Kronkosky Charitable Foundation

Research Brief

Rural Healthcare

June 2022

In Texas, 172 of the state's 254 counties, or 68%, are classified as rural (Texas Department of State Health Services [DSHS], 2020). "'Rural' encompasses all population, housing, and territory not included within an urban area [50,000 or more people]," (National Advisory Committee on Rural Health and Human Services, 2018, p.15). Rural American populations face a variety of economic, cultural, social, educational, and political disparities which reduce the ability to live a healthy life. As a result, the need for all types of health care services in rural areas continues to grow (National Rural Health Association [NRHA], 2022).

TABLE 1 COMPARISON OF RURAL AND URBAN UNITED STATES

	Rural	Urban
Demographic Data		
Population	19.3%	80.7%
65+ years	18%	12%
Poverty rate	15.4%	11.9%
Health status fair/poor	19.5%	15.6%
Availability of health care		
Physicians (per 10,000)	13.1	31.2
Medical specialists (per 100,000)	30	263
Insurance/Government support		
Medicare (dual-eligible)	30%	70%
Medicare without drug coverage	43%	27%
Medicaid	16%	13%

(NRHA, 2022; United States Department of Agriculture Economic Research Service [USDA], 2022a)

RURAL HEALTHCARE PRIORITIES

The greatest health care needs of rural populations were researched for the *Rural Healthy People 2020* Project, a companion for the national objectives outlined in *Healthy People 2020*. "The goal of *Rural Healthy People 2020*, as it was with *Rural Healthy People 2010*, is to serve as a guide and benchmark for updating and translating the current state of rural health priorities and disparities, and serve as a roadmap for updating federal and state leaders on rural health priorities identified through the national Rural Healthy People 2020 survey" (Bolin, et al., 2015a, p.ii). A total of 20 current rural health priorities were identified and ranked as the highest priorities in rural health care. In order of importance, the ten top-ranked rural health priorities are listed below, along with supporting statistics and information.

1. Access to Health Care

Selected as the top rural health priority by over 75% of respondents to the national survey, this focus area highlights three issues:

a. Access to quality health insurance

"Individuals living in rural areas are less likely to be employed and more likely to be low-income than individuals living in other areas. Individuals in rural areas also face significant barriers to accessing care, including provider shortages, recent closures of rural hospitals, and long travel distances to providers" (Foutz, Artiga, and Garfield, 2017, p.1). Approximately 9.2% or 29.3 million Americans were without health insurance in 2019, and Texas currently retains the highest rate in the country of people without insurance at 18.4% overall (Kaiser Family Foundation [KFF], n.d.).

b. Access to primary care

In nearly every specialty, there are fewer medical professionals throughout rural America

compared to professionals in urban areas. While approximately 20% of Americans live in rural areas, only 11% percent of physicians practice in rural America (Bolin, et al., 2015a, p. 14-15). Common reasons health care providers choose not to practice in rural areas include: lower pay in the face of increasing student debt, the perception that family practice is a less intellectual pursuit, isolation from other professionals, difficulty of meeting spouse's needs (employment and education), and less time off of the job (American Academy of Family Physicians [AAFP], 2014). Another concern is the aging of the medical profession, particularly in rural areas.

Most physicians in rural America are beginning to retire. Without young doctors willing to inherit their practices, many small towns will lose their only access to healthcare. "Only 1% of doctors in their final year of medical school say they want to live in communities under 10,000; only 2% [want] to live in towns of 25,000 or fewer" (National Public Radio [NPR], 2019). Majority of the doctors who choose to work in rural areas site expense and time as the two main factors for not opening a private practice (NPR, 2019).

Like the rest of the country, rural Texas is experiencing severe shortages in all areas of health care, especially primary, mental health, and dental health care. Texas has 422 designated Health Professional Shortage Areas (HPSAs) for primary care alone. That number includes 54 whole counties with high needs or inadequate health resources. Bexar County has ten Medically Underserved Areas (MUAs) designations related to geographical areas and population groups. Bandera and Comal counties each have one (Health Resources and Services Administration [HRSA], n.d.a, n.d.b; KFF 2018b).

c. Access to emergency medical services

There is a critical need for emergency medical services in rural regions. Injuries obtained in rural areas have a tendency to be more severe than those in urban areas. For example, 45% of traffic fatalities occurred in rural areas despite only 19% of the U.S. population lived in rural areas in 2019 (National Highway Traffic Safety Administration, 2021). With the aging of rural populations, it is expected that there will be an increase in demand for services. With sparse populations and fewer tax dollars to fund EMS programs, the cost of EMS services is high. Majority of rural communities rely on volunteer emergency medical technicians, due to the high cost of employing one full time (Rural Health Information Hub [RHIhub], 2021a).

A 2006-2007 national survey of emergency medical services agencies (Freeman, Slifkin, & Patterson, 2008) provides statistics comparing rural and urban emergency medical services (Table 2).

TABLE 2 COMPARISON OF RURAL AND URBAN EMERGENCY MEDICAL SERVICES

	Rural	Urban
Median square miles covered	150	47
Median number of people served	4,992	15,500
Affiliation (%)		
Freestanding	49.8	34.5
Fire department	38.0	55.9
Hospital	10.0	4.6
Police department or other public safety	2.2	5.0
Provided services (%)		
Emergency	96.1	94.8
Non-emergency	53.9	36.7
Inter-facility transfer	46.3	25.6
First responder (non-transporting)	13.5	14.6
Vehicles used (%)		
Ambulance	89.2	81.5
Helicopter	4.5	6.8
Aircraft	1.1	0.9
Off road vehicle	12.2	9.4
Boat	9.2	11.5
Staff compensation (%)		
All volunteer	48.6	30.0
Salaried/Hourly	25.3	37.0
Volunteer and paid	26.1	33.0
Certification (%)		
Basic	21.5	15.1
Paramedics/Intermediate level	78.6	84.9

(Freeman, Slifkin, & Patterson, 2008)

2. Nutrition and obesity

Obesity is associated with many other health problems, including heart disease, stroke, high blood pressure, high cholesterol, diabetes, pregnancy complications, and a variety of

cancers. Research finds higher rates of obesity in adults (39.6% rural vs. 33.4% general) and children (25% rural vs. 22% general) living in rural areas than those in urban areas. Individuals in rural areas often lack nutrition education and exercise facilities. Furthermore, they have an increase in caloric consumption and decrease in physical activity. In addition, rural populations have reduced access to preventive care, long distances to grocery stores that stock healthy food, and higher prices of healthy foods that prevent families and schools from providing nutritious meals (Bolin, et al., 2015a).

3. Diabetes mellitus

The current health care system struggles to effectively prevent, diagnose, and manage diabetes in rural populations. Ethnic background, socio-economic status, and lifestyle choices appear to be the factors most associated with diabetes. While diabetes affects Americans living in all areas, diabetes cases are 17% higher in rural areas, likely because of the factors described. Care of rural residents with diabetes is complicated because patients are less likely to visit their physicians to receive care, including diagnostic tests, prescriptions, and preventative care. Rural populations are also more likely to suffer from diabetes-related complications. "A higher proportion of rural persons with T2DM [Type 2 Diabetes] have retinopathy associated with diabetes compared to urban persons with T2DM, 25.8 percent vs 22 percent" (Bolin, et al., 2015a, p.43).

4. Mental health and mental disorders

"It is estimated that over 46 percent of adults in the U.S. will develop a mental illness at some point during their lifetime" (Bolin, et al., 2015a, p.56). In rural areas, adults are more likely to report their mental health as fair or poor as compared to urban adults. Unfortunately, there is a shortage of mental health providers in rural areas (Table 3), and thus primary care physicians are often responsible for diagnosing and treating mental health disorders for which they are not specifically trained.

TABLE 3 PERCENT OF U.S. COUNTIES WITHOUT MENTAL HEALTH PROVIDERS

	Metropolitan	Micropolitan	Rural
Psychiatrists	27%	35%	80%
Psychologists	19%	19%	61%
Psychiatric Nurse Practitioners	42%	60%	91%
Counselors	6%	6%	24%
Social Workers	9%	11%	35%

(Larson, Patterson, Garberson & Andrilla, 2016)

There are 430 total mental health care HPSA designated areas in Texas. 199 were designated as whole county HPSAs for mental health. Bexar County has four mental health HSPAs (HRSA, n.d.a; KFF, 2018b).

It has also been reported that people living in rural communities are less likely than their urban counterparts to seek mental health treatment for a variety of reasons including:

- Concerns that confidentiality and anonymity are harder to maintain in rural areas
- Inherent value of independence and self-reliance
- Long distance and travel time to mental health specialty care
- Economic burden of taking off work to receive treatment
- Cost prohibitive, even with insurance

(Bolin, et al., 2015a)

5. Substance abuse

While drug abuse rates are similar for urban and rural areas, dependence on alcohol is higher in rural areas. In 2020, about 33.2% of 12–20-year-olds consumed alcohol in rural areas, compared to the 28.5% in the large metropolitan areas (RHIhub, 2020d). While there are few studies which compare urban and rural substance use, one found that "rates of lifetime and current alcohol, tobacco, and cannabis use were significantly higher among rural students compared to urban students" (Bolin, et al., 2015a, p.74).

Although a significant percentage of the rural population have substance abuse issues, the majority of abusers do not receive medical treatment (RHIhub, 2020d). Over 82% of rural

residents live in a county without a detoxification service provider and more than half of rural detox providers serve a 100-mile radius (Benson & Aldrich, 2017). Barriers to substance abuse care in rural regions include social stigma for receiving care, geographical isolation, and the inability to pay due to lack of or not enough health insurance.

6. Heart Disease and stroke

"Heart Disease remains the No. 1 cause of death in the US" (American Heart Association [AHA], 2021). Stroke is the fifth leading cause of death, and a leading cause of preventable disability in the United States (AHA, 2021). Rural populations are especially susceptible to heart disease due to behaviors such as smoking, drinking, obesity, and living a sedentary lifestyle (Bolin, et al., 2015a).

Common barriers for rural populations in the recovery from heart related conditions include long travel distances for care, fewer medical screening services, and a lack of medical staff.

7. Physical Activity and health

In the 21st century, there are fewer individuals working in farming, agriculture, and other professions that require physical labor. Labor-saving equipment also contributes to less physical activity. Studies have found that "rural Americans are even less likely to engage in recommended levels of physical activity then their urban counterparts" (Bolin, et Al., 2015a, p.97). While over 80% of Americans do not get enough exercise, "living in a rural area is thought to provide more of a challenge to physical activity adherence due to factors such as limited resources, increased distance or limited access to facilities, and neighborhood characteristics" (Bolin, et al., 2015a, p.95).

8. Older Adults

The over 65 population in rural areas of the U.S. is higher than in other areas of the country. Seniors compose 19% of rural populations (U.S. Department of Agriculture, 2021). Additionally, "older adults in rural areas have lower incomes and higher poverty rates than those residing in urban and metropolitan areas" (Bolin, et al., 2015a, p. 107). Numerous studies have shown that seniors living in rural areas are at higher risk than their urban counterparts for:

- Lack of access to medical/dental care
- Poor nutrition
- Obesity
- Depression, including suicide

(Bolin, et al., 2015a)

9. Maternal, infant, and child health

Research conflicts as to if and why pregnant women in rural areas have higher perinatal mortality rates. It is believed that higher poverty rates, minority status, young age, few years of education, and lack of access to prenatal care may lead to poorer birth outcomes for rural women (Bolin, et al., 2015a).

10. Tobacco use

Rates of cigarette and smokeless tobacco use are the highest in rural America. For example, use of smokeless tobacco was 6.4% in rural areas versus 2.1% in large metropolitan areas (RHIhub, 2020d). Cigarette smoking is also more common in rural areas, which also affects children. Secondhand smoke inhalation is associated with higher rates of sudden infant death syndrome, asthma, bronchitis, and pneumonia in young children (Bolin, et al., 2015a).

ORAL HEALTH

Coming in at number 13 in *Rural Healthy People 2020*, oral care in rural areas is hindered by geographic isolation, lack of transportation, lack of fluoridated water, poverty stricken areas, and low Medicaid reimbursement (Bolin, et al., 2015b).

The federal Dental HPSA designation identifies areas as having a shortage of dental providers on the basis of a population to general practice dentist ratio of 4,000:1. Of 298 HPSA dental designations in Texas, Bexar County has three MUAs (HRSA, n.d.a; KFF, 2018b).

Similar to the situation in primary medical care, the aging of the dental professional work force is also a concern. "It is estimated that over 7,200 dentists will be needed to provide the necessary oral health care services as older dentists retire" (Bersell, 2017).

Available Rural Healthcare Resources

In Texas, 3 million people live in an area with a rural designation (USDA, 2022b). Of those people, over 4.8 million rely on public insurance: 13% are on Medicare; 17.2% receive Medicaid, and 2.1% have VA health benefits (U.S. Census Bureau, 2019). As of 2021, there were 369 rural and urban hospitals in Texas (American Hospital Directory, 2021). The following lists the available health facilities for rural areas.

Healthcare facilities in Rural Texas

- 325 Rural Health Clinics
- 207 Federally Qualified Health Center
- 107 Short Term Hospitals
- 88 Critical Access Hospitals

(RHIhub, 2021b)

There are generally three types of government-supported facilities that serve as safety-net health care providers for rural populations. These include Rural Health Clinics (RHC), Federally Qualified Health Centers (FQHC), and Critical Access Hospitals (CAH).

Rural Health Clinics (RHC)

The RHC program began in 1977 as a method to improve accessibility to health care for Medicaid and Medicare recipients living in rural areas and to increase the supply of health care providers to underserved areas. To qualify as a RHC, a facility must be located in a rural area according to Census Bureau standards and be considered either a Medically Underserved Area (MUA) or a Health Professional Shortage Area (HPSA) (Medicare Learning Network [MLN], 2022b). Currently, Bandera and Bexar counties are considered an MUA and/or HPSA in various categories as mentioned previously (HRSA, n.d.a, n.d.b). RHC's must also provide or access certain standards of care for emergency, diagnostic, laboratory, and specialty care. A facility cannot be deemed both an RHC and a FQHC (MLN, 2022b).

Federally Qualified Healthcare Centers (FQHC)

FQHC's began in 1991 and are not exclusive to rural areas. They are any qualified public or private non-profit health care center that receives grants under Section 330 of the Public Service Act as well as various tribal organizations. FQHC's can be community health centers, public housing centers, and other programs that serve populations such as Native Americans, migrants, or the homeless. Patients who receive Medicare and attend these facilities qualify to receive a wide variety of preventative medical and social service care (MLN, 2021). In 2021, there were 72 FQHCs throughout Texas that operated over 660 sites (DSHS, 2021). In the San Antonio and New Braunfels area, CentroMed operates 22 sites and CommuniCare Health Centers operates 18 sites (CentroMed, n.d.; CommuniCare, n.d.).

Critical Access Hospitals (CAHs)

CAHs are another designation given exclusively to some rural community hospitals. To be considered a CAH, a hospital must be located in a rural region more than 35 miles from the nearest hospital/CAH, or more than 15 miles from the nearest hospital in mountainous areas or places that utilize secondary roads. CAH's must also provide 24-hour emergency care, have 25 or fewer inpatient/swing beds, and maintain an average hospital stay of 96 hours or less (RHIhub 2021c). There are 88 CAHs throughout the state of Texas, but none are designated within the KCF counties of interest (Flex Monitoring Team, 2021).

REFERENCES

American Academy of Family Physicians (AAFP). (2014). *Rural practice, keeping physicians in (Position paper).* Retrieved from https://www.aafp.org/about/policies/all/rural-practice-keeping-physicians.html

American Heart Association [AHA]. (2021). *2021 heart disease and stroke statistics update fact sheet at-a-glance.* Retrieved from https://www.heart.org/-/media/phd-files-2/science-news/2/2021-heart-and-stroke-stat-update/2021_heart_disease_and_stroke_statistics_update_fact_sheet_at_a_glance.pdf

American Hospital Directory. (2021). *Hospital statistics by state.* Retrieved from https://www.ahd.com/state_statistics.html

Benson, W., and Aldrich, N. (2017). *Raising awareness and seeking solutions to the opioid epidemic's impact on rural older adults..* Retrieved from https://www.giaging.org/documents/170818_Benson-Aldrich_paper_for_GIA_web_FINAL.pdf

Bersell, Catherine H., RDH, BASDH. (2017). *Access to oral health care: A national crisis and call for reform.* Retrieved from, http://jdh.adha.org/content/jdenthyg/91/1/6.full.pdf

Bolin, J., Bellamy, G., Ferdinand, A., Kash, B., Helduser, J., eds. (2015a). *Rural healthy people 2020; Volume 1*. Retrieved from https://srhrc.tamhsc.edu/docs/rhp2020-volume-1.pdf

Bolin, J., Bellamy, G., Ferdinand, A., Kash, B., Helduser, J., eds. (2015b). *Rural healthy people 2020; Volume 2*. Retrieved from https://srhrc.tamhsc.edu/docs/rhp2020-volume-2.pdf

CentroMed. (n.d.). *Locations*. Retrieved May 15, 2022, from http://centromedsa.com/locations/

CommuniCare Health Centers. (n.d.). *Locations*. Retrieved May 15, 2022, from https://www.communicaresa.org/locations/

Flex Monitoring Team. (2021). *Critical access hospital locations*. Retrieved from http://www.flexmonitoring.org/data/critical-access-hospital-locations/

Foutz, J., Artiga, S., and Garfield, R. (2017). *The role of Medicaid in rural America.* Retrieved from http://kff.org/medicaid/issue-brief/the-role-of-medicaid-in-rural-america/

Freeman, V., Slifkin, R., & Patterson, D. (2008). *Rural-urban differences in characteristics of local EMS agencies.* Retrieved from https://www.shepscenter.unc.edu/wp-content/uploads/2014/10/FB84.pdf

Health Resources and Services Administration (HRSA). (n.d.a). *HPSA find.* Retrieved April 14, 2022, from http://hpsafind.hrsa.gov/HPSASearch.aspx

Health Resources and Services Administration (HRSA). (n.d.b). *MUA find.* Retrieved May 11, 2022, from https://data.hrsa.gov/tools/shortage-area/mua-find

Kaiser Family Foundation (KFF). (n.d.). *Health insurance coverage of the total population.* Retrieved April 13, 2022, from https://www.kff.org/other/state-indicator/total-population/?currentTimeframe=0&sortModel=%7B%22colId%22:%22Uninsured%22,%22sort%22:%22desc%22%7D

Kaiser Family Foundation (KFF). (2018b). *Providers & service use: Health professional shortage areas.* Retrieved from http://kff.org/state-category/providers-service-use/health-professional-shortage-areas/

Larson, E., Patterson, D., Garberson, L., and Andrilla, C. (2016). *Supply and distribution of the behavioral health workforce in rural America*. Retrieved from http://depts.washington.edu/fammed/rhrc/wp-content/uploads/sites/4/2016/09/RHRC_DB160_Larson.pdf

Medicare Learning Network (MLN). (2021). *Federally qualified health center.* Retrieved from https://www.cms.gov/Outreach-and-Education/Medicare-Learning-Network-MLN/MLNProducts/Downloads/fqhcfactsheet.pdf

Medicare Learning Network (MLN). (2022). *Rural health clinic*. Retrieved from https://www.cms.gov/Outreach-and-Education/Medicare-Learning-Network-MLN/MLNProducts/downloads/RuralHlthClinfctsht.pdf

National Advisory Committee on Rural Health and Human Services. (2018). *Rural health insurance market challenges.* Retrieved from https://www.hrsa.gov/sites/default/files/hrsa/advisory-committees/rural/publications/2018-Rural-Health-Insurance-Market-Challenges.pdf

National Highway Traffic Safety Administration. (2021). *Traffic safety facts: Rural/urban comparison of traffic fatalities*. Retrieved from https://crashstats.nhtsa.dot.gov/Api/Public/ViewPublication/813209

National Public Radio (NPR). (2019). *The struggle to hire and keep doctors in rural areas means patients go without care.* Retrieved from https://www.npr.org/sections/health-shots/2019/05/21/725118232/the-struggle-to-hire-and-keep-doctors-in-rural-areas-means-patients-go-without-c

National Rural Health Association (NRHA). (2022). *About rural health care.* Retrieved from https://www.ruralhealthweb.org/about-nrha/about-rural-health-care

Rural Health Information Hub (RHIhub). (2020). *Substance abuse in rural areas.* Retrieved from https://www.ruralhealthinfo.org/topics/substance-abuse

Rural Health Information Hub (RHIhub). (2021a). *Rural emergency medical services (EMS) and trauma*. Retrieved from https://www.ruralhealthinfo.org/topics/emergency-medical-services

Rural Health Information Hub (RHIhub). (2021b). *Texas*. Retrieved from https://www.ruralhealthinfo.org/states/texas

Rural Health Information Hub (RHIhub). (2021c). *Critical access hospitals (CAHs)*. Retrieved from https://www.ruralhealthinfo.org/topics/critical-access-hospitals

Texas Department of State Health Services (DSHS). (2020). *Definitions of county designations.* Retrieved from https://www.dshs.texas.gov/chs/hprc/counties.shtm

Texas Department of State Health Services (DSHS). (2021). *Texas primary care office: Federally qualified health centers.* Retrieved from http://dshs.texas.gov/chpr/FQHCmain.shtm

U.S. Census Bureau. (2019). *Rates of uninsured fall in rural counties, remain higher than urban counties*. Retrieved from https://www.census.gov/library/stories/2019/04/health-insurance-rural-america.html

U.S. Department of Agriculture. (2021). *Rural aging occurs in different places for very different reasons.* Retrieved from https://www.usda.gov/media/blog/2018/12/20/rural-aging-occurs-different-places-very-different-reasons

United States Department of Agriculture Economic Research Service (USDA). (2019a). *Rural poverty & well-being*. Retrieved from https://www.ers.usda.gov/topics/rural-economy-population/rural-poverty-well-being/

United States Department of Agriculture Economic Research Service (USDA). (2022b). *State fact sheet: Texas*. Retrieved from http://data.ers.usda.gov/reports.aspx?StateFIPS=48&StateName=Texas&ID=17854#Pfb0ab09b0c5a48dab7e6584450ffad5b_2_39iT0