

In Texas, 133 of the state's 254 counties, or 52%, are classified as rural (USA.gov, n.d.). 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, 2009).

<b>Comparison of Rural and Urban United States</b>		
	Rural	Urban
<b>Demographic Data</b>		
<i>Population</i>	25%	75%
<i>65+ years</i>	18%	15%
<i>White ethnicity</i>	83%	69%
<i>Below poverty level</i>	14%	11%
<i>Health status fair/poor</i>	28%	21%
<b>Availability of health care</b>		
<i>Physicians</i>	10%	90%
<i>Medical specialists (per 100,000)</i>	40.1	134.1
<b>Insurance/Government support</b>		
<i>Private insurance</i>	64%	69%
<i>Medicare</i>	23%	20%
<i>Medicare without drug coverage</i>	45%	31%
(National Rural Health Association, 2009)		

### Rural Healthcare Priorities

At the beginning of the 21<sup>st</sup> century, the greatest health care needs of rural populations were researched for the Rural Healthy People 2010 Project (Gabb, Hutchinson, Dabney, & Dorsey, 2003). Twelve focus areas were ultimately identified as the highest priorities in rural health care. In order of importance, those priorities are listed below, along with supporting statistics and information.

#### 1. Access to insurance

Twenty percent of rural Americans do not have health insurance, compared to 17% of those living in metropolitan areas (Gabb et al., 2003). Texas currently retains the highest rate in the country of people without insurance at 27.5%, an increase from even a couple years ago (Kaiser Family Foundation, 2009). People without health insurance are less likely to maintain a health care provider, receive preventative care, and obtain necessary tests and prescriptions.

A major reason for the lack of insurance is that workers in rural areas are often not offered health insurance because they work for small businesses or are self-employed. Only 67% of rural businesses offer health insurance coverage, compared to 71% of urban companies (Ziller & Coburn, 2009). The need for better access to insurance is critical because rural populations are more likely to report being in fair or poor health than their urban counterparts (South Carolina Research Health Center, 2008).

#### 2. Access to primary care

In nearly every specialty, there are fewer medical professionals throughout rural United States compared to professionals in urban areas. While approximately one quarter of Americans live in rural areas, only 10% percent of physicians practice in rural America (National Rural Health Association, 2009). Common reasons health care providers choose not to practice in rural areas include lower pay, increased malpractice insurance costs, isolation from other professionals, and less time off of the job (Rural Health Research Center, 2009c).

Another concern is the aging of the medical profession, particularly in rural areas. Approximately 28% of rural primary care providers are nearing retirement age, compared to 26% of urban providers. In the most remote rural regions, that rate jumps to 29%. In the same study, the youngest primary care providers were choosing to work in urban settings more often than rural ones (Rural Health Research Center, 2009a)

Like the rest of the country, rural Texas is also experiencing severe shortages in all areas of health care, especially primary care, mental health care, dental health, and pharmaceutical care. Throughout the entire state of Texas, 131 counties, including Bandera County, are considered HPSA's, or Health Professional Shortage Areas. Another 48 counties, including Bexar County, are considered HPSA's in at least one portion of their counties. There are 15 Texas counties who do not retain even one primary care physician (Texas Department of State Health Services, 2009a; USA.gov, n.d.).

#### 3. 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, while only approximately a third of vehicle

crashes occur in rural areas, 66% of motor vehicle deaths take place in rural regions (Gabb et al., 2003). Yet, medical facilities in rural regions experience difficulty maintaining emergency medical services. “Low call volumes contribute to higher costs per transport, and make it difficult for staff to retain specialized skills. In many cases, rural areas lack the resources to train and attract skilled personnel, and must rely on volunteers to staff EMS agencies” (Sutton & Eichner, 2008, p.2).

A 2006-2007 national survey of emergency medical services agencies (Freeman, Slifkin, & Patterson, 2008) provided statistics comparing rural and urban emergency medical services. That data appears in the table in the following column.

#### 4. Heart and stroke

Heart disease is the leading cause of death in the United States and affects 61 million people throughout the country (Gabb et al., 2003). Rural populations are especially susceptible to heart disease due to behaviors such as “smoking, high fat diets, sedentary lifestyle, and decreased perception of heart disease risk especially among older rural women” (Gabb et al., 2003, p.154). Research found that rural Medicare patients who had experienced heart attacks were less likely to receive needed treatments and were more likely to have died one month later than urban patients (National Rural Health Association, 2009). 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 (Gabb et al., 2003).

#### 5. 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, rates of diabetes do appear to be higher in rural areas, likely because of the factors described before. Care of rural residents with diabetes is complicated because patients are less likely to visit their physicians to receive care for chronic conditions, such as diabetic retinopathy (Gabb et al., 2003).

#### 6. Mental health and mental disorders

Mental health care, particularly for disorders resulting in anxiety, depression, stress, and suicide, is considered another priority. In any given year, approximately 20% of people struggle with mental illness, regardless of where they live. However, the suicide rate is higher in males who live in rural areas compared to those in urban areas (Gabb et al., 2003). The greatest difficulty is that those living in rural areas are much more likely to lack access to mental health care. “Twenty percent of non-metro counties lack mental health services; the same is true in only 5 percent of metro counties” (Gabb et al., 2003, p.186).

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
<b>Affiliation (%)</b>		
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
<b>Provided services (%)</b>		
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
<b>Vehicles used (%)</b>		
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
<b>Staff compensation (%)</b>		
All volunteer	48.6	30.0
Salaried/Hourly	25.3	37.0
Volunteer and paid	26.1	33.0
<b>Certification (%)</b>		
Basic	21.5	15.1
Paramedics/Intermediate level	78.6	84.9
(Freeman, Slifkin, & Patterson, 2008)		

#### 7. Oral health

Access to oral health care remains challenging in rural areas. The lack of dentists and dental health insurance are typical barriers to receiving dental care for those in rural areas. As a result of the barriers to care, it is not surprising that the rate of cavities and senior citizens with complete tooth loss is much higher in rural regions than urban ones (Gabb et al., 2003).

Sixty percent of the rural counties in the United States are considered Dental Health Professional Shortage Areas (DHPSA). While none of the four Kronkosky counties of interest are considered whole-county DHPSA's, Bexar County does currently have a partial-county DHPSA designation (Texas Department of State Health Services, 2009a).

As is the case in primary medical care, aging of the dental professional work force is also a concern. In rural regions, 42% of dentists are older than 55, compared to 38% in urban regions (Rural Health Research Center, 2009b).

#### 8. Tobacco use

Rates of cigarette and smokeless tobacco use are the highest in rural America. Research also suggests that rural pregnant women have the highest rates of smoking in the country. This is a concern because tobacco use increases the need for health care due to its association with heart and lung diseases, various types of cancer, damage to the female reproductive system, and potential harm to an unborn fetus (Gabb et al., 2003).

### **9. Substance abuse**

Only 10.7% of hospitals in rural areas maintain substance abuse treatment centers, compared to 26.5% of hospitals in metropolitan areas (Gabb et al., 2003). While drug abuse rates are similar for urban and rural areas, dependence on alcohol is higher in rural areas. Yet, most funding for substance abuse treatment ends up going to organizations in urban areas. Barriers to care for substance abuse in rural regions include social stigma for receiving care, geographical isolation, and the inability to pay due to lack of health insurance coverage (Gabb et al., 2003).

### **10. Maternal, infant, and child health**

Research has been conflicting as to if and why pregnant women in rural areas appear to have higher rates of perinatal mortality. It is believed that higher rates of poverty, minority status, younger age, fewer years of education, and lack of access to prenatal care may lead to poorer birth outcomes for rural women (Gabb et al., 2003).

### **11. Nutrition and overweight**

Obesity is associated with many diseases, including heart disease, stroke, high blood pressure, gallbladder disease, high cholesterol, diabetes, incontinence, pregnancy complications, social disorders, and a variety of cancers. Recent research finds higher rates of obesity in adults and children living in rural areas than those in urban areas. Those in rural areas often lack nutrition education, exercise facilities, and physical education programs in schools, while at the same time having increased calorie consumption and inactivity (Gabb et al., 2003).

### **12. Cancer**

“Rural areas report a higher prevalence of chronic diseases, including heart disease and cancer, a finding that has been attributed, in part, to a rural population that is older, poorer, and less educated” (Gabb et al., 2003, p. 111). Research also seems to suggest that those in rural areas are diagnosed with cancer in later stages. People in rural areas often face unique barriers to cancer care, such as fewer cancer specialists, fewer advanced treatment techniques, and lack of transportation for specialized care (Gosschalk & Carozza, 2003).

### **Available Rural Healthcare Resources**

The American Hospital Association states that rural hospitals serve approximately 54 million people, 9 million of whom receive Medicare benefits (American Hospital Association, 2009). In Texas, 3.2 million people live in an area with a rural designation. Of those people, 20% receive Medicaid, 30% are 65 years or older, and 25% lack health insurance coverage (USA.gov, n.d.). There are 523 hospitals in Texas, 185 of which are located in rural areas (USA.gov, n.d.).

### **Number of Hospitals located in rural TX counties**

47 Counties	0 hospitals
68 Counties	1 hospital
18 Counties	2 or more hospitals
(USA.gov, n.d.)	

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) within the three previous years. Currently, Bandera County is considered a MUA and HPSA and Bexar County is considered a partial MUA and HPSA (Texas Department of State Health Services, 2009a; Texas Department of State Health Services, 2009b). 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 (Medicare Learning Network, 2007). Texas currently retains 315 RHC's throughout the state of which three are in the San Antonio metropolitan statistical area; one in Canyon Lake and two in New Braunfels (Rural Assistance Center, 2009b).

### ***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 may be community health centers, public housing centers, and other programs that serve populations such as migrants, Indians, or the homeless. Patients who receive Medicare and attend these facilities qualify to receive a wide variety of preventative medical and social service care (Medicare Learning Network, 2009b; Rural Assistance Center, 2009a). There are 58 FQHC's throughout Texas that serve 275 sites. In the San Antonio metropolitan statistical area, CentroMed operates 16 sites and Communicare (Barrio Comprehensive Family Health Center) operates 2 sites (Rural Assistance Center, 2009b; Health Resources and Services Administration, 2009).

### ***Critical Access Hospitals (CAH)***

A CAH is 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 (but can also have a mental health wing with an additional 10 beds), and maintain an average hospital stay of 96 hours or less (Medicare Learning Network, 2009a). There are 76 CAH's throughout the state of Texas but none are designated within the KCF counties of interest (Rural Assistance Center, 2009b).

## References

- American Hospital Association. (2009). *Rural health care*. Retrieved September 30, 2009, from [http://www.aha.org/aha\\_app/issues/Rural-Health-Care/index.jsp](http://www.aha.org/aha_app/issues/Rural-Health-Care/index.jsp)
- Freeman, V., Slifkin, R., & Patterson, D. (2008). *Rural-urban differences in characteristics of local EMS agencies*. Retrieved from the North Carolina Rural Health Research and Policy Analysis Center Web site on September 30, 2009, from [http://www.shepscenter.unc.edu/research\\_programs/rural\\_program/pubs/finding\\_brief/FB84.pdf](http://www.shepscenter.unc.edu/research_programs/rural_program/pubs/finding_brief/FB84.pdf)
- Gamm, L. D., Hutchinson, L. L., Dabney, B. J., & Dorsey, A. M. (2003). *Rural healthy people 2010: A companion document to healthy people 2010: Volume 1*. Retrieved September 30, 2009, from <http://srph.tamhsc.edu/centers/rhp2010/Volume1.pdf>
- Gosschalk, A. & Carozza, S. (2003). *Cancer in rural areas: A literature review*. Retrieved October 1, 2009, from <http://www.srph.tamhsc.edu/centers/rhp2010/Vol2cancer.htm>
- Health Resources and Services Administration. (2009). Find a Health Center. Retrieved October 8, 2009, from [http://findahealthcenter.hrsa.gov/Search\\_HCC\\_byCounty.aspx](http://findahealthcenter.hrsa.gov/Search_HCC_byCounty.aspx)
- Kaiser Family Foundation. (2009). *Key health and health care indicators by race/ethnicity and state*. Retrieved June 3, 2009, from <http://www.kff.org/minorityhealth/upload/7633-02.pdf>
- Medicare Learning Network. (2007). *Rural health clinic fact sheet*. Retrieved October 1, 2009, from <http://www.cms.hhs.gov/MLNProducts/Downloads/rhcfactsheet.pdf>
- Medicare Learning Network. (2009a). *Critical access hospital fact sheet*. Retrieved September 30, 2009, from <http://www.cms.hhs.gov/MLNProducts/downloads/CritAccessHospfctsh.pdf>
- Medicare Learning Network. (2009b). *Federally qualified healthcare center fact sheet*. Retrieved September 30, 2009, from <http://www.cms.hhs.gov/MLNProducts/downloads/fqhcfactsheet.pdf>
- National Rural Health Association. (2009). *What's different about rural health care?* Retrieved September 30, 2009, from <http://www.ruralhealthweb.org/go/left/about-rural-health>
- Rural Assistance Center. (2009a). *FQHC frequently asked questions*. Retrieved October 1, 2009, from [http://www.raconline.org/info\\_guides/clinics/fqhcfqa.php#whatis](http://www.raconline.org/info_guides/clinics/fqhcfqa.php#whatis)
- Rural Assistance Center. (2009b). *Texas*. Retrieved September 30, 2009, from <http://www.raconline.org/states/texas.php>
- Rural Health Research Center. (2009a). *The aging of the primary care physician workforce: Are rural locations vulnerable?* Retrieved October 1, 2009, from [http://depts.washington.edu/uwrhrc/uploads/AgingMDs\\_PB.pdf](http://depts.washington.edu/uwrhrc/uploads/AgingMDs_PB.pdf)
- Rural Health Research Center. (2009b). *The crisis in rural dentistry*. Retrieved October 1, 2009, from [http://depts.washington.edu/uwrhrc/uploads/Rural\\_Dentists\\_PB\\_2009.pdf](http://depts.washington.edu/uwrhrc/uploads/Rural_Dentists_PB_2009.pdf)
- Rural Health Research Center. (2009c). *The crisis in rural primary care*. Retrieved September 30, 2009, from [http://depts.washington.edu/uwrhrc/uploads/Rural\\_Primary\\_Care\\_PB\\_2009.pdf](http://depts.washington.edu/uwrhrc/uploads/Rural_Primary_Care_PB_2009.pdf)
- South Carolina Research Health Center. (2008). *Health disparities: A rural-urban chartbook*. Retrieved September 30, 2009, from [http://rhr.sph.sc.edu/report/\(7-3\)%20Health%20Disparities%20A%20Rural%20Urban%20Chartbook%20-%20Distribution%20Copy.pdf](http://rhr.sph.sc.edu/report/(7-3)%20Health%20Disparities%20A%20Rural%20Urban%20Chartbook%20-%20Distribution%20Copy.pdf)
- Sutton, J. P., & Eichner, J. (2008). *Experiences of critical access hospitals in the provision of emergency medical services*. Retrieved from the Walsh Center for Rural Health Analysis Web Site on September 30, 2009, from <http://www.norc.org/NR/rdonlyres/B4E5BD5E-7151-417B-A75B-A80074CA6CD4/0/PolicyBriefCriticalAccessHospitalsEMSOctober2008.pdf>
- Texas Department of State Health Services. (2009a). *Health professional shortage areas in Texas*. Retrieved October 5, 2009, from <http://www.dshs.state.tx.us/CHS/HPRC/hpsa.shtm>
- Texas Department of State Health Services. (2009b). *Medically underserved areas and populations in Texas*. Retrieved October 5, 2009, from <http://www.dshs.state.tx.us/CHS/HPRC/mua.shtm>
- USA.gov. (n.d.). *Fast facts about rural Texas*. Retrieved September 30, 2009, from [http://govinfo.library.unt.edu/chc/resources/slide/parsi\\_rural\\_tx\\_fastfacts.html](http://govinfo.library.unt.edu/chc/resources/slide/parsi_rural_tx_fastfacts.html)
- Ziller, E. & Coburn, A. (2009). *Private health insurance in rural areas: Challenges and reform options*. Retrieved October 1, 2009, from <http://muskie.usm.maine.edu/Publications/rural/pb/Rural-Private-Health-Insurance.pdf>