rural provider recruitment cannot be understated. Although Texas has done well in retaining physicians from undergraduate and graduate medical education and remains among the top five states in the nation to accomplish this task, more of these retained providers must find their way to the rural communities that do not see the positive effects of these facts.<sup>11</sup> Additionally, only about 3% of medical residents in their last year of training indicate that they would want to practice medicine in communities of 25,000 people or less, and communities of these sizes make up most of West Texas.<sup>12</sup>

This study contributes to a comprehensive review and assessment of the variables and challenges related to provider shortages in rural areas, specifically in West Texas. It identifies cogent challenges that are not mutually exclusive to this complex issue. We hope that this novel qualitative study, which encompasses the viewpoints of a diverse array of students, providers, and healthcare administrators, encourages further investigation into viable and operational solutions to the healthcare provider shortages in West Texas and across vast rural communities in the United States. The COVID-19 pandemic has illuminated and exacerbated the stark healthcare disparities in West Texas and rural areas around the state and nation. The findings from the Rural Provider Recruitment Symposiums and the Key Informant Interviews will provide rural health and public health officials with potential avenues to address the underlying rural health recruitment issues

discussed previously. With the impending need for more providers in rural areas to address acute health needs to disruptive pandemics, the following recommendations will highlight the creative solutions for the public health disparities found throughout West Texas and the nation.

### **RECOMMENDATIONS FOR INCORPORATION OF FINDINGS INTO RURAL AND PUBLIC HEALTH PRACTICE**

To provide for sustainability in recruiting and retaining providers in rural areas, institutions that house graduate medical education programs and providers in West Texas must come together to create more preceptorships for students. Preceptorships can help students understand the nuances of rural healthcare and can serve to recruit interested students to work in the rural communities of their temporary training. Due to the current lack of preceptorships in the rural communities, stakeholders in medical education, government, and the health systems of West Texas must quickly address the issues of increasing the number of rural rotations for students.

Recruiting providers to areas with an increasing scarcity of health resources and increasing diversity of health issues, such as chronic diseases, will need more emphasis from rural hospitals' administrations. Whether rural hospitals use recruiting companies or community-based recruitment, administrators should understand current providers and future rural providers' desires in a workplace setting that does not provide the amenities of an urban area. As discussed during the symposiums, creative recruitment methods can prove helpful in attracting current students to rural areas. Although some rural hospital boards might have community members who do not have medical expertise, negotiations and conversations between different hospitals should address similar issues that adjacent counties and cities might face. Some of these issues involve lack of capacity, competition between different hospitals, and funding issues that have caused some hospitals to close.

### **LIMITATIONS**

These findings offer an enhanced understanding of critical themes surrounding rural health provider

shortages in West Texas's geographically specific area. However, this study includes limitations. While this study offers important insights, its results cannot be generalized outside the rural setting. This study did not include statistical analyses to understand significant relationships between aggregated themes noted in the results. Further studies are needed to determine if the results have statistical significance. Thus, no determinations related to causality can be inferred. Last, this study's participants represent a convenience sample of students and providers from West Texas. Therefore, the themes may lack the full diversity (e.g., ethnic, provider specialty, gender, and socioeconomic class) of other rural areas. Further studies are needed to determine a broader list of themes by these and other demographics.

### **HOPE FOR THE FUTURE**

Overall, the Rural Provider Recruitment Symposiums have provided a foundation for future discussions on how to practically address the issues that have come to light through the presentations, panels, and key informant interviews. Further research regarding provider preferences, rural community healthcare requirements, financial implications to rural communities, and recruitment and retention strategies is needed to reduce this significant healthcare burden affecting rural and underserved communities that suffer from costly and preventable health disparities due to provider shortages.

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